



EPS-ADS

Intel® 12th Fanless Rugged Embedded System

- > Intel® 12th Gen Core™ i9/i7/i5/i3/Pentium®/Celeron® Processor
- > Support H610E/Q670E
- > 2-DIMM Up to 64GB Dual Channel DDR5 SO-DIMM 4800MHz
- > 3-Storage (2.5" Drive Bay & 2-M.2 B/M)
- > 3-Expansion (mPCIe & 2-M.2 E/B)
- > Rich I/O 8-USB, 6-COM, 2-LAN
- > Support 5G, Wi-Fi 6E, 2.5G LAN
- > DC in +12V~24V, wide voltage
- > Support HW TPM 2.0

+ Spec

-System Information-

Processor	Default: Intel® Core™ i9-12900TE (35W) Intel® Core™ i7-12700TE (35W) Intel® Core™ i5-12500TE (35W) Intel® Core™ i3-12100TE (35W) Intel® Pentium G7400TE(35W) Intel® Celeron G6900TE(35W) Optional: Intel® Core™ i5-12500ER (65W)
Platform Controller Hub	Intel® Q670 Express Chipset Intel® H610 Express Chipset
System Memory	2 x SO-DIMM Socket, Max. Up to 64GB DDR5 4800MHz
BIOS Information	AMI UEFI BIOS, 256 Mbit SPI Flash ROM
Watchdog Timer	H/W Reset, 1sec. ~ 65535sec.
H/W Status Monitor	CPU & system temperature monitoring and Voltage monitoring
RAID	RAID 0/1 (Q670E sku only)
TPM	TPM 2.0
iAMT	iAMT support for Q670E sku w/i9,i7,i5 CPU
SBC	EBM-ADS

-Expansion-

M.2	1 x M.2 Key-B 2242/3042/3052 support SATA3/PCIe III/ USB 2.0/USB3.2 Gen. 1 and nano SIM slot 1 x M.2 Key-E 2230 PCIeIII x 1/USB2.0
mPCIe	1 x mPCIe support PCIe III x 1/USB2.0 expansion

-Storage-

M.2	1 x M.2 Key-M 2242/2280, support PCIe Gen IV x 4 (NVMe SSD) RAID 0/1 (Q670E sku only) 1 x M.2 Key-B 2242, support SATA (share with expansion slot)
2.5" Drive Bay	1 x 2.5" Drive Bay

-Front I/O-

USB Port	4 x USB 3.2 Gen.1
COM Port	6 x COM (4 x RS232/422/485 + 2 x RS232)
Audio	1 x Mic-In 1 x Line-Out
Power Button	1 x Power Button
Reset Button	1 x Reset Button
Wire-Control Power On/Off	1 x 2-Pin Terminal Block
LED Indicator	1 x Storage LED (Yellow) 1 x LTE LED (Green) 1 x Wifi LED (Green)

-Rear I/O-

USB Port	2 x USB 3.2 Gen.2 2 x USB 2.0
HDMI	2 x HDMI 2.0b
DP	2 x DP++ 1.4
RJ-45	2 x RJ-45
Antenna	2 x Antenna with dust cover

-Right I/O-

Antenna	2 x Antenna with dust cover
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-Left I/O-

Antenna	2 x Antenna with dust cover
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-Display-

Graphic Chipset	Intel® 12th Generation CPU integrated (H610E support 3-display, Q670E support 4-display)
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-Audio-



Audio Codec	Realtek ALC888s
-Ethernet-	
LAN Chipset	1 x Intel I226-LM 1 x Intel I219-LM
-Power Requirement-	
DC Input Voltage	DC in +12V~24V, wide voltage single power input
DC Input Connector	5-Pin Terminal Block
ACPI	Single power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant
Power Mode	ATX/AT (ATX is default setting)
-Software Support-	
OS Information	Win 10/Win 11 64bit / Linux
-Certification-	
Certification Information	CE, FCC Class B
Mechanical & Environmental	
Operating Temperature	Fanless Mode (35W) -10°C ~ 55°C (14°F ~ 131°F) Fan Kit Mode (65W) -10°C ~ 50°C (14°F ~ 122°F)
Storage Temperature	-30°C ~ 70°C (-22°F ~ 158°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Dimension (W x L x H)	215.8 × 202.5 × 75mm
Vibration Test	With SSD: 5Grms, IEC 60068-2-64, Random, 5 ~ 500Hz, 30min/axis
Shock Test	With SSD: 50Grms, IEC 60068-2-27, Half Sine, 11ms
Drop Test	ISTA 2A, IEC-60068-2-32 Test : Ed
IP Rating	IP50
Mounting Kit	Wall Mount kit & DIN Rail
Construction	Aluminum + Metal