

BRIGHTTEK

LCD - CHARACTER



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LCD Character Module

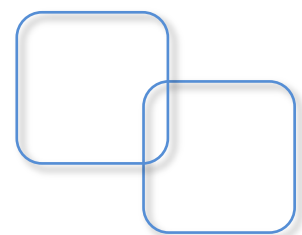
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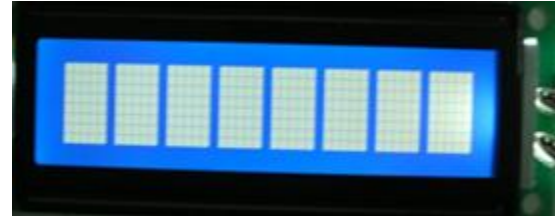


SC0801B Series

1 Line x 8 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	66.0x26.0x10.0(13.0)	mm
Viewing Area	(WxH)	48.0x13.0	mm
Character Size	(WxH)	4.45x8.35	mm
Dot Size	(WxH)	0.85x1.00	mm
Dot Pitch	(WxH)	0.90x1.05	mm



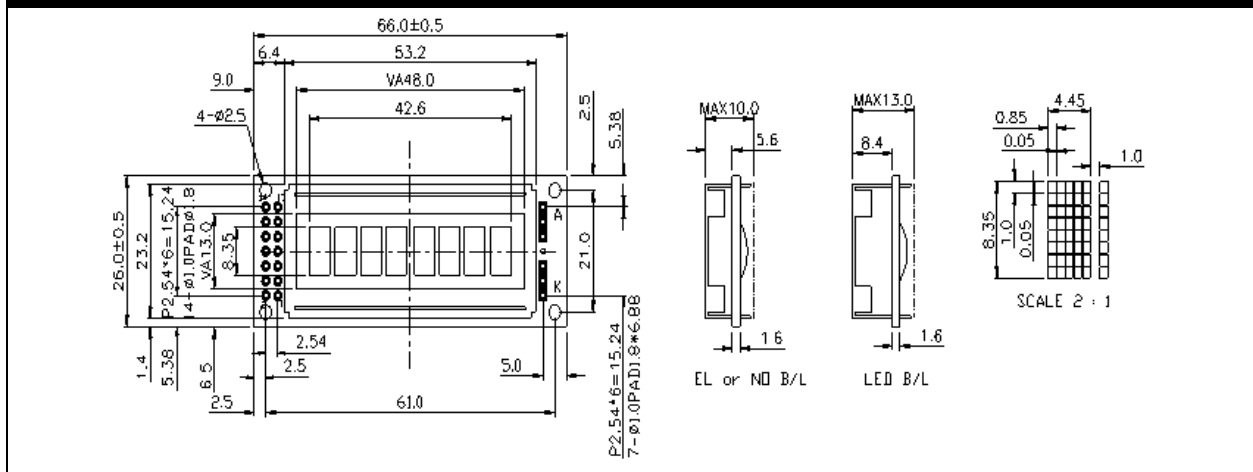
Features

- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SC0801B A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	1.5	4.0	mA
Input Voltage	High	V_{IH}	-	2.2	V_{DD}	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC0801A Series

1 Line x 8 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	60.0x36.0x10.0(13.0)	mm
Viewing Area	(WxH)	48.0x13.0	mm
Character Size	(WxH)	4.45x8.35	mm
Dot Size	(WxH)	0.85x1.00	mm
Dot Pitch	(WxH)	0.90x1.05	mm

Features

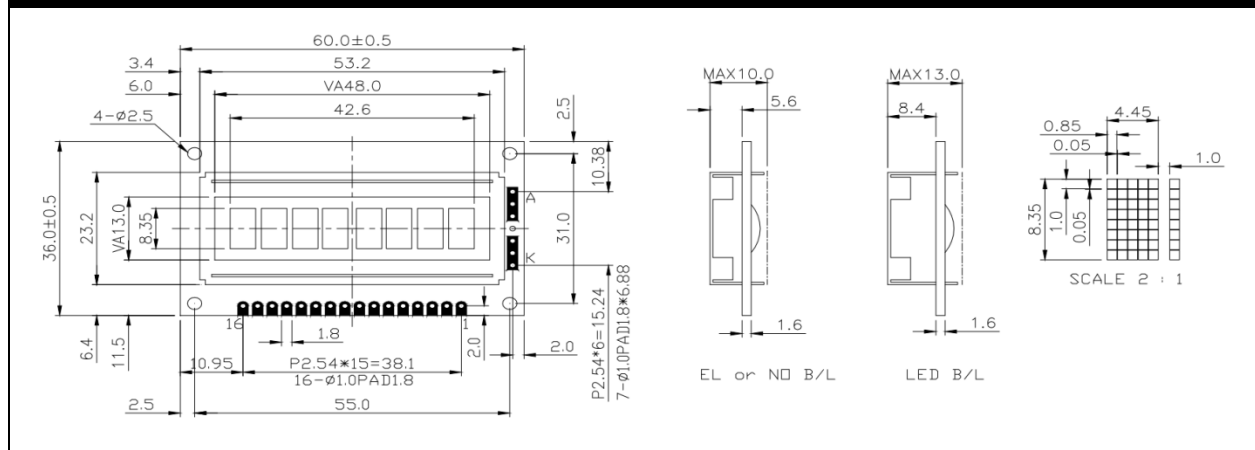
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC0801A A B C - DE - FG - H - IJ	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) IJ: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	1.5	4.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC0801C Series

1 Line x 8 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	60.0x37.5x10.0(13.0)	mm
Viewing Area	(WxH)	48.0x13.0	mm
Character Size	(WxH)	4.45x8.35	mm
Dot Size	(WxH)	0.85x1.00	mm
Dot Pitch	(WxH)	0.90x1.05	mm

Features

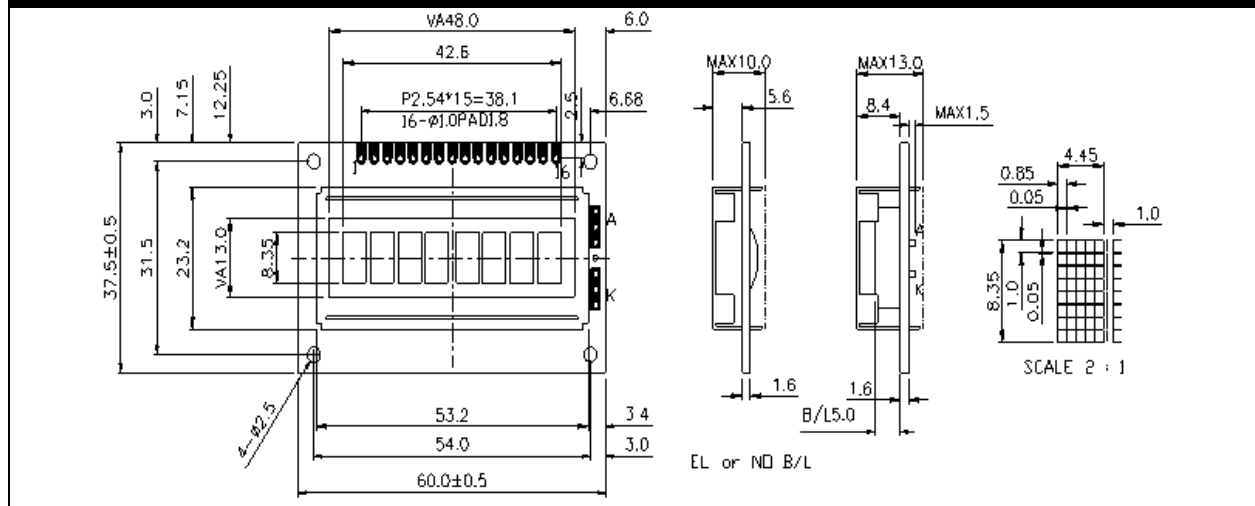
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC0801C A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	1.5	4.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC1001A Series

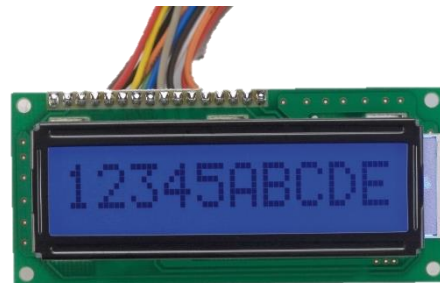
1 Line x 10 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	80.0x36.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	4.84x9.22	mm
Dot Size	(WxH)	0.92x1.10	mm
Dot Pitch	(WxH)	0.98x1.16	mm

Features

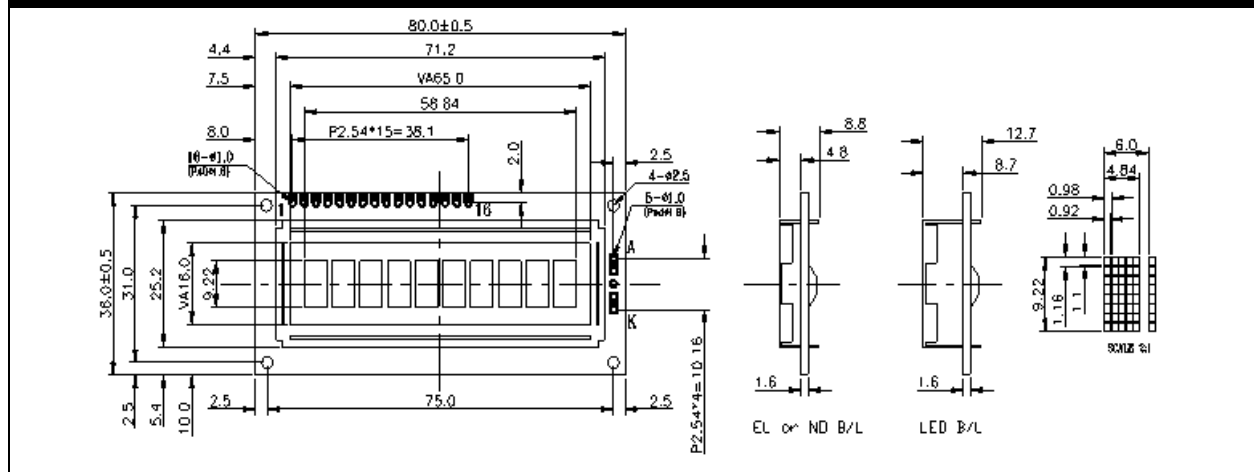
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1001A A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	T=25°C	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	1.5	4.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC1601A Series

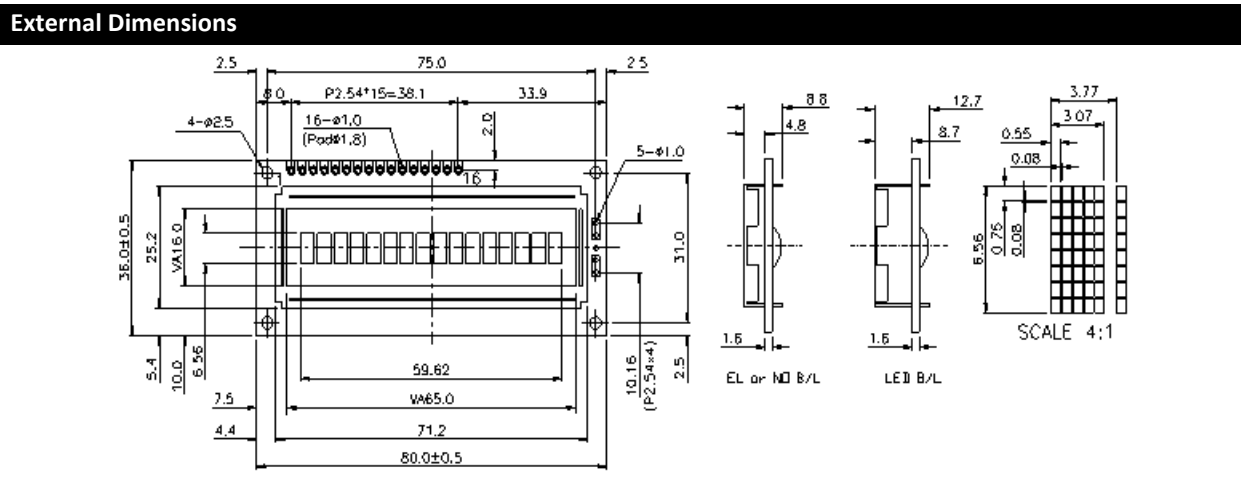
1 Line x 16 Characters LCD Display

Mechanical Data			
Module Size	(WxHxT)	80.0x36.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	3.07x6.56	mm
Dot Size	(WxH)	0.55x0.75	mm
Dot Pitch	(WxH)	0.63x0.83	mm

Features
<ul style="list-style-type: none"> • 5x7 Dots with Cursor • Built-in Controller • 3.3V / 5.0V Power Supply • 1/16 Duty Cycle • 8-Bit Parallel Interface



Part Number Table		
SC1601A A B C - DE - FG - H - IJ	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) IJ: Serial Number (01-99)
Code Reference: Page 72		



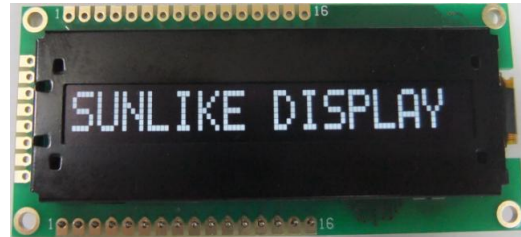
Electrical Characteristics						
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	1.5	4.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

AL1601A Series

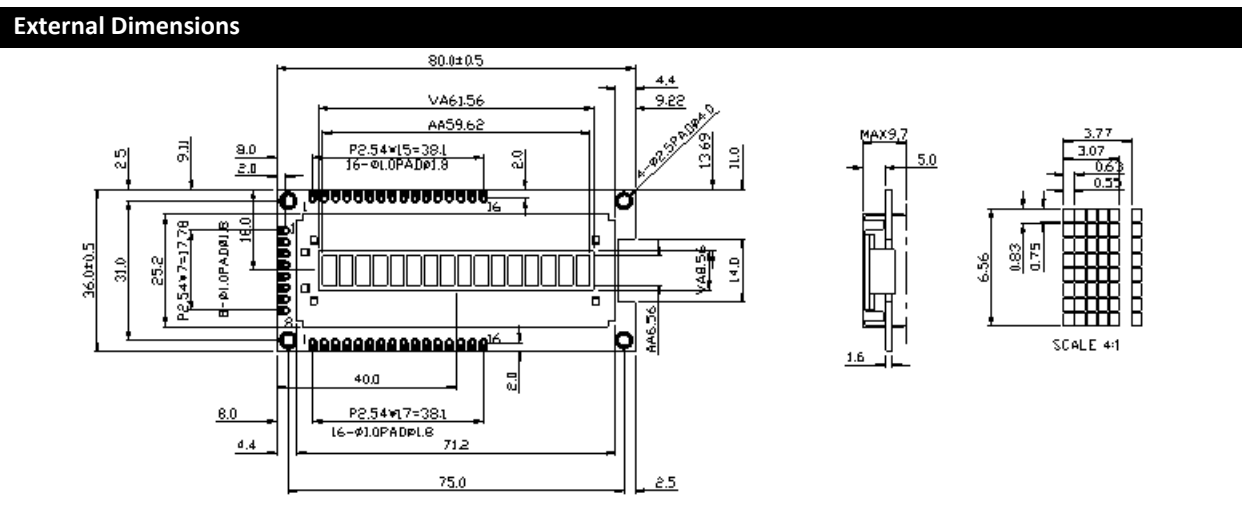
1 Line x 16 Characters OLED Display

Mechanical Data			
Module Size	(WxHxT)	80.0x36.0x9.7	mm
Viewing Area	(WxH)	61.56x8.56	mm
Character Size	(WxH)	3.07x6.56	mm
Dot Size	(WxH)	0.55x0.75	mm
Dot Pitch	(WxH)	0.63x0.83	mm

Features	
•	5x7 Dots with Cursor
•	Built-in Controller
•	3.3V Power Supply
•	1/16 Duty Cycle
•	Interface Parallel/SPI/I2C



Part Number Table		
AL1601A A B C - D E - F G - H - I J	A: LCD Type B: Colour C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 74		



Electrical Characteristics						
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply Voltage	$V_{DD}-V_{SS}$	-	2.4	3.3	3.6	V
Supply Current	I_{DD}	-	-	50	80	mA
Input Voltage	High	V_{IH}	$0.7V_{DD}$	-	V_{DD}	V
	Low	V_{IL}	0	-	$0.3V_{DD}$	
Output Voltage	High	V_{OH}	$0.7V_{DD}$	-	V_{DD}	V
	Low	V_{OL}	-	-	$0.3V_{DD}$	

SC1601B Series

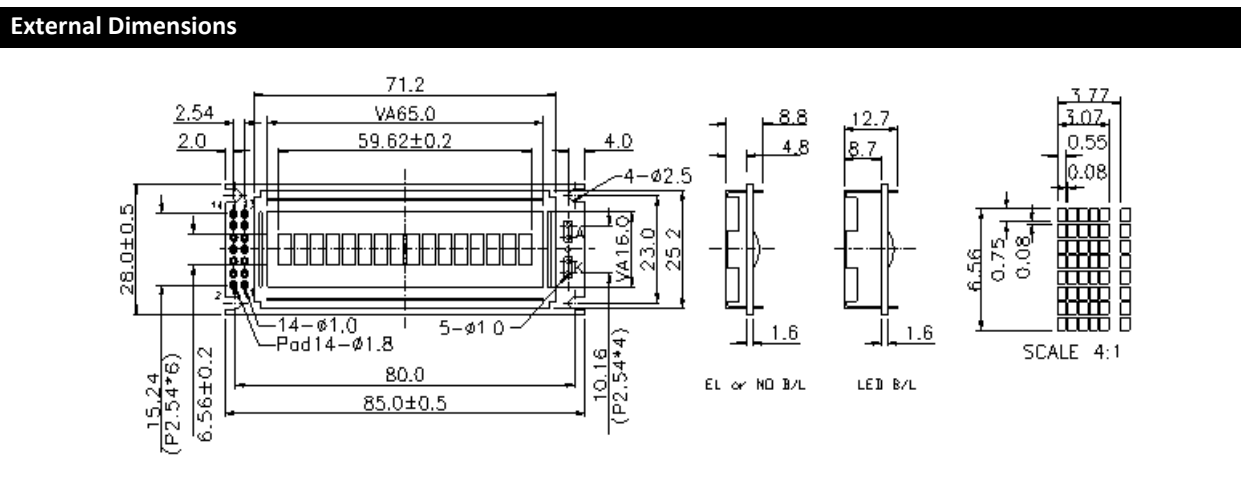
1 Line x 16 Characters LCD Display

Mechanical Data			
Module Size	(WxHxT)	85.0x28.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	3.07x6.56	mm
Dot Size	(WxH)	0.55x0.75	mm
Dot Pitch	(WxH)	0.63x0.83	mm

Features
<ul style="list-style-type: none"> • 5x7 Dots with Cursor • Built-in Controller • 3.3V / 5.0V Power Supply • 1/16 Duty Cycle • 8-Bit Parallel Interface



Part Number Table		
SC1601B A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		



Electrical Characteristics						
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	1.5	4.0	mA
Input Voltage	High	V_{IH}	-	2.2	V_{DD}	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC1601D Series

1 Line x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	122.0x33.0x8.8(13.5)	mm
Viewing Area	(WxH)	99.0x13.0	mm
Character Size	(WxH)	4.84x9.70	mm
Dot Size	(WxH)	0.92x1.16	mm
Dot Pitch	(WxH)	0.98x1.22	mm



