

EC70A-MTH

Intel® Core™ Ultra Processor
Fanless Robust Embedded System

KEY FEATURES



Intel® Core™ Ultra 7/ Ultra 5

TDP=15W for Fanless, TDP=28W for w/Fan



Dual Displays

HDMI (4K@24Hz) + USB-C DP Alt. mode



On Board Memory

Dual Channel LPDDR5 6400MHz memory
down Up to 32GB



5G Support

Support M.2 B key 3042/3052 5G-NR module

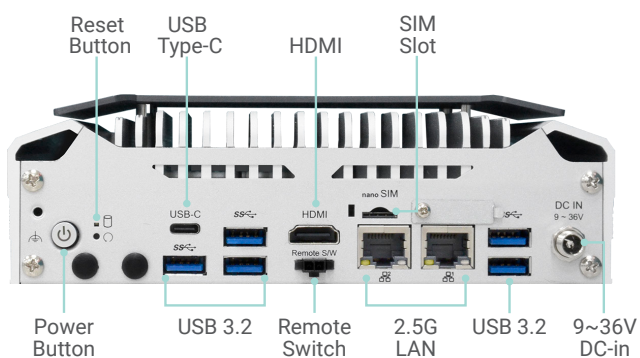


Rich I/O

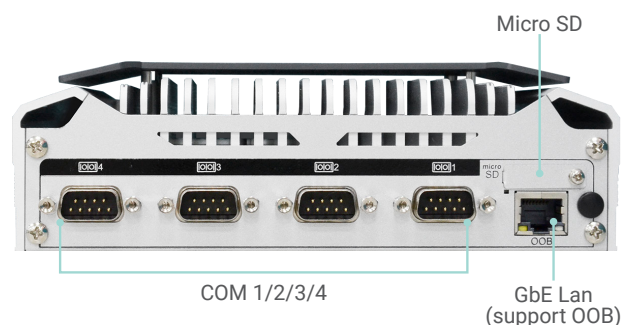
3 LAN, 5 USB3.2, 1 USB Type-C, 4 COM, 1 HDMI



