



Box PC Fanless
BOX PC FANLESS

MICROBOX 210 SE

Celeron J 1900, 2.0GHz



Features

- _ Intel® BayTrail-D Celeron Quad-Core J1900 2.0GHz CPU
- _ Intel® Atom Processor E3845 Quad-Core 1.91GHz (by project)
- _ Optimized performance and low power system
- _ Dual display VGA/HDMI, dual Gigabit LAN, 2x USB 3.0, 4x USB 2.0
- _ 4x COM, COM1/2 by RS232/422/485, COM3/4 by Rs232
- _ Wide DC 9-36V Input by 2pin phoenix connector
- _ Supports Microsoft Windows Embedded 8.1 Pro, Embedded Std 8, WS7P, WS7E
- _ Automation control and performance management system
- _ ATM, Kiosk, self-service, machine automation, IoT gateway platform

Specifications

Processor System

CPU	2.0GHz Quad Core
L2 Cache	2 MB
CPU/TDP 15W	Celeron J1900 / 10W
BIOS	AMI 16MB AMI UEFI with GUI support
Graphics processor	Intel® HD Graphics

Expansion Slot

Mini-PCIe / mSATA	1 x full-size (shared with mSATA)
Mini-PCIe (Half-size)	1 x half-size

Memory

Specification (SO-DIMM)	1 x DDR3L-1333
System Max. Capacity	8 GB
Graphics	
VGA	1 x VGA (1920x1200)
HDMI	1 x HDMI (1920x1200)
LVDS (Internal connector)	1 x Dual channel 24bit LVDS up to 1920x1200 (customized LVDS solution for LCD)

Ethernet

LAN Gigabit Controller	Realtek RTL8111E-VL
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Storage

2.5" Driver	1 x SATA1 for 2.5" SATA drive
mSATA	1 x full-size Mini-PCIe shared with SATA2
SATA DOM	Options 32GB SATAIII on SATA2 (mSATA disabled)

Rear I/O

VGA	1 x DB-15
HDMI	1 x HDMI
Ethernet	2 x RJ45
USB Type A	2 x USB 3.0 x USB 2.0
Line-out	1 x Audio jack (Line-out)
Mic-in	1 x Audio jack (Mic-in)
System Power Input	1 x 2-pin phoenix connector 9-36Vdc Input
Antenna	2 x Antenna holes (options)

Ethernet

Power-on Button	1 x Moment button switch to turn-on system
System Power LED	1 x LED for system power status
HDD LED	1 x LED for SATA HDD data access status
COM1-2 Ports	2 x DB9 (2 x RS232/422/485, Pin9 +5/+12V selectable)
COM3-4 Ports	2 x DB9 (2 x RS232)
USB Type A	2 x USB 2.0
Option GPIO 8bit	1 x DB9 or DB15 by request or front bezel
Customized LVDS Port	4 x GPI + 4 x GPO and GND Customized LVDS solution for open frame LCD display

Operation System

Win 7	Win 7 32bit, 64bit, WS7E/WS7P, 32bit, 64bit
Win 8	Win 8 32bit, 64bit

Watchdog Timer

Output and Interval	System reset, programmable 1 - 255 sec/min; 1 sec. or 1 min. /step
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Power Requirement

DC Input	9-36Vdc input (option DC12V 60W adapter)
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Environment

Operating Temperature	-10°C_60°C (32_140°F)
Air Flow condition	50°C -60°C with 0.7m/s air flow
Storage Temperature	-40_85°C (-40_185°F)

Physical Size

Dimensions	225 mm(W) x 140 mm(D) x 45 mm(H)
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Packing Size

Dimensions	300 mm(W) x 260 mm(D) x 130 mm(H)
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Weight

N.W/G.W.	Single packed: 3Kg / 4Kg
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Certifications

EMC	CE, FCC Class B
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MICROBOX 220

Celeron Braswell N3150 Quad Core



Features

- _ Intel Celeron quad core N3150 1,6 Ghz 6W
- _ Support Channel DDR3L 1333/1600 Mhz, 1 x SO-DIMM, up to 8 GB
- _ Dual independent display
- _ 12-24V DC
- _ Gigabit Lan: 2 x Intel Lan