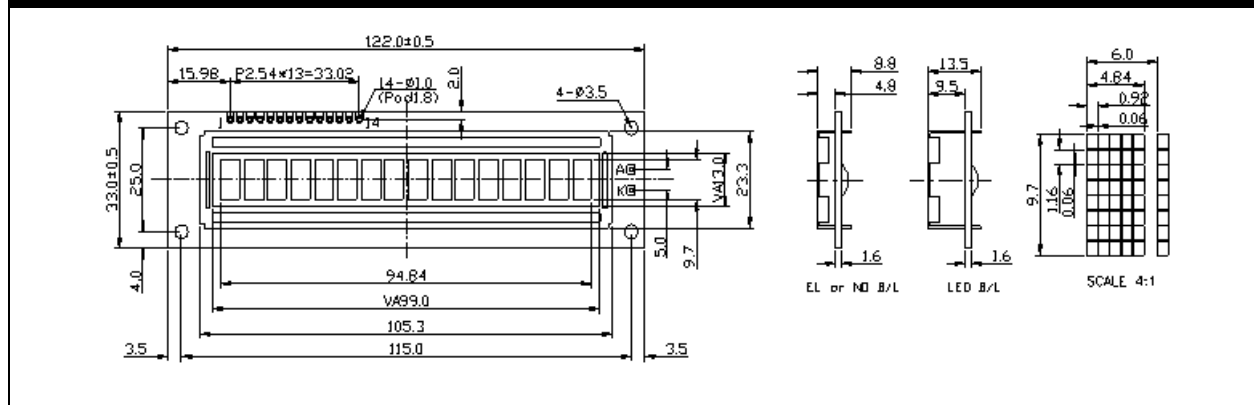
Features

- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SC1601D A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	1.5	4.0	mA
Input Voltage	High	V_{IH}	-	2.2	V_{DD}	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC1601K Series

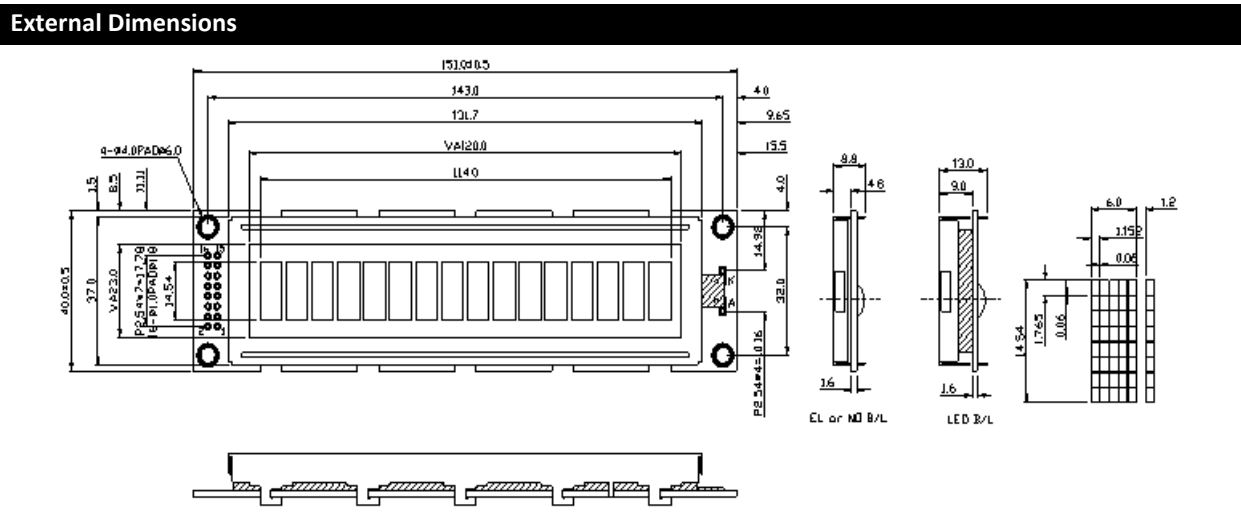
1 Line x 16 Characters LCD Display

Mechanical Data			
Module Size	(WxHxT)	151.0x40.0x8.8(13.0)	mm
Viewing Area	(WxH)	120.0x23.0	mm
Character Size	(WxH)	6.0x14.54	mm
Dot Size	(WxH)	1.152x1.765	mm
Dot Pitch	(WxH)	1.212x1.825	mm



Features	
•	5x7 Dots with Cursor
•	Built-in Controller
•	3.3V / 5.0V Power Supply
•	1/16 Duty Cycle
•	8-Bit Parallel Interface

Part Number Table		
SC1601K A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		



Electrical Characteristics							
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit	
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V	
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V	
Supply Current	I_{DD}	-	-	3.2	6.0	mA	
Input Voltage	High	V_{IH}	-	2.2	-	V_{DD}	V
	Low	V_{IL}	-	0	-	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	-	V
	Low	V_{OL}	-	-	-	0.4	

SC0802E Series

2 Lines x 8 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	40.0x35.4x7.4(12.7)	mm
Viewing Area	(WxH)	30.4x13.9	mm
Character Size	(WxH)	2.95x4.75	mm
Dot Size	(WxH)	0.55x0.55	mm
Dot Pitch	(WxH)	0.60x0.60	mm

Features

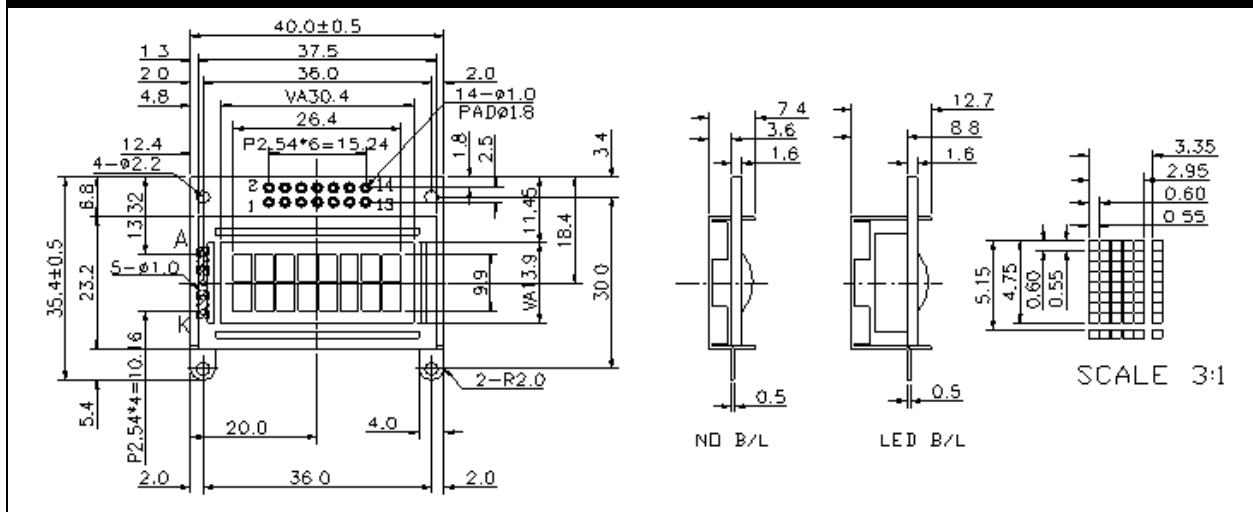
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC0802E A B C - DE - FG - H - IJ	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) IJ: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	1.5	4.0	mA
Input Voltage	High	V_{IH}	-	2.2	-	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC0802D Series

2 Lines x 8 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	48.0x42.0x8.4(12.8)	mm
Viewing Area	(WxH)	38.0x16.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features

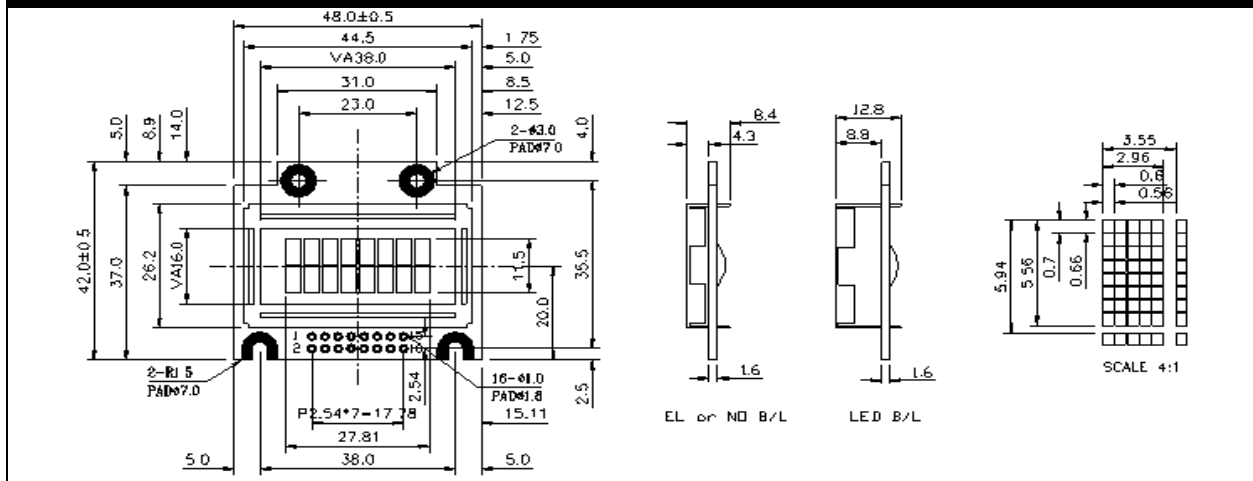
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC0802D A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	1.5	4.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC0802A Series

2 Lines x 8 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	58.0x32.0x8.4(12.8)	mm
Viewing Area	(WxH)	38.0x16.0	mm
Character Size	(WxH)	2.96x5356	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features

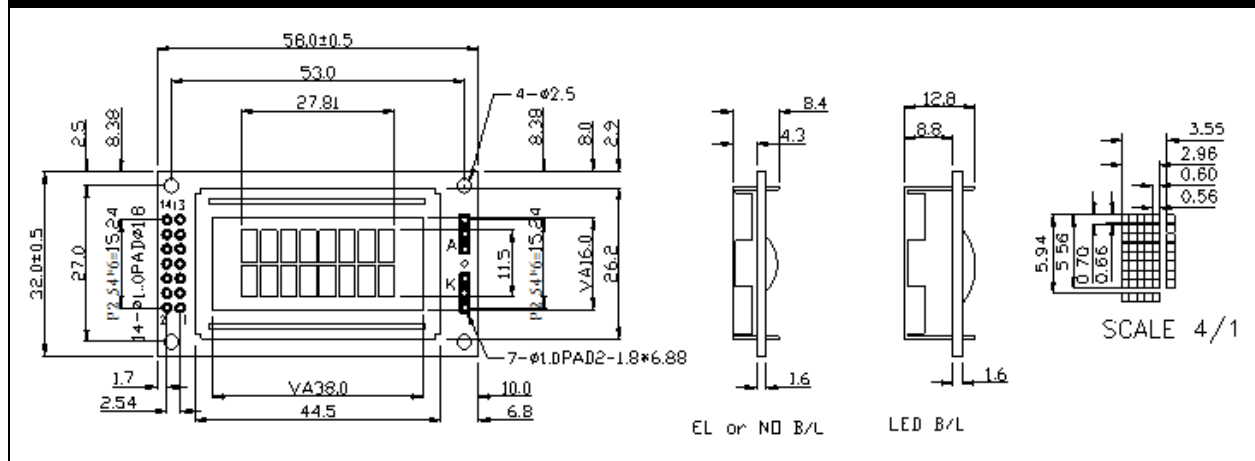
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC0802A A B C - DE - FG - H - I - J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic		Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage		$V_{DD}-V_O$	T=25°C	-	4.5	-	V
Supply Voltage		$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current		I_{DD}	-	-	1.5	4.0	mA
Input Voltage	High	V_{IH}	-	2.2	-	V_{DD}	V
	Low	V_{IL}	-	0	-	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	-	V
	Low	V_{OL}	-	-	-	0.4	

AL0802A Series

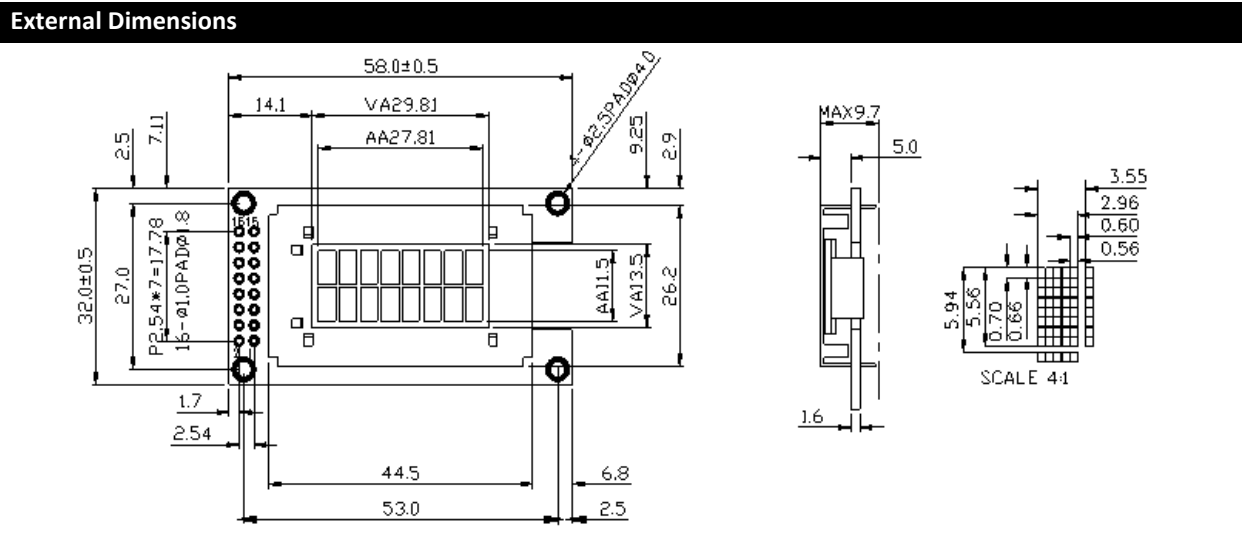
2 Lines x 8 Characters OLED Display

Mechanical Data			
Module Size	(WxHxT)	58.0x32.0x9.7	mm
Viewing Area	(WxH)	29.81x13.50	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features
<ul style="list-style-type: none"> • 5x7 Dots with Cursor • Built-in Controller • 3.3V Power Supply • 1/16 Duty Cycle • Interface Parallel/SPI/I2C



Part Number Table		
AL0802A A B C - DE - FG - H - I	A: LCD Type B: Colour C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 74		



Electrical Characteristics						
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply Voltage	$V_{DD}-V_{SS}$	-	2.4	3.3	3.6	V
Supply Current	I_{DD}	-	-	50	80	mA
Input Voltage	High	V_{IH}	0.7 V_{DD}	-	V_{DD}	V
	Low	V_{IL}	0	-	0.3 V_{DD}	
Output Voltage	High	V_{OH}	0.7 V_{DD}	-	V_{DD}	V
	Low	V_{OL}	-	-	0.3 V_{DD}	

SC1602P Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	53.0x20.0x8.0	mm
Viewing Area	(WxH)	36.0x10.0	mm
Character Size	(WxH)	1.85x3.15	mm
Dot Size	(WxH)	0.33x0.35	mm
Dot Pitch	(WxH)	0.38x0.40	mm



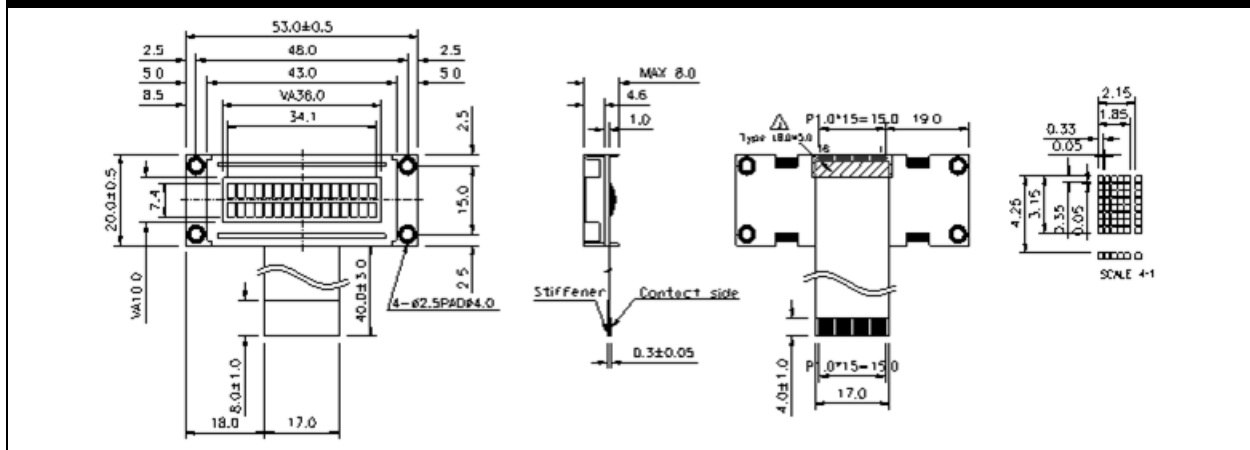
Features

- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SC1602P A B C - DE - FG - H - IJ	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) IJ: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SCG002B Series COG

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	58.0x24.6x2.95	mm
Viewing Area	(WxH)	54.0x14.4	mm
Active Area	(WxH)	49.96x10.40	mm
Dot Size	(WxH)	0.48x0.59	mm
Dot Pitch	(WxH)	0.52x0.63	mm

Features

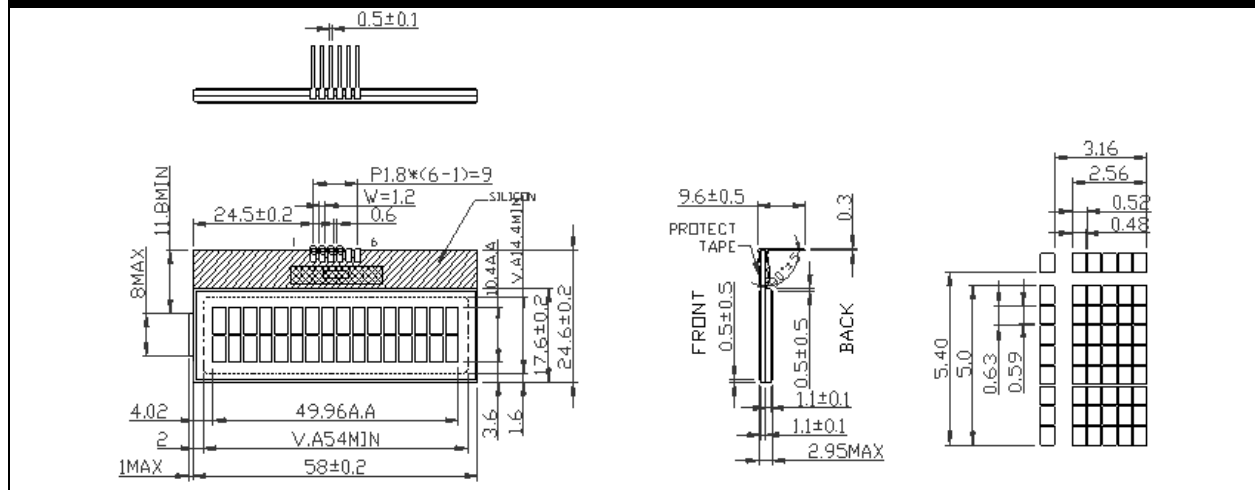
- COG
- Built-in Controller
- 3.3V Power Supply
- 1/16 Duty Cycle
- IIC Serial Interface



Part Number Table

SCG002B A B C - D - E - FG	A: LCD Type B: Backlight Mode C: Viewing Direction D: Temperature Range	E: Serial Number (A-Z) FG: Serial Number (01-99)
Code Reference: Page 73		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$V_{DD}=3V, T=25^{\circ}C$	4.0	4.5	5.0	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.2	3.0	3.5	V
Supply Current	I_{DD}	$V_{DD}=3V$	-	0.7	1.0	mA
Input Voltage	High	V_{IH}	-	$0.7V_{DD}$	V_{DD}	V
	Low	V_{IL}	-	0	$0.3V_{DD}$	
Output Voltage	High	V_{OH}	-	$2.0V_{DD}$	-	V
	Low	V_{OL}	-	-	$0.2V_{DD}$	

SCG002B Series COG with Back Light

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	58.0x24.6x9.6	mm
Viewing Area	(WxH)	54.0x14.4	mm
Active Area	(WxH)	49.96x10.40	mm
Dot Size	(WxH)	0.48x0.59	mm
Dot Pitch	(WxH)	0.52x0.63	mm

