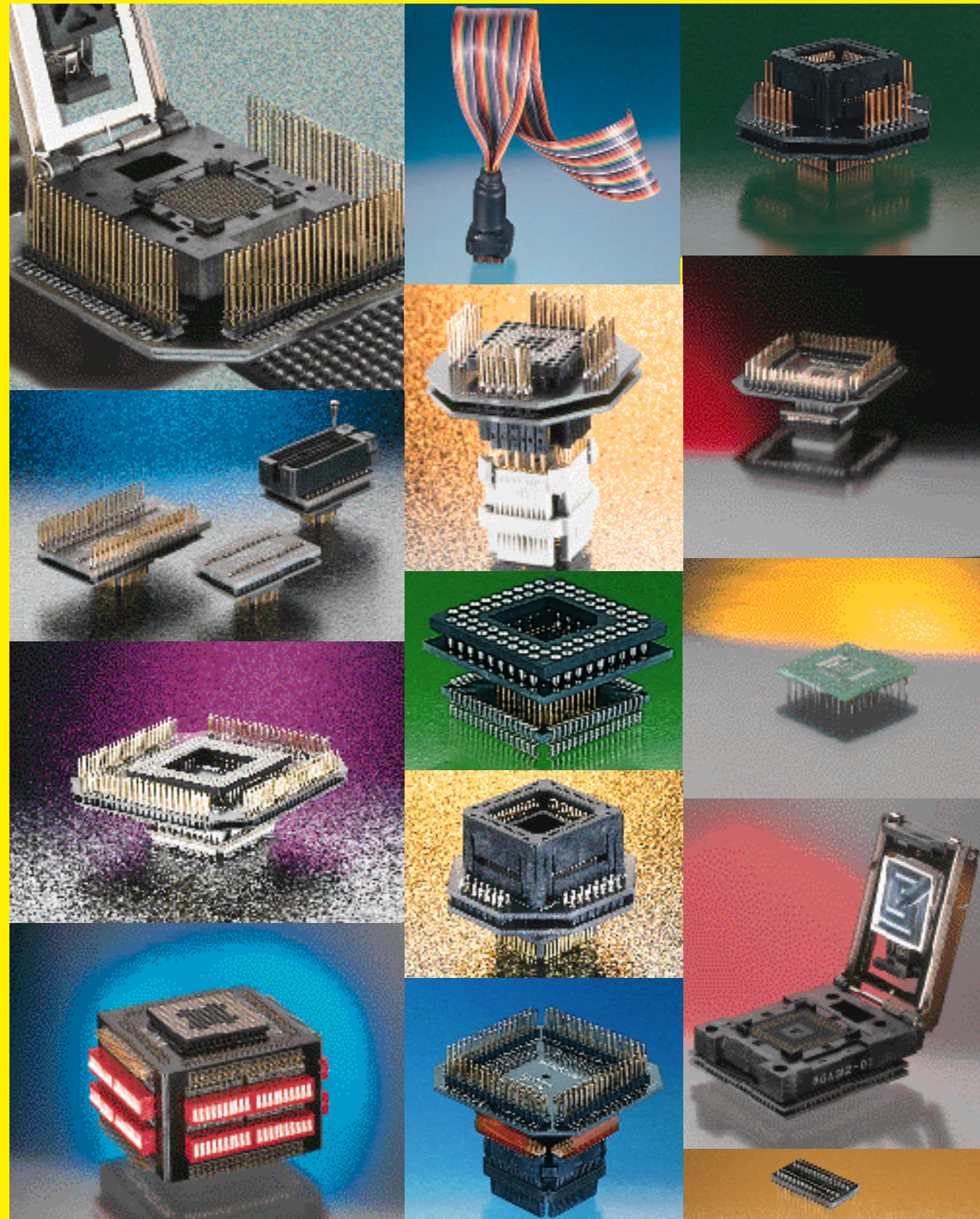


# WINSLOW

# ADAPTERS



## **“A solution for all reasons”**

That's what Winslow Adaptics is providing.

Whether you are designing with Integrated Circuits, purchasing them, assembling, testing or evaluating them, Winslow will provide a solution which will enable you to complete your task, whatever the circumstances in which you find your self.

If you can't

**get it  
test it  
adapt it  
isolate it  
convert it  
emulate it  
upgrade it  
connect to it  
programme it  
surface mount it** - give us a call, and the probability is that we have precisely the product you need, ready for rapid shipment.

In the unlikely event that we don't have exactly what you need, don't settle for anything less.

We will design what you need, and design it quickly.

### **What if your requirement is for a small quantity**

At Winslow Adaptics, quantity is not an issue. We know that a problem isn't a problem just because the quantity is large. In fact experience has told us that invariably, the opposite is true.

There are Companies out there who will listen to you if there's a big order on offer, and get suprisingly hard of hearing, if you tell them it's for just one or two pieces.

Well our interest is in solving the problem at any level, just see what some of our Customers have been saying.....

## **WARRANTY**

Winslow warrants to the Customer for a period of 180 days, that the Products sold will be free from defects in material or manufacture and conform to Winslow's applicable published electrical and mechanical characteristics in effect at the time of shipment.

*.....The way the situation was handled was very professional and a great credit to you and your company. Could you please express my special thanks to the individual who stayed on into the early hours of Sunday morning to complete the job.....*

Derek Moulding, GPT Public Networks

*.....Thanks for the catalogue, I have perused it and it brought me much happiness. However, total bliss will be a little harder to achieve.....Your adapter W9521 looks very nearly the ticket, but I think the pads are too widely spaced. I await your attention with anticipation.*

William Hanes, Genesys

*Mr. Hanes didn't have to wait long. We built him a special in just a few days.*

*.....Thanks for your great service! I placed an order for 2 adapters last Friday and was told I would have them here in New Zealand in 5 days. Well they arrived a day early, they're exactly what we needed, and we're busy prototyping with them already.....*

Nigel Leigh, IC Logic

### **TO ARROW UK**

*Just a little note to thank you for your assistance with the recent Winslow device, the delivery was crucial to Telspec's ability in delivering an important order to British Telecom. Another order - as ever "safe in your hands".*

*Would you please pass my thanks to all involved at Winslow for their out-standing delivery.*

Andrea Ransom, Telspec.

*Dave Winslow*



# WINSLOW ADAPTICs

Founded in 1977 as Winslow Component Systems, the company was renamed Winslow International 12 years later.

In 1998 we changed our name again to reflect the growing impact we are having in the field of IC Adapters.

The custom built factory boasts the following range of facilities ;

Plastic Injection molding  
Miniature Screw machining  
Tooling & Die Manufacture  
Metal Stamping  
Full PCB Design  
Obsolescence Management  
1000 per minute Pin Assembly  
Pick & Place Component Assembly  
Computerised Warehouse



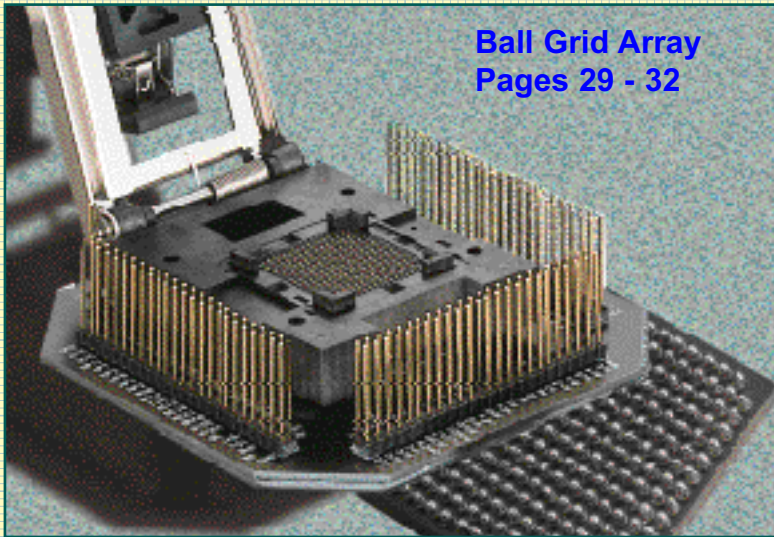
- Payment terms unless otherwise agreed: 30 days net.
- Full terms and conditions of sale are available upon request.
- Credit card payment facilities, over the telephone, are also available.
- Credit cards accepted are;  
VISA, MASTERCARD and AMEX

Winslow Adaptics reserve the right to make changes to or discontinue any product or service in the catalogue without notice. Winslow advises it's customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied upon is current.



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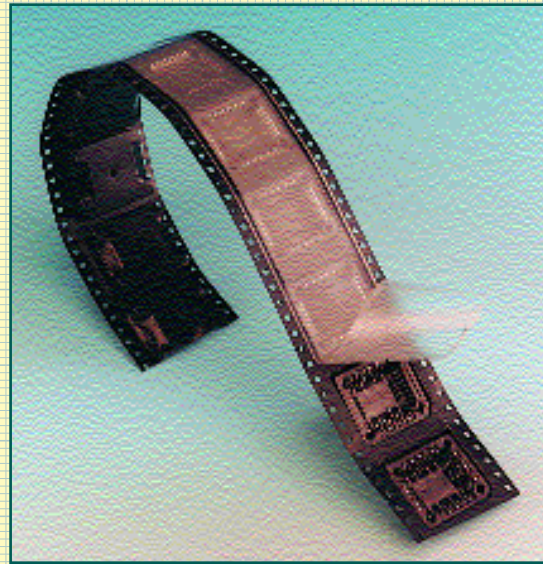


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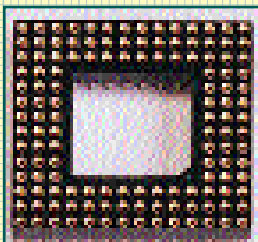
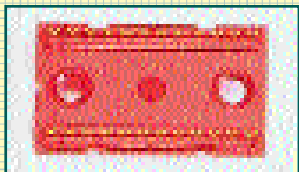
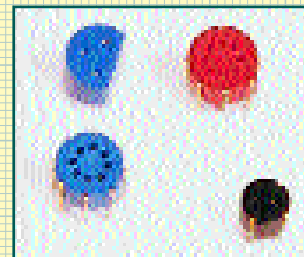
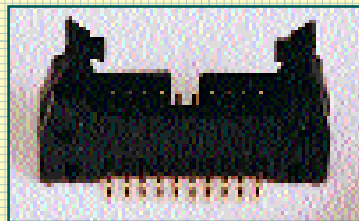
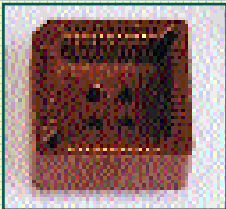


General Specifications can be found on page 100 & the inside back cover.

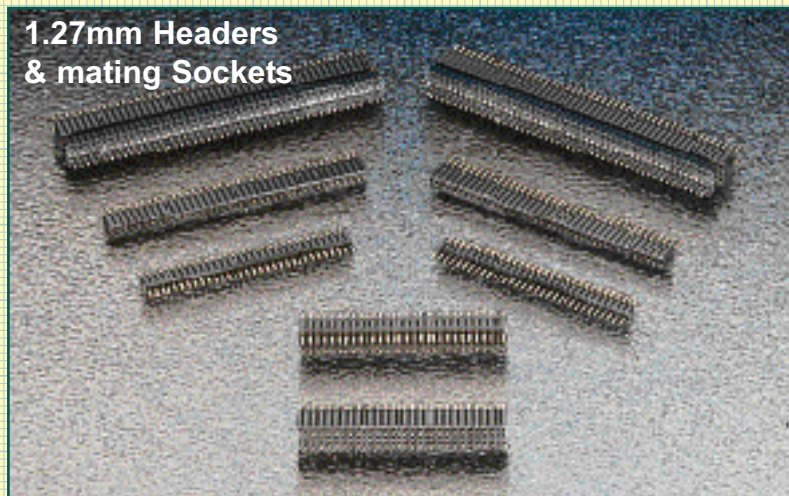
If you require detailed drawings fax or Email details, and we will respond rapidly.

Try our web site - many drawings have already been added, and we will continue to add more until they are all available for review and/or down loading.

[www.winslowadaptics.com](http://www.winslowadaptics.com)



### 1.27mm Headers & mating Sockets





# MASTER SELECTION GUIDE

## HOW TO USE THIS SELECTION GUIDE

1. Find the pin count you require to match the mother board from the first column headed "FOOT PINS"
2. The next two columns give the package style at on the top of the Adapter and then on the bottom of the Adapter.
3. "FUNCTION" is a brief description of what you require.
4. Next is the page number for that Adapter in this catalogue.

### EXAMPLE

#### YOU REQUIRE A 28 PIN CLIP-OVER TEST HEAD FOR A PLCC DEVICE WITH A PGA INTERFACE

Go down column 1(Foot Pins) until you get to the list of 28 pin Adapters. Then proceed until you find PGA in the next column, and PLCC in the third column. Then look for the function you require.

The first few ranges have too many pin-outs to list, therefore, find the function you require and go to the appropriate page in the catalogue where you will find all of the pin variants listed.

FOOT PINS	TOP PACKAGE	BOTTOM PACKAGE	FUNCTION	PAGE	FOOT PINS	TOP PACKAGE	BOTTOM PACKAGE	FUNCTION	PAGE
	BGA	BGA	BGA PIN BREAKOUT	30	20	PINS	PLCC	PLUG	20
	BGA	BGA	BGA SOCKET to BGA SURFACE MOUNT	31	20	PLCC	DIP	GENERIC FOOTPRINT CONVERTER	38
	BGA	PGA	BGA SOCKET to PGA PINS	29	20	PLCC	PGA	GENERIC FOOTPRINT CONVERTER	38
	PGA	PGA	SIGNAL ISOLATOR	19	20	PLCC	PLCC	PLCC CLIP OVER TEST HEAD	66
	PLCC	PGA	TEST SOCKETS WITH TEST PINS	24-27	20	PLCC	PLCC	PLCC to PLCC PLUG w/o BREAKOUT	16
	PLCC	PGA	TEST SOCKETS to SQUARE MATRIX PINS	24-27	20	PLCC	PLCC	PLCC PIN BREAKOUT	17
	PLCC	S.M.	TEST SOCKETS TO S.M. WITH TEST PINS	24-27	20	PLCC	PLCC	SIGNAL ISOLATOR	18
	PLCC	S.M.	TEST SOCKETS TO SURFACE MOUNT	24-27	20	SOIC	DIP	FOOTPRINT CONVERTER	40
	QFP	PGA	TEST SOCKETS to SQUARE MATRIX PINS	24-27	20	DIP	PLCC	DIP to PLCC PLUG	15
	QFP	PGA	TEST SOCKETS WITH TEST PINS	24-27					
	QFP	S.M.	TEST SOCKETS TO S.M. WITH TEST PINS	24-27					
	QFP	S.M.	TEST SOCKETS TO SURFACE MOUNT	24-27	24	ANY	ANY	EXTENDER	13
	SOP	PGA	TEST SOCKETS to SQUARE MATRIX PINS	24-27	24	PINS	CLIP	DISCREET TEST CLIP	59/62
	SOP	PGA	TEST SOCKETS WITH TEST PINS	24-27	24	DIP	DIP	REDUCING or EXPANDING FOOTPRINT	43
	SOP	S.M.	TEST SOCKETS TO SURFACE MOUNT	24-27	24	DIP	SOIC	FOOTPRINT CONVERTER	41
	SOP	S.M.	TEST SOCKETS TO S.M. WITH TEST PINS	24-27	24	SOIC	DIP	FOOTPRINT CONVERTER	40
	TSOP	PGA	TEST SOCKETS to SQUARE MATRIX PINS	24-27	24	SOJ	ZIP	FOOTPRINT CONVERTER	42
	TSOP	PGA	TEST SOCKETS WITH TEST PINS	24-27	24	TSOP	ZIP	FOOTPRINT CONVERTER	42
	TSOP	S.M.	TEST SOCKETS TO S.M. WITH TEST PINS	24-27					
	TSOP	S.M.	TEST SOCKETS TO SURFACE MOUNT	24-27	26	TSOP	ZIP	FOOTPRINT CONVERTER	42
	VARIOUS	DIP	PROGRAMMING INTERFACE MODULES	44-56					
					28	ANY	ANY	EXTENDER	13
1	PIN	CLIP	DISCREET TEST CLIP FOR QFP 0.2mm to 0.8mm	58	28	CABLE	PLCC	CABLE to PLCC PLUG	14
					28	PINS	CLIP	DISCREET TEST CLIP	59/62
6	DIP	SOIC	FOOTPRINT CONVERTER	41	28	DIP	DIP	REDUCING or EXPANDING FOOTPRINT	43
					28	DIP	PLCC	DIP to PLCC PLUG	15
8	ANY	ANY	EXTENDER	13	28	DIP	PLCC	SURFACE MOUNTABLE CONVERTER	39
8	PINS	CLIP	DISCREET TEST CLIP	59/62	28	DIP	SOIC	FOOTPRINT CONVERTER	41
8	DIP	SOIC	FOOTPRINT CONVERTER	41	28	LCC	PLCC	LCC to PLCC PLUG	16
8	SOIC	DIP	FOOTPRINT CONVERTER	40	28	PGA	PLCC	PLCC CLIP-OVER TEST HEAD	68
					28	PGA	PLCC	PGA to PLCC PLUG	16
14	ANY	ANY	EXTENDER	13	28	PINS	PLCC	PLUG	20
14	PINS	CLIP	DISCREET TEST CLIP	59	28	PLCC	DIP	GENERIC FOOTPRINT CONVERTER	38
14	DIP	SOIC	FOOTPRINT CONVERTER	41	28	PLCC	PGA	GENERIC FOOTPRINT CONVERTER	38
14	SOIC	DIP	FOOTPRINT CONVERTER	40	28	PLCC	PLCC	PLCC PIN BREAKOUT	17
					28	PLCC	PLCC	PLCC to PLCC PLUG w/o BREAKOUT	16
16	ANY	ANY	EXTENDER	13	28	PLCC	PLCC	PLCC CLIP OVER TEST HEAD	66
16	PINS	CLIP	DISCREET TEST CLIP	59/62	28	PLCC	PLCC	SIGNAL ISOLATOR	18
16	DIP	SOIC	FOOTPRINT CONVERTER	41	28	SOIC	DIP	FOOTPRINT CONVERTER	40
16	SOIC	DIP	FOOTPRINT CONVERTER	40	28	TSOP	ZIP	FOOTPRINT CONVERTER	42
					30	DIP	DIP	REDUCING or EXPANDING FOOTPRINT	43
18	DIP	SOIC	FOOTPRINT CONVERTER	41	32	ANY	ANY	EXTENDER	13
18	SOIC	DIP	FOOTPRINT CONVERTER	40	32	PINS	CLIP	DISCREET TEST CLIP	59/62
					32	DIP	DIP	REDUCING or EXPANDING FOOTPRINT	43
					32	DIP	PLCC	SURFACE MOUNTABLE CONVERTER	39
20	ANY	ANY	EXTENDER	13	32	DIP	PLCC	DIP to PLCC PLUG	15
20	CABLE	PLCC	CABLE to PLCC PLUG	14	32	DIP	SOIC	FOOTPRINT CONVERTER	41
20	PINS	CLIP	DISCREET TEST CLIP	59/62	32	LCC	PLCC	LCC to PLCC PLUG	16
20	DIP	PLCC	SURFACE MOUNTABLE CONVERTER	39	32	PGA	PLCC	PLCC CLIP OVER TEST HEAD	68
20	DIP	SOIC	FOOTPRINT CONVERTER	41	32	PGA	PLCC	PGA to PLCC PLUG	16
20	LCC	PLCC	LCC to PLCC PLUG	16	32	PINS	PLCC	PLUG	20
20	PGA	PLCC	PGA to PLCC PLUG	16	32	PLCC	DIP	GENERIC FOOTPRINT CONVERTER	38
20	PGA	PLCC	PLCC CLIP OVER TEST HEAD	68					



# MASTER SELECTION GUIDE

## CUSTOM IS OUR FUTURE

At Winslow we design 40 or more adapters every month, many of these are custom designs.

We keep our NRE charges low  
our delivery fast

and quantity is not an issue.

We realise that if you just want a couple of pieces, it's just as big a problem as if it was hundreds or thousands.

We will treat your enquiry for small quantities with equal urgency.

**IF YOU DON'T SEE WHAT YOU NEED - CALL US - IT'S THAT SIMPLE !**

FOOT TOP PINS	BOTTOM PACKAGE	FUNCTION	PAGE	FOOT TOP PINS	BOTTOM IC PACKAGE	FUNCTION	PAGE		
32	PLCC	PGA	GENERIC FOOTPRINT CONVERTER	38	52	PINS	PLCC	PLUG	20
32	PLCC	PLCC	PLCC to PLCC PLUG w/o BREAKOUT	16	52	PLCC	DIP	GENERIC FOOTPRINT CONVERTER	38
32	PLCC	PLCC	SIGNAL ISOLATOR	18	52	PLCC	PGA	GENERIC FOOTPRINT CONVERTER	38
32	PLCC	PLCC	PLCC CLIP OVER TEST HEAD	66	52	PLCC	PLCC	ISOLATOR	18
32	PLCC	PLCC	PLCC PIN BREAKOUT	17	52	PLCC	PLCC	PLCC CLIP OVER TEST HEAD	66
32	SOIC	DIP	FOOTPRINT CONVERT	40	52	PLCC	PLCC	PLCC PIN BREAKOUT	17
32	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36	52	PLCC	PLCC	PLCC to PLCC PLUG w/o BREAKOUT	16
32	QFP	PGA	GENERIC WITH TEST POINTS	37					
32	0.25" PINS	QFP	SURFACE MOUNTABLE MODULE	23	56	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
					56	QFP	PGA	GENERIC WITH TEST POINTS	37
40	ANY	ANY	EXTENDER	13	56	SOIC	DIP	FOOTPRINT CONVERT	40
40	DIP	CLIP	DISCREET TEST CLIP	59-62	64	ANY	ANY	EXTENDER	13
40	DIP	DIP	REDUCING or EXPANDING FOOTPRINT	43	64	CABLE	QFP	SURFACE MOUNTABLE with SOCKET	28
40	DIP	SOIC	FOOTPRINT CONVERTER	41	64	DIP	DIP	REDUCING or EXPANDING FOOTPRINT	43
40	SOIC	DIP	FOOTPRINT CONVERTER	40	64	DIP	PLCC	DIP to PLCC PLUG	15
					64	.025" PINS	QFP	SURFACE MOUNTABLE MODULE	23
42	DIP	DIP	REDUCING or EXPANDING FOOTPRINT	43	64	.025" PINS	QFP	SURFACE MOUNTABLE with SOCKET	28
42	SOIC	DIP	FOOTPRINT CONVERTER	40	64	PGA	QFP	QFP CLIP OVER TEST HEAD	67
					64	PGA	QFP	SURFACE MOUNTABLE with SOCKET	28
44	ANY	ANY	EXTENDER	13	64	QFP	PGA	GENERIC WITH TEST POINTS	37
44	PINS	CLIP	DISCREET TEST CLIP	59-62	64	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
44	DIP	PLCC	DIP to PLCC PLUG	15	64	QFP	QFP	SURFACE MOUNTABLE with SOCKET	28
44	DIP	PLCC	SURFACE MOUNTABLE CONVERTER	39	64	PINS	QFP	QFP EMULATION MODULE	60-65
44	DIP	PLCC	PLCC CLIP OVER TEST HEAD	66	64	0.25" PINS	QFP	SURFACE MOUNTABLE MODULE	23
44	DIP	QFP	SURFACE MOUNTABLE WITH TEST PINS	22					
44	PLCC	QFP	SURFACE MOUNTABLE WITH TEST PINS	22	68	ANY	ANY	EXTENDER	13
44	0.025" PINS	SQFP	SURFACE MOUNTABLE MODULE	23	68	PINS	CLIP	DISCREET TEST CLIP	59-62
44	LCC	PLCC	LCC to PLCC PLUG	16	68	PINS	QFP	SURFACE MOUNTABLE MODULE	23
44	PGA	PLCC	SURFACE MOUNTABLE CONVERTER	39	68	LCC	PLCC	LCC to PLCC PLUG	16
44	PGA	PLCC	PLCC CLIP OVER TEST HEAD	68	68	PGA	PLCC	PLCC CLIP OVER TEST HEAD	66
44	PGA	PLCC	PGA to PLCC PLUG	16	68	PGA	PLCC	PGA to PLCC PLUG	16
44	PINS	PLCC	PLUG	20	68	PGA	PLCC	SURFACE MOUNTABLE CONVERTER	39
44	PLCC	DIP	GENERIC FOOTPRINT CONVERTER	38	68	PGA	QFP	QFP CLIP OVER TEST HEAD	67
44	PLCC	PGA	GENERIC FOOTPRINT CONVERTER	38	68	PINS	PLCC	PLUG	20
44	PLCC	PLCC	PLCC CLIP OVER TEST HEAD	66	68	PLCC	DIP	GENERIC FOOTPRINT CONVERTER	38
44	PLCC	PLCC	SIGNAL ISOLATOR	18	68	PLCC	PGA	GENERIC FOOTPRINT CONVERTER	38
44	PLCC	PLCC	PLCC to PLCC PLUG w/o BREAKOUT	16	68	PLCC	PLCC	PLCC to PLCC PLUG w/o BREAKOUT	16
44	PLCC	PLCC	PLCC PIN BREAKOUT	17	68	PLCC	PLCC	PLCC PIN BREAKOUT	17
44	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36	68	PLCC	PLCC	PLCC CLIP OVER TEST HEAD	66
44	QFP	PGA	GENERIC WITH TEST POINTS	37	68	PLCC	PLCC	SIGNAL ISOLATOR	18
44	QFP	QFP	SURFACE MOUNTABLE WITH TEST PINS	28	68	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
44	SOIC	DIP	FOOTPRINT CONVERTER	40	68	QFP	PGA	GENERIC WITH TEST POINTS	37
44	PINS	QFP	QFP EMULATION MODULE	60-65	68	PINS	QFP	QFP EMULATION MODULE	60-65
44	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36	68	0.25" PINS	QFP	SURFACE MOUNTABLE MODULE	23
44	QFP	PGA	GENERIC WITH TEST POINTS	37					
44	0.25" PINS	QFP	SURFACE MOUNTABLE MODULE	23	80	ANY	ANY	EXTENDER	13
					80	CABLE	QFP	SURFACE MOUNTABLE with SOCKET	28
48	SOIC	DIP	FOOTPRINT CONVERTER	40	80	0.25" PINS	QFP	SURFACE MOUNTABLE MODULE	23
48	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36	80	PINS	QFP	SURFACE MOUNTABLE with SOCKET	28
48	QFP	PGA	GENERIC WITH TEST POINTS	37	80	PGA	QFP	QFP CLIP OVER TEST HEAD	67
					80	PGA	QFP	SURFACE MOUNTABLE with SOCKET	28
52	ANY	ANY	EXTENDER	13	80	PLCC	QFP	QFP CLIP OVER TEST HEAD	60-66
52	PINS	CLIP	DISCREET TEST CLIP	59-62	80	PLCC	QFP	SURFACE MOUNTABLE WITH TEST PINS	22
52	LCC	LCC	LCC to PLCC PLUG	16	80	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
52	PGA	PLCC	SURFACE MOUNTABLE CONVERTER	39	80	QFP	PGA	GENERIC WITH TEST POINTS	37
52	PGA	PLCC	PLCC CLIP OVER TEST HEAD	68	80	QFP	QFP	SURFACE MOUNTABLE with SOCKET	28
52	PGA	PLCC	PGA to PLCC PLUG	16	80	QFP	QFP	SURFACE MOUNTABLE WITH TEST PINS	28



# MASTER SELECTION GUIDE

## Continued...

### HOW TO USE THIS SELECTION GUIDE

1. Find the pin count you require to match the mother board from the first column headed "FOOT PINS"
2. The next two columns give the package style at on the top of the Adapter and then on the bottom of the Adapter.
3. "FUNCTION" is a brief description of what you require.
4. Next is the page number for that Adapter in this catalogue.

FOOT PINS	TOP	BOTTOM	FUNCTION	PAGE	FOOT PINS	TOP	BOTTOM	FUNCTION	PAGE
80	PINS	QFP	QFP EMULATION MODULE	60-65	120	ANY	ANY	EXTENDER	13
					120	0.025"	QFP	SURFACE MOUNTABLE MODULE	23
84	ANY	ANY	EXTENDER	13	120	PGA	QFP	QFP CLIP OVER TEST HEAD	67
84	PINS	CLIP	DISCREET TEST CLIP	59-62	120	QFP	PGA	GENERIC WITH TEST POINTS	37
84	0.025" PINS	QFP	SURFACE MOUNTABLE MODULE	23	120	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
84	LCC	PLCC	LCC to PLCC PLUG	16	120	PIN	QFP	QFP EMULATION MODULE	60-65
84	PGA	PLCC	PGA to PLCC PLUG	16					
84	PGA	PLCC	PLCC CLIP OVER TEST HEAD	66					
84	PGA	PLCC	SURFACE MOUNTABLE CONVERTER	39	128	ANY	ANY	EXTENDER	13
84	PGA	QFP	QFP CLIP OVER TEST HEAD	67	128	PGA	PGA	PGA PIN BREAKOUT	21
84	PINS	PLCC	PLUG	20	128	PGA	QFP	QFP CLIP OVER TEST HEAD	67
84	PLCC	DIP	GENERIC FOOTPRINT CONVERTER	38	128	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
84	PLCC	PGA	GENERIC FOOTPRINT CONVERTER	38	128	QFP	PGA	GENERIC WITH TEST POINTS	37
84	PLCC	PLCC	CIRCUIT ISOLATOR	18	128	QFP	PGA	DEVICE SPECIFIC CONVERTER	35
84	PLCC	PLCC	PLCC PIN BREAKOUT	17	128	.025" PIN	QFP	QFP EMULATION MODULE	23
84	PLCC	PLCC	PLCC CLIP OVER TEST HEAD	66					
84	PLCC	PLCC	PLCC to PLCC PLUG w/o BREAKOUT	16					
84	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36	132	ANY	ANY	EXTENDER	13
84	QFP	PGA	GENERIC WITH TEST POINTS	37	132	CABLE	QFP	SURFACE MOUNTABLE with SOCKET	28
84	PIN	QFP	QFP EMULATION MODULE	60-65	132	CLIP		DISCREET TEST CLIP	59-62
					132	0.025"	QFP	SURFACE MOUNTABLE with SOCKET	28
					132	0.025"	QFP	SURFACE MOUNTABLE MODULE	23
100	ANY	ANY	EXTENDER	13	132	PGA	PGA	PGA PIN BREAKOUT	21
100	CABLE	QFP	SURFACE MOUNTABLE with SOCKET	28	132	PGA	QFP	QFP CLIP OVER TEST HEAD	67
100	PINS	CLIP	DISCREET TEST CLIP	59-62	132	PGA	QFP	SURFACE MOUNTABLE WITH TEST PINS	22
100	0.25" PINS	QFP	SURFACE MOUNTABLE MODULE	23	132	PGA	QFP	SURFACE MOUNTABLE with SOCKET	28
100	PINS	QFP	SURFACE MOUNTABLE with SOCKET	28	132	QFP	PGA	THROUGH BOARD SOCKET COMPATIBLE	34
100	PGA	PGA	PGA PIN BREAKOUT	21	132	QFP	PGA	DEVICE SPECIFIC CONVERTER	35
100	PGA	PLCC	PGA to PLCC PLUG	16	132	QFP	PGA	GENERIC WITH TEST POINTS	37
100	PGA	QFP	QFP CLIP OVER TEST HEAD	67	132	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
100	PGA	QFP	SURFACE MOUNTABLE WITH TEST PINS	22	132	QFP	QFP	SURFACE MOUNTABLE WITH TEST PINS	28
100	PGA	QFP	SURFACE MOUNTABLE with SOCKET	28	132	QFP	QFP	SURFACE MOUNTABLE with SOCKET	28
100	PLCC	DIP	GENERIC FOOTPRINT CONVERTER	38	132	PIN	QFP	QFP EMULATION MODULE	60-65
100	PLCC	PGA	GENERIC FOOTPRINT CONVERTER	38					
100	QFP	PGA	DEVICE SPECIFIC CONVERTER	35					
100	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36	136	QFP	PGA	GENERIC WITH TEST POINTS	37
100	QFP	PGA	GENERIC WITH TEST POINTS	37	136	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
100	QFP	QFP	SURFACE MOUNTABLE WITH TEST PINS	28					
100	QFP	QFP	SURFACE MOUNTABLE with SOCKET	28					
100	PINS	QFP	QFP EMULATION MODULE	60-65	144	ANY	ANY	EXTENDER	13
					144	CABLE	QFP	SURFACE MOUNTABLE with SOCKET	28
					144	0.025"	QFP	SURFACE MOUNTABLE MODULE	23
112	ANY	ANY	EXTENDER	13	144	0.025"	QFP	SURFACE MOUNTABLE with SOCKET	28
112	CABLE	QFP	SURFACE MOUNTABLE with SOCKET	28	144	PGA	QFP	SURFACE MOUNTABLE with SOCKET	28
112	0.025"	QFP	SURFACE MOUNTABLE MODULE	23	144	PGA	QFP	QFP CLIP OVER TEST HEAD	67
112	0.025"	QFP	SURFACE MOUNTABLE with SOCKET	28	144	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
112	PGA	QFP	SURFACE MOUNTABLE with SOCKET	28	144	QFP	PGA	GENERIC WITH TEST POINTS	37
112	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36	144	QFP	QFP	SURFACE MOUNTABLE with SOCKET	28
112	QFP	PGA	GENERIC WITH TEST POINTS	37	144	.025" PIN	QFP	QFP EMULATION MODULE	23
112	QFP	QFP	SURFACE MOUNTABLE with SOCKET	28					
112	PINS	QFP	QFP EMULATION MODULE	60-65					
					145	ANY	ANY	EXTENDER	13
114	ANY	ANY	EXTENDER	13	145	PGA	PGA	PGA PIN BREAKOUT	21
114	PGA	PGA	PGA PIN BREAKOUT	21	145	QFP	PGA	DEVICE SPECIFIC CONVERTER	35
114	QFP	PGA	DEVICE SPECIFIC CONVERTER	35					



# MASTER SELECTION GUIDE

## continued...

### EXAMPLE

#### YOU REQUIRE A 160 PIN FOOTPRINT CONVERTER FOR A QFP DEVICE WITH PGA PINNING ON THE BOTTOM

Go down column 1 (Foot Pins) until you get to the list of 160 pin Adapters.  
Then proceed until you find QFP in the next column, and PGA in the third column.  
Then look for the function you require.

The first few ranges have too many pin-outs to list, therefore, find the function you require and go to the appropriate page in the catalogue where you will find all of the pin variants listed.

FOOT PINS	TOP	BOTTOM	FUNCTION	PAGE	FOOT PINS	TOP	BOTTOM	FUNCTION	PAGE
148	ANY	ANY	EXTENDER	13	184	PGA	QFP	QFP CLIP OVER TEST HEAD	67
148	PGA	QFP	QFP CLIP OVER TEST HEAD	67	184	QFP	PGA	GENERIC WITH TEST POINTS	37
152	ANY	ANY	EXTENDER	13	184	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
152	CABLE	QFP	SURFACE MOUNTABLE with SOCKET	28	184	.025" PIN	QFP	QFP EMULATION MODULE	23
152	.025 PINS	QFP	SURFACE MOUNTABLE with SOCKET	28					
152	PGA	QFP	SURFACE MOUNTABLE with SOCKET	28	196	ANY	ANY	EXTENDER	13
152	QFP	QFP	SURFACE MOUNTABLE with SOCKET	28	196	CLIP		DISCREET TEST CLIP	59-62
					196	0.025"	QFP	SURFACE MOUNTABLE MODULE	23
160	ANY	ANY	EXTENDER	13	196	PGA	QFP	QFP CLIP OVER TEST HEAD	67
160	CABLE	QFP	SURFACE MOUNTABLE with SOCKET	28	196	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
160	.025" PINS	QFP	SURFACE MOUNTABLE with SOCKET	28	196	QFP	PGA	GENERIC WITH TEST POINTS	37
160	.025" PINS	QFP	SURFACE MOUNTABLE MODULE	23	196	QFP	PGA	DEVICE SPECIFIC CONVERTER	35
160	PGA	QFP	SURFACE MOUNTABLE with SOCKET	28	196	.025" PIN	QFP	QFP EMULATION MODULE	28
160	PGA	QFP	QFP CLIP OVER TEST HEAD	67					
160	QFP	PGA	GENERIC WITH TEST POINTS	37	208	ANY	ANY	EXTENDER	13
160	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36	208	0.025"	QFP	SURFACE MOUNTABLE MODULE	23
160	QFP	QFP	SURFACE MOUNTABLE with SOCKET	28	208	PGA	QFP	QFP CLIP OVER TEST HEAD	67
160	.025" PINS	QFP	QFP EMULATION MODULE	23	208	PGA	QFP	SURFACE MOUNTABLE WITH TEST PINS	22
160	QFP	PGA	THROUGH BOARD SOCKET COMPATIBLE	34	208	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
					208	QFP	PGA	GENERIC WITH TEST POINTS	37
164	ANY	ANY	EXTENDER	13	208	QFP	PGA	DEVICE SPECIFIC CONVERTER	35
164	PINS	CLIP	DISCREET TEST CLIP	59-62	208	QFP	QFP	SURFACE MOUNTABLE WITH TEST PINS	28
164	.025" PINS	QFP	SURFACE MOUNTABLE MODULE	23	208	.025" PIN	QFP	QFP EMULATION MODULE	16
164	PGA	QFP	QFP CLIP OVER TEST HEAD	67	216	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
164	QFP	PGA	GENERIC WITH TEST POINTS	37	216	QFP	PGA	GENERIC WITH TEST POINTS	37
164	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36					
164	PIN	QFP	QFP EMULATION MODULE	60-65	232	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
					232	QFP	PGA	GENERIC WITH TEST POINTS	37
168	ANY	ANY	EXTENDER	13	240	ANY	ANY	EXTENDER	13
168	PGA	PGA	PGA PIN BREAKOUT	21	240	0.025"	QFP	SURFACE MOUNTABLE MODULE	23
168	QFP	PGA	GENERIC WITH TEST POINTS	37	240	PGA	QFP	SURFACE MOUNTABLE WITH TEST PINS	22
168	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36	240	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
168	.025" PIN	QFP	QFP EMULATION MODULE	23	240	QFP	PGA	GENERIC WITH TEST POINTS	37
					240	QFP	QFP	SURFACE MOUNTABLE WITH TEST PINS	28
169	ANY	ANY	EXTENDER	13	240	PIN	QFP	QFP EMULATION MODULE	23
169	PGA	PGA	PGA PIN BREAKOUT	21	256	QFP	PGA	GENERIC WITH TEST POINTS	36
					256	QFP	PGA	GENERIC FOOTPRINT CONVERTER	37
172	QFP	PGA	GENERIC WITH TEST POINTS	37	273	PGA	PGA	PGA PIN BREAKOUT	21
172	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36					
					304	ANY	ANY	EXTENDER	13
176	ANY	ANY	EXTENDER	13	304	0.025"	QFP	SURFACE MOUNTABLE MODULE	23
176	.025" PINS	QFP	SURFACE MOUNTABLE MODULE	23	304	QFP	PGA	GENERIC WITH TEST POINTS	37
176	PGA	QFP	SURFACE MOUNTABLE WITH TEST PINS	22	304	QFP	PGA	GENERIC FOOTPRINT CONVERTER	36
176	QFP	PGA	GENERIC FOOTPRINT CONVERTER	37	304	PIN	QFP	QFP EMULATION MODULE	23
176	QFP	PGA	GENERIC WITH TEST POINTS	36					
176	QFP	QFP	SURFACE MOUNTABLE WITH TEST PINS	23					
184	ANY	ANY	EXTENDER	13					
184	.025" PINS	QFP	SURFACE MOUNTABLE MODULE	23					

IF YOU DON'T SEE WHAT YOU NEED SEND US YOUR  
REQUIREMENT. WE MAY HAVE DESIGNED IT SINCE THIS CATALOGUE  
WENT TO PRESS. IF WE HAVEN'T DONE IT YET - WE WILL.....



**EMULATION TECHNOLOGY to  
WINSLOW ADAPTICs CROSS REFERENCE**

[www.winslowadaptics.com](http://www.winslowadaptics.com)

ET P/NO.	WINSLOW P/NO.	PAGE NO.	ET P/NO.	WINSLOW P/NO.	PAGE NO.	ET P/NO.	WINSLOW P/NO.	PAGE NO.
3916A	WP3916A		AB-060-QF18S-A/B-M	WA06080 (A/B)QAET		AP4-68-LCC	W9455	
4124A	WP4124A		AB-060-QF18S-A/B-W	WA06080 (A/B)QAET*		AP4-68-PCC-NT	W9387	
4140A	WP4140A		AB-060-QF18S-C-M	WA06080CQAET		AP4-68-PGA-NT	W9365	
4236A	WP4236A		AB-060-QF18S-C-W	WA06080CQAET*		AP4-68-PGA-ST	W9365-B	
4324A	WP4234A		AB-060-QF18S-P2-M	WA06080DQAET		AP4-84-LCC	W9456-B	
4340A	WP4340A		AB-060-QF18S-P2-W	WA06080DQAET*		AP4-84-PGA-NT	W9366	
5142-K48	WP5142-K48		AB-068-PCC1-A/B-M	WA068127 (A/B)SAJT		AP4-84-PGA-ST	W9366-B	
5143-K48	WP5143-K48		AB-068-PCC1-A/B-W	WA068127 (A/B)SAJT*		AP5A-100-QF01A-1-NTP	W9808	
5144-48-0	WP5144-48-0		AB-068-PCC1-C-M	WA068127CSAJT		AS-080801S-3	W9707X	
5144-48-2	WP5144-48-2		AB-068-PCC1-C-W	WA068127CSAJT*		AS-1282801Q600	W9907	
5243-0	WP5243-0		AB-080-QF08S-A-W	WA08080AQAET*		AS-161602S-300	W9906	
5243-1	WP5243-1		AB-080-QF08S-B-M	WA08080BQAET		AS-1616R1S300	W9751	
5243-2	WP5243-2		AB-080-QF08S-B-W	WA08080AQAET*		AS-181801S-6GANG	W9914	
5243-3	WP5243-3		AB-080-QF08S-C-M	WA08080CQAET*		AS-201601P600-TEAS-	W9716	
5243-4	WP5243-4		AB-080-QF08S-C-W	WA08080AQAET*		AS-201801SS-3-YAM	W9701	
5243-5	WP5243-5		AB-080-QF08S-P8-M	WA08080DQAET		AS-202001L600	W9731	
5243-6	WP5243-6		AB-080-QF08S-P8-W	WA08080AQAET*		AS-202001P-3YAM	W9915	
5243-7	WP5243-7		AB-080-QF14S-P1-M	WA08065DQAET		AS-202001P-6YAM	W9704	
5243-8	WP5243-8		AB-080-QF14S-P1-W	WA08065DQAET*		AS-202001S-300	W9912	
5243-9	WP5243-9		AB-084-PCC5-A-M	WA084127ASAJT		AS-202001S-6YAM	W9916	
5301-06-0	WP5301-06-0		AB-084-PCC5-A-W	WA084127ASAJT*		AS-202803S600	W9752	
5301-06-2	WP5301-06-2		AB-084-PCC5-B-M	WA084127BSAJT*		AS-282003P-6	W9786	
5301-12-0	WP5301-12-0		AB-084-PCC5-B-W	WA084127BSAJT		AS-282402L600	W9732	
5301-12-2	WP5301-12-2		AB-084-PCC5-C-M	WA084127CSAJT		AS-282402P600	W9717	
5301-24-0	WP5301-24-0		AB-084-PCC5-C-W	WA084127CSAJT*		AS-282403L600	W9753	
5301-24-2	WP5301-24-2		AB-084-PCC5Z-P12-M-1	WA084127DSAJT*		AS-282404P600-YAM	W9743	
5301-36-0	WP5301-36-0		AB-084-PCC5Z-P12-M-O	WA084127DSAJT*		AS-282405L600	W9727	
5301-36-2	WP5301-36-2		AB-80-QF08S-A-M	WA08080AQAET		AS-282405P-6YAM	W9706	
5302-12-0	WP5302-12-0		AC-100P3-QF06-68EC02	W9669		AS-282409L600	W9728	
5302-12-2	WP5302-12-2		AC4-20-PGA	W9696-PLCC		AS-282409P600-YAM	W9718	
5302-24-0	WP5302-24-0		AC4-20-PGA-NC	W9696-NC		AS-282801L600	W9733	
5302-24-2	WP5302-24-2		AC4-28-PGA	W9697-PLCC		AS-282801P-6YAM	W9330	
5302-36-0	WP5302-36-0		AC4-28-PGA-NC	W9697-NC		AS-282801S600 -- GAN	W9755	
5302-36-2	WP5302-36-2		AC4-32-PCC	W9693-PLCC		AS-282801SS-6ENP-GAN	W9740	
5303-36-0	WP5303-36-0		AC4-32-PGA	W9698-PLCC		AS-282803S-3-GANG	W9711	
5303-36-2	WP5303-36-2		AC4-32-PGA-NC	W9698-NC		AS-282803S-6GANG	W9917	
5360-0	WP5360-0		AC4-44-PCC	W9689-PLCC		AS-322801L600	W9729	
5360-1	WP5360-1		AC4-44-PCC-NC	W9689-NC		AS-322801P-6YAM-GANG	W9331	
5360-2	WP5360-2		AC4-44-PGA	W9699-PLCC		AS-322802L600	W9734	
5360-3	WP5360-3		AC4-44-PGA-NC	W9699-NC		AS-322802P600	W9719	
5360-4	WP5360-4		AC4-52-PCC	W9690-PLCC		AS-322805L600	W9735	
5360-5	WP5360-5		AC4-52-PCC-NC	W9690-NC		AS-322805P600	W9720	
5360-6	WP5360-6		AC4-52-PGA	W9850-PLCC		AS-323201L600	W9730	
5360-7	WP5360-7		AC4-52-PGA-NC	W9850-NC		AS-323201P-6YAM	W9332	
5360-8	WP5360-8		AC4-68-PCC	W9694-PLCC		AS-323201TS600 - YAM	W9758	
5360-9	WP5360-9		AC4-68-PCC-NC	W9694-NC		AS-323201TS600 -YAMS	W9759	
5362-36-0	WP5362-36-0		AC4-68-PGA	W9851-PLCC		AS-404002TS600-YAMS	W9721	
5362-36-2	WP5362-36-2		AC4-68-PGA-NC	W9851-NC		AS-442801P-6YAM	W9339	
5411-C-24	WP5411-C-24		AC4-84-PCC	W9695-PLCC		AS-444001P600-YAM	W9750	
AB-020-PCC2-A/B-M	WA020127 (A/B)SAJT		AC4-84-PCC-NC	W9695-NC		AS-444001Q-6YAM	W9901	
AB-020-PCC2-A/B-W	WA020127 (A/B)SAJT*		AC4-84-PGA	W9686-PLCC		AS-444003P600-YAM	W9722	
AB-020-PCC2-C-M	WA020127CSAJT		AC4-84-PGA-NC	W9686-NC		AS-444003Q-6	W9705	
AB-020-PCC2-C-W	WA020127CSAJT*		AC-DIP-PCC-68H11	W9685-PLCC		AS-444004S600-YAM	W9723	
AB-024-300FEM-600MAL	W9115X		AC-DIP-PCC-8031/51	W9681-PLCC		AS-444004SP600 - YAM	W9760	
AB-024-600FEM-300MAL	W9114		AC-DIP-PCC-8031/51-N	W9681-NC & SUFFIX B		AS-444007L600	W9736	
AB-028-300FEM-600MAL	W9117		AC-DIP-QF16-8031/51-	W9681-QFP		AS-444007P-6YAM	W9333	
AB-028-600FEM-300MAL	W9116		AC-DIP-QF16-8031/51-N	W9681-QFP-2		AS-444008L600	W9737	
AB-028-PCC6-A/B-M	WA028127 (A/B)SAJT		AC-PCC5-QF08-80186EB	W9887-QFP-B		AS-444008P600-YAM	W9724	
AB-028-PCC6-A/B-W	WA028127 (A/B)SAJT*		AC-PCC5-QF08-80960SA	W9684-QFP		AS-444014P600	W9761	
AB-028-PCC6-C-M	WA028127CSAJT		AC-PGA10-QF15-486-TP	W9677B		AS-444017P-6YAM	W9742	
AB-028-PCC6-C-W	WA028127CSAJT*		AC-PGA10-QF15-80960C	W9682-QFP-B		AS-444018P600 - YAM	W9764	
AB-028/030-SDIP-B/C-MN	W9121		AC-PGA3-QF01-386SX-N	W9678		AS-444019P600 - YAM	W9765	
AB-028/030-SDIP-B/C-W	W9122		AC-PGA3-QF01-386SX-T	W9678-B		AS-44401P600-YAM	W9725	
AB-032-600FEM-300MAL	W9118		AC-PGA3-QF03-56001-T	W9673-B		AS-444021P600	W9787	
AB-032-PCC7-A/B-M	WA032127 (A/B)SAJT		AC-PGA3-QF03-56002-T	W9674-B		AS-444022P600 - YAM	W9767	
AB-032-PCC7-A/B-W	WA032127 (A/B)SAJT*		AC-PGA3-QF03-68020-T	W9670-B		AS-44401P600-YAM	W9790	
AB-032-PCC7-C-M	WA032127CSAJT		AC-PGA3-QF03-68030-T	W9671-B		AS-44403P600 - YAM	W9768	
AB-032-PCC7-C-W	WA032127CSAJT*		AC-PGA3-QF03-68302-T	W9672-B		AS-44401P600 - YAM	W9769	
AB-040/042-SDIP-B/C-	W9123		AC-PGA4-QF10-68340	W9675-B		AS-524001Q600 - ENP	W9763	
AB-044-PCC3-A/B-M	WA044127 (A/B)SAJT		AC-PGA8-QF03-80960/K	W9683-QFP-B		AS-524801P600 - YAM	W9770	
AB-044-PCC3-A/B-W	WA044127 (A/B)SAJT*		AP4-20-PGA-ST	W9360-B		AS-524802P600 - YAM	W9771	
AB-044-PCC3-C-M	WA044127CSAJT		AP4-28-PCC-ST	W9359-B		AS-564001TS600YAM-GA	W9726	
AB-044-PCC3-C-W	WA044127CSAJT		AP4-28-PGA-ST	W9361-B		AS-644802Q600-ENP	W9773	
AB-044-QF16S-A/B-M	WA04080 (A/B)QAET		AP4-32-LCC	W9452-B		AS-682802P-6YAM	W9336	
AB-044-QF16S-A/B-W	WA04080 (A/B)QAET*		AP4-32-PCC-ST	W9368-B		AS-684801P-6YAM	W9338	
AB-044-QF16S-C-M	WA04480CQAET		AP4-32-PGA-NT	W9362		AS-684802P600 -YAM	W9774	
AB-044-QF16S-C-W	WA04480CQAET*		AP4-32-PGA-ST	W9362-B		AS-684803P600 - YAM	W9775	
AB-044-QF16S-P5-M	WA04480DQAET		AP4-44-LCC	W9454-B		AS-684804P600 - YAM	W9776	
AB-044-QF16S-P5-W	WA04480DQAET*		AP4-44-PCC-ST	W9369-B		AS-842801P-6YAM	W9337	
AB-052-PCC4-A/B-M	WA052127 (A/B)SAJT		AP4-44-PGA-NT	W9363		AS-842802P-6YAM	W9911	
AB-052-PCC4-A/B-W	WA052127 (A/B)SAJT*		AP4-52-PCC	W9378-B		AS-844801P600 - YAM	W9777	
AB-052-PCC4-C-M	WA052127CSAJT		AP4-52-PCC-NT	W9378		AS-844802P600 - YAM	W9778	
AB-052-PCC4-C-W	WA052127CSAJT*		AP4-52-PGA-NT	W9364		AS-844803P600 - YAM	W9779	
AB-056-SS06Z-P1-M	WA05610DQAET		AP4-52-PGA-ST	W9364-B		AS-DIP68K-PCC-68EC00	W9802	
AB-056-SS06Z-P1-W	WA05610DQAET*					AS-DIP-PCC-4044G	W9349	



