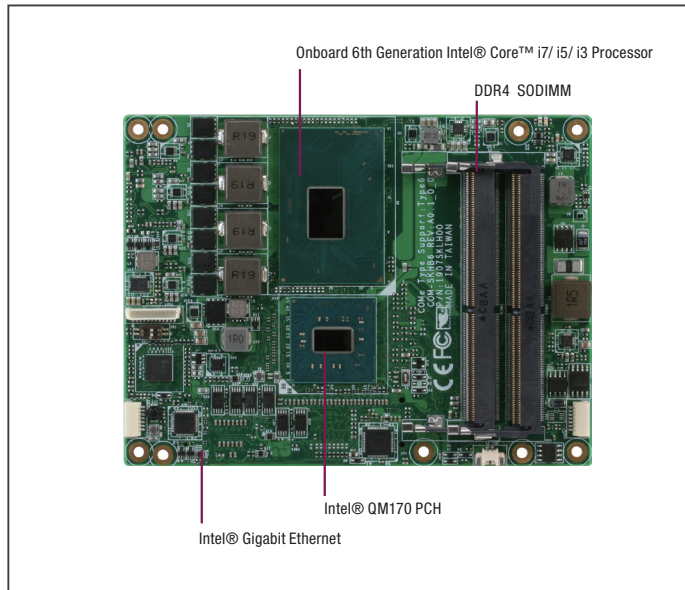


COM Express Type 6 Basic Size with 6th/7th Gen Intel® Core™ i-series Processor



Features

- Intel® Core™ i3/i5/i7 Processor with PCH QM170/CM236
- DDR4 SODIMM x 2, up to 32 GB, ECC Supports by SKU
- Gigabit Ethernet x 1
- 18/24-bit Dual Channel LVDS LCD/eDP, DDI x 2 (up to 3), VGA, High Definition Audio Interface
- SATA x 4
- USB 2.0 x 8, USB 3.0 x 4, GPIO 8-bit, PCI-Express [x1] x 8, PCI-Express [x16] x 1
- COM Express Type 6 Basic Size 125mm x 95mm

Specifications

System	
Form Factor	COM Express Basic Size
CPU	i7-6820EQ 4c/2.7 GHz i3-6100E 2c/2.7 GHz XEON E3-1505M-V6
CPU Frequency	Up to XEON E3-1505MV6 4C/3.0 GHz
Chipset	PCH QM170 or CM236 (by sku)/CM238
Memory Type	DDR4, SODIMM x 2, ECC Supports with CM236/CM238 sku only, up to 2133
Max. Memory Capacity	32GB
BIOS	AMI BIOS, Legacy Free
Wake on LAN	Yes
Watchdog Timer	255 levels
Power Requirement	Standard: +12V
Power Supply Type	AT/ATX Selection
Power Consumption (Typical)	Intel i7-6820EQ 2.8GHz, DDR4 16GB 3.08A@12V
Dimension (L x W)	4.92" x 3.75" (125mm x 95mm)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)
Operating Humidity	10% ~90% relative humidity, non-condensing
MTBF (Hours)	80,000
Certification	CE/FCC Class A
Display	
VGA/LCD Controller	Onboard 6th Gen Intel® Core™ H-series Processor, GT2
Video Output	VGA, LVDS/eDP, DDI x2
I/O	
Ethernet	Intel® I219, Gigabit Ethernet
Audio	HD Audio
USB Port	USB 2.0 x 8, USB 3.0 x 4
Serial Port	2-Wire UART (Tx/Rx) x 2
HDD Interface	SATA x 4
Onboard SSD	—
Expansion Slot	PCIe[x16] x 1, PCIe[x1] x 8, I2C, LPC, SMBus
GPIO	GPIO 8-bit
TPM	Optional