PANEL

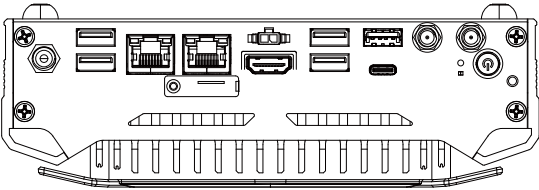


Front View

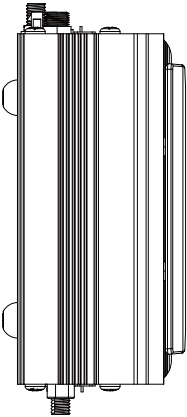


Rear View

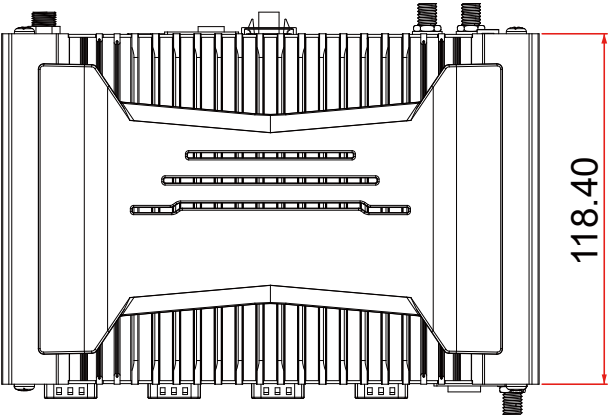
DIMENSIONS



Front View

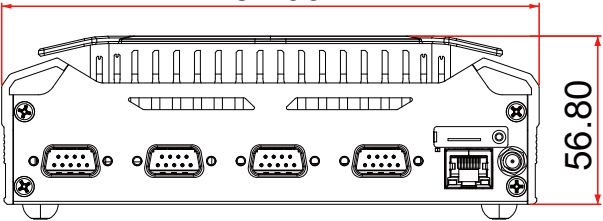


Left View



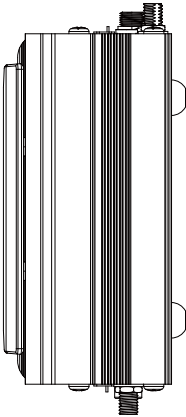
181.60

118.40



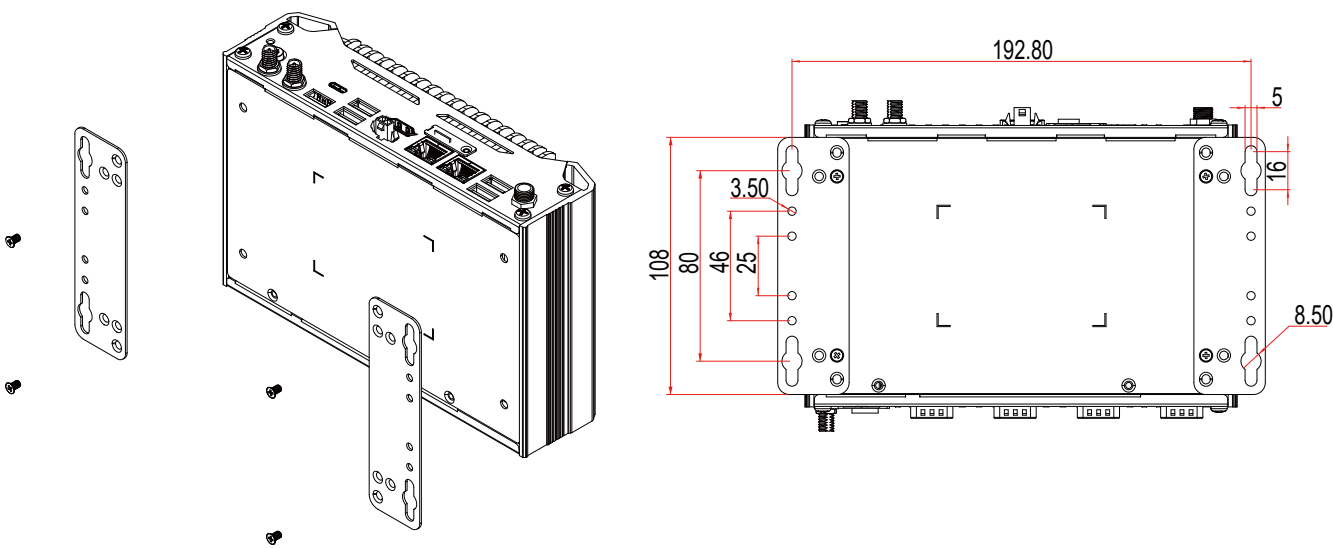
56.80

Rear View

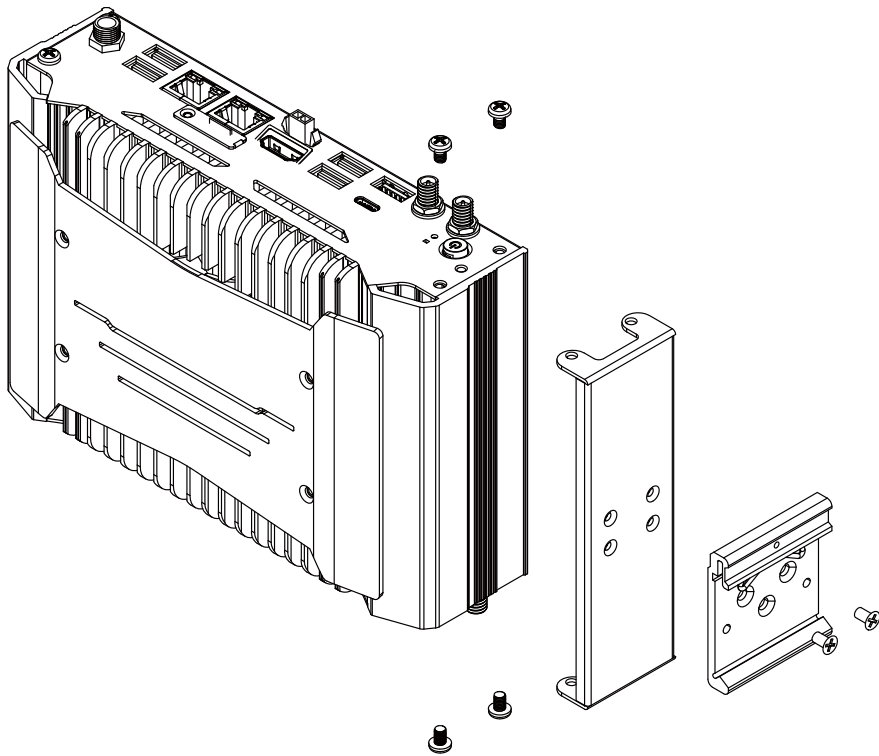


Right View

WALL MOUNTING



DIN RAIL MOUNTING



SPECIFICATION

SYSTEM	Processor	Intel® Core™ Ultra 7/ Ultra 5 Processors Intel® Core™ Ultra 7 155U, 12C, 12M Cache, 1.7GHz (4.9GHz) Intel® Core™ Ultra 5 125U, 12C, 12M Cache, 1.3GHz (4.3GHz) (TDP 15W for Fanless, TDP 28W for w/ Fan)	
	Memory	Dual Channel LPDDR5 6400MHz memory down 16GB (up to 32GB by request)	
	BIOS	AMI SPI 256Mbit	
GRAPHICS	Controller	Intel® Arc™ Graphics	
	Feature	DirectX 12, Open GL 4.6, Vulkan 1.2	
	Display	1 x HDMI 1 x DP	HDMI: resolution up to 4096x2160 @24Hz DP: resolution up to 4096x2304 @60Hz
	Multiple Displays	HDMI + Type-C DP Alt. Mode	
STORAGE	Internal	1 x M.2 2280 M key (PCIe x4/SATA)	
EXPANSION	Interface	1 x M.2 M Key 2280 (PCIex4/SATA) 1 x M.2 B key 3052 (USB 3.0/2.0, PCIe x1, SATA), 1 x SIM slot for 4G/5G 1 x M.2 E Key 2230 (PCIex1/USB2.0)	
ETHERNET	Controller	2 x Intel® I226IT (10/100/1000/2500Mbps) 1 x Intel® I210IT (10/100/1000Mbps)	
LED	Indicators	1 x Power LED 1 x HDD LED	
FRONT I/O	Serial	COM 1: RS-232/422/485 COM 2/3: RS-232 COM 4: RS-232/422/485 or 8-bit DIO by jumper setting	
	Ethernet	1 x GbE (RJ-45), Intel® i210AT (10/100/1000Mbps) (support OOB)	
REAR I/O	Ethernet	2 x 2.5GHz (RJ-45) + 2 x GbE (RJ-45)	
	USB	5 x USB 3.2 + 1 x USB Type C or 4 x USB 3.2 + 1 x USB 2.0 (by BIOS setting) + 1 x USB Type C	
