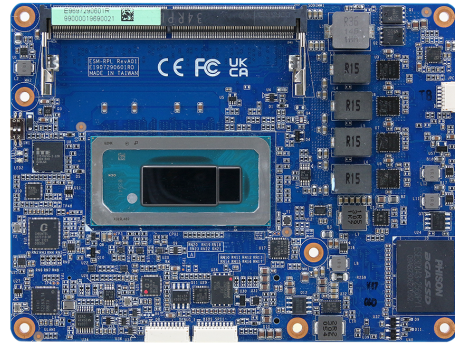


ESM-RPL

**COM Express Rev. 3.1 Intel®13th Generation
Core™ Embedded Mobile Processor Type6
COMe Basic Module**



Product Features

- COM Express Rev. 3.1 Intel®13th Generation Core™ Embedded Mobile Processor Type6 COMe Basic Module
- 1 x Intel® I226LM
- On board Storage NVMe SSD (Optional)
- COMe Type 6 Basic Size: 3.74" x 4.92" (125*95 mm)
- 2 x 262-Pin DDR5 4800MT/s SO-DIMM Up to 64GB
- Intel® HD Audio Integrated on CPU
- Onboard nuvoTon_NPCT754AADYX TPM 2.0 Optional
- DC in +9V ~ +19V

Specification

System Information

Processor	13th Gen. Intel® H-Series Embedded Industrial (45 W) P-Series Embedded Industrial (28 W) U-Series Embedded / Industrial (15 W)
System Memory	2 x 262-Pin DDR5 4800MT/s SO-DIMM Up to 64GB
I/O Chipset	EC iTE IT5782
Watchdog Timer	H/W Reset, 1Sec. ~ 65535Sec. and 1Sec./Step
BIOS	AMI uEFI BIOS, 256 Mbit SPI Flash ROM
H/W Status Monitor	Monitoring System Temperature Voltage and FAN Status with Auto Throttling Control
TPM	Onboard nuvoTon_NPCT754AADYX TPM 2.0 Optional

Expansion

Expansion	1 x PCIe x8 (Gen4), (Selected SKU, H series) 2 x PCIe x4 (Gen4) Default: 5 x PCIe x1 (Gen3), 2 x SATA (2 Lanes Shares with SATA)
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Storage

Storage	On board Storage NVMe SSD (Optional)
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Display

Graphic Chipset	Intel® Iris® Xe Graphics on i7/i5 Processor Intel® UHD Graphics on i3/Celeron® Processor Intel® Gfx Up to 96 EU
Spec. & Resolution	3 x DDI, VGA, eDP/LVDS (BOM 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.
Multiple Display	Four Display Support, Up to 4K (3DDI+eDP)
LVDS	CH7511B(eDP to LVDS)
DDI	3 x DDI, VGA, eDP/LVDS (BOM Optional) HDMI/DP(Default) VGA Supported by Build Option Via DP-to-VGA IC (In Place of DDI 3)

Audio

Audio Interface	Intel® HD Audio Integrated on CPU
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Ethernet

LAN Chipset	1 x Intel® I226LM
Ethernet Interface	10/100/1000/2500 Base-Tx GbE Compatible

Software Support

OS	Windows 10 Enterprise 2021 LTSC Ubuntu 22.04 (Kernel 5.15) above
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Certification

Certification Information	CE, FCC Class, RoHS Compliant
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I/O

USB	2 x USB 4 by TCP Ports (Optional by BIOS) 4 x USB3.2 Gen2 8 x USB2.0
COM Port	2 x UART (RX/TX Only)
SATA	2 x SATA III
DIO	1 x 8-bit GPIO

MIO	1 x SMBus 1 x LPC (Via ESPI-to-LPC Bridge IC) 1 x I2C (User) 1 x GP_SPI (TBC) 1x SPI
Mechanical & Environmental	
Operating Temp.	Standard 0°C ~ 60°C (32°F ~ 140°F)
Storage Temp.	-40°C ~ 85°C (-40°F ~ 185°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Weight	0.44lbs (0.2Kg)
Power Requirement	+9V ~ +19V
Power Mode	AT/ATX
Dimension (L x W)	3.74" x 4.92" (125*95 mm)
Ordering Information	
Ordering Information	ESM-RPL-S70-A1R Intel® COM Express Module Type 6 on board Core™ I7-1370PE CPU, 28W ESM-RPL-S40-A1R Intel® COM Express Module Type 6 on board Core™ I5-1340PE CPU, 28W ESM-RPL-S20-A1R Intel® COM Express Module Type 6 on board Core™ I3-1320PE CPU, 28W ESM-RPL-S80-A1R Intel® COM Express Module Type 6 on board Core™ I7-13800HE CPU, 45W ESM-RPL-S60-A1R Intel® COM Express Module Type 6 on board Core™ I5-13600HE CPU, 45W ESM-RPL-S30-A1R Intel® COM Express Module Type 6 on board Core™ I3-13300HE CPU, 45W