Packing List

- M2.5 Screw x 5
- COM-SKHB6 or COM-KBHB6

Optional Accessories

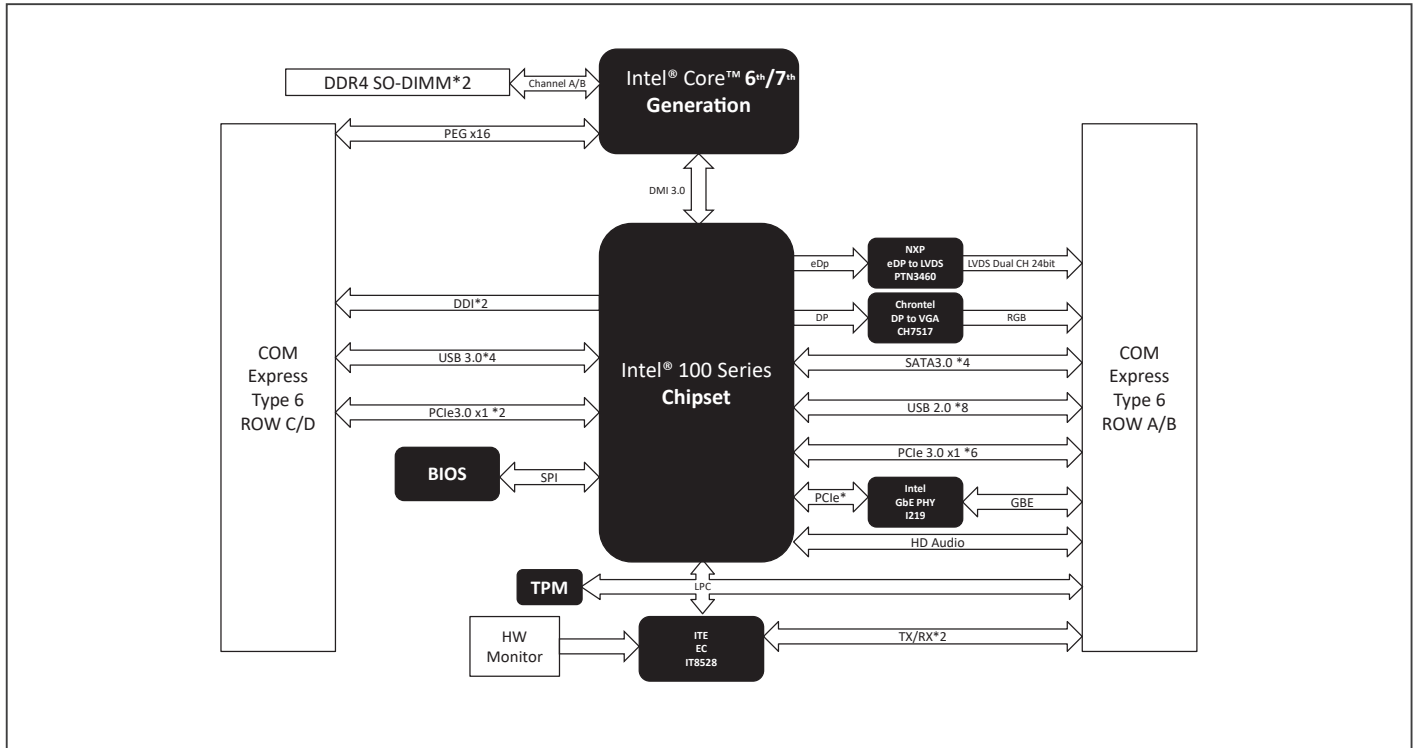
- **ECB-920A-A10-0001**
COM Express Type 1/6/10 Carrier Board, Gigabit Ethernet, USB, 2 COM, 4 SATA, PCIe, AT/ATX, Legacy Free, Rev. A1.0
- **COM-FAN01**
CPU Cooler, 125 x 95 x 26.4mm, Silver, use with HSP
- **COM-SKHB6-HSP01**
Heat Spreader, For COM-SKHB6, Onboard CPU

