MERA-3100 Series

Intel® 9th / 8th Gen Core™ i7/i5/i3 Compact Fanless Box PC

Applications

- Rugged Embedded
- Factory Automation
- Machine Vision
- Surveillance / Video Analytics
- IoT Gateway

Features

- Supports Intel® 9th / 8th Gen Core™ 35W LGA 1151 CPU
- IEEE 802.3at PoE+, up to 25.5W DC Power to Device
- GbE Supports Wake-on-LAN and PXE
- Cable-free and Jumper-less Design to Enhance Reliability
- Supports VGA, DVI, and DP
- Multiple Storage Capability (HDD, mSATA / CFast)
- 9~48V DC Input with Power Ignition Function
- -40°C ~ 70°C Wide Operating Temperature

Ordering Information

Part No.	Description
MERA-3100	Intel® 9th/8th Core™ i LGA1151 CPU, Q370 Fanless Box PC, 6 x USB3.0, 2 x USB2.0, 6 x RS232/422/485, 3 x GbE, 1 x DP, 1 x VGA, 1 x DVI-D, 1 x Flexible I/O Window Slot, 1x Removable 2.5" SATA HDD Bay, 1 x Internal 2.5" SATA HDD Bay, DC 9~48V, Terminal Block Connector
MERA-3110	Intel® 9th/8th Core™ i LGA1151 CPU, Q370 Fanless Box PC, 6 x USB3.0, 2 x USB2.0, 6 x RS232/422/485, 3 x GbE, 1 x DP, 1 x VGA, 1 x DVI-D, 2 x Flexible I/O Window Slots, 4 x Removable 2.5" SATA HDD Bays, DC 9~48V, Terminal Block Connector

Packing List

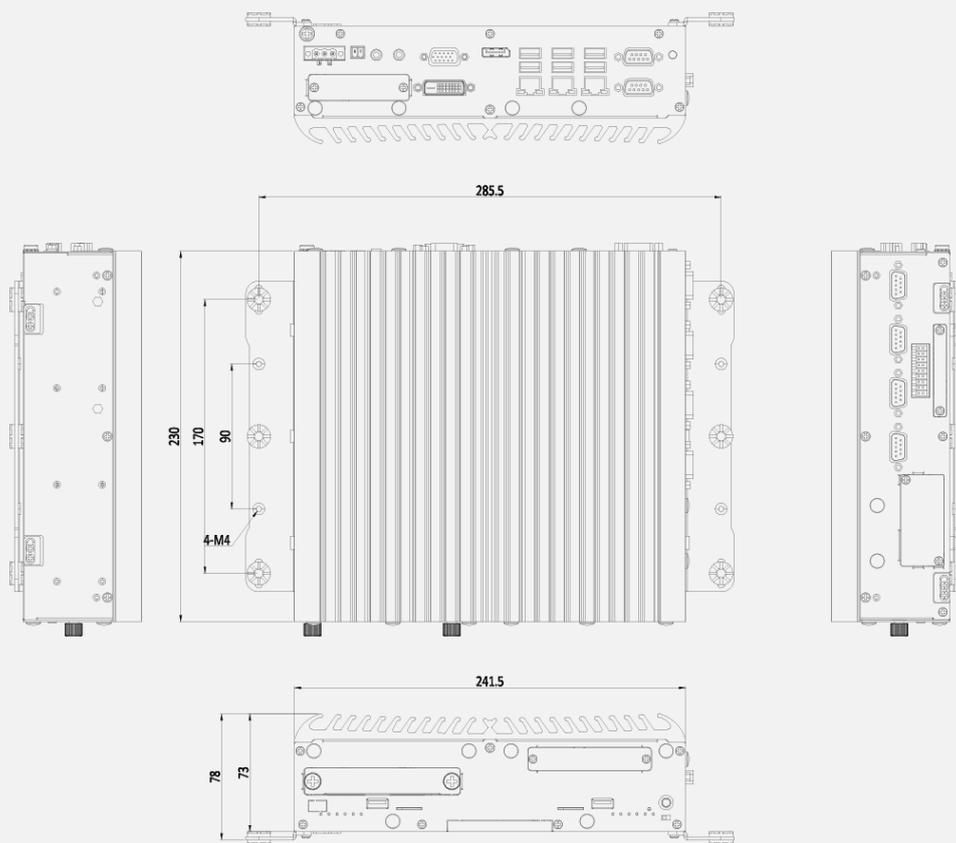| Description |
|---|
| 1 x MERA-3100 / MERA-3110 |
| 1 x Wall Mount Kit |