# EMULATION TECHNOLOGY to WINSLOW ADAPTICs CROSS REFERENCE

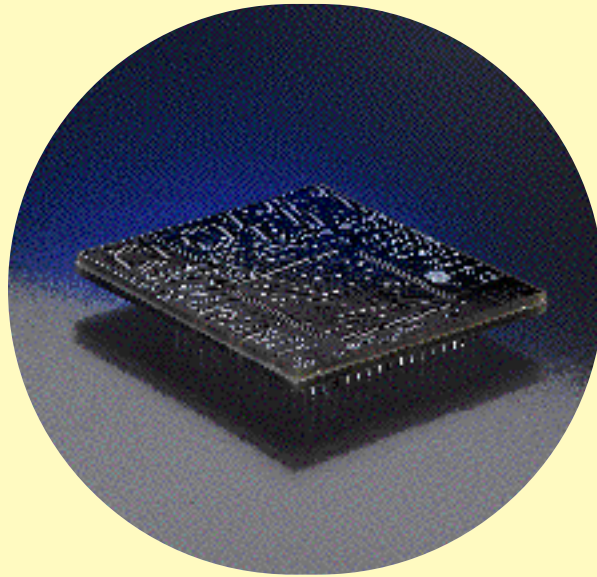
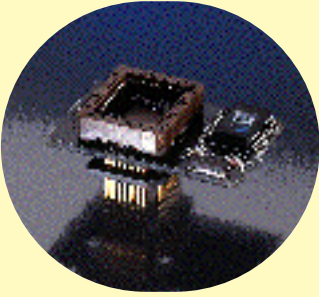
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AS-DIP-PCC-4044GZ	W9349Z		CLIP-120-QF05-B	W9872-2-CLIP		5220	WP5220	
AS-DIP-PCC-68HC11	W9801		CLIP-128-QF13-A	W9873-CLIP		5224	WP5224	
AS-DIP-PCC-8031/51	W9310		CLIP-128-QF13-B	W9873-2-CLIP		5240	WP5240	
AS-DIP-PCC-8031/51Z	W9310Z		CLIP-132-QF03-1	W9874-CLIP		5250	WP5250	
AS-DIP-QF165-8031/51	W9629-SD		CLIP-132-QF03-4	W9890-QFP		5251	WP5251	
AS-DIP.3-006-SO01-2	W9532-P		CLIP-144-QF10-A	W9875-CLIP		5252	WP5252	
AS-DIP.3-008-SO01-1	W9533		CLIP-144-QF10-B	W9875-2-CLIP		5253	WP5253	
AS-DIP.3-008-SO01-2	W9533-P		CLIP-144-QF63-D	W9888-CLIP		5254	WP5254	
AS-DIP.3-014-SO01-1	W9534		CLIP-160-QF07-A	W9876-CLIP		5279	WP5279	
AS-DIP.3-014-SO01-2	W9534-P		CLIP-160-QF07-B	W9876-2-CLIP		5280	WP5280	
AS-DIP.3-016-SO01-1	W9535		CLIP-164-QF04-1	W9877-CLIP		5281	WP5281	
AS-DIP.3-016-SO01-2	W9535-P		CLIP-168-QF25-A	W9878-CLIP		5312	WP5312	
AS-DIP.3-016-SO03-1	W9537		CLIP-168-QF25-B	W9878-2-CLIP		5314	WP5314	
AS-DIP.3-016-SO03-2	W9537-P		CLIP-184-QF31-A	W9880-CLIP		5412-36-2	WP5412-36-2	
AS-DIP.3-018-SO01-1	W9539		CLIP-184-QF31-B	W9880-2-CLIP		5412-36-0	WP5412-36-0	
AS-DIP.3-018-SO01-2	W9539-P		CLIP-196-QF15-1	W9881-CLIP		5412-24-2	WP5412-24-2	
AS-DIP.3-018-SO01-2	W9539-P		CLIP-208-QF21-A	W9882-CLIP		5412-24-0	WP5412-24-0	
AS-DIP.3-020-SO01-1	W9540		CLIP-208-QF21-C	W9882-2-CLIP		5412-12-2	WP5412-12-2	
AS-DIP.3-020-SO01-2	W9540-P		CLIP-240-QF62-C	W9883-CLIP		5412-12-0	WP5412-12-0	
AS-DIP.3-020-SO03-1	W9541		CLIP-240-QF62-CC	W9883-M-CLIP		5401	WP5401	
AS-DIP.3-020-SO03-2	W9541-P		CLIP-304-QF61-C	W9884-CLIP		5402	WP5402	
AS-DIP.3-024-SO03-1	W9545		CR-100QF01-PGA3-386S	W9101		5437	WP5437	
AS-DIP.3-024-SO03-2	W9545-P		CR-100QF06-PGA3-68EC	W9005		5733	WP5733	
AS-DIP.6-024-SO08-1	W9543		CR-132QF03-PGA3-5600	W9110		5745-9	WP5745-9	
AS-DIP.6-024-SO08-2	W9543-P		CR-132QF03-PGA3-6802	W9104		5746-9	WP5746-9	
AS-DIP.6-028-SO03-1	W9547		CR-132QF03-PGA3-6803	W9106		5745-8	WP5745-8	
AS-DIP.6-028-SO03-2	W9547-P		CR-132QF03-PGA3-6830	W9108		5746-8	WP5746-8	
AS-DIP.6-032-SO03-1	W9356		CR-132QF03-PGA3-6833	W9109		5745-7	WP5745-7	
AS-DIP.6-032-SO10-1	W9538		CR-144QF10-PGA4-6834	W9007		5746-7	WP5746-7	
AS-DIP.6-032-SO10-2	W9538-P		CR-196QF15-PGA10-486	W9103		5745-6	WP5745-6	
AS-PCC1-QF085-80/83C	W9631-SD		EP4-028-PCC6-18-NB	W9351-SF		5745-5	WP5745-5	
AS-PCC5-PGA3-MG80C18	W9800		EP4-032-PCC7-12-NB	W9352-SF		5746-6	WP5746-6	
AS-PCC5-QF08S-80186E	W9630-SD		EP4-044-PCC3-12-NB	W9353-SF		5745-4	WP5745-4	
AS-PGA11-QF62S-68360	W9632-SD		EP4-052-PCC4-18-NB	W9354-SF		5746-5	WP5746-5	
AS-PGA1-QF14S-ADSP21	W9639-SD		EP4-068-PCC1-12-NB	W9355-SF		5745-3	WP5745-3	
AS-PGA268K-PCC-68EC0	W9803		EP4-084-PCC5-12-NB	W9356-SF		5746-4	WP5746-4	
AS-PGA3-QF63-68302	W9672		EP4-20-PCC2-12	W9350		5745-2	WP5745-2	
AS-PGA-QF03A-68020	W9621-AMP		EP4-28-PCC6-12	W9351		5746-3	WP5746-3	
AS-PGA-QF03A-68030	W9622-AMP		EP4-28-PCC6-W	W9351-W		5746-2	WP5746-2	
AS-PGA-QF03A-68302	W9623-AMP		EP4-32-PCC7-12	W9352		5745-1	WP5745-1	
AS-PGA-QF03S-56001	W9624-SD (M or F)		EP4-32-PCC7-W	W9352-W		5746-1	WP5746-1	
AS-PGA-QF03S-56002	W9625-SD (M or F)		EP4-44-PCC3-12	W9353		5745-0	WP5745-0	
AS-PGA-QF03S-68020	W9621-SD (M or F)		EP4-44-PCC3-W	W9353-W		5746-0	WP5746-0	
AS-PGA-QF03S-68030	W9622-SD (M or F)		EP4-52-PCC4-12	W9354		5952	WP5952	
AS-PGA-QF03S-68302	W9623-SD		EP4-52-PCC4-W	W9354-W		5411-C-60	WP5411-C-60	
AS-PGA-QF495-186/88E	W9633-SD		EP4-68-PCC1-12	W9355		5411-C-36	WP5411-C-36	
BC2-114-PGA3-68020	WAT114A1313A		EP4-68-PCC1-W	W9355-W		5411-C-48	WP5411-C-48	
BC2-114-PGA3-68020Z	WAT114A1313AZ		EP4-84-PCC5-W	W9356-W				
BC2-128-PGA3-68030	WAT128B1313A		EPC-100-QF06-SMA	W9854				
BC2-128-PGA3-68030Z	WAT128B1313AZ		EPC-100-QF06-SM-B	W9854-2				
BC2-132-PGA3-68302	WAT132B1313A		EPP-064-QF09-LG	W9635-SD				
BC2-132-PGA3-68302Z	WAT132B1313AZ		EPP-080-QF08-LG	W9636-SD				
BC2-168-PGA10-486SX	WAT168A1717B		EPP-100-QF06-SM	W9869(FM)				
BC2-168-PGA10-486SX/2	WAT168A1717BZ		EPP-100-QF49-SM	W9870 (FM)				
BC2-179-PGA11-68040	WAT179A1818A		EPP-132-QF03-LG	W9637-SD				
BC2-179-PGA11-68040Z	WAT179A1818AZ		EPP-132-QF03-SM	W9874(FM)				
BC2-273-PGA14-PENTIUI	WAT273A2121A		EPP-160-QF07-W	W9638-SD				
BC2-273-PGA14-PENTIUI	WAT273A2121AZ		EPP-208-QF21-SM	W9882(FM)				
BC4-020-PCC2-0000	W9370		ET181801S-3 GANG	W9709				
BC4-028-PCC6-0000	W9371		ET282803S-3GANG	W9710				
BC4-032-PCC7-0000	W9372		TH-PGA-100-QF01-GENE	W9603				
BC4-044-PCC3-0000	W9373		TH-PGA-100-QF06-GENE	W9612				
BC4-052-PCC4-0000	W9374		TH-PGA-132-QF03-GENE	W9604				
BC4-068-PCC1-0000	W9375		TH-PGA-144-QF10-GENE	W9615				
BC4-084-PCC5-0000	W9376		TH-PGA-160-QF07-GENE	W9616				
BCP-208-QF21Z-0000-0	W9279		TH-PGA-196-QF15-GENE	W9607				
CLIP -120-QF05-A	W9872-CLIP		TH-PGA-QF03-386DXL	W9627				
CLIP-064-QF29-A	W9861-CLIP		TH-PGA-QF03-56000/1	W9624				
CLIP-064-QF29-B	W9861-2-CLIP		TH-PGA-QF03-56002	W9625				
CLIP-068-QF23-1	W9862-CLIP		TH-PGA-QF03-68020	W9621				
CLIP-080-QF08-A	W9865-CLIP		TH-PGA-QF03-68030	W9622				
CLIP-080-QF08-B	W9865-2-CLIP		TH-PGA-QF03-68302	W9623				
CLIP-080-QF14A-A	W9864-CLIP		TH-PGA-QF06-68EC020	W9620				
CLIP-080-QF14-B	W9864-2-CLIP		TH-PGA-QF08-GENERIC	W9611				
CLIP-084-QF02-1	W9866-CLIP		TH-PGA-QF10-68340	W9629				
CLIP-100-QF01-1	W9867-CLIP		5014	WP5014				
CLIP-100-QF03-4	W9889-QFP		5108	WP5108				
CLIP-100-QF06-A	W9869-CLIP		5114	WP5114				
CLIP-100-QF06-B	W9869-2-CLIP		5116	WP5116				
CLIP-100-QF11-A	W9868-CLIP		5120	WP5120				
CLIP-100-QF11-B	W9868-2-CLIP		5124	WP5124				
CLIP-112-QF36-BC	W9871-CLIP		5140	WP5140				
			5208	WP5208				
			5214	WP5214				
			5216	WP5216				

## IMPORTANT NOTICE

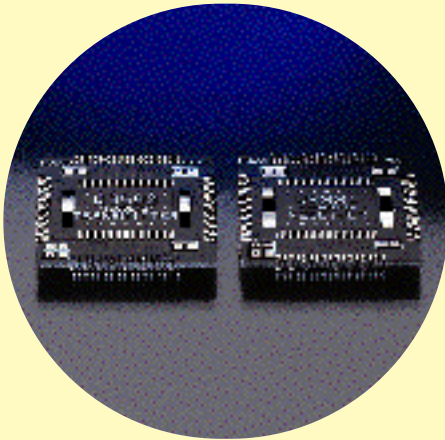
There may be dimensional and design differences between E.T. and the Winslow Product. Please check with the Sales Office at time of ordering.

**THIS LIST IS NOT COMPLETE - IF YOU DON'T SEE WHAT YOU NEED CALL US**

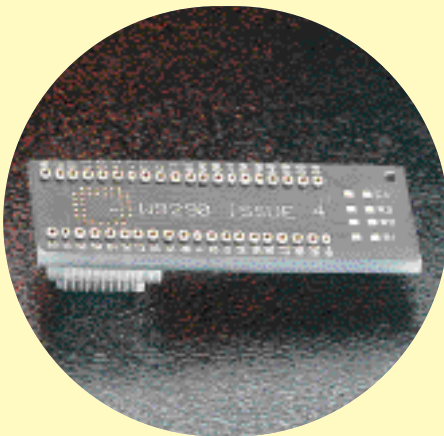
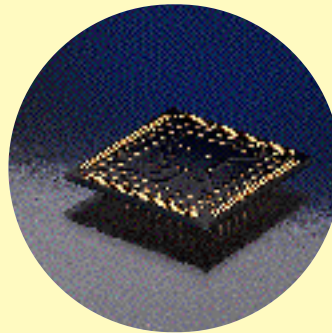


Whatever you need.....

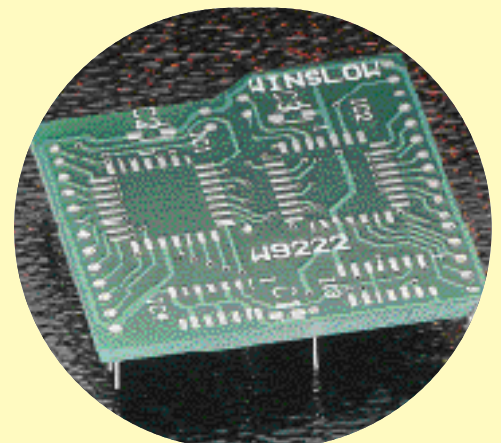
we're here to help !



Rapid delivery



Low NRE costs





**FAX OR EMAIL  
FOR RAPID RESPONSE**

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

ZIP

PHONE \_\_\_\_\_

FAX \_\_\_\_\_

Email

***PLEASE STATE THE FULL PART NUMBER & MANUFACTURER OF THE  
INTEGRATED CIRCUIT YOU PLAN TO USE WITH THIS ADAPTER***

.....



# AVR

**ENHANCED RISC  
MICROCONTROLLER**

## Atmel Adapters

DEVICE	ADAPTER	PACKAGE & FUNCTION
AT90S1200	W9945	SSOP 20 PIN to DIP 20 PIN PROGRAMMING ADAPTER
	W2527M	SSOP 20 PIN SOLDER DOWN MODULE (BASE ONLY)
	W2527SDF	DIP 20 PIN EMULATOR ADAPTER TO MATE WITH W2527M
	W9540P	DIP 20 PIN to SOIC 20 PIN SOLDER DOWN ADAPTER
	W10618	SOIC 20 PIN to DIP 20 PIN PROGRAMMING ADAPTER
AT90S2313	W9540P	DIP 20 PIN to SOIC 20 PIN SOLDER DOWN ADAPTER
	W10618	SOIC 20 PIN to DIP 20 PIN PROGRAMMING ADAPTER
AT90S4414	W9901	TQFP 44 PIN 0.6mm PITCH to DIP 40 PIN PROGRAMMING ADAPTER
AT90S8515	W9310	DIP 40 PIN to PLCC 44 PIN EMULATOR ADAPTER
	W9843M	TQFP 44 PIN 0.8mm PITCH SOLDER DOWN MODULE (BASE ONLY)
	W9843SDF	DIP 40 PIN EMULATOR ADAPTER TO MATE WITH W9843M
	W9397	DIP 40 PIN to PLCC 44 PIN 'J' LEAD SOLDER DOWN MODULE (BASE ONLY)
AT90S4434	W9053	TQFP 44 PIN 0.8mm PITCH to DIP 40 PIN PROGRAMMING ADAPTER
AT90S8535	W9051	PLCC 44 PIN to DIP 40 PIN PROGRAMMING ADAPTER
	W9310-8535	DIP 40 PIN to PLCC 44 PIN EMULATOR ADAPTER
	W9843M	TQFP 44 PIN 0.8mm PITCH SOLDER DOWN MODULE (BASE ONLY)
	W9842SDF	DIP 40 PIN EMULATOR ADAPTER TO MATE WITH W9843M
	W9396	DIP 40 PIN to PLCC 44 PIN 'J' LEAD SOLDER DOWN ADAPTER
ATmega103	W9844M	TQFP 0.8mm PITCH SOLDER DOWN MODULE (BASE ONLY)
ATmega603	W9861SDF	0.025" SQUARE HEADER EMULATOR INTERFACE TO MATE WITH W9844M
AT90(L)S4433	W9836M	TQFP 32 PIN 0.8mm PITCH SOLDER DOWN MODULE (BASE ONLY)
AT90(L)S2333	W9835SDF	DIP 28 PIN EMULATOR ADAPTER TO MATE WITH W9836M
AT90S2323	W9533P	DIP 8 PIN to SOIC 8 PIN SOLDER DOWN ADAPTER
AT90S2343		
ATtiny11		



**WINSLOW ADAPTICS** for your **3rd PARTY SUPPORT**

TELEPHONE 01874 625555

FAX 01874 625500

EMAIL SALES@WINSLOWADAPTICS.COM

WWW.WINSLOWADAPTICS.COM



[sales@winslowadaptics.com](mailto:sales@winslowadaptics.com)

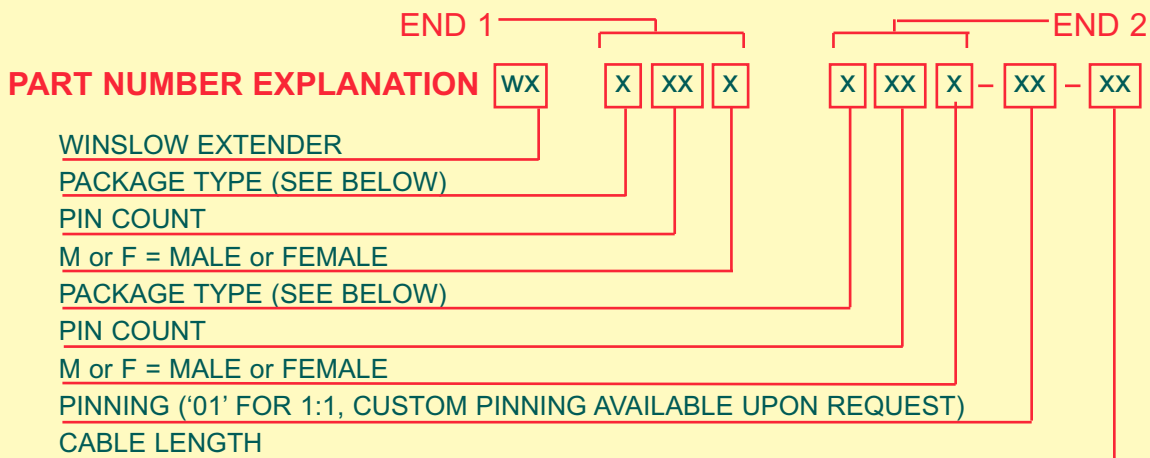
**WINSLOW ADAPTICs**  
**EMULATION POD**  
**EXTENDERS**



Ideal for those situations where there is insufficient room to place your Emulation Interface module.

This is a custom facility providing you with your exact requirements and not a compromise solution.

**DELIVERY IS FAST !**



<b>PACKAGE TYPE</b>	DIP = A
	PLCC = B
	PGA = C
	QFP = D
	SOJ = E

<b>CABLE LENGTH</b>	8" ADD SUFFIX '-8'
	12" ADD SUFFIX '-12'
	18" ADD SUFFIX '-18'

**W9350 SERIES**

These will interface between board mounted PLCC sockets and external equipment such as development, test and emulation systems. Four cables, 450mm long, are connected by way of IDC transition connectors. (Longer cables are available on request) The other end of the cable is left without terminations.

**PLCC PLUG TO RIBBON CABLE**



PART NUMBER	
W9350SF	20 PIN
W9351SF	28 PIN
W9352SF	32 PIN
W9353SF	44 PIN
W9354SF	52 PIN
W9355SF	68 PIN
W9356SF	84 PIN

NUMERICAL COLOUR CODING			
1 BROWN	5 GREEN	9 WHITE	13 ORANGE
2 RED	6 BLUE	10 BLACK	14 YELLOW
3 ORANGE	7 VIOLET	11 BROWN	15 GREEN
4 YELLOW	8 GREY	12 RED	ETC.....

**MATERIALS**

**Printed circuit** - FR4  
**Plug pins** - Brass  
**Plug Body** - 30% G.F. PBT  
**Plating** - Gold over Nickel

**MATERIALS**

**Connector body** - 30% G.F. PBT  
**Contacts** - Ph.Br.  
**Plating** - Gold over Nickel  
**IDC cable** - 28 AWG

**SOCKET STAND-OFF HEIGHT**

Product is fitted with our standard profile plug raising the under-side of the module to 10mm above your PLCC socket. For other stand-offs contact your nearest Winslow sales office.

**DETAILED DRAWINGS**

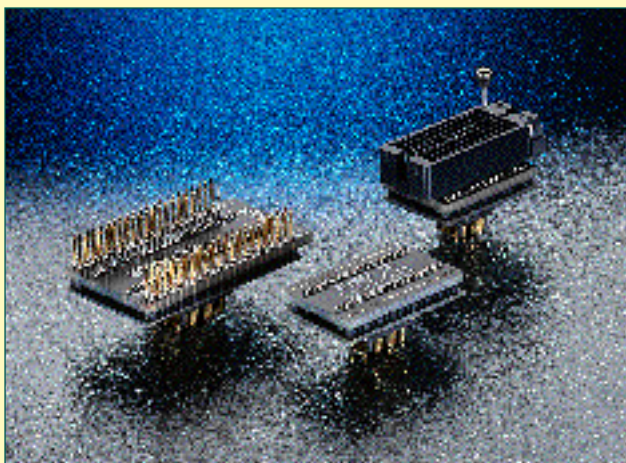
**You may see our detailed drawings on our web site**

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Find the drawing button, some are generic and apply to all of the devices on that data sheet, while others are specific to a particular part number.

**Some drawings are being updated, therefore, if you fail to find what you are looking for, contact us directly, with your requirements, for a rapid response.**





**PLUGS INTO YOUR  
PLCC PRODUCTION  
SOCKETS**

Enables Emulation of  
PLCC devices with  
standard Dual-In-Line  
Interface Pod.

Can also be used to  
convert PLCC to DIP  
in times of product  
shortage or re-design.

PART NO.	DIP PIN COUNT	PLCC PIN COUNT	DEVICE	PCB DIMENSIONS	
				LENGTH	WIDTH
W9308	28	28	GENERIC	1.60"	1.20"
W9344	28	32	27C64 thru 512	1.60"	1.20"
W9815	32	28	FIELD CONFIG	1.60"	1.40"
W9816**	28	32	FIELD CONFIG.	1.60"	1.40"
W9309	32	32	GENERIC	1.70"	1.20"
W9817**	32	32	FIELD CONFIG.	1.70"	1.40"
W9310*	40	44	GENERIC	2.10"	1.20"
W9310/16C64	40	44	PIC16C64	2.10"	1.20"
W9310/17C42	40	44	PIC17C42	2.10"	1.20"
W9310/3	40	44	MC68HC705C8	2.10"	1.20"
W9310/5	40	44	27C1024	2.10"	1.20"
W9310/Z80	40	44	Z80	2.10"	1.20"
W9310/8535	40	44	AT90C8535	2.10"	1.20"
W9349**	44	44	FIELD CONFIG.	2.30"	1.40"
W9801	64	68	68HC11	2.40"	1.70"
W9802	64	68	68EC000	2.40"	1.70"
W9806	64	68	H83257	2.40"	1.70"
W9821	64 (SHRINK)	68	MC68000		

\*Suitable for Intel 8031  
 \*\*These parts are field configurable to any tracking required by way of wire wrap pins.  
 ZIF SOCKET OPTION AVAILABLE ADD SUFFIX "Z"

FOR DETAILED PIN MAPPING CONTACT NEAREST SALES OFFICE.

**DETAILED DRAWINGS**

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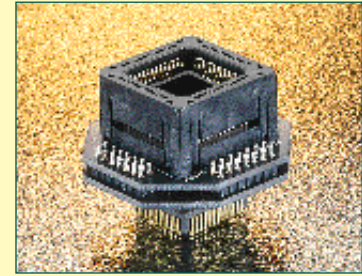
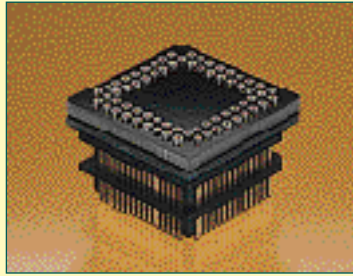
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**SPECIFICATION & MATERIALS**

- Plug Body** - G.F. Polyester
- Contacts (Inner)** - BeCu Gold Plated
- PCB** - FR4
- Contacts (Outer)** - Tin Plated Brass
- Pins** - Gold Plated Brass
- Temperature Rating** +105°C

**PLCC PLUG**  
**to**  
**PGA**  
**or**  
**PLCC/LCC SOCKET**

**EMULATOR POD**



**PGA SOCKET POD TO PLCC PLUG**

PART NO.	PART NO. (SMALL FOOTPRINT)	NO. OF PLCC PINS	DEVICE	PGA POD PINS	PGA MATRIX
W9360	W9360SF	20	GENERIC	20	5 X 5
W9361	W9361SF	28	GENERIC	28	6 X 6
W9362	W9362SF	32	GENERIC	32	7 X 7
W9363	W9363SF	44	GENERIC	44	8 X 8
W9364	W9364SF	52	GENERIC	52	9 X 9
W9365	W9365SF	68	GENERIC	68	11 X 11
W9366	W9366SF	84	GENERIC	84	13 X 13
W9367	W9367SF	100	GENERIC	100	15 X 15

PGA Matrix Footprint as per the PLCC production socket.

\*If pin breakout required refer to W9370 series.

\*\*Add suffix "F" for Wire Wrap field configurable pinning (not available in small footprint version).  
 Standard pinning 1:1.

**PLCC & LCC SOCKET POD TO PLCC PLUG**

PART NO. LCC	PART NO. PLCC	NO. OF PLCC PLUG PINS	DEVICE	NO. OF LCC OR PLCC POD PINS
W9450	W9358	20	GENERIC**	20
W9451	W9359	28	GENERIC**	28
W9452	W9368	32	GENERIC**	32
W9453	W9369	44	GENERIC**	44
W9454	W9378	52	GENERIC**	52
	W9268	68	80186/196	52
W9455	W9387	68	GENERIC**	68
W9456	W9388	84	GENERIC**	84

If Test Pins are required, use W9370 Series

\*\*Add suffix "F" for Wire Wrap field configurable pinning. Standard pinning 1:1.

**Plug & Socket Body** - PPS  
**PCB** - Black FR4  
**Pins** - Gold Plated Brass  
**Contacts**  
**(Inner)** - BeCu Gold Plated  
**Contacts**  
**(Outer)** - Tin Plated Brass  
**Temperature Rating** +105°C

**DETAILED DRAWINGS**

**You may see our detailed drawings on our web site**

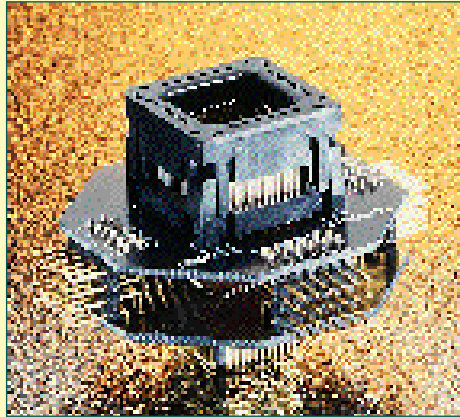
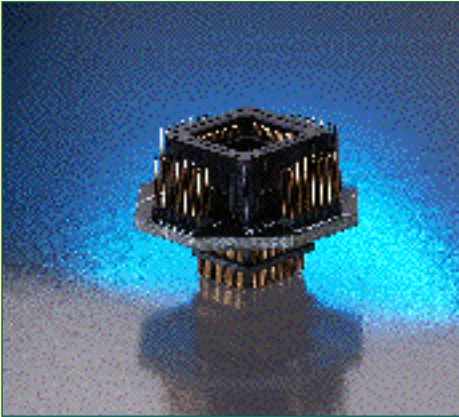
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**W9370 SERIES**

Now features ZIF socket and  
compliant plug pins also  
**Field Configurable**  
option

**2 options now available:**

**PLCC Pin Breakout**  
This device has fixed  
tracking 1:1

**Field Configurable**  
Allows for  
Wire Wrapping  
to provide  
Device Specific pinning.

**MATERIALS**

- Printed circuit** - FR4
- Plug pins** - Brass
- Plug Body** - 30% G.F. PBT
- Plating** - Gold over Nickel
- Socket body** - PPS
- Socket contacts** - Ph.Br.
- Socket plating** - Gold over Nickel
- Test pins** - Brass
- Test pin housing** - 30% G.F. PBT
- Test pin plating** - Gold over Nickel

<b>PART NUMBER With Breakout</b>	<b>PINS</b>	<b>DEVICE</b>
W9370*	20	GENERIC
W9371*	28	GENERIC
W9372*	32	GENERIC
W9373*	44	GENERIC
W9374*	52	GENERIC
W9268**	52/68	80186/196
W9375*	68	GENERIC
W9376*	84	GENERIC

\*Add suffix "F" to the pin breakout series if the "Field Configurable" option is required.

\*\*This product is designed to accept the Intel 80186/196. It has a 68 pin PLCC ZIF socket on the top and a 52 pin PLCC plug on the bottom. If a standard production socket is required, make that known at the time of your enquiry.  
SEE ALSO PAGE 15 FOR FURTHER PLCC OPTIONS + LCC & PGA

**DETAILED DRAWINGS**

You may see our detailed drawings on our web site

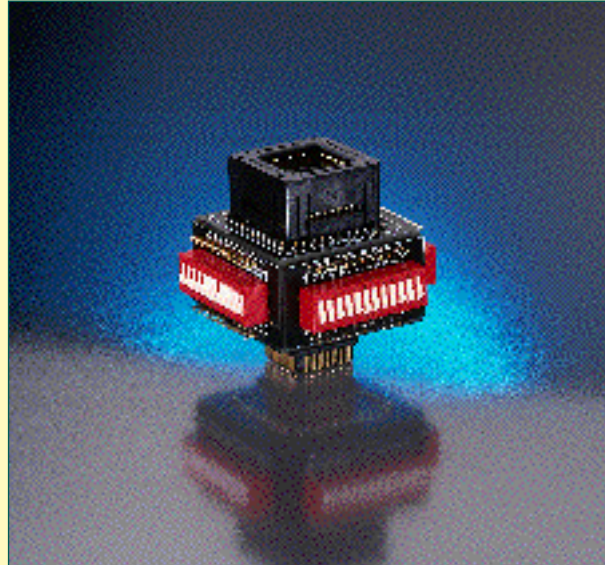
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This product range enables PCB Tracks to be Isolated from any pin of a PLCC Device.

**PLCC SIGNAL ISOLATORS**



PART NUMBER	NO.OF PINS
W9170	20 PIN
W9171	28 PIN
W9172	32 PIN
W9173	44 PIN
W9174	52 PIN
W9175	68 PIN
W9176	84 PIN

The Isolator plugs into your PCB mounted PLCC socket, and the device under test is placed into the ZIF socket situated on the top.

Each track may be accessed via test points which are situated at 90 degrees to the module.

Switching is achieved via DIP Switches.

Test pins and Switches are numbered for ease of use

**DETAILED DRAWINGS**

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**MATERIALS**

**Printed circuit** - FR4

**Plug pins** - Brass

**Plug Body** - 30% G.F. PBT

**Plating** - Gold over Nickel

**MATERIALS**

**Connector body** - 30% G.F. PBT

**Contacts** - Ph.Br.

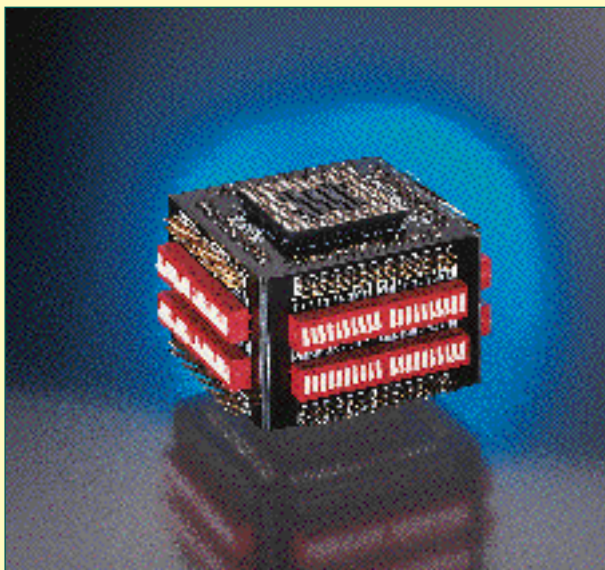
**Plating** - Gold over Nickel

**IDC cable** - 28 AWG

Other PLCC Plug stand-off heights can be made available



**PGA SIGNAL ISOLATORS**



**HOW TO ARRIVE AT YOUR PGA REQUIREMENTS**

1. **PHOTOCOPY THIS PAGE**
2. **BLACKEN THE PIN LOCATIONS REQUIRED**
3. **COMPLETE YOUR ADDRESS DETAILS**

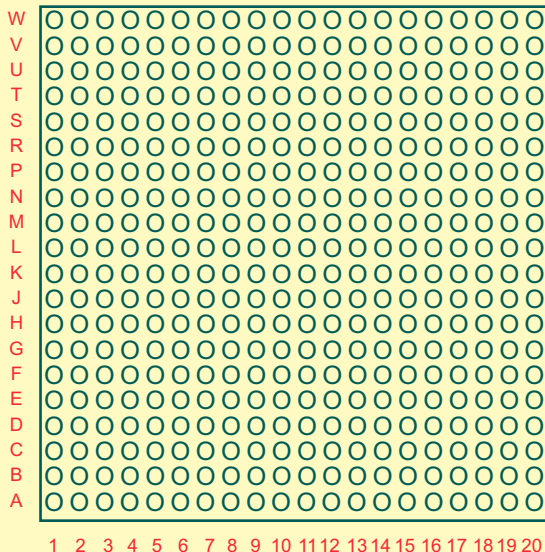
**COMPANY**.....

**COUNTRY**.....

**NAME**.....

**PHONE**.....

**FAX**.....



This product range enables PCB Tracks to be Isolated from any pin of a PGA Device.

The Isolator plugs into your PCB mounted PGA socket, and the device under test is placed into the ZIF socket situated on the top. Each track may be accessed via test points which are placed at 90 degrees to the module. Switching is achieved via DIP Switches.

Test pins and Switches are numbered for ease of use.

**DIMENSIONS**

As dimensions vary substantially with the matrix size of the PGA, we suggest that you ask for a drawing at the time of the enquiry if one is needed.

For the plug stand-off dimensions, refer to the PLCC version on the adjacent page.

**MATERIALS**

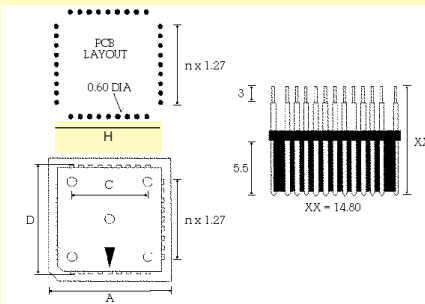
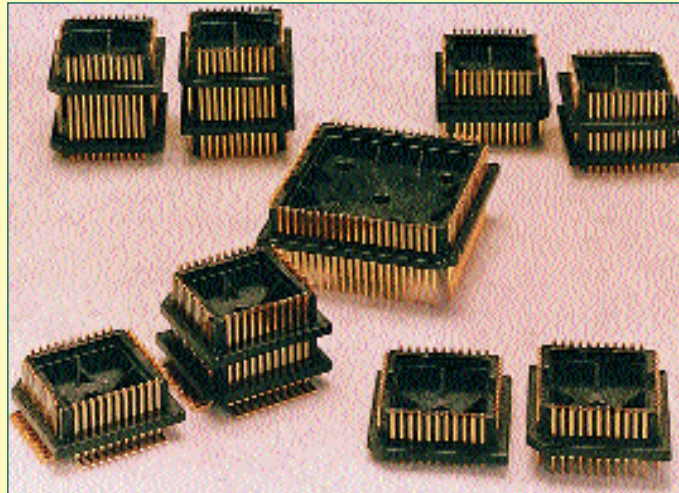
- Printed circuit** - FR4
- Plug pins** - Brass
- Plug Body** - 30% G.F. PBT
- Plating** - Gold over Nickel
- Socket body** - PPS
- Socket contacts** - BeCu
- Contact plating** - Gold over Nickel
- Test pins** - Brass
- Test pin plating** - Gold over Nickel
- Test pin housing** - 30% G.F. PBT

**PLUGS INTO YOUR PLCC PRODUCTION SOCKETS.**

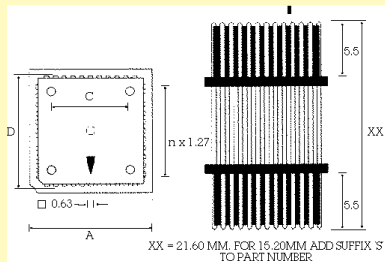
Four options available

1. Through Board
2. Surface Mounting (small)
3. Surface Mounting (large)
4. Double Ended

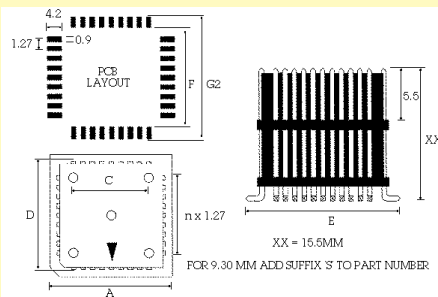
The Through Board option has 0.018" (0.48mm) dia pins at the PCB mounting end for ease of soldering the 0.050" pitch.



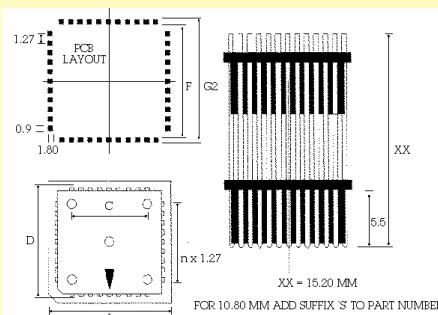
Through Board					
No.	Pins	A	C	D	H
W9300	20	12.8	-	9.8	9.2
W9301	28	15.3	-	12.3	11.7
W9302	32	15.3	-	12.3	11.7
	32	18.0	-	14.9	14.2
W9303	44	20.3	-	17.4	16.8
W9304	52	23.0	9.5	19.9	19.3
W9305	68	28.0	14.0	25.0	24.4
W9306	84	33.0	17.8	30.1	29.5



Double Ended				
No.	Pins	A	C	D
W9314	20	12.8	-	9.8
W9315	28	15.3	-	12.3
W9316	32	15.3	-	12.3
	32	18.0	-	14.9
W9317	44	20.3	-	17.4
W9318	52	23.0	9.5	19.9
W9319	68	28.0	14.0	25.0
W9320	84	33.0	17.8	30.1



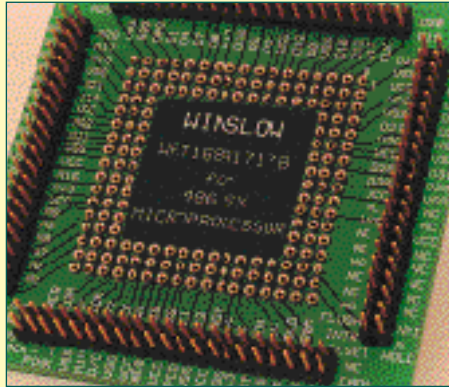
Surface Mount (large outline)							
No.	Pins	A	C	D	E	F	G1
W9322	20	12.8	-	9.8	15.0	6.7	15.9
W9323	28	15.3	-	12.3	17.4	9.2	18.4
W9324	32	15.3	-	12.3	17.4	9.2	19.4
	32	18.0	-	14.9	20.0	11.8	22.0
W9325	44	20.3	-	17.4	22.5	14.3	24.5
W9326	52	23.0	9.5	19.9	25.1	16.8	27.1
W9327	68	28.0	14.0	25.0	30.1	21.9	32.1
W9328	84	33.0	17.8	30.1	35.2	26.8	37.2



Surface Mount (small outline)						
No.	Pins	A	C	D	F	G2
W9379	20	12.8	-	9.8	6.7	10.5
W9380	28	15.3	-	12.3	9.2	13.1
W9381	32	15.3	-	12.3	9.2	13.1
	32	18.0	-	14.9	11.8	15.6
W9382	44	20.3	-	17.4	14.3	18.2
W9383	52	23.0	9.5	19.9	16.8	20.7
W9384	68	28.0	14.0	25.0	21.9	25.8
W9385	84	33.0	17.8	30.1	26.8	30.9

ALL DIMENSIONS ARE NOMINAL





**PGA PIN BREAK OUT**

Fits into your PCB mounted PGA socket providing access to every pin for total testing and/or emulation.

**FEATURES**

- PGA interface adaptics enable you to connect test probes to your socketed PGAs.
- Available for every PGA socket featured in this catalogue.
  - Other designs can be supplied on short lead-times
  - Each contact test pin is identified with the PGA pin matrix location.
- Low insertion force 3 finger contacts used in the PGA socket terminals.
- Also suitable for use with QFP to PGA Adaptics shown in this catalogue
  - Gold plated pins with 0.50mm diameter tails for trouble free connection into target PGA socket.
  - Gold plated test pins 0.025" square on 0.1" pitch.
  - See page 71 for suitable insertion/extraction tools.

**Also available with zero insertion force sockets**

GENERIC PART NUMBERS
1. Refer to the PGA Socket section in this catalogue. (Pages 70 through 77)
2. Add 'WAT' in place of first (X)
3. Omit suffix (XX) e.g. Device Specific Interface connector for WP(X)64A1010 = WAT64A1010

If peripheral components are in the way of the interface connector, we suggest you stack one or more PGA sockets in between your target socket and this product to increase height.

DEVICE SPECIFIC PART NUMBERS	
Circuit Part No.	PGA Test Adaptic No.
68020	WAT114A1313A
68EC020	WAT100D1313A
68030	WAT128B1313A
68340	WAT145A1515A
68302	WAT132B1313A
80386SX	WAT100E1313A
80386DX	WAT132A1414A
80486SX	WAT168A1717B
80486DX2	WAT168A1717A
80487SX	WAT169A1717A
Intel Overdrive Processor	WAT169A1717B
Pentium	WAT273A2121

For other pin-outs, refer to the column headed GENERIC.

**DETAILED DRAWINGS**

You may see our detailed drawings on our web site

Dial our WEB number, go to the master selection guide, and find the part you require. On the right hand column of this guide, click on the go button, and this will take you to the data sheet.

Find the drawing button, some are generic and apply to all of the devices on that data sheet, while others are specific to a particular part number.

**Some drawings are being updated, therefore, if you fail to find what you are looking for, contact us directly, with your requirements, for a rapid response.**

**SPECIFICATION & MATERIALS**

- Moulding** - G.F. polyester
- PCB** - FR4
- Pins** - Gold Plated Brass
- Contacts (Inner)** - BeCu Gold Plated
- Contacts (Outer)** - Gold Plated Brass
- Temperature Rating** - -55 to +105 °C

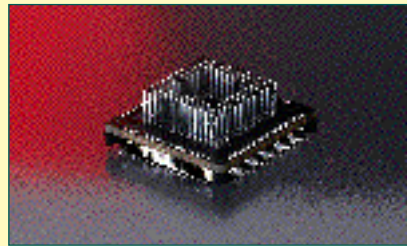
*N.B. We may add a suffix to the part number if there are two or more similar products with different pinning (Consult office)*

**SOLDER DOWN**  
**to**  
**PLCC, PGA, DIP & QFP**  
**SOCKETS**

**DRAWINGS**  
**AVAILABLE FROM**  
**OUR WEB SITE**



Top Emulation Module  
with surface mount head attached



Male Surface Mount Head

PART NO.	SM HEAD	NO. OF PINS	PITCH	DEVICE	SOCKET TYPE & NO. OF PINS	
W9629-SD	W9860M	44	0.80mm	8031/51	40	DIP
W9631-SD	W9865M	80	0.80mm	80/83C196KB/C/D	68	PLCC
W9630-SD	W9865M	80	0.80mm	80C186/88EB	84	PLCC
W9633-SD	W9870M	100	0.50mm	186/88EC	100	PGA
W9621-SD	W9874M	132	0.025"	MC68020	114	PGA
W9622-SD	W9874M	132	0.025"	MC68030	128	PGA
W9624-SD	W9874M	132	0.025"	DSP56000	88	PGA
W9625-SD	W9874M	132	0.025"	DSP56001	88	PGA
W9623-SD	W9874M	132	0.025"	MC68302	132	PGA
W9892-SD	W9879M	176	0.50mm	486GX	168	PGA
W9279-SD	W9882M	208	0.50mm	AMP824160-1/2/3	208	AMP SOCKET
W9632SD	W9883M	240	0.50mm	MC68360/EN360	241	PGA
W9642SD	W9888M	144	0.50mm	MC68302	132	PGA
W9643SD	W9860M	44	0.80mm	80C51	44	PLCC
W9844SD	W9860M	44	0.80mm	80C51	40	DIP
W9846SD	W9875M	144	0.65mm	MC68340	145	PGA
W9847SD	W9888M	144	0.50	MC68340	145	PGA

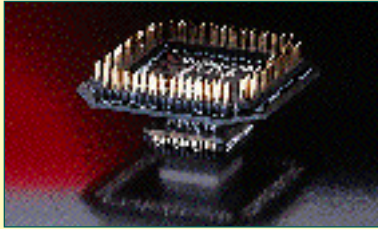
The top modules and the surface mount heads are supplied as separate items, this method of ordering will help you if and when replacement parts are required.

Add suffix "B" for optional Test Pins (figure 1 only)

For Surface Mount footprints refer to Semiconductor Manufacturer's data sheet.

These surface mount modules can be made available for all standard QFP footprints and with any emulation pod. Contact sales office with your precise requirements.





Top Emulation Module  
with surface mount head attached



Surface Mount Head

**SOLDER DOWN QFP  
to  
0.025" SQUARE HEADER  
for  
EMULATION INTERFACE**

Two piece design  
provides plugability for  
replacement test heads

Surface mount heads  
will also plug into  
AMP QFP Production Sockets

EMULATION MODULE	SM HEAD	PINS	PITCH	EMULATION MODULE	SM HEAD	PINS	PITCH
W9836SD	W9836M	32	0.80mm **	W9871-SD	W9871M	112	0.65mm
W9860-SD	W9860M	44	0.80mm	W9872-SD	W9872M	120	0.80mm
W9843-SD	W9843M	44	0.80mm **	W9873-SD	W9873M	128	0.80mm
W9845SD	W9845M	64	0.5mm	W9874-SD	W9874M	132	0.025"
W9861-SD	W9861M	64	0.80mm	W9888-SD	W9888M	144	0.50mm
W9844-SD	W9844M	64	0.80mm **	W9875-SD	W9875M	144	0.65mm
W9891SD	W9891M	64	1.0mm	W9893SD	W9893M	160	0.50mm
W9862-SD	W9862M	68	0.025"	W9876-SD	W9876M	160	0.65mm
W9863-SD	W9863M	80	0.50mm	W9877-SD	W9877M	164	0.025"
W9864-SD	W9864M	80	0.65mm	W9878-SD	W9878M	168	0.65mm
W9865-SD	W9865M	80	0.80mm	W9879-SD	W9879M	176	0.50mm
W9866-SD	W9866M	84	0.025"	W9880-SD	W9880M	184	0.65mm
W9867-SD	W9867M	100	0.025"	W9881-SD	W9881M	196	0.025"
W9868-SD	W9868M	100	0.80mm	W9882-SD	W9882M	208	0.50mm
W9869-SD	W9869M	100	0.65mm	W9883-SD	W9883M	240	0.50mm
W9870-SD	W9870M	100	0.50mm	W9884-SD	W9884M	304	0.50mm

\*\* TQFP PACKAGE

The top modules and the surface mount heads are supplied as separate items, this method of ordering will help you if and when replacement parts are required.

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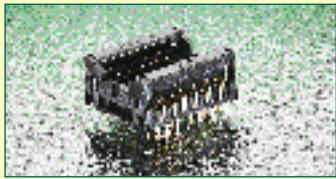
Some drawings are being updated, therefore, if you fail to find what you are looking for, contact us directly, with your requirements, for a rapid response.

# WINSLOW ADAPTICs IC TEST SOCKETS & MATING PROTOTYPING ADAPTERS

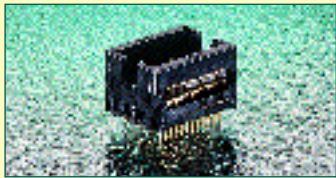
This Range will convert Yamaichi Test Sockets to an alternative footprint.  
Adapters for Test Sockets manufactured by other companies can also be made available



SOCKET fig 1



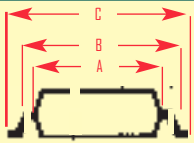
SOCKET fig 2



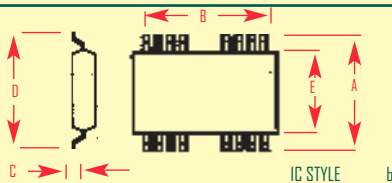
SOCKET fig 3



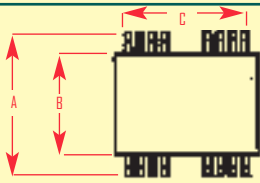
SOCKET fig 4



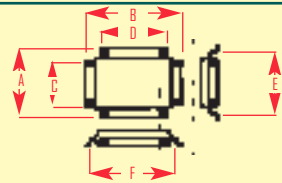
IC STYLE a



IC STYLE b



IC STYLE c



IC STYLE d

Pin Count	Pitch mm	IC Dimensions				E	F	IC Style Fig	Socket No.	Socket Style Fig	Adapter No. Add Suffix as Required
		A	B	C	D						
<b>SOP CLAMSHELL</b>											
8	1.27	5.25	7.20	7.90				a	IC51-0082-1024	1	WA51-0082-1024
10	1.27	5.25	7.20	7.90				a	IC51-0102-987	1	WA51-0102-987
14	1.25	4.50	5.20	5.90				a	IC51-0142-951	1	WA51-0142-951
14	1.27	5.25	7.20	7.90				a	IC51-0142-1013	1	WA51-0142-1013
14	1.27	4.00	5.20	6.00				a	IC51-1035.KS-1518	1	WA51-1035.KS-15187
16	1.27	4.00	5.20	6.00				a	IC51-0162-1035	1	WA51-0162-1035
16	1.27	4.20	5.40	6.20				a	IC51-0162-1042	1	WA51-0162-1042
16	1.27	4.50	6.20	7.00				a	IC51-0162-658	1	WA51-0162-658
16	1.27	5.00	5.20	6.00				a	IC51-0162-271-2	1	WA51-0162-271-2
16	1.27	5.00	6.20	7.00				a	IC51-0162-273-2	1	WA51-0162-273-2
16	1.27	5.25	7.20	7.90				a	IC51-0162-1025	1	WA51-0162-1025
16	1.27	5.35	7.20	8.20				a	IC51-0162-902-2	1	WA51-0162-902-2
16	1.27	5.50	5.20	6.00				a	IC51-0162-271-1	1	WA51-0162-271-1
16	1.27	5.50	5.70	6.50				a	IC51-0162-272-1	1	WA51-0162-272-1
16	1.27	5.50	6.22	7.00				a	IC51-0162-273-1	1	WA51-0162-273-1
16	1.27	7.70	9.50	10.30				a	IC51-347.KS-7704	1	WA51-347.KS-7704
18	1.27	7.70	9.50	10.30				a	IC51-347.KS-6768	1	WA51-347.KS-6768
20	1.27	5.35	9.00	9.80				a	IC51-0202-714	1	WA51-0202-714
20	1.27	5.25	7.20	7.90				a	IC51-022-1026	1	WA51-022-1026
20	1.27	5.50	6.90	8.50				a	IC51-0202-164	1	WA51-0202-164
20	1.27	7.70	9.50	10.30				a	IC51-0202-347	1	WA51-0202-347
24	0.8	7.85	9.30	10.00				a	IC51-0242-577	1	WA51-0242-577
24	1.0	4.55	5.20	6.00				a	IC51-0242-310-1	1	WA51-0242-310-1
24	1.27	5.35	7.30	8.00				a	IC51-0242-303-1	1	WA51-0242-303-1
24	1.27	7.60	9.40	10.30				a	IC51-334-1.KS-641	1	WA51-334-1.KS-6411
24	1.27	5.50	7.10	8.00				a	IC51-0242-793	1	WA51-0242-793
24	1.27	9.40	10.90	11.70				a	IC51-0242-269-1	1	WA51-0242-269-1
24	1.2	8.70	10.90	11.70				a	IC51-0242-269-2	1	WA51-0242-269-2
24	1.27	9.40	11.90	12.70				a	IC51-0242-270-1	1	WA51-0242-270-1
24	1.27	8.70	11.90	12.70				a	IC51-0242-270-2	1	WA51-0242-270-2
24	1.27	9.40	11.90	12.70				a	IC51-0242-270-3	1	WA51-0242-270-3
24	1.27	9.40	1.43	11.20				a	IC51-0242-367-1	1	WA51-0242-367-1
24	1.27	5.25	7.20	7.90				a	IC51-0242-980	1	WA51-0242-980
24	1.27	7.60	9.60	11.00				a	IC51-0242-1098	1	WA51-0242-1098
26	1.27	7.60	8.40	9.20				a	IC51-0262-1339	1	WA51-0262-1339
28	1.27	7.40	8.70	9.40				a	IC51-0282-165	1	WA51-0282-165
28	1.27	7.60	9.40	10.30				a	IC51-0282-334-1	1	WA51-0282-334-1
28	1.27	7.60	9.60	10.30				a	IC51-0282-986	1	WA51-0282-986
28	1.27	8.45	11.10	12.00				a	IC51-0282-474	1	WA51-0282-474
30	1.27	7.80	9.20	10.30				a	IC51-0302-904	1	WA51-0302-904
30	1.27	7.60	9.60	10.30				a	IC51-0302-1017	1	WA51-0302-1017
30	1.27	7.80	9.60	10.30				a	IC51-0302-371-1	1	WA51-0302-371-1
30	1.27	8.00	9.20	10.30				a	IC51-0302-371-2	1	WA51-0302-371-2
32	1.27	8.45	11.00	12.00				a	IC51-0322-304-2	1	WA51-0322-304-2
32	1.27	8.90	10.90	12.00				a	IC51-0322-937	1	WA51-0322-937
32	1.27	11.30	13.00	15.00				a	IC51-0322-950	1	WA51-0322-950
32	1.27	11.60	13.20	14.00				a	IC51-0322-667-2	1	WA51-0322-667-2
36	0.8	8.50	11.00	12.10				a	IC51-0362-309	1	WA51-0362-309
40	0.8	8.80	10.60	12.40				a	IC51-0402-708	1	WA51-0402-708
40	1.27	10.90	12.90	13.70				a	IC51-0402-1197	1	WA51-0402-1197
40	1.27	11.60	13.00	14.00				a	IC51-0402-991	1	WA51-0402-991
42	0.8	8.50	11.00	12.10				a	IC51-0422-393	1	WA51-0422-393
44	1.27	12.80	14.70	15.60				a	IC51-0422-1208	1	WA51-0422-1208
44	1.27	13.00	15.00	15.80				a	IC51-0442-1315	1	WA51-0442-1315
44	1.27	13.60	14.70	15.60				a	IC51-0442-1536	1	WA51-0442-1536
48	0.8	13.70	15.10	16.00				a	IC51-0482-1009-2	1	WA51-0482-1009-2

<b>SSOP CLAMSHELL</b>											
16	0.65	4.50	5.60	6.40				a	IC51-0162-911	1	WA51-0162-911
20	0.65	4.60	5.60	6.40				a	IC51-0202-779	1	WA51-0202-779
20	0.65	5.00	5.60	6.40				a	IC51-0202-912	1	WA51-0202-912
24	0.65	5.70	6.70	7.60				a	IC51-0242-913	1	WA51-0242-913
24	0.65	5.80	6.70	7.60				a	IC51-0242-761	1	WA51-0242-761
28	0.65	11.80	12.60	13.40				a	IC51-0282-673-1	1	WA51-0282-673-1
30	0.65	5.70	6.70	7.60				a	IC51-0302-914	1	WA51-0302-914
30	0.65	5.80	6.70	7.60				a	IC51-0302-755	1	WA51-0302-755
32	0.6	14.00	14.60	15.20				a	IC51-0322-910	1	WA51-0322-910
48	0.635	7.80	9.40	10.30				a	IC51-1387.KS-1518	1	WA51-1387.KS-15186
56	0.635	7.80	9.40	10.30				a	IC51-0562-1387	1	WA51-0562-1387

<b>TSOP CLAMSHELL (TYPE I I)</b>											
26	1.27	7.60	8.60	9.20				a	IC51-0262-1339	1	WA51-0262-1339
44	0.8	10.20	10.90	11.80				a	IC51-0442-1709	1	WA51-0442-1709
50	0.8	10.20	10.90	11.80				a	IC51-0502-1708	1	WA51-0502-1708



## SELECTION PROCEDURE

1. Select Socket Style, SOP, QFP Etc., there may be two versions i.e., with or without lid.
2. Check your Device Dimensions & Style check your Data against IC drawings on this page.
3. Find the type of Adapter you need. Locate the appropriate suffix from the Adapter Photo.
4. If you don't see what you need, fax us a clean copy of your Device outline.

