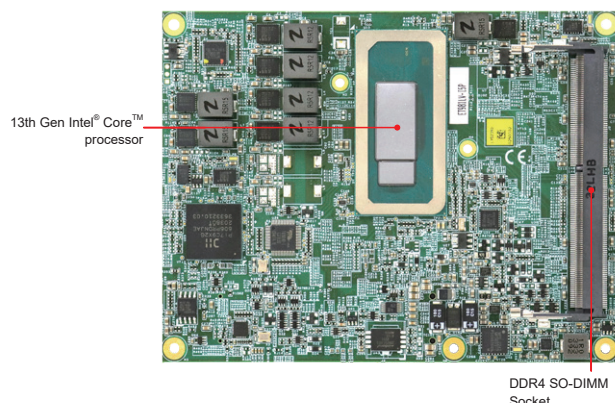
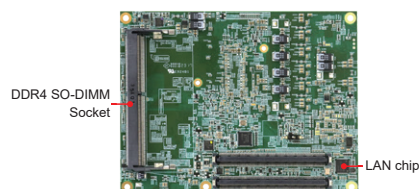




Features

- Onboard 13th Gen Intel® P-series Core™ i7/i5/i3 processors
- 2x DDR4-3200 SO-DIMM sockets, Max. 64GB
- 1x 2.5 GbE
- 4x USB 3.2, 8x USB 2.0, 2x SATA III, 2x COM
- supports 3x independent displays from HDMI / DP / VGA / LVDS or eDP
- Digital I/O, TPM (2.0), Watchdog timer
- 1x PCI-E(x16), 1x PCI-E(x4), 4x PCI-E(x1) signals to carrier board
- supports wide-range operating temperature from -40°C to 85°C (Only ET981LV-I7PRE)



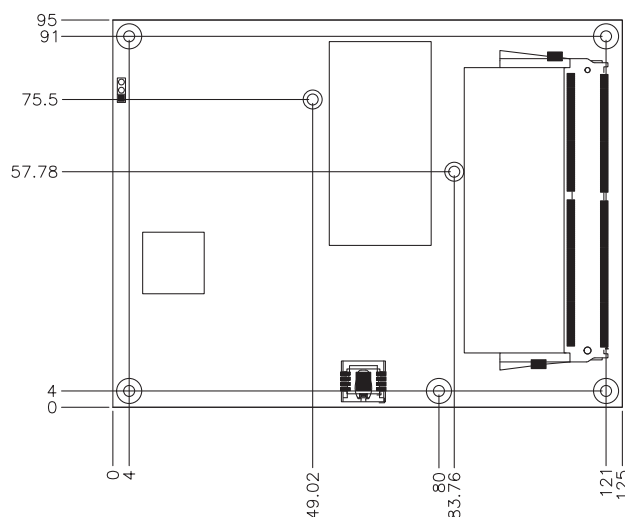
Specifications

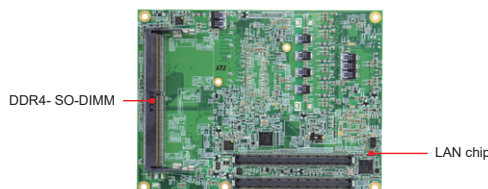
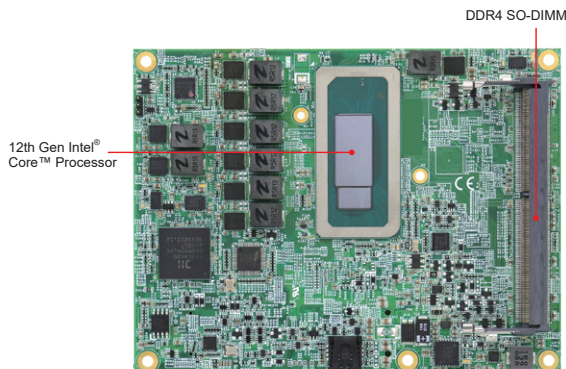
CPU	BGA1744 for 13th Intel® Gen P-series Core™ i7/i5/i3 processors (SoC)
PCH	N/A
Memory	2x DDR4-3200 SO-DIMM socket, Max. 64GB, ECC compatible
BIOS	AMI
Watchdog Timer	256 levels
H/W Monitor	Yes
Storage Device Interface	N/A
Expansion Slots	1x PCI-E(x16), 1x PCI-E(x4), 4x PCI-E(x1) to carrier board
Graphics Controller	13th Intel® Gen P-series Core™ processors integrated graphics
Video Output	HDMI, DisplayPort, VGA, LVDS or eDP on carrier board
Ethernet	Intel® I226LM 2.5 GbE RJ45 on carrier board I226IT 2.5 GbE for ET981LV-I7PRE only
I/O Chipset	Fintek F81804U-I on board
Serial Port	2x COM ports (Tx/Rx only)
USB 2.0	8x USB 2.0 via carrier board
USB 3.X	4x USB 3.2 (10bps-10Gbps) via carrier board
Serial ATA	2x SATA III via carrier board
Audio	Built-in HD audio controller
TPM	TPM (2.0)
Others	Power: +12 V and +5 VSB for ATX, +12V for AT, Digital I/O (4-in/4-out), Watchdog timer
Dimensions (L X W)	95mm x 125mm (3.74" x 4.92")
Power Consumption	13th Gen Intel® Core™ i7-1370PRE 1.90GHz w/ 2x DDR4 2400 4GB Innodisk M4SS-4GSSN50J-EA35 +12V:7.57A
Operating Temperature	-40°C~85°C (-40°F~185°F) for ET981LV-I7PRE 0°C~60°C (32°F~140°F)
Storage Temperature	-40°C~80°C (-40°F~176°F)
Relative Humidity	90% (non-condensing @60°C)

