



## ECM-ADLS

Intel® 12th Gen Core™ i9/i7/i5/i3/Pentium®/Celeron® Processor, supports LGA 1700 CPU Up to 35W Max 3.5" Micro Module

- > Top Layer Soldered Socket
- > Intel® 12th/13th Gen Core™ i9/i7/i5/i3/Pentium®/Celeron® Processor, supports LGA 1700 CPU Up to 35W Max; 13th does not support i7, i9 CPU.
- > Intel® Q670E/H610E chipsets
- > Single DDR5 4800MHz SO-DIMM socket, support up to 32GB
- > Triple Display: 1 x DP++, 1 x HDMI, 1 x 2CH LVDS or 1x eDP (Default LVDS)
- > Expansion Slot M.2 Key-E, M.2 Key-M
- > Dual 2.5G Gigabit Ethernet
- > 2 x RS-232/422/485
- > DC-Input, +12VDC

### + Spec

-System Information-	
<b>Processor</b>	Intel® 12th/13th Gen Core™ i9/i7/i5/i3/Pentium®/Celeron® Processor, supports LGA 1700 CPU Up to 35W Max *13th does not support i7 & i9 CPU
<b>Platform Controller Hub</b>	Intel® Q670E Chipset Intel® H610E Chipset
<b>System Memory</b>	Single 262-pin DDR5 4800MHz SO-DIMM socket, support up to 32GB (Non ECC for Chipset Q670E & H610E)
<b>I/O Chipset</b>	EC ITE IT5782VG
<b>BIOS Information</b>	AMI BIOS, 256Mbit SPI Flash ROM
<b>Watchdog Timer</b>	H/W Reset, 1sec. ~ 65535sec and 1sec. or 1min./step
<b>H/W Status Monitor</b>	CPU & system temperature monitoring Voltages monitoring
<b>TPM</b>	fTPM
Expansion	
<b>Expansion</b>	1 x M.2 (2230) E-Key, support Wi-Fi module, support 2x PCIe x1 Gen 3, USB 2.0 1 x M.2 (2280) M-Key, support PCI-e x4 Gen 3 NVMe or SATA device
Storage	
<b>Storage</b>	1 x M.2 (2280) M-Key, support PCI-e x4 Gen 3 NVMe or SATA device
I/O	
<b>USB Port</b>	4 x USB 3.2 Gen 2 (note: H610E USB 3.2 Support 2x Gen 2 & 2x Gen 1) 4 x USB 2.0
<b>COM Port</b>	2 x RS-232/422/485
<b>DIO</b>	1 x 2 x 6 pin, pitch 1.27mm connector for GPIO: 8bits
<b>Other</b>	2 x LAN ports
Display	
<b>Graphic Chipset</b>	Intel® 12th Generation CPU integrated
<b>Spec. &amp; Resolution</b>	1 x DP 1.4b : 4096 x 2304@60 Hz, support DP++ 1 x HDMI 2.0 : 4096 x 2304@60 Hz 1 x LVDS: 1920 x 1080 Dual channel 18/24-bits LVDS (Chrontel CH7513A-BF eDP to LVDS) or 1 x eDP 1920 x 1080@60Hz (2 Lanes), default LVDS Note: JLVDS1 Support 1 x LVDS or 1 x eDP, share the same connector.
<b>Multiple Display</b>	Triple Display
<b>LVDS</b>	1 x LVDS: 1920 x 1080 Dual channel 18/24-bits LVDS (Chrontel CH7513A-BF eDP to LVDS)
Audio	
<b>Audio Codec</b>	Realtek ALC888S
<b>Audio Interface</b>	Mic-In, Line-In, Line-Out
Certifications	
<b>Certification Information</b>	CE FCC Class B
Ethernet	
<b>LAN Chipset</b>	Intel® i226-LM 2.5 Gigabit Controller
<b>Ethernet Interface</b>	2 x 2.5 Gigabit Ethernet
<b>LAN Port</b>	2 x RJ-45
Mechanical & Environmental	
<b>Operating Temperature</b>	0~60°C (32~140°F) with 0.5m/s air flow
<b>Storage Temperature</b>	-40°C ~ 75°C (-40°F ~ 167°F)
<b>Operating Humidity</b>	40°C @ 95% Relative Humidity, Non-condensing
<b>Weight</b>	0.44lbs (0.2kg)
<b>Vibration Test</b>	1.5Grms, IEC 60068-2-64, Random, 5 ~ 500Hz, 30min/Axis, 3 Axis
<b>Shock Test</b>	10G, IEC 60068-2-27, Half Sine, 11ms, Z Axis
<b>Drop Test</b>	ISTA 2A, IEC-60068-2-32 Test : Ed, 1 Corner, 3 Edges, 6 Faces
<b>Power Requirement</b>	DC in +12V Note: Only use DC IN 12V for ECM-ADLS, please do not use Switching Power Supply.

<b>ACPI</b>	Single power ATX Support S0,S3, S4, S5 ACPI 5.0 Compliant
<b>Power Mode</b>	AT/ATX (Default Setting: AT)
<b>Dimension (L x W)</b>	5.7" x 4" (146mm x 101mm)
<b>Software Support</b>	
<b>OS Information</b>	Win 11 Linux
<b>Ordering Information</b>	
<b>Ordering Information</b>	ECM-ADLS-Q67-A1R 3.5" Q670E micro module w/CPU socket/A1 ECM-ADLS-H61-A1R 3.5" H610E micro module w/CPU socket/A1  ACC-CPU-G6900TER, Intel Celeron G6900TE 2.4GHz Processor ACC-CPU-G7400TER, Intel Pentium G7400TE 3.0GHz Processor ACC-CPU-12100TER, Intel Core i3-12100TE 4.0GHz Processor ACC-CPU-12500TER, Intel Core i5-12500TE 4.5GHz Processor ACC-CPU-12700TER, Intel Core i7-12700TE 4.6GHz Processor ACC-CPU-12900TER, Intel Core i9-12900TE 4.8GHz Processor ACC-CPU-13100TER, Intel Core i3-13100TE 2.40GHz Processor