Pin Count	Pitch mm	IC Dimensions					IC Style Fig	Socket No.	Socket Style Fig	Adapter P/No. Add Suffix as Required
		A	B	C	D	E				
<b>TSOP CLAMSHELL (TYPE I)</b>										
24	0.5	14.40	15.20	16.00			a	IC51-0242-1006-1	1	WA51-0242-1006-1
28	0.5	12.00	13.30	14.00			a	IC51-0282-1032-1	1	WA51-0282-1032-1
32	0.5	12.00	13.30	14.00			a	IC51-0322-1031-1	1	WA51-0322-1031-1
32	0.5	14.00	14.50	15.20			a	IC51-0322-883-1	1	WA51-0322-883-1
32	0.5	14.40	15.20	16.00			a	IC51-0322-1219	1	WA51-0322-1219
32	0.5	18.40	19.30	20.00			a	IC51-0322-1207-1	1	WA51-0322-1207-1
40	0.5	12.40	13.40	14.00			a	IC51-0402-1557	1	WA51-0402-1557
40	0.5	18.40	19.30	20.00			a	IC51-0402-1174-1	1	WA51-0402-1174-1
48	0.5	16.00	17.60	18.60			a	IC51-0482-1099	1	WA51-0482-1099

### SOP (OPEN TOP)

16	1.27	7.70	10.23	1.65	6.80	5.60		b	IC189-0162-019	2	WA189-0162-019
20	0.65	8.10	6.80	1.83	7.10	6.10		b	IC189-0202-038	2	WA189-0202-038
20	1.27	7.70	12.73	1.65	6.80	5.60		b	IC189-0202-017	2	WA189-0202-017
24	1.27	7.70	15.33	1.65	6.80	5.60		b	IC189-0242-021	2	WA189-0242-021
24	1.27	10.30	15.50	2.60	8.70	7.15		b	IC189-0242-040	2	WA189-0242-040
28	1.27	10.30	8.10	2.60	8.70	7.15		b	IC189-0282-042	2	WA189-0282-042
32	1.27	14.00	21.50	2.65	12.40	11.00		b	IC189-0322-005	2	WA189-0322-005
32	1.27	14.10	21.15	2.85	12.50	11.40		b	IC189-0322-004	2	WA189-0322-004
38	0.65	8.10	12.50	1.83	7.10	6.10		b	IC189-0382-037	2	WA189-0382-037
42	0.8	11.93	11.75	2.20	10.93	8.40		b	IC189-0422-025	2	WA189-0422-025
44	1.27	16.00	28.25	2.90	14.70	13.20		b	IC189-0442-065	2	WA189-0442-065
48	0.5	20.00	12.30	-	19.00	18.40		b	IC189-0482-077	2	WA189-0482-077
56	0.5	20.00	14.30	1.19	19.00	18.40		b	IC189-0562-078	2	WA189-0562-078
64	0.8	14.25	26.54	2.20	13.25	12.00		b	IC189-0642-007	2	WA189-0642-007
64	0.8	13.80	26.54	2.15	12.80	11.80		b	IC189-0642-028	2	WA189-0642-028

### TSOP (OPEN TOP)

20	1.27	9.22	7.56	17.44				c	IC235-0202-001	3	WA235-0202-001
24	1.27	9.22	7.56	17.44				c	IC235-0242-002	3	WA235-0242-002
24	1.27	11.26	10.16	18.71				c	IC235-0242-003	3	WA235-0242-003
26	1.27	9.22	7.56	17.44				c	IC235-0262-006	3	WA235-0262-006
28	1.27	11.26	10.16	18.71				c	IC235-0282-004	3	WA235-0282-004
40	0.8	11.26	10.16	18.71				c	IC235-0402-005	3	WA235-0402-005
44	0.8	11.26	10.16	18.71				c	IC235-0442-007	3	WA235-0442-007
44	0.8	11.26	10.16	21.35				c	IC235-0442-015	3	WA235-0442-015
50	0.8	11.26	10.16	21.35				c	IC235-0502-009	3	WA235-0502-009
54	0.8	14.30	12.70	22.47				c	IC235-0542-018	3	WA235-0542-018

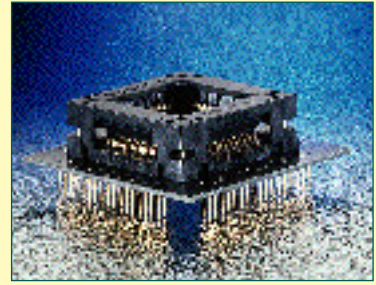
### MQAUID

208	0.5	30.60	30.60	28.00	28.00	29.80	29.80	d	IC51-2084-1509	4	WA51-2084-1509
240	0.5	34.60	34.60	31.60	31.60	33.70	33.70	d	IC51-2404-1655-3	4	WA51-2404-1655-3
304	0.5	42.60	42.60	39.64	39.64	41.90	41.90	d	IC51-3044-1471-5	4	WA51-3044-1471-5

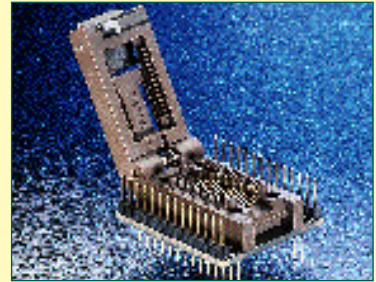
### QFP, PQFP AND TQFP \* There are many variations of the 208 pin product, please contact sales office \*

32	0.5	7.00	7.00	5.00	5.00	6.20	6.20	d	IC51-0324-805	4	WA51-0324-805
32	0.8	9.00	9.00	7.00	7.00	8.40	8.40	d	IC51-0324-1498	4	WA51-0324-1498
32	0.8	9.80	9.80	7.40	7.40	8.40	8.40	d	IC51-0324-354	4	WA51-0324-354
44	0.8	12.00	12.00	10.00	10.00	10.80	10.80	d	IC51-467.KS-11787	4	WA51-467.KS-11787
44	0.8	12.60	12.60	10.00	10.00	11.50	11.50	d	IC51-0444-1195-3	4	WA51-0444-1195-3
44	0.8	12.60	12.60	10.00	10.00	11.70	11.70	d	IC51-0444-825	4	WA51-0444-825
44	0.8	13.20	13.20	10.00	10.00	12.00	12.00	d	IC51-467.KS-11247	4	WA51-467.KS-11247
44	0.8	13.90	13.90	10.00	10.00	11.50	11.50	d	IC51-0444-467	4	WA51-0444-467
44	0.8	13.90	13.90	10.00	10.00	12.90	12.90	d	IC51-0444-798	4	WA51-0444-798
44	1.0	17.20	17.20	14.00	14.00	15.80	15.80	d	IC51-0444-615	4	WA51-0444-615
44	1.0	17.90	17.90	14.00	14.00	16.50	16.50	d	IC51-621.KS-8966	4	WA51-621.KS-8966
48	0.5	9.00	9.00	7.00	7.00	8.20	8.20	d	IC51-0484-806	4	WA51-0484-806
48	0.65	9.00	12.00	7.00	9.00	8.20	11.20	d	IC51-0484-652	4	WA51-0484-652
48	0.8	15.30	15.30	12.00	12.00	14.00	14.00	d	IC51-0484-081	4	WA51-0484-081
54	1.0	19.60	25.60	14.00	20.00	16.80	22.80	d	IC51-0544-517-2	4	WA51-0544-517-2
56	0.65	13.20	13.20	10.00	10.00	11.80	11.80	d	IC51-0564-680	4	WA51-0564-680
56	0.8	13.20	17.20	10.00	14.00	11.80	15.80	d	IC51-0564-924	4	WA51-0564-924
56	1.0	19.20	23.20	16.00	20.00	17.70	21.80	d	IC51-0564-790	4	WA51-0564-790
60	0.8	17.20	17.20	14.00	14.00	15.80	15.80	d	IC51-0604-468	4	WA51-0604-468
60	0.8	18.30	18.30	16.00	16.00	16.50	16.50	d	IC51-0604-361	4	WA51-0604-361
60	1.0	17.90	26.90	16.00	20.00	17.00	23.00	d	IC51-0604-497-2	4	WA51-0604-497-2
64	0.4	9.50	9.50	7.00	7.00	8.25	8.25	d	IC51-0604-1972	4	WA51-0604-1972
64	0.5	12.00	12.00	10.00	10.00	11.30	11.30	d	IC51-0644-807	4	WA51-0644-807
64	0.65	15.30	15.30	12.00	12.00	1.90	13.90	d	IC51-0644-1586	4	WA51-0644-1586
64	0.8	16.20	16.20	14.00	14.00	15.40	15.00	d	IC51-0644-824-3	4	WA51-0644-824-3
64	0.8	17.20	17.20	14.00	14.00	15.80	15.80	d	IC51-0644-824-1	4	WA51-0644-824-1
64	0.8	17.20	17.20	14.00	14.00	15.80	15.80	d	IC51-0644-692	4	WA51-0644-692
64	0.8	17.90	17.90	14.00	14.00	16.70	16.70	d	IC51-0644-824-2	4	WA51-0644-824-2
64	1.0	18.70	24.70	14.00	20.00	17.00	23.00	d	IC51-0644-820-1	4	WA51-0644-820-1
64	1.0	17.90	23.90	14.00	20.00	16.60	22.60	d	IC51-820-2.KS-937	4	WA51-820-2.KS-937
64	1.0	17.60	23.60	14.00	20.00	16.0	22.30	d	IC51-0644-820-2	4	WA51-0644-820-2

## WINSLOW ADAPTICs IC TEST SOCKETS & MATING PROTOTYPING ADAPTERS



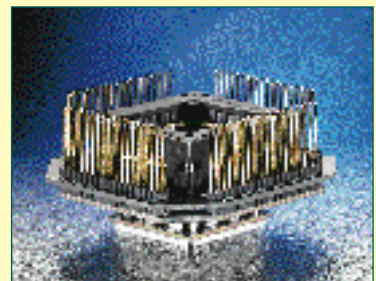
0.1" Square matrix  
Through Board  
without Test Pins  
No Suffix



0.1" Square matrix  
Through Board  
with Test Pins Suffix "B"



Adapter  
Solder Down Module  
without Test Pins Suffix "SD"



Adapter  
Solder Down Module  
with Test Pins Suffix "SDB"





## SELECTION PROCEDURE

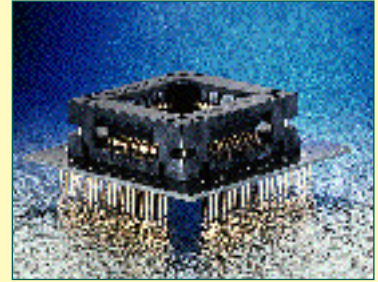
1. Select Socket Style, SOP, QFP Etc., there may be two versions i.e., with or without lid.
2. Check your Device Dimensions & Style check your Data against IC drawings on this page.
3. Find the type of Adapter you need. Locate the appropriate suffix from the Adapter Photo.
4. If you don't see what you need, fax us a clean copy of your Device outline.

## WINSLOW ADAPTICs IC TEST SOCKETS & MATING PROTOTYPING ADAPTERS

Pin Count	Pitch mm	IC Dimensions				IC Style			Socket No.	Socket Style	Adapter P/No.
		A	B	C	D	E	F	Fig		Fig	Add Suffix as Required

### QFP (OPEN TOP) CONTINUED

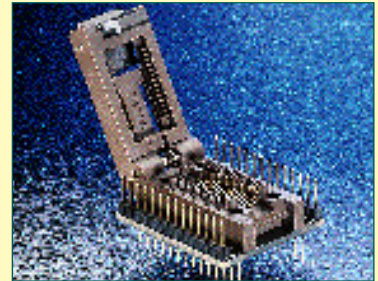
100	0.5	16.00	22.00	14.00	20.00	15.55	21.55	d	IC216-1004-001	7	WA216-1004-001
120	0.5	18.40	18.40	16.00	16.00	17.90	17.90	d	IC201-1204-017	7	WA201-1204-017
128	0.8	32.00	32.00	28.00	28.00	31.50	31.50	d	IC200-1284-001	7	WA200-1284-001
144	0.5	22.00	22.00	20.00	20.00	21.50	21.50	d	IC201-1444-026	7	WA201-1444-026 -2
144	0.5	22.00	22.00	20.00	20.00	21.50	21.50	d	IC201-0144-034	7	WA201-0144-034
144	0.65	30.90	30.90	26.00	26.00	30.40	30.40	d	IC217-1444-003	7	WA217-1444-003
160	0.65	31.20	31.20	28.00	28.00	30.70	30.70	d	IC201-1604-006	7	WA201-1604-006
176	0.5	26.00	26.00	24.00	24.00	24.30	24.30	d	IC234-1764-005	7	WA234-1764-005
176	0.5	26.60	26.60	24.00	24.00	26.10	26.10	d	IC217-1764-004	7	WA217-1764-004
208	0.5	30.00	30.00	28.00	28.00	29.50	29.50	d	IC201-2084-001	7	WA201-2084-001
208	0.5	31.20	31.20	28.00	28.00	30.70	30.70	d	IC200-2084-009	7	WA200-2084-009
208	0.5	30.60	30.60	28.00	28.00	29.93	29.93	d	IC217-2084-001	7	WA217-2084-001
208	0.5	30.60	30.60	28.00	28.00	30.10	30.10	d	IC200-2084-010	7	WA200-2084-010
208	0.5	30.60	30.60	28.00	28.00	30.10	30.10	d	IC201-2084-029	7	WA201-2084-029
256	0.5	30.60	42.60	28.00	40.00	30.10	42.10	d	IC201-2564-002 -2	7	WA201-2564-002 -2
304	0.5	42.60	42.60	40.00	40.00	42.10	42.10	d	IC201-3044-004	7	WA201-3044-004



0.1" Square matrix  
Through Board  
without Test Pins  
No Suffix

### PLCC (CLAMSHELL)

20	1.27								IC51-0204-602	8	WA51-0204-602
28	1.27								IC51-0284-399	8	WA51-0284-399
32	1.27								IC51-0324-453	8	WA51-0324-453
44	1.27								IC51-0444-400	8	WA51-0444-400
52	1.27								IC51-0524-411-1	8	WA51-0524-411-1
68	1.27								IC51-0684-390-1	8	WA51-0684-390-1
84	1.27								IC51-0844-401-1	8	WA51-0844-401-1
100	1.27								IC51-1004-405-1	8	WA51-1004-405-1
124	1.27								IC51-1244-410-1	8	WA51-1244-410-1



0.1" Square matrix  
Through Board  
with Test Pins Suffix "B"

### PLCC (OPEN TOP) inches

18	0.050								IC120-0184-102	9	WA120-0184-102
20	0.050								IC120-0204-005	9	WA120-0204-005
28	0.050								IC120-0284-108	9	WA120-0284-108
32	0.050								IC120-0324-109	9	WA120-0324-109
44	0.050								IC120-0444-106	9	WA120-0444-106
52	0.050								IC120-0524-107	9	WA120-0524-107
68	0.050								IC120-0684-104	9	WA120-0684-104
84	0.050								IC120-0844-103	9	WA120-0844-103



Adapter  
Solder Down Module  
without Test Pins Suffix "SD"



Adapter  
Solder Down Module  
with Test Pins Suffix "SDB"

**WINSLOW ADAPTICs**

ARE HAPPY TO PROVIDE THIS  
SERVICE FOR ALL  
MANUFACTURERS TEST SOCKETS.

IF YOU HAVE ALREADY BOUGHT  
YOUR SOCKET, DON'T WORRY  
**YOU'RE NOT TOO LATE**  
JUST FREE ISSUE IT TO US AND WE  
WILL CONVERT IT'S  
FOOTPRINT FOR YOU



**WINSLOW ADAPTICs**  
**EMULATION**  
**INTERFACE**

[www.winslowadaptics.com](http://www.winslowadaptics.com)

INCORPORATING QFP/TQFP  
 SOCKETS

**SOLDER DOWN**  
**QFP**  
 to  
**0.025" SQUARE HEAD-**  
**ER**  
 or  
**IDC CABLE**  
 or  
**QFP TEST SOCKET**  
 or  
**PGA INTERFACE**

Emulation Interface Plug screws down onto the Surface Mount Module with no drilling of the PCB necessary. The Surface Mount Module will also act as an IC Socket once Emulation is completed.

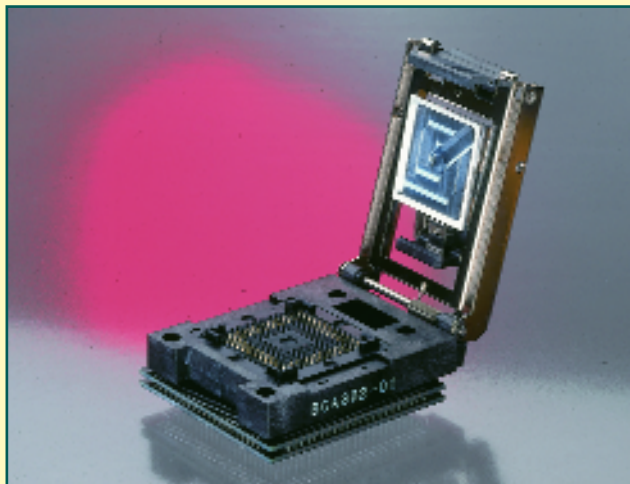


*Adapters to interface with Yamaichi IC149 Series Sockets*

PINS	PITCH	QFP PACKAGE	PART NUMBER 0.025" HEADERS	PART NUMBER IDC CABLE	PART NUMBER QFP TEST SOCKET	PART NUMBER PGA INTERFACE
64	1.00mm	20mm x 14mm	W10001H	W10001C	W10001S	W10001P
64	0.80mm	14mm x 14mm	W10002H	W10002C	W10002S	W10002P
80	0.65mm	14mm x 14mm	W10005H	W10005C	W10005S	W10005P
80	0.80mm	14mm x 20mm	W10006H	W10006C	W10006S	W10006P
80	0.80mm	14mm x 20mm	W10007H	W10007C	W10007S	W10007P
100	0.025"	19.13mm Square	W10008H	W10008C	W10008S	W10008P
100	0.65mm	14mm x 20mm	W10010H	W10010C	W10010S	W10010P
100	0.65mm	14mm x 20mm	W10011H	W10011C	W10011S	W10011P
112	0.65mm	20mm x 20mm	W10012H	W10012C	W10012S	W10012P
132	0.025"	22.36mm Square	W10014H	W10014C	W10014S	W10014P
144	0.65mm	28mm x 28mm	W10016H	W10016C	W10016S	W10016P
152	0.65mm	38mm x 38mm	W10017H	W10017C	W10017S	W10017P
160	0.65mm	28mm x 28mm	W10018H	W10018C	W10018S	W10018P

PINS	PITCH	QFP PACKAGE	PCB FOOTPRINT DIMENSIONS mm							DIAGRAMS
			A	B	C	D	E	F	G	
64	1.00mm	20mm x 14mm	27.4	21.4	20.8	15.4	0.60	30.85	24.35	
64	0.80mm	14mm x 14mm	20.8	20.8	14.8	14.8	0.45	26.00	26.00	
80	0.65mm	14mm x 14mm	20.5	20.5	14.7	14.7	0.35	26.00	26.00	
80	0.80mm	14mm x 20mm	26.8	20.8	20.8	14.8	0.50	32.20	26.60	
80	0.80mm	14mm x 20mm	26.0	20.0	21.2	15.2	0.50	32.20	26.60	
100	0.025"	19.13mm Square	25.6	25.6	20.8	20.8	0.35	32.00	32.00	
100	0.65mm	14mm x 20mm	27.4	21.4	21.4	15.4	0.35	30.15	23.65	
100	0.65mm	14mm x 20mm	26.8	20.8	20.8	14.8	0.35	32.20	26.60	
112	0.65mm	20mm x 20mm	25.6	25.6	20.8	20.8	0.35	32.00	32.00	
132	0.025"	22.36mm Square	31.3	31.3	25.3	25.3	0.35	36.05	36.05	
144	0.65mm	28mm x 28mm	35.2	35.2	29.4	29.4	0.35	40.00	40.00	
152	0.65mm	38mm x 38mm	35.2	35.2	29.4	29.4	0.35	40.00	40.00	
160	0.65mm	28mm x 28mm	35.2	35.2	29.4	29.4	0.35	40.00	40.00	

**BGA to PGA  
WITH  
OPTIONAL  
TEST PINS**



This Adapter converts the BGA socket pinning to a conventional 0.1" square matrix pin out, in the style of a PGA device

Pin Count	Pitch mm	Body Size	Grid	Socket Part Number	IC Thickness inc. leads	Adapter Part Number
119	1.27	14 x 22	7 x 17	BGA-119(153)-1.27-01	2.10	W10100P
121	1.27	15 x 15	11 x 11	BGA-121(441)-1.27-0.1	2.13	W10101P
169	1.50	23 x 23	13 x 13	BGA-162(225)-1.57-01	2.15	W10102P
225	1.50	27 x 27	15 x 15	BGA-225-1.5-01	2.15	W10103P
255	1.27	21 x 21	16 x 16	BGA-255(441)-1.27-01	2.00	W10104P
256	1.27	27 x 27	20 x 20	BGA-256(441)-1.27	2.20	W10105P
303	1.27	21 x 25	16 x 19	BGA-303(441)-1.27-01	1.80	W10106P
313	1.27	35 x 35	25 x 25	BGA-313(841)-1.27-01	2.57	W10107P
352	1.27	35 x 35	26 x 26	BGA-352(841)1.27-01	2.33	W10108P
357	1.27	25 x 25	19 x 19	BGA-357(441)-1.27-01	1.76	W10109P
360	1.27	25 x 25	19 x 19	BGA-360(441)-1.27-01	2.59	W10110P
361	1.27	25 x 25	19 x 19	BGA-361(441)-1.27-01	1.76	W10111P
380	1.27	31 x 31	24 x 24	BGA-380(841)-1.27-10	1.97	W10112P
432	1.27	31 x 31	24 x 24	BGA-432(841)-1.27-10	1.97	W10113P
479	1.27	40 x 40	29 x 29	BGA-479(841)-1.27-01	2.76	W10114P
480	1.27	33 x 33	26 x 26	BGA-480(841)-1.27-12	1.97	W10115P
503	1.27	40 x 40	29 x 29	BGA-503(841)-1.27-01	2.85	W10116P
560	1.27	42.5 x 42.5	33 x 33	BGA-560(1089)-1.27-03	1.38	W10117P
624	1.27	32.5 x 32.5	25 x 25	BGA-624(841)-1.27-01	6.80	W10118P
672	1.27	40 x 40	31 x 31	BGA-672(1089)-1.27-01	1.96	W10119P
729	1.27	37.5 x 37.5	27 x 27	BGA-729B212A143	4.2	W10121P

**DETAILED DRAWINGS**

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**BGA FOOTPRINT  
to  
BGA Pads**

**WITH TEST POINTS**

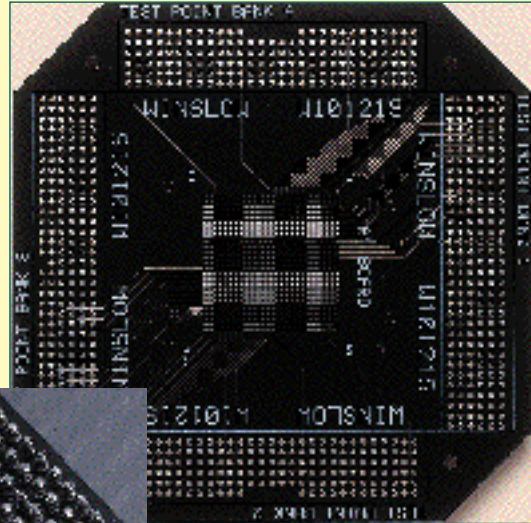
Uses a unique pin design which mimics the Balls which are an integral part of the BGA concept.

With this module you place your BGA Device onto the solder pads provided and access it's pins through the Test Points situated on the outer perimeter.

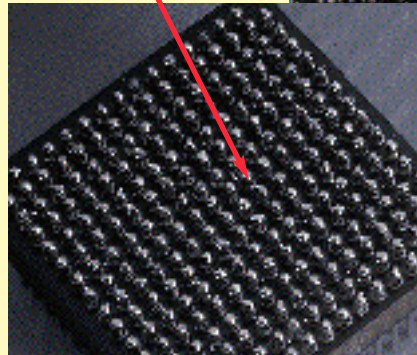
**DETACHABLE BASE**

The BGA base is pluggable to the top section for ease of replacement.

Mechanical actuation is standard on all high pin count BGA modules - and optional on all others



Precision ground hard ball design



This surface mount module plugs into precision socket contacts built into the underside of the BGA carrier

Pin Count	Pitch mm	Body Size	Grid	Adapter Part Numbers	
				Top Module	Surface Mount Base
119	1.27	14 x 22	7 x 17	W10100	W10100BGA
121	1.27	15 x 15	11 x 11	W10101	W10101BGA
169	1.50	23 x 23	13 x 13	W10102	W10102BGA
225	1.50	27 x 27	15 x 15	W10103	W10103BGA
255	1.27	21 x 21	16 x 16	W10104	W10104BGA
256	1.27	27 x 27	20 x 20	W10105	W10105BGA
303	1.27	21 x 25	16 x 19	W10106	W10106BGA
313	1.27	35 x 35	25 x 25	W10107	W10107BGA
352	1.27	35 x 35	26 x 26	W10108	W10108BGA
357	1.27	25 x 25	19 x 19	W10109	W10109BGA
360	1.27	25 x 25	19 x 19	W10110	W10110BGA
361	1.27	25 x 25	19 x 19	W10111	W10111BGA
380	1.27	31 x 31	24 x 24	W10112	W10112BGA
432	1.27	31 x 31	24 x 24	W10113	W10113BGA
479	1.27	40 x 40	29 x 29	W10114	W10114BGA
480	1.27	33 x 33	26 x 26	W10115	W10115BGA
503	1.27	40 x 40	29 x 29	W10116	W10116BGA
560	1.27	42.5 x 42.5	33 x 33	W10117	W10117BGA
624	1.27	32.5 x 32.5	25 x 25	W10118	W10118BGA
672	1.27	40 x 40	31 x 31	W10119	W10119BGA
729	1.27	37.5 x 37.5	27 x 27	W10121	W10121BGA

729 pin modules are the largest manufactured so far - with our unique mechanical actuation any number of pins can be supplied - with Winslow - there is no fear as to how the mating process will be achieved.

N.B. - Insertion and extraction forces are approximately 30 grams per contact

**DETAILED DRAWINGS**

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Dial our WEB number, go to the master selection guide, and find the part you require.

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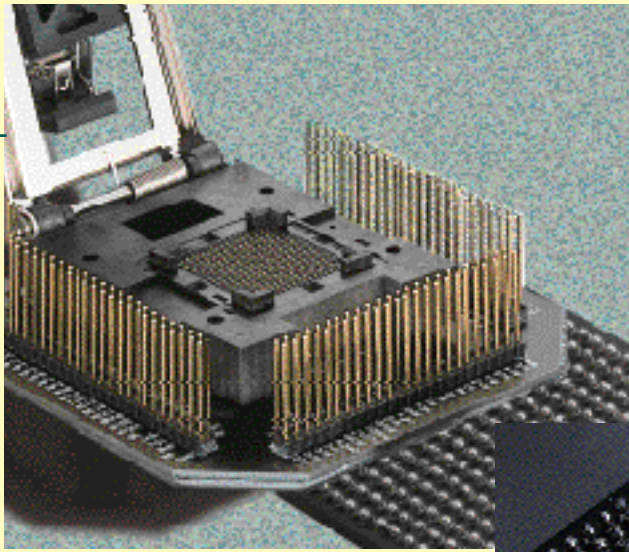
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# WINSLOW ADAPTICs

## BALL GRID ARRAY

WITH BGA SOCKET



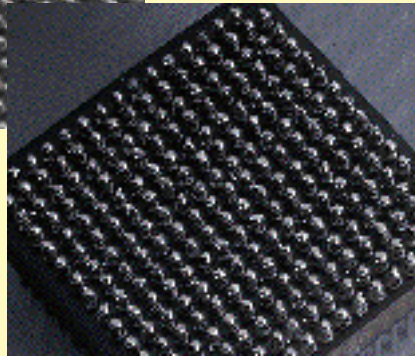
**BGA FOOTPRINT**  
to  
**BGA Socket**

**WITH TEST PINS**

Uses a unique pin design which mimics the Balls which are an integral part of the BGA concept

*This surface mount module plugs into precision socket contacts built into the underside of the BGA carrier*

The extraction force, per pin, is 30 gms (approx 1 oz).  
Mechanical actuation is provided for all high pin count versions as standard, and is an optional feature on all others.



### DETACHABLE BASE.

The Surface mount base is detachable from the socket platform, which can therefore be used many times in different applications.

Pin Count	Pitch mm	Body Size	Grid	Socket Part Number	IC Thickness inc. leads	Adapter Part Numbers	
						Top Module	Surface Mount Base
119	1.27	14 x 22	7 x 17	BGA-119(153)-1.27-01	2.10	W10100-S	W10100BGA
121	1.27	15 x 15	11 x 11	BGA-121(441)-1.27-0.1	2.13	W10101-S	W10101BGA
169	1.50	23 x 23	13 x 13	BGA-162(225)-1.57-01	2.15	W10102-S	W10102BGA
225	1.50	27 x 27	15 x 15	BGA-225-1.5-01	2.15	W10103-S	W10103BGA
255	1.27	21 x 21	16 x 16	BGA-255(441)-1.27-01	2.00	W10104-S	W10104BGA
256	1.27	27 x 27	20 x 20	BGA-256(441)-1.27	2.20	W10105-S	W10105BGA
303	1.27	21 x 25	16 x 19	BGA-303(441)-1.27-01	1.80	W10106-S	W10106BGA
313	1.27	35 x 35	25 x 25	BGA-313(841)-1.27-01	2.57	W10107-S	W10107BGA
352	1.27	35 x 35	26 x 26	BGA-352(841)-1.27-01	2.33	W10108-S	W10108BGA
357	1.27	25 x 25	19 x 19	BGA-357(441)-1.27-01	1.76	W10109-S	W10109BGA
360	1.27	25 x 25	19 x 19	BGA-360(441)-1.27-01	2.59	W10110-S	W10110BGA
361	1.27	25 x 25	19 x 19	BGA-361(441)-1.27-01	1.76	W10111-S	W10111BGA
380	1.27	31 x 31	24 x 24	BGA-380(841)-1.27-10	1.97	W10112-S	W10112BGA
432	1.27	31 x 31	24 x 24	BGA-432(841)-1.27-10	1.97	W10113-S	W10113BGA
479	1.27	40 x 40	29 x 29	BGA-479(841)-1.27-01	2.76	W10114-S	W10114BGA
480	1.27	33 x 33	26 x 26	BGA-480(841)-1.27-12	1.97	W10115-S	W10115BGA
503	1.27	40 x 40	29 x 29	BGA-503(841)-1.27-01	2.85	W10116-S	W10116BGA
560	1.27	42.5 x 42.5	33 x 33	BGA-560(1089)-1.27-03	1.38	W10117-S	W10117BGA
624	1.27	32.5 x 32.5	25 x 25	BGA-624(841)-1.27-01	6.80	W10118-S	W10118BGA
672	1.27	40 x 40	31 x 31	BGA-672(1089)-1.27-01	1.96	W10119-S	W10119BGA
729	1.27	37.5 x 37.5	27 x 27	BGA-729B212A143	4.2	W10121-S	W10121BGA

729 pin modules are the largest manufactured so far - with our unique mechanical actuation any number of pins can be supplied - with Winslow - there is no fear as to how the mating process will be achieved.  
N.B. - Insertion and extraction forces are approximately 30 grams per contact

### DETAILED DRAWINGS

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**WINSLOW ADAPTICs**  
**BALL GRID ARRAY**  
**SOCKETING SYSTEM**

[www.winslowadaptics.com](http://www.winslowadaptics.com)

**LOW COST SYSTEM**  
**FOR SOCKETING YOUR**  
**BGA DEVICE**

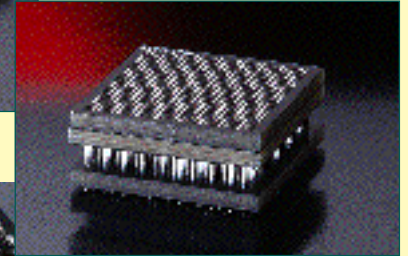
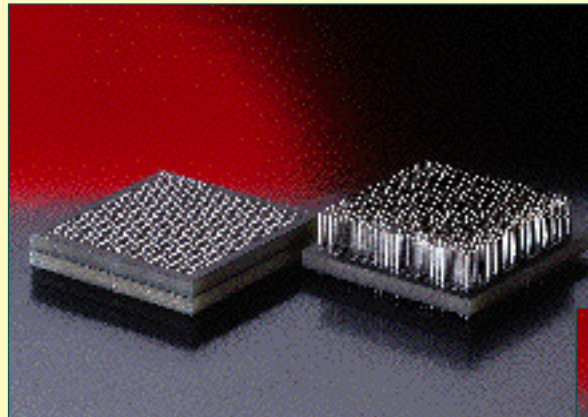
**This Adapter consists of two parts.**

The BGA device is mounted onto the top module, which is then plugged onto its surface mountable base.

The top module has integral, precision, low insertion force contacts, which are manufactured from gold plated, high grade beryllium copper, to provide high performance .

**This makes an ideal module for BGA device testing.**

**It could also be used, in development, to replace your PGA device as and when a BGA version is introduced**



*This surface mount module plugs into precision socket contacts built into the underside of the BGA carrier*

Pin Count	Pitch mm	Body	Grid Size	Adapter Part Number	
				Top Module	Surface Mount Base
119	1.27	14 x 22	7 x 17	W10100T	W10100BGA
121	1.27	15 x 15	11 x 11	W10101T	W10101BGA
169	1.50	23 x 23	13 x 13	W10102T	W10102BGA
225	1.50	27 x 27	15 x 15	W10103T	W10103BGA
255	1.27	21 x 21	16 x 16	W10104T	W10104BGA
256	1.27	27 x 27	20 x 20	W10105T	W10105BGA
303	1.27	21 x 25	16 x 19	W10106T	W10106BGA
313	1.27	35 x 35	25 x 25	W10107T	W10107BGA
352	1.27	35 x 35	26 x 26	W10108T	W10108BGA
357	1.27	25 x 25	19 x 19	W10109T	W10109BGA
360	1.27	25 x 25	19 x 19	W10110T	W10110BGA
361	1.27	25 x 25	19 x 19	W10111T	W10111BGA
380	1.27	31 x 31	24 x 24	W10112T	W10112BGA
432	1.27	31 x 31	24 x 24	W10113T	W10113BGA
479	1.27	40 x 40	29 x 29	W10114T	W10114BGA
480	1.27	33 x 33	26 x 26	W10115T	W10115BGA
503	1.27	40 x 40	29 x 29	W10116T	W10116BGA
560	1.27	42.5 x 42.5	33 x 33	W10117T	W10117BGA
624	1.27	32.5 x 32.5	25 x 25	W10118T	W10118BGA
672	1.27	40 x 40	31 x 31	W10119T	W10119BGA
729	1.27	37.5 x 37.5	27 x 27	W10121T	W10121BGA

The above is just a sample selection of our range - we welcome your custom enquiries which will be dealt with rapidly, from enquiry - to quotation - to delivery

**DETAILED DRAWINGS**

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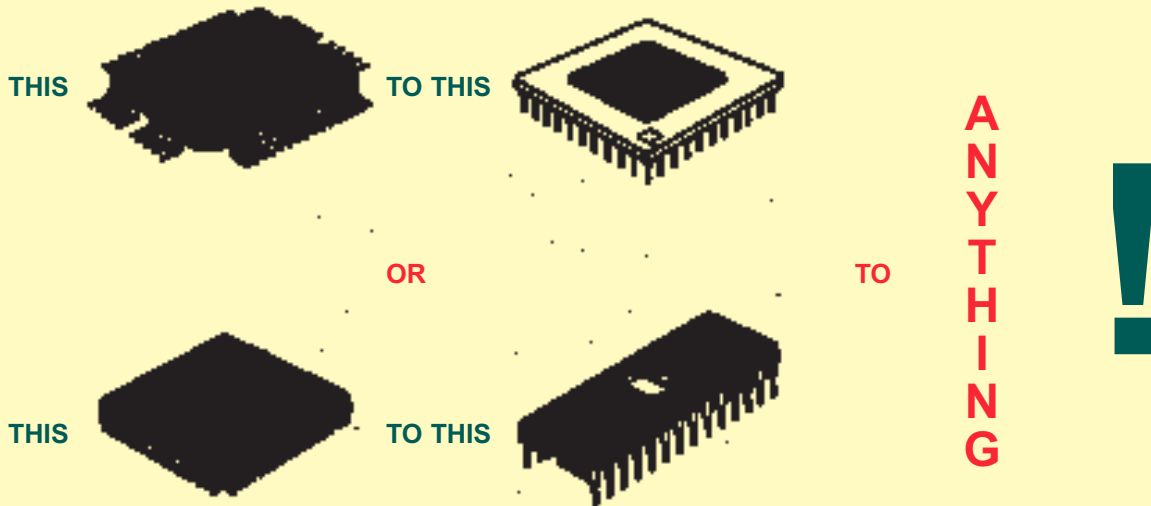
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## AN INTRODUCTION TO *WINSLOW ADAPTICs* PACKAGE CONVERSION

Adapts the pin-out of an IC to an entirely different format.

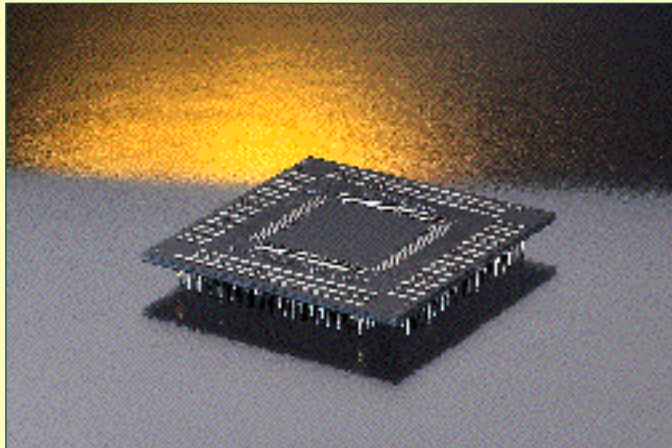


Amap is supplied with each part showing corresponding pin location. Custom pinning available on request.

### TEST DATA

A quantity of 500 pieces of 208 pin 0.5mm QFP to PGA were mounted with ICs and temperature cycled from -55 degrees C. to +150 degrees C. for 1000 cycles. At the end of the tests both electrical and visual inspection showed zero defects. The tests were carried out week 39 of 1995 using gold plated pins and electroless gold plated surface mount pads.

**ULTRA-FLAT SURFACE MOUNT PADS,  
ELECTROLESS GOLD OVER NICKEL  
OPTION ALSO AVAILABLE**



### THE ADVANTAGES OF USING *ADAPTICs*

- Allow you to use cheaper QFPs without foregoing PGA pinning and robustness.
- No redesign of a through hole PCB is necessary if your IC supplier extends lead times, increases price or makes your PGA device obsolete.

**PCB MATERIAL**  
**SOLDER RESIST**  
**PINS**  
**PIN PLATING**  
**SMD PADS**

### SPECIFICATIONS

FR4 - TG = 135 °C (UL 94 V - 0)  
HARDNESS 6 - 7H. CTI = 225 V (IEC 112)  
BRASS  
2/3μ TIN OVER NICKEL  
0.1μ GOLD OVER NICKEL  
TIN/LEAD AS STANDARD  
ELECTROLESS GOLD OVER NICKEL  
(OPTIONAL)



**QFP SURFACE MOUNT  
TO  
THROUGH BOARD  
SOCKET  
COMPATIBLE**

All manufacturer's QFP sockets are supported with this range; e.g. Yamaichi, Enplas, Plastronics, Welcon, Textool, AMP and others.

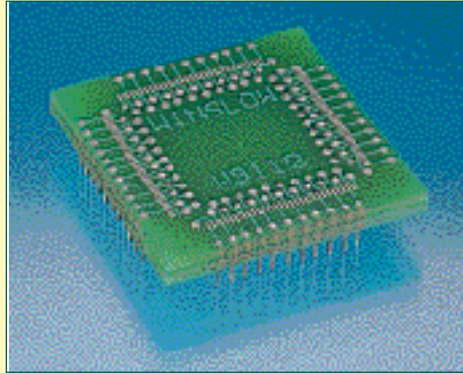
**FROM DEVELOPMENT BOARDS  
TO PRODUCTION**

With this Series you can lay out your Development Board to accept a Test Socket in the knowledge that when your product goes into production it will not be necessary to redesign the PCB.

The footprint of the Adapter will perfectly match the footprint of the Socket. Once your product goes into production, simply switch to using the Test Socket compatible Adapter.

**WANT TO STOP USING QFP  
SOCKETS IN PRODUCTION?**

If you design a QFP production socket into your PCB and later decide you would rather have the device soldered down, this series will provide the vehicle to enable you to do this without redesigning your PCB.



**EXAMPLE**

PART NO.	AMP SOCKET	NO OF PINS
W9112	822064-5	132
W2447	822114-4	160

Fax your nearest distributor or the Winslow Sales Office both the QFP Pinning and the Test Socket footprint for an immediate quotation.

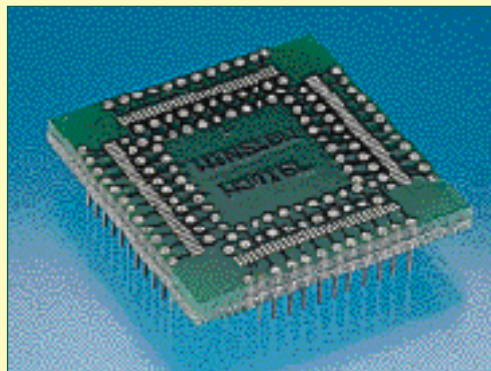
**DETAILED DRAWINGS**

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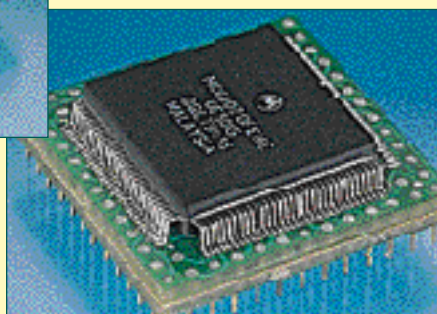
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**SURFACE  
MOUNTING  
SERVICE  
AVAILABLE**



**These are particularly recommended for applications where a socket for the PGA has already been soldered to the mother board.**

Tracks divert the signal from the SMD pads to pins on another layer, which precisely match the PGA pin-outs as specified in the manufacturers data sheet. The multilayers are permanently attached together by way of a unique bonding process. The pins are soldered to the adapter within the layers for high reliability and permanent connection.

PART NO.	MANUFACTURER	DEVICE	PACKAGE	PGA	FOOTPRINT
W9101	INTEL	80386SX	QFP	100 PIN	13X13
W9102	INTEL	80386DX	QFP	132 PIN	13X13
W9103	INTEL	80486SX	QFP	196 PIN	17X17
W9104	MOTOROLA	68020	QFP	114 PIN	13X13
W9105	MOTOROLA	68EC020	QFP	100 PIN	13X13
W9106	MOTOROLA	68030	QFP	128 PIN	13X13
W9107	MOTOROLA	68340	QFP	145 PIN	15X15
W9108	MOTOROLA	68302	QFP	132 PIN	13X13
W9109	MOTOROLA	68332	QFP	132 PIN	13X13
W9111	INTEL	80386EX	QFP	132 PIN	17X17
W2530	TOSHIBA	TMS34020	QFP	145 PIN	15X15
W9110	MOTOROLA	56000			
W9206	INMOS	T9000	QFP	208 PIN	17X17

VSS & VCC tracks are maximised for width.

Positions for surface mounted de-coupling capacitors where appropriate

**SPECIFICATION & MATERIALS**

**Printed Circuit** - FR4

**Pins** - Brass

**Plated Std.** - Tin over nickel (Add suffix G for Gold pin option)

**DETAILED DRAWINGS**

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**CUSTOM REQUIREMENTS**

**We welcome customer specials. if your requirement is not listed contact your nearest Winslow sales office or distributor.**

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**WINSLOW ADAPTICs**  
**GENERIC**

WITH QFP SOCKET OPTION

[www.winslowadaptics.com](http://www.winslowadaptics.com)

**QFP TO PGA ONE PIECE**

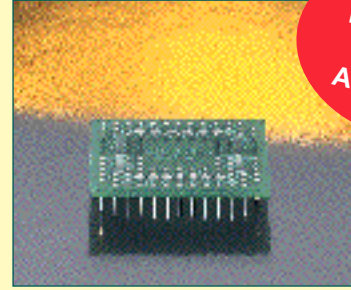
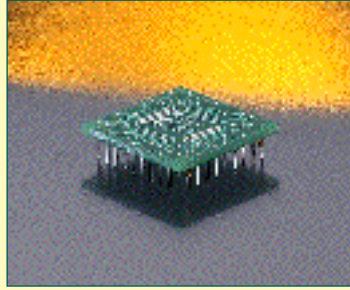
This is a standard range of Adapters to suit a broad range of QFPs for both your development and production requirements

**CUSTOM REQUIREMENT**

We welcome customer specials. If you don't see what you require from this or the other pages in this catalogue, please call us.

If we haven't already tooled it since this went to press, we will.

Any quantity from 1 piece upwards.



**SURFACE MOUNTING SERVICE AVAILABLE**

PINS	PITCH	QFP PACKAGE	PART NUMBER	PART NUMBER	PGA SOCKET *
			Without QFP Socket	With QFP Socket * TQFP Option	
32	0.80mm	7mm x 7mm	WA03280DQAET		WPVL32A99(x)
44	0.80mm	10mm x 10mm	WA04480DQAET		WPVL44A1010(x)
48	0.50mm	7mm x 7mm	WA04850DQAET		WPVL48A99(x)
48	0.80mm	12mm x 12mm	WA04880DQAET		WPVL48A1010(x)
52	1.00mm	10mm x 10mm	WA05210DQAET		WPVL52A1111(x)
56	0.65mm	10mm x 10mm	WA05665DQAET		WPVL56A1010(x)
56	0.80mm	10mm x 14mm	WA05680DQAET		WPVL56A1010(x)
60	0.80mm	14mm x 14mm	WA06080DQAET		WPVL60A1010(x)
64	0.50mm	10mm x 10mm	WA06450DQAET		WPVL64A1010(x)
64	0.65mm	12mm x 12mm	WA06465DQAET		WPVL64A1010(x)
64	0.80mm	14mm x 14mm	WA06480DQAET		WPVL64A1111(x)
68	0.025"	JEDEC	WA06825DQAJT		WPVL68A1111(x)
80	0.5mm	12mm x 12mm	WA08050DQAET		WPVL80A1111(x)
80	0.65mm	14mm x 14mm	WA08065DQAET	*WA08065DQSET	WPVL80A1111(x)
80	0.80mm	14mm x 20mm	WA08080DQAET	WA08080DQSET	WPVL80A1414(x)
84	0.025"	JEDEC	WA08425DQAJT		WPVL80A1212(x)
100	0.025"	JEDEC	WA10025DQAJT		WPVL100D1313(x)
100	0.50mm	14mm x 14mm	WA10050DQAET	WA10050DQSET	WPVL100B1111(x)
100	0.65mm	14mm x 20mm	WA10065DQAET	WA10065DQSET	WPVL100B1313(x)
100	0.80mm	22mm x 22mm	WA10080DQAET		WPVL100B1313(x)
112	0.65mm	20mm x 20mm	WA11265DQAET	WA11265DQSET	WPVL112A1313(x)
120	0.40mm	14mm x 14mm	WA12040DQAET		WPVL120C1313(x)
120	0.50mm	16mm x 16mm	WA12050DQAET		WPVL120C1313(x)
120	0.80mm	28mm x 28mm	WA12080DQAET		WPVL120A1515(x)
128	0.50mm	14mm x 20mm	WA12850DQAET		WPVL128A1414(x)
128	0.80mm	28mm x 28mm	WA12880DQAET		WPVL128A1515(x)
132	0.025"	JEDEC	WA13225DQAJT		WPVL132A1515(x)
136	0.80mm	28mm x 28mm	WA13680DQAET		WPVL136A1717(x)
136	0.65mm	24mm x 24mm	WA13665DQAET		WPVL136A1515(x)
144	0.50mm	20mm x 20mm	WA14450DQAET		WPVL144A1515(x)
144	0.65mm	28mm x 28mm	WA14465DQAET		WPVL144B1717(x)
160	0.50mm	24mm x 24mm	WA16050DQAET		WPVL160A1717(x)
160	0.65mm	28mm x 28mm	WA16065DQAET		WPVL160A1717(x)
164	0.025"	JEDEC	WA16425DQAJT		WPVL160A1717(x)
168	0.65mm	28mm x 28mm	WA16865DQAET		WPVL168A1717(x)
172	0.025"	JEDEC	WA17225DQAJT		WPVL172A1818(x)
176	0.40mm	20mm x 20mm	WA17640DQAET		WPVL176A1717(x)
176	0.50mm	24mm x 24mm	WA17650DQAET		WPVL176A1515(x)
184	0.65mm	32mm x 32mm	WA18465DQAET		WPVL184A1919(x)
196	0.025"	JEDEC	WA19625DQAJT		WPVL196A1919(x)
208	0.50mm	28mm x 28mm	WA20850DQAET	WA20850DQSET	WPVL208A1919(x)
216	0.50mm	28mm x 28mm	WA21650DQAET		WPVL216A1919(x)
232	0.65mm	40mm x 40mm	WA23265DQAET		WPVL232A2121(x)
240	0.50mm	32mm x 32mm	WA24050DQAET		WPVL240A1818(x)
240	0.65mm	40mm x 40mm	WA24065DQAET		WPVL240A2121(x)
256	0.50mm	28mm x 40mm	WA25650DQAET		WPVL256A2121(x)
304	0.50mm	40mm x 40mm	WA30450DQAET		WPVL304A2222(x)

\* To complete the PGA Socket part number; in place of (x) insert "T" for solder tail or "T3" for 3 level wire wrap.  
Standard PGA Socket plating is 0.25 micron gold on inner contact and 5 microns tin on the outer sleeve.  
The PGA socket contact is manufactured from BeCu and utilises a 3 finger construction for very low (30 gram) insertion force.

**SPECIFICATION & MATERIALS**

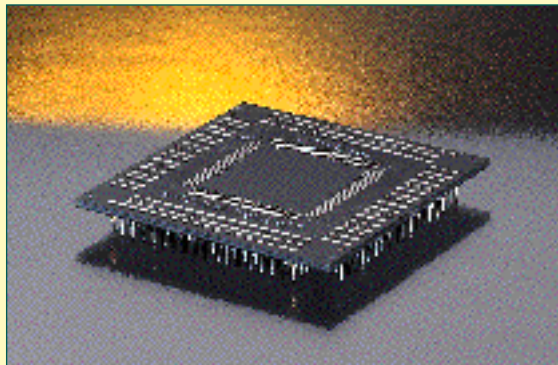
Printed Circuit - FR4  
Pins - Brass  
Plating Std. - Tin over Nickel  
(Add suffix "G" for Gold pin option)

**DIMENSIONS**

Drawing and pin mapping sent on request



**SURFACE  
MOUNTING  
SERVICE  
AVAILABLE**



**QFP TO PGA  
WITH TEST POINTS**

This is a standard range of Adapters to suit a broad range of QFPs for both your development and production requirements.

Test points have been used rather than test pins so that a paste screen may be used.