Specifications

Processor System

CPU	Intel Celeron Braswell N3150 Quad-Core Fanless
Model	Celeron N3150/6W
Core Number	4
Max Speed	1,6 Ghz
L2 Cache	2 MB
Bios	Ami 16 MB

Expansion Slot

PCI	0
Mini PCIe	1 (Half-size) mini-PCIe slot
mSATA	1 (Full-size)
Pcie	0
Cfast Card Socket	0

Memory

Technology	Single Channel DDR3L 1333/1600 Mhz SDRAM
Max.	8 GB
Socket	1 x SO-DIMM

Graphics

Controller	Intel Gen 8 Intel Graphics DX 11, OGL 3.2
VRAM	Shared Memory
VGA	Support max. resolution 1920 x 1200
LVDS	Dual Channel 24 Bit
HDMI	Support HDMI 1.4a, m. resolution 1920 x 1200
DVI	No
Display Port	No
Multi Display	Yes (Triple Display)

SATA

Max Data Transfer Rate	Sata 3 (6.0 GB/S)
SSD	1 x mSATA _ 1 x 2,5 SATA Drive

Ethernet

Interface	10/100/1000 Mbps
Controller	2 x Intel i210
Connector	2 x RJ45

Rear I/O

VGA	1
HDMI	1
USB 3.0	4
USB 2.0	4
Ethernet	2
Serial	3 x RS232_1 x RS232/422/485
PS/2	0

Power

Power Input	12-24V DC
Power Consumption	Typical +12V x 2A

Meccanical

Construction	Black Steel Chassis
IP rating	None
Mounting	Wall Mounting
Dimension	265 x 140 x 50,3 mm
Net Weight	1,5 Kg

Environment

Operating Temperature	0°-60°C
Storage Humidity	30-95%
Certification	CE

Operating System Support

Win 8.1	Windows 8.1 Embedded 64 Bit
Win 7	Windows 7 Pro 64 Bit WS7E or WS7P
Win 10	Windows 10 IoT 32/64 Bit

MICROBOX 310

Core i5-4300U Mobile



Features

- _ Intel Core i5-4000U 1,9 GHz
- _ Dual independent display
- _ 9-36V DC wide range power
- _ Dual Gigabit Lan
- _ Fanless design

Specifications

Processor System

CPU	Intel Processor gen. 4 Haswell ULT
Model	Intel Core i5-4300U 1,9 Ghz
Core Number	2
Max Speed	2,9 Ghz
L2 Cache	3 MB
Bios	UEFI

Expansion Slot

PCI	0
Mini PCIe	1 (Half-size)
mSATA	1 (Full-size)
Pcle	0
Cfast Card Socket	0

Memory

Technology	Dual Channel DDR3L 1333 Mhz SDRAM
Max.	8 GB
Socket	1 x SO-DIMM

Graphics

Controller	Intel Graphics 4400
VRAM	Shared Memory
VGA	/
LVDS	Dual Channel 24 Bit
HDMI	Support HDMI 1.4a, m. resolution 4096x2304
DVI	No
Display Port	No
	Yes (Dual Display)

SATA

Max Data Transfer Rate	Sata 3 (6.0 GB/S)
SSD	1 x mSATA _ 1 x 2,5 SATA Drive

Ethernet

Interface	2 x Gigabit Ethernet
Controller	1 x Intel I218LM _ 1 x Realtek RTL8111G
Connector	RJ45

Rear I/O

VGA	/
HDMI	2
USB 3.0	4
USB 2.0	4
Ethernet	2
Serial	2 RS232/422/485 + 2RS232
PS/2	0

Power

Power Input	9-36V
Power Consumption	Typical +12V x 2A

Meccanical

Construction	Black Steel Chassis
IP rating	None
Mounting	Wall Mounting
Dimension	265 x 140 x 50,3 mm
Net Weight	1,5 Kg

Environment

Operating Temperature	0°-55°C
Storage Humidity	30-95%
Certification	CE

Operating System Support

Win 8.1	Windows 8.1 Embedded 32 Bit/64 Bit
Win 7	Windows 7 Pro 32 Bit/64 Bit WS7E or WS7P
Win 10	Windows 10 IoT 64 Bit