Features

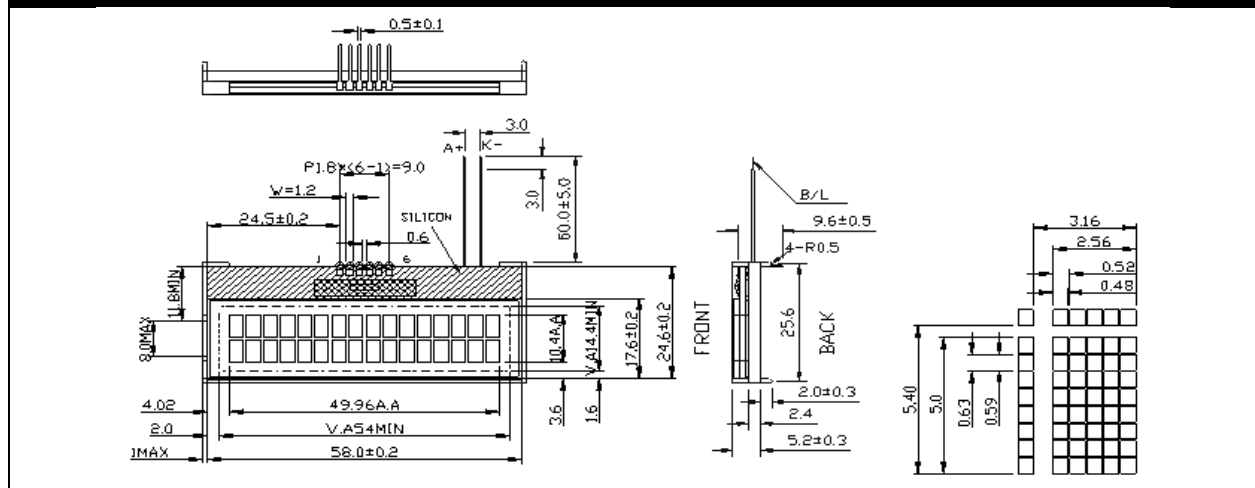
- COG with Back Light
- Built-in Controller
- 3.3V Power Supply
- 1/16 Duty Cycle
- IIC Serial Interface



Part Number Table

SCG002B A B C - D - E - FG	A: LCD Type B: Backlight Mode C: Viewing Direction D: Temperature Range	E: Serial Number (A-Z) FG: Serial Number (01-99)
Code Reference: Page 73		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$V_{DD}=3V, T=25^{\circ}C$	4.0	4.5	5.0	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.2	3.0	3.5	V
Supply Current	I_{DD}	$V_{DD}=3V$	-	0.7	1.0	mA
Input Voltage	High	V_{IH}	-	$0.7V_{DD}$	V_{DD}	V
	Low	V_{IL}	-	0	$0.3V_{DD}$	
Output Voltage	High	V_{OH}	-	$2.0V_{DD}$	-	V
	Low	V_{OL}	-	-	$0.2V_{DD}$	

SC1602N Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	65.5x36.7x9.6	mm
Viewing Area	(WxH)	54.0x14.4	mm
Character Size	(WxH)	2.55x4.99	mm
Dot Size	(WxH)	0.47x0.58	mm
Dot Pitch	(WxH)	0.99x1.21	mm



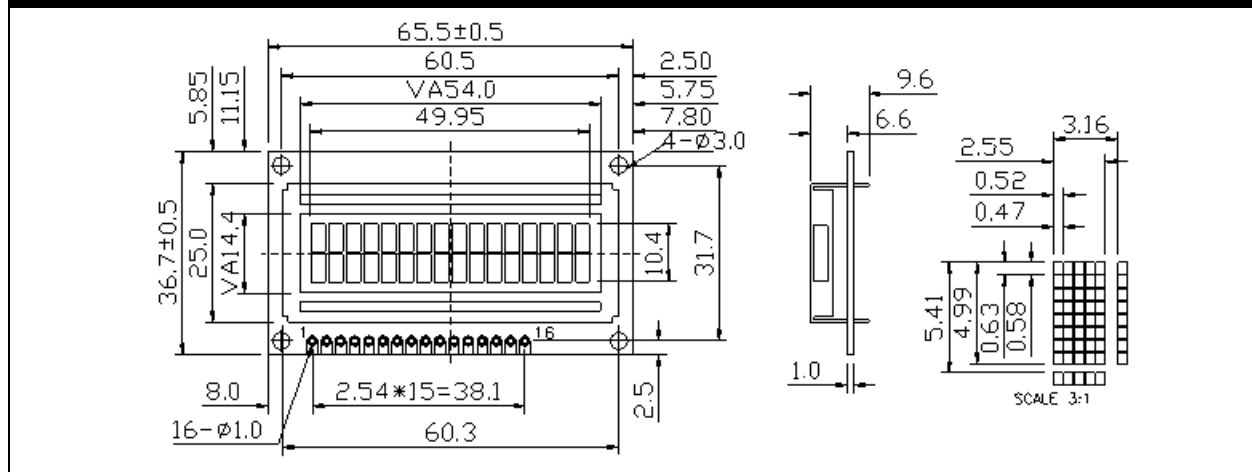
Features

- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SC1602N A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	T=25°C	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SD1602H Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	66.0x26.0x8.5	mm
Viewing Area	(WxH)	52.0x16.0	mm
Character Size	(WxH)	2.46x5.56	mm
Dot Size	(WxH)	0.46x0.66	mm
Dot Pitch	(WxH)	0.50x0.70	mm

Features

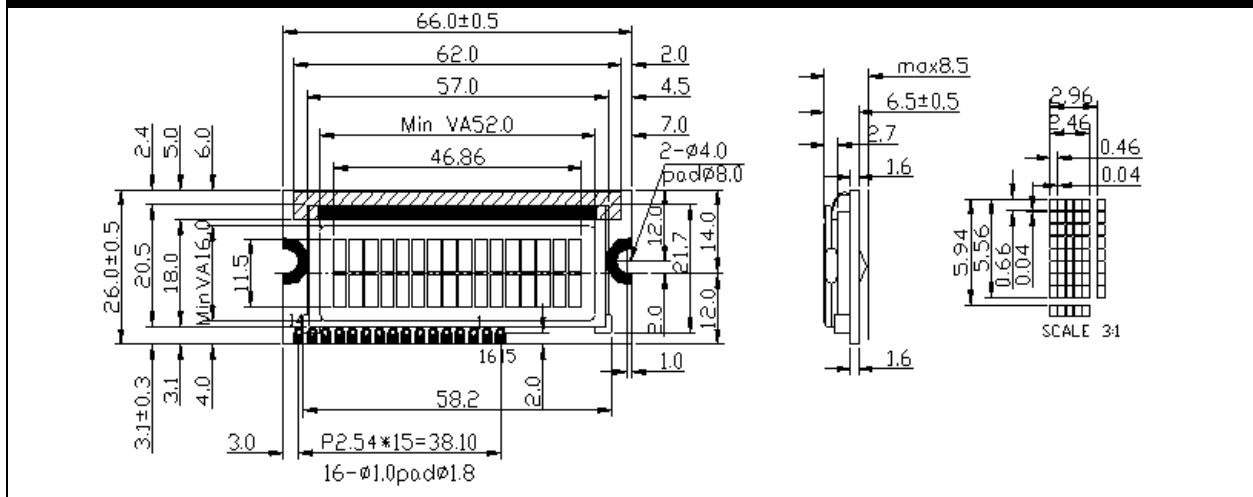
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SD1602H A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	-	2.2	-	V_{DD}
	Low	V_{IL}	-	0	-	0.6
Output Voltage	High	V_{OH}	-	2.4	-	-
	Low	V_{OL}	-	-	-	0.4

SD1602V Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	66.0x26.0x8.5	mm
Viewing Area	(WxH)	52.0x16.0	mm
Character Size	(WxH)	2.46x5.56	mm
Dot Size	(WxH)	0.46x0.66	mm
Dot Pitch	(WxH)	0.50x0.70	mm



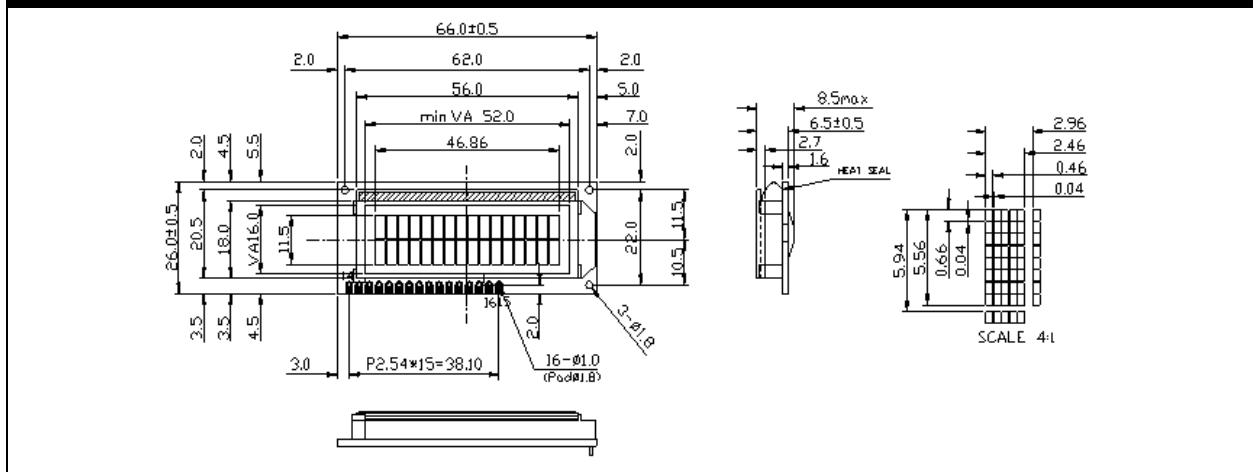
Features

- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SC1602V A B C - DE - FG - H - I J	A: LCD Type	F: Temperature Range
	B: Backlight Mode	G: Frame Colour
Code Reference: Page 72	C: Viewing Direction	H: Serial Number (A-Z)
	DE: LCD Controller	I: Serial Number (01-99)

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SD1602E Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	66.7x23.3x5.2	mm
Viewing Area	(WxH)	61.0x15.9	mm
Character Size	(WxH)	2.95x5.55	mm
Dot Size	(WxH)	0.55x0.65	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features

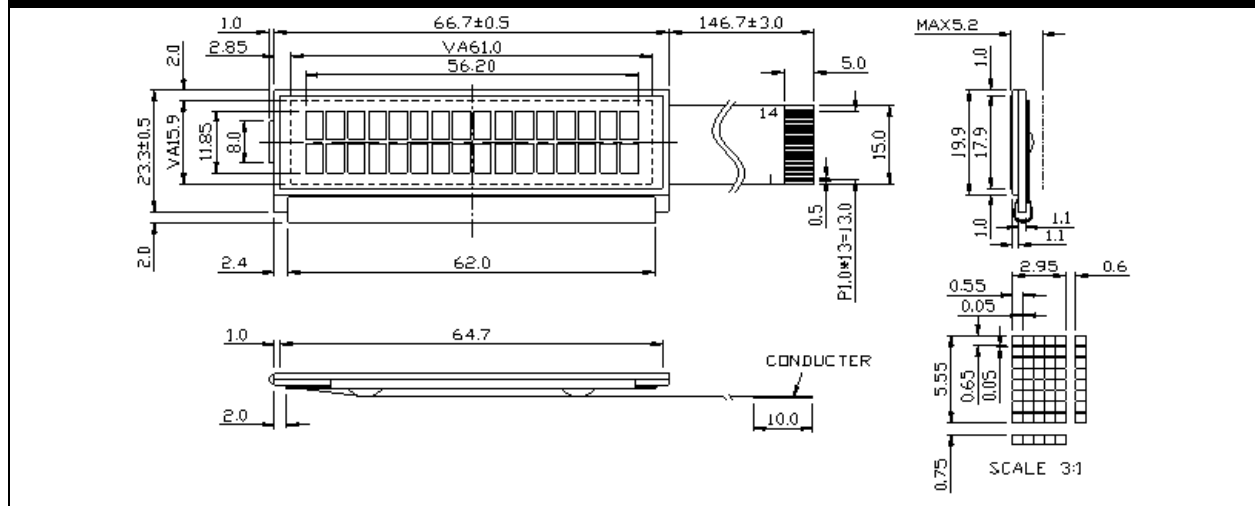
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SD1602E A B C - DE - FG - H - I - J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	T=25°C	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	-	2.2	-	V_{DD}
	Low	V_{IL}	-	0	-	0.6
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	-	0.4

ACM030A Series COG

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	67.0x29.7x5.2	mm
Viewing Area	(WxH)	61.0x15.7	mm
Active Area	(WxH)	56.2x11.04	mm
Dot Size	(WxH)	0.55x0.60	mm
Dot Pitch	(WxH)	0.60x0.66	mm



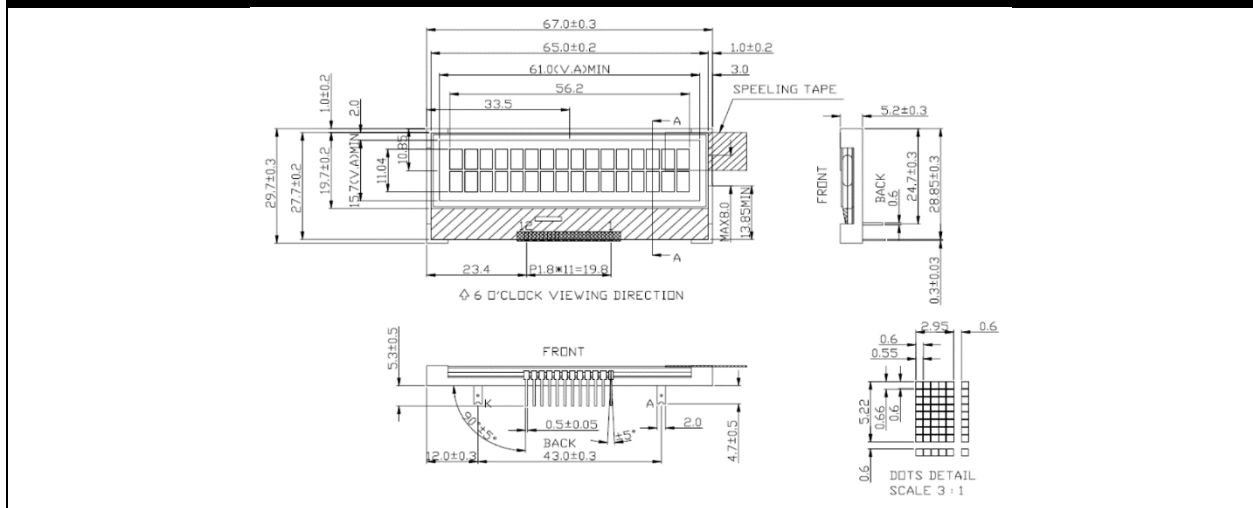
Features

- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V Power Supply
- 1/16 Duty Cycle
- SI4/I2C Serial Interface

Part Number Table

ACM030A A B C - D E - F G H	A: LCD Type B: Backlight Mode C: Viewing Direction D: Temperature Range	E: Frame Colour F: Serial Number (A-Z) GH: Serial Number (01-99)
Code Reference: Page 75		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$V_{DD}=5V, T=25^{\circ}C$	4.3	4.5	4.7	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.8	3.3	5.5	V
Supply Current	I_{DD}	$V_{DD}=5V$	-	1.2	3.0	mA
Input Voltage	High	V_{IH}	0.8 V_{DD}	-	V_{DD}	V
	Low	V_{IL}	-0.3	-	0.2 V_{DD}	
Output Voltage	High	V_{OH}	$V_{DD}-0.6$	-	-	V
	Low	V_{OL}	-	-	$V_{SS}+0.6$	

SCG004A Series COG

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	70.0x30.0x5.7	mm
Viewing Area	(WxH)	63.0x16.0	mm
Active Area	(WxH)	56.21x11.00	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm



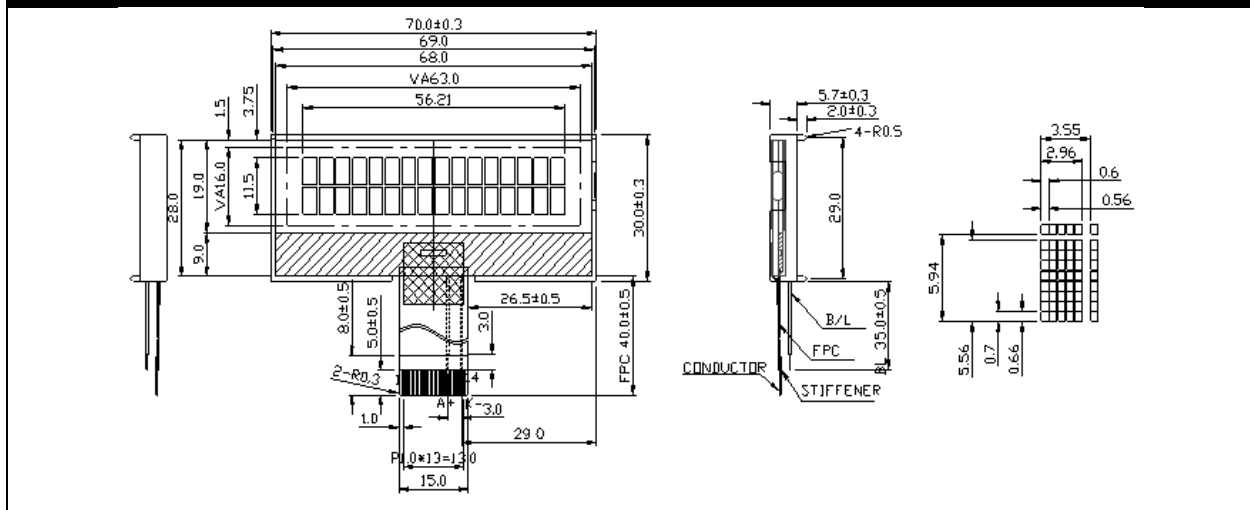
Features

- COG
- Built-in Controller
- 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SCG004A A B C - D - E - FG	A: LCD Type B: Backlight Mode C: Viewing Direction D: Temperature Range	E: Serial Number (A-Z) FG: Serial Number (01-99)
Code Reference: Page 73		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$V_{DD}=5V, T=25^{\circ}C$	4.0	4.3	4.6	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.8	5.0	5.5	V
Supply Current	I_{DD}	$V_{DD}=5V$	-	1.2	2.0	mA
Input Voltage	High	V_{IH}	-	$0.8V_{DD}$	V_{DD}	V
	Low	V_{IL}	-	-0.3	$0.2V_{DD}$	
Output Voltage	High	V_{OH}	-	$V_{DD}-0.6$	-	V
	Low	V_{OL}	-	-	$V_{SS}+0.6$	

SCG004B Series COG

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	70.0x30.0x5.7	mm
Viewing Area	(WxH)	63.0x16.0	mm
Active Area	(WxH)	56.21x11.00	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm



