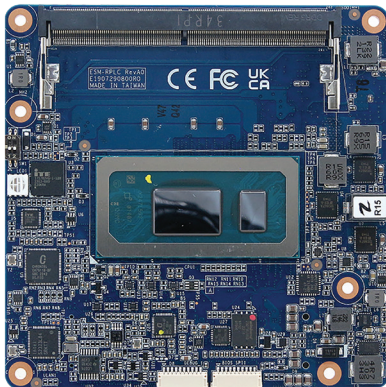


ESM-RPLC

Type6 Compact COM Express Module with Intel® 13th Generation Core™ i3/i5/i7 Embedded Mobile Processor



Features

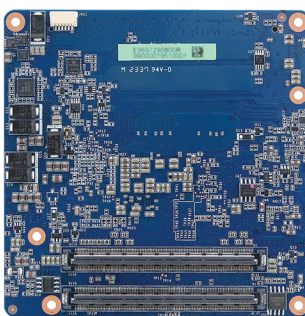
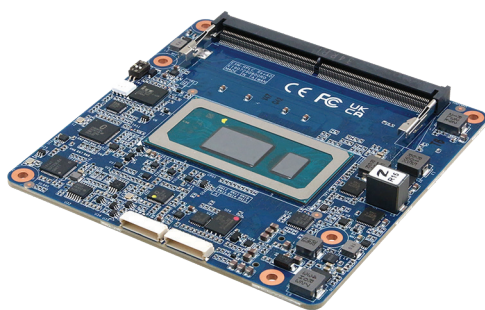
- COM Express Rev. 3.1
- Type6 COMe Compact Module with 13th Gen Intel® Core™ Embedded Mobile Processor
- 1 x 262-Pin DDR5 4800MT/s SO-DIMM up to 32GB
- 1 x Intel® Ethernet Controller I226-LM/IT
- Intel® HD Audio Integrated on CPU
- Onboard TPM 2.0
- COMe Type 6 Compact Size: 3.74" x 3.74" (95 x 95 mm)
- DC in +9V ~ +19V
- Supports Standard Temperature: 0°C ~ 60°C (32°F ~ 140°F)
- Supports Extend Temperature: -40°C ~ 75°C (-40°F ~ 167°F)