Optional Items

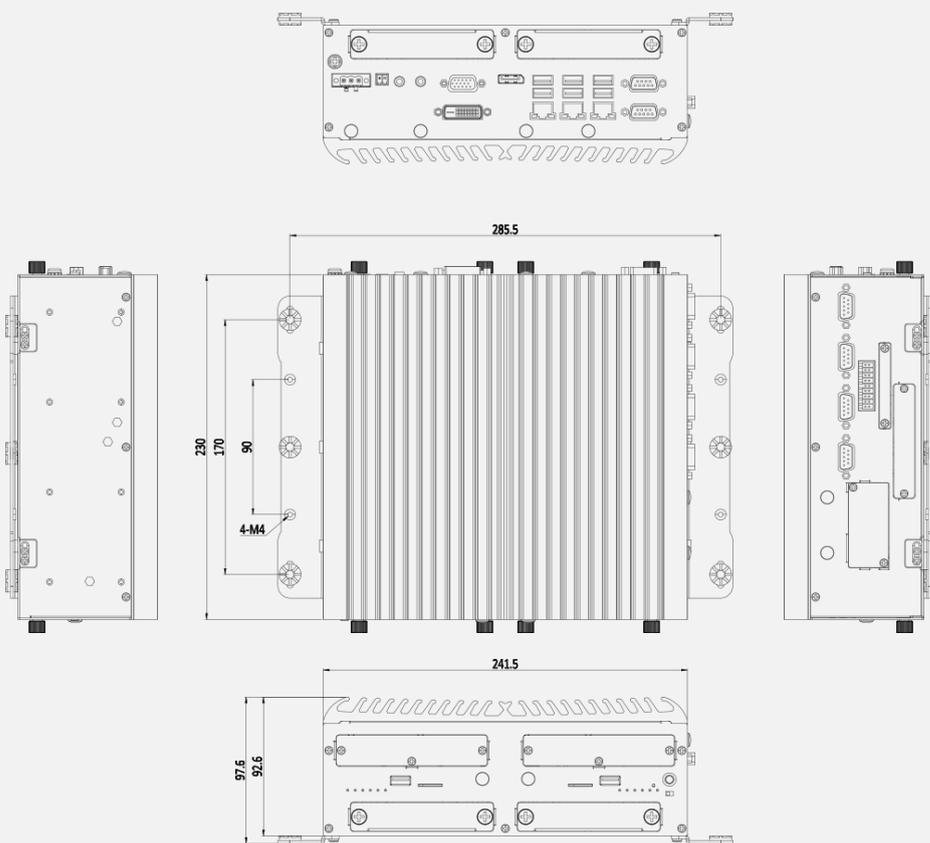| Part No.	Description
AWD-4G003	4G(LTE) EG25-G + 2 Antennas, Full Size (for Global)
AWD-4G004	4G(LTE) EC25EFA + 2 Antennas, Full Size (for Europe/Taiwan/China/Hong Kong)
AWD-WF003	Wi-Fi 802.11 a/b/g/n/ac/BT4.0 (2T2R) + 2 Antennas (Dual Band), Half Size
i7-9700TE	Intel® Core™ i7-9700TE (8-core, up to 3.8 GHz, 35W TDP)
i5-9500TE	Intel® Core™ i5-9500TE (6-core, up to 3.6 GHz, 35W TDP)
i7-8700T	Intel® Core™ i7-8700T (6-core, up to 4.0 GHz, 35W TDP)
i5-8500T	Intel® Core™ i5-8500T (6-core, up to 3.5 GHz, 35W TDP)
i3-8100T	Intel® Core™ i3-8100T (4-core, up to 3.1 GHz, 35W TDP)
55000-0023-M5	Adapter AC/DC 24V 5A 120W with 3-pin Terminal Block Plug 5.0mm Pitch
55000-0024-M5	Adapter AC/DC 24V 9.2A 220W with 3-pin Terminal Block Plug 5.0mm Pitch
30100-0003-CA	Power Cord, 3-pin US Type, 180 cm
30101-0005-CA	Power Cord, 3-pin EU Type, 180 cm
5E400-0004-AV	External Fan Module Kit for MEVA (MERA) Series (92 x 92 x 25 mm)
EA-VA3110x-4LANxx-0010	Internal 4LAN Module Kits for MEVA-3110/MERA-3110
EA-VA3110x-4LAPOE-0010	Internal 4LANPOE Module Kits for MEVA-3110/MERA-3110
EA-VA3110x-4LM12x-0010	Internal 4LAN M12 Module Kits for MEVA-3110/MERA-3110
EA-VA3110x-4LMPOE-0010	Internal 4LANPOE M12 Module Kits for MEVA-3110/MERA-3110