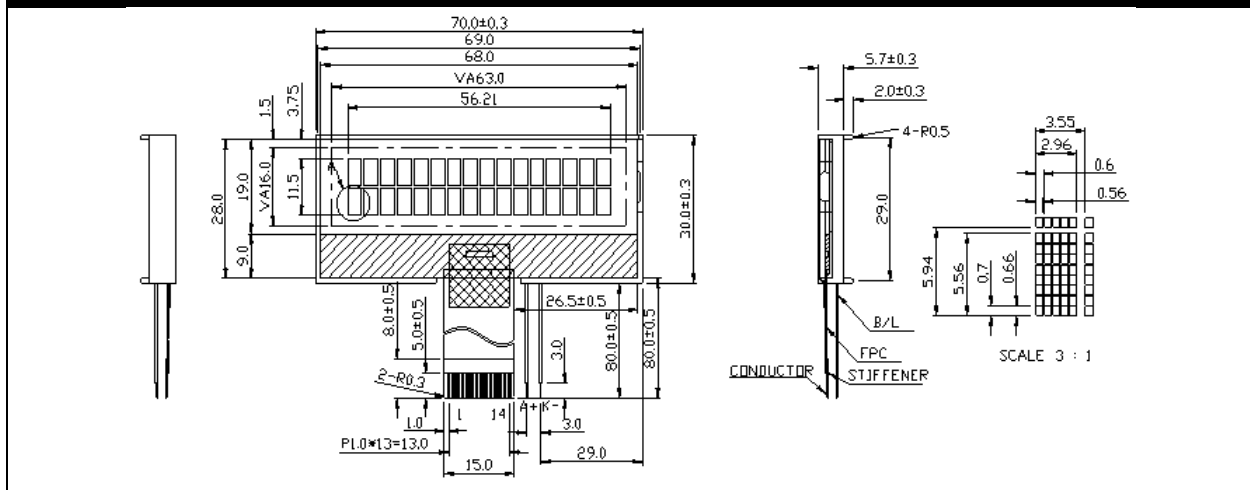
Features

- COG
- Built-in Controller
- 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SCG004B A B C - D - E - FG	A: LCD Type B: Backlight Mode C: Viewing Direction D: Temperature Range	E: Serial Number (A-Z) FG: Serial Number (01-99)
Code Reference: Page 73		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$V_{DD}=5V, T=25^{\circ}C$	4.0	4.3	4.6	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.8	5.0	5.5	V
Supply Current	I_{DD}	$V_{DD}=5V$	-	1.2	2.0	mA
Input Voltage	High	V_{IH}	-	$0.8V_{DD}$	V_{DD}	V
	Low	V_{IL}	-	-0.3	$0.2V_{DD}$	
Output Voltage	High	V_{OH}	-	$V_{DD}-0.6$	-	V
	Low	V_{OL}	-	-	$V_{SS}+0.6$	

SD1602Q Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	72.0x36.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features

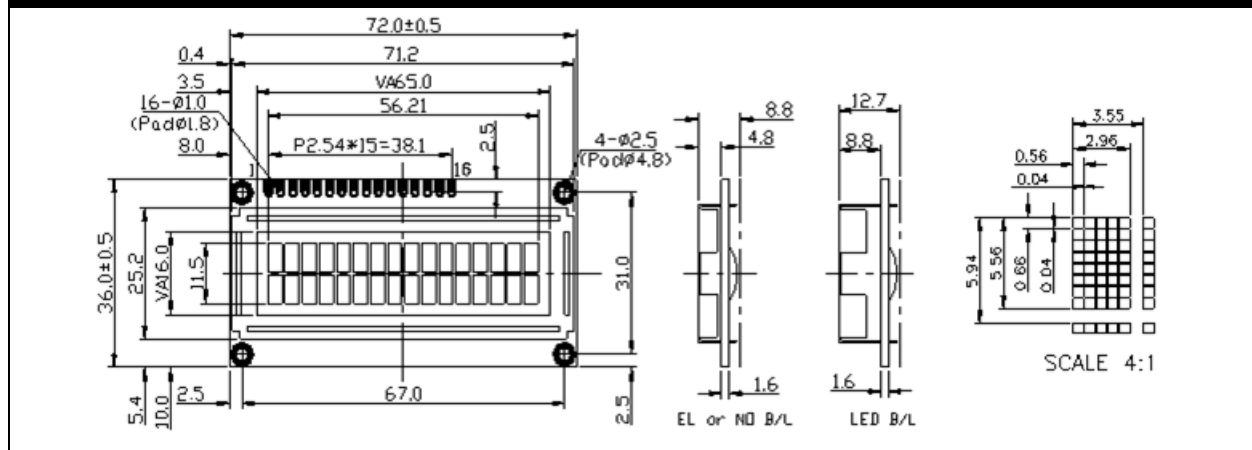
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1602Q A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SO1602A Series

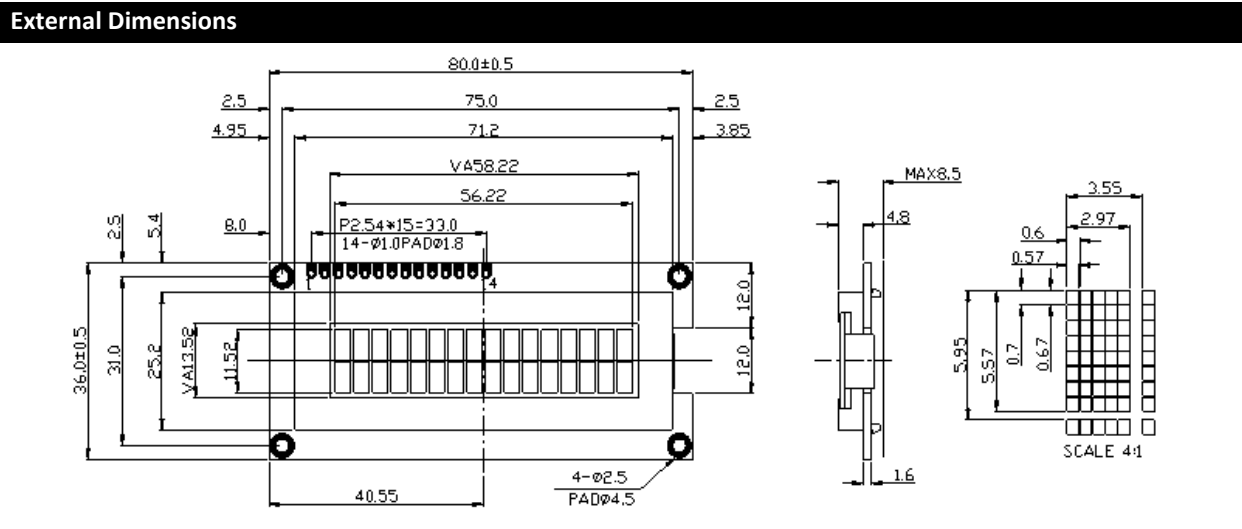
2 Lines x 16 Characters OLED Display

Mechanical Data			
Module Size	(WxHxT)	80.0x36.0x8.5	mm
Viewing Area	(WxH)	58.22x13.52	mm
Character Size	(WxH)	2.97x5.57	mm
Dot Size	(WxH)	0.57x0.67	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features	
•	5x7 Dots with Cursor
•	Built-in Controller
•	3.3V Power Supply
•	1/16 Duty Cycle
•	Interface Parallel/SPI/I2C



Part Number Table		
SO1602A A B C - DE - FG - H - IJ	A: LCD Type B: Colour C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) IJ: Serial Number (01-99)
Code Reference: Page 74		



Electrical Characteristics						
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	9.0	10.0	11.5	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.4	3.3	3.6	V
Supply Current	I_{DD}	-	-	50	80	mA
Input Voltage	High	V_{IH}	-	$0.8V_{DD}$	V_{DD}	V
	Low	V_{IL}	-	0	$0.2V_{DD}$	
Output Voltage	High	V_{OH}	-	$0.9V_{DD}$	V_{DD}	V
	Low	V_{OL}	-	-	$0.1V_{DD}$	

SD1602I Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	80.0x36.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features

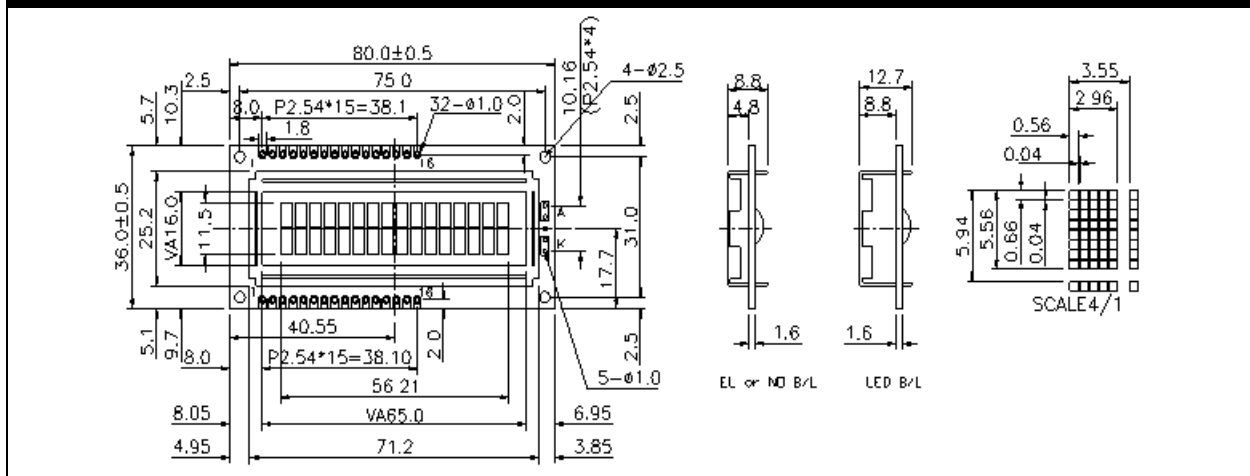
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1602I A B C - DE - F G - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC1602Z Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	80.0x36.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features

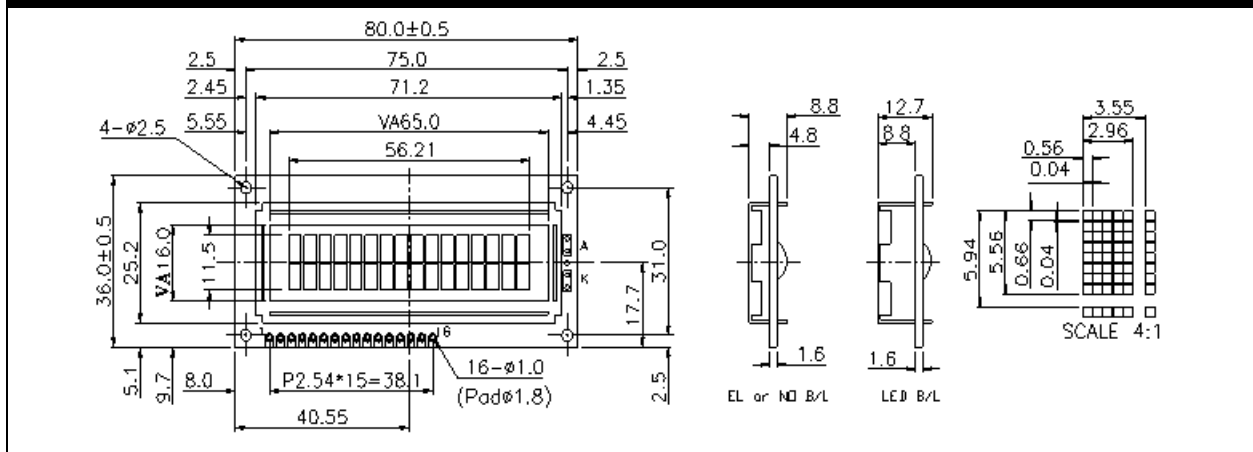
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1602Z A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC1602G Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	84.0x44.0x8.0(12.0)	mm
Viewing Area	(WxH)	63.0x19.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features

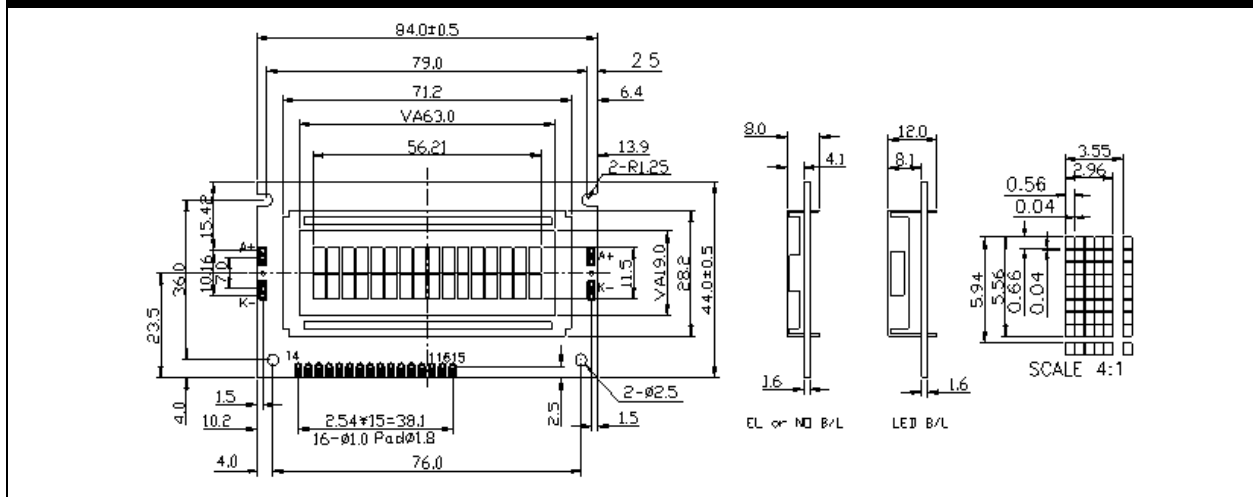
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1602G A B C - DE - FG - H - I - J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	T=25°C	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC1602C Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	84.0x44.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features

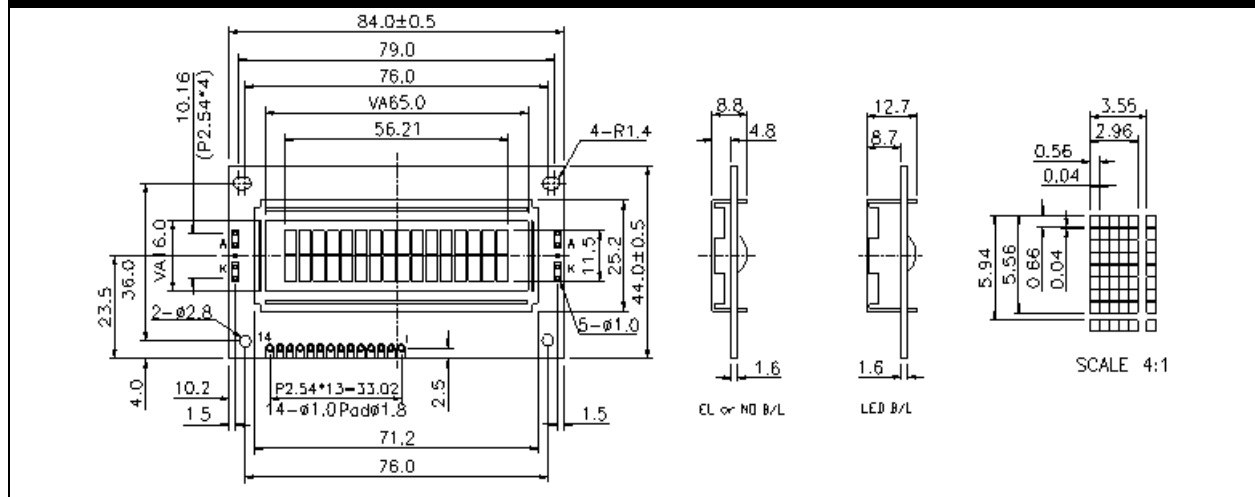
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1602C A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	T=25°C	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC1602H Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	84.0x44.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features

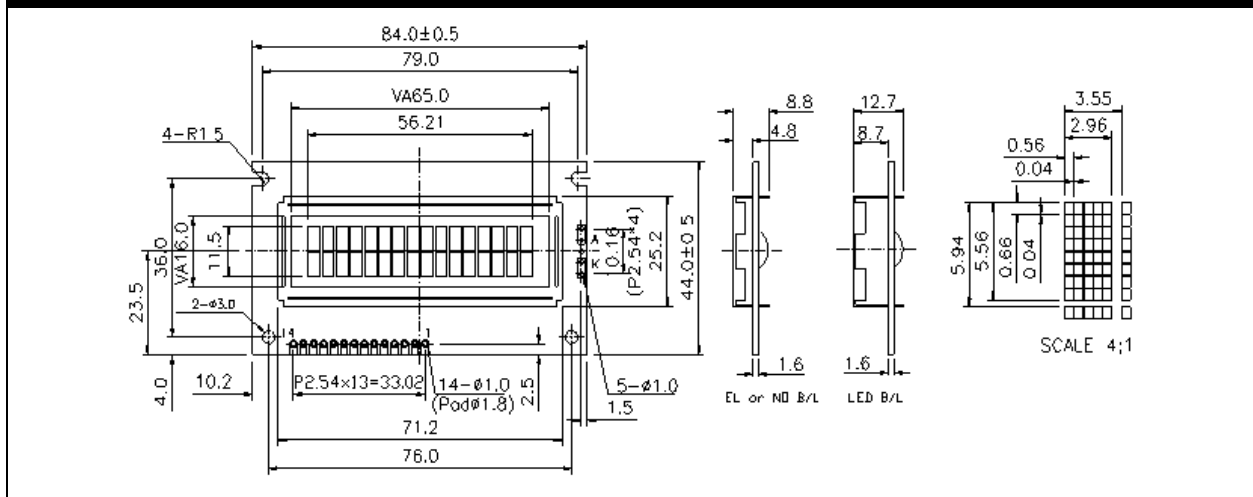
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1602H A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	T=25°C	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC1602H1 Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	84.0x44.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm



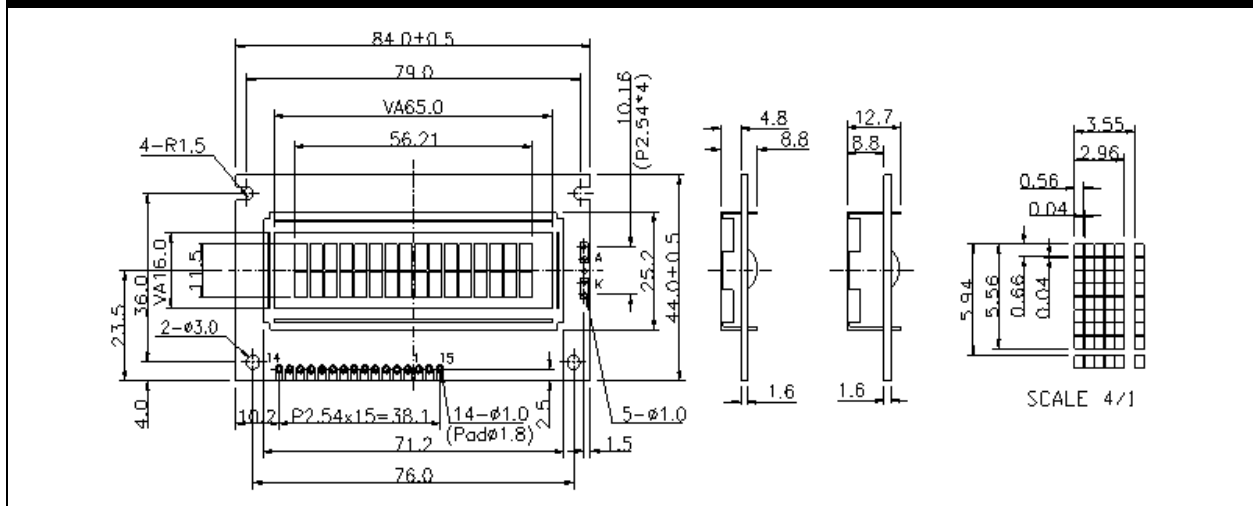
Features

- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SC1602H1 A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	T=25°C	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC1602B Series

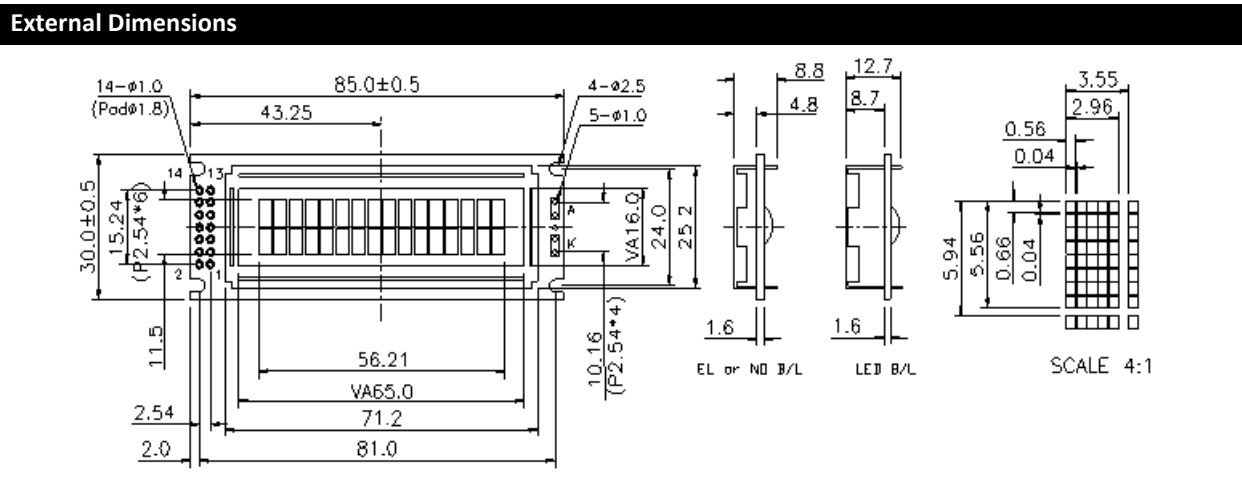
2 Lines x 16 Characters LCD Display

Mechanical Data			
Module Size	(WxHxT)	85.0x30.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features
<ul style="list-style-type: none"> • 5x7 Dots with Cursor • Built-in Controller • 3.3V / 5.0V Power Supply • 1/16 Duty Cycle • 8-Bit Parallel Interface