**CUSTOM  
REQUIREMENTS**

We welcome customer specials. If you don't see what you require from this or the other pages in this catalogue, please call us. If we haven't already tooled it since this went to press, we will. Any quantity from 1 piece upwards

PINS	PITCH	QFP PACKAGE	PART NUMBER		PGA SOCKET * Please Specify if Required
			Without QFP Socket	With QFP Socket * TQFP Option	
32	0.80mm	7mm x 7mm	WAT03280DQAE		WPVL32A99(x)
44	0.80mm	10mm x 10mm	WAT04480DQAE		WPVL44A1010(x)
48	0.50mm	7mm x 7mm	WAT04850DQAE		WPVL48A99(x)
48	0.80mm	12mm x 12mm	WAT04880DQAE		WPVL48A1010(x)
52	1.00mm	10mm x 10mm	WAT05210DQAE		WPVL52A1111(x)
56	0.65mm	10mm x 10mm	WAT05665DQAE		WPVL56A1010(x)
56	0.80mm	10mm x 14mm	WAT05680DQAE		WPVL56A1010(x)
60	0.80mm	14mm x 14mm	WAT06080DQAE		WPVL60A1010(x)
64	0.50mm	10mm x 10mm	WAT06450DQAE		WPVL64A1010(x)
64	0.65mm	12mm x 12mm	WAT06465DQAE		WPVL64A1010(x)
64	0.80mm	14mm x 14mm	WAT06480DQAE		WPVL64A1111(x)
68	0.025"	JEDEC	WAT06825DQAJT		WPVL68A1111(x)
80	0.5mm	12mm x 12mm	WAT08050DQAE		WPVL80A1111(x)
80	0.65mm	14mm x 14mm	WAT08065DQAE	*WAT08065DQSET	WPVL80A1111(x)
80	0.80mm	14mm x 20mm	WAT08080DQAE	WAT08080DQSET	WPVL80A1414(x)
84	0.025"	JEDEC	WAT08425DQAJT		WPVL80A1212(x)
100	0.025"	JEDEC	WAT10025DQAJT		WPVL100D1313(x)
100	0.50mm	14mm x 14mm	WAT10050DQAE	WAT10050DQSET	WPVL100B1111(x)
100	0.65mm	14mm x 20mm	WAT10065DQAE	WAT10065DQSET	WPVL100B1313(x)
100	0.80mm	22mm x 22mm	WAT10080DQAE		WPVL100B1313(x)
112	0.65mm	20mm x 20mm	WAT11265DQAE	WAT11265DQSET	WPVL112A1313(x)
120	0.40mm	14mm x 14mm	WAT12040DQAE		WPVL120C1313(x)
120	0.50mm	16mm x 16mm	WAT12050DQAE		WPVL120C1313(x)
120	0.80mm	28mm x 28mm	WAT12080DQAE		WPVL120A1515(x)
128	0.50mm	14mm x 20mm	WAT12850DQAE		WPVL128A1414(x)
128	0.80mm	28mm x 28mm	WAT12880DQAE		WPVL128A1515(x)
132	0.025"	JEDEC	WAT13225DQAJT		WPVL132A1515(x)
136	0.80mm	28mm x 28mm	WAT13680DQAE		WPVL136A1717(x)
136	0.65mm	24mm x 24mm	WAT13665DQAE		WPVL136A1515(x)
144	0.50mm	20mm x 20mm	WAT14450DQAE		WPVL144A1515(x)
144	0.65mm	28mm x 28mm	WAT14465DQAE		WPVL144B1717(x)
160	0.50mm	24mm x 24mm	WAT16050DQAE		WPVL160A1717(x)
160	0.65mm	28mm x 28mm	WAT16065DQAE		WPVL160A1717(x)
164	0.025"	JEDEC	WAT16425DQAJT		WPVL160A1717(x)
168	0.65mm	28mm x 28mm	WAT16865DQAE		WPVL168A1717(x)
172	0.025"	JEDEC	WAT17225DQAJT		WPVL172A1818(x)
176	0.40mm	20mm x 20mm	WAT17640DQAE		WPVL176A1717(x)
176	0.50mm	24mm x 24mm	WAT17650DQAE		WPVL176A1515(x)
184	0.65mm	32mm x 32mm	WAT18465DQAE		WPVL184A1919(x)
196	0.025"	JEDEC	WAT19625DQAJT		WPVL196A1919(x)
208	0.50mm	28mm x 28mm	WAT20850DQAE	WAT20850DQSET	WPVL208A1919(x)
216	0.50mm	28mm x 28mm	WAT21650DQAE		WPVL216A1919(x)
232	0.65mm	40mm x 40mm	WAT23265DQAE		WPVL232A2121(x)
240	0.50mm	32mm x 32mm	WAT24050DQAE		WPVL240A1818(x)
240	0.65mm	40mm x 40mm	WAT24065DQAE		WPVL240A2121(x)
256	0.50mm	28mm x 40mm	WAT25650DQAE		WPVL256A2121(x)
304	0.50mm	40mm x 40mm	WAT30450DQAE		WPVL304A2222(x)

\* To complete the PGA Socket part number; in place of (x) insert "T" for solder tail or "T3" for 3 level wire wrap.  
Standard PGA Socket plating is 0.25 micron gold on inner contact and 5 microns tin on the outer sleeve.  
The PGA socket contact is manufactured from BeCu and utilises a 3 finger construction for very low (30 gram) insertion force.

**SPECIFICATION & MATERIALS**

Printed Circuit - FR4  
Pins - Brass  
Plating Standard - Tin over Nickel  
(Add suffix "G" for Gold pin option)

**DIMENSIONS**

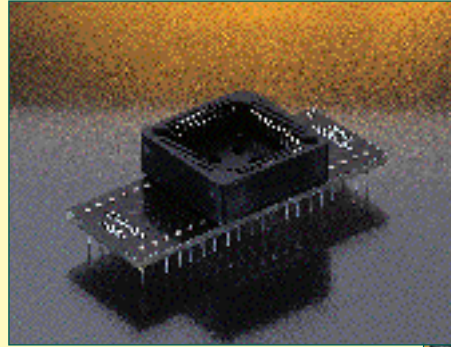
Drawing and pin mapping sent on request. Some are available on fax back (see inside back cover for details) or on our web site.

**PLCC TO PGA & DIP**

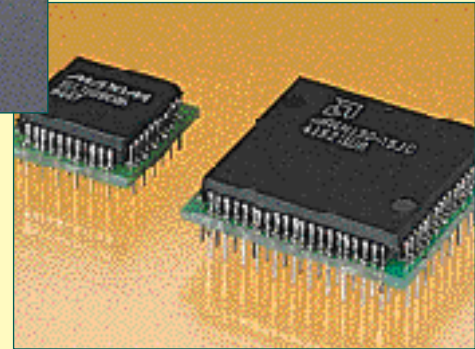
This is a complete range of Adapters which convert PLCCs to an alternative footprint. They are supplied with or without PLCC sockets

**CUSTOM REQUIREMENTS**

We welcome customer specials  
 If you don't see what you require from this or the other pages in this catalogue, please call us. If we haven't already tooled it since this went to press, we will.



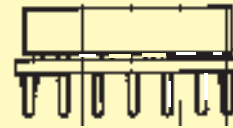
**SURFACE MOUNTING SERVICE AVAILABLE**



PINS	PITCH	PACKAGE	DEVICE	PART NUMBER
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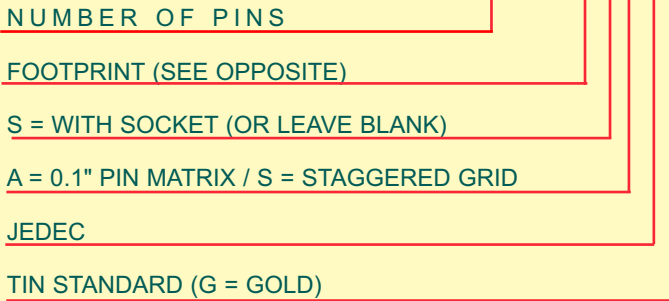
20	0.050"	JEDEC	GENERIC	WA020127D <b>S</b> AJT
28	0.050"	JEDEC	GENERIC	WA028127D <b>S</b> AJT
32	0.050"	JEDEC	GENERIC	WA032127D <b>S</b> AJT
44	0.050"	JEDEC	GENERIC	WA044127D <b>S</b> AJT
52	0.050"	JEDEC	GENERIC	WA052127D <b>S</b> AJT
68	0.050"	JEDEC	GENERIC	WA068127D <b>S</b> AJT
84	0.050"	JEDEC	GENERIC	WA084127D <b>S</b> AJT
84	0.050"	PLCC	A1020B *	W9271
84	0.050"	LCC	PDSP16330/A/B **	W9280
100	0.050"	JEDEC	GENERIC	WA100127D <b>S</b> AJT

**THIS "D" SUFFIX DENOTES PGA SQUARE MATRIX Pinning**

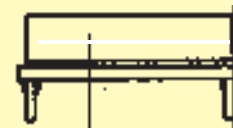


\* Semiconductor Manufacturer ACTEL  
 \*\* Semiconductor Manufacturer PLESSEY  
 W9271 and W9280 are Device Specific, therefore refer to the Semiconductor Manufacturer's data sheet for pinning details.

**PART NO. EXPLANATION WA100127D**S**AJT**



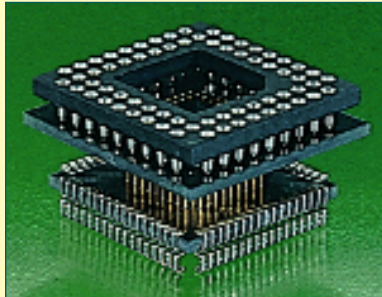
**CHANGE THE "D" TO "F" FOR DIP**



**DRAWINGS AVAILABLE FROM OUR WEB SITE**

**SPECIFICATION & MATERIALS**

**Printed Circuit - FR4**  
**Pins - Brass**  
**Plating Std. - Tin over Nickel**  
 (Add suffix "G" for Gold pin option)



**DIP & PGA  
to  
PLCC SURFACE MOUNT**

These Adapters convert either a through board PGA or DIP device to a PLCC surface mount footprint.

**SPECIAL TRACKING**

There is a possibility that the tracking you require will be different from the standard product. In these instances, fax/email us details of your PGA and PLCC pinning and we will give you a cost by return. Lead-time for specials varies from 5 to 25 working days, which is dependant on price.

**PIN MAPPING**

The PGA pin matrix is the same as a PLCC production socket footprint. A copy of this is available from your nearest Winslow distributor or sales office.

**PGA to PLCC**

PGA PINS	PLCC PINS	PART NUMBER
44	44	WA044127SD
52	52	WA052127SD
68	68	WA068127SD
84	84	WA084127SD

**DIP to PLCC**

DIP PINS	PLCC PINS	PART NUMBER	PINNING
20	20	W9390	Pin for Pin
24	28	W9391	N/C 1,8,15,22
28	28	W9392	Pin for Pin
28	32	W9393	Pin for Pin
32	32	W9394	Pin for Pin
40	44	W9395	as 8051
40	44	W9396	as AT9054434 & 8535

This product is sold as standard fully soldered as a single module.

If preferred we can supply the surface mount base separate from the socket for customer soldering or it can be supplied with the two parts being pluggable into each other.

CONTACT YOUR NEAREST SALES OFFICE FOR FURTHERINFORMATION.



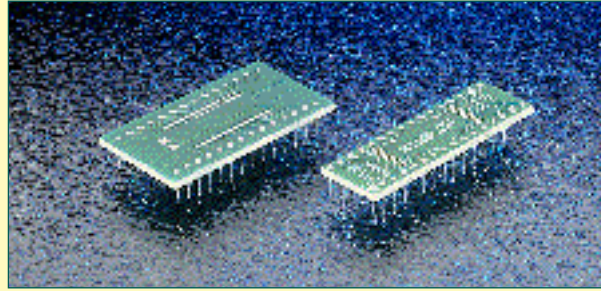


# WINSLOW ADAPTICs

SOP - SOJ - TSOP  
SSOP to DIP

[www.winslowadaptics.com](http://www.winslowadaptics.com)

Provision for integral surface mount decoupling capacitors on request.



**SURFACE MOUNTING SERVICE AVAILABLE**

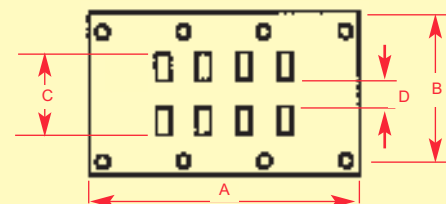
PART NO.	NO. PINS	DIL PITCH	LEAD PITCH	DIMENSIONS			
				A	B	C	D
W9501	8 PIN	0.3"	0.050"	0.491"	0.491"	0.250"	0.140"
W9524	14 PIN	0.3"	0.65mm	0.700"	0.400"	0.313"	0.213"
W9502	14 PIN	0.3"	0.050"	0.700"	0.500"	0.388"	0.088"
W9503	16 PIN	0.3"	0.050"	0.800"	0.400"	0.250"	0.050"
W9503-2	16PIN	0.3"	0.050"	0.800"	0.550"	0.438"	0.250"
W9581	16 PIN	0.3"	0.65mm	0.800"	0.400"	0.400"	0.100"
W9517	16 PIN	0.6"	0.050"	0.900"	0.800"	0.475"	0.175"
W9504	18 PIN	0.3"	0.050"	1.000"	0.500"	0.242"	0.108"
W9518	18 PIN	0.6"	0.050"	0.900"	0.700"	0.450"	0.100"
W9519	18 PIN	0.3"	0.050"	0.901"	0.600"	0.450"	0.100"
W9515	20 PIN	0.3"	0.050"	1.000"	0.600"	0.450"	0.100"
W9516	20 PIN	0.6"	0.050"	0.700"	1.000"	0.488"	0.056"
W9505	20 PIN	0.3"	0.050"	1.000"	0.400"	0.250"	0.050"
W9526	20 pin	0.6"	0.65mm	1.100"	0.800"	0.400"	0.250"
W9528	24 pin	0.6"	0.65mm	1.200"	0.700"	0.386"	0.213"
W9506	24 PIN	0.6"	0.050"	1.200"	0.800"	0.579"	0.446"
W9513	24 PIN	0.6"	0.050"	1.289"	0.795"	0.485"	0.355"
W9507	24 PIN	0.3"	0.050"	1.200"	0.600"	0.396"	0.138"
W9520	28 PIN	0.3"	0.050"	1.323"	0.551"	0.402"	0.150"
W9508	28 PIN	0.6"	0.050"	1.400"	0.800"	0.396"	0.262"
W9529	28 PIN	0.6"	0.50mm	1.402"	0.500"	0.600"	0.492"
W9531	28 PIN	0.6"	0.65mm	1.402"	0.700"	0.374"	0.150"
W9509	32 PIN	0.6"	0.050"	1.600"	0.800"	0.395"	0.263"
W9511	32 PIN	0.3"	0.050"	1.700"	0.600"	0.579"	0.446"
W9522	32 PIN	0.4"	0.050"	1.700"	0.600"	0.500"	0.327"
W9512	32 PIN	0.6"	0.050"	1.700"	0.800"	0.579"	0.446"
W9523	32 pin	0.6"	0.50mm	1.600"	0.500"	0.823"	0.706"
W9514	40 PIN	0.6"	0.050"	2.000"	0.800"	0.675"	0.525"
W9510	40 PIN	0.6"	0.050"	2.000"	0.800"	0.579"	0.446"
W9530	40 PIN	0.6"	0.50mm	2.000"	0.700"	0.870"	0.488"
W9527	42 PIN	0.6"	0.050"	Consult Factory			
W9521	44 PIN	0.6"	0.050"	2.300"	1.000"	0.725"	0.475"
W9571	44 PIN	0.6"	0.80mm	2.300"	0.800"	0.517"	0.392"
W9525	48 PIN	0.6"	0.50mm	2.400"	0.700"	1.008"	0.630"
W9577	48 PIN	0.6"	0.65mm	2.400"	0.700"	0.440"	0.303"
W9570	48 PIN	0.6"	0.025"	2.401"	0.700"	0.504"	0.303"
W9573	56 PIN	0.6"	0.025"	2.800"	0.700"	0.463"	0.313"
W9578	56 PIN	0.6"	0.80mm	2.900"	0.950"	0.700"	0.500"
W9572	56 PIN	0.6"	0.050"	2.800"	0.700"	0.469"	0.303"
W9575	56 PIN	0.6"	0.5mm	2.800"	0.700"	0.988"	0.732"

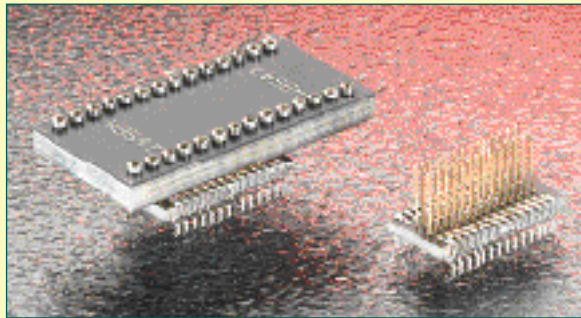
Add suffix "F" if fiducials are required (parts are then supplied in biscuit form to leave 0.5mm to break)

**IF YOUR REQUIREMENT ISN'T LISTED - EMAIL THE DETAILS AND WE'LL QUOTE BY RETURN**

## SPECIFICATION & MATERIALS

**Printed Circuit** - FR4  
**Pins** - Brass  
**Plating** - Tin over nickel



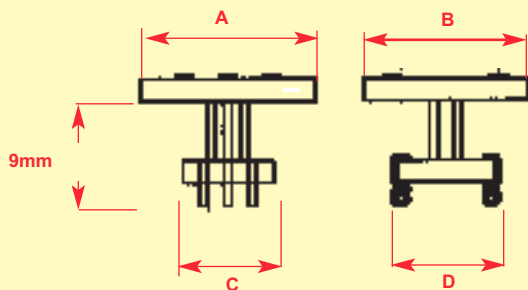


This range of Adapters convert Through Board DIP to Surface Mount.

The standard product has a top which is pluggable to the base. This makes surface mounting and subsequent inspection of the soldered joints much easier.

PART NO.	NO. PINS	DIP PITCH	S.M. PITCH	LEAD PITCH	DIMENSIONS (Nominal)*			
					A	B	C	D
W9532P	6 PIN	0.3"	0.237"	0.050"	0.40"	0.50"	0.25"	0.30"
W9533P	8 PIN	0.3"	0.237"	0.050"	0.50"	0.50"	0.30"	0.30"
W9534P	14 PIN	0.3"	0.237"	0.050"	0.80"	0.50"	0.45"	0.30"
W9535P	16 PIN	0.3"	0.237"	0.050"	0.90"	0.50"	0.50"	0.30"
W9537P	16 PIN	0.3"	0.375"	0.050"	0.90"	0.50"	0.50"	0.44"
W9539P	18 PIN	0.3"	0.237"	0.050"	1.00"	0.50"	0.55"	0.30"
W9550P	18 PIN	0.3"	0.375"	0.050"	1.00"	0.50"	0.55"	0.44"
W9540P	20 PIN	0.3"	0.237"	0.050"	1.10"	0.50"	0.60"	0.30"
W9541P	20 PIN	0.3"	0.375"	0.050"	1.10"	0.50"	0.60"	0.44"
W9543P	24 PIN	0.6"	0.540"	0.050"	1.30"	0.80"	0.70"	0.60"
W9832P	24 PIN	0.6"	0.630"	0.50mm	1.30"	0.80"	0.25"	0.63"
W9546P	24 PIN	0.3"	0.375"	0.050"	1.30"	0.50"	0.70"	0.44"
W9547P	28 PIN	0.6"	0.375"	0.050"	1.50"	0.80"	0.80"	0.44"
W9555P	28 PIN	0.3"	0.375"	0.050"	1.50"	0.50"	0.80"	0.40"
W9827P	28 PIN	0.6"	0.528"	0.50mm	1.50"	0.80"	0.35"	0.53"
W9536P	32 PIN	0.6"	0.375"	0.050"	1.70"	0.80"	0.90"	0.44"
W9538P	32 PIN	0.6"	0.540"	0.050"	1.70"	0.80"	0.90"	0.60"
W9828P	32 PIN	0.6"	0.787"	0.50mm	1.70"	0.80"	0.35"	0.79"
W9831P	40 PIN	0.6"	0.787"	0.50mm	2.10"	0.80"	0.40"	0.79"
W9542P	40 PIN	0.6"	0.375"	0.050"	2.10"	0.80"	1.10"	0.44"
W9544P	40 PIN	0.6"	0.540"	0.050"	2.10"	0.80"	1.10"	0.60"
W9829	48 PIN	0.6"	0.787"	0.50mm	2.50"	0.80"	0.50"	0.79"
W9830P	56 PIN	0.6"	0.787"	0.50mm	2.90"	0.90"	0.55"	0.79"

**\*DIMENSIONS** If the dimensions shown are too tight for your application, send us your dimensional requirements and we will advise if we can build accordingly.



**SPECIFICATION & MATERIALS**

**Printed circuit** - FR4  
**Leads** - BeCu  
**Plating** - Tin over Nickel

**IF YOUR REQUIREMENT ISN'T LISTED - FAX US THE DETAILS AND WE WILL QUOTE BY RETURN.**

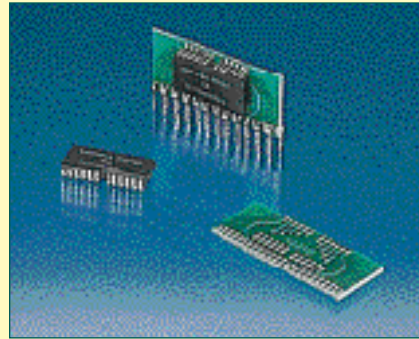
**WINSLOW ADAPTICs**

**ZIP**

**(ZIG ZAG IN-LINE PACKAGE)**

[www.winslowadaptics.com](http://www.winslowadaptics.com)

This range of adapters will convert surface mount devices such as TSOP to a Zig Zag (ZIP) format.



**SURFACE MOUNTING SERVICE AVAILABLE**

PART NO.	SEMICONDUCTOR	DESCRIPTION	MFR	FROM	TO
W9340	TC516-4003260	16 M B DRAM	TOSHIBA	26 PIN SOJ	24 PIN ZIP
W9962	HM5116400 A/AL	16 M B CMOS DRAM	HITACHI	24 PIN TSOP	24 PIN ZIP
W9342	μPD424400	4 M BIT CMOS RAM	NEC	26 PIN TSOP	20 PIN ZIP
W9343	μPD4216400	16 M BIT CMOS RAM	NEC	28 PIN TSOP	24 PIN ZIP
W9345	μPD4216400	4 M BIT DRAM	NEC	26 PIN TSOP	24 PIN ZIP

Other devices are being added to the range.

Fax us your target zip and surface mount device details for a prompt quotation

**IF YOU DON'T SEE WHAT YOU WANT....CALL US....  
IF WE HAVEN'T MADE IT YET, WE WILL**

**DIMENSIONS**

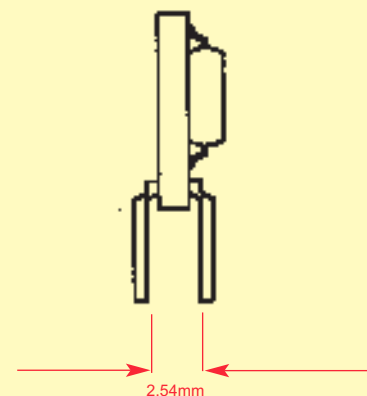
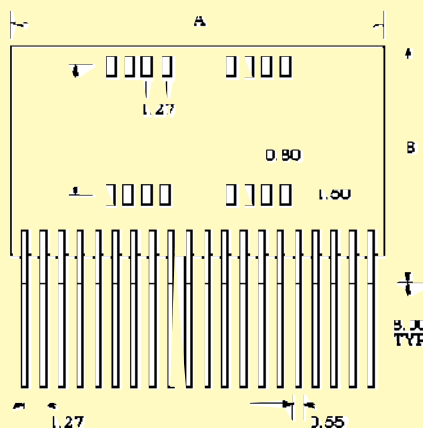
PART NO.	A	B	C
W9340	31.70	11.44	6.90
W9342	26.50	12.70	8.20
W9343	31.70	15.75	10.80
W9345	31.11	13.34	6.99
W9962	33.02	11.89	5.92

**SPECIFICATION & MATERIAL**

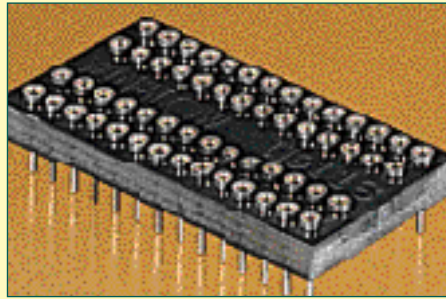
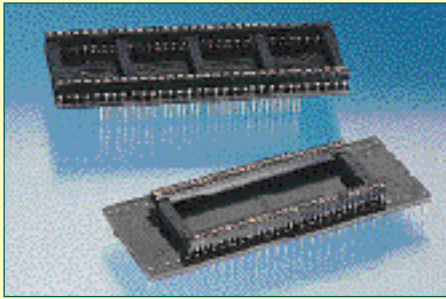
**Printed Circuit** - FR4

**Pins** - Phos. BR. PB103

**Plating** - Tin over nickel



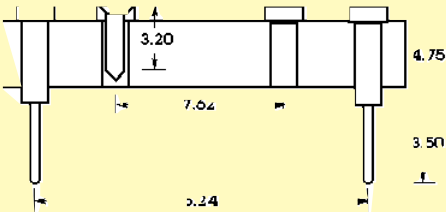




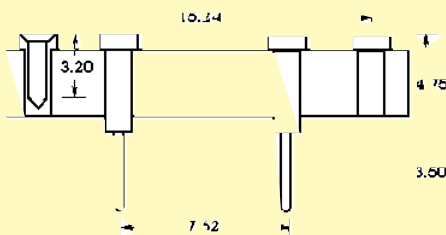
Converts Dual-in-Line packages from one pitch to another e.g. 24 Pin 0.6" to 24 Pin 0.3"

\* Standard product uses machined socket pins  
Add suffix "H" for the non-socket pin version on a substrate 1.6mm thick.

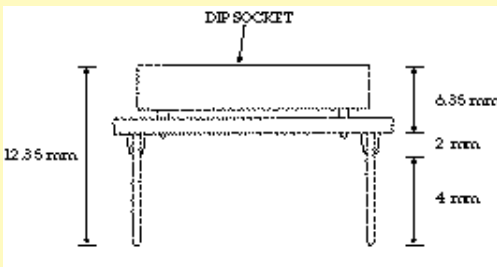
Example of W9115



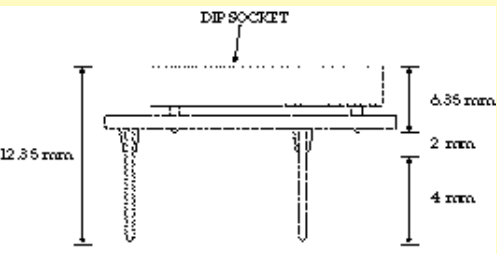
Example of W9114



Example of W9120



Example of W9129



0.1" DIP to 0.1" DIP					
Part No.	Pins	Top Pitch	Bottom Pitch	Length	Width
W9114	24	0.6"	0.3"	1.3"	0.8"
W9115	24	0.3"	0.6"	1.3"	0.8"
W9116	28	0.6"	0.3"	1.5"	0.8"
W9117	28	0.3"	0.6"	1.5"	0.8"
W9136	28	0.3"	0.4"	1.5"	0.6"
W9132	32	0.4"	0.6"	1.7"	0.8"
W9133	32	0.6"	0.4"	1.7"	0.8"
W9135	32	0.4"	0.3"	1.7"	0.6"
W9118	32	0.6"	0.3"	1.7"	0.8"
W9119	32	0.3"	0.6"	1.7"	0.8"

0.07" DIP to 0.1" DIP					
Part No.	Pins	Top Pitch	Bottom Pitch	Length	Width
W9120	24	0.4"	0.6"	1.2"	0.7"
W9121	28	0.4"	0.6"	1.4"	0.7"
W9122	30	0.4"	0.6"	1.5"	0.7"
W9123	40	0.6"	0.6"	2.0"	1.0"
W9124	42	0.6"	0.6"	2.1"	1.0"
W9125	64	0.75"	0.9"	3.2"	1.1"

A standard socket is soldered to the top of this product family. If a ZIF socket is required, add suffix "Z".

0.1" DIP to 0.07" DIP					
Part No.	Pins	Top Pitch	Bottom Pitch	Length	Width
W9126	24	0.6"	0.4"	1.2"	0.7"
W9127	28	0.6"	0.4"	1.4"	0.7"
W9128	30	0.6"	0.4"	1.5"	0.7"
W9129	40	0.6"	0.6"	2.0"	1.0"
W9130	42	0.6"	0.6"	2.1"	1.0"
W9131	64	0.9"	0.75"	3.2"	1.1"

**SPECIFICATION & MATERIALS**

- Printed Circuit - FR4
- Pins (Outer) - Brass Tin Plated
- Contacts (Inner) - BeCu Gold Plated

**IF YOUR REQUIREMENT ISN'T LISTED - EMAIL US THE DETAILS AND WE'LL QUOTE BY RETURN**

## WINSLOW ADAPTICs PROGRAMMER ADAPTERS

[www.winslowadaptics.com](http://www.winslowadaptics.com)

Programming Adapters are designed to convert a dual-in-line socketed programmer, to any other chip package, for example, PLCC, QPF, SOIC, SOJ, LCC, TSOP, ZIP, SSOP. Any device designed to be field programmed, such as EEPROMS, EPROMS PLAs etc., can now be programmed on your D.I.P. machine using these products.

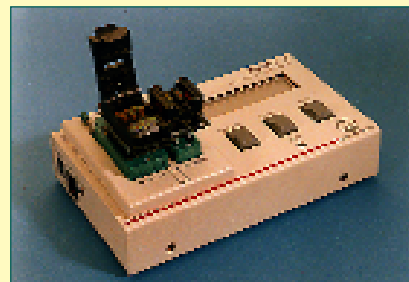
The following pages list many hundreds of ICs from all the major semiconductor companies together with the suitable Winslow programming adapter.

If your device isn't listed, let us have the part number as it may have been designed since this catalogue went to press.

**IF IT HASN'T BEEN  
DESIGNED, WE WILL  
DESIGN IT AND THERE  
WILL BE  
NO TOOLING CHARGE**



CHIPWRITER  
Courtesy of DATA I/O



Courtesy of Microchip



LABSITE  
Courtesy of DATA I/O

### FEATURES

1. All products use high quality test sockets.
2. Decoupling facilities available
3. 0.025" square rugged contact pins are gold plated
4. All products can be supplied with test pins if required
5. 100% continuity checks before product leaves the factory.

### CONNECTOR SPECIFICATION

This information is available upon request as it is dependent on the individual socket manufacturer.

### MATERIALS

**Printed circuit** - FR4  
**Plug pins** - Brass  
**Plug body** - 30% G.F. PBT  
**Plating** - Gold over Nickel

**PROGRAMMING ADAPTICS CROSS REFERENCE**  
**from EMULATION TECHNOLOGY to WINSLOW**

<b>E.T. PART NO.</b>	<b>WINSLOW PART NO.</b>	<b>E.T. PART NO.</b>	<b>WINSLOW PART NO.</b>
AS080801S300YAM	W9707	AS323201S600YAM	W9702
AS1282801Q600	W9907	AS323201TS600-YAMR	W9758
AS181801S300YAM	W9709	AS323201TS600-YAMS	W9759
AS201601P600-TEX	W9716	AS404002TS600-YAMS	W9721
AS201801SS300YAM	W9701	AS4440017P6YAM	W9742
AS202001L600YAM	W9731	AS4440001Q600YAM	W9901
AS202001P300YAM	W9915	AS444003P600-YAM	W9722
AS202001P600-YAM	W9704	AS444003Q600YAM	W9705
AS282402L600-YAM	W9732	AS444003Q-6	W9934
AS282402P600-YAM	W9717	AS444004SP600-YAM	W9760
AS282404P600-YAM	W9743	AS444007L600YAM	W9736
AS282405L600YAM	W9727	AS44407P600-YAM	W9333
AS282407P6YAM	W9718	AS444008L600YAM	W9737
AS282409L600YAM	W9728	AS444008P600-YAM	W9724
AS282801L600YAM	W9733	AS444014P600YAM	W9761
AS282801P600-YAM	W9330	AS444017P600-YAM	W9742
AS282803S600-GANG	W9710	AS444021P600-YAM	W9787
AS322801L600YAM	W9729	AS444022P600-YAM	W9767
AS322801P600-YAM	W9331	AS444403P600YAM	W9722
AS322802L600YAM	W9734	AS484803TS600YAM	W9926
AS322802P600-TEX	W9719	AS524801P600-YAM	W9770
AS322805L600YAM	W9735	AS524802P600-YAM	W9771
AS323201P600-YAM	W9332	AS564001TS600-YAM	W9726
AS323201L-6	W9730	AS684801P600-YAM	W9338

***sales@winslowadaptics.com***

There may be dimensional and design differences between Emulation Technology and Winslow product, however these should not effect their functionality.

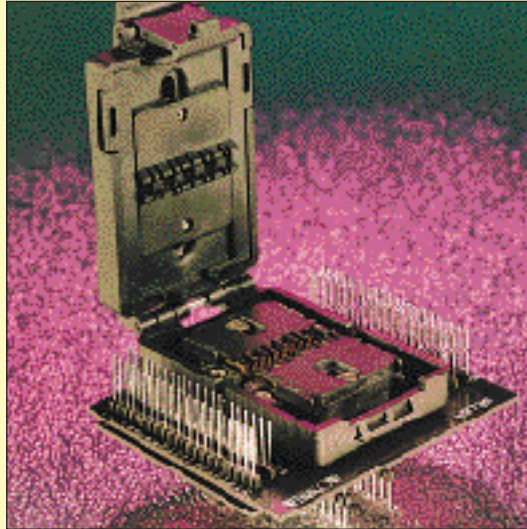
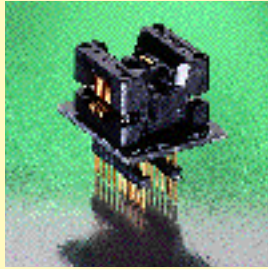
If pin break-out is required, add suffix "B" to the Winslow part numbers.

Wherever practical, pads for the mounting of de-coupling capacitors, have been provided.

**Winslow wishes to thank DATA I/O for their help  
which has enabled us to support their range of programmers.**



# WINSLOW BRINGS YOU BOTH QUALITY & CHOICE



W9739



**THIS DEVICE WILL ACCEPT ANY SOIC OR SOP DEVICE FROM 8 TO 44 PINS.  
FIELD CONFIGURABLE BY WAY OF WIRE WRAP PINS PROVIDES FOR TOTAL FLEXIBILITY.**

## ALTERA Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
1810-20T/25T/35T	68	PLCC	W9338	EP610LC-15T	28	PLCC	W9718
1810-35/40	68	PLCC	W9338	EP610LC-20T	28	PLCC	W9718
1810-34/40	68	JLCC	W9338	EP610LC-25	28	PLCC	W9718
910A	44	PLCC	W9722	EP610LC-35	28	PLCC	W9718
910A	44	JLCC	W9722	EP610SC-15	24	SO	W9710
EP1210	44	PLCC	W9722	EP610SC-35	28	SO	W9710
EP1800	68	JLCC	W9338	EP630	28	PLCC	W9718
EP1800	68	PLCC	W9338	EP630	24	SO	W9710
EP310/320	20	PLCC	W9915	EP900	44	JLCC	W9722
EP330	20	PLCC	W9704	EP900	44	PLCC	W9722
EP600/610	28	PLCC	W9718	EP910	44	JLCC	W9722
EP600/610	28	JLCC	W9718	EP910	44	PLCC	W9722
EP610JC-15	28	JLCC	W9718	EPB2002	28	LCC	W9733
EP610JC-35	28	JLCC	W9718	EPB2002	28	PLCC	W9330
EP610LC-15	28	PLCC	W9718				

**If your ALTERA device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.**

## AMD

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
16L8-5	20	PLCC	W9704	16R4-7	20	PLCC	W9704	16R6D/2	20	PLCC	W9704
16L8-7	20	PLCC	W9704	16R4D/2	20	PLCC	W9704	16R6H-10	20	PLCC	W9704
16L8D/2	20	PLCC	W9704	16R4H-10	20	PLCC	W9704	16R6Q	20	PLCC	W9704
16L8H-10	20	PLCC	W9704	16R4Q	20	PLCC	W9704	16R6Z	20	PLCC	W9704
16L8Q	20	PLCC	W9704	16R4Z	20	PLCC	W9704	16R8-5	20	PLCC	W9704
16L8Z	20	PLCC	W9704	16R6-5	20	PLCC	W9704	16R8-7	20	PLCC	W9704
16R4-5	20	PLCC	W9704	16R6-7	20	PLCC	W9704	16R8D/2	20	PLCC	W9704

continued on next page.....

**AMD**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
16R8H-10	20	PLCC	W9704	22V10-7	28	PLCC	W9706	29F100T-EC	48	TSOP	W9926
16R8Q	20	PLCC	W9704	22V10A	28	LCC	W9727	29F200B	44	SOIC	W9760
16R8Z	20	PLCC	W9704	22V10A	28	PLCC	W9706	29F200B-EC	48	TSOP	W9926
16V85C	20	SOIC	W9710	22V10B	28	LCC	W9727	29F200T	44	SOIC	W9760
16V8H-10/4	20	SOIC	W9710	22V10B	28	PLCC	W9706	29F200T-EC	48	TSOP	W9926
16V8H-15/4	20	PLCC	W9704	22V10H-10/5	28	PLCC	W9706	29F400AB	44	SOIC	W9760
16V8H-15/4	20	SOIC	W9710	22V10H-10/5	24	SOIC	W9700	29F400AB-EC	48	TSOP	W9926
16V8H-25/4	20	PLCC	W9704	22V10H-15/4	28	PLCC	W9706	29F400AT	44	SOIC	W9760
16V8H-25/4	20	SOIC	W9710	22V10H-15/4	24	SOIC	W9700	29F400AT-EC	48	TSOP	W9926
16V8H-7/5	20	PLCC	W9704	22V10H-25/4	28	PLCC	W9706	29F400B	44	SOIC	W9760
16V8HD-15	28	PLCC	W9706	22V10H-25/4	24	SOIC	W9700	29F400B-EC	48	TSOP	W9926
16V8Q-10/5	20	PLCC	W9704	22V10H-7/5	28	PLCC	W9706	29F400T	44	SOIC	W9760
16V8Q-10/5	20	SOIC	W9710	22V10Q-25/4	28	PLCC	W9706	29F400T-EC	48	TSOP	W9926
16V8Q-15/4	20	PLCC	W9704	22V10Z-25	24	SOIC	W9700	29LV400B	44	SOIC	W9760
16V8Q-15/4	20	SOIC	W9710	23S8	20	PLCC	W9915	29LV400B-EC	48	TSOP	W9926
16V8Q-25/4	20	PLCC	W9704	26V12H/4	28	PLCC	W9330	29LV400T	44	SOIC	W9760
16V8Z-25/4	20	PLCC	W9704	27C010	32	LCC	W9730	29LV400T-EC	48	TSOP	W9926
16V8Z-25/4	20	SOIC	W9710	27C010	32	PLCC	W9332	29PL141	28	PLCC	W9330
20L10	28	PLCC	W9706	27C020	32	LCC	W9730	32VX10	28	LCC	W9727
20L8-10/2	28	PLCC	W9706	27C020	32	PLCC	W9332	32VX10	28	PLCC	W9706
20L8-5	28	PLCC	W9706	27C040	32	LCC	W9730	610H	28	LCC	W9728
20R4	28	PLCC	W9706	27C040	32	PLCC	W9332	610H	28	PLCC	W9718
20R4-10/2	28	PLCC	W9706	27C1024	44	PLCC	W9724	AM9761	44	LCC	W9736
20R4-5	28	PLCC	W9706	27C128	32	LCC	W9729	AM9761	44	PLCC	W9333
20R4-7	28	PLCC	W9706	27C128	32	PLCC	W9331	LV16V8Z-30/4	20	SOIC	W9710
20R4FN	28	LCC	W9727	27C2048	44	PLCC	W9724	LV22V10-10/5	28	PLCC	W9706
20R4FN	28	PLCC	W9706	27C256	32	LCC	W9729	LV22V10-10/5	24	SOIC	W9700
20R6	28	PLCC	W9706	27C256	32	PLCC	W9331	LV22V10-15/5	28	PLCC	W9706
20R6-10/2	28	PLCC	W9706	27C4096	44	PLCC	W9724	LV22V10-15/5	24	SOIC	W9700
20R6-5	28	PLCC	W9706	27C512	32	LCC	W9729	LV22V10-7/5	28	PLCC	W9706
20R6-7	28	PLCC	W9706	27C512	32	PLCC	W9331	LV22V10-7/5	24	SOIC	W9700
20R6FN	28	LCC	W9727	27C64	32	LCC	W9729	MACH130	84	PLCC	W9337
20R6FN	28	PLCC	W9706	27C64	32	PLCC	W9331	MACH435	84	PLCC	W9337
20R8-10/2	28	PLCC	W9706	27H010	32	LCC	W9730	MACH131	84	PLCC	W9337
20R8-5	28	PLCC	W9706	27H010	32	PLCC	W9332	MACH230	84	PLCC	W9337
20R8-7	28	PLCC	W9706	27H256	32	PLCC	W9331	MACH231	84	PLCC	W9337
20RA10H-15/4	28	PLCC	W9706	27HB010	32	LCC	W9730	MACH435Q	84	PLCC	W9337
20RA10H-25/5	28	PLCC	W9706	27LV020	32	PLCC	W9332	PLS105	28	PLCC	W9330
20RA10NL	28	PLCC	W9743	27LV512	32	PLCC	W9332	VL22V10-10/5	24	SOIC	W9700
20V8H-10/4	28	PLCC	W9706	2864B	32	LCC	W9729	VL22V10-15/5	24	SOIC	W9700
20V8H-15/4	28	PLCC	W9706	2864AE/BE	32	LCC	W9729	VL22V10-7/5	24	SOIC	W9700
20V8H-25/4	28	PLCC	W9706	28F010	32	PLCC	W9332				
20V8H-5/5	28	PLCC	W9706	28F020	32	PLCC	W9332				
20V8H-7/5	28	PLCC	W9706	28F256	32	PLCC	W9332				
20V8Q-15	28	PLCC	W9706	28F512	32	PLCC	W9332				
20V8Q-15/4	28	PLCC	W9706	29F010	32	PLCC	W9332				
20V8Q-25	28	PLCC	W9706	29F040	32	LCC	W9730				
20V8Q-25/4	28	PLCC	W9706	29F040	32	PLCC	W9332				
22V10	28	LCC	W9727	29F040	32	PLCC	W9332				
22V10	28	PLCC	W9706	29F100B	44	SOIC	W9760				
22V10-10/15	28	PLCC	W9706	29F100B-EC	48	TSOP	W9926				
				29F100T	44	SOIC	W9760				

If your AMD device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**AMI**

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
18CV8	20	PLCC	W9704	22CV10Z	28	PLCC	W9706
20CG10	28	PLCC	W9706	7024	28	PLCC	W9706
22CV10	28	PLCC	W9706				

If your AMI device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**ATMEL**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
18V8Z	20	PLCC	W9704	27HC64	32	PLCC	W9331	29C256	32	PLCC	W9331
22V10	24	SOIC	W9710	27HC641	28	LCC	W9732	29C257	32	PLCC	W9332
22V10	28	LCC	W9727	7HC641	28	PLCC	W9717	29C512	32	PLCC	W9332
22V10	28	PLCC	W9706	27LV010	32	LCC	W9730	29LV010	32	PLCC	W9332
22V10L	24	SOIC	W9710	27LV010	32	PLCC	W9332	42VA12	28	PLCC	W9706
22V10L	28	LCC	W9727	27LV010A	32	LCC	W9730	750B	24	SOIC	W9710
22V10L	28	PLCC	W9706	27LV020	32	PLCC	W9332	750B	28	LCC	W9727
27C010	32	JLCC	W9332	27LV256R	32	LCC	W9729	750B	28	PLCC	W9706
27C010	32	LCC	W9730	27LV256R	32	PLCC	W9331	750BL	24	SOIC	W9710
27C010	3 2	PLCC	W9332	27LV512R	32	LCC	W9729	750BL	28	LCC	W9727
27C020	32	PLCC	W9332	27LV512R	32	PLCC	W9331	750BL	28	PLCC	W9706
27C040	32	LCC	W9730	27LV512R	32	PLCC	W9331	750L	24	SOIC	W9710
27C040	32	PLCC	W9332	28C010	32	PLCC	W9332	750L	28	LCC	W9753
27C256	32	LCC	W9729	28C010-EM	32	LCC	W9730	750L	28	PLCC	W9706
27C256	32	PLCC	W9331	28C256	32	LCC	W9729	93C46	8	SOIC	W9707
27C256R	32	LCC	W9729	28C256	32	PLCC	W9331	93C56	8	SOIC	W9707
27C256R	32	PLCC	W9331	28C64	28	SOIC	W9710	93C57	8	SOIC	W9707
27C4096	44	PLCC	W9724	28C64	32	PLCC	W9331	93C66	8	SOIC	W9707
27C512	32	LCC	W9729	28C64B	28	TSOP	W9918	AT27C256R	28	SOIC	W9710
27C512	32	PLCC	W9331	28C64B	32	PLCC	W9331	AT27C512R	28	SOIC	W9710
27C512R	32	JLCC	W9331	28HC256	32	LCC	W9729	AT27C513R	28	SOIC	W9710
27C512R	32	LCC	W9729	28HC256	32	PLCC	W9331	AT27HC256	28	SOIC	W9710
27C512R	32	PLCC	W9331	28HC64	32	PLCC	W9331	AT29C256	28	SOIC	W9710
27C516	44	PLCC	W9724	28HC64B	32	PLCC	W9331	F22V10B	24	SOIC	W9710
27HC1024	44	PLCC	W9724	28LV256	32	PLCC	W9331	F22V10B	28	PLCC	W9706
27HC256	32	LCC	W9729	28LV64	32	PLCC	W9331	F22V10BL	24	SOIC	W9710
27HC256	32	PLCC	W9331	28LV64B	32	PLCC	W9331	F22V10BL	28	PLCC	W9706
27HC256R	32	PLCC	W9331	29C010	32	PLCC	W9332	F22V10BL-UE	24	SOIC	W9710
27HC64	32	LCC	W9729	29C010A	32	PLCC	W9332	F22V10BL-UE	28	PLCC	W9706

If your ATMEL device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**CATALYST**

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
27C210	44	PLCC	W9724	28F010	32	PLCC	W9332	28F020T	32	TSOP	W9759
27HC256	32	LCC	W9729	28F010N	32	PLCC	W9332	28F020T	32	TSOP	W9759
28C256	32	PLCC	W9331	28F010T	32	TSOP	W9759	28F020TR	32	TSOP	W9758
28C256N	32	PLCC	W9331	28F010TR	32	TSOP	W9758	28F512N	32	PLCC	W9332
28C64A	32	PLCC	W9331	28F020N	32	PLCC	W9332				

If your CATALYST device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.



**CYPRESS** Check drawing on web site or fax back for soic device package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
16L8-5	20	PLCC	W9704	7C235	28	LCC	W9732	7C291A	24	SOIC	W9710
16L8-7	20	PLCC	W9704	7C235A	24	SOIC	W9710	7C291A	28	PLCC	W9717
16R4-5	20	PLCC	W9704	7C235A	28	LCC	W9732	7C330	28	JLCC	W9330
16R4-7	20	PLCC	W9704	7C235A	28	PLCC	W9717	7C330	28	PLCC	W9330
16R6-5	20	PLCC	W9704	7C245	24	SOIC	W9710	7C331	28	PLCC	W9330
16R6-7	20	PLCC	W9704	7C245	28	LCC	W9732	7C332	28	JLCC	W9330
16R8-5	20	PLCC	W9704	7C245A	24	SOIC	W9710	7C332	28	PLCC	W9330
16R8-7	20	PLCC	W9704	7C245A	28	LCC	W9732	7C335	28	LCC	W9733
18G8	20	LCC	W9731	7C245A	28	PLCC	W9717	7C335	28	PLCC	W9330
18G8	20	PLCC	W9915	7C251	32	LCC	W9734	7C341	84	JLCC	W9778
18G8	20	PLCC	W9704	7C259	44	JLCC	W9764	7C341	84	PLCC	W9778
20G10	28	PLCC	W9743	7C259	44	PLCC	W9764	7C342	68	JLCC	W9774
20G10B	28	PLCC	W9743	7C261	28	LCC	W9732	7C342	68	PLCC	W9774
20G10C	28	JLCC	W9706	7C263	28	LCC	W9732	7C343	44	JLCC	W9769
20RA10	28	PLCC	W9743	7C263	28	PLCC	W9717	7C343	44	PLCC	W9769
22V10C	28	LCC	W9727	7C265	28	LCC	W9733	7C346	84	JLCC	W9777
22V10C	28	PLCC	W9706	7C265	28	PLCC	W9330	7C346	84	PLCC	W9777
22V10D	28	LCC	W9727	7C266	32	LCC	W9729	7C371	44	PLCC	W9722
22V10D	28	PLCC	W9706	7C266	32	PLCC	W9331	7C371	44	QFP	W9924
22V10G	28	PLCC	W9706	7C270	44	JLCC	W9765	CE20V8	28	PLCC	W9706
22VP10C	28	PLCC	W9706	7C270	44	PLCC	W9765	CG7C324	28	PLCC	W9706
22VP10G	28	PLCC	W9706	7C271	32	LCC	W9729	CG7C324	28	PLCC	W9706
27C128	32	PLCC	W9332	7C271	32	PLCC	W9331	CY27H010	32	JLCC	W9332
27C256	32	PLCC	W9331	7C274	32	LCC	W9729	CY27H010	32	PLCC	W9332
27C512	32	PLCC	W9331	7C274	32	PLCC	W9331	PALC22V10	28	PLCC	W9706
27H512	32	PLCC	W9331	7C276	44	JLCC	W9765	PALC22V10	28	PLCC	W9706
7B333B	28	PLCC	W9330	7C276	44	PLCC	W9765	PALC22V10	28	PLCC	W9706
7B336	28	PLCC	W9330	7C277	32	PLCC	W9331	610	28	PLCC	W9718
7B338	28	PLCC	W9330	7C285	32	LCC	W9735	610	28	PLCC	W9718
7B339	28	PLCC	W9330	7C287	32	LCC	W9735				
7C225	28	LCC	W9732	7C291	28	LCC	W9732				
7C225A	28	LCC	W9732	7C291	28	PLCC	W9717				

If your CYPRESS device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**EXCEL**

DEVICE	PINS	PACKAGE	PART NO.
2864A	32	PLCC	W9331
2865A	32	PLCC	W9331

If your EXCEL device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**FUJITSU** Check drawing on web site or fax back for soic device package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
27C1000	32	JLCC	W9332	27C256A	32	LCC	W9729	27C64	32	LCC	W9729
27C1000	32	SOIC	W9702	27C256A	32	PLCC	W9331	28F010	32	PLCC	W9332
27C1001	32	JLCC	W9332	27C512	28	SOIC	W9710	29F040A	32	PLCC	W9332
27C1001	32	SOIC	W9702	27C512	32	LCC	W9729				
27C1024	44	PLCC	W9724	27C512	32	PLCC	W9331				
27C128	32	LCC	W9729	27C512	32	PLCC	W9331				

If your FUJITSU device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

## HITACHI Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
27C101A	32	SOIC	W9702	27C4001	32	SOIC	W9702
27C1024	44	JLCC	W9724	27C4096	44	JLCC	W9724
27C1024	44	PLCC	W9724				

If your HITACHI device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

## ICT

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
18CV8	20	PLCC	W9704	22CV10Z	28	PLCC	W9706
22CV10	28	PLCC	W9706	7024	28	PLCC	W9706
22CV10A	28	PLCC	W9706				

If your ICT device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

## INTEL Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
22V10	28	PLCC	W9706	28F020-R	32	TSOP	W9758	8742AH	44	PLCC	W9333
27C010	32	PLCC	W9332	28F200BL-	44	SOIC	W9760	8751H	44	LCC	W9736
27C020	32	PLCC	W9332	28F200BL-	56	TSOP	W9726	87C196KD	80	QFP	W9903
27C128	32	PLCC	W9331	28F200BL-	44	SOIC	W9760	87C257	32	PLCC	W9331
27C210	44	PLCC	W9724	28F200BL-	56	TSOP	W9726	87C42	44	PLCC	W9333
27C220	44	PLCC	W9724	28F200BX-	44	SOIC	W9760	87C51	44	PLCC	W9333
27C256	32	PLCC	W9331	28F200BX-	56	TSOP	W9726	87C51FA	44	PLCC	W9333
27C256A	32	PLCC	W9331	28F200BX-	44	SOIC	W9760	87C51FA(F	44	PLCC	W9333
27C64	32	PLCC	W9331	28F200BX-	56	TSOP	W9726	87C51FB	44	PLCC	W9333
28F001BX-	32	PLCC	W9332	28F256A	32	PLCC	W9332	87C51FB(F	44	PLCC	W9333
28F001BX-	32	PLCC	W9332	28F256-P1	32	PLCC	W9332	87C51FC	44	PLCC	W9333
28F001BX-	32	TSOP	W9759	28F256-P2	32	PLCC	W9332	87C51(FX)	44	PLCC	W9333
28F001BX-	32	PLCC	W9332	28F400BL-	44	SOIC	W9760	87C54	44	PLCC	W9333
28F001BX-	32	PLCC	W9332	28F400BL-	56	TSOP	W9726	87C550	44	PLCC	W9904
28F001BX-	32	TSOP	W9759	28F400BL-	44	SOIC	W9760	87C58	44	LCC	W9736
28F002BL-	40	TSOP	W9721	28F400BL-	56	TSOP	W9726	87C58	44	PLCC	W9333
28F002BL-	40	TSOP	W9721	28F400BX-	44	SOIC	W9760	87C64	32	PLCC	W9331
28F002BX-	40	TSOP	W9721	28F400BX-	56	TSOP	W9726	IPLD22V10	28	PLCC	W9706
28F002BX-	40	TSOP	W9721	28F400BX-	44	SOIC	W9760	IPLD610	28	PLCC	W9718
28F004BL-	40	TSOP	W9721	28F400BX-	56	TSOP	W9726	IPLD910	44	PLCC	W9722
28F004BL-	40	TSOP	W9721	28F512	32	PLCC	W9332	P8742AH	44	PLCC	W9333
28F004BX-	40	TSOP	W9721	5AC312	28	PLCC	W9718	PA28F002B	44	SOIC	W9925
28F004BX-	40	TSOP	W9721	5C060	28	PLCC	W9718	PA28F008S	44	SOIC	W9923
28F008BV-	40	TSOP	W9721	5C090	44	PLCC	W9722	PA28F008S	44	SOIC	W9923
28F008BV-	40	TSOP	W9721	68C257	32	PLCC	W9331	PA28F200B	44	SOIC	W9925
28F010	32	PLCC	W9332	80C51	44	QFP	W9901	PA28F200B	44	SOIC	W9925
28F010	32	TSOP	W9759	85C060	28	PLCC	W9718	PA28F400B	44	SOIC	W9925
28F010-P1	32	PLCC	W9332	85C090	44	PLCC	W9722	PA28F400B	44	SOIC	W9925
28F010-R	32	TSOP	W9758	85C220	20	PLCC	W9704	PA28F800B	44	SOIC	W9925
28F020	32	PLCC	W9332	85C224	28	PLCC	W9706	PA28F800B	44	SOIC	W9925
28F020	32	TSOP	W9759	85C960	28	PLCC	W9330				

If your INTEL device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

## ISSI

DEVICE	PINS	PACKAGE	PART NO.
27HC010	32	PLCC	W9332

If your ISSI device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**LATTICE**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
16LV8C	20	PLCC	W9704	20V8B	28	PLCC	W9706	26CV12	28	LCC	W9733
16LV8D	20	PLCC	W9704	20V8C	28	PLCC	W9706	26CV12	28	PLCC	W9330
16LV8ZD	20	PLCC	W9704	20V8D	28	PLCC	W9706	26CV12B	28	LCC	W9733
16V8	20	PLCC	W9704	20V8Z	28	PLCC	W9706	26CV12C	28	PLCC	W9330
16V8A	20	LCC	W9731	20XV10	28	PLCC	W9706	26CV12C	28	PLCC	W9330
16V8A	20	PLCC	W9704	20XV10B	28	PLCC	W9706	6001B	28	PLCC	W9706
16V8B	20	PLCC	W9704	22LV10	28	PLCC	W9706	6002B	28	PLCC	W9706
16V8B	20	SOIC	W9752	22LV10C	28	PLCC	W9706	ISPGDS-14	20	PLCC	W9704
16V8C	20	PLCC	W9704	22LV10D	28	PLCC	W9706	ISPGDS-22	28	PLCC	W9330
16V8C	20	SOIC	W9752	22LV10U	28	PLCC	W9706	ISPLSI101	44	PLCC	W9922
16V8D	20	PLCC	W9704	22LV10Z	28	PLCC	W9706	ISPLSI101	44	PLCC	W9922
16V8Z	20	PLCC	W9704	22V10	28	LCC	W9727	ISPLSI102	68	PLCC	W9927
16V8Z	20	SOIC	W9752	22V10	28	PLCC	W9706	ISPLSI103	84	PLCC	W9911
16VP8B	20	PLCC	W9704	22V10B	28	LCC	W9727	ISPLSI203	44	PLCC	W9922
18V10	20	PLCC	W9704	22V10B	28	PLCC	W9706	ISPLSI206	84	PLCC	W9911
18V10B	20	PLCC	W9704	22V10B-Q	28	LCC	W9727	ISPPLSI10	84	PLCC	W9911
20LV8	28	PLCC	W9706	22V10B-Q	28	PLCC	W9706	PLSI1016	44	PLCC	W9922
20LV8C	28	PLCC	W9706	22V10B-QP	28	LCC	W9727	PLSI1016E	44	PLCC	W9922
20LV8D	28	PLCC	W9706	22V10B-QP	28	PLCC	W9706	PLSI1024	68	PLCC	W9927
20LV8ZD	28	PLCC	W9706	22V10B-QP	28	LCC	W9727	PLSI1032	84	PLCC	W9911
20RA10	28	LCC	W9727	22V10B-QP	28	PLCC	W9706	PLSI1032E	84	PLCC	W9911
20RA10	28	PLCC	W9706	22V10B-QU	28	LCC	W9727	PLSI1032E	84	PLCC	W9911
20RA10B	28	LCC	W9727	22V10B-QU	28	PLCC	W9706	PLSI1048C	128	QFP	W9907
20RA10B	28	PLCC	W9706	22V10BU	28	LCC	W9727	PLSI2032	44	PLCC	W9922
20V8	28	PLCC	W9706	22V10BU	28	PLCC	W9706	PLSI2064	84	PLCC	W9911
20V8A	28	PLCC	W9706	22V10UES	28	LCC	W9727	6001	28	PLCC	W9706

If your LATTICE device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**MICROCHIP**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
12C508	8	SOP (222mil)	W9708	24C02	8	TSSOP	W9902	37LV65	8	SOIC (150mil)	W9707
12C509	8	SOP (222mil)	W9708	24C04/A-SN	8	SOIC (150mil)	W9707	93AA46-SN	8	SOIC (150mil)	W9707
16C54	18	SOIC (300mil)	W9709	24CXX	8	SOIC (200mil)	W9708	93C06-SN	8	SOIC (150mil)	W9707
16C54	20	SOIC (209mil)	W9701	24CXX	8	SOIC (150mil)	W9707	93C46-SN	8	SOIC (150mil)	W9707
16C55	28	SOIC (300 mil)	W9710	24LCXX	8	SOIC (200mil)	W9708	93LC46B-SN	8	SOIC (150mil)	W9707
16C55	28	SOIC (330mil)	W9711	24LCXX	8	SOIC (150mil)	W9707	93LC46-SN	8	SOIC (150mil)	W9707
16C56	18	SOIC (300mil)	W9709	27C128	28	SOIC (300mil)	W9710	93LC56B-SN	8	SOIC (150mil)	W9707
16C56	20	SSOP (209mil)	W9701	27C128	32	LCC	W9729	93LC56-SN	8	SOIC (150mil)	W9707
16C57	28	SOIC (300mil)	W9710	27C128	32	PLCC	W9331	93LCS56-SN	8	SOIC (150mil)	W9707
16C57	28	SOIC (330mil)	W9711	27C256	28	SOIC (300mil)	W9710	93LC66B-SN	8	SOIC (150mil)	W9707
16C58	18	SOIC (300mil)	W9709	27C256	32	LCC	W9329	93LC66-SN	8	SOIC (150mil)	W9707
16C58	20	SSOP (209mil)	W9701	27C256	32	PLCC	W9331	93LCS66-SN	8	SOIC (150mil)	W9707
16C64	44	PLCC	W9742	27C512	28	SOIC (300mil)	W9710				
16C64A	44	PLCC	W9742	27C512	32	LCC	W9729				
16C64A	44	TQFP	W9934	27C512	32	PLCC	W9331				
16C64	44	PQFP	W9934	27C64	28	SOIC (300mil)	W9710				
16C65	44	PLCC	W9742	27C64	32	LCC	W9729				
16C65A	44	PLCC	W9742	27C64	32	PLCC	W9331				
16C65A	44	TQFP	W9934	27HC256	32	LCC	W9729				
16C71	18	SOIC (300mil)	W9709	27HC256	32	PLCC	W9331				
16C74	44	PLCC	W9742	28C17/A	28	SOIC (300mil)	W9710				
16C74	44	PQFP	W9705	28C64/A	28	SOIC (300mil)	W9710				
16C84	18	SOIC (300mil)	W9709	28C64/A	32	LCC	W9729				
17C42	44	PQFP	W9936	28C64/A	32	PLCC	W9331				
17C43	44	PQFP	W9936	37LV128	8	SOIC (150mil)	W9707				
24C01/A-SN	8	SOIC (150mil)	W9707	37LV36	8	SOIC (150mil)	W9707				

If your MICROCHIP device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.



