



## ESM-KBLU

### 7th Gen Intel® Core™ SoC ULT Processor i7/i5/i3 COME Type6 Compact Module

- > Onboard 7th Gen Intel® Core™ SoC ULT i7/i5/i3 BGA Processor
- > Two 260pin SODIMM DDR4 2133 SDRAM Slot up to 32GB
- > Support Dual Channel LVDS, Display Port, VGA/HDMI, eDP Option
- > 3 SATA (6.0GB/s), 8 USB 2.0, 4 USB 3.0, 8-bit GPIO
- > Intel I219LM Gigabit Ethernet
- > Type 6 Rev 2.1 Pin-out
- > Supports Intel® iAMT 11.0, TPM 2.0 (Factory Optional), Turbo Boost Technology, vPro, Wake on LAN

#### + Spec

System Information	
<b>Processor</b>	7th Gen Intel® Core™ i7-7600U, 2-Core, 2.8GHz processor 7th Gen Intel® Core™ i5-7300U, 2-Core, 2.6GHz processor 7th Gen Intel® Core™ i3-7100U, 2-Core, 2.4GHz processor 7th Gen Intel® Celeron® 3965U, 2-Core, 2.2GHz Processor
<b>System Memory</b>	2 x 260-pin SO-DIMM DDR4 2133 SDRAM slot up to 32 GB
<b>I/O Chipset</b>	EC ITE IT8528E
<b>BIOS Information</b>	AMI uEFI BIOS, 128Mbit SPI Flash ROM
<b>Watchdog Timer</b>	H/W Reset, 1sec. ~ 65535sec. and 1sec./step
Expansion	
<b>Expansion</b>	8 x PCIe1 (it restricted to 5 devices due to LAN already count as one device)
I/O	
<b>USB Port</b>	8 x USB 2.0 4 x USB 3.0
<b>COM Port</b>	2 x UART
<b>SATA</b>	3 x SATAIII
<b>DIO</b>	1 x 8 bit GPIO
<b>MIO</b>	1 x LPC, 1 x I2C, 1 x SPI, 1 x SMBus
Display	
<b>Graphic Chipset</b>	Intel® Kaby Lake Processor integrated Graphics
<b>Spec. &amp; Resolution</b>	HDMI: Max. resolution 4096x2160 @ 24Hz LVDS: Max. resolution 1920x1200 @ 60Hz VGA: Max. resolution 1920x1200 @ 60Hz DP: Max. resolution 4096x2304 @ 60Hz
<b>Multiple Display</b>	LVDS(eDP) + VGA(HDMI) + DDI(HDMI or DP)
<b>LVDS</b>	CH7511B(eDP to LVDS)
<b>DDI</b>	HDMI DVI DisplayPort
Audio	
<b>Audio Interface</b>	Intel® High Definition Audio
Certifications	
<b>Certification Information</b>	CE / FCC Class B
Ethernet	
<b>LAN Chipset</b>	1 x Intel® I219LM
<b>Ethernet Interface</b>	10/100/1000 Base-Tx GbE compatible
Mechanical & Environmental	
<b>Operating Temperature</b>	0°C ~ 60°C (32°F ~ 140°F) Extend:-20°C ~ 70°C (-4°F ~ 158°F) on request
<b>Storage Temperature</b>	-40°C ~ 75°C (-40°F ~ 167°F)
<b>Operating Humidity</b>	40°C @ 95% Relative Humidity, Non-condensing
<b>Power Requirement</b>	+9 (-5%)~ +19V (+5%), VSB: 5V(±5%)
<b>ACPI</b>	Single power ATX Support S0, S3, S4, S5 ACPI 3.0 Compliant
<b>Power Mode</b>	AT/ATX
<b>Dimension (L x W)</b>	3.7" x 3.7" (95mm x 95mm)
Software Support	
<b>OS Information</b>	Win10
Ordering Information	
<b>Ordering Information</b>	ESM-KBLU-7600-A1R Intel® Core™ i7-7600U Type6 COME Compact Module  ESM-KBLU-7300-A1R Intel® Core™ i5-7300U Type6 COME Compact Module  ESM-KBLU-7100-A1R Intel® Core™ i3-7100U Type6 COME Compact Module

EEV-EX14-B1R  
mATX Ev. Board for COMe Type 6 A2

ACC-ESMSKLU-CL-1R  
Cooler for ESM-SKLU & ESM-KBLU W/FAN H=50.5mm

ACC-ESMSKLU-SK-1R  
Heatsink for ESM-SKLU & ESM-KBLU H=35.5mm

ACC-ESMSKLU-SD-1R  
Heatspreader for ESM-SKLU/ESM-KBLU H=10.9mm