Part Number Table		
SC1602B A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		



Electrical Characteristics							
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit	
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V	
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V	
Supply Current	I_{DD}	-	-	3.2	6.0	mA	
Input Voltage	High	V_{IH}	-	2.2	-	V_{DD}	V
	Low	V_{IL}	-	0	-	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	-	V
	Low	V_{OL}	-	-	-	0.4	

SC1602J Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	85.0x30.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features

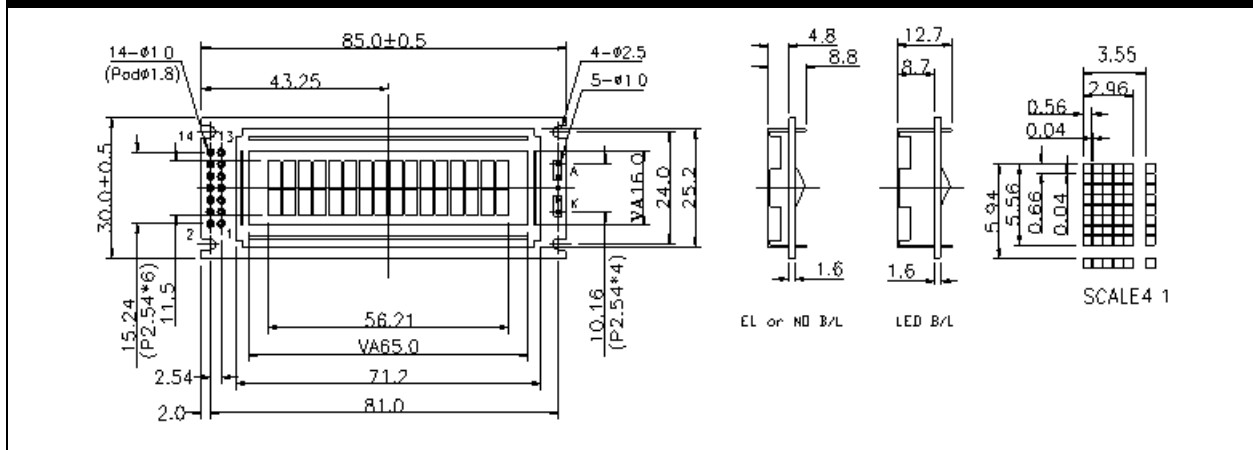
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1602J A B C - DE - FG - H - IJ	A: LCD Type	F: Temperature Range
	B: Backlight Mode	G: Frame Colour
Code Reference: Page 72	C: Viewing Direction	H: Serial Number (A-Z)
	DE: LCD Controller	IJ: Serial Number (01-99)

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	-	2.2	V_{DD}	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC1602F Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	85.0x32.6x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features

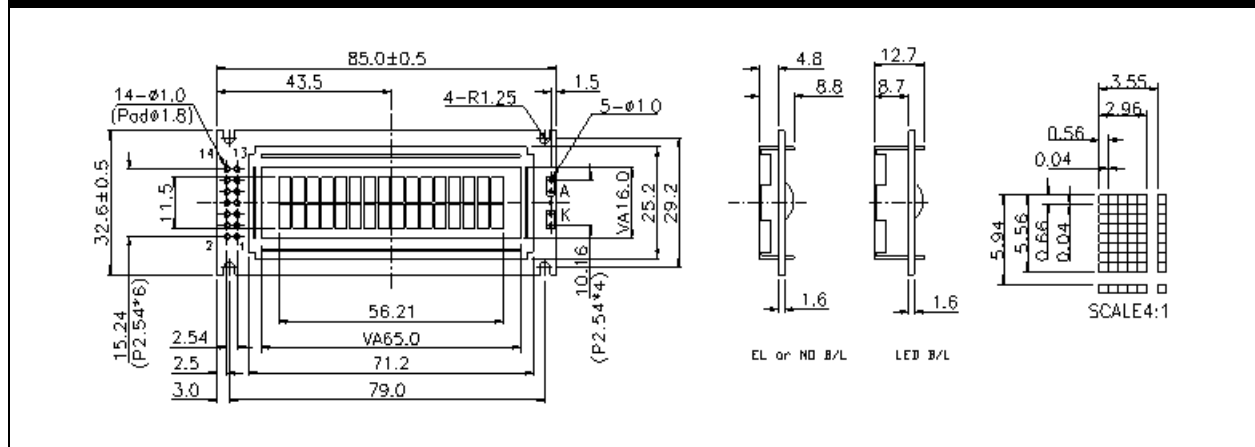
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1602F A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC1602D Series

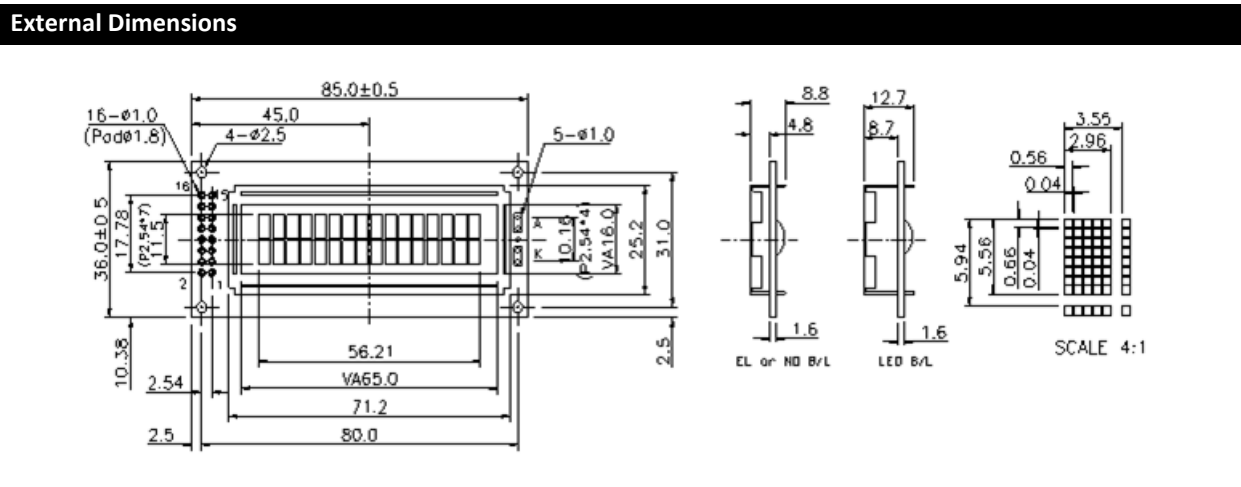
2 Lines x 16 Characters LCD Display

Mechanical Data			
Module Size	(WxHxT)	85.0x36.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.96x5.56	mm
Dot Size	(WxH)	0.56x0.66	mm
Dot Pitch	(WxH)	0.60x0.70	mm

Features
<ul style="list-style-type: none"> • 5x7 Dots with Cursor • Built-in Controller • 3.3V / 5.0V Power Supply • 1/16 Duty Cycle • 8-Bit Parallel Interface



Part Number Table		
SC1602D A B C - DE - FG - H - I - J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		



Electrical Characteristics						
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

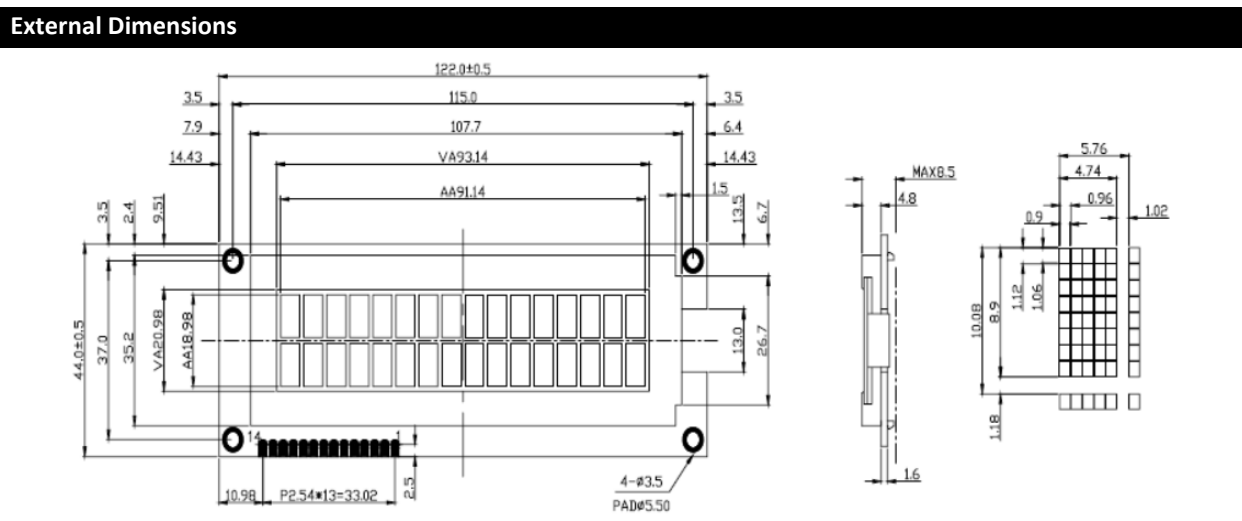
SO1602E Series

2 Lines x 16 Characters OLED Display

Mechanical Data			
Module Size	(WxHxT)	122.0x44.0x8.5	mm
Viewing Area	(WxH)	93.14x20.98	mm
Character Size	(WxH)	4.74x8.90	mm
Dot Size	(WxH)	0.90x1.06	mm
Dot Pitch	(WxH)	0.96x1.12	mm

Features
<ul style="list-style-type: none"> • 5x7 Dots with Cursor • Built-in Controller • 3.3V Power Supply • 1/16 Duty Cycle • Interface Parallel/SPI/I2C

Part Number Table		
SO1602E A B C - DE - FG - H - I	A: LCD Type B: Colour C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 74		



Electrical Characteristics						
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	9.0	10.0	11.5	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.4	3.3	3.6	V
Supply Current	I_{DD}	-	-	50	80	mA
Input Voltage	High	V_{IH}	$0.8V_{DD}$	-	V_{DD}	V
	Low	V_{IL}	0	-	$0.2V_{DD}$	
Output Voltage	High	V_{OH}	$0.9V_{DD}$	-	V_{DD}	V
	Low	V_{OL}	-	-	$0.1V_{DD}$	

SC1602E Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	122.0x44.0x8.8(13.0)	mm
Viewing Area	(WxH)	99.0x24.0	mm
Character Size	(WxH)	4.84x9.63	mm
Dot Size	(WxH)	0.92x1.16	mm
Dot Pitch	(WxH)	0.98x1.21	mm

Features

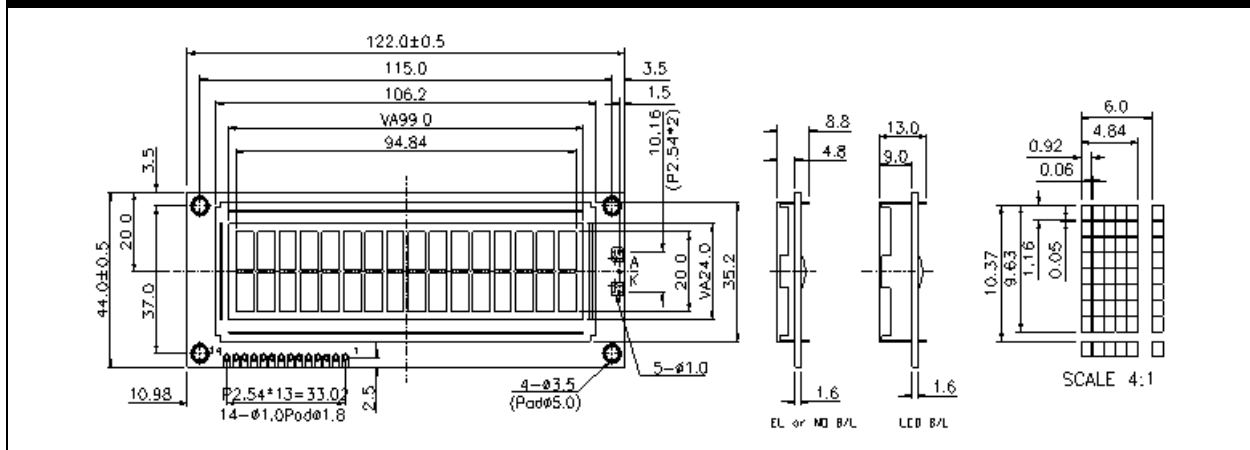
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1602E A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

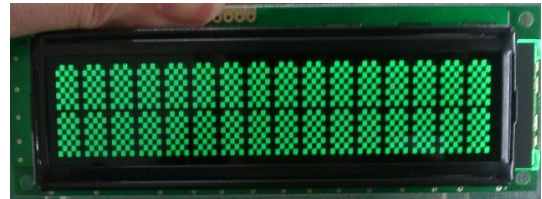
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	-	2.2	-	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC1602M Series

2 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	122.0x44.0x8.8(13.0)	mm
Viewing Area	(WxH)	99.0x24.0	mm
Character Size	(WxH)	4.84x9.63	mm
Dot Size	(WxH)	0.92x1.16	mm
Dot Pitch	(WxH)	0.98x1.21	mm



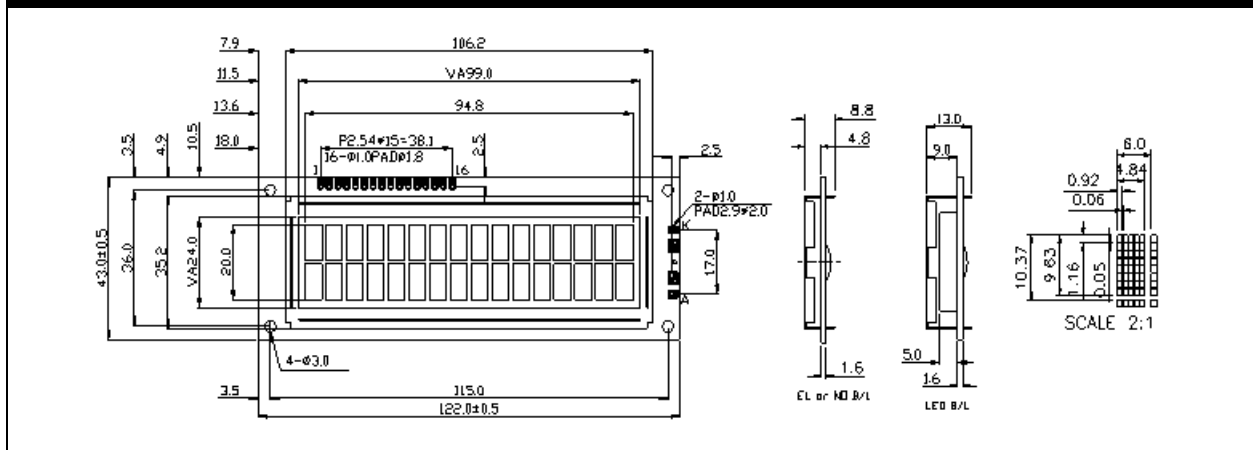
Features

- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SC1602M A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC2002F Series

2 Lines x 20 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	71.2x25.2x8.7	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.56x5.56	mm
Dot Size	(WxH)	0.48x0.66	mm
Dot Pitch	(WxH)	0.52x0.70	mm



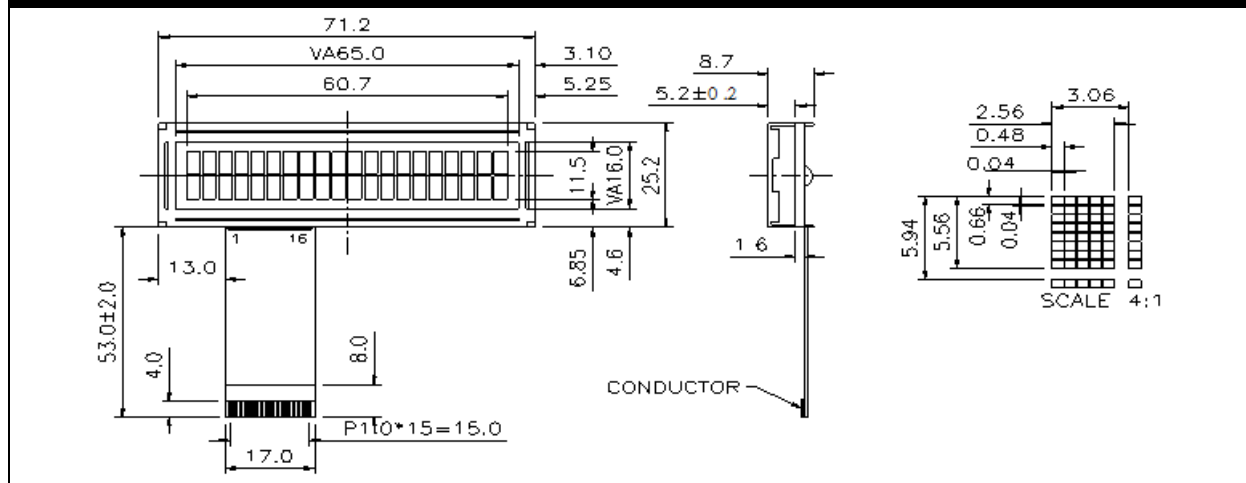
Features

- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SC2002F A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	-	2.2	-	V_{DD}
	Low	V_{IL}	-	0	-	0.6
Output Voltage	High	V_{OH}	-	2.4	-	-
	Low	V_{OL}	-	-	-	0.4

SC2002D Series

2 Lines x 20 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	80.0x36.0x8.8(12.7)	mm
Viewing Area	(WxH)	65.0x16.0	mm
Character Size	(WxH)	2.56x5.56	mm
Dot Size	(WxH)	0.48x0.66	mm
Dot Pitch	(WxH)	0.56x0.70	mm

Features

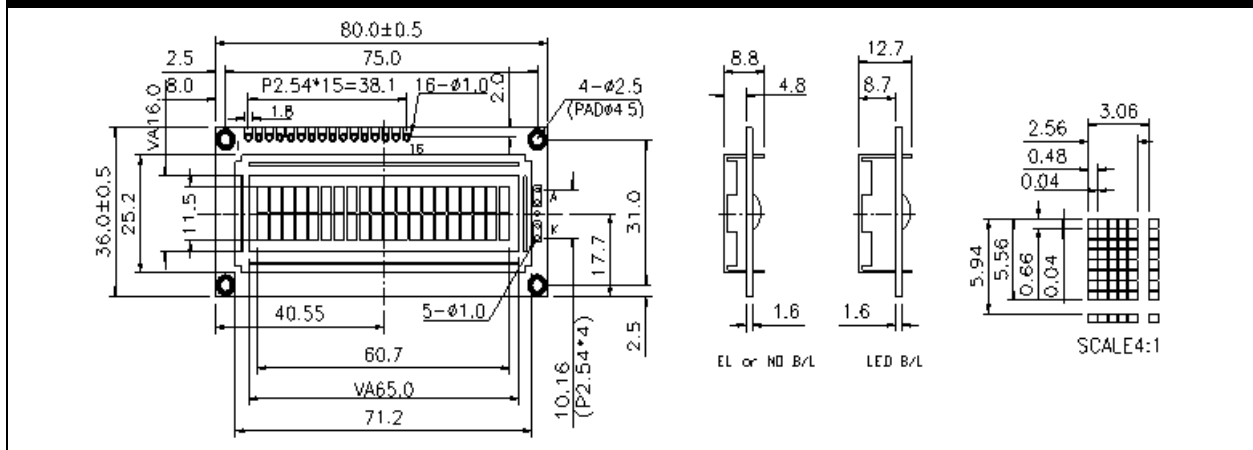
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC2002D A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	-	2.2	V_{DD}	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC2002A Series

