

Intel® Celeron®/Core™ i Fanless Box Computer with 6x COM (RS-232/485), 7x USB, 3x LAN

Overview

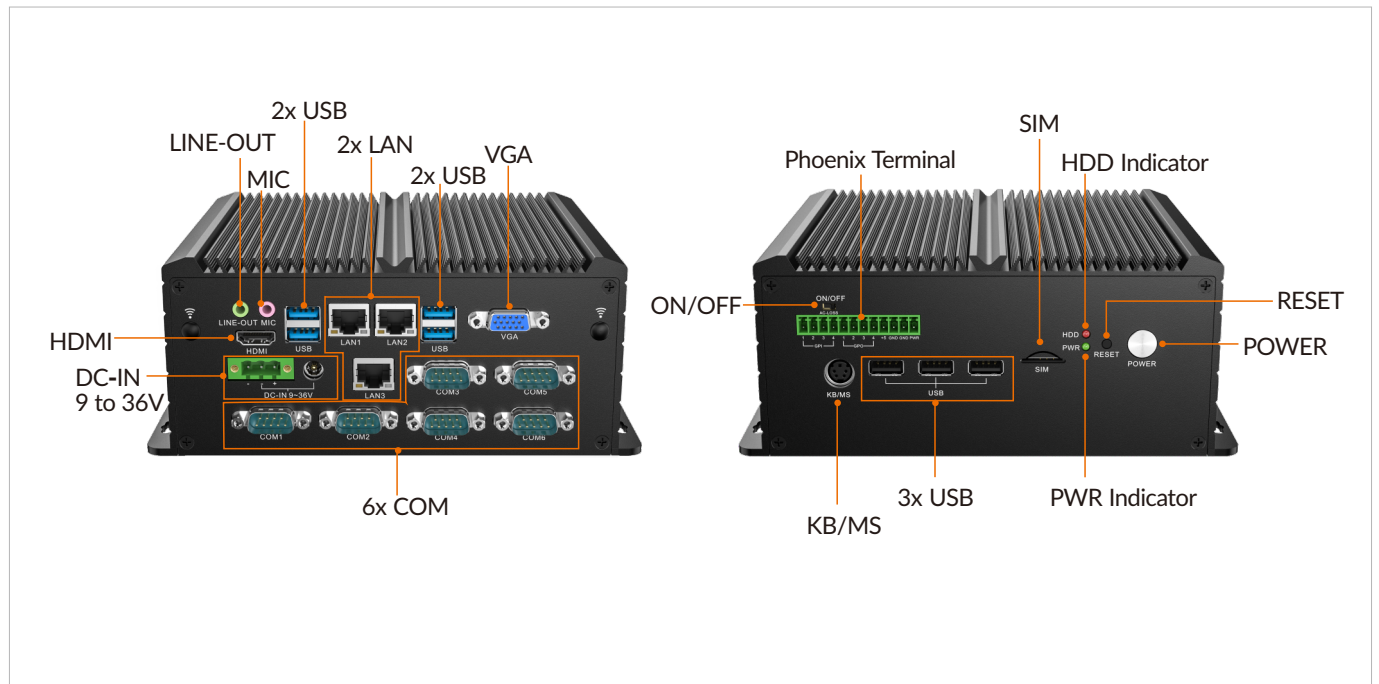
The MBC-3100 fanless industrial computer features a cableless design, ensuring excellent resistance to vibrations and interferences. Its modular design, featuring a CPU board that plugs into an I/O board, not only reduces the time and cost required for product updates but also allows for easy customization to meet specific customer application needs. Moreover, the MBC-3100 offers a wide range of I/O interfaces and expansion options, including COM ports, USB, GbE LAN, GPIO support, as well as Mini PCIe for 4G connectivity and M.2 Key E 2230 for Wi-Fi/Bluetooth. This optimized design significantly enhances overall performance and functionality for industrial applications.