MICROBOX 260

SoC Processor



Specifications

Motherboard Specification

CPU	Intel® Celeron J1900, 2.0GHz Quad-Core SoC, 10W, Bay Trail
Memory	1 x 204-pin DDR3L-1333 SO-DIMM up to 8GB (1.35V required)
Graphics	Intel® HD Graphics
LAN	2 x Intel i211AT Gigabit LAN
Audio	Realtek ALC662 HD Audio
Storage	1 x 2.5" SATA2 3GB/s drive bay for HDD or SSD 1 x mSATA/mini-PCI Express shared slot (full size)
Wireless/Mini-PCIE Slot	1 x Mini-PCI Express slot (full size)
USB/SIM	Embedded 1 x USB 3.0 and 3 x USB 2.0, 1 x SIM card socket

Features

- _ Fanless Intel Celeron Bay Trail J1900 SoC Processor
- _ Embedded Long-life Series, Planned Lifecycle Through Q1 2019
- _ 5 x Serial Ports (5 x RS232/422/485)
- _ 6 x Intel Gigabit LAN Ports
- _ ECO-design for EuP/ErP

Chassis Specification

Product size	185 (W) x 165 (D) x 48 (H) mm
Color	Black
Storage Bay	1 x 2.5" Drive Bay (Only support SATA 2.5" HDD or SSD)
Front I/O Port	1 x Power Button 1 x HDD LED 4 x Serial ports (4 x RS232/422/485) 4 x RJ-45 LAN ports
Rear I/O Port	1 x +12V DC-in jack 1 x Reset Switch 1 x USB 3.0 ports 3 x USB 2.0 ports 1 x HDMI 2 x RJ-45 LAN ports 1 x Serial port (RS232/422/485) 1 x VGA port 1 x Line Out jack 1 x MIC In jack 2 x SMA Connectors for WiFi Antenna
Environment	Operating Temperature: 0 _ 40°C Storage Temperature: -20_85°C
Standard Accessory	60W AC-DC Adapter x 1 Power Cord x 1 Wall Mount Kit DIN RAIL x 2 CD Disk x 1 Manual x 1 WiFi antenna (with HBJC390F541W model)
Functional	Retail (POS/Kiosk/ATM), Industrial Control Digital Security, Embedded System
Certificate	CE, FCC, ErP for Barebone CE, FCC, TUV, UL, CCC, CB, ErP for Power Adapter

Operating System Support

Win 7	Windows 7
Win 8.1	Windows 8.1 (32/64 Bit)
Win 10	Win 10 IoT (32/64 Bit)

Ordering Information

HBJC390F541CA19B	Barebone with 5 COMs and 6 LANs
JNF541-1900	100 mm x 167 mm motherboard with Celeron J1900
ADPIE1COM4	4-port Serial GEN3 Daughter Board
ADPIE1ILAN4	4-port Giga LAN GEN3 Daughter Board
HCS370MWM01B-2-F	Wall Mount
G02-DVD20-A1-WF	DVD driver disk
L01AS036-F	Locking Adapter 12V 5A 60W LEVEL6
HNS130MSHDHD02-F	2.5" HDD Rails
LCSCHBJC3XX-F	Screw pack
HCS3XXDINRAILPS-F	DIN RAIL kit

MICROBOX 870

Expansion Box PC



Specifications

System

Processor	Intel 6th Gen. Skylake Core i7/i5/i3 CPU with 35W TDP Support
System Chipset	Intel H170 Chipset
System Memory	2 x 260-pin SO-DIMM up to 32GB DDR4 2133/2400 Mhz

Outside IO Port

USB	4 x USB 3.0 type A, 2 x USB 2.0 type A
Serial/Parallel	3 x RS-232/422/485 DB-9, default RS-232 1 x RS-232 DB-9
Audio	1 x Line-in, 1 x Line-out, 1 x Mic
LAN	4 x GbE LAN RJ-45
Display Interface	1 x Display Port, 1 x DVI-I, 1 x HDMI
GPIO	1 x 4-in/4-out Digital I/O, 1-5V, 1-GND
Power	1 x 3-pin DC power input terminal, 1 x power button

Storage

Storage	2 x 2.5" SATA3 HDD bay (easy accessible), support RAID 0.1
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Expansion