Ordering Information

ET981LV-I7P	COM Express (Type 6) module w/ Intel® i7-1370PE onboard, LVDS support
ET981LV-I7PRE	COM Express (Type 6) Module w/ Intel® Core™ i7-1370PRE onboard, LVDS support (wide-temperature)
ET981LV-I5U	COM Express (Type 6) module w/ Intel® i5-1335UE onboard, LVDS support
ET981-I5U	COM Express (Type 6) module w/ Intel® i5-1335UE onboard, eDP support
ET981LV-I5P	COM Express (Type 6) module w/ Intel® i5-1340PE onboard, LVDS support
ET981LV-I3P	COM Express (Type 6) module w/ Intel® i3-1320PE onboard, LVDS support
IP414	ATX COM Express Type-6 carrier board, supports ATX
IP414-DC	ATX COM Express Type-6 carrier board, supports DC-in (+8V ~ +20V)
HSET981-A	Heatsink with fan for ET981
HSET981-3	Heat spreader for ET981

Dimensions and Drawing





Features

- Onboard 12th Gen Intel® Core™ i7/i5/i3 processors
- 2x DDR4-3200 SO-DIMM sockets, Max. 64GB
- Onboard 2.5 GbE
- supports 3x independent displays from HDMI / DP / VGA / LVDS or eDP
- 4x USB 3.2, 8x USB 2.0, 2x SATA III, 2x COM
- 1x PCI-E(x16), 1x PCI-E(x4), 4x PCI-E(x1) to carrier board
- Digital I/O, TPM (2.0), Watchdog timer

Specifications

CPU	BGA1744 for 12th Gen Intel® Core™ i7/i5/i3 processors
PCH	N/A
Memory	2x DDR4-3200 SO-DIMM sockets, Max. 64GB, ECC compatible
BIOS	AMI
Watchdog Timer	256 levels
H/W Monitor	Yes
Storage Device Interface	N/A
Expansion Slots	1x PCI-E(x16), 1x PCI-E(x4), 4x PCI-E(x1) to carrier board
Graphics Controller	12th Gen Intel® Core™ P-series processor integrated graphics
Video Output	HDMI, DisplayPort, VGA, LVDS or eDP on carrier board
Ethernet	Intel® I226LM 2.5 GbE RJ45 on carrier board
I/O Chipset	Fintek F81804U-I onboard
Serial Port	2x COM ports (Tx/Rx only)
USB 2.0	8x USB 2.0 via carrier board
USB 3.X	4x USB 3.2 (10bps) via carrier board
Serial ATA	2x SATA III via carrier board
Audio	Built-in HD audio controller
TPM	TPM (2.0)
Others	Power: +12 V and +5 VSB for ATX, +12V for AT Digital I/O (4-in/4-out) , Watchdog timer
Dimensions (L X W)	125mm x 95mm (4.92" x 3.74")
Power Consumption	Intel® Core™ i5-1250PE 1.50GHz w/ 2x 16GB DDR4-3200 +12V:2.6A
Operating Temperature	0°C~60°C (32°F~140°F)
Storage Temperature	-20°C~80°C (-4°F~176°F)
Relative Humidity	90% (non-condensing @60)

Ordering Information

ET980LV-I7U	COM Express (Type 6) CPU Module w/ Intel® Core™ i7-1265UE onboard, LVDS support
ET980LV-I7P	COM Express (Type 6) CPU Module w/ Intel® Core™ i7-1270PE onboard, LVDS support
ET980LV-I5U	COM Express (Type 6) CPU Module w/ Intel® Core™ i5-1245UE onboard, LVDS support
ET980-I5U	COM Express (Type 6) CPU Module w/ Intel® Core™ i5-1245UE onboard, eDP support
ET980LV-I5P	COM Express (Type 6) CPU Module w/ Intel® Core™ i5-1250PE onboard, LVDS support
ET980-I3P	COM Express (Type 6) CPU Module w/ Intel® Core™ i3-1220PE onboard, eDP support
ET980LV-I3P	COM Express (Type 6) CPU Module w/ Intel® Core™ i3-1220PE onboard, LVDS support
IP414	ATX COM Express Type-6 carrier board, supports ATX
IP414-DC	ATX COM Express Type-6 carrier board, supports DC-in (+8V ~ +20V)
HSET980-B	Heatsink with fan for ET980
HSET980-2	Heat spreader for ET980

Dimensions and Drawing