SPECIFICATIONS

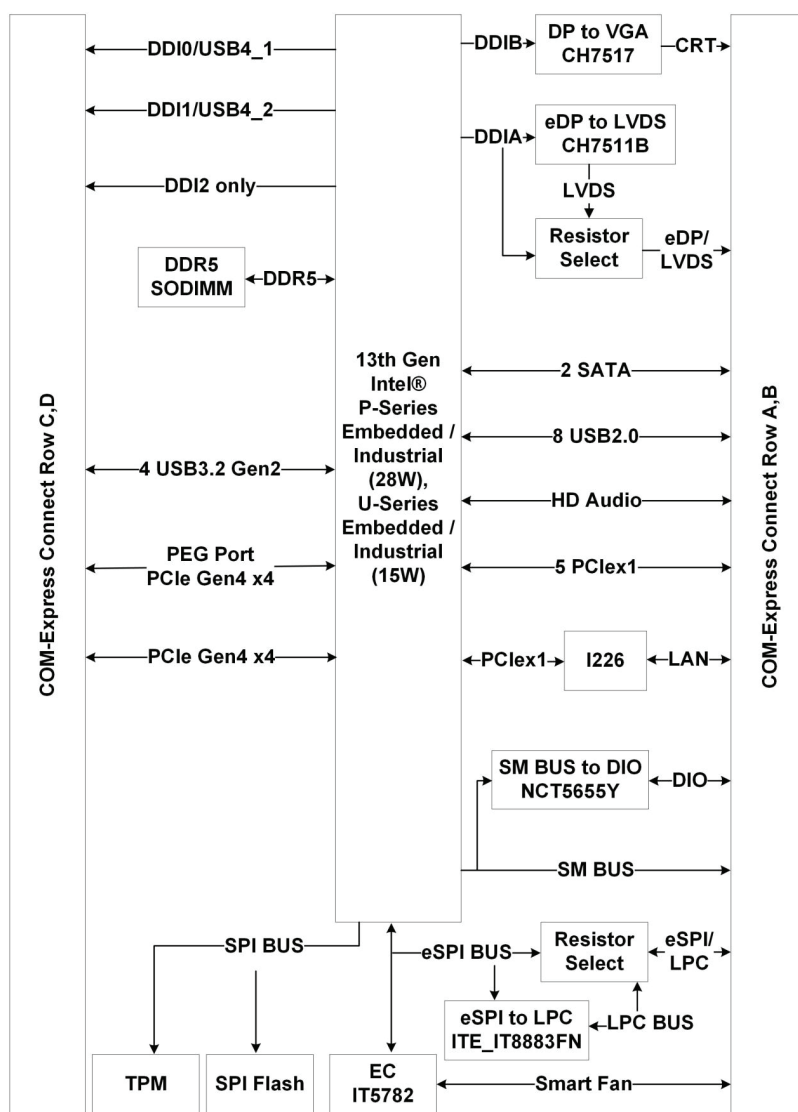
System	
CPU	13th Gen. Intel® P-Series Embedded / Industrial (28W) U-Series Embedded / Industrial (15W)
System Memory	Supports 1 x 262-Pin DDR5 4800MT/s SO-DIMM up to 32GB
BIOS	AMI uEFI BIOS, 256 Mbit SPI Flash ROM
I/O Chipset	EC ITE IT5782
Ethernet	Intel® Ethernet Controller I226-LM/IT (2.5GbE)
Audio	Intel® HD Audio
Storage	Optional Onboard storage NVMe SSD
Watchdog Timer	H/W Reset, 1Sec. ~ 65535Sec. and 1Sec./Step
H/W Status Monitor	Monitoring System Temperature Voltage and FAN Status with Auto Throttling Control
Expansion	2 x Gen4 PCIe x4, Only for SSD, (From CPU) Default: 5 x Gen3 PCIe x1, 2 x SATA (2 Lanes Shares with SATA)
TPM	Onboard TPM 2.0
OS Support	Windows 10 Enterprise 2021 LTSC Ubuntu 22.04 (Kernel 5.15) above
Display	
Chipset	Intel® Iris® Xe Graphics on i7/i5 Processor Intel® UHD Graphics on i3/Celeron® Processor Intel® Gfx Up to 96 EU
Resolution	3 x DDI, VGA, eDP/LVDS (Optional) VGA Supported by Build Option Via DP-to-VGA IC, Max. Resolution 1920x1200@60Hz VDS Single/Dual Channel 18/24-bit LVDS from eDP-to-LVDS IC, Max. Resolution 1920x1200@60Hz in Dual Mode or eDP Build Option in Place of LVDS, 4 lanes, eDP 1.4b (by BOM) USB4 Max. 2 x USB4 in Place of DDI 1/2, Supports DP 1.4a by DP Alternative Mode DDI3 for Avalue EX-EX26 Carrier HDMI 2.1 or DP 1.4a Select by BIOS, Support Feature Depend on Carrier Board.
Multi-Display	Supports 4 Independent Displays up to 4K (3DDI+eDP)
Display Cont.	
LVDS	CH7511B(eDP to LVDS)
DDI	3 x DDI DDI1: 2 CH LVDS (via eDP-to-LVDS) or eDP(By BOM Optional) DDI2: DDI Signal TCP0: DDI2 signal or Type C signal I/O
I/O	
USB	2 x USB 4 by TCP Ports (Optional by BIOS) 4 x USB 3.2 Gen2 8 x USB 2.0
COM Port	2 x UART (RX/TX Only)
SATA	2 x SATA III
MIO	8-bit GPIO, 1 x SMBus, 1 x LPC (Via ESPI-to-LPC Bridge IC), 1 x GP_SPI(TBC), 1 x I2C
Mechanical, Power, and Environment	
Power Requirement	+9 ~ +19V
Power Type	AT/ATX
Operating Temperature	Standard 0°C ~ 60°C (32°F ~ 140°F) Extend: -40°C ~ 75°C (-40°F ~ 167°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Form Factor	COM Express Rev. 3.1 Type 6 COM Express Module
Dimensions	3.74" x 3.74" (95 x 95 mm)
Weight	0.1631lbs (0.074Kg)

* All product specifications and images are subject to change without notice. Last update: 04/17/2025

SPECIFICATIONS / ADDITIONAL PRODUCT PHOTOS



BLOCK DIAGRAM



PACKING LIST

Model Name	Description
ESM-RPLC-S65-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i7-1365UE CPU
ESM-RPLC-S35-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i5-1335UE CPU
ESM-RPLC-S15-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i3-1315UE CPU
ESM-RPLC-S70-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i7-1370PE CPU
ESM-RPLC-S40-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i5-1340PE CPU
ESM-RPLC-S20-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i3-1320PE CPU
ESM-RPLC-300-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -U300E CPU
ESM-RPLC-W65-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i7-1365URE CPU
ESM-RPLC-W35-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i7-1335URE CPU
ESM-RPLC-W15-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i7-1315URE CPU
ESM-RPLC-W70-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i7-1370PRE CPU
ESM-RPLC-W40-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i7-1340PRE CPU
ESM-RPLC-W20-A1R	Intel® Raptor Lake-P SoC COM Express Module Type 6 on board -i7-1320PRE CPU

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