CPU Supports Chart

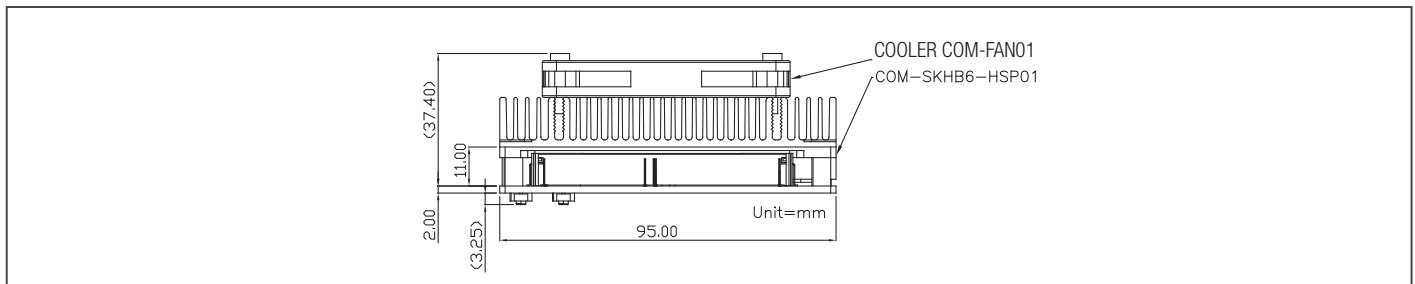
CPU	Base Frequency/ Turbo Boost GHz	Core/ Thread	Last level Cache	ECC Support/ Chipset	TDP	Graphic
E3-1505M v5	2.8/3.7	4/8	8M	Yes/CM236	45W/35W	GT2 - P530
E3-1505L v5	2/2.8	4/8	8M	Yes/CM236	25W	GT2 - P530
i7-6820EQ	2.8/3.5	4/8	8M	—	45W/35W	GT2 - P530
i7-6822EQ	2.0/2.8	4/8	8M	—	25W	GT2 - P530
i5-6440EQ	2.7/3.4	4/4	6M	—	45W/35W	GT2 - P530
i5-6442EQ	1.9/2.7	4/4	6M	—	25W	GT2 - P530
i3-6100E	2.7	2/4	3M	Yes/CM236	35W	GT2 - P530
i3-6102E	1.9	2/4	3M	Yes/CM236	25W	GT2 - P530
C-63900E	2.4	2/2	2M	—	35W	GT1 - 510
C-63902E	1.6	2/2	2M	—	25W	GT1 - 510

* Also equivalent to 7-series CPU

Block Diagram Unit: mm



Dimension Unit: mm



Ordering Information

Part Number	Form Factor	CPU	Memory	Display	LVDS	Storage	LAN	USB	UART	Expansion	Power	Temperature	Other
COM-KBHB6-A10-0004	6 (COM.0 Rev 3.0)	7th Gen. Intel® XEON™ 1505M v6/2.7GHz	CM238	DDR4 SODIMM x2, up to 32GB, ECC support	CRT, LVDS/eDP, DDI x2 (upto 3)	18/24b 2CH (LVDS shared with eDP)	SATA x4	GbE x1	USB 3.0 x4 USB 2.0 x8	2 (Tx/Rx)	PCI-E[x1] x8 PCI-E[x16] x1	12V	—
COM-SKHB6-A10-0001	6 (COM.0 Rev 2.1)	6th Gen. Intel® Core™ i7-6820EQ/2.8GHz	QM170	DDR4 SODIMM x2, up to 32GB	CRT, LVDS/eDP, DDI x2 (upto 3)	18/24b 2CH (LVDS shared with eDP)	SATA x4	GbE x1	USB 3.0 x4 USB 2.0 x8	2 (Tx/Rx)	PCI-E[x1] x8 PCI-E[x16] x1	12V	—
COM-SKHB6-A10-0003	6 (COM.0 Rev 2.1)	6th Gen. Intel® Core™ i3-6100E/2.7GHz	CM236	DDR4 SODIMM x2, up to 32GB, ECC support	CRT, LVDS/eDP, DDI x2 (upto 3)	18/24b 2CH (LVDS shared with eDP)	SATA x4	GbE x1	USB 3.0 x4 USB 2.0 x8	2 (Tx/Rx)	PCI-E[x1] x8 PCI-E[x16] x1	12V	—

*Other CPU sku or combination can be supported as well.