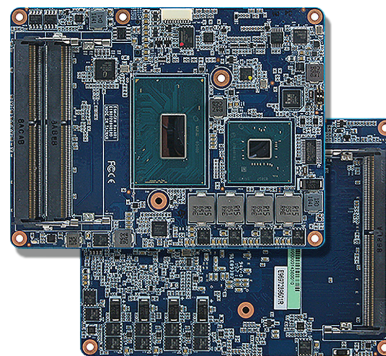


* This is an OEM Only Product

Features

- PICMG COM R3.0 Type 6 module with 9th/8th Generation Intel® Xeon®/Core™ i7 / i5 / i3 Processors
- Up to 3 x 260-pin DDR4 non-ECC/ECC 2400/2133 SO-DIMM with up to 96 GB
- Dual-channel 18/24-bit LVDS, VGA, DP++/HDMI/DVI, optional eDP
- Flexible I/O support with 4 x USB3.2 Gen.2, 8 x USB 2.0, Gen3 PEG x16, 8 x PCIe x1 & 4 x SATA III
- Intel® Ethernet Controller I219-LM
- 9V~19V Wide Range Voltage Input
- Optional onboard TPM 2.0
- COMe Type 6 Basic Size: 3.74" x 4.92" (125x95mm)



Specifications

System	
CPU	<p>9th Gen. Intel® Xeon®, Core™, Pentium® and Celeron® Processor: Intel® Xeon® E-2276ME 45W (35W cTDP), 6C/GT2 (ECC/non-ECC) Intel® Xeon® E-2276ML* 25W, 6C/GT2 (ECC/non-ECC) Intel® Xeon® E-2254ME* 45W (35W cTDP), 4C/GT2 (ECC/non-ECC) Intel® Xeon® E-2254ML* 25W, 4C/GT2 (ECC/non-ECC) Intel® Core™ i7-9850HE 45W (35W cTDP), 6C/GT2 (non-ECC) Intel® Core™ i7-9850HL* 25W, 6C/GT2 (non-ECC) Intel® Core™ i3-9100HL 25W, 4C/GT2 (ECC/non-ECC) Intel® Celeron® G4930E* 35W, 2C/GT1 (ECC/non-ECC) Intel® Celeron® G4932E* 25W, 2C/GT1 (ECC/non-ECC)</p> <p>Mobile 8th Generation Intel Xeon® and Core™ Processor: Intel® Xeon® E-2176M* 45W (35W cTDP), 6C/GT2 (ECC/non-ECC) Intel® Core™ i7-8850H* 45W (35W cTDP), 6C/GT2 (non-ECC) Intel® Core™ i5-8400H 45W (35W cTDP), 4C/GT2 (non-ECC) Intel® Core™ i3-8100H* 45W (35W cTDP), 4C/GT2 (ECC/non-ECC)</p> <p>Please note: (1). ** SKU is project based. Please contact sales for details. (2). Please note: CPU cooler is not included. Please see Ordering Info tab for more details.</p>
System Chipset	Intel® CM246 Chipset (Supports ECC Memory, Intel® AMT and PEG Configuration) Intel® QM370 Chipset (Supports Intel® AMT and PEG Configuration)
System Memory	Supports 3 x 260-pin DDR4-2400/2133 SO-DIMM up to 96GB Note: ECC supported only on specific models with Intel® Xeon & Intel® Core i3 CPU paired with Intel® CM246 Chipset Supports both ECC and non-ECC memory
Audio	Intel® HD Audio
Ethernet	Intel® Ethernet Controller I219-LM (GbE)
BIOS	AMI uEFI BIOS, 128 Mbit SPI Flash ROM
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	1 x PCIe x16 Gen 3 (configurable to 1 x PCIe x16, 2 PxCle x8, or 1 PxCle x8 + 2 x PCIe x4) 8 x PCIe x1, configurable to x4 or x2 * 6 x PCIe x1 (PCIe 0~3 w/RST, PCIe 4,5) * 2 x PCIe x1 (PCIe 6, PCIe7)
TPM	Onboard TPM 2.0 (Optional)
OS Support	Microsoft® Windows 10 64-bit, Linux

Display	
Chipset	Intel® Coffee Lake Processor Integrated Graphics
Resolution	HDMI 1.4: 4096x2160@30Hz (Only One Display Output) DP 1.2: 4096x2304@60Hz (Only One Display Output) LVDS (Via eDP-to-LVDS IC): 1920x1080@60Hz VGA (Via DP-to-VGA IC): 1920x1080@60Hz
Multiple Display	Supporting 3 Independent Display
LVDS	CH7511B (eDP to LVDS)
DDI	HDMI or DP, eDP 1.4 (Optional)
I/O	
USB	4 x USB 3.2 Gen.2, 8 x USB 2.0
COM Port	2 x UART (RX/TX Only)
GPIO	8-bit GPIO
SATA	4 x SATAIII 6.0Gb/s (Support RAID0,1,5,10)
MIO	1 x SMBus, 1 x LPC, 1 x I2C, 1 x SPI, 1 x SDIO (Optional)
Mechanical & Environment	
Power	+9~ +19V
ACPI	Single power ATX Support S0, S3, S4, S5. ACPI 4.0 Compliant
Power Type	AT/ATX
Operating Temp	0 ~ 60 °C (32 ~ 140 °F)
Storage Temp	-40°C ~ 75°C (-40°F ~ 167°F)
Op Humidity	40°C @ 95% Relative Humidity, Non-condensing
Form Factor	COM Express Modules
Dimensions	3.74" x 4.92" (125 x 95 mm)
Weight	0.44 lbs (0.2kg)
Ordering Info	
ESM-CFH-2276ME	Intel® Xeon E-2276ME 2.8GHz 6 Cores, CM246 Chipset, 3 x DDR4 SO-DIMM, ECC
ESM-CFH-9850HE	Intel® Core i7-9850HE 2.7GHz 6 Cores, QM370 Chipset, 3 x DDR4 SO-DIMM
ESM-CFH-8400H	Intel® Core i5-8400H 2.4GHz Quad Cores, QM370 Chipset, 3 x DDR4 SO-DIMM
ESM-CFH-9100HL	Intel® Core i3-9100HL 1.6GHz Quad Cores, QM370 Chipset, 3 x DDR4 SO-DIMM
EEV-EX14-B1R	mATX Ev. Board for COMe Type 6 A2
ACC-ESMCFH-CL-1R	Cooler for ESM-CFH W/FAN H=44.6mm
ACC-ESMCFH-SD-1R	Heatspreader for ESM-CFH H=8.0mm
ACC-ESMCFH-SD-1R	Heatspreader for ESM-CFH H=8.0mm

* All product specifications and images are subject to change without notice. Last update: 02/10/2025

