



## 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-

<b>Processor</b>	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)
<b>Platform Controller Hub</b>	Intel® Q670 Express Chipset Intel® H610 Express Chipset
<b>System Memory</b>	2 x SO-DIMM Socket, Max. Up to 64GB DDR5 4800MHz
<b>BIOS Information</b>	AMI UEFI BIOS, 256 Mbit SPI Flash ROM
<b>Watchdog Timer</b>	H/W Reset, 1sec. ~ 65535sec.
<b>H/W Status Monitor</b>	CPU & system temperature monitoring and Voltage monitoring
<b>RAID</b>	RAID 0/1 (Q670E sku only)
<b>TPM</b>	TPM 2.0
<b>iAMT</b>	iAMT support for Q670E sku w/i9,i7,i5 CPU
<b>SBC</b>	EBM-ADS

##### -Expansion-

<b>M.2</b>	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
<b>mPCIe</b>	1 x mPCIe support PCIe III x 1/USB2.0 expansion

##### -Storage-

<b>M.2</b>	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)
<b>2.5" Drive Bay</b>	1 x 2.5" Drive Bay

##### -Front I/O-

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

##### -Rear I/O-

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

##### -Right I/O-

<b>Antenna</b>	2 x Antenna with dust cover
----------------	-----------------------------

##### -Left I/O-

<b>Antenna</b>	2 x Antenna with dust cover
----------------	-----------------------------

##### -Display-

<b>Graphic Chipset</b>	Intel® 12th Generation CPU integrated (H610E support 3-display, Q670E support 4-display)
------------------------	---

##### -Audio-



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