	Display	1 x HDMI 1 x USB-C DP Alt. Mode	
	Buttons	1 x Power button 1 x Reset button	
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
SECURITY	TPM	TPM 2.0	
POWER	Type	Wide range 9~36V	
	Connector	DC Jack	
OS SUPPORT	Microsoft	Windows 10 IoT Enterprise 64-bit Windows 11 IoT Enterprise LTSC 2024	
	Linux	Linux	
ENVIRONMENT	Operating Temperature	Fanless(CPU TDP 15W): -20 to 60°C (wide-temp SSD)	W/Fan(CPU TDP 28W): -20 to 70°C (wide-temp SSD)
	Storage Temperature	-20 to 85°C	
	Relative Humidity	5 to 95% RH (non-condensing)	
MECHANISM	Construction	Aluminum + Metal Aluminum	
	Mounting	Wall/VESA/DIN rail mount	
	Dimensions (W x H x D)	181.6mm x 57mm x 118.4mm	
	Weight	TBD	
STANDARDS AND CERTIFICATIONS	Shock	· Operating: IEC 60068-2-27 Test Ea: Shock Test Half-Sine, 3G @ 11ms, 18 Shock ±X, ±Y, ±Z (each axis 3 times)	
	Vibration	· Operating: IEC 60068-2-64 Test Fh: Vibration Board-Band Random Test Random, 1Grms @ 5~500 Hz, 30min · Non-Operating: IEC 60068-2-6 Test Fc: Vibration Sinusoidal Test Sweep Sine, 3Grms @ 10~500Hz, 30min	
	Certifications	CE, FCC Class A, RoHS, UKCA	

ORDERING INFORMATION

Model Name	Part Number	CPU	Memory	Display	COM	USB 3.2	LAN	TPM	Fanless	Power
EC70A-MTH4051TC3-125U	750-EC70A5-000G	Ultra 5 125U	16GB	1 HDMI, 1 USB-C DP Alt. mode	4	5 USB 3.2, 1 USB Type-C	3	Yes (TPM2.0)	Yes	DC 9~36V input
EC70A-MTH4051TC3-125U	750-EC70A5-100G	Ultra 5 125U							No	
EC70A-MTH4051TC3-155U	750-EC70A5-200G	Ultra 7 155U							No	
EC70A-MTH4051TC3-155U	750-EC70A5-300G	Ultra 7 155U							Yes	

PACKING LIST

1 EC70A-MTH system
3 M.2 slot slot screws
4 Foot screws & Rubber Foot
1 Grounding screw
1 Remote switch cable