Features

- Intel® Celeron®/Core™ i3/i5/i7 processor
- 6x COM (RS-232/485), 3x LAN, 7x USB, 1x VGA, 1x HDMI
- 1x 2.5" SATA HDD/SSD, 1x mSATA
- 1x Full length mini PCIe, 1x M.2 2230
- 9 to 36VDC power input



I/O Interfaces



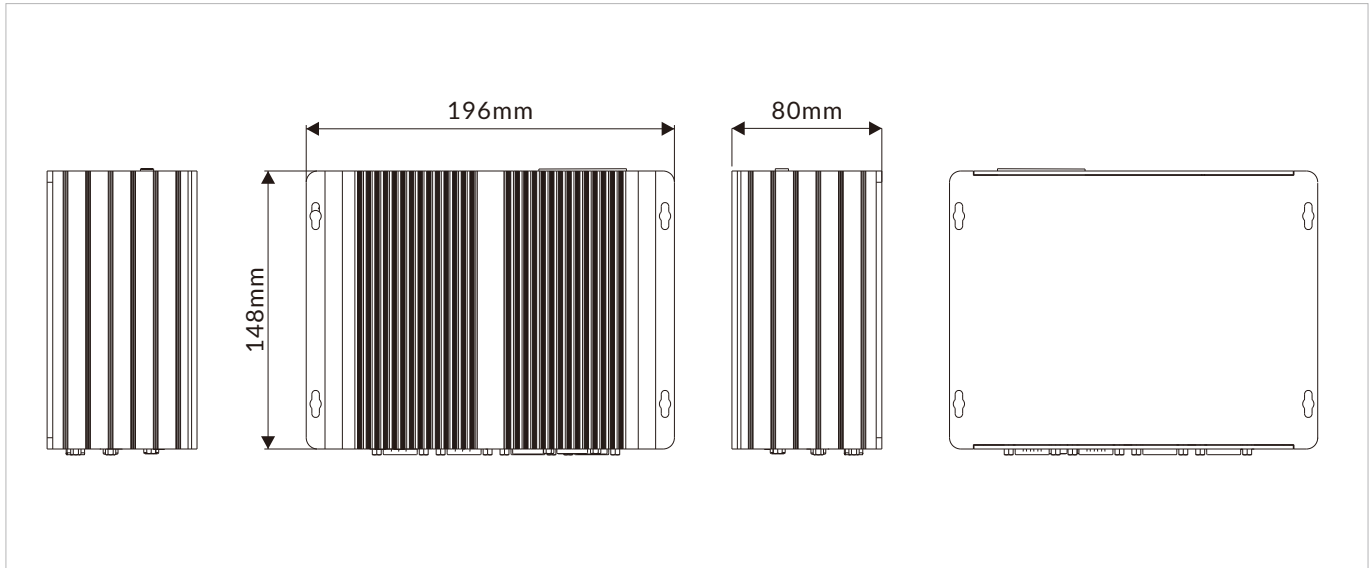
Specifications

System	MBC-3100-5020U	MBC-3100-3865U	MBC-3100-6300U
CPU	Intel® Core™ i3-5020U	Intel® Celeron® 3865U	Intel® Core™ i5-6300U
CPU TDP	10W		15W
Memory	1x DDR3L 1333 MHZ SO-DIMM up to 8GB	2x DDR4 2133 MHZ SO-DIMM up to 32GB	
Storage	1x 2.5" SATA HDD 1x mSATA		
BIOS	AMI UEFI		
Watchdog Timer	Software programmable. Supports 256 levels system reset		
I/O Ports			
USB	5x USB 2.0, 2x USB 3.0		3x USB 2.0, 4x USB 3.0
SSerial	6x COM (RS-232/485)		
Ethernet	3x RJ45 GbE Intel® I210AT		
Display	1x VGA, 1x HDMI		
SIM Card Slot	1x SIM card slot		
DIO	4x DI, 4x DO		
Antenna	2x SMA antenna holes		
Expansion Slot			
Mini PCIe	1x Full length mini PCIe		
M.2	1 x M.2 3052		
RF Communication			
Wi-Fi	Mini PCIe/M.2 expansion (optional)		
Cellular	Mini PCIe expansion (optional)		
Bluetooth	Mini PCIe/M.2 expansion (optional)		
GNSS	Mini PCIe expansion (optional)		
Audio			
Audio	Mic in, line out		
Power			
Button	Yes		
DC Input	9 to 36VDC		
Power Mode	AT/ATX		
Operating System			
Windows	Windows 7, Windows 10		
Linux	Ubuntu		
Mechanical			
Dimensions (W x D x H)	196 x 148 x 80 mm (7.72 x 5.83 x 3.15 inches)		
Weight (N.W.)	2.5 kg (5.51 lbs)		
Mounting	Wall mount		
Material	Aluminum alloy		
Environment			
Operating Temperature	-10 to 60°C(14 to 140°F)		
Storage Temperature	-20 to 60°C(-4 to 140°F)		
Relative Humidity	10%~95% @ 40°C (104°F), non-condensing		
Certification			
EMC	CE, FCC Class A		