**MACTRONIX**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
27C1000	32	PLCC	W9332	27C4000	32	PLCC	W9332	27C512	32	PLCC	W9331

If your MACTRONIX device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**MITSUBISHI**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
27401A	32	SOIC	W9702	27C102	44	JLCC	W9724	28F101J	32	PLCC	W9332
27C100	32	PLCC	W9332	27C201	32	JLCC	W9332	28F102	44	PLCC	W9724
27C101	32	PLCC	W9332	27C201	32	SOIC	W9702				
27C101	32	SOIC	W9702	27C202	44	PLCC	W9724				
27C102	44	JLCC	W9724	28F101	32	PLCC	W9332				

If your MITSUBISHI device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**MOTOROLA**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
68HC11F1-	68	PLCC	W9775	68HC705C8	44	PLCC	W9787	68HC711K4	84	JLCC	W9779
68HC11K1-	68	PLCC	W9776	68HC705C9	44	PLCC	W9767	68HC711K4	84	PLCC	W9779
68HC11KA4	68	PLCC	W9776	68HC705D9	44	PLCC	W9767	68HC711KA	68	PLCC	W9776
68HC11L6-	68	PLCC	W9775	68HC705J2	20	SOIC	W9710	68HC711KA	68	PLCC	W9776
68HC705B1	52	PLCC	W9770	68HC705J2	20	DIP	W9921	68HC711L6	68	PLCC	W9775
68HC705B1	64	QFP	W9773	68HC705X3	64	QFP	W9773	68HC805C4	44	PLCC	W9787
68HC705B3	64	QFP	W9773	68HC711E2	52	PLCC	W9771	MPA17128	8	SOIC	W9707
68HC705B5	52	PLCC	W9770	68HC711E9	52	PLCC	W9771	MPA1765	8	SOIC	W9707
68HC705BP	64	QFP	W9773	68HC711EK	84	PLCC	W9779				
68HC705C4	44	PLCC	W9787	68HC711EK	84	JLCC	W9779				
68HC705C5	44	PLCC	W9787	68HC711EK	68	PLCC	W9776				
68HC705C8	44	PLCC	W9787	68HC711EL	68	PLCC	W9775				

If your MOTOROLA device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**MTI**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
28F002-B	40	TSOP	W9721	28F004-T	40	TSOP	W9721	28F400-B	44	SOIC	W9760
28F002-T	40	TSOP	W9721	28F200-B	44	SOIC	W9760	28F400-T	44	SOIC	W9760
28F004-B	40	TSOP	W9721	28F200-T	44	SOIC	W9760				

If your MOTOROLA device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**NATIONAL**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
16V8	20	PLCC	W9704	27C256B	32	PLCC	W9331	87C257	32	PLCC	W9331
16V8-10	20	PLCC	W9704	27C512A	32	PLCC	W9331	93C46M	14	SOIC	W9707
16V8-7	20	PLCC	W9704	27LC512	32	PLCC	W9331	93C56M8	8	SOIC	W9707
16V8A	20	PLCC	W9704	27LV210	44	PLCC	W9724	93C66M8	8	SOIC	W9707
22V10	28	PLCC	W9706	27LV512	32	PLCC	W9331	93CS56	14	SOIC	W9707
27C010	32	PLCC	W9332	27P210	44	PLCC	W9724	93CS56	14	SOIC	W9751
27C020	32	PLCC	W9332	27P512	32	PLCC	W9331	NMC27C128	32	PLCC	W9331
27C128B	32	PLCC	W9331	74LS471	20	PLCC	W9704	NMC27C256	32	PLCC	W9331
27C210	44	PLCC	W9724	74S288	20	PLCC	W9716	NMC27C512	32	PLCC	W9331
27C240	44	PLCC	W9724	74S472	20	PLCC	W9704	NSC93C46	8	SOIC	W9707

If your NATIONAL device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**NEC**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
27C1001A	32	SOIC	W9702	27C4001	32	SOIC	W9702
27C256	28	LCC	W9729	27C4001GW	32	SOIC	W9702
27C256A	32	LCC	W9729	27C8001	32	SOIC	W9702
				27C8001GW	32	SOIC	W9702

If your NEC device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**PHILLIPS/SIGNETICS** Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
10020EV8	20	LCC	W9731	87C51	44	JLCC	W9333	LVT16V8	20	PLCC	W9704
10020EV8	20	PLCC	W9704	87C51	44	LCC	W9736	P3C18V8Z	20	PLCC	W9704
10H20EV8	20	LCC	W9731	87C51	44	PLCC	W9333	PHD16N8-5	20	PLCC	W9915
10H20EV8	20	PLCC	W9704	87C51FA	44	JLCC	W9333	PHD16N8-5	20	SOIC	W9912
27C010	32	PLCC	W9332	87C51FA	44	PLCC	W9333	PHILIPS 8	16	SOIC	W9906
27C210	44	PLCC	W9724	87C51FB	44	JLCC	W9333	PL22V10	24	SOIC	W9710
27C256	32	PLCC	W9331	87C51FB	44	PLCC	W9333	PL22V10	28	PLCC	W9706
27C512	32	PLCC	W9331	87C51FC	44	JLCC	W9333	PLC16V8	20	PLCC	W9704
27C64A	32	PLCC	W9331	87C51FC	44	PLCC	W9333	PLC18V8Z	20	PLCC	W9915
82HS191	28	LCC	W9732	87C52	44	JLCC	W9333	PLC18V8Z	20	PLCC	W9704
82HS191	28	PLCC	W9717	87C52	44	PLCC	W9333	PLC18V8Z	20	SOIC	W9710
82HS195/A	20	PLCC	W9915	87C524	44	PLCC	W9333	PLC18V8Z	20	SOIC	W9912
82HS195/A	20	SOIC	W9912	87C528	44	JLCC	W9333	PLC20V8	28	PLCC	W9706
82LS135	20	PLCC	W9704	87C528	44	LCC	W9736	PLC42VA12	28	PLCC	W9706
82S123	16	SOIC	W9710	87C528	44	PLCC	W9333	PLHS153/B	20	PLCC	W9915
82S123	20	PLCC	W9716	87C54	44	PLCC	W9333	PLHS153/B	20	SOIC	W9912
82S141	28	PLCC	W9717	87C550	44	PLCC	W9904	PLUS16L8	20	PLCC	W9704
82S147	20	PLCC	W9704	87C575	44	JLCC	W9333	PLUS16R4	20	PLCC	W9704
82S181	28	PLCC	W9717	87C575	44	LCC	W9736	PLUS16R6	20	PLCC	W9704
82S183	28	PLCC	W9717	87C575	44	PLCC	W9333	PLUS16R8	20	PLCC	W9704
82S191	28	PLCC	W9717	87C576	44	PLCC	W9333	PLUS405	28	PLCC	W9330
82S23	16	SOIC	W9710	87C652	44	JLCC	W9333	PLV750	28	PLCC	W9706
82S23	20	PLCC	W9716	87C652	44	LCC	W9736	PSD301	44	JLCC	W9761
82US123	20	PLCC	W9716	87C652	44	PLCC	W9333	PSD302	44	JLCC	W9761
82US23	16	SOIC	W9710	87C654	44	PLCC	W9333	PSD303	44	JLCC	W9761
82US23	20	PLCC	W9716	87C752	28	PLCC	W9330	PSD311	44	JLCC	W9761
82US23	20	PLCC	W9915	87L51FB	44	JLCC	W9333	PSD312	44	JLCC	W9761
82US23	20	SOIC	W9912	87L51FB	44	PLCC	W9333	PSD313	44	JLCC	W9761

If your PHILLIPS device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**RIC**

If your RIC device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

DEVICE	PINS	PACKAGE	PART NO.
16RP4F	20	PLCC	W9704

## SAMSUNG

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
16L8	20	PLCC	W9704	20L8	28	PLCC	W9743	28C256	32	PLCC	W9331
16R4	20	PLCC	W9704	20R4	28	PLCC	W9743	29C010	32	PLCC	W9332
16R6	20	PLCC	W9704	20R6	28	PLCC	W9743				
16R8	20	PLCC	W9704	20R8	28	PLCC	W9743				

If your SAMSUNG device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

## SEEQ

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
20RA10Z	28	PLCC	W9706	28HC256	32	PLCC	W9331
28C256	32	PLCC	W9331	28HC256	32	LCC	W9729
28C256A	32	PLCC	W9331	48F010	32	PLCC	W9332
28C64	32	PLCC	W9331	48F512	32	PLCC	W9332
28C65	32	PLCC	W9331	52B33H	32	LCC	W9729

## SGS

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
25C02A	8	SOI C	W9707	27C516	44	PLCC	W9724	29F040	32	PLCC	W9332
27C1001	32	PLCC	W9332	27C64	32	PLCC	W9331	6001/AS	28	PLCC	W9706
27C1024	44	PLCC	W9724	27C801	32	PLCC	W9332	87C257	32	PLCC	W9331
27C256	32	PLCC	W9331	28F101	32	PLCC	W9332	93C46	8	SOIC	W9707
27C256B	32	PLCC	W9331	28F102	44	PLCC	W9724	93CS56	8	SOIC	W9707
27C4002	44	PLCC	W9724	28F256	32	PLCC	W9332	93CS57	8	SOIC	W9707
27C405	32	PLCC	W9332	28F256A	32	PLCC	W9332				
27C512	32	PLCC	W9331	28F512	32	PLCC	W9332				

If your SGS device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

## SII

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
2913AR/I	8	SOIC	W9707	2922AR/I	8	SOIC	W9707	2933CR/I	8	SOIC	W9707
2913CR/I	8	SOIC	W9707	2923CR/I	8	SOIC	W9707	2934AR/I	8	SOIC	W9707
2919AR/I	8	SOIC	W9707	2924AR/I	8	SOIC	W9707				
2919CR/I	8	SOIC	W9707	2929GR/I	8	SOIC	W9707				

If your SSI device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.



**TEXAS**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
16L8-5	20	PLCC	W9704	20R8-10/1	28	PLCC	W9706	28F020	32	PLCC	W9332
16L8-7	20	PLCC	W9704	20R8-5	28	PLCC	W9706	28F200BZ-	44	SOIC	W9760
16R4-5	20	PLCC	W9704	20R8-7	28	PLCC	W9706	28F210	44	PLCC	W9724
16R4-7	20	PLCC	W9704	22V10-10	28	PLCC	W9706	28F400BZ-	44	SOIC	W9760
16R6-5	20	PLCC	W9704	22V10-7	28	PLCC	W9706	28F512	32	PLCC	W9332
16R6-7	20	PLCC	W9704	22V10B-15	28	PLCC	W9706	28F512A	32	PLCC	W9332
16R8-5	20	PLCC	W9704	22V10/A-F	28	PLCC	W9706	29F256	32	PLCC	W9331
16R8-7	20	PLCC	W9704	27C210A	44	PLCC	W9724	29F259	32	PLCC	W9332
1810-45	68	JLCC	W9338	27C291	28	PLCC	W9717	C22V10T	28	PLCC	W9706
1810-45	68	PLCC	W9338	27PC010A	32	PLCC	W9332	C22V10ZP	28	PLCC	W9706
20L8-10	28	PLCC	W9706	27PC020	32	PLCC	W9332	X88C64	24	SOIC	W9700
20L8-5	28	PLCC	W9706	27PC040	32	PLCC	W9332	610	28	JLCC	W9718
20L8-7	28	PLCC	W9706	27PC128	32	PLCC	W9331	610	28	PLCC	W9718
20R4-10	28	PLCC	W9706	27PC240	44	PLCC	W9724	630	28	PLCC	W9718
20R4-5	28	PLCC	W9706	27PC256	32	PLCC	W9331	910	44	JLCC	W9722
20R4-7	28	PLCC	W9706	27PC512	32	PLCC	W9331	910	44	PLCC	W9722
20R6-10	28	PLCC	W9706	28F010	32	PLCC	W9332				
20R6-5	28	PLCC	W9706	28F010A	32	PLCC	W9332				
20R6-7	28	PLCC	W9706	28F010A-D	32	TSOP	W9759				

If your TEXAS device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

**TOSHIBA**

Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
68HC711E9	52	PLCC	W9771	544000	32	SOIC	W9702
SOJ-28-P4	28	SOIC	W9715	97209	32	PLCC	W9332

If your TOSHIBA device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

## WAFERSCALE INTERGRATION

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
27C010L	32	PLCC	W9332	57C64F	32	LCC	W9729	PSD312C1	44	PLCC	W9761
27C128F	32	LCC	W9729	57C65	44	LCC	W9737	PSD312CL	52	QFP	W9763
27C128L	32	JLCC	W9331	PSD301	44	JLCC	W9761	PSD312L	44	JLCC	W9761
27C128L	32	PLCC	W9331	PSD301	44	PLCC	W9761	PSD312L	44	PLCC	W9761
27C210L	44	JLCC	W9724	PSD301L	44	JLCC	W9761	PSD312L	52	QFP	W9763
27C210L	44	PLCC	W9724	PSD301L	44	PLCC	W9761	PSD312R	44	JLCC	W9761
27C256F	32	LCC	W9729	PSD301R	44	JLCC	W9761	PSD312R	44	PLCC	W9761
27C256L	32	LCC	W9729	PSD301R	44	PLCC	W9761	PSD313	44	JLCC	W9761
27C256L	32	PLCC	W9331	PSD302	44	JLCC	W9761	PSD313	44	PLCC	W9761
27C512L	32	LCC	W9729	PSD302	44	PLCC	W9761	PSD313	52	QFP	W9763
27C512L	32	PLCC	W9331	PSD302	52	QFP	W9763	PSD313C1	44	PLCC	W9761
57C128F	32	JLCC	W9331	PSD302L	44	JLCC	W9761	PSD313CL	52	QFP	W9761
57C128F	32	LCC	W9729	PSD302L	44	PLCC	W9761	PSD313L	44	JLCC	W9761
57C128FB	32	PLCC	W9331	PSD302L	52	QFP	W9763	PSD313L	44	PLCC	W9761
57C191B	28	PLCC	W9717	PSD302R	44	JLCC	W9761	PSD313L	52	QFP	W9763
57C191C	28	LCC	W9732	PSD302R	44	PLCC	W9761	PSD313R	44	JLCC	W9761
57C191C	28	PLCC	W9717	PSD303	44	JLCC	W9761	PSD313R	44	PLCC	W9761
57C256F	32	LCC	W9729	PSD303	44	PLCC	W9761	ZPSD301	44	JLCC	W9761
57C256FB	32	PLCC	W9331	PSD303L	44	JLCC	W9761	ZPSD301	44	PLCC	W9761
57C257	44	LCC	W9737	PSD303L	44	PLCC	W9761	ZPSD302	44	JLCC	W9761
57C257	44	PLCC	W9724	PSD303L	52	QFP	W9763	ZPSD302	44	PLCC	W9761
57C43B	28	PLCC	W9717	PSD311	44	JLCC	W9761	ZPSD302	52	QFP	W9763
57C43C	28	PLCC	W9717	PSD311	44	PLCC	W9761	ZPSD303	44	JLCC	W9761
57C45	28	LCC	W9732	PSD311C1	44	PLCC	W9761	ZPSD303	44	PLCC	W9761
57C49	28	LCC	W9732	PSD311L	44	JLCC	W9761	ZPSD311	44	JLCC	W9761
57C49B	28	LCC	W9732	PSD311L	44	PLCC	W9761	ZPSD311	44	PLCC	W9761
57C49B	28	PLCC	W9717	PSD311R	44	JLCC	W9761	ZPSD312	44	JLCC	W9761
57C49C	28	PLCC	W9717	PSD311R	44	PLCC	W9761	ZPSD312	44	PLCC	W9761
57C51B	32	LCC	W9734	PSD312	44	JLCC	W9761	ZPSD313	44	JLCC	W9761
57C51C	32	JLCC	W9719	PSD312	44	PLCC	W9761	ZPSD313	44	PLCC	W9761
57C51C	32	PLCC	W9719	PSD312	52	QFP	W9763				

If your WAFERSCALE INTERGRATION device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

## XICOR

Check drawing on web site or fax back for soic package size suitability

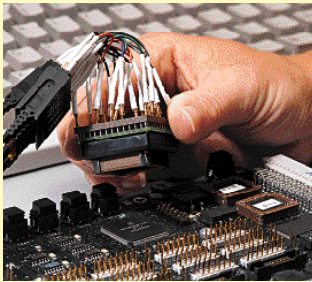
DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
24C10A	8	SOIC	W9707	28C256	32	LCC	W9729	2004	32	PLCC	W9331
2864A	32	LCC	W9729	28C256	32	PLCC	W9331	2004	32	PLCC	W9331
2864A	32	PLCC	W9331	28C512	32	PLCC	W9332	28256	32	LCC	W9729
2864B	32	LCC	W9729	28C64	32	LCC	W9729	28256	32	LCC	W9729
2864B	32	PLCC	W9331	28C64	32	PLCC	W9331	28256	32	PLCC	W9331
2864H	32	LCC	W9729	28HC16	24	SOIC	W9710	28256	32	PLCC	W9331
2864H	32	PLCC	W9331	2004	32	LCC	W9729				
28C010	32	PLCC	W9332	2004	32	LCC	W9729				

If your XICOR device is not listed, contact your nearest Winslow sales office giving the manufacturer's device part number for a rapid response.

## XILINX

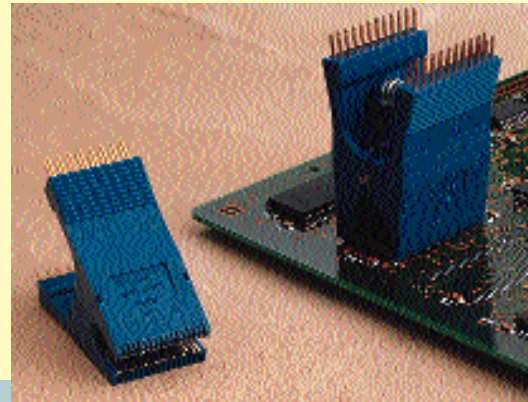
Check drawing on web site or fax back for soic package size suitability

DEVICE	PINS	PACKAGE	PART NO.	DEVICE	PINS	PACKAGE	PART NO.
XC1718D	8	SOIC	W9707	XC1765D	8	SOIC	W9707
XC1718L	8	SOIC	W9707	XC1765L	8	SOIC	W9707
XC1736D	8	SOIC	W9707				



**SOIC/SOJ Test Clips**  
 32-, 40- & 44-pin SOIC/SOJ test clip is a new design of the spring-loaded clip that features double-row .025" wire wrap pins for easy connection to ribbon cable. This clip will fit all SOIC/SOJ chips between .300" and .600" wide. See page 62.

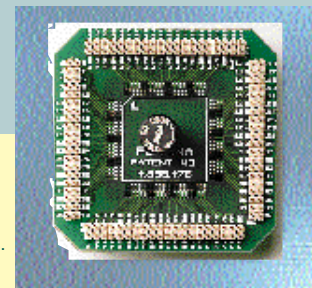
Low-profile IC Test Clips lock onto fine-pitch TQFP and SQFP chip leads making attachment to both vertical and horizontal boards easy. See page 65. (fig 3)



## Uniquely Answering Device-Specific Test Needs

These IC Test Clips feature a variety of styles designed to offer you a wide range of solutions for IC testing and evaluation. Choose from convenient press-on clips, PGA socket-style clips, locking clips for ultra-thin PCMCIA devices, compact clips for use on densely-populated boards, and the new internal-locking clip that offers secure connections on vertical circuit boards.

## TEST CLIP SELECTOR GUIDE FOR INTEL & MOTOROLA DEVICES

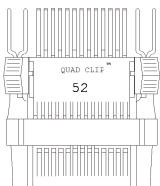
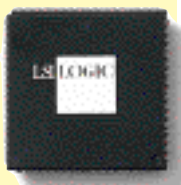


### MICRO CLIPS



**DOWN TO 0.2MM PITCH**

see page 58 for details



PLCC

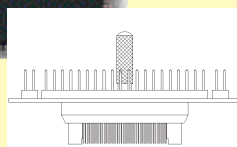
To find your PLCC Quad Clip® test adapter, turn to the PLCC table on page 63 and reference the following characteristics of your target chip:

1. Number Of Leads
2. Body Size

IC Test Clips for popular Metric QFPs include the new internal-locking test clip that provides secure connections even on vertically positioned circuit boards.



Metric QFP

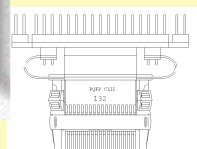


To find your Metric (EIAJ) QFP test clip, turn to the Metric QFP table on page 65 and reference the following characteristics of your target device.

1. Number Of Leads
2. Body Size
3. Lead Pitch
4. Critical Dimension
5. Test Clip Features Desired (Fig. 1 - 4 page 71)



JEDEC QFP



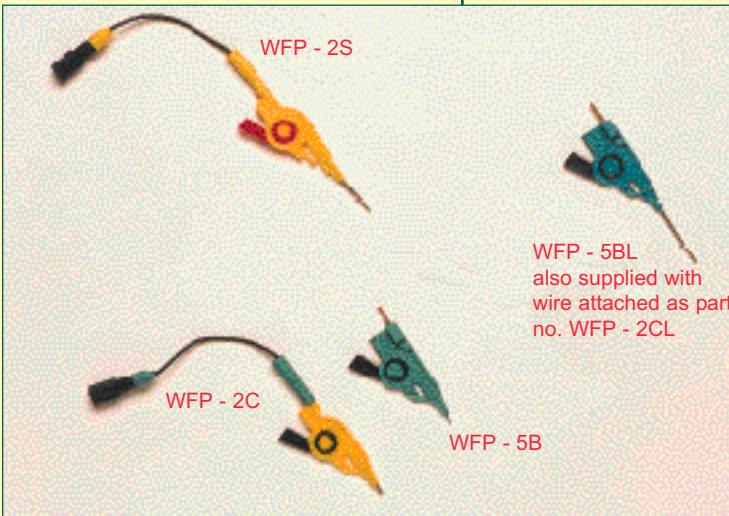
To find your JEDEC QFP test clip, turn to the JEDEC QFP table on page 64 and reference the following characteristics of your target chip:

1. Number Of Leads
2. Body Size
3. Test Clip Features Desired (Fig. 1 - 3, page 70)



PART NUMBER	SUITABLE PITCH	DESCRIPTION	PACK QUANTITY	
WFP-1B10	0.4mm to 0.8mm	CLIP 10mm LONG PROBE TIP WITH LARGE HANDLE	1	
WFP-1B30	0.4mm to 0.8mm	CLIP 30mm LONG PROBE TIP WITH LARGE HANDLE	1	
WFP-HP-1	0.8mm to 2.54mm	CLIP 30mm LONG PROBE TIP	10	
WFP-5BL-2	0.4mm to 0.8mm	CLIP 13mm LONG PROBE TIP	2	
WFP-5BL-10	0.4mm to 0.8mm	CLIP 13mm LONG PROBE TIP	10	
WFP-5B-2	0.4mm to 0.8mm	CLIP SHORT PROBE TIP	2	
WFP-5B-10	0.4mm to 0.8mm	CLIP SHORT PROBE TIP	10	
WFP-2C-10	0.4mm to 0.8mm	CLIP TYPE WFP-2B-10 + FLEXIBLE WIRE (WFOP-1)	10	
WFP-2CL-10	0.4mm to 0.8mm	CLIP TYPE WFP-2BL-10 + FLEXIBLE WIRE (WFOP-1)	10	
		<b>One wire of each colour (see WFOP-1 below)</b>		
WFP-2S-2	0.2mm to 0.5mm	CLIP WITH FLEXIBLE WIRE TYPE (WFOP-1)	2	
WFP-2S-10	0.2mm to 0.5mm	CLIP WITH FLEXIBLE WIRE TYPE (WFOP-1)	10	
WFOP-1	Accessories for the above items Colours - Black - Brown - Red - Orange - Yellow - Green - Blue - Purple - Grey - White		FLEXIBLE WIRE - FEMALE to MALE 40mm LONG	1
WFOP-3	Accessories for the above items		SCOPE LEAD FEMALE to FEMALE 300mm LONG	1
WFOP-4	Accessories for the above items		SCOPE LEAD FEMALE to CROCODILE CLIP 100mm LONG	1

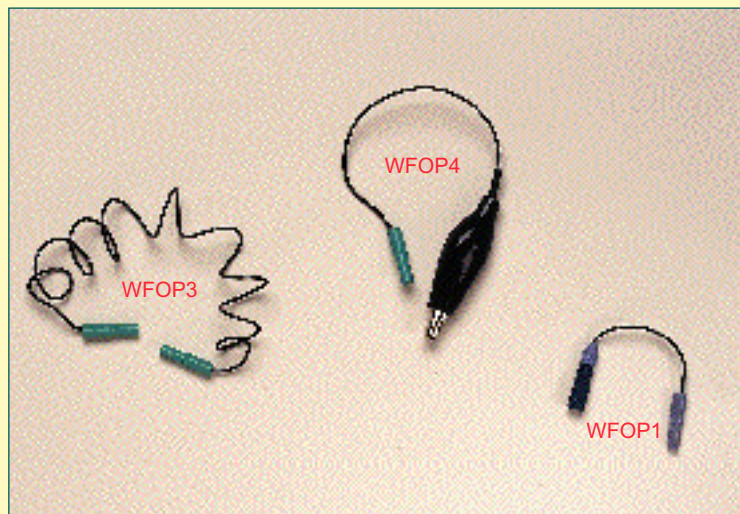
The Flexible Wire minimises any damage to the probe or the device under test if disturbed when insitu



**IMPORTANT INFORMATION**

When clips are sold in pairs - you will receive one yellow and one green, for ease of pin identification.

When clips are sold in sets of ten - you will receive them in a plastic box, joined together with a linking bar. They will be in alternating colours, yellow & green





**FOR TEST CLIPS WITH TEST & EMULATION INTERFACES  
REFER TO PAGES 6 & 7 & 18 through 24**

## DISCRETE IC TEST CLIPS

Leads	Sides	Lead Pattern	Lead Spacing	Pkg Type	Model	Clip Type
1	See Section on Micro Clips					
8	2	4+4	.100"	DIP	WP5108	2
8	2	4+4	.100"	DIP	WP5208	1
8	2	4+4	.050"	SOIC	WP5250	3
14	2	7+7	.100"	DIP	WP5014	1
14	2	7+7	.100"	DIP	WP5214	1
14	2	7+7	.100"	DIP	WP5114	2
14	2	7+7	.100"	DIP	WP5314	2
14	2	7+7	.050"	SOIC	WP5251	3
14	2	7+7	.050"	SOIC	WP5413	3A
16	2	8+8	.100"	DIP	WP3916A	1
16	2	8+8	.100"	DIP	WP5116	1
16	2	8+8	.100"	DIP	WP4236A	2
16	2	8+8	.100"	DIP	WP5216	2
16	2	8+8	.100"	SOIC	WP5252	2
20	2	10+10	.100"	DIP	WP5120	1
20	2	10+10	.100"	DIP	WP5220	2
20	2	10+10	.050"	SOIC	WP5253	3
20	4	10+10	.050"	PLCC	WP5279	9
20	2	10+10	.025"	QSOP	WP5962	8
20	2	10+10	.025"	QSOP	WP5962A	8
20	2	10+10	.65mm	SSOP	WP5969	2
20	2	10+10	.65mm	SSOP	WP5969A	2
24	2	12+12	.100"	DIP	WP4124A	1
24	2	12+12	.100"	DIP	WP5124	1
24	2	12+12	.100"	DIP	WP4324A	2
24	2	12+12	.100"	DIP	WP5224	2
24	2	12+12	.050"	SOIC	WP5254	3
24	2	12+12	.65mm	QSOP	WP5962A	8
24	2	12+12	.65mm	QSOP	WP5972	8
24	2	12+12	.65mm	QSOP	WP5972A	8
28	2	14+14	.050"	SOIC	WP5437	3
28	4	7x7	.050"	PLCC	WP5280	9
32	4	7x9	.050"	PLCC	WP5733	9
40	2	20+20	.100"	DIP	WP4140A	1
40	2	20+20	.100"	DIP	WP5140	1
40	2	20+20	.100"	DIP	WP4340A	2
40	2	20+20	.100"	DIP	WP5240	2
44	4	11x11	.050"	PLCC	WP5281	9
48	2	24x24	.025"	SSOP	WP5893	6
52	4	13x13	.050"	PLCC	WP5312	9
56	2	28+28	.025"	SSOP	WP5894	6
68	4	17x17	.050"	PLCC	WP5401	9
84	4	21x21	.050"	PLCC	WP5402	9
100	4	25x25	.025"	PQFP	WP5713	5A
132	4	33x33	.025"	PQFP	WP5711	5A
164	4	41x41	.025"	PQFP	WP5865	5A
196	4	49x49	.025"	PQFP	WP5715	5A
196	4	49x49	.025"	PQFP	WP5829	5A



Clip 1



Clip 2



Clip 3A



Clip 3



Clip 5A



Clip 6



Clip 8



Clip 9

**Follow these simple steps.**

By identifying the characteristics of your device you can easily select a standard test clip from the table below. For easiest selection, identify each parameter starting from the left column (number of leads), working across the table to the "Model" column, where a test clip will be identified by part number.



This reference contains the most popular Intel device numbers for which IC Test Clips are available.

The model number listed in the right-hand column indicates the IC Test Clip expressly designed to test your device.

For solder down versions - see pages 22 & 23

Pkg.	Device	Pins	Style	Description	Clip	Pkg.	Device	Pins	Style	Description	Clip
N	5C060	28	PLCC	EPLD	W5280	S	82353	164	PQFP	ADV DATA PATH	W5865
N	5C180	68	PLCC	EPLD	W5401	S	82370	100	PQFP	32 BIT DMA CONTROLLER	W9867
N	5AC312	28	PLCC	EPLD	W5280	S	82371	208	QFP	PCI ISA/IDE ACCELERATOR	W9882
N	5AC324	44	PLCC	EPLD	W5281	S	82437	208	QFP	SYSTEM CONTROLLER	W9882
N	80C51	44	PLCC	MICROPROCESSOR	W5281	S	82596DX	132	PQFP	32 BIT ETHERNET CONTROLLER	W9895
N	80186/80188	68	PLCC	MICROPROCESSOR	W5401	S	82961KD	164	PQFP	PRINTER COPROCESSOR	W9877
N	80C186XL/188XL	68	PLCC	MICROPROCESSOR	W5401	P	85C220	20	DIP	MICRO PLD	W5120
N	80C186EA/188EA	68	PLCC	MICROPROCESSOR	W5401	N	85C220	20	PLCC	MICRO PLD	W5279
N	80C186EB/188EB	68	PLCC	MICROPROCESSOR	W5401	P	85C224	24	DIP	MICRO PLD	W4124A
KU	80C186EC/188EC	68	PLCC	MICROPROCESSOR	W5401	N	85C224	28	PLCC	MICRO PLD	W5280
N	8XC251SB	44	PLCC	MICROCONTROLLER	W5281	P	85C22C10	24	DIP	MICRO PLD	W4124A
N	80286	68	PLCC	MICROPROCESSOR	W5401	N	85C22C10	28	PLCC	MICRO PLD	W5280
ND	80386SX	100	PQFP	MICROPROCESSOR	W9867	N	8797BH	68	PLCC	MICROCONTROLLER	W5401
NG	80386DX	132	PQFP	MICROPROCESSOR	W9895	N	8797JF	68	PLCC	MICROCONTROLLER	W5401
KD	80386SXSA	100	PQFP	MICROPROCESSOR	W9867	S	87C194	80	QFP	MICROCONTROLLER	W9865
KD	80386CXSA	100	PQFP	MICROPROCESSOR	W9867	N	97C194	52	PLCC	MICROCONTROLLER	W5312
KD	80386CXSB	100	PQFP	MICROPROCESSOR	W9867	N	87C196JQ	52	PLCC	MICROCONTROLLER	W5312
KU	80386EXSA	132	PQFP	MICROPROCESSOR	W9895	N	87C196JR	52	PLCC	MICROCONTROLLER	W5312
S	80486DX	196	PQFP	MICROPROCESSOR	W9881	N	87C196JS	52	PLCC	MICROCONTROLLER	W5312
S	80486SL	196	PQFP	MICROPROCESSOR	W9881	N	87C196JT	52	PLCC	MICROCONTROLLER	W5312
S	80486SX	196	PQFP	MICROPROCESSOR	W9881	S	87C196KB	80	QFP	MICROCONTROLLER	W9865
SB	80486SX	176	TQFP	MICROPROCESSOR	W6152	A	87C196KB	68	PLCC	MICROCONTROLLER	W5401
SB	80486DX2E	208	QFP	MICROPROCESSOR	W9882	SB	87C196KB	80	SQFP	MICROCONTROLLER	W5871
FC	80960HA	208	QFP	MICROPROCESSOR	W9882	N	87C196KB	68	PLCC	MICROCONTROLLER	W5401
FC	80960HD	208	QFP	MICROPROCESSOR	W9882	S	87C196KC	80	QFP	MICROCONTROLLER	W9865
KU	80960CA	132	PQFP	MICROPROCESSOR	W9895	N	87C196KC	68	PLCC	MICROCONTROLLER	W5401
KU	80960CF	132	PQFP	MICROPROCESSOR	W9895	S	87C196KD	80	QFP	MICROCONTROLLER	W9865
NG	80L960JA	132	PQFP	MICROPROCESSOR	W9895	N	87C196KD	68	PLCC	MICROCONTROLLER	W5401
NG	80960JA	132	PQFP	MICROPROCESSOR	W9895	N	87C196KQ	68	PLCC	MICROCONTROLLER	W5401
NG	80L960JF	132	PQFP	MICROPROCESSOR	W9895	N	87C196KR	68	PLCC	MICROCONTROLLER	W5401
NG	80960JF	132	PQFP	MICROPROCESSOR	W9895	N	87C196KS	68	PLCC	MICROCONTROLLER	W5401
NG	80960JD	132	PQFP	MICROPROCESSOR	W9895	N	87C196KT	68	PLCC	MICROCONTROLLER	W5401
NG	80960KA	132	PQFP	MICROPROCESSOR	W9895	N	87C196MC	84	PLCC	MICROCONTROLLER	W5402
NG	80960KB	132	PQFP	MICROPROCESSOR	W9895	S	87C196MC	80	QFP	MICROCONTROLLER	W9865
S	80960SA	80	QFP	MICROPROCESSOR	W9865	N	87C196NT	68	PLCC	MICROCONTROLLER	W5401
S	80960SB	80	QFP	MICROPROCESSOR	W9865	N	87C196NQ	68	PLCC	MICROCONTROLLER	W5401
N	80C186EA	68	PLCC	MICROCONTROLLER	W5401	N	87C198	52	PLCC	MICROCONTROLLER	W5312
S	80C186EA	80	QFP	MICROCONTROLLER	W9865	S	87C198	80	QFP	MICROCONTROLLER	W9865
S	80C186EB	80	QFP	MICROCONTROLLER	W9865	N	iFX730	44	PLCC	FPGA	W5281
N	80C186EB	84	PLCC	MICROCONTROLLER	W5402	N	iFX780	84	PLCC	FPGA	W5402
S	80C186EC	100	PQFP	MICROCONTROLLER	W9867	S	iFX780	132	PQFP	FPGA	W9895
S	80C186XL	80	QFP	MICROCONTROLLER	W9865	S	iFX8160	208	QFP	FPGA	W9882
R	80C186XL	68	LCC	MICROCONTROLLER	W5401	N	iPLD22V10	28	PLCC	PLD	W5280
N	80C186XL	68	PLCC	MICROCONTROLLER	W5401	N	iPLD610	28	PLCC	PLD	W5280
N	80C188-12	68	PLCC	MICROPROCESSOR	W5401	N	iPLD910	44	PLCC	PLD	W5281
S	80C188EA	80	QFP	MICROPROCESSOR	W9865						
S	80C188EB	84	QFP	MICROPROCESSOR	W9866						
S	80C188EC	80	QFP	MICROPROCESSOR	W9865						
S	82078	44	QFP	FLOPPY CONTROLLER	W5961						
S	80278	64	QFP	FLOPPY CONTROLLER	W5888						





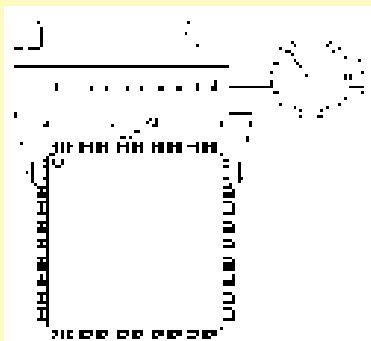
This reference contains the most popular Intel device numbers for which IC Test Clips are available.

The model number listed in the right-hand column indicates the IC Test Clip expressly designed to test your device.

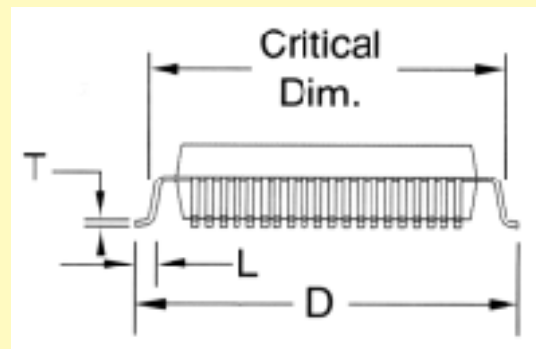
For solder down versions - see pages 22 & 23

Device	Pins	Style	Description	Clip	Device	Pins	Style	Description	Clip
DSP56000	132	PQFP	DSP	W9874	MC68HC001	68	PLCC	MICROCONTROLLER	W5401
DSP56001	132	PQFP	DSP	W9874	MC68HC05	44	QFP	MICROCONTROLLER	W5961
DSP56002FC40	132	PQFP	DSP	W9874	MC68HC05	64	QFP	MICROCONTROLLER	W5888-2
DSP56156	112	CQFP	16 BIT DSP	W5868L-2	MC68HC05	80	QFP	MICROCONTROLLER	W9864-2
DSP56L002	132	PQFP	LOW POWER DSP	W9874	MC68HC05	100	QFP	MICROCONTROLLER	W6150
MC22V10S	24	SOIC	PROGRAMMABLE LOGIC DEVICE	W5254	MC68HC05	208	QFP	MICROCONTROLLER	W9882
MC68000	68	PLCC	MICROPROCESSOR	W5401	MC68HC11	44	QFP	MICROCONTROLLER	W5961
MC68008	52	PLCC	MICROPROCESSOR	W5312	MC68HC11	52	PLCC	MICROCONTROLLER	W5312
MC68EC000	68	PLCC	MICROPROCESSOR	W5401	MC68HC11A1FU	64	QFP	MICROCONTROLLER	W5888-2
MC68EC020FG25	100	QFP	32 BIT VITUAL MEMORY MPU	W5543	MC68HC11	68	PLCC	MICROCONTROLLER	W5401
MC68020	132	PQFP	MICROPROCESSOR	W9874	MC68HC11	80	QFP	MICROCONTROLLER	W5867-2
MC68030	132	CQFP	MICROPROCESSOR	W9874	MC68HC11	84	PLCC	MICROCONTROLLER	W5402
MC68060	240	QFP	MICROPROCESSOR	W9883	MC68HC11	100	SQFP	MICROCONTROLLER	W5872
MC68302	132	PQFP	MICROPROCESSOR	W9874	MC68HC16	100	SQFP	MICROCONTROLLER	W5972
MC68302	144	TQFP	MICROPROCESSOR	W6151	MC68HC16	132	PQFP	MICROCONTROLLER	W9874
MC68306	132	PQFP	EMBEDDED CONTROLLER	W9874	MC68HC16Z1	144	TQFP	MICROCONTROLLER	W6151
MC68330	144	TQFP	MICROPROCESSOR	W6151	MC68HC16	144	QFP	MICROCONTROLLER	W5986-3
MC68331	132	PQFP	MICROPROCESSOR	W9874	MC68HC16Y1	160	QFP	MICROCONTROLLER	W9876-2
MC68331	144	TQFP	MICROPROCESSOR	W6151	MC68HC916X1	160	QFP	MICROCONTROLLER	W9876-2
MC68331	144	QFP	MICROPROCESSOR	W5986-3	MC68HCKA4	68	PLCC	MICROCONTROLLER	W5401
MC68332	132	PQFP	MICROPROCESSOR	W9874	MC68HC711KA4	68	PLCC	MICROCONTROLLER	W5401
MC68333	160	QFP	MICROPROCESSOR	W9876-2	MCM6254	160	QFP	GATE ARRAY W/RAM	W9876-2
MC68F333	160	QFP	MICROCONTROLLER	W9876-2	MPC400	160	QFP	RISC MICROPROCESSOR	W9876-2
MC68340	144	QFP	MICROPROCESSOR	W9875	MPC601	304	CQFP	RISC MICROPROCESSOR	W7048A
MC68340	144	TQFP	MICROPROCESSOR	W6151	MPC603	240	QFP	RISC MICROPROCESSOR	W5998A-2
MC68341	160	QFP	MICROPROCESSOR	W9876-2	MPC604	304	CQFP	RISC MICROPROCESSOR	W7048A
MC68360	240	CQFP	MULTIPROTOCOL COM. CONT.	W5968C	RMCU505	144	QFP	RISC MICROPROCESSOR	W9875-2
MC68EC360	240	CQFP	MULTIPROTOCOL COM. CONT.	W5968C	XC56004	64	QFP	DSP	W5888-2
MC68HC000	68	PLCC	MICROCONTROLLER	W5401	XC56156FE60	112	CQFP	DSP CELLULAR	W868L-2
MC68HC000	68	QFP	MICROCONTROLLER	W5885	XC3201FN	68	PLCC	DSP	W5401

## HOW TO MEASURE OR CALCULATE THE CRITICAL DIMENSION



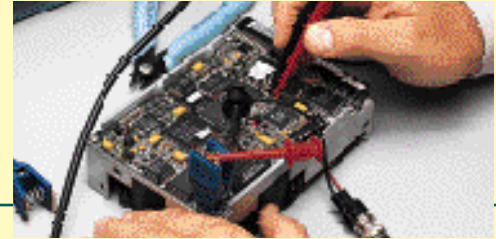
Measure Critical Dimension with Calipers  
Parallel to the plane of the PCB



$$\text{Critical Dimension } C = D - 2(L - T)$$

**MORE !**





**DIP Test Clips** Lead Pitch: .100"  
Oxide Penetrating Dip Clips



Fig. 1

Fig. 2

These DIP Test Clips provide fast, reliable and safe connections to socketed and through-hole DIP chips. Available in two styles, DIP Test Clips give you the option of full coverage of clip contacts for maximum safety or open leads at the board level for easier access to chip leads.

Fig. 1: Spring-actuated clip features gold-plated beryllium copper or spring-tempered nickel silver pins to assure positive contact in a firm wiping action for hands-free testing. Full enclosure of clip contacts prevents accidental contact while testing.

Fig. 2: Clip features same construction as Figure 1 except for an opening on the outside of the contact housing to permit probing while the clip is attached to the DIP.

No. of Leads	Device Width	Contact Style	Contact Material	Typical Applications	Part Number	Fig.
8	0.3"	Closed	Gold Plate		W5108	1
8	0.3"	Open	Gold Plate		W5208	2
14	0.3"	Closed	Nickel Silver		W5014	1
14	0.3"	Closed	Gold Plate		W5214	1
14	0.3"	Open	Nickel Silver		W5114	2
14	0.3"	Open	Gold Plate	Motorola 68HC11	W5314	2
16	0.3"	Closed	Nickel Silver	Analog Devices AD7715	W3916A	1
16	0.3"	Closed	Gold Plate		W5116	1
16	0.3"	Open	Nickel Silver		W4236A	2
16	0.3"	Open	Gold Plate		W5126	2
20	0.3"	Closed	Gold Plate	Intel 85C220	W5120	1
20	0.3"	Open	Gold Plate		W5220	2
24	0.6"	Closed	Nickel Silver	Intel 85C224 85C22C10	W4124A	1
24	0.6"	Closed	Gold Plate	Mitsubishi M66251	W5124	1
24	0.6"	Open	Nickel Silver		W4324A	2
24	0.6"	Open	Gold Plate		W5224	2
40	0.6"	Closed	Nickel Silver	Dallas DS80C320, Goldstar GM82v765B	W4140A	1
40	0.6"	Closed	Gold Plate	Phillips 87C575	W5140	1
40	0.6"	Open	Nickel Silver		W4340A	2
40	0.6"	Open	Gold Plate		W5240	2

DIP removers available

**SOIC/SOJ Test Clips**

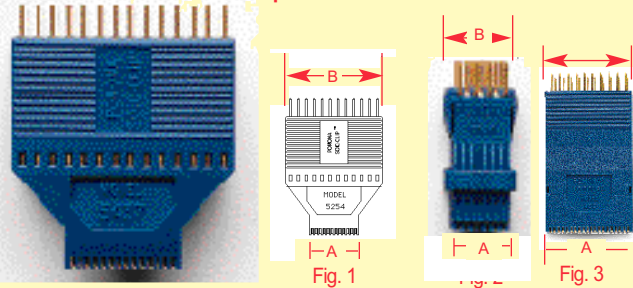


Fig. 1

Fig. 2

Fig. 3

Lead Pitch: .050"

**SOIC Clip®** test clips feature a narrow-profile design that makes testing SOIC and SOJ chips on densely-populated boards easier and safer.

Fig. 1: Spring-loaded SOIC Clip® attaches to target chip and holds on with spring pressure against the chip body. Contacts on top of the clip are .025" pins at .100" spacing. Designed to attach to surface-mounted chips with either gull wing or "J" leads.

Fig. 2: This 14-pin clip features a slider that presses the contact housings against the chip and provides a more secure connection on surface mounted chips with gull wing or "J" leads. Compact design is ideal for testing on densely-populated boards.

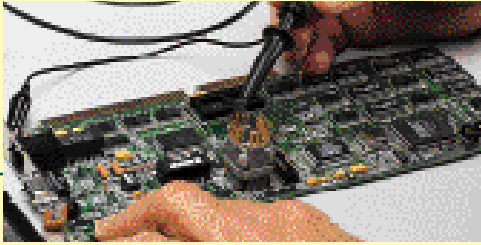
Fig. 3: New 32-, 40- & 44-pin SOIC/SOJ test clip is a new design of the spring-loaded clip that features double-row .025" wire wrap pins for easy connection to ribbon cable. This clip will fit all SOIC/SOJ chips between .300" and .600" in width.