2 Lines x 20 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	116.0x37.0x8.8(12.7)	mm
Viewing Area	(WxH)	85.0x18.8	mm
Character Size	(WxH)	3.20x5.55	mm
Dot Size	(WxH)	0.60x0.65	mm
Dot Pitch	(WxH)	0.65x0.70	mm

Features

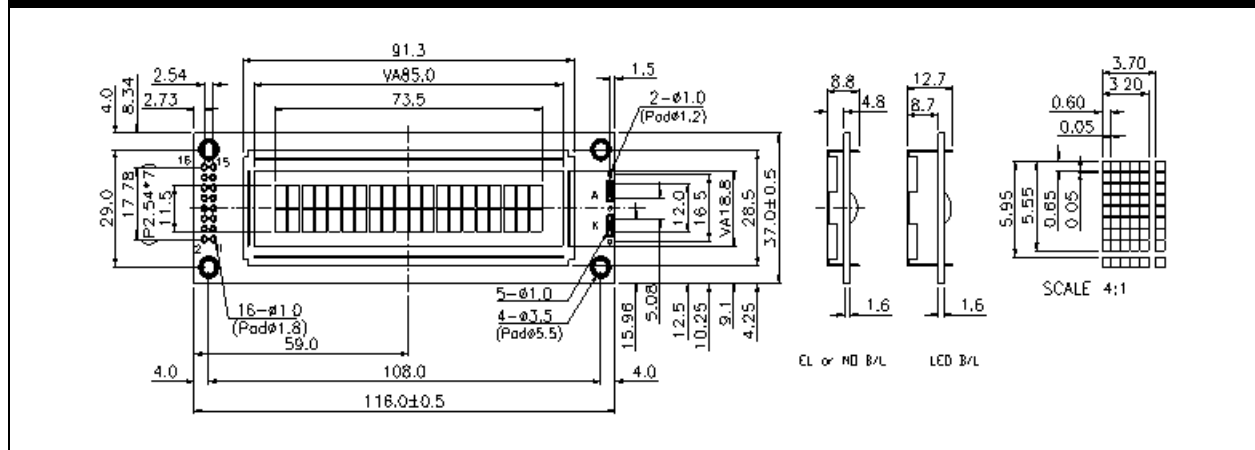
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC2002A A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

AL2002A Series

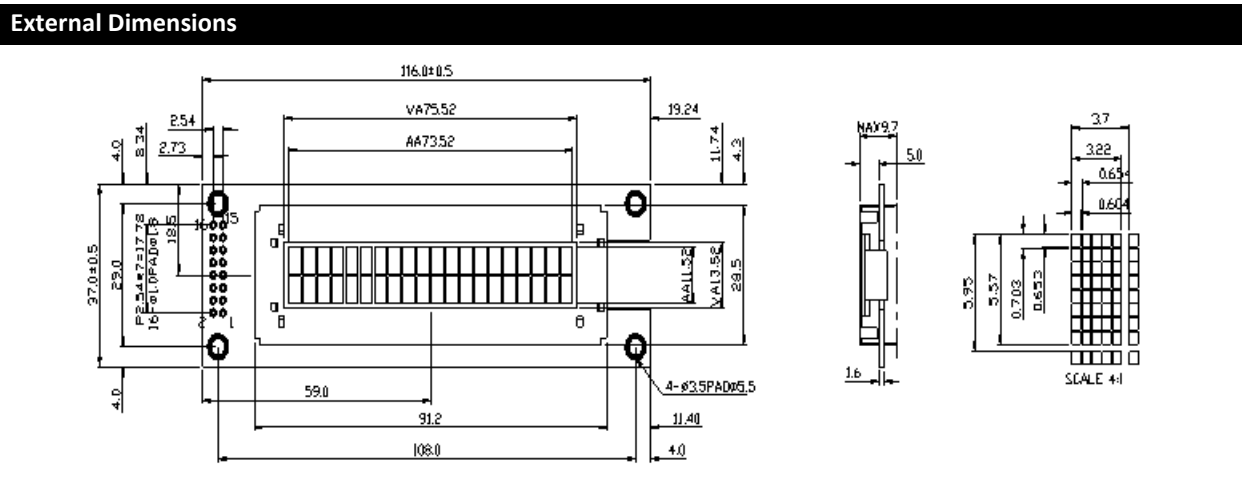
2 Lines x 20 Characters OLED Display

Mechanical Data			
Module Size	(WxHxT)	116.0x37.0x9.7	mm
Viewing Area	(WxH)	75.52x13.52	mm
Character Size	(WxH)	3.22x5.57	mm
Dot Size	(WxH)	0.604x0.653	mm
Dot Pitch	(WxH)	0.654x0.703	mm

Features
<ul style="list-style-type: none"> • 5x7 Dots with Cursor • Built-in Controller • 3.3V Power Supply • 1/16 Duty Cycle • Interface Parallel/SPI/I2C



Part Number Table		
AL2002A A B C - DE - F G - H - I J	A: LCD Type B: Colour C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 74		



Electrical Characteristics						
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply Voltage	$V_{DD}-V_{SS}$	-	2.4	3.3	3.6	V
Supply Current	I_{DD}	-	-	50	80	mA
Input Voltage	High	V_{IH}	0.7 V_{DD}	-	V_{DD}	V
	Low	V_{IL}	0	-	0.3 V_{DD}	
Output Voltage	High	V_{OH}	0.7 V_{DD}	-	V_{DD}	V
	Low	V_{OL}	-	-	0.3 V_{DD}	

SC2002M Series

2 Lines x 20 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	122.0x44.0x8.8(13.0)	mm
Viewing Area	(WxH)	99.0x24.0	mm
Character Size	(WxH)	4.09x9.22	mm
Dot Size	(WxH)	0.77x1.10	mm
Dot Pitch	(WxH)	0.83x1.16	mm

Features

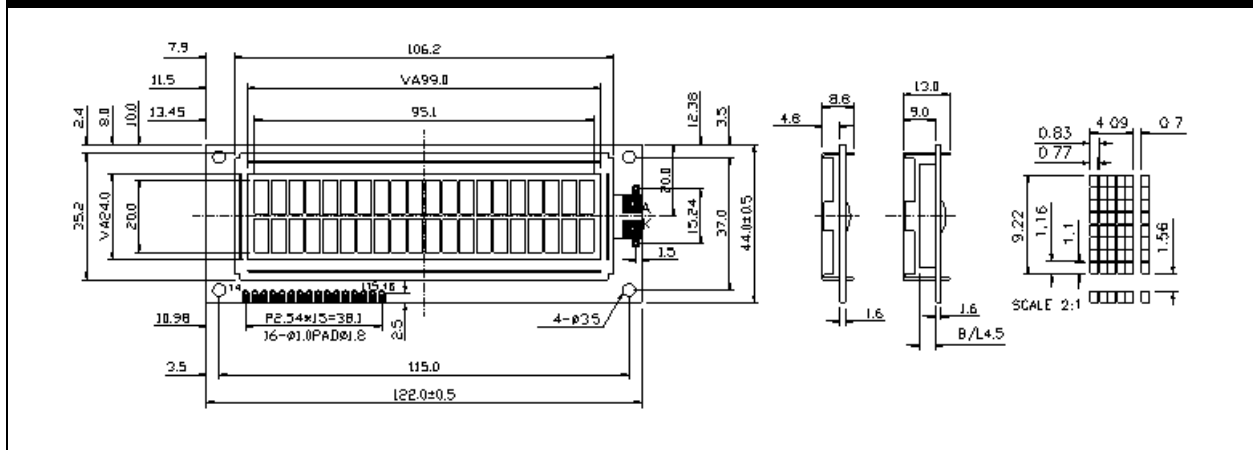
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC2002M A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC2002C Series

2 Lines x 20 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	180.0x40.0x9.1(14.5)	mm
Viewing Area	(WxH)	149.0x23.0	mm
Character Size	(WxH)	6.00x9.66	mm
Dot Size	(WxH)	1.12x1.12	mm
Dot Pitch	(WxH)	1.22x1.22	mm

Features

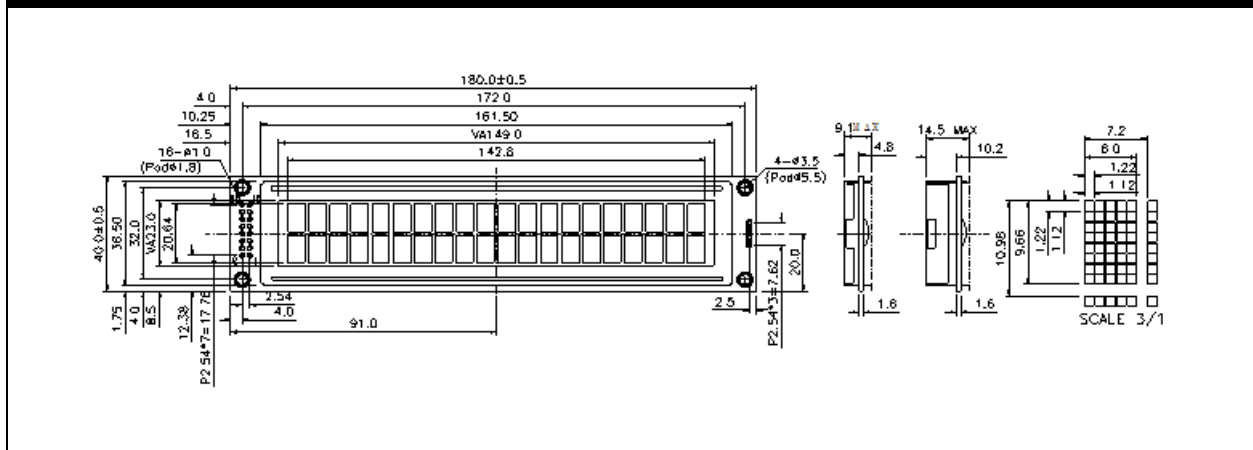
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC2002C A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC2402A Series

2 Lines x 24 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	118.0x36.0x8.8(12.7)	mm
Viewing Area	(WxH)	93.5x16.0	mm
Character Size	(WxH)	3.20x5.55	mm
Dot Size	(WxH)	0.60x0.65	mm
Dot Pitch	(WxH)	0.65x0.70	mm

Features

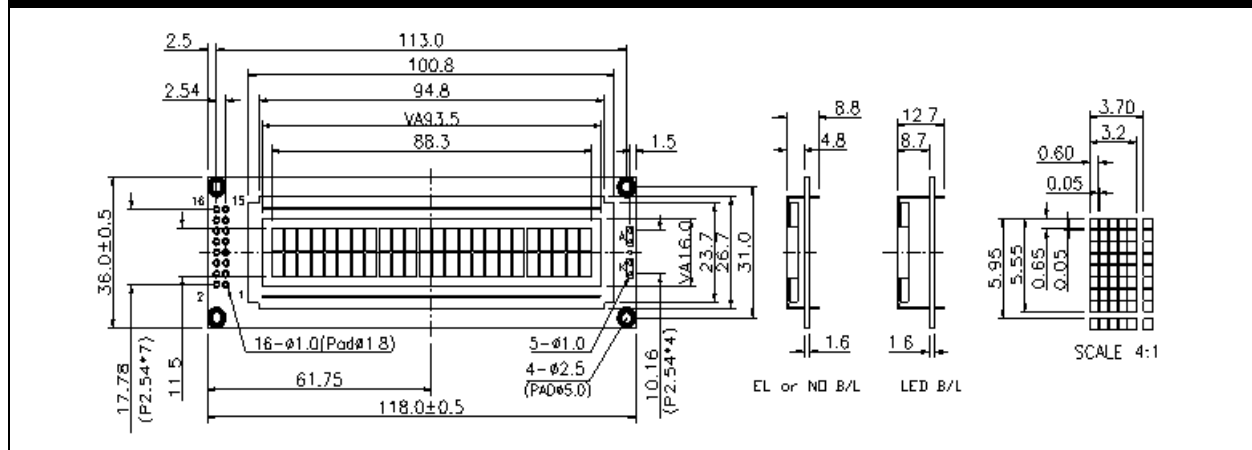
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC2402A A B C - DE - FG - H - I - J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	-	2.2	V_{DD}	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC4002A Series

2 Lines x 40 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	182.0x33.5x8.8(12.7)	mm
Viewing Area	(WxH)	154.0x15.3	mm
Character Size	(WxH)	3.20x5.55	mm
Dot Size	(WxH)	0.60x0.65	mm
Dot Pitch	(WxH)	0.65x0.70	mm

Features

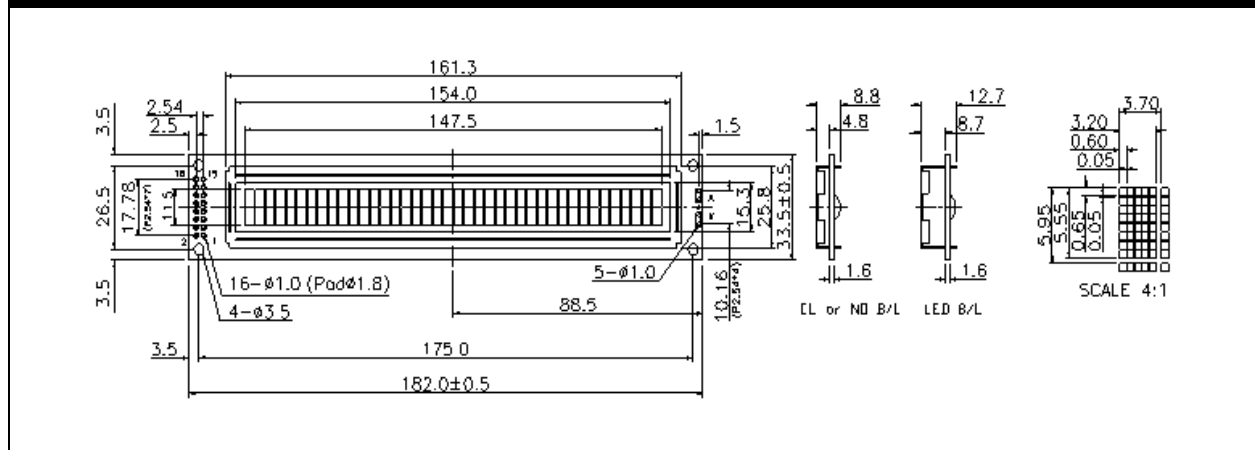
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC4002A A B C - DE - FG - H - I - J	A: LCD Type	F: Temperature Range
	B: Backlight Mode	G: Frame Colour
Code Reference: Page 72	C: Viewing Direction	H: Serial Number (A-Z)
	DE: LCD Controller	I: Serial Number (01-99)

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	4.2	7.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC1004A Series

4 Lines x 10 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	57.0x57.0x8.8	mm
Viewing Area	(WxH)	39.0x24.4	mm
Character Size	(WxH)	2.95x4.75	mm
Dot Size	(WxH)	0.55x0.55	mm
Dot Pitch	(WxH)	0.60x0.60	mm

Features

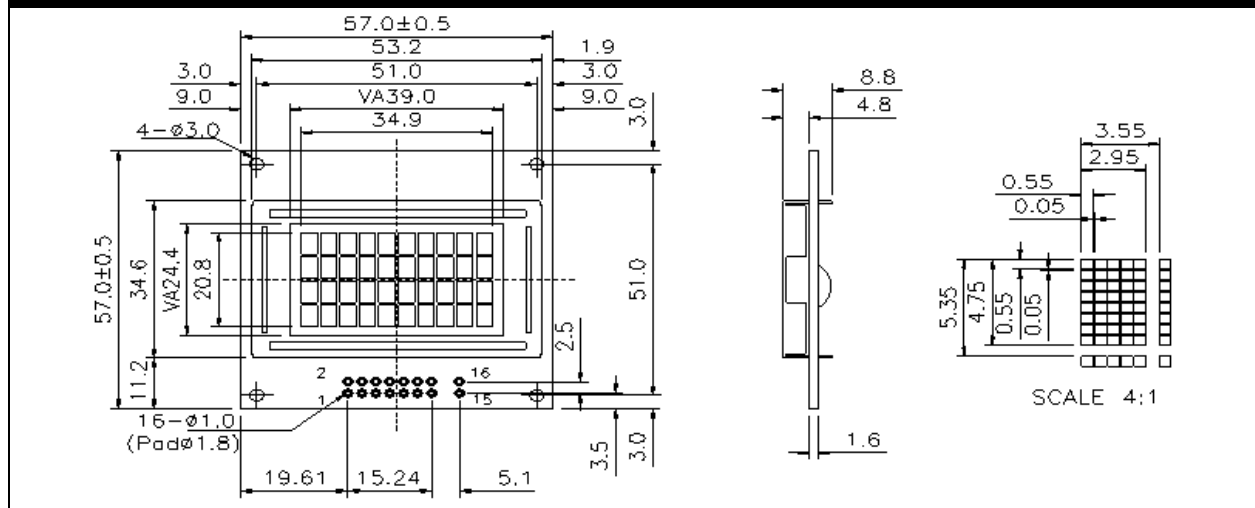
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1004A A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	-	2.2	-	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC1604A Series

4 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	87.0x60.0x8.8(12.7)	mm
Viewing Area	(WxH)	62.0x25.6	mm
Character Size	(WxH)	2.95x4.75	mm
Dot Size	(WxH)	0.55x0.55	mm
Dot Pitch	(WxH)	0.60x0.60	mm

Features

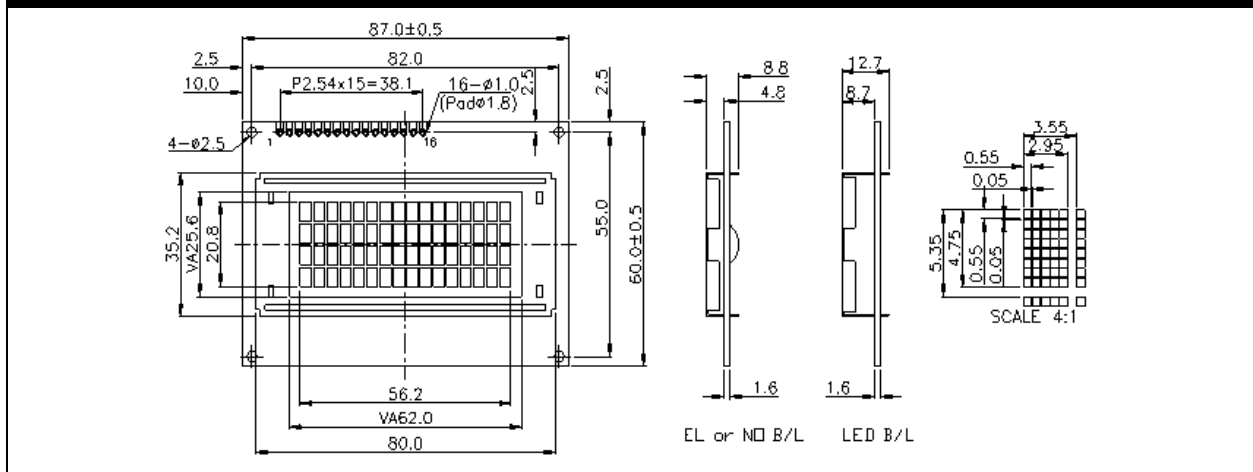
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1604A A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	T=25°C	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC1604C Series

4 Lines x 16 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	87.0x60.0x8.8(12.7)	mm
Viewing Area	(WxH)	62.0x25.6	mm
Character Size	(WxH)	2.95x4.75	mm
Dot Size	(WxH)	0.55x0.55	mm
Dot Pitch	(WxH)	0.60x0.60	mm

