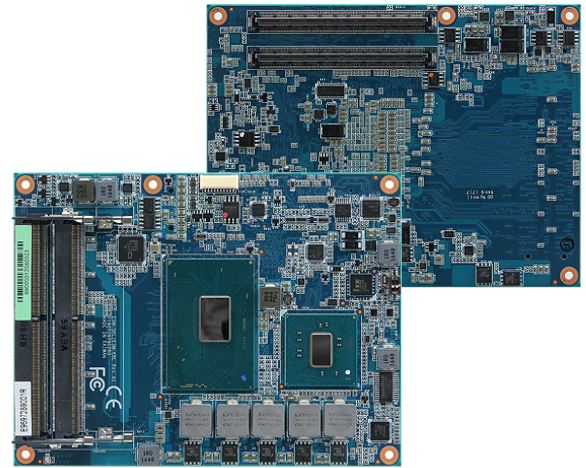


Features

- Onboard 7th Gen Intel® Xeon™ E3-1500 series v6 Processor/ Core™ i3 series Processor
- Two 260-pin SODIMM DDR4 SDRAM slot up to 32GB, CM238 Support ECC Function
- Dual-channel 18/24-bit LVDS, VGA, DP/HDMI/DVI, eDP Option
- Intel® I219LM Gigabit Ethernet
- 8 PCIe x1, 1 PCIe x16, 4 SATA, 8 USB 2.0, 4 USB 3.0
- HD Audio Interface
- Type 6 Rev 2.1 Pin-out
- TPM 2.0



Specifications

System	
Processor	Intel® Xeon® E3-1505M v6 4-Core 3GHz processor Intel® Xeon® E3-1505L v6 4-Core 2.2GHz processor 7th Gen Intel® Core™ i3-7100E, 2-Core, 2.9GHz Processor 7th Gen Intel® Core™ i3-7102E, 2-Core, 2.1 GHz Processor Please note: CPU coolers are not included. Please see Ordering Info tab for more details.
System Chipset	Intel® CM238 Express Chipset
System Memory	2 x 260-Pin DDR4 2400/2133MHz SO-DIMM up to 32 GB (CM238 Support ECC Function)
Audio	Intel® High Definition Audio
Ethernet	LAN1: Intel® i219LM Gigabit Ethernet Controller
BIOS	AMI uEFI BIOS, 128Mbit SPI Flash ROM
I/O Chip	EC ITE IT8528E
Expansion	8 x PCIe x1
OS Info	Win 10 WinCE: doesn't support Linux (Kernel>4.7) (64-bit)
Display	
Chipset	Intel® Skylake SoC integrated Graphics
Resolution	VGA: Max. resolution 1920x1080 @ 60Hz LVDS: Max. resolution 1920x1080 @ 60Hz HDMI: Max. resolution 4096x2160 @ 24Hz HDMI Max resolution only one display output
DDI	HDMI DVI DisplayPort
Multiple Display	(VGA+DP)+HDMI+DDI LVDS+(VGA+DP)+DDI LVDS+(VGA+DP)+HDMI LVDS+HDMI+DDI
LVDS	CH7511B (eDP to LVDS)
DIO	1 x 8bit GPIO

External I/O	
USB	8 x USB 2.0, 4 x USB 3.0
COM Port	2 x UART
SATA	4 x SATA III
DIO	1 x 8bit GPIO
MIO	1 x SMBus, 1 x LPC, 1 x I2C
Mechanical & Environment	
Power Requirement	+9V ~ +19V
ACPI	Single Power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant
Power Type	AT/ATX
Operating Temp	0°C ~ 60°C (32°F ~ 140°F) (Standard)
Storage Temp	-40°C ~ 75°C (-40°F ~ 167°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Form Factor	COM Express Modules

Ordering Info	
ESM-KBLA-05M-A1R	Intel® Xeon® E3-1505M v6 Type6 Basic Size COM Express Module
ESM-KBLA-05L-A1R	Intel® Xeon® E3-1505L v6 Type6 Basic Size COM Express Module
ESM-KBLA-7100-A1R	Intel® Core™ i3-7100E Type6 Basic Size COM Express Module
EEV-EX14-A3R	mATX Ev. Board for COMe Type 6 A2
ACC-ESMKBLH-CL-1R	Cooler for ESM-KBLH/ESM-KBLA W/FAN H=45.65mm
ACC-ESMKBLH-SD-1R	Heatspreader for ESM-KBLH/ESM-KBLA W/O FAN H=8.0mm

* All product specifications and images are subject to change without notice. Last update: 2021/02/12