No. Of Leads	Lower Width (A)	Body Widths	Top Width (B)	Typical Applications	Part Number	Fig.
8	0.260"	0.15" - 0.3"	0.430"	Analog Devices AD834JR	W5250	1
14	0.410"	0.15" - 0.3"	0.755"	Motorola HTC08A, Phillips 74HC125	W5251	1
14	0.410"	0.15" - 0.3"	0.520"	Harris HFSP43280, Goldstar GM76C256	W5413	2
16	0.460"	0.15" - 0.3"	0.830"	Maxim MAX791, AMD26LS31	W5252	1
20	0.560"	0.15" - 0.3"	1.030"	Linear Tech LT1130, Motorola HTC373A	W5253	1
24	0.660"	0.15" - 0.3"	1.230"	Altera EP610APC, Motorola MC22V10S	W5254	1
28	0.760"	0.15" - 0.3"	1.430"	Texas SN74F32D, Altera EPM5032	W5437	1
32	0.870"	0.30" - 0.6"	0.870"	Toshiba TMPN3120, Hitachi HM628128	W6107	3
40	1.070"	0.30" - 0.6"	1.070"		W6108	3
44	1.170"	0.30" - 0.6"	1.170"		W6109	3

SOIC CLIP TEST KIT contains 1 of each 8 - 28 pin dips

W5514

**WINSLOW ADAPTICs**  
**TEST CLIPS**  
**PLCC**

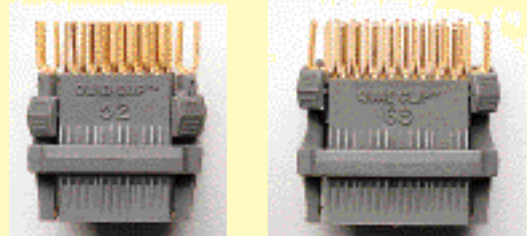


Lead Pitch: .050"

**PLCC Test Clips**

These low-cost PLCC test clips quickly lock onto J-leaded PLCCs, providing easy access for testing surface-mounted devices.

PLCC test clips attach to PLCC chips with a sliding cam that clamps onto the chip body. Access to chip leads is provided by .025" pins at .100" spacing.



Y		X		X Min.	Y Min.
			Single Testing	3.1 (.120)	2.8 (.110)
			Adjacent Testing	8.3 (.325)	7.2 (.285)

No. of Pins	Lead Pattern	Body Size	Typical Applications	Part Number
20	5 x 5	0.36" x 0.36"	Intel 85C220	W5279
28	7 x 7	0.46" x 0.46"	Intel 5C60, 85C224, Phillips 8XC751	W5280
32	7 x 9	0.46" x 0.56"	AMD 29F040, Cypress CY7B991	W5733
44	11 x 11	0.63" x 0.63	AMD MACH110, 80C88,	W5281
52	13 x 13	0.75" x 0.75	Intel 87C196, Motorola 68008	W5312
68	17 x 17	0.95" x 0.95"	Hitachi H8/330	W5401
84	21 x 21	1.15" x 1.15"	AMD MACH130, Altera EPF8452	W5402
20 - 84		PLCC Clip Kit containing 1 of each size W5515A		

**PLCC PIN BREAKOUT**

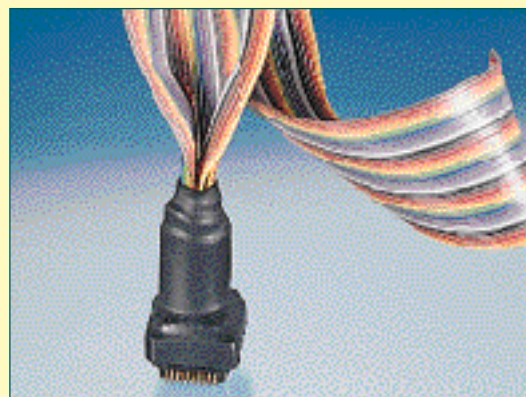
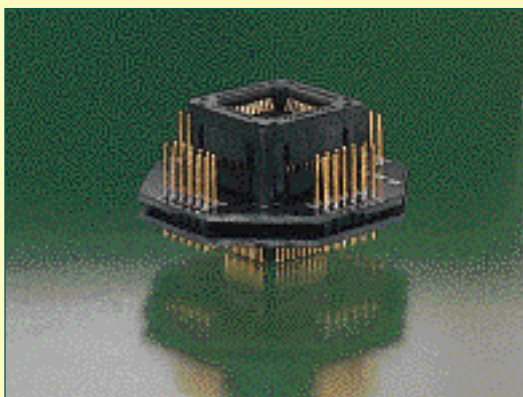
Use these test adapters to test socket mounted PLCC's. The PLCC test adapter is placed between the socket and the PLCC, .025" square pins at .100" spacing allow easy access testing for all leads of the PLCC. An overlay template provides easy pin identification.

**REFER TO PAGE 17 FOR FULL DETAILS**

**PLCC SOCKET INTERFACE**

These PLCC cabled socket interfaces provide direct access to PC boards. Four 28 AWG ribbon cables, 18 inches long, allow you to create your own end connection for automated or manual testing.

**REFER TO PAGE 14 FOR FULL DETAILS**

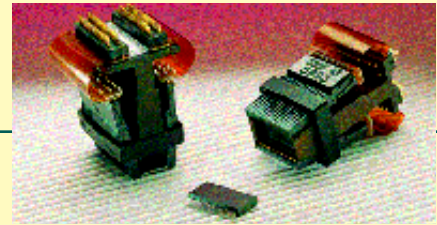


**MORE !**





**WINSLOW ADAPTICs**  
**TEST CLIPS - JEDEC**  
**SSOP - QSOP - QFP**



**SSOP/QSOP Test Clips**

With these SSOP and QSOP test clips, technicians can now access all of the leads on popular low-profile, fine-pitch SSOP and QSOP chips. Each clip has .025" sq. pins at .100" x .100" spacing to allow connections with jumpers or flying leads. See below.

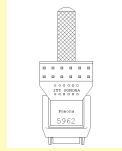


Fig. 1

Fig. 1: Clip is located and held with a cantilevered plastic guide that holds the ends of the chip under test. Ideal for densely-populated boards, this clip can attach onto a chip that is spaced only .050" away from an adjacent board component.

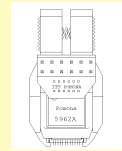


Fig. 2

Fig. 2: Clip features spring-loaded fingers to attach easily and hold firmly onto the ends of the chip. Clip fingers are opened by finger pressure on the upper handles. A clearance of 1/8" is required at the ends of the chip under test.



Fig. 3

Fig. 3: Clip features spring-loaded contact housings that clamp onto the side of the chip body. Gold-plated contacts are individually cantilevered to maintain positive connections. User interface provides .025" sq. pins at .100" centers.

No. of Leads	Lead Pattern	Body Size	Lead Pitch	Package Type	Typical Applications	Part Number	Fig.
20/24	10 + 10	0.15"	0.025"	QSOP	Pioneer P149FCT805AT/806AT Quality QSFCT240T, QSFCT29520T	W5962 W5962A	1 2
20	10 + 10	5.3mm	0.65mm	SSOP	TI SN74ABT245, IDT 74FCT244 Maxim MAX153	W5969 W5989A	1 2
24	12 + 12	5.3mm	0.65mm	SSOP	IDT 74FCT244TPY, Phillips 80C751 Maxim MAX120, MAX153	W5972 W5972A	1 2
48	24 = 24	0.3"	0.25"	SSOP	TI ABT16244, ACT16245	W5893	3
56	28 = 28	0.3"	0.25"	SSOP	IDT FCT16223, FCT162511	W5984	3

**JEDEC PQFP Test Clips**

These JEDEC QFP test clips are designed to fit on surface mounted plastic and ceramic JEDEC chips. Choose from three clip types specifically designed to give you optimum functionality and ease of use for testing, trouble shooting and custom design evaluation with logic analyzers and oscilloscopes.



Fig. 1: The basic JEDEC QFP test clip is designed for use on densely-populated boards where space is at a minimum. Leads at the top of the clip are .022" x .012" and are spaced .075" apart. Clip leads can be accessed with special flying leads.

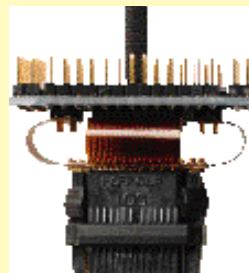


Fig. 2: Very popular JEDEC QFP test clip features a large board with .025" pins at .100" x .100" spacing for easy connection to logic analyzers and oscilloscopes. The board is elevated to avoid other board components near the target chip.

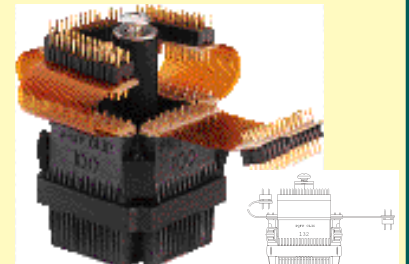


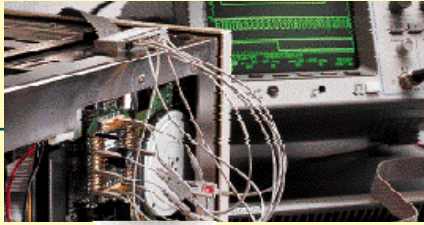
Fig. 3: The custom Flexible Interface Network clip provides a platform for your own board designs. Attach your custom-designed board to the top of the clip. Flex cables conduct the chip leads to your board using high-density connectors with .018" pins at .050" x .100" spacing.

No. of Leads	Body Size	Typical Applications	Part Number	Fig.
68	0.55 x 0.55	Motorola MC68HC01	W5885	2
84	0.65 x 0.65	Intel 80C188EB	W9886	2
100	0.75 x 0.75	Intel 80C188EC, 80386SX AMD 29205, 386EM, 386SXLP AT&T SDP1633	W5713 W9867 W5775	1 2 3
132	0.95 x 0.95	Intel 80386DX, 80386EXS, 80960KA Motorola DSP560021, 561002, 68HC16 TI TMS320C31, TMS320C51	W5711 W9895 W5778	1 2 3
164	1.15 x 1.15	Intel 80960MC, Intel 82353	W9877	2
196	1.34 x 1.34	Intel 80386SL, 80386SLP Intel 80960KB AMD AM486SE, AM486SELV	W5715 W9881 W5781	1 2 3

# WINSLOW ADAPTICs

## TEST CLIPS

### QFP METRIC



### Metric QFP Test Clips



**Fig. 1:**  
Press-on clip



**Fig. 2:**  
PGA interface\*



**Fig. 3:**  
Clip with locking fingers



**Fig. 4:**  
Clip with internal locking feature

No. of Leads	Body Size	Lead Pitch	Max. Height	Critical * Dimension	Typical Applications	Part Number	FIG		
44	10X10	0.80	3.4	12.3	Motorola 68HC11	W5961	1		
				11.6	NEC $\mu$ PD71054, Altera EPM70320C44	W5961-2	1		
64	14X14	0.80	3.4	16.3	Intel 82078, Phylon PHY1002	W5888	1		
				15.6	Motorola 68HC05, Hitachi H8/3714	W5888-2	1		
80	14X20	0.80	3.4	16.3x22.3	Intel 80C186XL, Cirrus Logic CL-SH260,	W5751	1		
					Adaptec AIC-6360Q	W5751L	4		
100	14X14	0.65	3.4	15.6x21.6	AMD 80C186, AMD S80L188,	W5751-2	1		
					Phillips 9XC1X0, AMD S80L186	W5751L-2	4		
				15.6	Intel 80960SA, Hitachi H81350	W5867-2	*		
				22X22	0.80	25.3	Texas Instruments TMS320C51	W9868	1
				14X20	0.65	16.3x22.3	Motorola 68EC020F,	W9869	1
							AT&T 3042, Fujitsu MB86600	W5643L	4
112	20X20	0.65	3.4	15.6x21.6	Altera EPM5130, Cirrus Logic CL-SH3620,	W9869-2	1		
					Xilinx XC4003, Xilinx XC3042	W5643L-2	4		
					TI TMS320C52	W6150	3		
					Hitachi H8 / 510, H8 / 570, SH 7032	W5868L	3		
120	28X28	0.80	3.4	21.7	Motorola DSP56156	W5868L-2	3		
				30.3	AMD AM29C960	W9872	1		
128	28X28	0.80	3.4	29.6	Lattice ispLSI1048, NEC uPD70236	W9872-2	1		
				30.3	Id +794640, ISILS1048	W9873-2	1		
144	28X28	0.65	3.4	30.3	Siemens SAB-C167, SGST STLC5444	W9875-2	1		
				20X20	0.50	1.4	21.0	Motorola 68302	W6151
160	28X28	0.65	3.4	30.3	Actel A1280,	W9876	1		
					Emulex FAS256	W5645L	4		
					29.6	Altera EPF8452, Motorola MPC400,	W9876-2	1	
168	28X28	0.65	3.4		Motorola MPC403	W5645L-2	4		
					AMD AM29205	W9878	1		
176	24X24	0.50	1.4	29.6		W9878-2	1		
				25.0	Intel 486SX	W6152	3		
208	28X28	0.50	3.4	29.6	Intel 80486DX2E, Motorola MC68HC05,	W9882	1		
					Actel A1480, Altera EPF8636, EPF8820	W5770L	4		
					Hitachi HG62G027	W5770-2	1		
						W5770L-2	4		
240	32x32	0.50	4.0	30.3	PLX Technology PCI9032,	W5770-3	1		
					IDT 49C466	W5770L-3	4		
					Most Ceramic + Metal Packages	W5770AL-4	3		
						W5770-4	4		
304	40X40	0.50	4.0	33.8	Motorola XC68360 Ceramic	W5968C2			
					Analog Devices ADSP-21060,	W5998A2			
					LSI L1A7747, Altera EPF81188	W5998AL	3		
					Xilinx XC4025-MQ240	W5998A-1	2		
						W5998AL-1	3		
					Motorola XC68360,	W5998A-2	2		
	Motorola MPC603	W5998AL-2	3						
304	40X40	0.50	4.0	41.8	Altera EPF81500, VLSI VP12252-2,	W7048A2			
					LSI L1A9349, NEC D75304GF	W7048AL	3		

Dimensions in mm

\* Includes male to male adapter pins

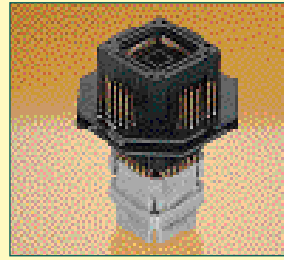
**WINSLOW ADAPTICs**  
**EMULATION &**  
**TEST MODULES**

[www.winslowadaptics.com](http://www.winslowadaptics.com)

**CLIP OVER TEST HEAD**  
**PLCC or QFP**  
**to**  
**PLCC & DIP**  
**EMULATOR POD**

Supplied with ZIF Socket  
as Standard

Test clips are plugged into  
the base of the test mod-  
ule. This allows for either  
the socket or clip to be  
replaced in the event of  
damage.



PART NO. PLCC	PINS	DEVICE	POD	PINS	FOOTPRINT
W9691-PLCC	20	GENERIC	PLCC	20	
W9692-PLCC	28	GENERIC	PLCC	28	
W9693-PLCC	32	GENERIC	PLCC	32	
W9681-PLCC	44	8031 & 8051	DIP	40	
W9689-PLCC	44	GENERIC	PLCC	44	
W9690-PLCC	52	GENERIC	PLCC	52	
W9685-PLCC	Various	68HC11	DIP	Various	
W9694-PLCC	68	GENERIC	PLCC	68	
W9695-PLCC	84	GENERIC	PLCC	84	
<b>QFP</b>					
W9681-QFP	44	8031/8051	DIP	40	3.9mm
W9887-QFP	80	80186EB	PLCC		3.9mm
W9681-QFP-2	44	8031/8051	DIP	40	3.2mm
W9684-QFP*	80	80960A/SB	PLCC	84	3.9mm
W9684-QFP-2*	80	80960A/SB	PLCC	84	3.2mm

Suffix "B" after PLCC = optional Test Pins  
Suffix "NC" after PLCC = No clip required  
(If you just require the replacement clip, refer to the descreet clips page, style 9)

**DETAILED DRAWINGS**

**You may see our detailed drawings on our web site**

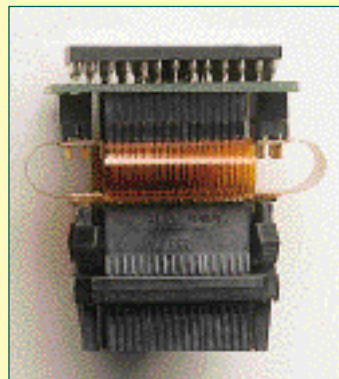
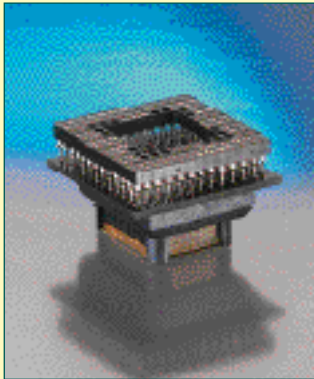
Dial our WEB number, go to the master selection  
guide, and find the part you require.

On the right hand column of this guide, click on the  
go button, and this will take you to the data sheet.

Find the drawing button, some are generic and  
apply to all of the devices on that data sheet, while  
others are specific to a particular part number.

**Some drawings are being updated, therefore, if you fail to find what  
you are looking for, contact us directly, with your  
requirements, for a rapid response.**





**CLIP OVER TEST HEAD  
QFP  
to  
PGA**

GENERIC					DEVICE SPECIFIC				
PART NO.	NO. PINS	PITCH	STYLE	PGA MATRIX	PART NO.	NO. PINS	PITCH	PART NUMBER	PGA MATRIX
W9650	68	0.025"	JEDEC QFP	11 x 11	W9669	100	0.65mm	MC68EC020	100 PIN 13 x 13
W9651	84	0.025"	JEDEC QFP	11 x 11	W9670	132	0.025"	MC68020	114 PIN 13 x 13
W9652	100	0.025"	JEDEC QFP	13 x 13	W9671	132	0.025"	MC68030	128 PIN 13 x 13
W9653	132	0.025"	JEDEC QFP	13 x 13	W9672	132	0.025"	MC68302	132 PIN 13 x 13
W9654	148	0.025"	JEDEC QFP	15 x 15	W9673 *	132	0.025"	DSP56000	88 PIN 13 x 13
W9655	164	0.025"	JEDEC QFP	15 x 15	W9673 *	132	0.025"	DSP56001	88 PIN 13 x 13
W9656	196	0.025"	JEDEC QFP	17 x 17	W9674	132	0.025"	DSP65002	132 PIN 13 x 13
W9657	64	0.80mm	EIAJ QFP	11 x 11	W9675	144	0.65mm	MC68340	144 PIN 15 x 15
W9658	64	1.00mm	EIAJ QFP	11 x 11	W9676	132	0.025"	80386DX	132 PIN 14 x 14
W9659	80	0.80mm	EIAJ QFP	11 x 11	W9677	196	0.025"	80486DX	168 PIN 17 x 17
W9660	100	0.65mm	EIAJ QFP	13 x 13	W9678	100	0.025"	80386SX	
W9661	100	0.80mm	EIAJ QFP	13 x 13	W9679	132	0.025"	80386EX	
W9662	120	0.80mm	EIAJ QFP	15 x 15	W9680	100	0.025"	486SLC / 486DX	
W9663	128	0.80mm	EIAJ QFP	15 x 15	W9682	196	0.50mm	80960CA	168 PIN 17 x 17
W9664	144	0.65mm	EIAJ QFP	15 x 15	W9683	132	0.025"	80960KA/KB	132 PIN 14 x 14
W9665	160	0.65mm	EIAJ QFP	14 x 14					
W9666	184	0.65mm	EIAJ QFP	15 x 15					
W9667	208	0.50mm	EIAJ QFP	17 x 17					

\* Suits both DSP56000 and DSP56001

Add suffix "B" if pin break-out pins are required.

## DETAILED DRAWINGS

**You may see our detailed drawings on our web site**

Dial our WEB number, go to the master selection guide, and find the part you require.

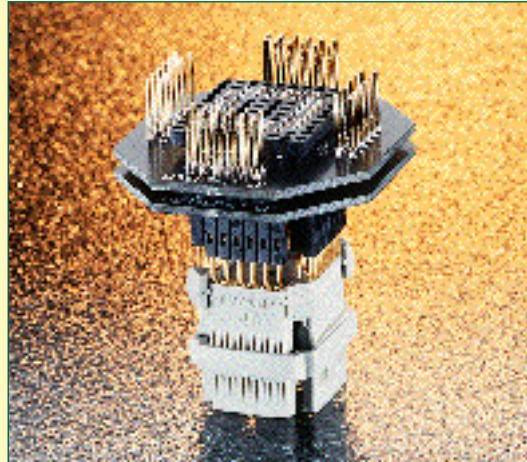
On the right hand column of this guide, click on the go button, and this will take you to the data sheet.

Find the drawing button, some are generic and apply to all of the devices on that data sheet, while others are specific to a particular part number.

**Some drawings are being updated, therefore, if you fail to find what you are looking for, contact us directly, with your requirements, for a rapid response.**

**CLIP OVER TEST HEAD  
 PLCC  
 to  
 PGA  
 EMULATOR POD**

PLCC test clips are plugged into the base of the test module. This allows for either the socket or clip to be replaced in the event of damage.



PART NO.	NO. PINS	DEVICE	POD PGA MATRIX	NO. OF PGA PINS
W9696-PLCC	20	GENERIC	5 x 5	20
W9697-PLCC	28	GENERIC	6 x 6	28
W9698-PLCC	32	GENERIC	6 x 7	32
W9699-PLCC	44	GENERIC	8 x 8	44
W9850-PLCC	52	GENERIC	9 x 9	52
W9851-PLCC	68	GENERIC	11 x 11	68
W9686-PLCC	84	GENERIC	13 x 13	84

Suffix "B" after PLCC = optional Test Pins  
 Suffix "NC" after PLCC = No clip required  
 (If you just require the replacement PLCC test clip, refer to the descreet clips page, style 9)

**SPECIFICATION & MATERIALS**

**Plug Body** - G.F. Polyester      **PGA Contacts (Inner)** - BeCu Gold Plated  
**PCB** - Black FR4                      **PGA Contacts (Outer)** - Tin Plated Brass  
**Pins** - Gold Plated Brass              **Socket Bodies** - PPS  
**Temperature Rating** +105°C

**DETAILED DRAWINGS**

**You may see our detailed drawings on our web site**

Dial our WEB number, go to the master selection guide, and find the part you require. On the right hand column of this guide, click on the go button, and this will take you to the data sheet.

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Some drawings are being updated, therefore, if you fail to find what you are looking for, contact us directly, with your requirements, for a rapid response.



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WORLD OF THE  
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CONNECTOR  
DIVISION**



**MANUFACTURER'S  
OF CONNECTOR  
PRODUCTS FOR THE  
PAST  
21 YEARS.....**



**WINSLOW ADAPTICs**  
**PGA SOCKETS**  
**STANDARD & CUSTOM**

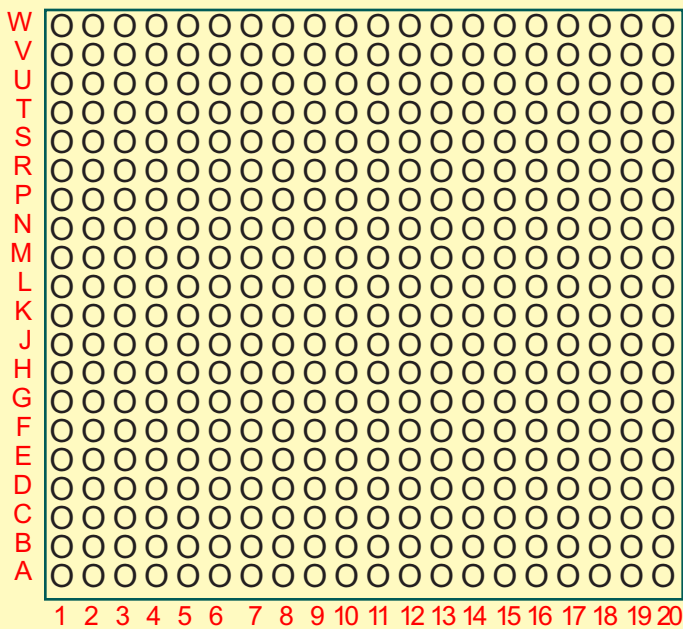
*We have literally hundreds of PGA designs, therefore you may either follow the instructions below "How to arrive at your PGA requirements" or Fax/Email your required footprint or, simpler still, let us have the full semiconductor manufacturer's part number.*

**HOW TO ARRIVE AT YOUR PGA REQUIREMENTS**  
**(See also the statement at the top of this page)**

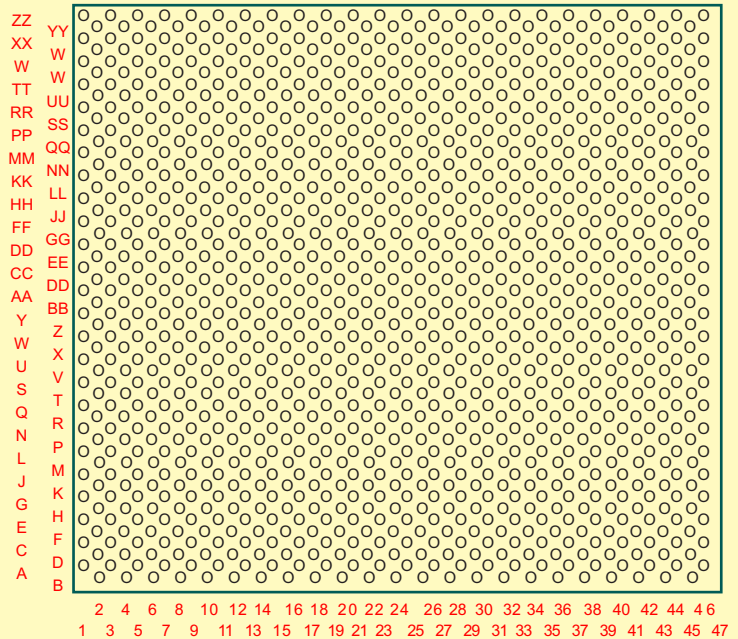
1. Check the following pages for a standard part.  
If you are unable to find one to fit your device....
2. Photocopy this page.
3. Select 0.1" Matrix or Interstitial layout.
4. Blacken the pin locations you require
5. Indicate the centre cut-out portion you require.
6. Complete the Contact & Quantity questions below.
7. Fax or Email to Winslow or your preferred Winslow Distributor, for a rapid response.

**ENQUIRY FORM**

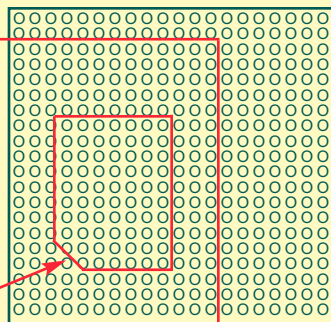
**0.1" MATRIX**



**INTERSTITIAL**



**Insulator:**  
 Polyphenylene Sufide (PPS)  
**Contact:**  
 Unique 3 finger design, very low insertion force 30gms/pin (typical), high extraction forces, 20gms/pin (typical)  
**Plating:**  
 Inner contact 0.25 u (10 u")



**Insulator:**  
 Ultem 1000, thickness 3.3mm  
**Contact:**  
 Ultra low insertion 3 finger design  
**Plating:**  
 Inner contact 0.25 u (10 u")

**PART NO. EXPLANATION**

**WPV L 68 A1010 (XX)**

**SERIES**  
 L=SOLDER TAIL - W = WIRE WRAP  
 T = ADAPTER THROUGH PIN  
 I = INTERSTITIAL  
 68 = NUMBER OF PINS  
 A1010 = MATRIX DRAWING REFERENCE

**My PGA requirements are as follows;**

**CONTACT PLATING - INNER - TIN/GOLD (Cross out the one not applicable)**  
**CONTACT OPTION - SOLDER TAIL - WIRE WRAP - THROUGH PIN - INTERSTITIAL**  
**QUANTITY REQUIRED.....DELIVERY REQUIRED.....**

**COMPANY NAME.....**

**ADDRESS.....**

**TELEPHONE.....FAX/Email.....**

**Available for PGA sizes as follows :**

The knurled disc is turned anti-clockwise until the griper has opened wide enough to go over the circuit. Turning the disc clockwise will first close the griper under the edge of the circuit before gently lifting the circuit from the socket.

PART NUMBER	PGA SIZE
W2010	10 x 10
W2011	11 x 11
W2012	12 x 12
W2013	13 x 13
W2014	14 x 14
W2015	15 x 15
W2016	16 x 16
W2017	17 x 17
W2018	18 x 18

A well balanced, fine pitched spindle drive, and a large knurled knob allow for a high gear ratio, and for the lifting gear to be moved easily. Will allow the extraction of PGA's with attached disc heatsinks.

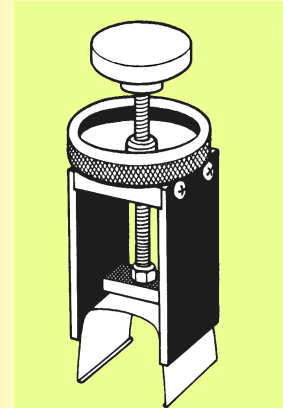
Will insert any PGA from 16 x 16 to 22 x 22.

**Part No. W2400**

It employs adjustable supporting jaws and solid aluminium cross bars 18mm thick, which transfer pressure on to the chip package and ease the PGA into the socket. Two grip claws hug the socket from underneath on opposite sides. (for devices measuring 10 x 10 to 15 x 15 order W2300)

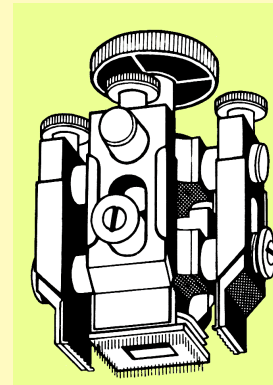
**SERIES W2010**

Extractor Tools



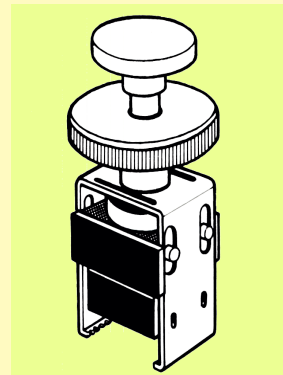
**W2300D**

Multi-size Extractor Tools



**SERIES W2060**

Insertion Tools



**Available for PGA sizes as follows :**

Use spindle disc to adjust the pressure block until it makes contact. Spread the tool open until the gripper plates can hook under the PGA socket. Turn the knurled disc anti-clockwise until the pressure block has the circuit down fully and parallel to the socket. Spread the tool and remove.

PART NUMBER	PGA SIZE
W2060	10 X 10
W2061	11 X 11
W2062	12 x 12
W2063	13* x 13
W2064	14 x 14
W2065	15 x 15
W2066	16 x 16
W2067	17 x 17
W2068	18 X 18

A precision tool which provides an even pressure to both sides of the circuit. The tool's negative lift of about 15 mm also enables the insertion of gate arrays with attached disk heatsinks.

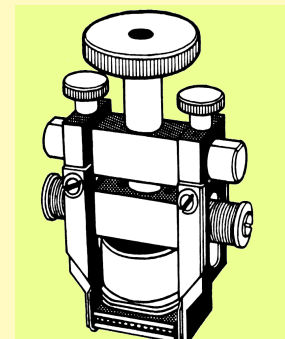
Will insert any PGA from 10 x 10 to 22 x 22.

**Part No. W2300D.**

Four grip claws enable the circuit to be held from underneath on all sides, evenly distributing the force. Can also be used with rectangular circuits.

**W2400**

Multi-size Insertion Tools

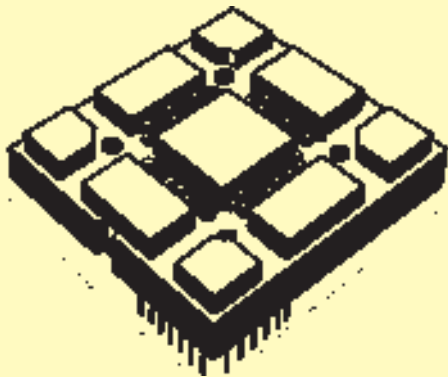


**WARNING:** The manual insertion and extraction of a PGA circuit may result in an uneven distribution of pressure and mechanical stress on the PCB. Breaks in tracks and/or cracks in the ceramic material is a likely result.

**WINSLOW ADAPTICs**  
**SOCKET**  
**RECEPTACLES**  
 FOR TEST & BURN-IN

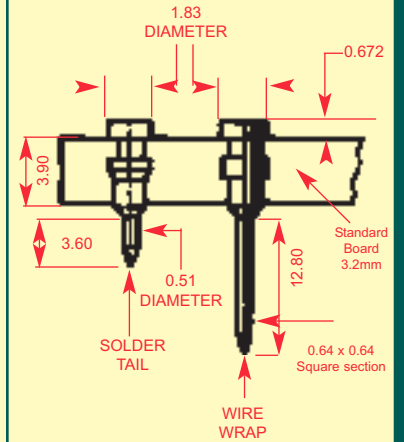
*See pages 24 through 27 for Test Socket Adapters  
 They convert their interstitial pinning to square matrix  
 or convert through board pinning to Surface Mount.*

**STANDARD PITCH**  
 Single Row, Straight

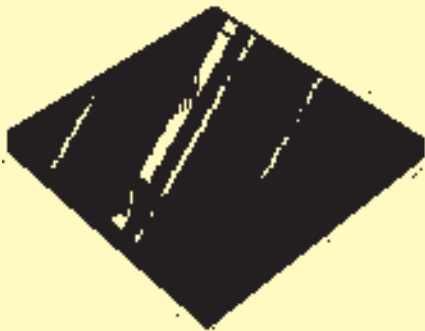


**STANDARD PITCH**  
 Designed for  
 PGA PLCC LCC DIL  
**TECHNICAL SPECIFICATIONS**

Insulating Material FR4  
 Flamability Rating UL94V-0  
 Operating Temperature -40°C to + 140°C  
 Contact Material Beryllium Copper with 30 u" minimum gold over 50 u" nickel  
 Shell Brass Alloy with 200 u" minimum tin over 100u" minimum nickel  
 Insertion/Extraction 150/87 grams average (0.18" diameter pin)  
 Outer finish Gold or Tin  
 Inner contact Gold Plated Beryllium Copper

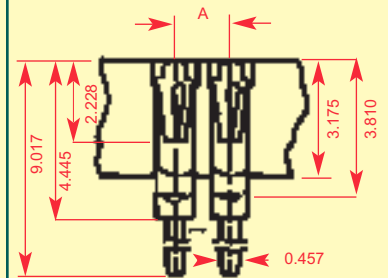


**FINE PITCH**  
 1.27mm (0.05")  
 Solder Tail



**STANDARD PITCH**  
 Designed for todays quad flat pack test sockets  
**TECHNICAL SPECIFICATIONS**

Insulating Material Thermoplastic ULTEM  
 Flamability Rating UL94V-0  
 Operating Temperature -40°C to + 150°C  
 Contact Material Beryllium Copper with 30 u" minimum gold over 50 u" nickel  
 Shell Brass Alloy with 200 u" minimum tin over 100u" minimum nickel  
 Insertion/Extraction 45/20 grams average (0.18" diameter pin)  
 Outer finish Gold or Tin  
 Inner contact Gold Plated Beryllium Copper

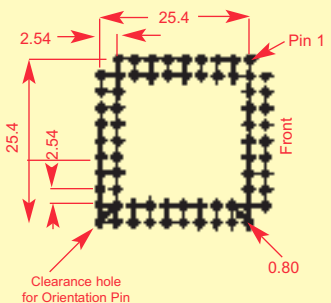
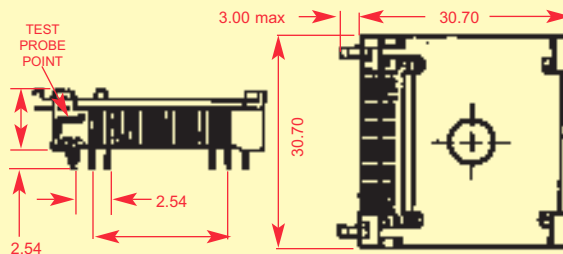
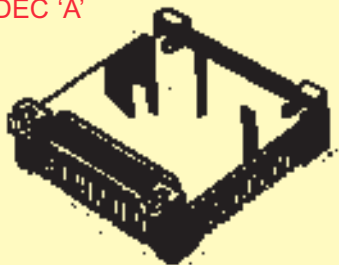


**PRECAUTIONS TO OBSERVE BEFORE USE**  
 THE FINE PITCH RECEPTACLE NEED TO BE SOLDERED ON TO THE TEST BOARD BEFORE SOCKET INSERTION. ANY SOCKET INSERTION ON TO THE RECEPTACLE PRIOR TO SOLDERING MAY CAUSE THE RECEPTACLE PINS TO SEPARATE FROM THE RECEPTACLE BOARD

'A' = 1.27MM MINIMUM

**WLCC-068-3TG**

68 pin JEDEC 'A'  
 without  
 heatsink

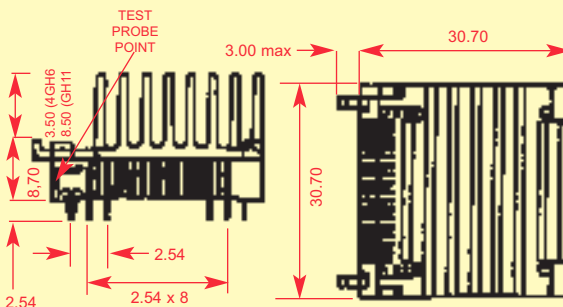
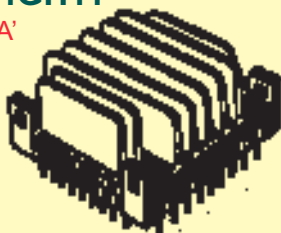


**WLCC-068-4GH6**

68 pin JEDEC 'A' with 6mm heatsink

**WLCC-068-4GH11**

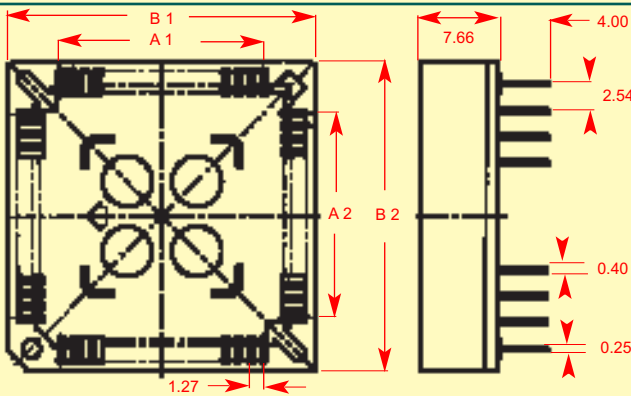
68 pin JEDEC 'A'  
 with 11mm  
 heatsink



**Electrical Characteristics:**

- Current Rating 1 amp
- Contact resistance 20 m Ohms
- Insulation resistance 1 x 10<sup>6</sup> MOhm min at 500 V
- Operating temp. -65°C to +125°C





**PERFORMANCE CHARACTERISTICS**

Voltage Rating	AC 100VRMS/DC 150V
Current Rating	1 Ampere
Contact Resistance	30mOhms max
Insulation Resistance	1000MOhms min at DC 100V
Withstanding Voltage	AC 600VRMS for 1 Minute
Operating Temperature	-55°C to + 105°C
Applied Wave Soldering	-240°C (max 15 secs)
Durability	100 Cycles
Vibration	10k to 20k Hz 5 Gs
Contact Material	Phosphor Bronze
Insulation Material	See right hand column

PART NUMBER	PINS	A	B
WPLCC-020-1	20	5.08	15.56
WPLCC-028-1	28	7.62	18.10
WPLCC-032-1	32	7.62 x 10.16	18.1 x 20.64
WPLCC-044-1	44	12.70	23.18
WPLCC-052-1	52	15.24	25.72
WPLCC-068-1	68	20.32	30.80
WPLCC-084-1	84	25.40	35.88

Suffix T = Tin, G = 0.25u Gold

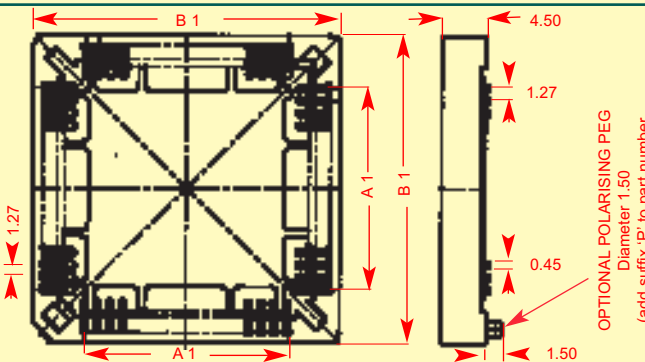
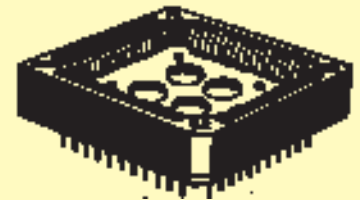
**THROUGH BOARD**  
 PPS (Polyphenylene Sufide)



PART NUMBER	PINS	A	B
WPLCC-020-1P	20	5.08	15.50
WPLCC-028-1P	28	7.62	18.30
WPLCC-032-1P	32	7.40 x 10.0	18.75 x 21.63
WPLCC-044-1P	44	12.70	23.50
WPLCC-052-1P	52	15.20	25.90
WPLCC-068-1P	68	20.32	32.00
WPLCC-084-1P	84	25.40	37.00

Suffix T = Tin, G = 0.25u Gold

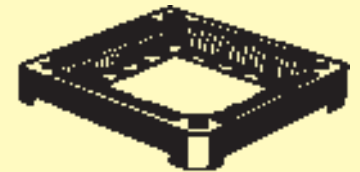
**THROUGH BOARD**  
 PBT (Glass Filled Polyester)



PART NUMBER	PINS	A	B
WPLCC-020-1S	20	5.08	15.58
WPLCC-028-1S	28	7.62	18.12
WPLCC-032-1S	32	7.62 x 10.16	18.1 x 20.66
WPLCC-044-1S	44	12.70	23.20
WPLCC-052-1S	52	15.24	25.74
WPLCC-068-1S	68	20.32	30.82
WPLCC-084-1S	84	25.40	35.90

Suffix T = Tin, G = 0.25u Gold

**SURFACE MOUNT**  
 PPS (Polyphenylene Sulfide)  
 Low Profile Design  
 Only 4.5mm high



WIRE WRAP PLCC "X & Y" DIMENSIONS ARE AS ABOVE DRAWINGS.

EXCEPTION

OVERALL HEIGHT IS 25.5mm

PART NUMBER	PINS	A	B
WPLCC-20-T3	20	5.08	15.56
WPLCC-28-T3	28	7.62	18.10
WPLCC-32-T3	32	7.40 x 10.00	18.75 x 21.63
WPLCC-44-T3	44	12.70	23.50
WPLCC-52-T3	52	15.24	25.90
WPLCC-68-T3	68	20.32	32.00
WPLCC-84-T3	84	25.40	37.00

Suffix T = Tin, G = 0.25u Gold

**WIRE WRAP (3 LEVEL)**  
 PBT (Glass Filled Polyester)



**DETAILED DRAWINGS OF ALL PLCC SOCKETS**

**ARE AVAILABLE**

**EMAIL US FOR AN IMMEDIATE RESPONSE**

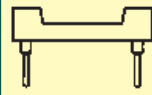
**REMOVAL TOOL**

Fits all PLCC Sockets

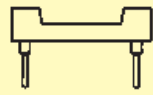
WP02



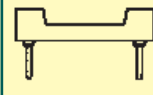
**WINSLOW ADAPTICs**  
**PRECISION**  
**IC SOCKETS**  
**DUAL IN LINE**



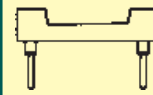
STANDARD PIN



3 FINGER VERY LOW INSERTION



SUPER FLAT HOLLOW TAIL



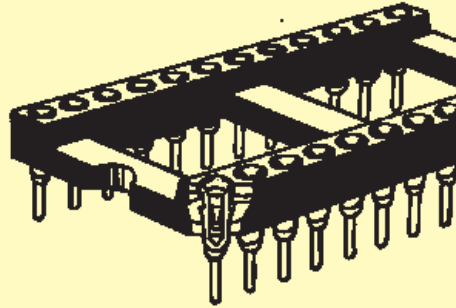
SOLID FRAME



2/3 LEVEL WIRE WRAP STANDARD PIN

**SERIES W30500T/G**

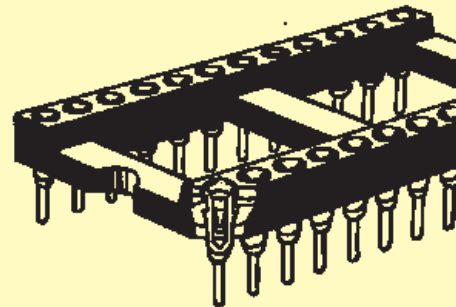
Standard pin solder tail  
 Add "M" for Auto-insertible  
 Malleable pin  
 (Example W30500MT/G)



	PITCH	CONTACT A	CONTACT A	CONTACT B	CONTACT A	CONTACT F
4 PIN	0.3"	W30504T	W30504VLT	W30504SFT		W30504T2/3
		W30504G	W30504VLG	W30504SFG		W30504G2/3
6 PIN	0.3"	W30506T	W30506VLT	W30506SFT		W30506T2/3
		W30506G	W30506VLG	W30506SFG		W30506G2/3
8 PIN	0.3"	W30508T	W30508VLT	W30508SFT		W30508T2/3
		W30508G	W30508VLG	W30508SFG		W30508G2/3
10 PIN	0.2"	W30510T	W30510VLT	W30510SFT		W30510T2/3
		W30510G	W30510VLG	W30510SFG		W30510G2/3
14 PIN	0.3"	W30514T	W30514VLT	W30514SFT	W3514T	W30514T2/3
		W30514G	W30514VLG	W30514SFG	W3514G	W30514G2/3
16 PIN	0.3"	W30516T	W30516VLT	W30516SFT	W3516T	W30516T2/3
		W30516G	W30516VLG	W30516SFG	W3516G	W30516G2/3
18 PIN	0.3"	W30518T	W30518VLT	W30518SFT	W3518T	W30518T2/3
		W30518G	W30518VLG	W30518SFG	W3518G	W30518G2/3
20 PIN	0.3"	W30520T	W30520VLT	W30520SFT	W3520T	W30520T2/3
		W30520G	W30520VLG	W30520SFG	W3520G	W30520G2/3
22 PIN	0.4"	W30522T	W30522VLT	W30522SFT		W30522T2/3
		W30522G	W30522VLG	W30522SFG		W30522G2/3

**SERIES W30500VLT/G**

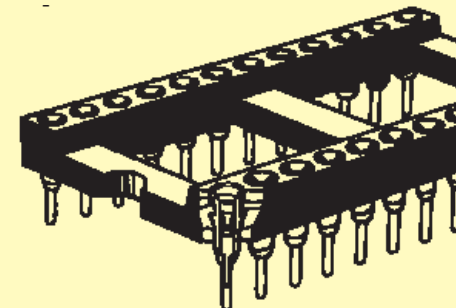
3-finger very low insertion solder tail  
 Add "M" for Auto-insertible  
 Malleable pin  
 (Example W30500MT/G)



24 PIN	0.3"	W30524/3T	W30524/3VLT	W30524/3SFT		W30524/3T2/3
		W30524/3G	W30524/3VLG	W30524/3SFG		W30524/3G2/3
24 PIN	0.4"	W30524/4T	W30524/4VLT	W30524/4SFT		W30524/4T2/3
		W30524/4G	W30524/4VLG	W30524/4SFG		W30524/4G2/3
24 PIN	0.6"	W30524T	W30524VLT	W30524SFT	W3524T	W30524T2/3
		W30524G	W30524VLG	W30524SFG	W3524G	W30524G2/3
28 PIN	0.3"	W30528/3T	W30528/3VLT	W30528/3SFT		W30528/3T2/3
		W30528/3G	W30528/3VLG	W30528/3SFG		W30528/3G2/3
28 PIN	0.4"	W30528/4T	W30528/4VLT	W30528/4SFT		W30528/4T2/3
		W30528/4G	W30528/4VLG	W30528/4SFG		W30528/4G2/3
28 PIN	0.6"	W30528T	W30528VLT	W30528SFT	W3528T	W30528T2/3
		W30528G	W30528VLG	W30528SFG	W3528G	W30528G2/3
32 PIN	0.4"	W30532/4T	W30532/4VLT	W30532/4SFT		W30532/4T2/3
		W30532/4G	W30532/4VLG	W30532/4SFG		W30532/4G2/3
32 PIN	0.6"	W30532T	W30532VLT	W30532SFT	W3532T	W30532T2/3
		W30532G	W30532VLG	W30532SFG	W3532G	W30532G2/3
36 PIN	0.6"	W30536T	W30536VLT	W30536SFT	W3536T	W30536T2/3
		W30536G	W30536VLG	W30536SFG	W3536G	W30536G2/3

**SERIES W30500VLT/G**

Super flat hollow solder tail



40 PIN	0.6"	W30540T	W30540VLT	W30540SFT	W3540T	W30540T2/3
		W30540G	W30540VLG	W30540SFG	W3540G	W30540G2/3
42 PIN	0.6"	W30542T	W30542VLT	W30542SFT	W3542T	W30542T2/3
		W30542G	W30542VLG	W30542SFG	W3542G	W30542G2/3
48 PIN	0.6"	W30548T	W30548VLT	W30548SFT	W3548T	W30548T2/3
		W30548G	W30548VLG	W30548SFG	W3548G	W30548G2/3
50 PIN	0.6"	W30550T	W30550VLT	W30550SFT		W30550T2/3
		W30550G	W30550VLG	W30550SFG		W30550G2/3
50 PIN	0.9"	W30550/9T	W30550/9VLT	W30550/9SFT		W30550/9T2/3
		W30550/9G	W30550/9VLG	W30550/9SFG		W30550/9G2/3
52 PIN	0.6"	W30552T	W30552VLT	W30552SFT		W30552T2/3
		W30552G	W30552VLG	W30552SFG		W30552G2/3
52 PIN	0.9"	W30552/9T	W30552/9VLT	W30552/9SFT		W30552/9T2/3
		W30552/9G	W30552/9VLG	W30552/9SFG		W30552/9G2/3
64 PIN	0.7"	W30564/7T	W30564/7VLT	W30564/7SFT		W30564/7T2/3
		W30564/7G	W30564/7VLG	W30564/7SFG		W30564/7G2/3
64 PIN	0.9"	W30564/9T	W30564/9VLT	W30569/9SFT		W30564/9T2/3
		W30564/9G	W30564/9VLG	W30569/9SFG		W30564/9G2/3



### OPEN FRAME

### SOLID FRAME

- W3514T3
- W3514G3
- W3516T3
- W3516G3
- W3518T3
- W3518G3
- W3520T3
- W3520G3

- W3524T3
- W3524G3

- W3528T3
- W3528G3

- W3532T3
- W3532G3

- W3536T3
- W3536G3

- W3540T3
- W3540G3

- W3542T3
- W3542G3

- W3548T3
- W3548G3

10.14 4 PIN

10.14 6 PIN

10.14 8 PIN

10.14 10/3 PIN

7.60 10/2 PIN

10.14 14 PIN

10.14 16 PIN

10.14 18 PIN

10.14 20 PIN

12.68 22 PIN

10.14 24/3 PIN

12.68 24/4 PIN

17.66 24 PIN

10.14 28/3 PIN

12.68 28/4 PIN

17.68 28 PIN

12.68 32/4 PIN

17.66 32 PIN

17.66 36 PIN

17.66 40 PIN

17.66 42 PIN

17.66 48 PIN

17.66 50 PIN

25.38 50/9 PIN

17.66 50 PIN

25.38 50/9 PIN

20.32 64/7 PIN

25.38 64 PIN

10.14 14 PIN

10.14 16 PIN

10.14 18 PIN

10.14 20 PIN

10.14 24/3 PIN

12.68 24/4 PIN

17.76 24 PIN

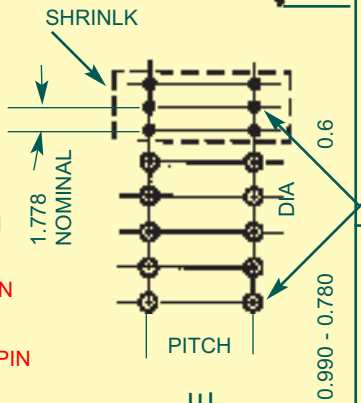
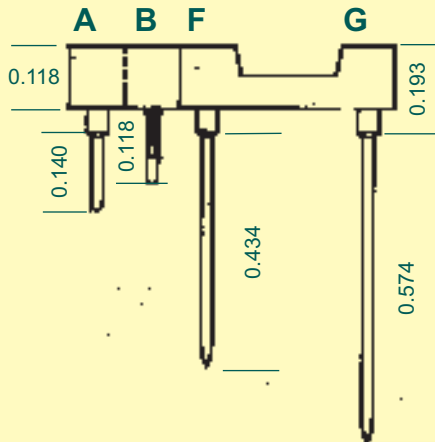
17.76 28 PIN

