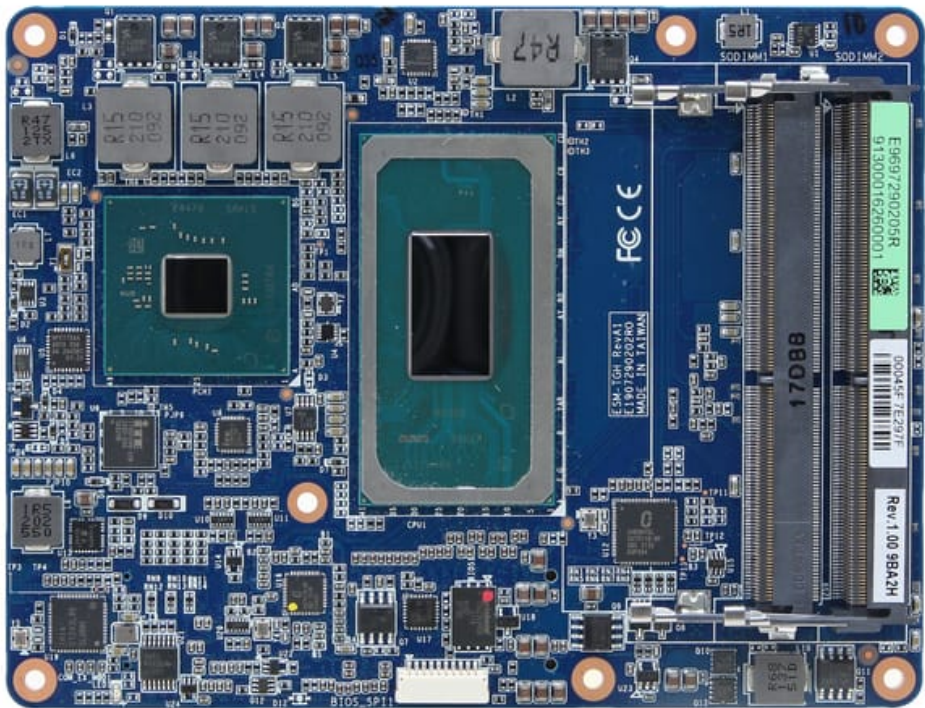


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ESM-TGH

PICMG COM R3.0 Type 6 module with Intel® 11th Generation Xeon®, Core™ i7/i5/i3, Celeron® BGA Processors

PICMG COM R3.0 Type 6 module with Intel® 11th Generation Xeon®, Core™ i7/i5/i3, Celeron® BGA 10nm Processors
Up to 3x 260-pin DDR4 3200 SO-DIMM with up to 96 GByte
Gen 12 Intel® UHD Graphics (Xe architecture), media, and display with up to 32EU
Flexible I/O support with 4 SATA3.0 (6.0GB/s), 4 USB3.2 Gen.2x1(10Gbp/s), 8 USB 2.0, 8-bit GPIO, 1 Gen4 PEGx16, 8-PClex1
1 x 2.5GbE Ethernet via Intel® I225LM/IT
9V~19V Wide Range Voltage Input
TPM 2.0

Add to Inquiry List

Add to Comparison

Data Sheet (PDF)

Status: Available

Spec

-System Information-	
Processor	Mobile 11th Generation Intel® Xeon® Core™ and Celeron® Processors - 10nm processor Xeon® W-11865MRE* 45W (35W cTDP), 8C/16T (ECC) Xeon® W-11155MRE* 45W (35W cTDP), 4C/8T (ECC) Core™ i7-11850HE* 45W (35W cTDP), 8C/16T (non-ECC) Core™ i5-11500HE* 45W (35W cTDP), 6C/12T (non-ECC) Core™ i3-11100HE* 45W (35W cTDP), 4C/8T (non-ECC) Celeron® 6600HE* 35W, 2C/2T (non-ECC)
Platform Controller Hub	RM590E QM580E HM570E
System Memory	Up to 3x 260-pin DDR4-3200 SO-DIMM slot up to 32 GByte each (96 GByte total)
I/O Chipset	EC (ITE IT5571)
BIOS Information	AMI uEFI BIOS, 256 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

TPM

TPM2.0

I/O

USB Port

4 x USB 3.2 Gen.2x1 (10 Gbps)
8 x USB 2.0

SATA

4 x SATA3.0 (6.0Gb/s)

DIO

8bit GPIO(NCT5655Y)

MIO

4 x SATAIII 6.0Gb/s
1xLPC (via eSPI to LPC bridge), I2C, SMBus, 2 x UART(2-wire)

HDMI

HDMI 2.0b

Display

Graphic Chipset

Gen 12 Intel® UHD Graphics (Xe architecture)

Spec. & Resolution

HDMI 2.0b: 4096x 2304 @ 60Hz
DP 1.4: 4096x 2304 @60Hz
LVDS: 1920x 1080 @60Hz, support Dual-channel 18/24-bit LVDS (via eDP-to-LVDS IC CH7511B)
VGA: 1920x 1200 @60Hz (via DP to VGA IC Chronitel® 7517A)
eDP 1.4b: 4096x 2304 @60Hz (Optional) (Per Intel design guide, need to add Redriver, Redriver in carrier board to fine tune the signal of DP1.4)
(Only support 4Lanes 2560x1440 & 2Lanes 1920x1080)

Multiple Display

Supporting 4 display up to 2K (3DDI+eDP)

DDI

HDMI/DP (default)

Interface

Dual-channel 18/24-bit LVDS (LVDS via CH7511B)

Software Support

OS

Microsoft® Windows 10 64-bit
Linux (Kernel>5.8)

Ethernet

LAN Chipset

Intel®i225LM/IT

Ethernet Interface

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

Mechanical & Environmental

Operating Temperature

Operating Standard: 0 ~ 60 °C (32 ~ 140 °F)
Operating Industrial (build option with selected SKUs): -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

Weight

0.44lbs (0.2kg)

Power Requirement

+9~ +19V

ACPI

Single power ATX Support S0, S4, S5 ACPI 5.0a Compliant

Power Mode

AT/ATX

Dimension (L x W)

125*95 mm (3.74" x 4.92")

Download

[BIOS\(2\)](#)

[Driver\(12\)](#)

[Manual\(1\)](#)

[Design Document\(6\)](#)

Release Date	Description	Download
2022-11-14	(STGH3002)ESM-TGH-B1 BIOS 1.00 CS:204EH,P/N:E1512290202R	
2022-07-21	(STGH2008)ESM-TGH BIOS 1.00 CS:9BA2H,P/N:E1512290200R	

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