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Specifications

Model		MERA-3100	MERA-3110
Processor System	CPU	Intel® 9th / 8th Gen Core™/Pentium®/Celeron® 35W LGA 1151 Processors	
	System Chipset	Intel® Q370	
	BIOS	AMI 256 Mbit SPI Flash	
	TPM	FTPM 2.0	
Memory	Technology	Dual Channel DDR4 2400/2666 (Unbuffered and Non-ECC)	
	Max. Capacity	64GB	
	Socket Type	2 x 260-pin SO-DIMM	
Display	Graphics Engine	Core™ i7/i5/i3: Intel® UHD Graphics 630 Pentium®/ Celeron®: Intel® UHD Graphics 610	
	Multiple Display	3	
	VGA	1 x VGA, Max Resolution 1920 x 1200	
	DP	1 x DP, Max solution 4096 x 2160	
	DVI-D	1 x DVI-D, Max Resolution 1920 x 1200	
I/O Interface	USB	6 x USB3.2 and 2 x USB2.0	
	Serial Port	6 x RS232/422/485	
	Ethernet	1 x GbE Intel® i219-LM, RJ45 2 x GbE Intel® i210-AT, RJ45	1 x GbE Intel® i219-LM, RJ45 2 x GbE Intel® i210-AT, RJ45 4 x GbE Intel® i350-AM4 (Optional, via Arestech Flexible I/O Window)
	PoE+	N/A	4 x PoE+ Intel® i350-AM4 (Optional, via Arestech Flexible I/O Window)
	Audio	1 x Line-out, 1 x Mic-in	
	GPIO/DIO	8 x Isolated DI and 8x Isolated DO, 2 x 9-pin Terminal Block	
	Antenna Hole	12	8
	CMOS Battery	1 x CMOS Battery and 1 x Clear CMOS Switch	
	Flexible I/O Window Slot	1	2
Storage	2.5" HDD / SSD	1 x Removable and 1 x Internal	4 x Removable
	mSATA	2 x mSATA (Shared by 2 x CFast)	
	CFast	2x CFast Sockets (Shared by 2 x mSATA)	
	RAID	RAID 0, 1, 5, 10	
Expansion	Mini-PCIe	1 x Full-size Mini-PCIe Sockets (PCIe & USB2.0 and SIM) 1 x Full-size Mini-PCIe Sockets (PCIe & SATA and SIM) (mux with mSATA)	
	PCI / PCIe	N/A	
	SIM Holder	2 x Mini-SIM Holder	
Power	Power Mode	AT / ATX	
	Power Supply Voltage	9~48V DC with Ignition Control	
	Power Connector Type	1 x 3-pin Terminal Block Connector	
	Protection	Over Voltage Protection (OVP) up to 52V Over Current Protection (OCP) 20A Reverse Voltage Protection (RVP) up to -48V	
	Car Mode	1 x PC/Car Mode Switch 1 x Delay Time Switch	
Mounting	Type	Wall Mount (Additional Mounting Kit)	
Environment	Operating Temperature	-40 ~ 70°C	
	Storage Temperature	-40 ~ 85°C	
	Humidity	10% ~ 95% (Non-condensing)	
	Vibration	5Grms, 5-500 Hz, 3Axis	
	Shock	50Grms, Half-sine 11ms	
General	Certification	CE/FCC Class A	
	Thermal Dissipation	Fanless for 35W CPU	
	Material	Extruded Aluminum with Heavy Duty Metal	
	Dimensions (W x D x H)	241.5 x 73 x 230mm	241.5 x 92.6 x 230mm
	Net Weight	3.3kg	3.95kg
	Operating System	Windows 10 IoT, Windows 11 (IoT/Professional), Linux	

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Dimensions
MERA-3100

285.5

230
170
90
4-M4

241.5

78
73

Dimensions
MERA-3110

285.5

230
170
90
4-M4

241.5

97.6
92.6

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1 x Flexible I/O Window Slot

2 x USB2.0

6 x USB3.2

2 x Flexible I/O Window Slot

1 x VGA, Max Resolution 1920 x 1200
1 x DP, Max solution 4096 x 2160
1 x DVI-D, Max Resolution 1920 x 1200

6 x RS232/422/485

1 x CMOS Battery and 1 x Clear CMOS Switch
1 x PC/Car Mode Switch
1 x Delay Time Switch

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