17.76 32 PIN

17.76 36 PIN

17.76 40 PIN

17.76 42 PIN



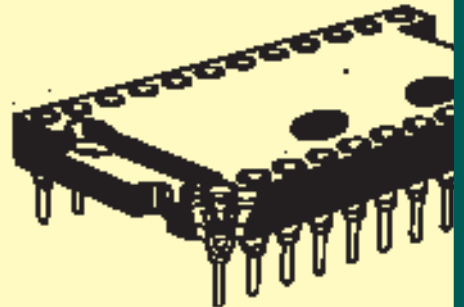
RECOMMENDED  
MOUNTING HOLE  
PATTERNS

## WINSLOW ADAPTICs PRECISION IC SOCKETS

SOLDER TAIL/WIRE WRAP

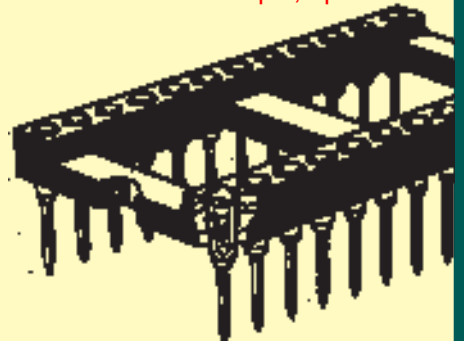
### SERIES W3500T/G

Standard pin solid frame



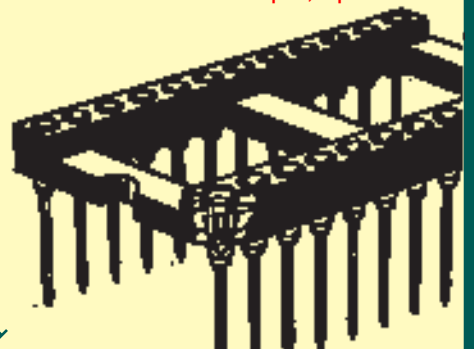
### SERIES W30600T2/G2

2-Level wire wrap  
Standard pin, open frame



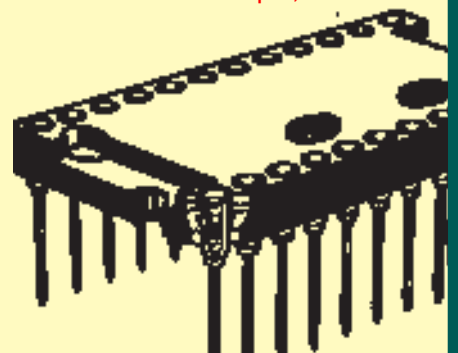
### SERIES W30600T3/G3

3-Level wire wrap  
Standard pin, open frame



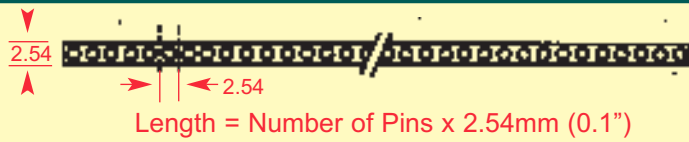
### SERIES W3600T3/G3

3-Level wire wrap  
Standard pin, solid frame



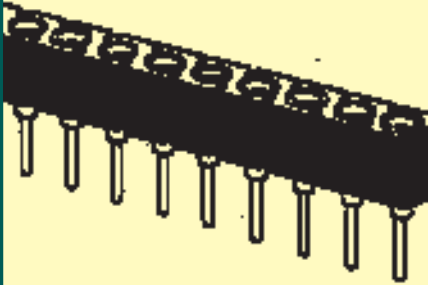


**WINSLOW ADAPTICs**  
**SINGLE INLINE**  
**IC SOCKETS**



**SERIES W35500T/G**

Precision pin, solder tail, standard pin

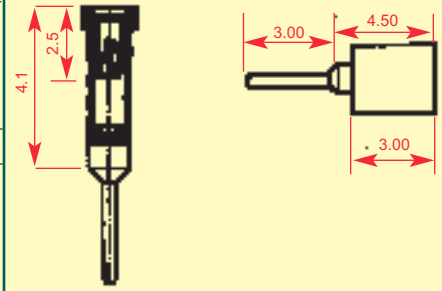


**STANDARD PIN-OUTS**

- W35520T = 20 PIN TIN PLATED
- W35520G = 20 PIN GOLD PLATED
- W35532T = 32 PIN TIN PLATED
- W35532G = 32 PIN GOLD PLATED

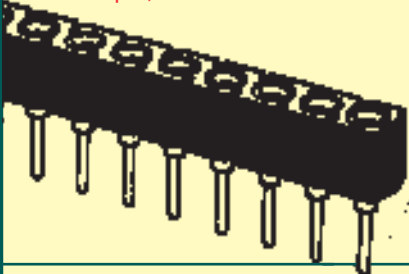
**SPECIAL PIN-OUTS**

Product snaps to length required. Customers may order specific pin outs as follows;  
**W355(xx)T or W355(xx)G**  
 Insert number of pins required in place of (xx)  
 Minimum 1 - Maximum 32



**SERIES W35500SFT/SFG**

Super flat, hollow tail  
 Precision pin, solder tail

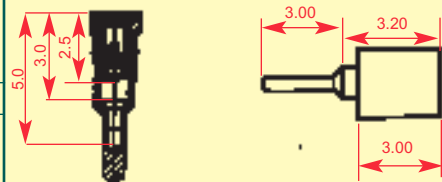


**STANDARD PIN-OUTS**

- W35520SFT = 20 PIN TIN PLATED
- W35520SFG = 20 PIN GOLD PLATED
- W35532SFT = 32 PIN TIN PLATED
- W35532SFG = 32 PIN GOLD PLATED

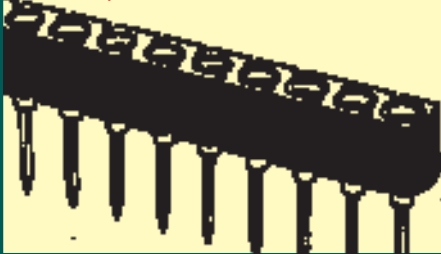
**SPECIAL PIN-OUTS**

Product snaps to length required. Customers may order specific pin outs as follows;  
**W355(xx)SFT or W355(xx)SFG**  
 Insert number of pins required in place of (xx)  
 Minimum 1 - Maximum 32



**SERIES W36600T2/G2**

Precision pin, 2-Level wire wrap  
 standard pin

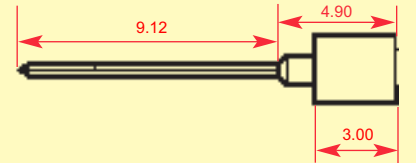


**STANDARD PIN-OUTS**

- W35520T2 = 20 PIN TIN PLATED
- W35520G2 = 20 PIN GOLD PLATED
- W35532T2 = 32 PIN TIN PLATED
- W35532G2 = 32 PIN GOLD PLATED

**SPECIAL PIN-OUTS**

Product snaps to length required. Customers may order specific pin outs as follows;  
**W355(xx)T2 or W355(xx)G2**  
 Insert number of pins required in place of (xx)  
 Minimum 1 - Maximum 32



**SERIES W36600T3/G3**

Precision pin, 3-Level wire wrap  
 standard pin

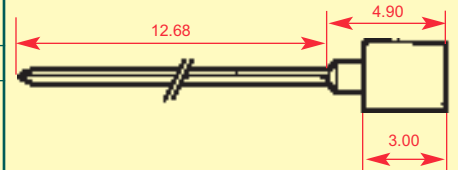


**STANDARD PIN-OUTS**

- W35520T3 = 20 PIN TIN PLATED
- W35520G3 = 20 PIN GOLD PLATED
- W35532T3 = 32 PIN TIN PLATED
- W35532G3 = 32 PIN GOLD PLATED

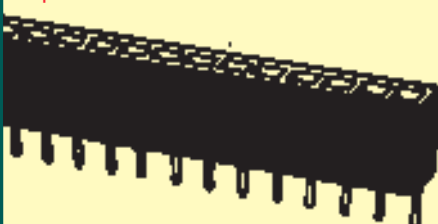
**SPECIAL PIN-OUTS**

Product snaps to length required. Customers may order specific pin outs as follows;  
**W355(xx)T3 or W355(xx)G3**  
 Insert number of pins required in place of (xx)  
 Minimum 1 - Maximum 32



**SERIES W34400T/G**

Stamped pin  
 High profile for LCDs and HYBRIDS  
 30 pin for SIP Modules

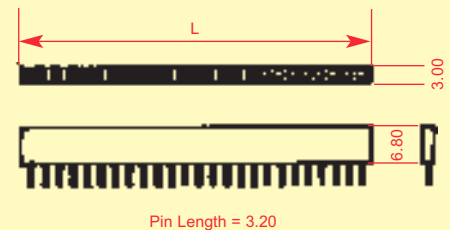


**STANDARD PIN-OUTS**

- |                     |                    |
|---------------------|--------------------|
| W34420T=20 PIN/TIN  | W34430T=30 PIN/TIN |
| W34420G=20 PIN/GOLD | W34430G=30PIN/GOLD |
| W34425T=25 PIN/TIN  | W34425T=34 PIN/TIN |
| W34425G=25 PIN/GOLD | W34425G=34PIN/GOLD |

**SPECIAL PIN-OUTS**

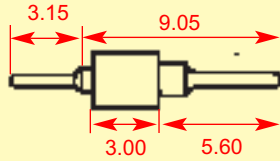
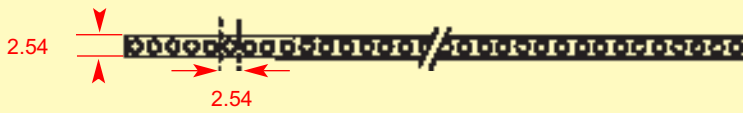
Product snaps to length required. Customers may order specific pin outs as follows;  
**W355(xx)G or W355(xx)G**  
 Insert number of pins required in place of (xx)  
 Minimum 1 - Maximum 32



**WINSLOW ADAPTICs**  
**COMPONENT**  
**HEADERS**  
 SINGLE INLINE

**SERIES W66500T/TPG**

Through pin, solder tail



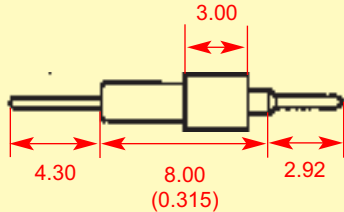
W66520TPT = 20 PIN/TIN  
 W66520TPG = 20 PIN/GOLD  
 W66532TPT = 32 PIN/TIN  
 W66532TPG = 32 PIN/GOLD

**SPECIAL PIN-OUTS**

W665(xx)TPT Insert no. of pins in place  
 W665(xx)TPG of (xx) Min 1 - Max 32

**SERIES W66700ET315/EG315**

Elevating header, through pin



Height over PCB = 0.315"

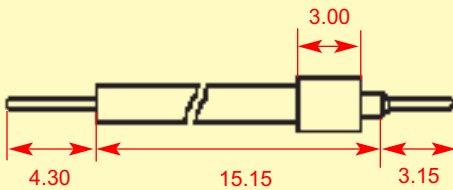
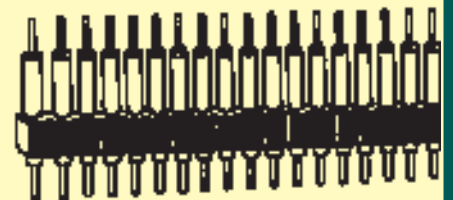
W66720ET315 = 20 PIN/TIN  
 W66720EG315 = 20 PIN/GOLD  
 W66732ET315 = 32 PIN/TIN  
 W66732EG315 = 32 PIN/GOLD

**SPECIAL PIN-OUTS**

W667(xx)ET315 Insert no. of pins in place  
 W667(xx)EG315 of (xx) Min 1 - Max 32

**SERIES W66700ET596/EG596**

Elevating header, through pin



Height over PCB = 0.596"

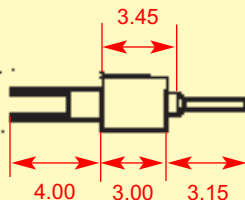
W66720ET596 = 20 PIN/TIN  
 W66720EG596 = 20 PIN/GOLD  
 W66732ET596 = 32 PIN/TIN  
 W66732EG596 = 32 PIN/GOLD

**SPECIAL PIN-OUTS**

W667(xx)ET596 Insert no. of pins in place  
 W667(xx)EG596 of (xx) Min 1 - Max 32

**SERIES W66500SPT/SPG**

Slotted pin, solder tail



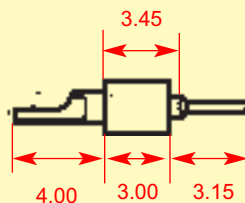
W66520SPT = 20 PIN/TIN  
 W66520SPG = 20 PIN/GOLD  
 W66532SPT = 32 PIN/TIN  
 W66532SPG = 32 PIN/GOLD

**SPECIAL PIN-OUTS**

W665(xx)SPT Insert no. of pins in place  
 W665(xx)SPG of (xx) Min 1 - Max 32

**SERIES W66500SCT/SCG**

Solder cup, solder tail



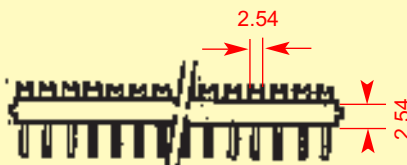
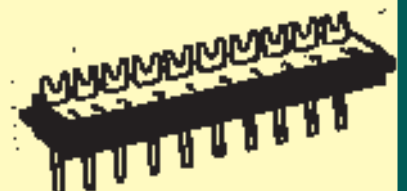
W66520SCT = 20 PIN/TIN  
 W66520SCG = 20 PIN/GOLD  
 W66532SCT = 32 PIN/TIN  
 W66532SCG = 32 PIN/GOLD

**SPECIAL PIN-OUTS**

W665(xx)SCT Insert no. of pins in place  
 W665(xx)SCG of (xx) Min 1 - Max 32

**SERIES W66000T/G**

Slotted pin, stamped solder tail



**PART NUMBER EXPLANATION :**

W660 (xx) (x)  
 In place of (xx) put number of contacts required - option ;  
 4 - 8 - 10 - 12 - 16 - 20 - 24

In place of (x)  
 "T" = TIN  
 "G" = GOLD

**SERIES W3100T/G**

**PHOSPHER BRONZE CONTACTS**

- \* Designed for automatic PCB Loading Machines
- \* Overstress protection
- \* Large target area for ease of IC insertion
- \* 94 V-O UL Rated Material
- \* Contact angled 35° to prevent IC leg going behind the contact

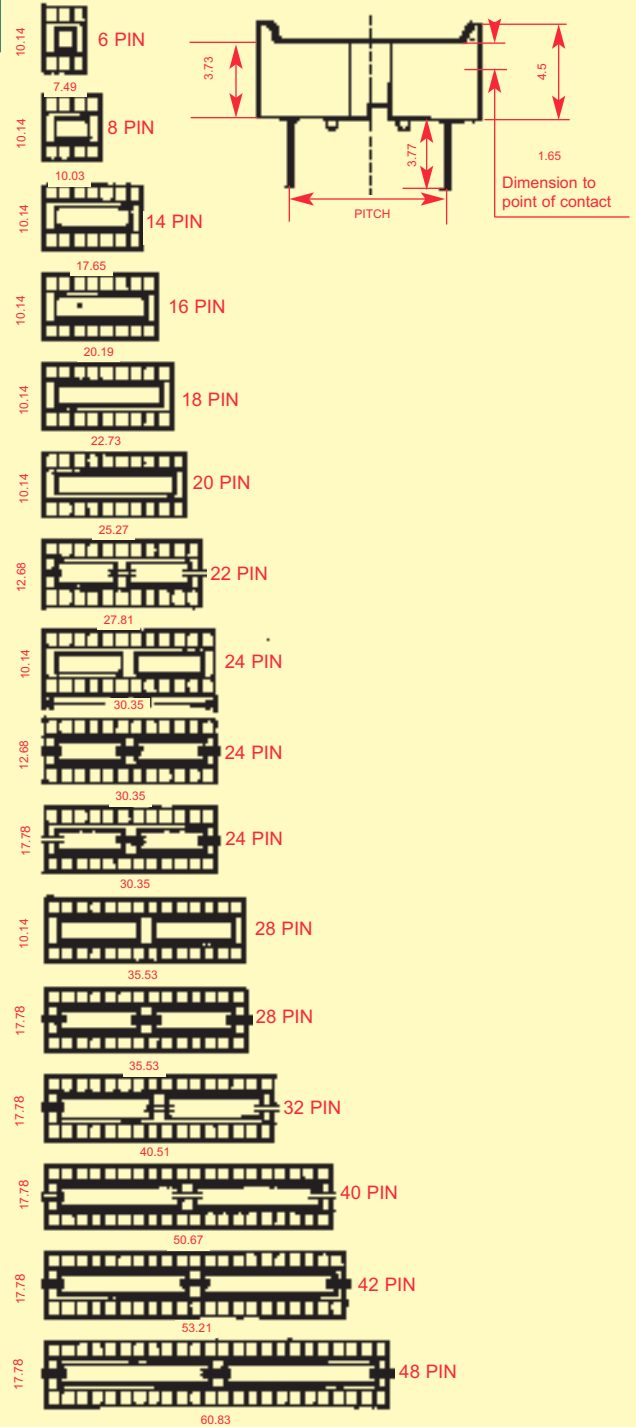


**SUFFIXES**  
 Suffix T=Tin  
 Suffix TG=Tin Tail, Gold in contact area.

**EXAMPLE:** W3128TG =28 pin, selective Gold contacts, Tin Tail, Gold contact area

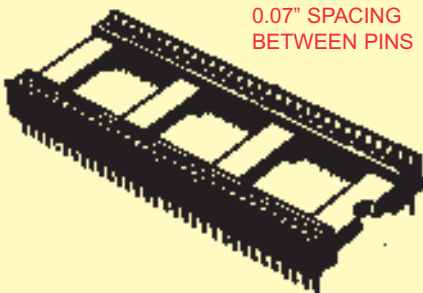
**DIMENSION**

PIN/PITCH	PART NUMBER
6 PIN 0.3"	W3106T W3106TG
8 PIN 0.3"	W3108T W3108TG
14 PIN 0.3"	W3114T W3114TG
16 PIN 0.3"	W3116T W116TG
18 PIN 0.3"	W3118T W3118TG
20 PIN 0.3"	W3120T W120TG
22 PIN 0.4"	W3122T W3122TG
24 PIN 0.3"	W3124/3T W3124/3TG
24 PIN 0.4"	W3124/4T W3124/4TG
24 PIN 0.6"	W3124T W3124TG
28 PIN 0.3"	W3128/3T W3128/3TG
28 PIN 0.6"	W3128T W3128TG
32 PIN 0.6"	W3132T W3132TG
40 PIN 0.6"	W3140T W3140TG
42 PIN 0.6"	W3142T W3142TG
48 PIN 0.6"	W3148T W3148TG

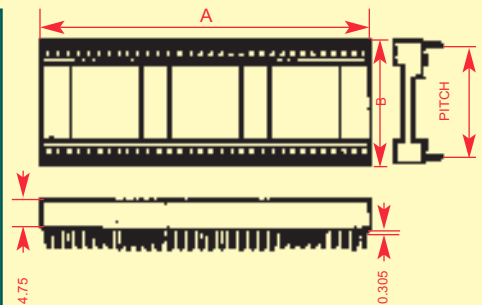


**SERIES W3100 SHRINKS**

0.07" SPACING BETWEEN PINS

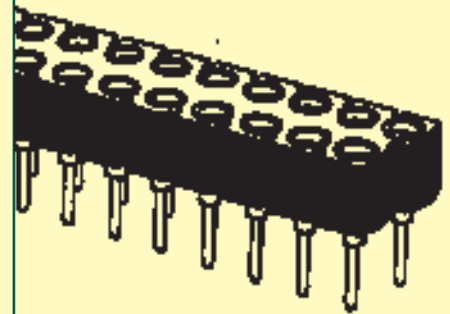
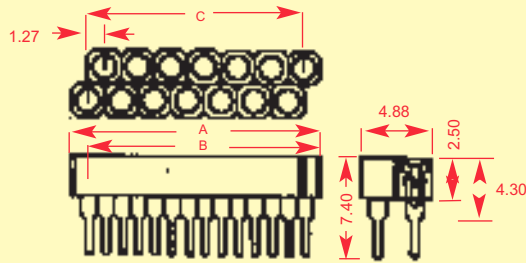


PART NUMBER	NO. OF PINS	PITCH	DIMENSIONS	
			A	B
W3124/407T	24	10.16	21.34	12.70
W3124/407G	24	10.16	21.34	12.70
W3128/407T	28	10.16	24.89	12.70
W3128/407G	28	10.16	24.89	12.70
W3130/407T	30	10.16	26.67	12.70
W3130/407G	30	10.16	26.67	12.70
W3140/607T	40	15.24	35.56	17.78
W3140/607G	40	15.24	35.56	17.78
W3142/607T	42	15.24	35.34	17.78
W3142/607G	42	15.24	35.34	17.78
W3164/607T	64	19.05	56.89	21.59
W3164/607GH	64	19.05	56.89	21.59





Zig Zag sockets  
Precision pin, Solder tail

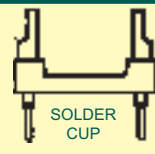
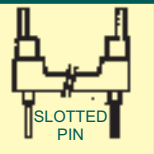
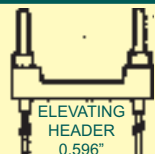
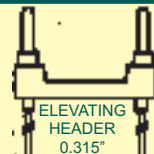
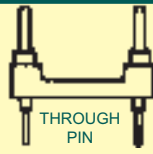


Part Number	No. of Pins	Dimensions		
		A	B	C
W30516ZT	16	20.75	20.32	19.05
W30516ZG	16	20.75	20.32	19.05
W30520ZT	20	25.83	25.40	24.13
W30520ZG	20	25.83	25.40	24.13
W30524ZT	24	31.99	30.48	28.96
W30524ZG	24	31.99	30.48	28.96
W30528ZT	28	35.58	35.06	33.79
W30528ZG	28	35.58	35.06	33.79

**WINSLOW ADAPTICs**  
**COMPONENT**

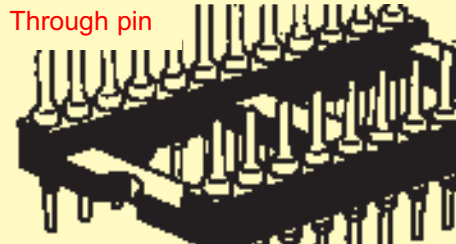
**HEADERS**

DUAL IN LINE



**SERIES W60500TPT/TPG**

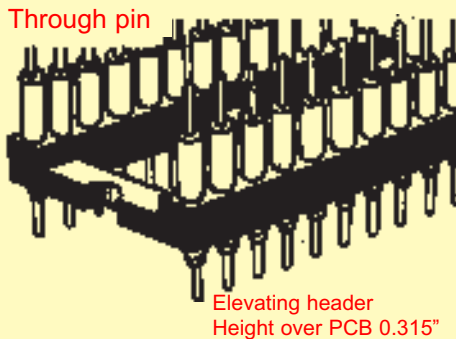
Through pin



PITCH	CONTACT A	CONTACT E	CONTACT F	CONTACT B	CONTACT C
4 PIN 0.3"	W60504TPT	W60704ET315	W60704ET596	W60504SPT	W60504SCT
	W60504TPG	W60704EG315	W60704EG596	W60504SPG	W60504SCG
6 PIN 0.3"	W60506TPT	W60706ET315	W60706ET596	W60506SPT	W60506SCT
	W60506TPG	W60706EG315	W60706EG596	W60506SPG	W60506SCG
8 PIN 0.3"	W60508TPT	W60708ET315	W60708ET596	W60508SPT	W60508SCT
	W60508TPG	W60708EG315	W60708EG596	W60508SPG	W60508SCG
10 PIN 0.2"	W60510TPT	W60710ET315	W60710ET596	W60510SPT	W60510SCT
	W60510TPG	W60710EG315	W60710EG596	W60510SPG	W60510SCG

**SERIES W60700ET315/EG315**

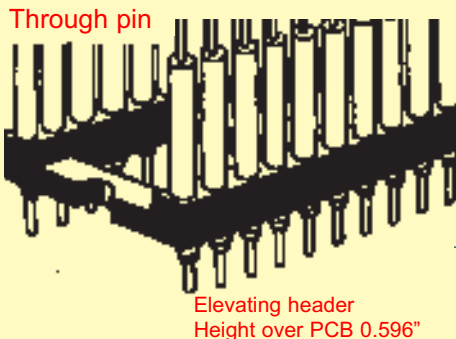
Through pin



14 PIN 0.3"	W60514TPT	W60714ET315	W60714ET596	W60514SPT	W60514SCT
	W60514TPG	W60714EG315	W60714EG596	W60514SPG	W60514SCG
16 PIN 0.3"	W60516TPT	W60716ET315	W60716ET596	W60516SPT	W60516SCT
	W60516TPG	W60716EG315	W60716EG596	W60516SPG	W60516SCG
18 PIN 0.3"	W60518TPT	W60718ET315	W60718ET596	W60518SPT	W60518SCT
	W60518TPG	W60718EG315	W60718EG596	W60518SPG	W60518SCG
20 PIN 0.3"	W60520TPT	W60720ET315	W60720ET596	W60520SPT	W60520SCT
	W60520TPG	W60720EG315	W60720EG596	W60520SPG	W60520SCG
22 PIN 0.4"	W60522TPT	W60722ET315	W60722ET596	W60522SPT	W60522SCT
	W60522TPG	W60722EG315	W60722EG596	W60522SPG	W60522SCG
24 PIN 0.3"	W60524/3TPT	W60724/3ET315	W60724/3ET596	W60524/3SPT	W60524/3SCT
	W60524/3TPG	W60724/3EG315	W60724/3EG596	W60524/3SPG	W60524/3SCG

**SERIES W60700ET596/EG596**

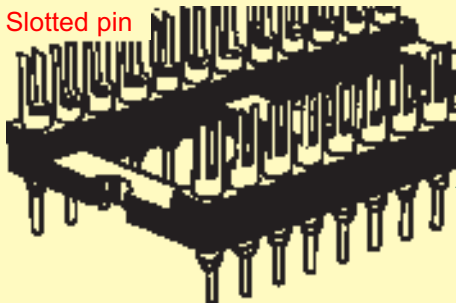
Through pin



24 PIN 0.4"	W60524/4TPT	W60724/4ET315	W60724/4ET596	W60524/4SPT	W60524/4SCT
	W60524/4TPG	W60724/4EG315	W60724/4EG596	W60524/4SPG	W60524/4SCG
24 PIN 0.6"	W60524TPT	W60724ET315	W60724ET596	W60524SPT	W60524SCT
	W60524TPG	W60724EG315	W60724EG596	W60524SPG	W60524SCG
28 PIN 0.3"	W60528/3TPT	W60728/3ET315	W60728/3ET596	W60528/3SPT	W60528/3SCT
	W60528/3TPG	W60728/3EG315	W60728/3EG596	W60528/3SPG	W60528/3SCG
28 PIN 0.4"	W60528/4TPT	W60728/4ET315	W60728/4ET596	W60528/4SPT	W60528/4SCT
	W60528/4TPG	W60728/4EG315	W60728/4EG596	W60528/4SPG	W60528/4SCG
28 PIN 0.6"	W60528TPT	W60728ET315	W60728ET596	W60528SPT	W60528SCT
	W60528TPG	W60728EG315	W60728EG596	W60528SPG	W60528SCG

**SERIES W60500SPT/SPG**

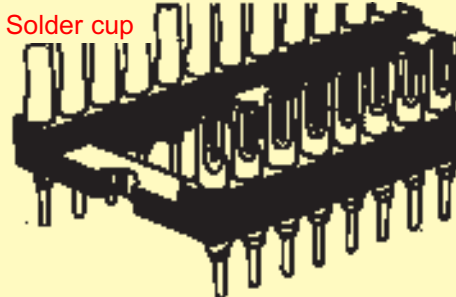
Slotted pin



32 PIN 0.6"	W60532TPT	W60732ET315	W60732ET596	W60532SPT	W60532SCT
	W60532TPG	W60732EG315	W60732EG596	W60532SPG	W60532SCG
36 PIN 0.6"	W60536TPT	W60736ET315	W60736ET596	W60536SPT	W60536SCT
	W60536TPG	W60736EG315	W60736EG596	W60536SPG	W60536SCG
40 PIN 0.6"	W60540TPT	W60740ET315	W60740ET596	W60540SPT	W60540SCT
	W60540TPG	W60740EG315	W60740EG596	W60540SPG	W60540SCG
42 PIN 0.6"	W60542TPT	W60742ET315	W60742ET596	W60542SPT	W60542SCT
	W60542TPG	W60742EG315	W60742EG596	W60542SPG	W60542SCG
48 PIN 0.6"	W60548TPT	W60748ET315	W60748ET596	W60548SPT	W60548SCT
	W60548TPG	W60748EG315	W60748EG596	W60548SPG	W60548SCG

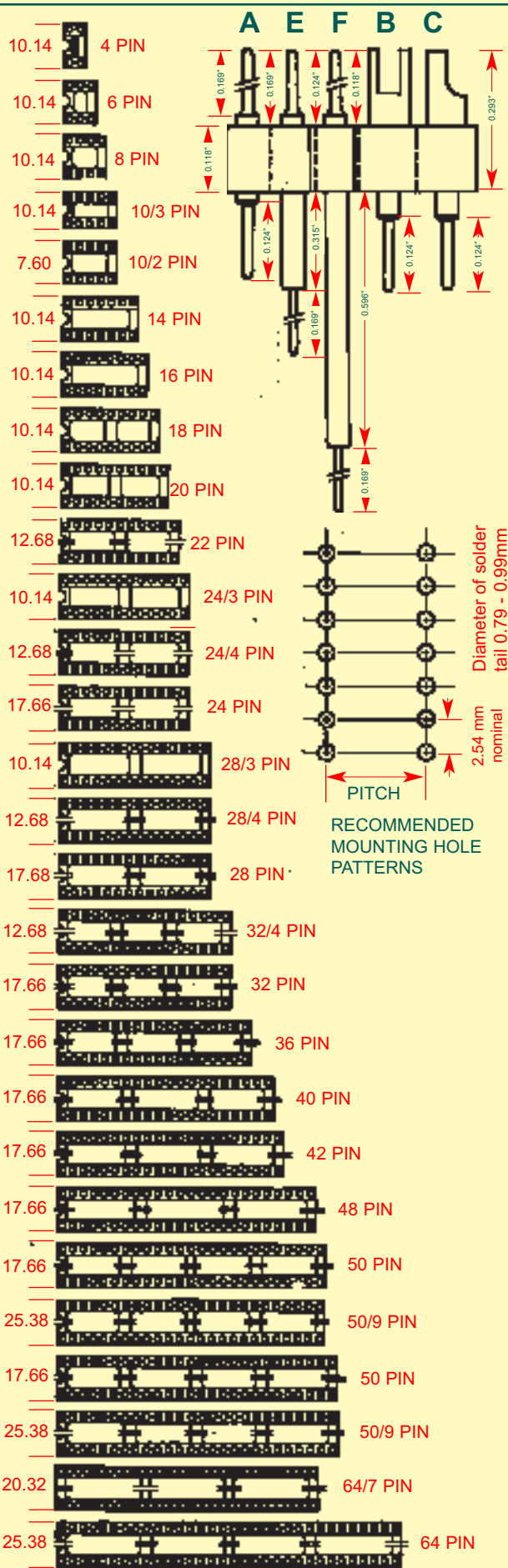
**SERIES W60700SCT/SCG**

Solder cup



50 PIN 0.6"	W60550TPT	W60750ET315	W60750ET596	W60550SPT	W60550SCT
	W60550TPG	W60750EG315	W60750EG596	W60550SPG	W60550SCG
50 PIN 0.9"	W60550/9TPT	W60750/9ET315	W60750/9ET596	W60550/9SPT	W60550/9SCT
	W60550/9TPG	W60750/9EG315	W60750/9EG596	W60550/9SPG	W60550/9SCG
52 PIN 0.6"	W60552TPT	W60752ET315	W60752ET596	W60552SPT	W60552SCT
	W60552TPG	W60752EG315	W60752EG596	W60552SPG	W60552SCG
52 PIN 0.9"	W60552/9TPT	W60752/9ET315	W60752/9ET596	W60552/9SPT	W60552/9SCT
	W60552/9TPG	W60752/9EG315	W60752/9EG596	W60552/9SPG	W60552/9SCG
64 PIN 0.7"	W60564/7TPT	W60764/7ET315	W60764/7ET596	W60564/7SPT	W60564/7SCT
	W60564/7TPG	W60764/7EG315	W60764/7EG596	W60564/7SPG	W60564/7SCG
64 PIN 0.9"	W60564/9TPT	W60764/9ET315	W60769/9ET596	W60564/9SPT	W60564/9SCT
	W60564/9TPG	W60764/9EG315	W60769/9EG596	W60564/9SPG	W60564/9SCG

# DIMENSIONS

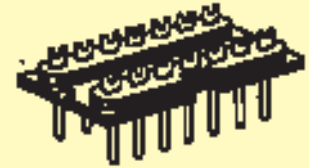


## WINSLOW ADAPTICs COMPONENT HEADERS SLOTTED PIN DIL

PART NUMBER	NO. OF PINS	Pitch
W6014T	14	0.3"
W6014G	14	0.3"
W6016T	16	0.3"
W6016G	16	0.3"
W6024T	24	0.6"
W6024G	24	0.6"

### SERIES W6000T/G

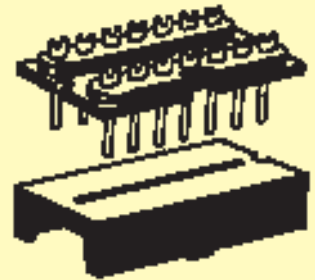
Stamped pin solder tail  
Without covers



PART NUMBER	NO. OF PINS	Pitch
W6114T	14	0.3"
W6114G	14	0.3"
W6116T	16	0.3"
W6116G	16	0.3"
W6124T	24	0.6"
W6124G	24	0.6"

### SERIES W6100T/G

Stamped solder tail  
With low cover



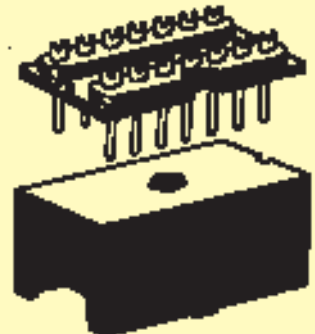
Height of covers  
14 pin & 16 pin 5.08mm 24 pin 7.62



PART NUMBER	NO. OF PINS	Pitch
W6214T	14	0.3"
W6214G	14	0.3"
W6216T	16	0.3"
W6216G	16	0.3"
W6224T	24	0.6"
W6224G	24	0.6"

### SERIES W6200T/G

Stamped pin solder  
with tall cover



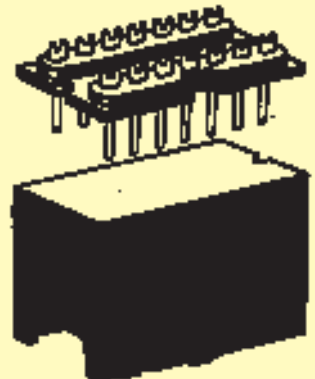
Height of covers  
14 pin & 16 pin 10.41mm 24 pin 15.49



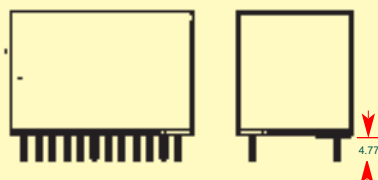
PART NUMBER	NO. OF PINS	Pitch
W6324T	24	0.6"
W6324G	24	0.6"

### SERIES W6324T/G

24 Pin solder tail extra tall cover



Height of cover 22.35mm



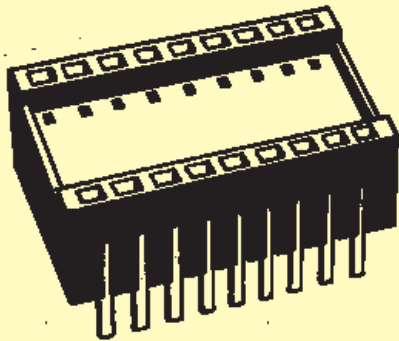


# WINSLOW ADAPTICs OPTO SOCKETS

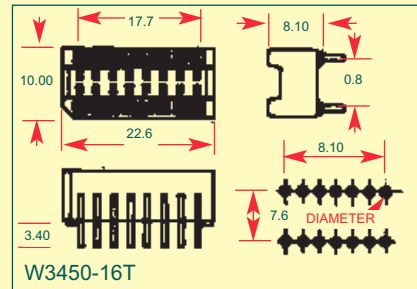
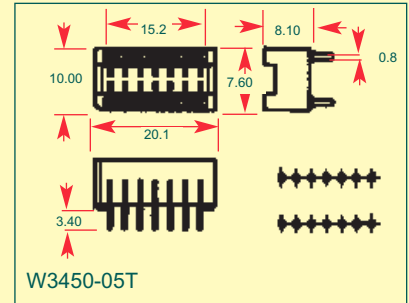
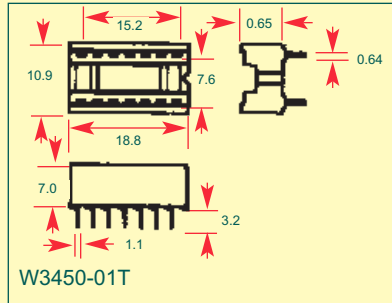
- \* PCB construction for accurate digit alignment
- \* Will accept 0.5mm wire leads or 0.64 x 0.4mm lead frame
- \* 4 different mounting styles

## SERIES W3450

PCB Mounting. Styled on on a conventional DIL Socket for mounting displays onto a PCB at any angle.

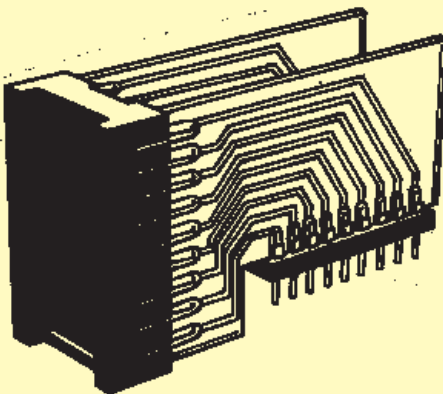


PART NUMBER	TERMINAL TYPE	PINS	PITCH
W3450-01T	LEAD FRAME	14	0.3"
W3450-05T	WIRE	14	0.3"
W3450-16T	LEAD FRAME	16	0.3"

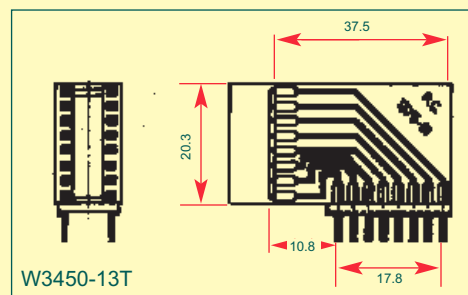
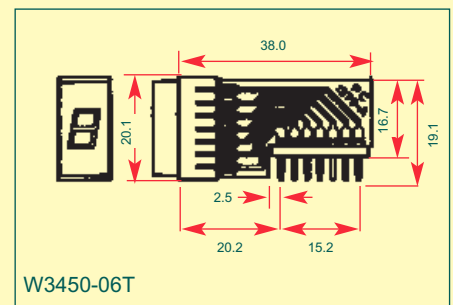
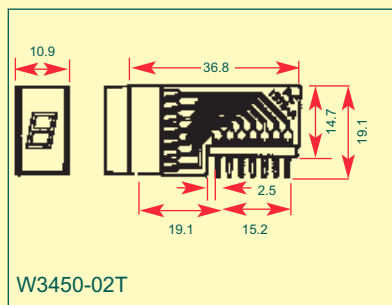


## SERIES W3450

Low line 90° mounting for mounting displays at 90° to the PCB keeping the lowest profile possible. With this configuration the bottom of the display will be below the level of the PCB.



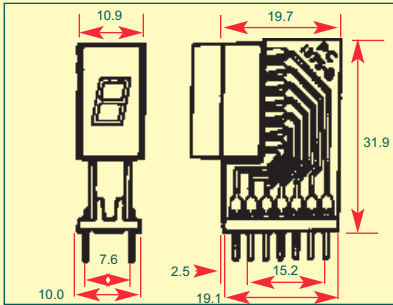
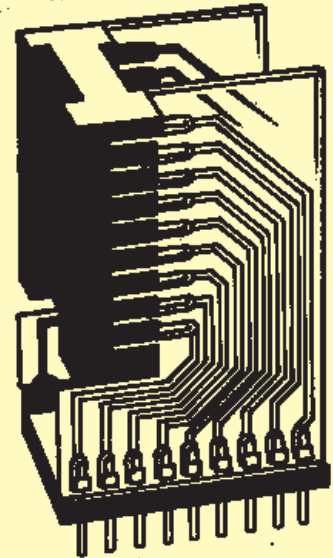
PART NUMBER	TERMINAL TYPE	PINS	PITCH
W3450-02T	LEAD FRAME	14	0.3"
W3450-08T	WIRE	14	0.3"
W3450-13T	LEAD FRAME	16	0.3"



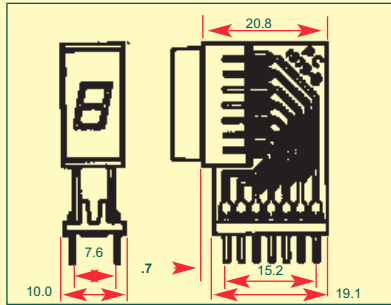
PART NUMBER	TERMINAL TYPE	PINS	PITCH
W3450-03T	LEAD FRAME	14	0.3"
W3450-07T	WIRE	14	0.3"
W3450-14T	LEAD FRAME	16	0.3"

**SERIES W3450**

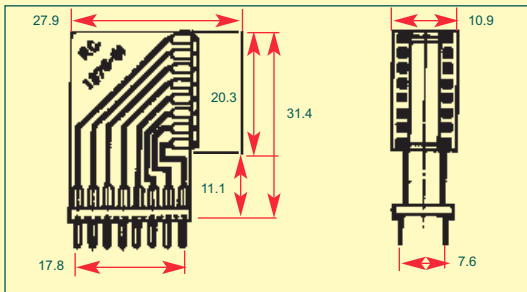
High Line 90° mounting. Also for mounting displays at 90° to the PCB but with a much higher stand-off. With this socket, the display will be substantially above the PCB level.



W3450-03T



W3450-07T

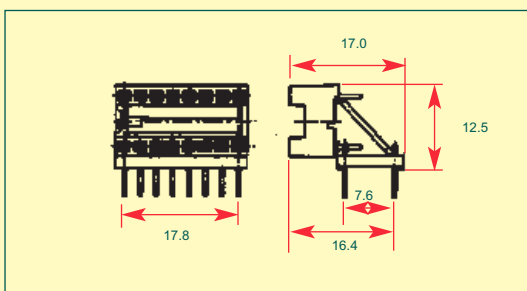
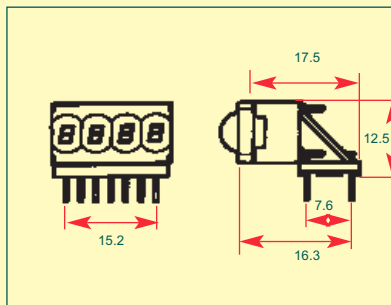
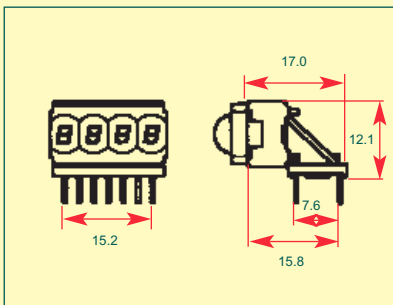
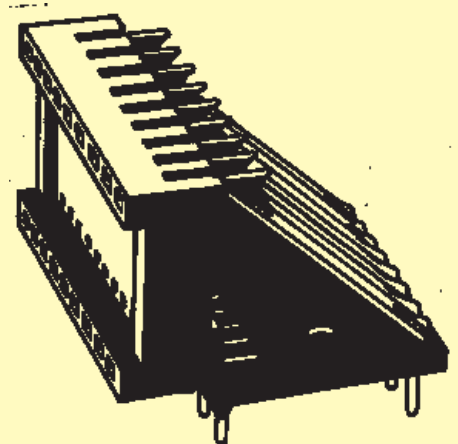


W3450-15T

PART NUMBER	TERMINAL TYPE	PINS	PITCH
W3450-04T	LEAD FRAME	14	0.3"
W3450-08T	WIRE	14	0.3"
W3450-13T	LEAD FRAME	16	0.3"

**SERIES W3450**

Side line 90° mounting ideal multi digit displays or for mounting devices on vertical PCBs

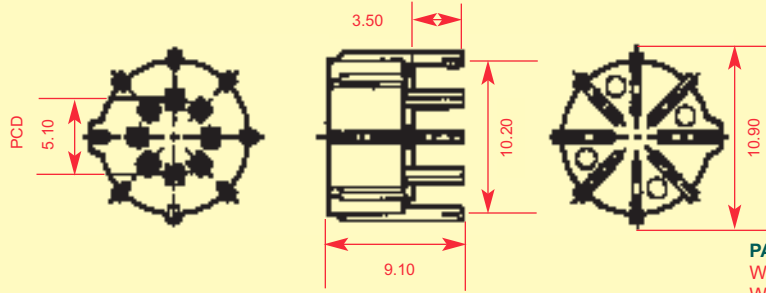


# WINSLOW ADAPTICs SPECIAL PURPOSE IC SOCKETS

- \* Moulded in 30% glass-filled polyester UL94 V-O
- \* Contacts gold or tin plated phosphor bronze
- \* Tuning fork contacts (except W3463 which is stamped and formed)
- \* All products have anti-moisture feet which also aid PCB cleaning
- \* -65°C + 150°C temperature range

## W3401

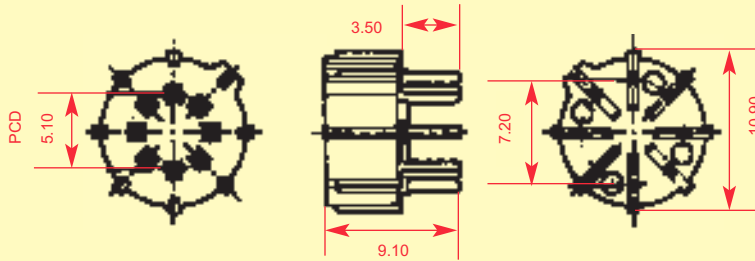
TO99 8 pin, 0.1" square grid



**PART NUMBERS**  
W3401T=TIN  
W3401G=GOLD

## W3433

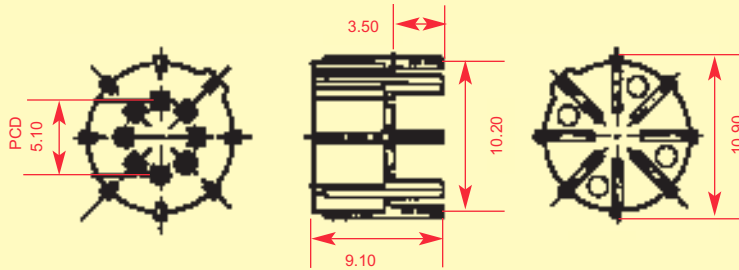
TO99 8 pin, 0.28" PCD



**PART NUMBERS**  
W3433T=TIN  
W3433G=GOLD

## W3432

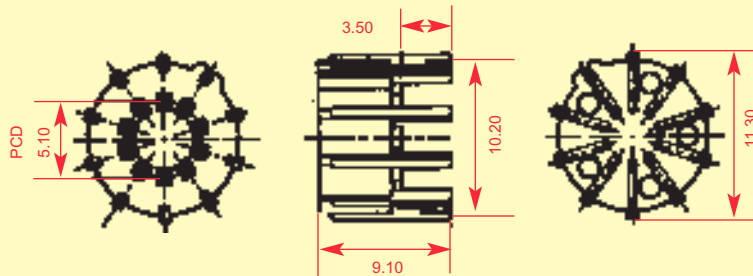
TO99 8 pin, 0.4" PCD



**PART NUMBERS**  
W3432T=TIN  
W3432G=GOLD

## W3402

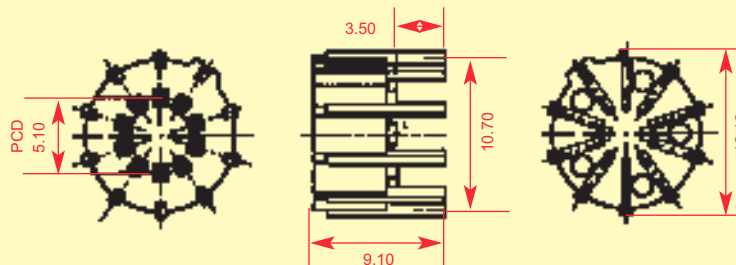
TO100 10 pin, 0.4" PCD



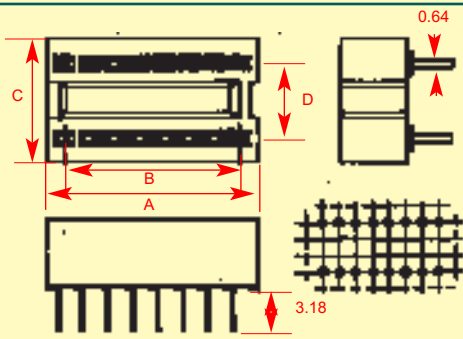
**PART NUMBERS**  
W3402T=TIN  
W3402G=GOLD

## W3431

TO99 10 pin, 0.28" PCD



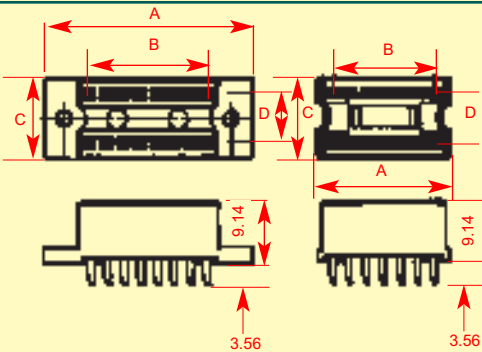
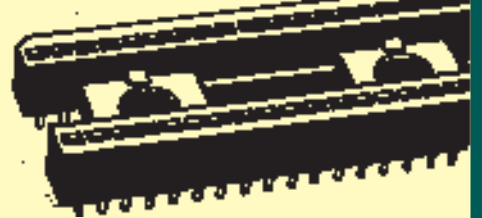
**PART NUMBERS**  
W3431T=TIN  
W3431G=GOLD



PART NUMBER	PINS	A	B	C	D
W3440-08	8	11.176	7.62	12.446	7.62
W3440-14	14	18.796	15.24	12.446	7.62
W3440-16	16	21.336	17.78	12.446	7.62
W3440-24	24	31.496	27.94	20.066	15.24
W3440-28	28	36.576	33.02	20.066	15.24
W3440-40	40	51.816	48.26	20.066	15.24

Suffix T = Tin, G = 0.25y Gold

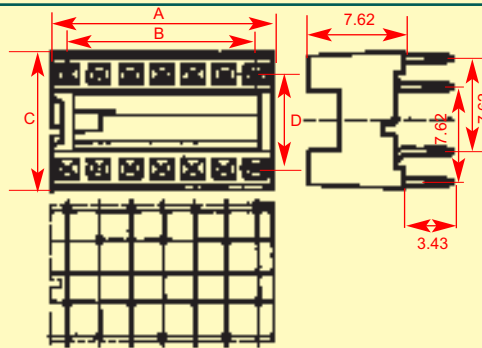
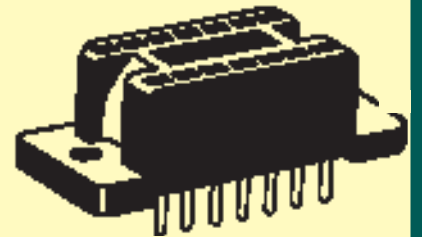
**SERIES W3440-00**  
 SUITABLE FOR LCDs & HYBRIDS  
 High profile robust design.  
 Phosphor bronze contacts



PART NUMBER	PINS	A	B	C	D
W3460-14G	8	19.812	15.24	12.344	7.62
W3461-14G*	14	31.750	15.24	12.344	7.62
W3460-16G	16	22.352	17.78	12.344	7.62
W3461-16G*	24	31.750	27.94	12.344	7.62

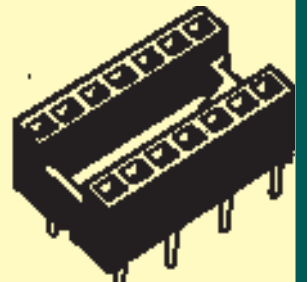
\* With mounting lugs (see picture)

**SERIES W3460-00**  
 TEST SOCKETS  
 Heavy duty beryllium copper contacts

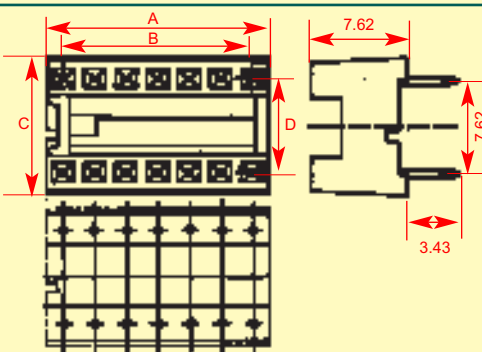


PART NUMBER	PINS	A	B	C	D
W3490-14Q	14	17.65	15.24	10.922	7.62
W3490-16Q	16	20.19	17.78	10.922	7.62
W3490-18Q	18	22.73	20.32	10.922	7.62

Gives 0.2" pitch with no loss of PCB space. Removeable body permits top side solder inspection.

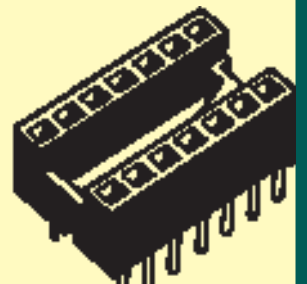


**SERIES W3490-00Q**  
 CONVERTS DIL to QIL

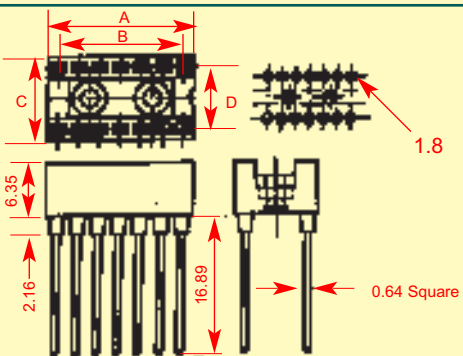


PART NUMBER	PINS	A	B	C	D
W3490-14Q	14	17.65	15.24	10.922	7.62
W3490-16Q	18	20.19	17.78	10.922	7.62
W3490-18Q	18	22.73	20.32	10.922	7.62

Removeable body permits top side solder inspection.