Features

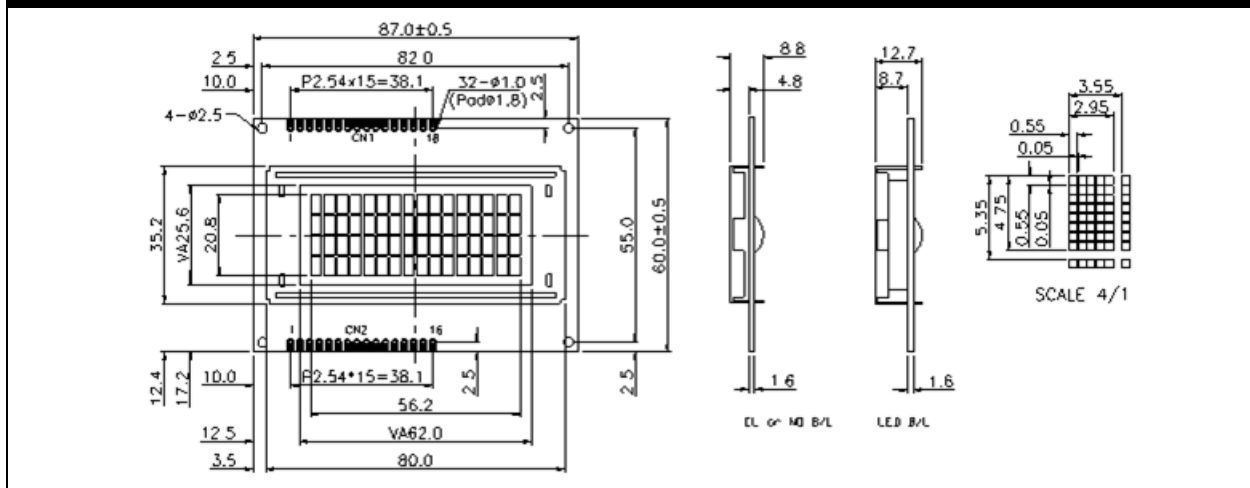
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC1604C A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	3.2	6.0	mA
Input Voltage	High	V_{IH}	-	2.2	-	V_{DD}
	Low	V_{IL}	-	0	-	0.6
Output Voltage	High	V_{OH}	-	2.4	-	-
	Low	V_{OL}	-	-	-	0.4

AL1604A Series

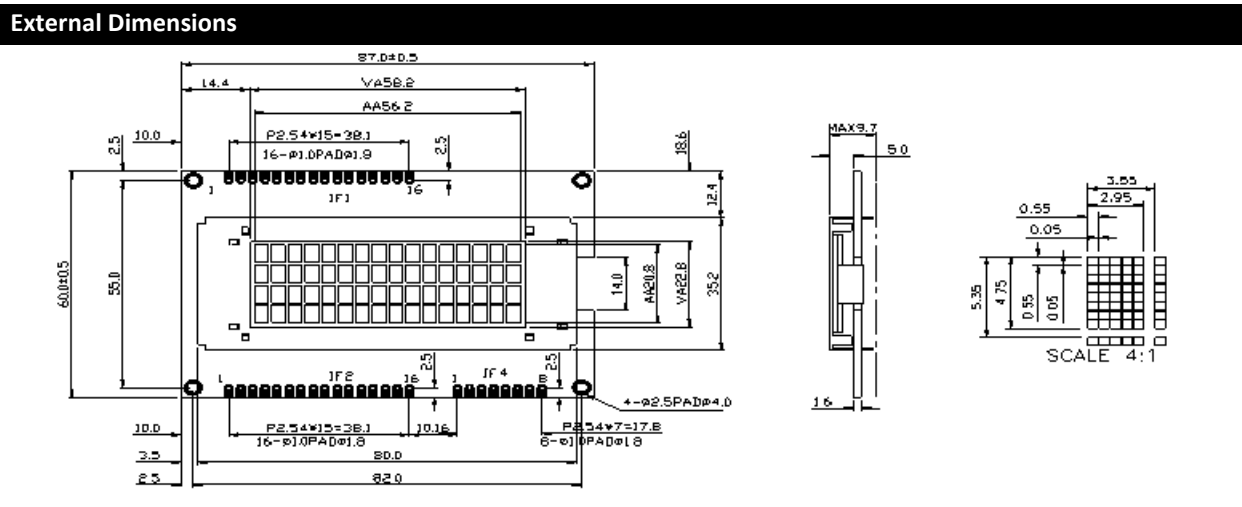
4 Lines x 16 Characters OLED Display

Mechanical Data			
Module Size	(WxHxT)	87.0x60.0x9.7	mm
Viewing Area	(WxH)	58.2x22.8	mm
Character Size	(WxH)	2.95x4.75	mm
Dot Size	(WxH)	0.55x0.55	mm
Dot Pitch	(WxH)	0.60x0.60	mm

Features
<ul style="list-style-type: none"> • 5x7 Dots with Cursor • Built-in Controller • 3.3V Power Supply • 1/16 Duty Cycle • Interface Parallel/SPI/I2C



Part Number Table		
AL1604A A B C - D E - F G - H - I J	A: LCD Type B: Colour C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 74		



Electrical Characteristics						
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply Voltage	$V_{DD}-V_{SS}$	-	2.4	3.3	3.6	V
Supply Current	I_{DD}	-	-	50	80	mA
Input Voltage	High	V_{IH}	0.7 V_{DD}	-	V_{DD}	V
	Low	V_{IL}	0	-	0.3 V_{DD}	
Output Voltage	High	V_{OH}	0.7 V_{DD}	-	V_{DD}	V
	Low	V_{OL}	-	-	0.3 V_{DD}	

SO2004A Series

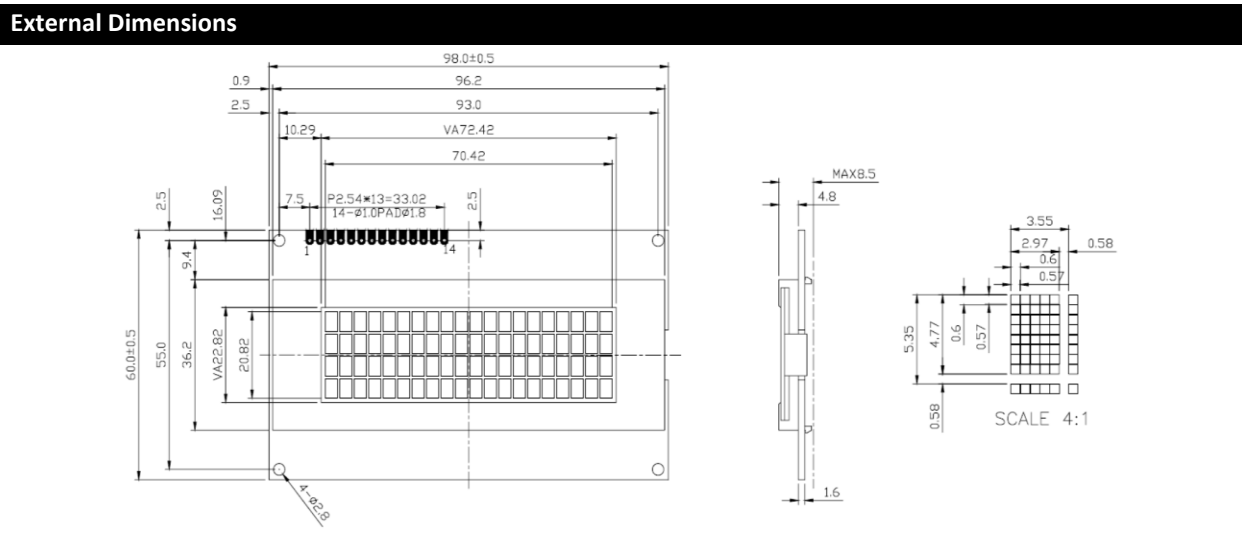
4 Lines x 20 Characters OLED Display

Mechanical Data			
Module Size	(WxHxT)	98.0x60.0x8.5	mm
Viewing Area	(WxH)	72.42x22.82	mm
Character Size	(WxH)	2.97x4.77	mm
Dot Size	(WxH)	0.57x0.57	mm
Dot Pitch	(WxH)	0.60x0.60	mm



Features	
•	5x7 Dots with Cursor
•	Built-in Controller
•	3.3V Power Supply
•	1/16 Duty Cycle
•	Interface Parallel/SPI/I2C

Part Number Table		
SO2004A A B C - DE - FG - H - IJ	A: LCD Type B: Colour C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) IJ: Serial Number (01-99)
Code Reference: Page 74		



Electrical Characteristics							
Characteristic		Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply Voltage		$V_{DD}-V_{SS}$	-	2.4	3.3	3.6	V
Supply Current		I_{DD}	$V_{DD}=5V$	-	50	80	mA
Input Voltage	High	V_{IH}	-	$0.7V_{DD}$	-	V_{DD}	V
	Low	V_{IL}	-	0	-	$0.3V_{DD}$	
Output Voltage	High	V_{OH}	-	$0.7V_{DD}$	-	V_{DD}	V
	Low	V_{OL}	-	-	-	$0.3V_{DD}$	

SC2004A Series

4 Lines x 20 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	98.0x60.0x8.8(12.7)	mm
Viewing Area	(WxH)	77.0x26.3	mm
Character Size	(WxH)	2.95x4.75	mm
Dot Size	(WxH)	0.55x0.55	mm
Dot Pitch	(WxH)	0.60x0.60	mm

Features

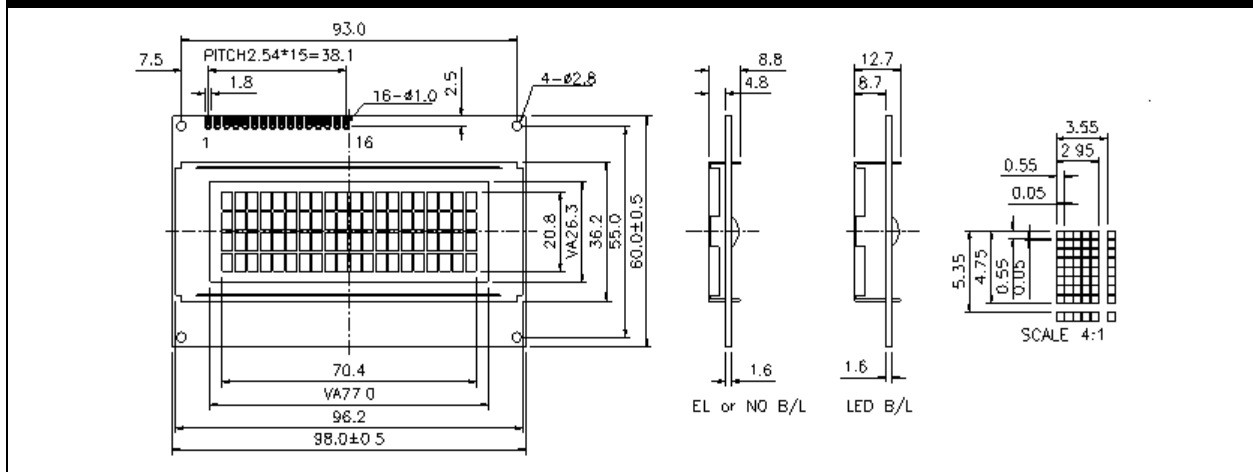
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC2004A A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	T=25°C	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	4.2	7.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC2004G Series

4 Lines x 20 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	98.0x60.0x8.8(12.7)	mm
Viewing Area	(WxH)	77.0x26.3	mm
Character Size	(WxH)	2.95x4.75	mm
Dot Size	(WxH)	0.55x0.55	mm
Dot Pitch	(WxH)	0.60x0.60	mm

Features

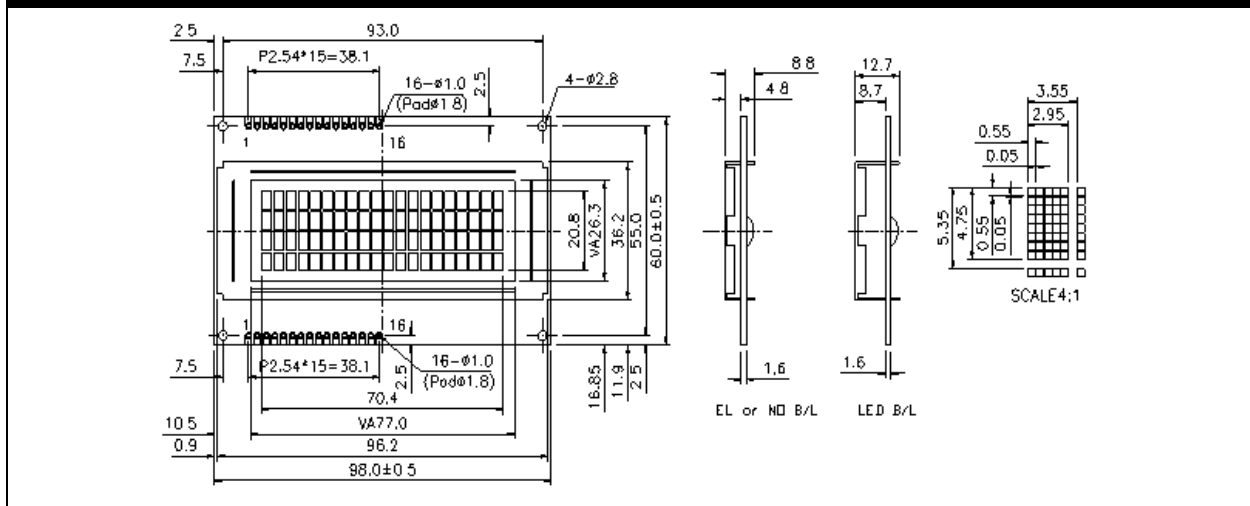
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC2004G A B C - DE - FG - H - I J	A: LCD Type	F: Temperature Range
	B: Backlight Mode	G: Frame Colour
Code Reference: Page 72	C: Viewing Direction	H: Serial Number (A-Z)
	DE: LCD Controller	I: Serial Number (01-99)

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	4.2	7.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

AL2004A Series

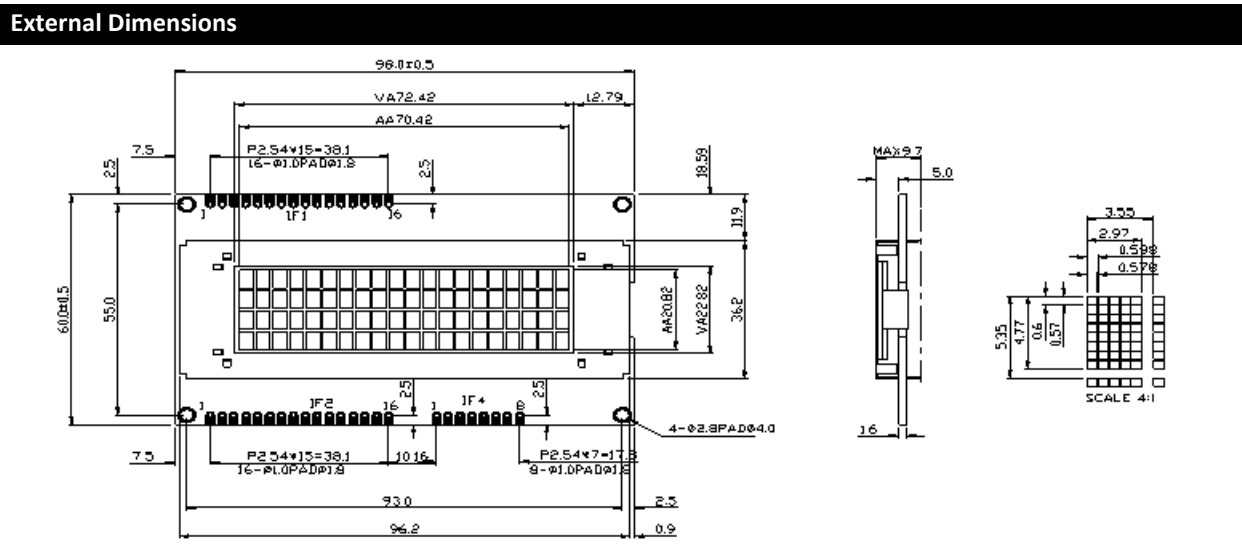
4 Lines x 20 Characters OLED Display

Mechanical Data			
Module Size	(WxHxT)	98.0x60.0x9.7	mm
Viewing Area	(WxH)	72.42x22.82	mm
Character Size	(WxH)	2.97x4.77	mm
Dot Size	(WxH)	0.578x0.570	mm
Dot Pitch	(WxH)	0.598x0.600	mm

Features	
•	5x7 Dots with Cursor
•	Built-in Controller
•	3.3V Power Supply
•	1/16 Duty Cycle
•	Interface Parallel/SPI/I2C



Part Number Table		
AL2004A A B C - D E - F G - H - I J	A: LCD Type B: Colour C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 74		



Electrical Characteristics						
Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply Voltage	$V_{DD}-V_{SS}$	-	2.4	3.3	3.6	V
Supply Current	I_{DD}	-	-	50	80	mA
Input Voltage	High	V_{IH}	0.7 V_{DD}	-	V_{DD}	V
	Low	V_{IL}	0	-	0.3 V_{DD}	
Output Voltage	High	V_{OH}	0.7 V_{DD}	-	V_{DD}	V
	Low	V_{OL}	-	-	0.3 V_{DD}	

SC2004C Series

4 Lines x 20 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	118.0x43.0x8.8(12.7)	mm
Viewing Area	(WxH)	77.0x26.3	mm
Character Size	(WxH)	2.95x4.75	mm
Dot Size	(WxH)	0.55x0.55	mm
Dot Pitch	(WxH)	0.60x0.60	mm

Features

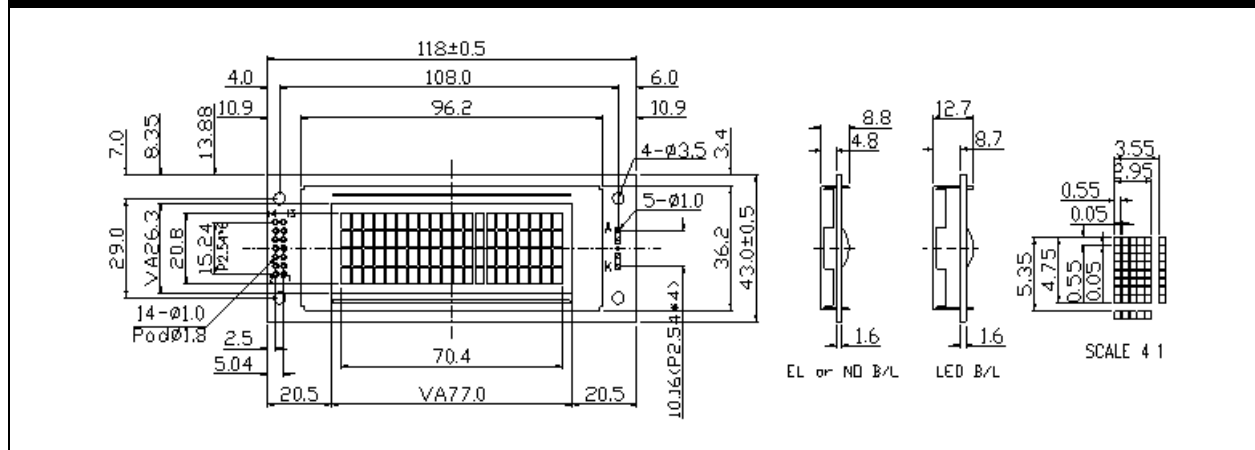
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC2004C A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	4.2	7.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC2004D Series

4 Lines x 20 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	145.0x62.5x9.1(13.6)	mm
Viewing Area	(WxH)	123.0x42.5	mm
Character Size	(WxH)	4.85x9.23	mm
Dot Size	(WxH)	0.93x1.11	mm
Dot Pitch	(WxH)	0.98x1.16	mm

