



EMX-TGLP

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

- > Onboard 11th Gen. Intel® Core™ SoC i7/i5/i3 & Celeron® BGA Processor
- > 2 x 260-pin DDR4 3200 MHz SO-DIMM supports up to 64GB (non ECC only)
- > 2 x DP++, 2 x DP, 1 x LVDS, 1 x eDP (Maximum: 6 for quadruple independent displays)
- > 1 x Intel® I225IT 2.5 Gigabit Ethernet
- > 1 x Intel® I219LM Gigabit Ethernet PHY
- > 2 x Intel® I210IT Gigabit Ethernet (BOM optional)
- > Realtek ALC897 co-lay ALC888S & Tempo 92HD73 (Default: Realtek ALC888S)
- > TI TPA3113D2PWP Stereo Class-D 6W x 2 Audio Amplifier
- > 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)
- > GPIO 16bit
- > Onboard NuvoTon NPCT754AADYX support TPM 2.0
- > Support Line-out & Mic-in & Front audio pin-header
- > DC in +12V-24V

+ Spec

| -System Information- | |
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| 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) |
| System Memory | 2 x 260-pin DDR4 3200 MHz SO-DIMM supports up to 64GB (non ECC only) |
| I/O Chipset | EC iTE IT8528E |
| BIOS Information | AMI uEFI BIOS, 256Mbit SPI Flash ROM |
| Watchdog Timer | H/W Reset: 1sec. ~ 65535sec./min. and 1sec. or 1min./step |
| H/W Status Monitor | CPU temperature monitoring Voltages monitoring CPU fan speed control |
| TPM | Onboard NuvoTon NPCT754AADYX support TPM 2.0 |
| 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 | |
| USB Port | 3 x USB 3.1 Gen2, 1 x USB 3.1 Gen1 at I/O 4 x USB2.0 by pin header |
| COM Port | 4 x RS232 2 x RS232/422/485 |
| SATA | 1 x SATA Power 2 x SATA III |
| DIO | 1 x 16-bit GPIO |
| Display | |
| Graphic Chipset | Intel® 12th Generation CPU integrated |
| 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, DVT check Max: 7680 x 4329@60 Hz Note: This resolution is actual test result. 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) |
| Multiple Display | 2 x DP++/2 x DP++/1 x LVDS/1 x eDP (Maximum: 6 for quadruple independent displays) |
| LVDS | 2CH 18/24bits LVDS 1920 x 1080 Chrontel. CH7511B eDP to LVDS Converter |
| Audio | |
| Audio Codec | Realtek ALC897 co-lay ALC888S & Tempo 92HD73 |
| Audio Interface | Support Line-out & Mic-in & Front audio pin-header |
| Audio Amplifier | 2 x Stereo Class-D 6W Audio Amplifier |
| Ethernet | |
| LAN Chipset | 1 x Intel® I225IT 2.5 Gigabit Ethernet 1 x Intel® I219LM Gigabit Ethernet PHY 2 x Intel® I210IT Gigabit Ethernet (BOM optional) |
| Ethernet Interface | 10/100/1000 Base-Tx GbE compatible |
| LAN Port | 4 x RJ45 |
| Mechanical & Environmental | |

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| Operating Temperature | Intel@ wide temperature CPU SKU Support: -20~60C Intel@ standard CPU SKU support: 0~60C |
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| Storage Temperature | -40 ~ 75°C (-40 ~ 167°F) |
| Operating Humidity | 40°C @ 95% Relative Humidity, Non-condensing |
| Weight | 0.88lbs (0.4Kgs) |
| Power Requirement | +12V~24V |
| Power Mode | AT/ATX |
| Dimension (L x W) | 6.69" x 6.69" (170mm x 170mm) |

Software Support

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| OS Information | Win10 64bit Linux |
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Ordering Information

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| Ordering Information | 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 |
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