**SERIES W3490-00D**  
 DUAL IN LINE



PART NUMBER	PINS	A	B	C	D
W3714	8	17.78	15.24	10.16	7.62
W3716	16	20.32	17.78	10.16	7.62
W3724	24	30.48	27.94	17.78	15.24

Suffix T = Tin, G = 0.25u Gold

**SERIES W3700**  
 STAMPED EDGE WIPE WIRE WRAP

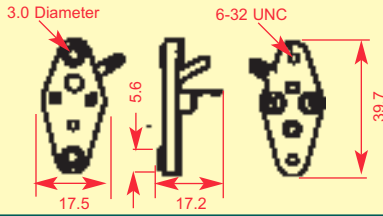




**WINSLOW ADAPTICs**  
**TRANSISTER SOCKETS**

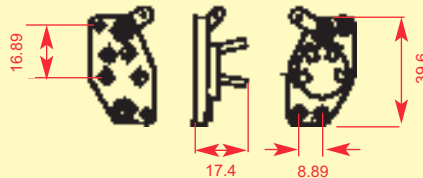
[www.winslowadaptics.com](http://www.winslowadaptics.com)

**W3400**  
TO3  
5 amp.



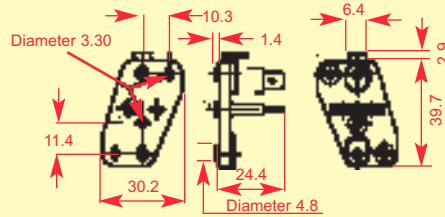
**PART NUMBERS**  
W3400T=TIN  
W3400G=GOLD  
Filled Phenolic resin

**W3470**  
TO3  
4 Pin



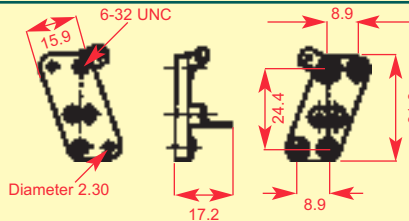
**PART NUMBERS**  
W3470T=TIN  
Plating Tin  
Filled Phenolic resin

**W3438**  
TO 3  
15 amp



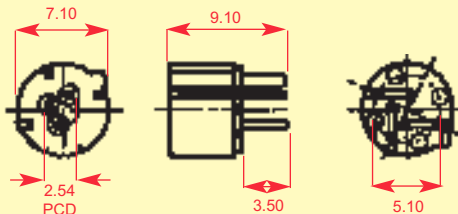
**PART NUMBERS**  
W3438T=TIN  
Plating Tin  
30% G.F. Polester  
UL94V-0

**W3406**  
TO66P  
5 amp



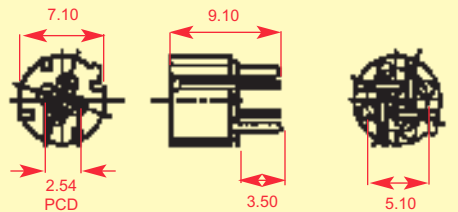
**PART NUMBERS**  
W3406T=TIN  
Plating Tin  
Filled Phenolic resin

**W3435**  
TO18  
3 pin  
0.2" PCD



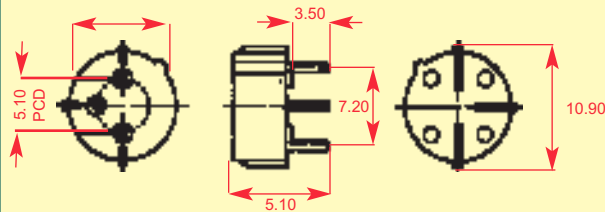
**PART NUMBERS**  
W3435T = TIN  
W3435G = Gold  
30% G.F. Polester  
UL94V-0

**W3436**  
TO18  
4 pin  
0.2" PCD



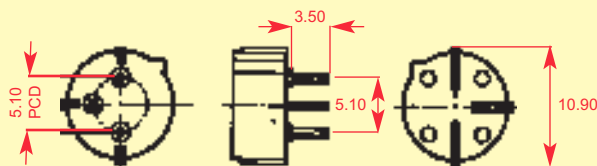
**PART NUMBERS**  
W3436T = TIN  
W3436G = Gold  
30% G.F. Polester  
UL94V-0

**W3434**  
TO5  
3 pin  
0.28" PCD

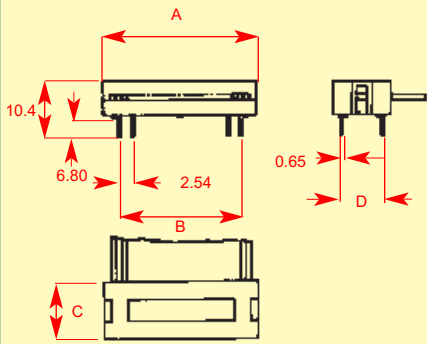


**PART NUMBERS**  
W3434T = TIN  
W3434G = Gold  
30% G.F. Polester  
UL94V-0

**W3437**  
TO5  
3 pin  
0.2" PCD



**PART NUMBERS**  
W3437T = TIN  
W3437G = Gold  
30% G.F. Polester  
UL94V-0

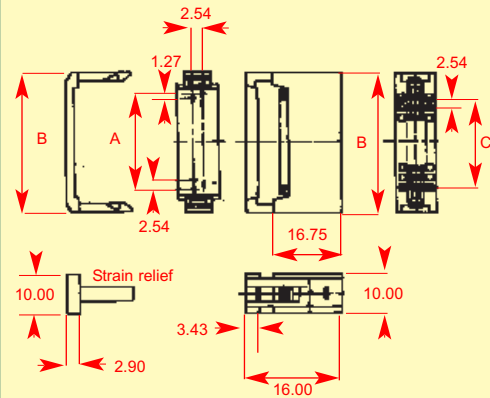
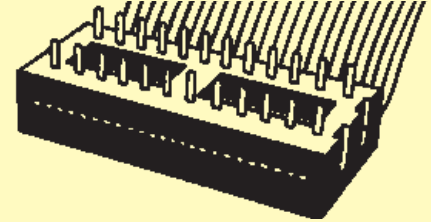


PART NUMBER	PINS	A	B	C	D
W7208	8	12.42	7.62	10.80	7.62
W7210	10	15.11	10.16	10.80	7.62
W7214	14	20.50	15.24	10.80	7.62
W7216	16	23.20	17.78	10.80	7.62
W7218	18	25.65	20.32	10.80	7.62
W7220	20	28.30	22.86	10.80	7.62
W7224	24	32.46	27.94	18.36	15.24
W7228	28	37.65	33.02	18.36	15.24
W7236	36	47.65	43.18	18.36	15.24
W7240	40	53.08	48.26	18.36	15.24

Suffix T = Tin, G = Gold Flash

**SERIES W7200**

**DIL PLUG CONNECTORS**  
Ideal for board-to-board or MPU emulation. Ribbed and Grooved for positive cable positioning.

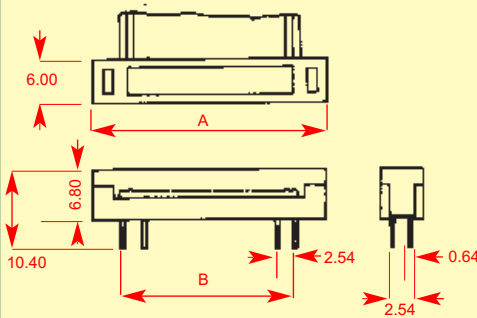
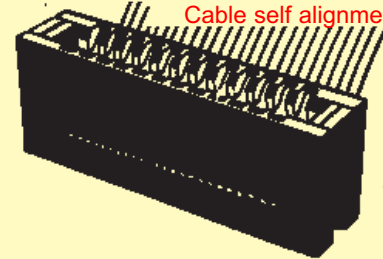


PART NUMBER	PINS	A	B	C
W7310	10	11.43	22.20	10.16
W7314	14	16.51	27.30	15.24
W7316	16	19.05	29.80	17.78
W7320	20	24.13	34.90	22.86
W7326	26	31.75	42.50	30.48
W7334	34	41.91	52.70	40.64
W7340	40	49.53	60.20	48.26
W7344	44	54.61	65.40	53.34
W7350	50	62.63	73.00	60.96
W7360	60	74.93	85.60	73.66
W7364	64	80.01	90.68	78.74

Suffix T = Tin, G = Gold Flash

**SERIES W7300**

**CARD EDGE CONNECTORS**  
Reliable interface to double-sided PCBs. Cable self alignment slots

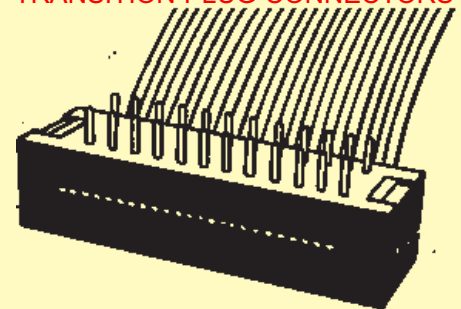


PART NUMBER	PINS	A	B
W7408	8	15.28	7.62
W7410	10	17.80	10.14
W7412	12	20.36	12.68
W7414	14	22.90	15.24
W7416	16	27.32	17.78
W7420	20	32.40	22.86
W7424	24	35.60	27.94
W7426	26	40.02	30.48
W7430	30	43.24	35.58
W7434	34	50.18	40.64
W7440	40	57.80	48.27
W7450	50	68.65	60.96
W7460	60	81.34	73.66
W7464	64	86.42	78.74

Suffix T = Tin, G = Gold Flash

**SERIES W74000**

**TRANSITION PLUG CONNECTORS**

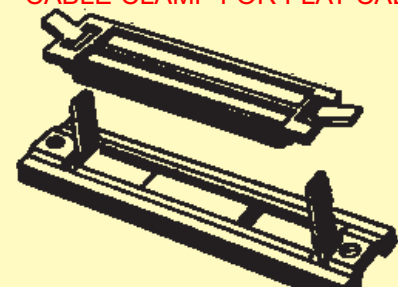


- \* Perfect solution to flat cable routing problems.
- \* Locks cable securely, can be released using one hand only.
- \* Three sizes - for use with up to 64-way cable.
- \* Will stack from 1 to 8 cables 0.035" (0.89mm) thick
- \* Can be fixed with rivets, bolts, screws or adhesive pads.

PART NUMBER	CABLE SIZE
W7700A	Up to 26-way
W7700B	Up to 40-way
W7700C	Up to 64-way

**SERIES W7700**

**CABLE CLAMP FOR FLAT CABLE**

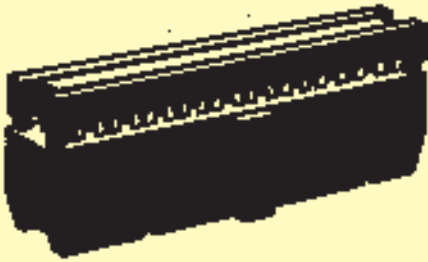


**WINSLOW ADAPTICs**  
**HEADER**  
**SOCKETS IDC**

[www.winslowadaptics.com](http://www.winslowadaptics.com)

**SERIES W7100**  
**WITHOUT STRAIN RELIEF**

- \* Meets MIL-C-83503
- \* Ribbed & grooved for positive cable positioning
- \* Mates with shielded headers
- \* AWG 28 or 30



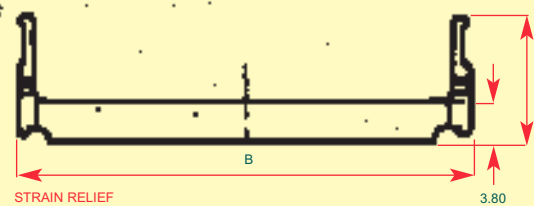
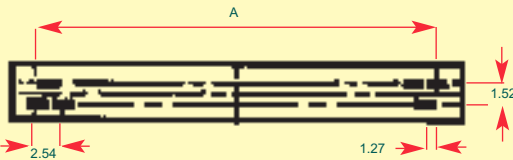
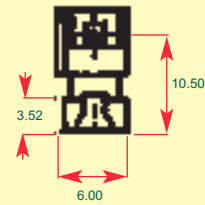
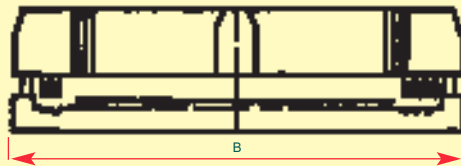
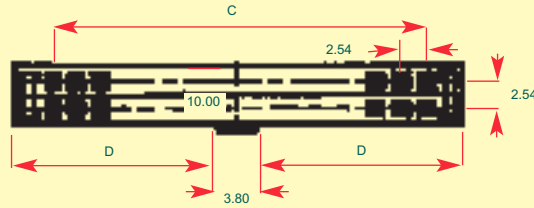
NO. OF PINS	A	B	C	D
10	11.43	17.27	10.16	6.74
14	16.51	22.35	15.24	9.28
16	19.05	24.89	17.78	10.55
20	24.13	29.97	22.86	13.09
26	31.75	37.59	30.48	16.90
30	36.83	42.67	35.56	19.44
34	41.91	47.75	40.64	21.98
40	49.53	55.37	48.26	25.79
50	62.63	68.07	60.96	32.14
60	74.93	80.77	73.66	38.49
64	80.01	85.85	78.74	41.03

**PART NUMBER EXPLANATION**



**SERIES W7100S**  
**WITH STRAIN RELIEF**

- \* Meets MIL-C-83503
- \* Ribbed & grooved for positive cable positioning
- \* Mates with shielded headers
- \* AWG 28 or 30



**SPECIFICATIONS**

Insulator      30% Glass Filled Polyester  
 Flamability    UL94V-0  
 Contact        Phosphor Bronze or Brass  
 Contact Plating    Gold over nickel  
                     (Standard Gold 0.25 microns)

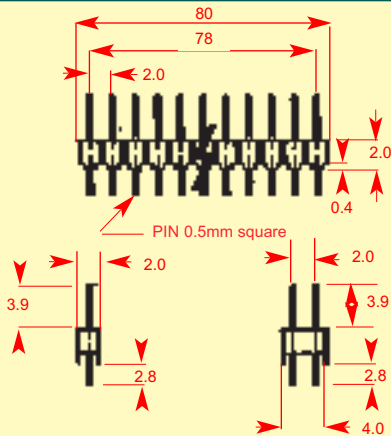
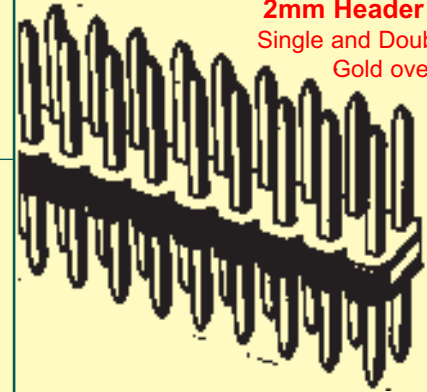
**Electrical**

Contact Resistance    10m Ohms max at 500V  
 Insulator Resistance   500M Ohms min at 500V  
 Current Rating        1 ampere  
 Voltage                500V AC for one minute  
 Operating              Temperature            -55°C to + 105°C

**WINSLOW ADAPTICs**  
**2mm SQUARE PIN**  
**HEADERS, SOCKETS**  
**& SHORTING LINKS**

**SERIES W281140/W282180**

**2mm Header - 180°**  
 Single and Double Row  
 Gold over Nickel



**STANDARD PIN-OUTS/STRAIGHT**  
 W281140G = 40 PIN SINGLE ROW  
 W282180G = 80 PIN DOUBLE ROW  
**SPECIAL PIN-OUTS**

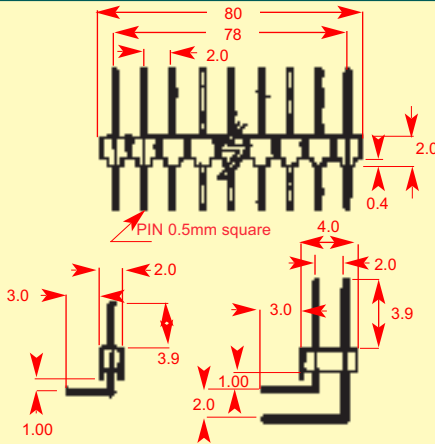
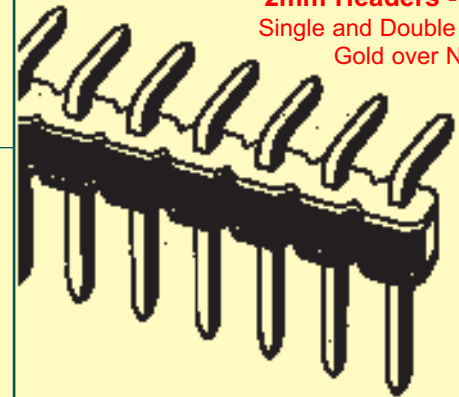
For smaller number of pins, replace '40' or '80'  
 with number of pins required

**SPECIFICATIONS**

Insulator	G.F. Polyester
Flamability	UL94V-0
Terminal	Copper Alloy
Pin Pushout Force	1KG (min)
Current Rating	1 Amp (max)
Temperature Rating	-55oC to + 125oC

**SERIES W281940/W282980**

**2mm Headers - 90°**  
 Single and Double Row  
 Gold over Nickel



**STANDARD PIN-OUTS/90°**  
 W281940G = 40 PIN SINGLE ROW  
 W282980G = 80 PIN DOUBLE ROW  
**SPECIAL PIN-OUTS**

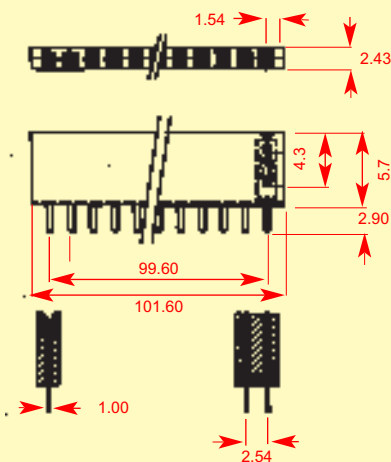
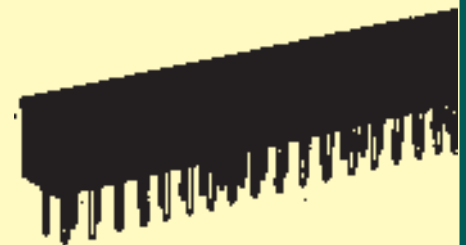
For smaller number of pins, replace '40' or '80'  
 with number of pins required

**SPECIFICATIONS**

Insulator	G.F. Polyester
Flamability	UL94V-0
Terminal	Copper Alloy
Pin Pushout Force	1KG (min)
Current Rating	1 Amp (max)
Temperature Rating	-55oC to + 125oC

**SERIES W23481140/  
 W23482180**

**2mm Header Socket**  
 Single and Double Row  
 Gold over Nickel



**STANDARD PIN-OUTS/STRAIGHT**  
 W23481140G = 40 PIN SINGLE ROW  
 W23482180G = 80 PIN DOUBLE ROW  
**SPECIAL PIN-OUTS**

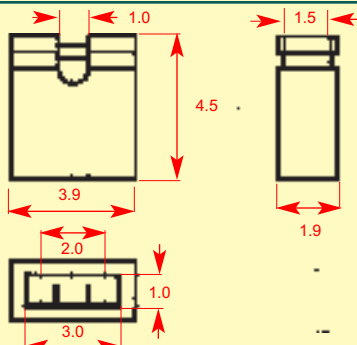
For smaller number of pins, replace '40' or '80'  
 with number of pins required

**SPECIFICATIONS**

Insulator	G.F. Polyester
Flamability	UL94V-0
Contacts	Phosphor Bronze
Contact resistance	20mOhms at 1 Amp DC
Insulation Resistance	1000MOhm at 500 VDC
Current Rating	1 Amp (max)
Temperature Rating	-55oC to + 125oC

**SERIES W28000**

**2mm Shorting Links**  
 Gold over Nickel  
 Open or Closed Top - Black



**PART NUMBERS**  
 W28000G OPEN TOP  
 W28010G CLOSED TOP

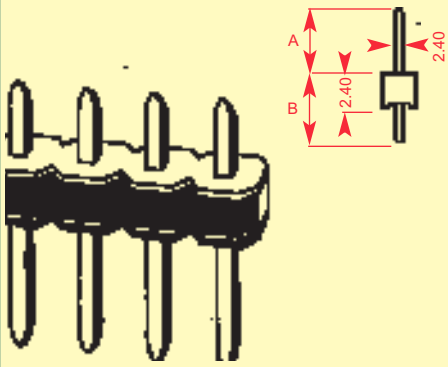
**SPECIFICATIONS**

Insulator	G.F. Polyester
Flamability	UL94V-0
Contacts	Phosphor Bronze
Contact resistance	20mOhms at 1 Amp DC
Insulation Resistance	1000MOhm at 500 VDC
Current Rating	3 Amp (max)
Temperature Rating	-55oC to + 125oC



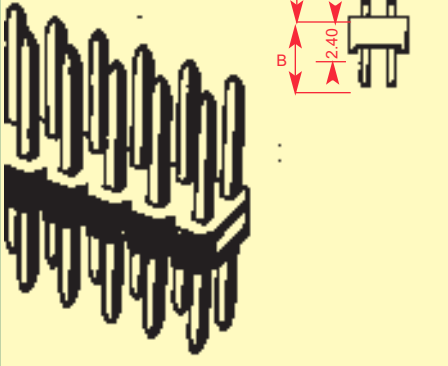
**WINSLOW ADAPTICs**  
**SQUARE PIN**  
**UNSHROUDED HEADERS**

**SERIES W81136**  
 Single Row, Straight



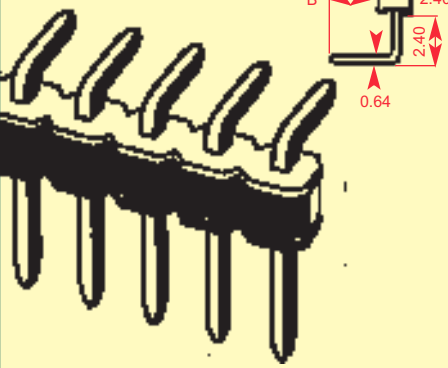
DIMENSIONS		PART NUMBERS	
A	B	SIL 180°	DIL 180°
3.000	4.600	W81136T3840	W82172T3840
3.000	4.600	W81136G0340	W82172G0340
3.500	3.500	W81136T3841	W82172T3841
3.500	3.500	W81136G0341	W82172G0341
5.700	2.560	W81136T3800	W82172T3800
5.700	2.560	W81136G0300	W82172G0300
5.700	3.060	W81136T3806	W82172T3806
5.700	3.060	W81136G0306	W82172G0306
5.700	5.800	W81136T3830	W82172T3830
5.700	5.800	W81136G0330	W82172G0330
5.700	7.560	W81136T3802	W82172T3802
5.700	7.560	W81136G0302	W82172G0302
5.700	10.060	W81136T3809	W82172T3809
5.700	10.060	W81136G0309	W82172G0309
5.700	12.760	W81136T3810	W82172T3810
5.700	12.760	W81136G0310	W82172G0310

**SERIES W82172**  
 Double Row, Straight



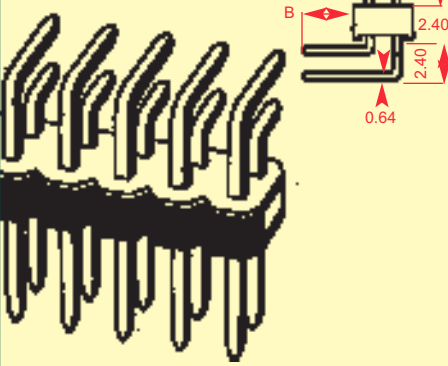
5.800	2.540	W81136T3811	W82172T3811
5.800	2.540	W81136G0311	W82172G0311
5.800	2.960	W81136T3801	W82172T3801
5.800	2.960	W81136G0301	W82172G0301
5.800	3.460	W81136T3805	W82172T3805
5.800	3.460	W81136G0305	W82172G0305
6.000	4.960	W81136T3808	W82172T3808
6.000	4.960	W81136T3808	W82172T3808
6.000	19.000	W81136T3839	W82172T3839
6.000	19.000	W81136G3839	W82172G3839
6.700	3.260	W81136T3815	W82172T3815
6.700	3.260	W81136G3815	W82172G3815
7.000	2.9600	W81136T3814	W82172T3814
7.000	2.9600	W81136G3814	W82172G3814

**SERIES W81936**  
 Single Row, 90°



7.000	3.000	W81136T3825	W82172T3825
7.000	3.000	W81136G3825	W82172G3825
7.000	5.110	W81136T3828	W82172T3828
7.000	5.110	W81136G3828	W82172G3828
7.000	10.060	W81136T3818	W82172T3818
7.000	10.060	W81136G3818	W82172G3818
7.500	2.540	W81136T3823	W82172T3823
7.500	2.540	W81136G3823	W82172G3823
8.500	2.460	W81136T3807	W82172T3807
8.500	2.460	W81136G3807	W82172G3807
8.500	3.000	W81136T3826	W82172T3826
8.500	3.000	W81136G3826	W82172G3826
9.000	2.540	W81136T3824	W82172T3824
9.000	2.540	W81136G3824	W82172G3824

**SERIES W82972**  
 Double Row, 90°



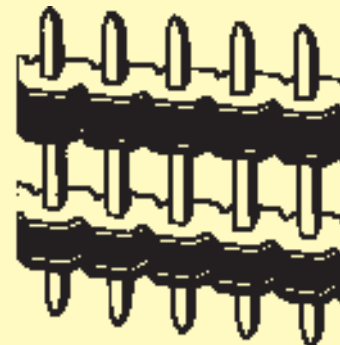
11.000	3.060	W81136T3837	W82172T3837
11.000	3.060	W81136G3837	W82172G3837
12.000	4.460	W81136T3817	W82172T3817
12.000	4.460	W81136G3817	W82172G3817
12.700	3.060	W81136T3816	W82172T3816
12.700	3.060	W81136G3816	W82172G3816
12.700	5.110	W81136T3829	W82172T3829
12.700	5.110	W81136G3829	W82172G3829
12.750	5.730	W81136T3812	W82172T3812
12.750	5.730	W81136G3812	W82172G3812
12.900	3.000	W81136T3827	W82172T3827
12.900	3.000	W81136G3827	W82172G3827
14.500	2.960	W81136T3813	W82172T3813
14.500	2.960	W81136G3813	W82172G3813

**DIMENSIONS PART NUMBERS**

DIMENSIONS		PART NUMBERS	
A	B	SIL 90°	DIL 90°
4.800	5.110	W81936T3834	W82972T3834
4.800	5.110	W81936G0334	W82972G0334
5.700	2.500	W81936T3803	W82972T3803
5.700	2.500	W81936G0303	W82972G0303
5.720	5.100	W81936T3804	W82972T3804
5.720	5.100	W81936G0304	W82972G0304
5.800	3.400	W81936T3822	W82972T3822
5.800	3.400	W81936G0322	W82972G0322
6.700	3.200	W81936T3821	W82972T3821
6.700	3.200	W81936G0321	W82972G0321
7.000	2.900	W81936T3820	W82972T3820
7.000	2.900	W81936G0320	W82972G0320
7.000	3.000	W81936T3825	W82972T3825
7.000	3.000	W81936G0325	W82972G0325
7.400	2.540	W81936T3831	W82972T3831
7.400	2.540	W81936G0331	W82972G0331
8.000	2.800	W81936T3819	W82972T3819
8.000	2.800	W81936G0319	W82972G0319
9.700	5.840	W81936T3836	W82972T3836
9.700	5.840	W81936G0336	W82972G0336
12.500	2.540	W81936T3833	W82972T3833
12.500	2.540	W81936G0333	W82972G0333
13.000	2.540	W81936T3832	W82972T3832
13.000	2.540	W81936G0332	W82972G0332

**SERIES WSD1136**

Single Row Straight Dual Plastic



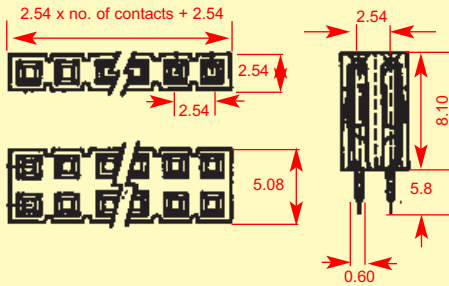
Any required size supplied to order, approximate delivery 6 weeks.

**SERIES WSD2172**

Double Row Straight Dual Plastic



Any required size supplied to order, approximate delivery 6 weeks.



**SPECIAL PIN-OUTS**

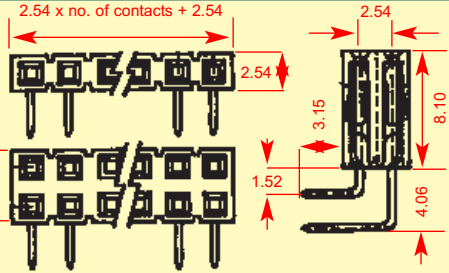
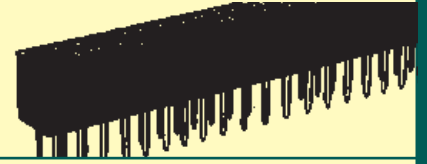
W3481136T = 36 Pin Single Row/Tin  
 W3481136G = 36 Pin Single Row/Gold  
 W3482172T = 72 Pin Double Row/Tin  
 W3482172G = 72 Pin Double Row/Gold

**SPECIAL PIN-OUTS**

For smaller numbers of pins, replace "36" or "72" with number of pins required

**SERIES W3481136/W3482172**

Straight, with tri-beam contacts for optimum insertion & withdrawal cycling. Easily cut to smaller numbers of pins.



**SPECIAL PIN-OUTS**

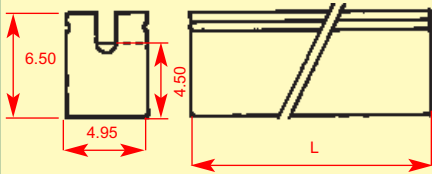
W3481936T = 36 Pin Single Row/Tin  
 W3481936G = 36 Pin Single Row/Gold  
 W3482972T = 72 Pin Double Row/Tin  
 W3482972G = 72 Pin Double Row/Gold

**SPECIAL PIN-OUTS**

For smaller numbers of pins, replace "36" or "72" with number of pins required

**SERIES W3481936/W3482972**

90°, with tri-beam contacts for optimum insertion & withdrawal cycling. Easily cut to smaller numbers of pins.

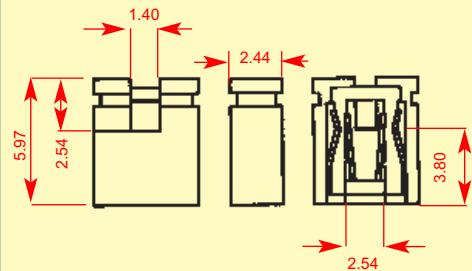
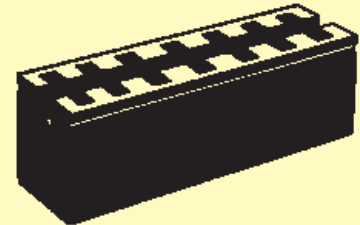


PART NO.	NO. OF WAYS	LENGTH (L)
W8042	2	2 x 2.54mm
W8043	3	3 x 2.54mm
W8044	4	4 x 2.54mm
W8045	5	5 x 2.54mm
W8046	6	6 x 2.54mm
W8047	7	7 x 2.54mm
W8048	8	8 x 2.54mm
W8049	9	9 x 2.54mm

Suffix T = Tin, G = Gold

**SERIES W8040**

Multi links from 2 to 9 ways



PART NUMBER	PART NUMBER	COLOUR
W8000(xxx)	W8010(xxx)	BLACK
W8001(xxx)	W8011(xxx)	BLUE
W8002(xxx)	W8012(xxx)	YELLOW
W8003(xxx)	W8013(xxx)	RED
W8004(xxx)	W8014(xxx)	GREEN
W8005(xxx)	W8015(xxx)	WHITE

(xxx) = Surface plating, replace with either, Suffix T50 = Tin, G05 = Gold

**SERIES W8000**

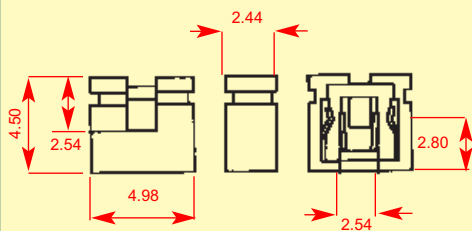
Open top 5.97mm shorting links

**SERIES W8010**

Closed top 6.47mm shorting links



Closed top version



PART NUMBER	COLOUR
W8020(xxx)	BLACK
W8021(xxx)	BLUE
W8022(xxx)	YELLOW
W8023(xxx)	RED
W8024(xxx)	GREEN
W8025(xxx)	WHITE

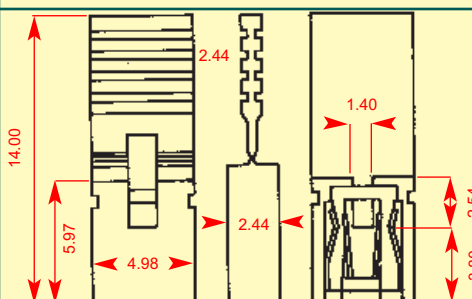
(xxx) = Surface plating, replace with either, Suffix T50 = Tin, G05 = Gold

**SERIES W8020**

Low profile, open top shorting links 4.50mm



Open top



PART NUMBER	COLOUR
W8030(xxx)	BLACK
W8031(xxx)	BLUE
W8032(xxx)	YELLOW
W8033(xxx)	RED
W8034(xxx)	GREEN
W8035(xxx)	WHITE

(xxx) = Surface plating, replace with either, Suffix T50 = Tin, G05 = Gold

**SERIES W8030**

Thumb pull shorting links



**WINSLOW ADAPTICs**  
SHROUDED  
HEADERS

[www.winslowadaptics.com](http://www.winslowadaptics.com)

**SERIES W8600S**

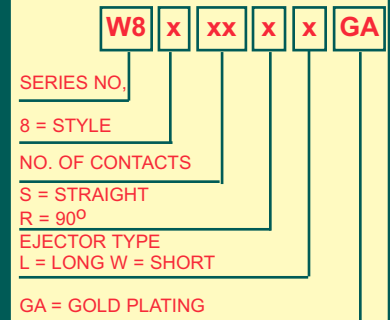
**LATCH EJECTOR**

Straight Solder Tails



NO. OF PINS	A	B	C	D
10	32.00	21.84	10.17	27.94
14	37.08	26.92	15.25	33.02
16	39.62	29.46	17.79	35.56
20	44.70	34.54	22.87	40.64
26	52.32	42.16	30.49	48.26
30	57.40	47.24	35.57	53.34
34	62.48	52.32	40.65	58.42
40	70.19	59.94	48.27	66.04
50	82.80	72.64	60.97	78.74
60	95.50	85.34	73.67	91.44
64	100.58	90.42	78.75	96.52

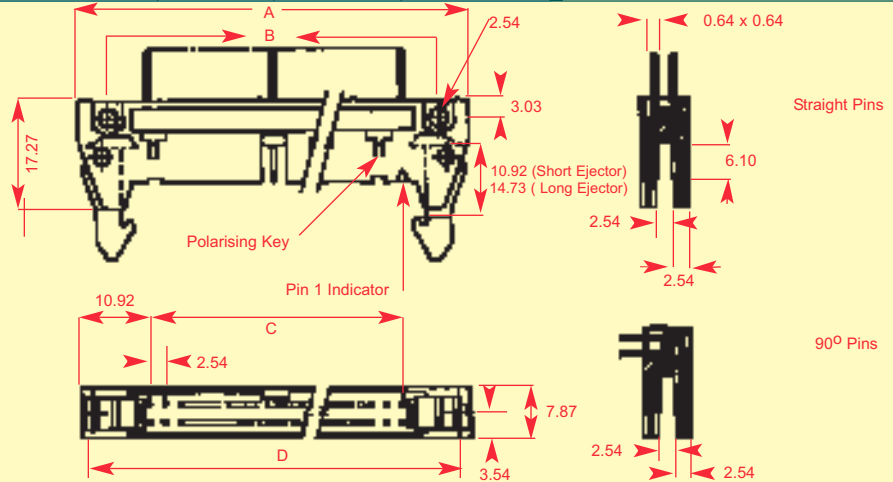
PART NUMBER EXPLANATION



**SERIES W8600R**

**LATCH EJECTOR**

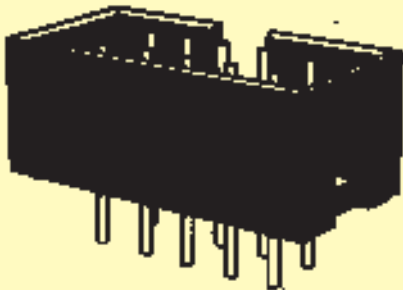
90° Solder Tails



**SERIES W8800S**

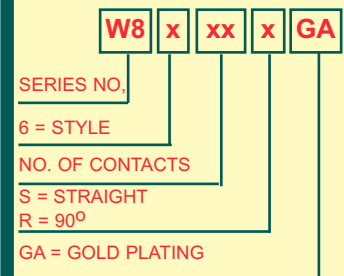
**LOW PROFILE**

Straight Solder Tails



NO. OF PINS	A	B	C
10	20.32	10.16	17.92
14	25.40	15.24	23.00
16	27.94	17.78	25.54
20	33.02	22.86	30.62
26	40.64	30.48	38.24
30	45.72	35.56	43.32
34	50.80	40.64	48.04
40	58.42	48.26	56.02
50	71.12	60.96	68.72
60	83.82	73.66	81.42
64	88.90	78.74	86.50

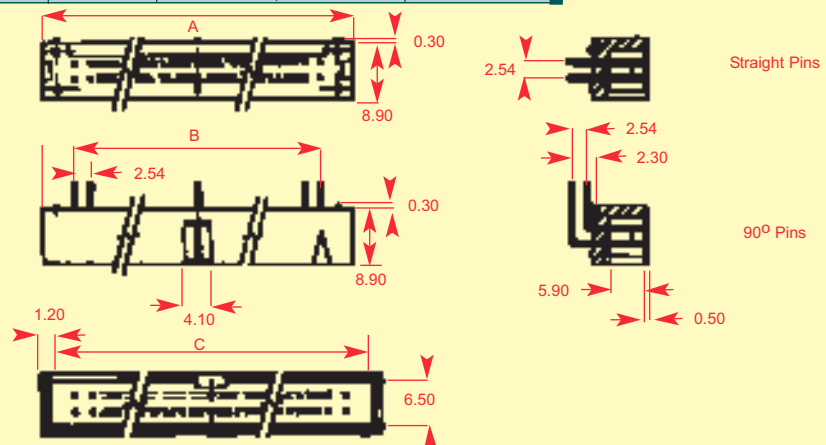
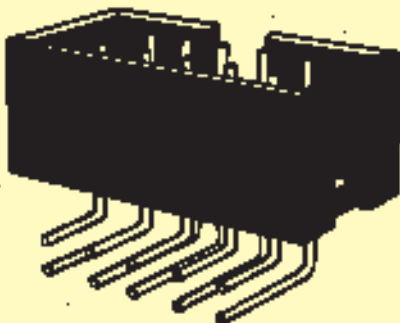
PART NUMBER EXPLANATION

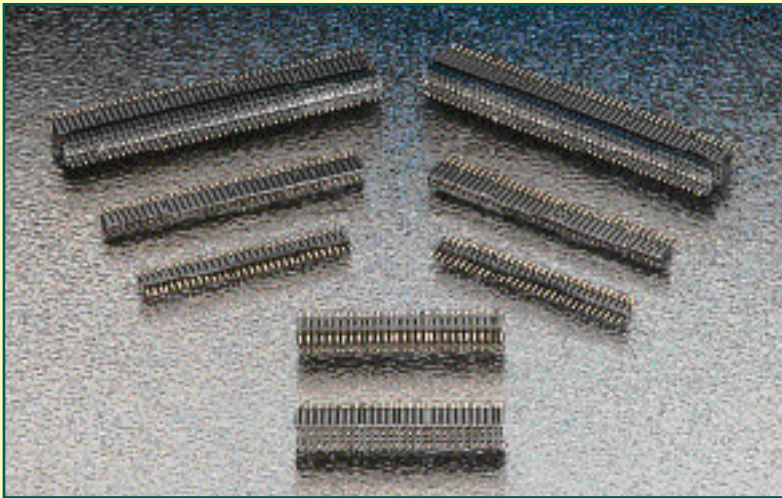


**SERIES W8800R**

**LOW PROFILE**

90° Solder Tails





**SERIES W5811(xx)**  
Single Row Pin Header

**SERIES W5821(xx)**  
Double Row Pin Header

**SERIES W534811(xx)**  
Single Row Header Socket

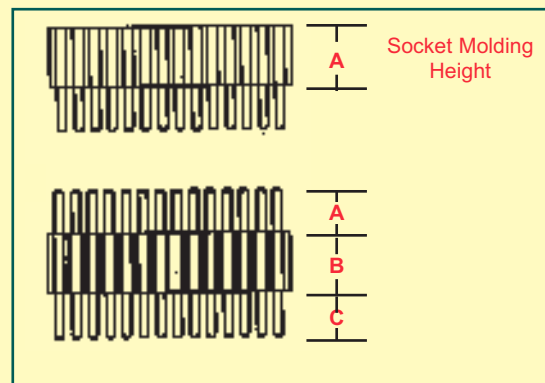
**SERIES W534821(xx)**  
Double Row Header Socket

PART NUMBER	DESCRIPTION	DIMENSIONS		
		A	B	C
W5811(xx)SA1	Single Row Header	2.8mm	3.0mm	2.6mm
W5811(xx)SB1	Single Row Header	2.8mm	2.5mm	2.6mm
W5811(xx)SC1	Single Row Header	2.8mm	1.7mm	2.6mm
W5821(xx)SA1	Double Row Header	2.8mm	3.0mm	2.6mm
W5821(xx)SB1	Double Row Header	2.8mm	2.5mm	2.6mm
W5821(xx)SC1	Double Row Header	2.8mm	1.7mm	2.6mm
		<b>MOULDING HEIGHT</b>		
W534811(xx)SA	Single Row Socket	4.6mm		
W534811(xx)SB	Single Row Socket	8.5mm		
W53821(xx)SA	Double Row Socket 4.6mm			
W53821(xx)SB	Double Row Socket 8.5mm			

In place of (xx) add number of pins required. Up to 32 pins for single row - 2 x 50 for double row  
Cut down to shorter lengths yourself or they may be ordered to the strip length you require

**SPECIFICATION  
HEADERS & SOCKETS**

<b>CURRENT RATING</b>	1 Amp
<b>INSULATION RESISTANCE</b>	5000 Meg Ohms
<b>OPERATING TEMP.</b>	-40° to + 105°C
<b>MAX. PROCESSING TEMP.</b>	230°C (30 SECS) 260°C (10 SECS)
<b>CONTACT MATERIAL</b>	Ph.Br.
<b>INSULATION MATERIAL</b>	Nylon (UL94V-0)
<b>PLATING</b>	Selective Tin/Gold
<b>CONTACT RESISTANCE</b>	20 m Ohms





# GENERAL SPECIFICATIONS

UNLESS STATED ALL VALUES ARE TYPICAL

[www.winslowadaptics.com](http://www.winslowadaptics.com)

## W30500 - W3500 - W35500 - W30600 - W3600 - W36600 W30700 - W37700

### Contact

Resistance	See test results
Current Rating	5.0amps
Capacitance	0.35pF max
Material	Brass sleeve, beryllium copper inner
Plating tin	60/40 tin lead 2/3 microns
Plating Gold	Gold over nickel Various plating thickness available

Insertion Force	350gram, pin 0.018 (PGA 95 grams)
Withdrawal Force	250 grams, pin 0.018 (PGA 70 grams)
Depth from top of socket to mating surface	0.105" (2.66mm)
Depth of mating surface to bottom of socket	0.040" (1.14mm)
Minimum force to remove from molding	12lbs

### Molding

Material	Glass-reinforced polyester(PBT)
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## Test Data and Results (Sockets Tested - W30524T)

Test	Conditions	Result	Test	Conditions	Result
Vibration	10 to 2,000Hz at 20g's	No mechanical damage to assembly or loss of continuity	Salt Spray		Contact resistance remained 14mΩ No galvanic corrosion visible at 50X
Shock	150g's	No mechanical damage to assembly or loss of continuity	Endurance and exposure to ammonium sulphide	Exposure after 10 insertions of a DIP IC	New tin-plated contact resistance 11mΩ
Thermal Shock	-65°C to +150°C	No change in insulation resistance, loss of continuity or mechanical damage to assembly	Atmosphere (contact)	Exposure after 10 insertions of DIP IC	New gold-plated contact resistance 5mΩ max.
Life vs contact resistance	1,000 cycles insertion/ withdrawal of IC lead device	Average before test 5.8mΩ. Average after test 6.9mΩ.	Continuity of Soldered connectors		Resistance change was less than 10%
Fungus resistance of molding		Non-nutrient	PCB hole-wire	0.055 ± 0.002" (1.40 ± 0.05mm)	

## W3100

### Contact

Resistance	(Typ.) 10mΩ
Current Rating	10 amp cont. 2.0 amp peak
Capacitance	0.5pF
Material	Phosphor bronze
Plating tin	60/40 tin lead 2/3 microns
Plating Gold	Gold in contact area only, with solder tail plated with 60/40 Tin/Lead

(GT40)

Insertion Force	120/130 grams (1.18/1.27n) pin 0.01"
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Withdrawal Force	50/70 grams (0.49/0.69n) pin 0.01
Depth from top of socket to mating surface	0.061" (1.70mm)
Minimum force to remove from molding	1.0 lb minimum

### Molding

Material	Glass-reinforced polyester (PBT)
----------	----------------------------------

## PLCC Surface Mount

### Contact

Resistance	6.5 mΩ
Capacitance	Less than 1 pF at 1000 Hz
Insulation Resistance	Greater than 10 000 MΩ
Dielectric Strength	1000V AC continuous for 1 minute
Inductance	Self - 5.0nH Max. at 500KHz Mutual - 1.0nH Max. at 500 KHz
Thermal Shock	Cycled from -55 to +85°C, NO DISCONTINUITY OR PHYSICAL DAMAGE

Vibration	10-20 KHz, 5Gs
Shock	35 Gs
Acceleration	15 Gs
Contact Force	210gm per pin
Material	40% glass filled PPS UL-94V-0
Material Contact	Phosphor Bronze
Plating	3-5 Microns Tin over Copper
Operating Temperature	-50 to +105°C

## PLCC Through Board

### Contact

Resistance	30 mΩ
Current Rating	1 amp
Dielectric Strength	500V AC r.m.s.
Operating Temperature	<b>PBT</b> -55 to +105 °C <b>PPS</b> -55 to +125 °C
Thermal Shock	35 Gs
Acceleration	15 Gs
Material Body	30% glass filled PBT or 40% glass filled PPS UL-94V-0
Material Contact	Phosphor Bronze
Plating	3-5 microns Tin over Copper
Durability	100 cycles

## SIMM Sockets

### Contact

Resistance	30 mΩ
Current Rating	1 amp
Capacitance	1pF
Insulation Resistance	1000 MΩ
Dielectric Strength	1500V AC r.m.s.
Operating Temperature	-40 to +100 °C
Thermal Shock	5 cycles -40 to +85°C
Material Body	Liquid crystal polymer (LCP) UL94V-0
Material Contact	Phosphor Bronze
Plating	3-5 microns Tin over Copper

UNLESS STATED ALL VALUES ARE TYPICAL

**Low Profile Surface Mount Socket**  
**SOJ Style - 28 - 32 - 40 Position**  
**4.6mm height with or without polarizing**  
**Nylon or PPS material**

**Material:**

**Contact** 5210 Phosphor Bronze hardness 2300.  
 0.2mm thickness  
**Housing** 40% glass filled in PPS UL-94V-0  
**Finish** Tin Plated 160u" over nickel 40u".  
 Tin/Lead 90%:10%

**Performance Characteristics:**

**Mechanical:**  
**Durability** 25 Cycles  
**Vibration** 5Gs  
**Shock** 15Gs

**Acceleration** 15Gs  
**Normal Force** 7.05 oz. (200 gram) min/contact  
**Insertion Force** 12oz (3.34N) max/contact  
**Extraction Force** 0.5oz (o.14N) min/contact

**Electrical:**  
**Contact Resistance** Initial: 6.5 milliohms average  
 Final: 15.0 milliohms max after testing  
**Insulation Resistance** Greater than 10 000 megohms  
**Dielectric withstanding Voltage** 600 VAC RMS (1 min)  
**Capacitance** Less than 1.0pf at 1000KHz

**Environmental:**  
**Operating Temperature** -50°C to +105°C

**Other Component Specifications**

Type	Contact Resistance Typical	Current Rating Maximum	Capacitance Contact to Contact	Insertion Force Typical	Withdrawal Force Typical	Maximum Acceptable Pin Size	Temperature Range	Material Plastic	Material Contact
W3400	10mΩ	5.0amp	0.50pF	200G	180G	0.044"	-33°C to +105°C	Phenolic Resin	PhBr
W3401	10mΩ	1.0amp	0.70pF	200G	150G	0.020"	-65°C to +150°C	PBT 30% Glass	PhBr
W3402	10mΩ	1.0amp	0.70pF	200G	150G	0.020"	-65°C to +150°C	PBT 30% Glass	PhBr
W3405	10mΩ	1.0amp	0.70pF	200G	150G	0.018"	-65°C to +150°C	PBT 30% Glass	PhBr
W3406	10mΩ	5.0amp	0.50pF	200G	180G	0.044"	-33°C to +105°C	Phenolic Resin	PhBr
W3432	10mΩ	1.0amp	0.70pF	200G	150G	0.020"	-65°C to +150°C	PBT 30% Glass	PhBr
W3433	10mΩ	1.0amp	0.70pF	200G	150G	0.020"	-65°C to +150°C	PBT 30% Glass	PhBr
W3434	10mΩ	1.0amp	0.70pF	200G	150G	0.020"	-65°C to +150°C	PBT 30% Glass	PhBr
W3435	10mΩ	1.0amp	0.70pF	200G	150G	0.020"	-65°C to +150°C	PBT 30% Glass	PhBr
W3436	10mΩ	1.0amp	0.70pF	200G	150G	0.020"	-65°C to +150°C	PBT 30% Glass	PhBr
W3437	10mΩ	1.0amp	0.70pF	200G	150G	0.020"	-65°C to +150°C	PBT 30% Glass	PhBr
W3438	2mΩ	15.0amp	0.50pF	200G	200G	0.042"	-65°C to +150°C	PBT 30% Glass	PhBr
W3440 PhBr	10mΩ	1.0amp	0.50pF	140G	120G	0.057"x0.019"	-65°C to +150°C	PBT 30% Glass	PhBr
W3440 Be Cu	10mΩ	1.0amp	0.50pF	140G	120G	0.057"x0.025"	-65°C to +150°C	PBT 30% Glass	BeCu
W3450 Series	20mΩ	1.0amp	0.50pF	250G	140G	0.020"	-65°C to +150°C	PBT 30% Glass	PhBr
W3460 Series	10mΩ	1.0amp	0.50pF	1500G	130G	0.019"x0.032"	-65°C to +150°C	PBT 30% Glass	BeCu
W3490 Series	20mΩ	1.0amp	0.50pF	200G	180G	0.020"x0.025"	-65°C to +150°C	PBT 30% Glass	PhBr
W34400 Series	12mΩ	1.0amp	0.50pF	200G	150G	0.019"x0.067"	-65°C to +150°C	PBT 30% Glass	PhBr
W6000 Series *	N/A	1.0amp	0.50pF	N/A	N/A	N/A	-55°C to +150°C	PBT 30% Glass	PhBr
W60500 Series	N/A	3.0amp	0.50pF	N/A	N/A	N/A	-55°C to +125°C	PBT 30% Glass	Brass
W60500 Series	N/A	3.0amp	0.50pF	N/A	N/A	N/A	-55°C to +125°C	PBT 30% Glass	Brass
W60700 Series	N/A	3.0amp	0.50pF	N/A	N/A	N/A	-55°C to +125°C	PBT 30% Glass	Brass
W6100 Series	N/A	1.0amp	0.50pF	N/A	N/A	N/A	-55°C to +150°C	PBT 30% Glass	PhBr
W6200 Series	N/A	1.0amp	0.50pF	N/A	N/A	N/A	-55°C to +150°C	PBT 30% Glass	PhBr
W6300 Series	N/A	1.0amp	0.50pF	N/A	N/A	N/A	-55°C to +150°C	PBT* 30% Glass	PhBr
W66500 Series	N/A	3.0amp	N/A	N/A	N/A	N/A	-55°C to +125°C	PBT 30% Glass	Brass
W66600 Series	N/A	3.0amp	N/A	N/A	N/A	N/A	-55°C to +125°C	PBT 30% Glass	Brass
W66700 Series	N/A	3.0amp	N/A	N/A	N/A	N/A	-55°C to +125°C	PBT 30% Glass	Brass
W8000 Series	7mΩ	3.0amp	0.50pF	80G	112G	N/A	-55°C to +105°C	PBT 30% Glass	PhBr
W81100 Series	N/A	4.0amp	C.O	N/A	N/A	N/A	-55°C to +125°C	PBT 30% Glass	Brass
WPVL Series	≤ 4mΩ	3.0amp	0.35pF	30G/pin	20G/pin	0.018"	-55°C to +150°C	PPS	BeCu
WPT Series	N/A	1.0amp	0.05pF	N/A	N/A	N/A	-55°C to +150°C	PPS	Brass
WPVW Series	≤ 4mΩ	3.0amp	0.35pF	30G/pin	20G/pin	0.018"	-55°C to +150°C	PPS	BeCu

\* Material for covers, (Temp Range +105°C -33°C). For further information, contact your nearest sales office.  
 PhBr = Phosphor Bronze BeCu = Beryllium Copper Cu Alloy = Copper Alloy

**PBT Specifications**

**Insulation resistance** 10<sup>10</sup>Ω (contact to contact)  
**at 500VDC**  
**Arc resistance** 145 secs at 23°C  
**Electrical Strength** 121KV/cm at 23°C  
**Dielectric Constant**  
**At 100Hz 23°C** 3.9 (48hrs 90% RH)  
**AT 100Hz 121°C** 4.5  
**At 1MHz 23°C** 3.7 (48 hrs 90% RH)  
**At 1MHz 121°C** 4.3

**Dissipation Factor**

**At 100Hz 23°C** 0.0077 (48 hrs 30% RH)  
**At 100Hz 121°C** 0.0300  
**At 1MHz 23°C** 0.0150 (48 hrs 30% RH)  
**At 1MHz 121°C** 0.0200  
**Volume resistivity at 25°C** 3 x 10<sup>13</sup>Ω-CM (48hrs 90% RH)  
**Volume resistivity at 121°C** 10<sup>13</sup>Ω-CM  
**Operating Temperature** -65°C to 150°C  
**Flammability** UL94V-0

## Notes

## Notes



# WINSLOW

# ADAPTICS