Features

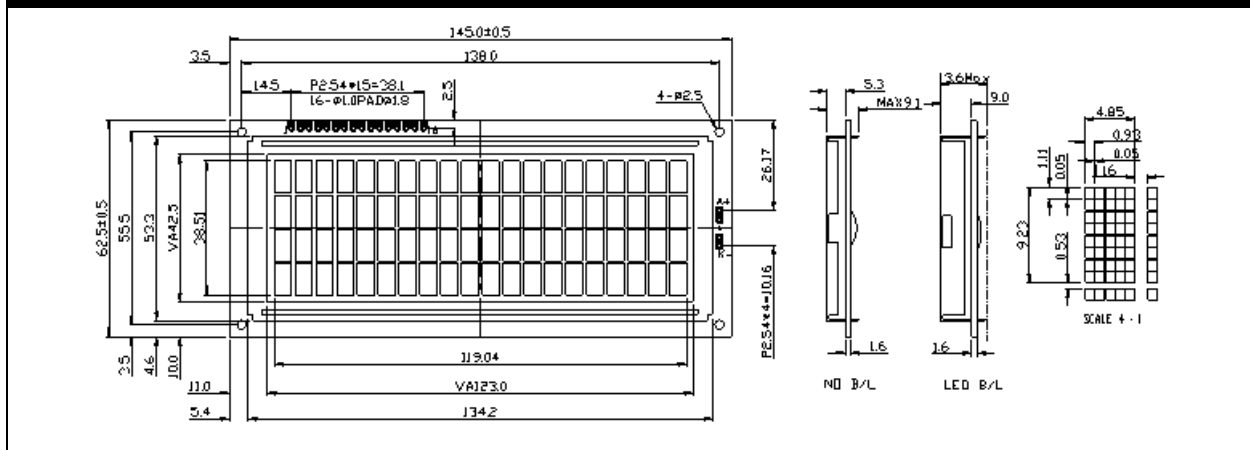
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC2004D A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	4.2	7.0	mA
Input Voltage	High	V_{IH}	-	2.2	V_{DD}	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC2004H Series

4 Lines x 20 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	182.0x90.0x7.9(13.0)	mm
Viewing Area	(WxH)	147.0x65.4	mm
Character Size	(WxH)	5.90x12.70	mm
Dot Size	(WxH)	1.10x1.50	mm
Dot Pitch	(WxH)	1.20x1.60	mm



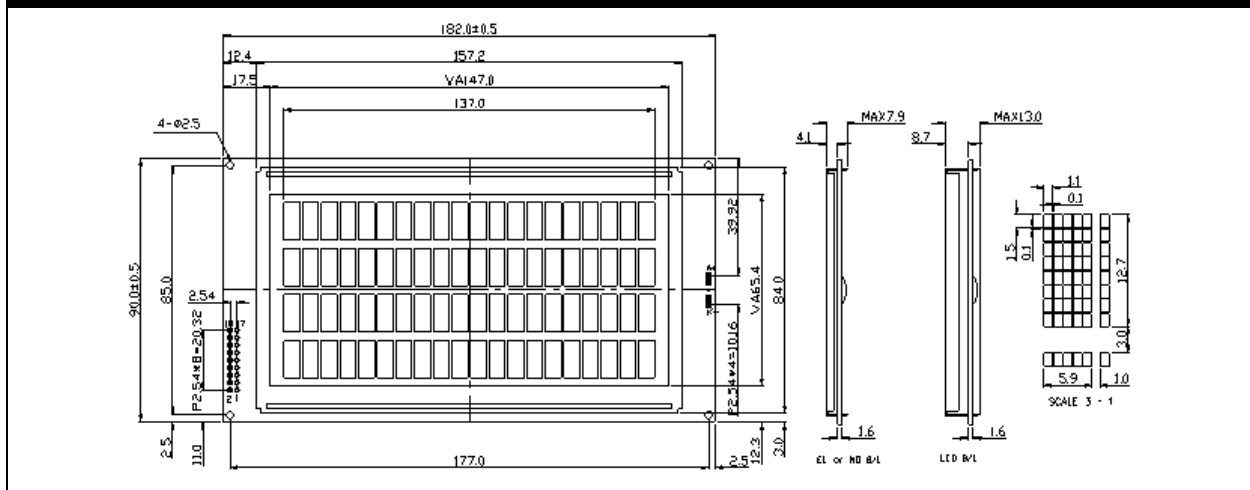
Features

- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SC2004H A B C - DE - FG - H - I	A: LCD Type	F: Temperature Range
	B: Backlight Mode	G: Frame Colour
Code Reference: Page 72	C: Viewing Direction	H: Serial Number (A-Z)
	DE: LCD Controller	I: Serial Number (01-99)

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	4.2	7.0	mA
Input Voltage	High	V_{IH}	-	2.2	V_{DD}	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC4004C Series

4 Lines x 40 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	160.0x47.0x9.5	mm
Viewing Area	(WxH)	140.0x29.0	mm
Character Size	(WxH)	2.70x4.35	mm
Character Pitch	(WxH)	3.30x5.35	mm
Dot Size	(WxH)	0.50x0.50	mm
Dot Pitch	(WxH)	0.55x0.55	mm



Features

- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface

Part Number Table

SC4004C **A** **B** **C** - **DE** - **FG** - **H** - **IJ**

Code Reference: Page 72

A: LCD Type

B: Backlight Mode

C: Viewing Direction

DE: LCD Controller

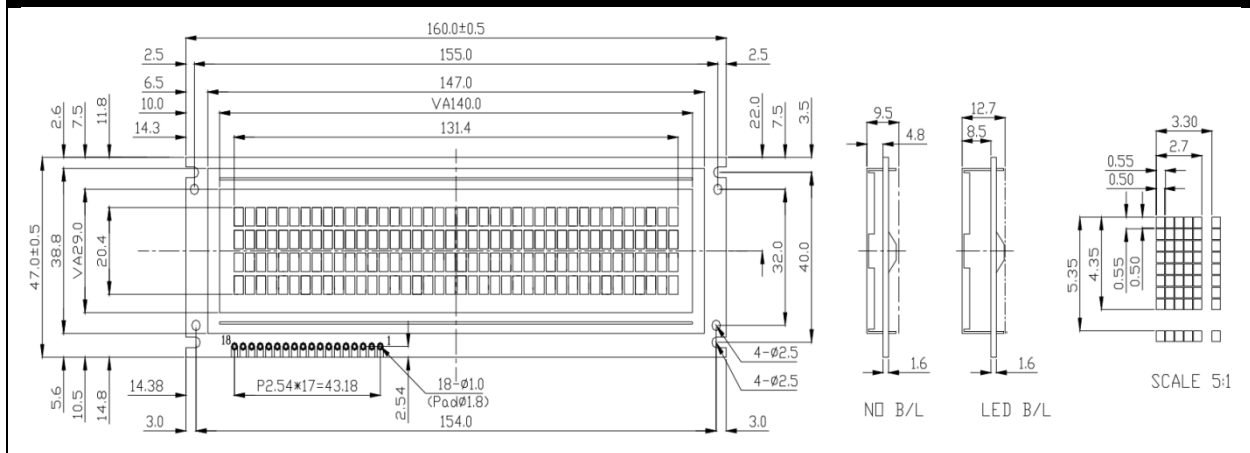
F: Temperature Range

G: Frame Colour

H: Serial Number (A-Z)

IJ: Serial Number (01-99)

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	6.0	10.0	mA
Input Voltage	High	V_{IH}	-	2.2	V_{DD}	V
	Low	V_{IL}	-	0	0.6	
Output Voltage	High	V_{OH}	-	2.4	-	V
	Low	V_{OL}	-	-	0.4	

SC4004A Series

4 Lines x 40 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	190.0x54.0x8.8(13.0)	mm
Viewing Area	(WxH)	149.0x29.5	mm
Character Size	(WxH)	2.78x4.89	mm
Dot Size	(WxH)	0.50x0.55	mm
Dot Pitch	(WxH)	0.57x0.62	mm

Features

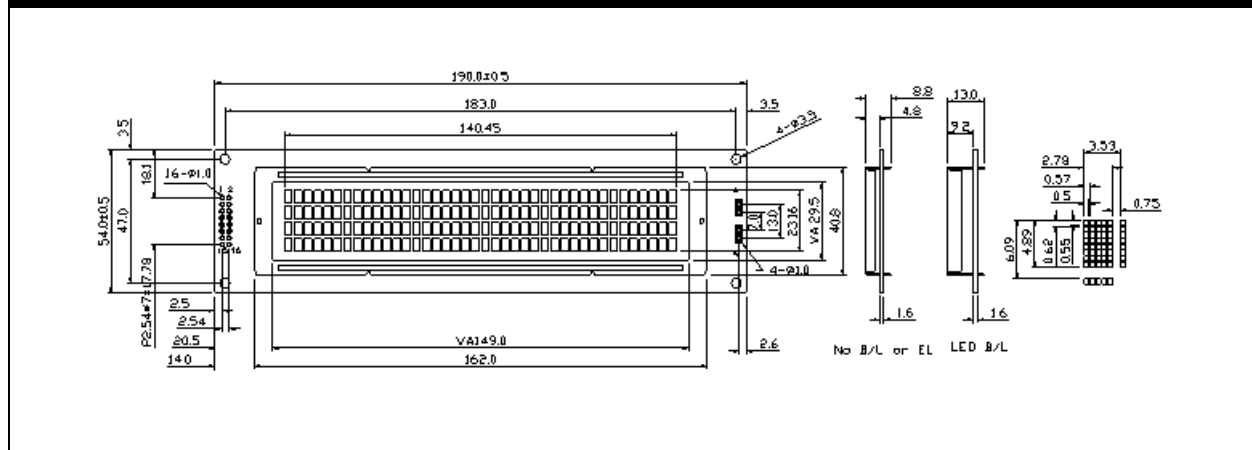
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC4004A A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	6.0	10.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC4004B Series

4 Lines x 40 Characters LCD Display

Mechanical Data

Module Size (WxHxT)	288.3x77.5x12.8(18.7)	mm
Viewing Area (WxH)	260.0x56.6	mm
Character Size (WxH)	5.16x10.52	mm
Dot Size (WxH)	1.00x1.28	mm
Dot Pitch (WxH)	1.04x1.32	mm

Features

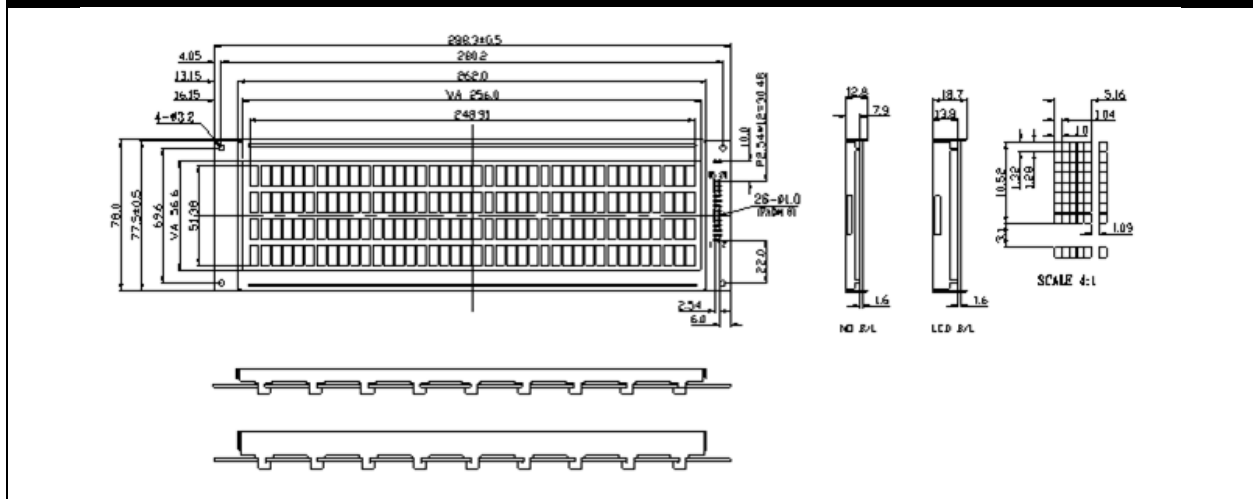
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/16 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC4004B A B C - DE - FG - H - I	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions



Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	$T=25^{\circ}C$	-	4.5	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	6.0	10.0	mA
Input Voltage	High	V_{IH}	2.2	-	V_{DD}	V
	Low	V_{IL}	0	-	0.6	
Output Voltage	High	V_{OH}	2.4	-	-	V
	Low	V_{OL}	-	-	0.4	

SC6804A Series

4 Lines x 68 Characters LCD Display

Mechanical Data

Module Size	(WxHxT)	275.0x48.0x13.5	mm
Viewing Area	(WxH)	236.0x29.5	mm
Character Size	(WxH)	2.70x5.15	mm
Dot Size	(WxH)	0.50x0.60	mm
Dot Pitch	(WxH)	0.55x0.65	mm

Features

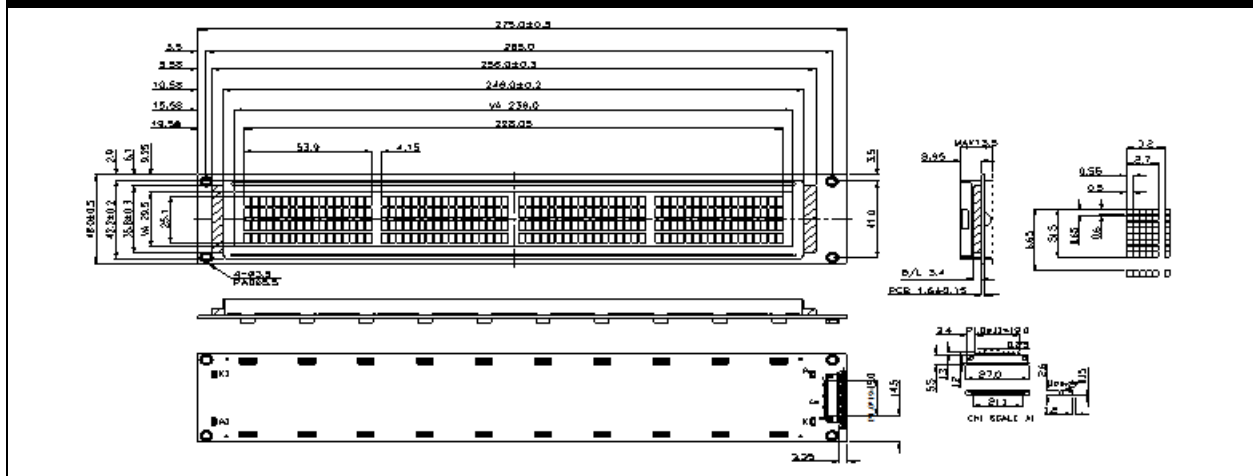
- 5x7 Dots with Cursor
- Built-in Controller
- 3.3V / 5.0V Power Supply
- 1/32 Duty Cycle
- 8-Bit Parallel Interface



Part Number Table

SC6804A A B C - DE - FG - H - I J	A: LCD Type B: Backlight Mode C: Viewing Direction DE: LCD Controller	F: Temperature Range G: Frame Colour H: Serial Number (A-Z) I: Serial Number (01-99)
Code Reference: Page 72		

External Dimensions

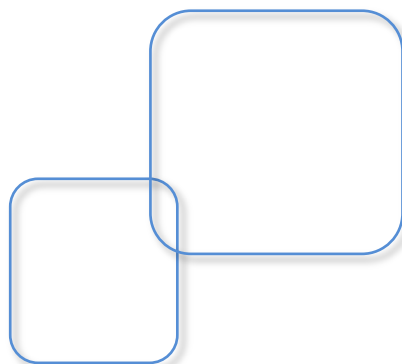


Electrical Characteristics

Characteristic	Symbol	Conditions	Min.	Typ.	Max.	Unit
LCD Operate Voltage	$V_{DD}-V_O$	T=25°C	-	5.2	-	V
Supply Voltage	$V_{DD}-V_{SS}$	-	2.7	5.0	5.5	V
Supply Current	I_{DD}	-	-	5.2	8.0	mA
Input Voltage	High	V_{IH}	-	$0.7V_{DD}$	V_{DD}	V
	Low	V_{IL}	-	-0.3	0.6	
Output Voltage	High	V_{OH}	-	$0.7V_{DD}$	-	V
	Low	V_{OL}	-	-	$0.2V_{DD}$	

Part Number

Classification Table



Part Number Classification

LCD Display - Character

A: LCD Type

M	TN NEGATIVE
N	TN POSITIVE
S	STN Grey
U	STN Yellow Green
B	STN Blue Transmissive NEGATIVE
Z	STN Grey Transmissive
T	STN Yellow Transmissive
F	FSTN Black&White
W	FSTN Black&White NEGATIVE
K	FSTN Black&White POSITIVE Transmissive

B: Backlight Mode

L	LED: Yellow Green
M	LED: Amber
N	LED: Red
O	LED: Orange
R	LED: Green
G	LED: Green Guide
W	LED: White Guide
F	LED: Blue Guide
E	EL: White
B	EL: Blue Green
P	EL: Green
T	No Backlight Transflective
*	No Backlight Reflective

C: Viewing Direction

B	Bottom View (6 o'clock)
T	Top View (12 o'clock)

DE: LCD Controller Display Language

DA	English / Japanese
DB	English / European
DH	English / Russian
XA	English / Japanese
XB	English / European
XH	English / Russian
X8	English / Cyrillic

F: Temperature Range

G	General Temperature, 5V, Single Supply Voltage
H	Wide Temperature, 5V, Single Supply Voltage
L	General Temperature, 3.3V, Single Supply Voltage
W	Wide Temperature, 3.3V, Single Supply Voltage
N	General Temperature, Dual Supply Voltage
D	Wide Temperature, Dual Supply Voltage
S	Super Wide Temperature, Dual Supply Voltage

G: Frame Colour

B	Black
S	Silver
□	No Frame

Part Number Classification

LCD Display – Designed COG

A: LCD Type

M	TN NEGATIVE
N	TN POSITIVE
S	STN Grey
U	STN Yellow
B	STN Blue NEGATIVE
Z	STN Grey Transmissive
T	STN Yellow Transmissive
F	FSTN Black&White
W	FSTN Black&White NEGATIVE

B: Backlight Mode

L	LED: Yellow Green
G	LED: Green Guide
W	LED: White Guide
F	LED: Blue Guide
T	No Backlight Transflective
*	No Backlight Reflective

C: Viewing Direction

B	Bottom View (6 o'clock)
T	Top View (12 o'clock)

D: Temperature Range

G	General Temperature, 5V, Single Supply Voltage
H	Wide Temperature, 5V, Single Supply Voltage
L	General Temperature, 3.3V, Single Supply Voltage
W	Wide Temperature, 3.3V, Single Supply Voltage

Part Number Classification

OLED Display - Character

A: OLED Type

W	OLED Black & White
---	--------------------

B: Colour

G	LED Green
Y	LED Yellow
W	LED White

C: Viewing Direction

B	Bottom View (6 o'clock)
---	-------------------------

DE: LCD Controller

UA	68 Serial 8-bit
UB	68 Serial 4-bit
UC	I2C Serial
US	SPI Serial

F: Temperature Range

H	Wide Temperature, 5V, Single Supply Voltage
W	Wide Temperature, 3.3V, Single Supply Voltage

G: Frame Colour

B	Black
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Part Number Classification

LCD Display – Character (ACM)

A: LCD Type

M	TN NEGATIVE Transmissive
H	TN POSITIVE Transmissive
N	TN POSITIVE Transflective Reflective
S	STN Grey POSITIVE Transflective Reflective
U	STN Yellow Green POSITIVE Transflective Reflective
B	STN Blue NEGATIVE Transmissive
Z	STN Grey POSITIVE Transmissive
T	STN Yellow Green POSITIVE Transmissive
F	FSTN POSITIVE Transflective Reflective
W	FSTN NEGATIVE Transmissive
K	FSTN POSITIVE Transmissive
V	V.A TN NEGATIVE

B: Backlight Mode

L	LED: Yellow Green
M	LED: Amber
N	LED: Red
O	LED: Orange
G	LED: Green Guide
W	LED: White Guide
F	LED: Blue Guide
T	No Backlight Transflective

C: Viewing Direction

B	Bottom View (6 o'clock)
T	Top View (12 o'clock)

D: Temperature Range

G	General Temperature, 5V, Single Supply Voltage
H	Wide Temperature, 5V, Single Supply Voltage
L	General Temperature, 3.3V, Single Supply Voltage
W	Wide Temperature, 3.3V, Single Supply Voltage
N	General Temperature, Dual Supply Voltage
D	Wide Temperature, Dual Supply Voltage
S	Super Wide Temperature, Dual Supply Voltage

E: Frame Colour

B	Black
S	Silver
□	No Frame



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