

# Rugged Mini E3 v2

## Technical Specifications

### Features

- Intel 9<sup>th</sup> Gen. Core i7/i5/i3 Processors
- Intel Q370 Chipset
- 2 x 260-pin DDR4 SO-DIMM, up to 64GB
- Triple independent display
- 2 x Intel GbE supporting Wake-on-LAN and PXE
- 4 x 2.5" SATA HDD Bay and 4 x M.2 PCIe NVMe storage options
- 2 x Full-size mini PCIe for communication or expansion modules, 2 x SIM socket
- 4 x RS-232/488/485, 9 x USB 3.2
- 16-bit Isolated digital I/O
- 9 ~ 48VDC wide range power input
- ~ 25°C to 70°C extended operating system
- Vehicle Capability with Ignition Sensing and Power of Delayed timer



### Specifications

#### System

Processor	Intel 9 <sup>th</sup> Gen. Core i7/i5/i3 Processors
System Chipset	Intel Q370 Express Chipset
Graphics Controller	Intel UHD Graphics 630 (Core CPU)
LAN Chipset	1 x GbE: Intel I210- AT 1 x GbE: Intel I219 - LM
Audio	Realtek ALC888S
System Memory	Up to 64GB DDR4 2400 (2 x SO-DIMM)
BIOS	AMI 256Mbit
TPM	TPM 2.0
vPro	Yes (Processor Dependent)
Watchdog	Software Programmable Supports 1~255 sec. System Reset

#### Storage

SSD/HDD	2 x 2.5" SATA Bay (Internal) 2 x 2.5" SATA Bay (Removeable)
mSATA	1 x mSATA (Shared with 1 x Mini PCIe)
RAID Support	RAID 0, 1, 5, 10

#### Expansion

Mini PCI Express	2 x MiniPCIe (Full Size)
SIM Socket	2 x External SIM Sockets

#### Other

Cooling Method	Fanless
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#### I/O

Video	1 x DVI-I, 2 x DP (Display Port)
COM	4 x D89 Serial RS232/422/485, COM 1 ~ 4 2 x Internal Headers RS232/422/485, COM5 & COM6 (Requires optional bracket adapter)
USB	Standard Model: 5 x USB 3.2 Gen1 (Front) 4 x USB 3.2 Gen2 (Rear)
LAN	2 x GbE RJ45
WLAN	Intel Wireless AC-9260 + BT 5.1 or intel WiFi 6 Ax200 + BT 5.1 (Optional)
Audio	1 x Mic-in, 1 x Line-out
DIO	8 IN / 8 OUT (Isolated)
Other	1 x Power Switch 1 x AT/ATX Switch 1 x Remote Power Switch (2-pin Phoenix Connector) Vehicle Capability with an Ignition Sensing Delay Off Timer Switch Standard

#### Operating System

Windows	Windows 10 Pro 64bit Windows 11 Pro 64bit
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#### Power

Power Mode	AT/ATX
Power Input Voltage	9~48 VDC
Power Ignition Sensing	Yes
Power Connector	3-pin Phoenix Connector
Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) RPP (Reverse Polarity Protection)
Power Adapter	External Power Adapter, 24V @ 9.16A

#### Environment

Operating Temperature	-13°F to 158°F (-25°C to 70°C)
Storage Temperature	-22°F to 185°F (-30°C to 85°C)
Relative Humidity	10% - 95% non-condensing
Shock	With SSD: 50 G, half sine, 11 ms
Vibration	With SSD: 5 Grms, 5- 500 Hz, 0.5 hr/axis With HDD: 1 Grms, 5-500 Hz, 0.5 hr/axis
Certification	CE FCC Class A

#### Physical

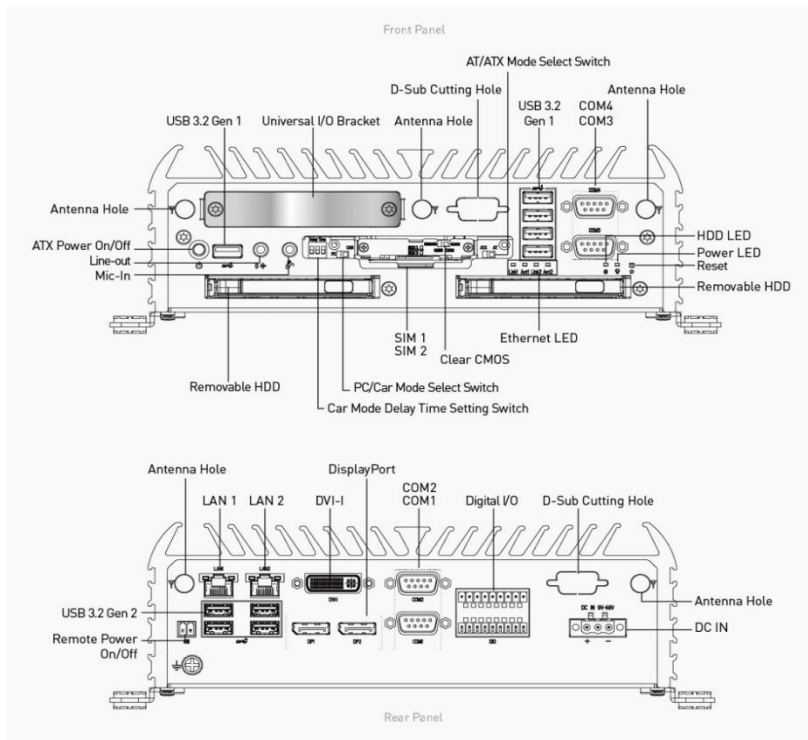
Enclosure Materials	Extruded Aluminum with Heavy Duty Metal
Dimension (W x H x D)	9.45" x 10.27" x 3.15" (240mm x 261mm x 79.2mm)
Weight	TBD
Mounting	Wall Mount Only

#### Warranty

Warranty	1-year standard
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# Rugged Mini E3 v2

## I/O Layout



## Dimensions

