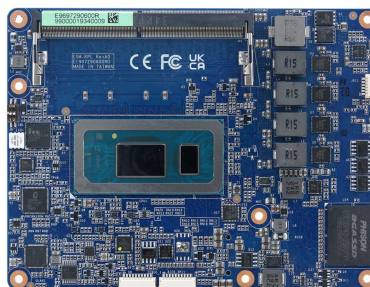


ESM-RPL

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/IT
- 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)
7 x PCIe x1 (Gen3), (2 Lanes Shares with SATA), (Total Max 6 Devices)

Storage

Storage On board Storage NVMe SSD (Optional)

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

Ethernet**LAN Chipset**

1 x Intel® I226LM/IT

Ethernet Interface

10/100/1000/2500 Base-Tx GbE Compatible

Software Support**OS**

Windows 10, Windows 11
Linux (Kernel 5.8) above

Certification**Certification Information**

CE, FCC Class, RoHS Compliant

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)
1 x SPI

Mechanical & Environmental**Operating Temp.**

Standard 0°C ~ 60°C (32°F ~ 140°F)
Industrial (Build Option with Selected SKUs): -40°C ~ 85°C (-40°F ~ 185°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

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

ESM-RPL-W70-A1R

Intel® COM Express Module Type 6 on board Core™ I7-1370PRE CPU, 28W, Wide-Temp.

ESM-RPL-W50-A1R

Intel® COM Express Module Type 6 on board Core™ I5-1350PRE CPU, 28W, Wide-Temp.

ESM-RPL-W20-A1R

Intel® COM Express Module Type 6 on board Core™ I3-1320PRE CPU, 28W, Wide-Temp.

ESM-RPL-W80-A1R

Intel® COM Express Module Type 6 on board Core™ I7-13800HRE CPU, 45W, Wide-Temp.

ESM-RPL-W60-A1R

Intel® COM Express Module Type 6 on board Core™ I5-13600HRE CPU, 45W, Wide-Temp.

ESM-RPL-W30-A1R

Intel® COM Express Module Type 6 on board Core™ I3-13300HRE CPU, 45W, Wide-Temp.