On Board Expansion Bus	3 x Mini PCIe slot full size (one shared with mSATA)
Expansion slot	2 X PCIe x1 slots or support 1 x PCIe x4 slot for Microbox 870

Power

Power Input	9-36V DC
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Mechanical

Construction	Plating Titanium Gray Aluminum Heatsink, black steel Chassis
IP Rating	IP20
Mounting	Wall Mount
Dimension	277,8 x 230 x 86,7 mm
Net Weight	Microbox 870: 4.5 kg

Environmental

Operating Temperature	-10_50°C
Storage Temperature	-30_70°C
Storage Humidity	10_90° 40°C non-condensing
Certificate	CE/FCC Class A

Operating System Support

Windows Embedded 8.1 Industry Pro
Windows Embedded 8.1 Standard
Windows 10 IOT 2016

Ordering Information

Microbox 870 (Barebone)	Fanless Box PC, Intel 6th Core i CPU, 2 x SO-DIMM, DDR4 slots, 2 x 2.5" HDD space, 3 x mini-PCIe slots, DC 9-36V power input with adaptor, Steel Chassis with Aluminum Heat sink
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Features

- _ Intel 6th Gen. Skylake Core i7/i5/i3 CPU
- _ 2 x SO-DIMM, up to 32GB
- _ 2 x removable SATA drive bay
- _ 4K UHD display with fanless design
- _ Multi-Expansion slot
- _ Support 2 x PCIe slot
- _ Three independent display port
- _ Wide range 9-36V DC power input

MICROBOX 875

Expansion Box PC



Specifications

System

Processor	Intel® 6th Gen. Skylake Core i7/i5/i3 CPU with 35W TDP Support
System Chipset	Intel® H170 Chipset
System Memory	2 x 260-pin SO-DIMM up to 32GB DDR4 2133/2400 Mhz

Outside IO Port

USB	4 x USB 3.0 type A, 2 x USB 2.0 type A
Serial/Parallel	3 x RS-232/422/485 DB-9, default RS-232 1 x RS-232 DB-9
Audio	1 x Line-in, 1 x Line-out, 1 x Mic
LAN	4 x GbE LAN RJ-45
Display Interface	1 x Display Port, 1 x DVI-I, 1 x HDMI
GPIO	1 x 4-in/4-out Digital I/O, 1-5V, 1-GND
Power	1 x 3-pin DC power input terminal, 1 x power button

Storage

Storage	2 x 2.5" SATA3 HDD bay (easy accessible), support RAID 0.1
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Expansion

On Board Expansion Bus	3 x Mini PCIe slot full size (one shared with mSATA)
Expansion slot	2 X PCIe x1 slots or support 1 x PCIe x4 slot for Microbox 870

Power

Power Input	9-36V DC
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Mechanical

Construction	Plating Titanium Gray Aluminum Heatsink, black steel Chassis
IP Rating	IP20
Mounting	Wall Mount
Dimension	280 x 230 x 134.6 mm
Net Weight	5.5 kg

Environmental

Operating Temperature	-10_50°C
Storage Temperature	-30_70°C
Storage Humidity	10_90° x 40°C non-condensing
Certificate	CE/FCC Class A

Operating System Support

Windows Embedded 8.1 Industry Pro
Windows Embedded 8.1 Standard
Windows 10 IOT 2016

Ordering Information

Microbox 875 (Barebone)	Fanless Box PC, Intel 6th Core i CPU, 2 x SO-DIMM, DDR4 slots, 2 x 2.5" HDD space, 3 x mini-PCIe slots, 2 x PCIe x 1 slots, Aluminum Heat Sink
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Features

- _ Intel 6th Gen. Skylake core i7/i5/i3 CPU
- _ 2 x SO-DIMM, up to 32GB
- _ 2 x removable SATA drive bay
- _ 4K UHD display with fanless design
- _ Multi-Expansion slot
- _ Support 2 x PCIe slot
- _ Three independent display port
- _ Wide range 9-36V DC power input

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Via Ghiarola Vecchia, 32 - 41042 Fiorano Modenese (MO) - Italy
Tel +30 0536 830620 - Fax +39 0536 831215 - mail: info@hardwaresolutions.it

www.hardwaresolutions.it



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