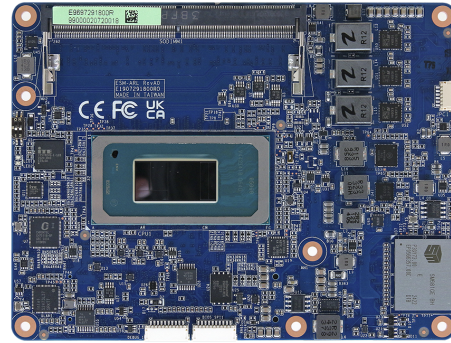


ESM-ARL

COM Express Rev. 3.1 COMe Type 6 Basic Module with Intel® Core™ Ultra Processor U/H Series (TDP 28W/15W)



Product Features

- COM Express Rev. 3.1 COMe Type 6 Basic Module with Intel® Core™ Ultra Processor U/H Series (TDP 28W/15W)
- 1 x Intel® i226LM 2.5G Gigabit Controller
- On board Storage NvMe SSD (Optional)
- COMe Type 6 Basic Size: 4.92" x 3.74" (125*95 mm)
- Dual-CH 2 x 262-pin DDR5 5600MHz SO-DIMM up to 96GB
- Intel® HD Audio integrated in SoC
- Onboard NuvoTon NPCT760AABYX support TPM 2.0
- DC in +9V ~ +19V

Specification

System Information

Processor	Intel® Core™ Ultra Processor U/H Series (TDP 28W/15W)
System Memory	2 x 262-Pin DDR5 5600MT/s SO-DIMM Up to 96GB
I/O Chipset	EC ITE IT5782VG-I-128/BX
Watchdog Timer	65536 level, 0 ~ 65535 sec
BIOS	AMI 256Mb UEFI BIOS, 256Mbit SPI Flash ROM
H/W Status Monitor	Monitoring CPU Temperature, Voltage with Auto Throttling Control
TPM	Onboard NuvoTon NPCT760AABYX support TPM 2.0, co-lay Infineon SLB9670VQ2.0 FW7.85

Expansion

Expansion	PEG (H series): 1 x PCIe x8 Gen4, 2 x PCIe x4 Gen4 PEG (U series): 3 x PCIe x4 Gen4 PCIe: Max 5 x PCIe x1 Gen4 or 1 x PCIe x1 Gen4, 1 x PCIe x4 Gen 4 (configurable x1, or x2, or x4)
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Storage

Storage	1 x NvMe (Option)
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Display

Graphic Chipset	Intel® Xe LPG
Spec. & Resolution	DDI (HDMI/Display Port): Up to 3 x DDI Port Support Configurable HDMI/DisplayPort -HDMI 2.1: 4096 x 2304 @ 60Hz -DisplayPort 1.4 8K60 LCD (LVDS/eDP): 1 x LVDS (via CH7511B eDP-to-LVDS): 1920x1200 @60Hz (Default); or 1 x eDP 1.4b(By BOM Optional): Max 4K
Multiple Display	Quad Simultaneous Independent Display
LVDS	1 x LVDS (via CH7511B eDP-to-LVDS): 1920x1200 @60Hz
DDI	Up to 3 x DDI Port Support Configurable HDMI/DisplayPort -HDMI 2.1: 4096 x 2304 @ 60Hz -DisplayPort 1.4 8K60

Audio

Audio Codec	Intel® HD Audio integrated in SoC
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Ethernet

LAN Chipset	1 x Intel® i226 2.5G Gigabit Controller
Ethernet Interface	10/100/1000/2500 Base-Tx GbE compatible

Software Support

OS	Windows 11, Ubuntu 24.04
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Certification

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

USB	USB4: Up to 2 ports, Co-lay with DDI and in place of DDI1 & DDI2 USB3.2 (Gen2): 4 Ports (10 Gbps) USB2.0: 8 Ports (480 Mbps)
COM Port	2 x UART (RX/TX Only)
SATA	2 x SATAIII (6.0Gb/s)
DIO	8 bit GPIO from EC
MIO	1 x SMBus 1 x LPC (via eSPI-to-LPC bridge IC ITE_IT8883FN) 1 x I2C 1 x SPI

Mechanical & Environmental

Operating Temp.	Standard 0°C ~ 60°C (32°F ~ 140°F)
Storage Temp.	-40°C ~ 75°C (-40°F ~ 167°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Weight	0.226lbs (0.101Kg) without NvMe 0.227lbs (0.103Kg) with NvMe
Power Requirement	+9V~+19V
Power Mode	AT/ATX
Dimension (L x W)	4.92" x 3.74" (125*95 mm)

Ordering Information

Ordering Information	TBD
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