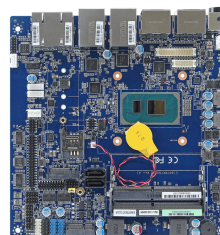


# EMX-TGLP

11th Gen Intel® Core™ SoC i7/i5/i3 & Celeron BGA  
Processor Mini ITX Motherboard



## Specification

System Information	
H/W Status Monitor	CPU temperature monitoring Voltages monitoring CPU fan speed control
Watchdog Timer	H/W Reset: 1sec. ~ 65535sec./min. and 1sec. or 1min./step
BIOS	AMI uEFI BIOS, 256Mbit SPI Flash ROM
I/O Chipset	EC ITE IT8528E
TPM	Onboard NuvoTon NPCT754AADYX support TPM 2.0
System Memory	2 x 260-pin DDR4 3200 MHz SO-DIMM supports up to 64GB (non ECC only)
Processor	Intel® Core™ i7-1185G7E, i7-1185GRE (up to 4.4GHz, quad-core, 12M Cache, TDP: 28/15/12W)* Intel® Core™ i5-1145G7E, i5-1145GRE (up to 4.1GHz, quad-core, 8M Cache, TDP: 28/15/12W)* Intel® Core™ i3-1115G4E, i3-1115GRE (up to 3.9GHz, dual-core, 6M Cache, TDP: 28/15/12W)* Intel® Celeron® 6305E (up to 1.8GHz, dual-core, 4M Cache, TDP: 15W)
Expansion	
Expansion	1 x M.2 Type B 3042/3052/2242/2260/2280 (with 1 x PCI-e x1 (default) or SATA, USB 3.0 with 1 x SIM card slot, support WWAN+GNSS or NVMe SSD) *SATA 2 share with M.2 key B SATA 1 x M.2 Key E 2230 support WiFi module and CNVi (1 x PCI-e x1 & USB 2.0 Signal)
I/O	
SATA	1 x SATA Power 2 x SATA III
DIO	1 x 16-bit GPIO
COM Port	4 x RS232 2 x RS232/422/485
USB Port	3 x USB 3.1 Gen2, 1 x USB 3.1 Gen1 at I/O 4 x USB2.0 by pin header
Display	
LVDS	2CH 18/24bits LVDS 1920 x 1080 Chrontel. CH7511B eDP to LVDS Converter
Spec. & Resolution	DP1+DP2 (DP1.4): Max: 7680 x 4329@60 Hz DP3+DP4 (DP1.4): Max: 7680 x 4329@60 Hz Single DP port (2021/2 Lab test): 5120 x 2160 @60 Hz, check Max: 7680 x 4329@60 Hz Intel resolution as below: 2 x DP++ : 1920 x 1080@60 Hz 2 x DP: 4096 x 2304@60 Hz LVDS: 1920 x 1080 Dual channel 18/24-bits LVDS (Chrontel CH7511B eDP to LVDS) eDP 4096 x 2304@60 Hz *2 x DP++, LVDS, eDP Default (Thin Mini ITX), Optional: DP3 and DP4 for full height (Maximum: 6 for quadruple independent displays)

<b>Graphic Chipset</b>	Intel® 12th Generation CPU integrated
<b>Multiple Display</b>	2 x DP++/2 x DP++/1 x LVDS/1 x eDP (Maximum: 6 for quadruple independent displays)
<b>Audio</b>	
<b>Audio Amplifier</b>	2 x Stereo Class-D 6W Audio Amplifier
<b>Audio Interface</b>	Support Line-out & Mic-in & Front audio pin-header
<b>Audio Codec</b>	Realtek ALC897 co-lay ALC888S & Tempo 92HD73
<b>Software Support</b>	
<b>OS</b>	Win10 64bit Linux
<b>Ethernet</b>	
<b>LAN Port</b>	4 x RJ45
<b>LAN Chipset</b>	1 x Intel® I225IT 2.5 Gigabit Ethernet 1 x Intel® I219LM Gigabit Ethernet PHY 2 x Intel® I210IT Gigabit Ethernet (BOM optional)
<b>Ethernet Interface</b>	10/100/1000 Base-Tx GbE compatible
<b>Power Requirement</b>	
<b>Power Mode</b>	AT/ATX
<b>Mechanical &amp; Environmental</b>	
<b>Power Requirement</b>	+12V~24V
<b>Operating Temperature</b>	Intel® wide temperature CPU SKU Support: -20~60C Intel® standard CPU SKU support: 0~60C
<b>Operating Humidity</b>	40°C @ 95% Relative Humidity, Non-condensing
<b>Storage Temperature</b>	-40 ~ 75°C (-40 ~ 167°F)
<b>Dimension (L x W)</b>	6.69 x 6.69 (170mm x 170mm)
<b>Weight</b>	0.88lbs (0.4Kgs)
<b>Ordering Information</b>	
<b>Ordering Information</b>	EMX-TGLP-S05-A2R (Celeron, Thin, 2DP/2LAN, Standard Temp.) EMX-TGLP-S15-A2R (Core i3, Thin, 2DP/2LAN, Standard Temp.) EMX-TGLP-S45-A2R (Core i5, Thin, 2DP/2LAN, Standard Temp.) EMX-TGLP-S85-A2R (Core i7, Thin, 2DP/2LAN, Standard Temp.) EMX-TGLP-W15-A2-1R (Core i3, Thin, 2DP/2LAN, Wide Temp.) EMX-TGLP-W45-A2-1R (Core i5, Thin, 2DP/2LAN, Wide Temp.) EMX-TGLP-W85-A2-1R (Core i7, Thin, 2DP/2LAN, Wide Temp.) EMX-TGLP-W15-A2R (Core i3, Full, 4DP/4LAN, Wide Temp.) EMX-TGLP-W45-A2R (Core i5, Full, 4DP/4LAN, Wide Temp.) EMX-TGLP-W85-A2R (Core i7, Full, 4DP/4LAN, Wide Temp.) Intel® 11th Gen. Core™ SoC i7/i5/i3 & Celeron®BGA Processor Mini ITX Motherboard