Specifications

System	MBC-3100-8145U	MBC-3100-8265U	MBC-3100-8565U
CPU	Intel® Core™ i3-8145U	Intel® Core™ i5-8265U	Intel® Core™ i7-8565U
CPU TDP	15W		
Memory	2x DDR4 2400 MHZ SO-DIMM up to 32GB		
Storage	1x 2.5" SATA HDD 1x mSATA		
BIOS	AMI UEFI		
Watchdog Timer	Software programmable. Supports 256 levels system reset		
I/O Ports			
USB	3x USB 2.0, 4x USB 3.0		
SSerial	6x COM (RS-232/485)		
Ethernet	3x RJ45 GbE Intel® I210AT		
Display	1x VGA, 1x HDMI		
SIM Card Slot	1x SIM card slot		
DIO	4x DI, 4x DO		
Antenna	2x SMA antenna holes		
Expansion Slot			
Mini PCIe	1x Full length mini PCIe		
M.2	1 x M.2 3052		
RF Communication			
Wi-Fi	Mini PCIe/M.2 expansion (optional)		
Cellular	Mini PCIe expansion (optional)		
Bluetooth	Mini PCIe/M.2 expansion (optional)		
GNSS	Mini PCIe expansion (optional)		
Audio			
Audio	Mic in, line out		
Power			
Button	Yes		
DC Input	9 to 36VDC		
Power Mode	AT/ATX		
Operating System			
Windows	Windows 7, Windows 10		
Linux	Ubuntu	Windows 10	
Mechanical			
Dimensions (W x D x H)	196 x 148 x 80 mm (7.72 x 5.83 x 3.15 inches)		
Weight (N.W.)	2.5 kg (5.51 lbs)		
Mounting	Wall mount		
Material	Aluminum alloy		
Environment			
Operating Temperature	-10 to 60°C(14 to 140°F)		
Storage Temperature	-20 to 60°C(-4 to 140°F)		
Relative Humidity	10%~95% @ 40°C (104°F), non-condensing		
Certification			
EMC	CE, FCC Class A		

Dimensions



Optional Accessories

Part No.	Description
A.02.001.000022	AC/DC power adaptor 60W 12V 5A
C.02.009.000039	AC/DC power adaptor 84W 12V 7A

Ordering Information

Part No.	Description
MBC-3100-3865U	Celeron® 3865U MBC with 6x COM (RS-232/485), 3x LAN, 7x USB, 1x VGA, 1x HDMI, 1x SIM socket, 9 to 36VDC
MBC-3100-5020U	Core™ i3-5020U MBC with 6x COM (RS-232/485), 3x LAN, 7x USB, 1x VGA, 1x HDMI, 1x SIM socket, 9 to 36VDC
MBC-3100-8145U	Core™ i3-8145U MBC with 6x COM (RS-232/485), 3x LAN, 7x USB, 1x VGA, 1x HDMI, 1x SIM socket, 9 to 36VDC
MBC-3100-6300U	Core™ i5-6300U MBC with 6x COM (RS-232/485), 3x LAN, 7x USB, 1x VGA, 1x HDMI, 1x SIM socket, 9 to 36VDC
MBC-3100-8265U	Core™ i5-8265U MBC with 6x COM (RS-232/485), 3x LAN, 7x USB, 1x VGA, 1x HDMI, 1x SIM socket, 9 to 36VDC
MBC-3100-8565U	Core™ i7-8565U MBC with 6x COM (RS-232/485), 3x LAN, 7x USB, 1x VGA, 1x HDMI, 1x SIM socket, 9 to 36VDC