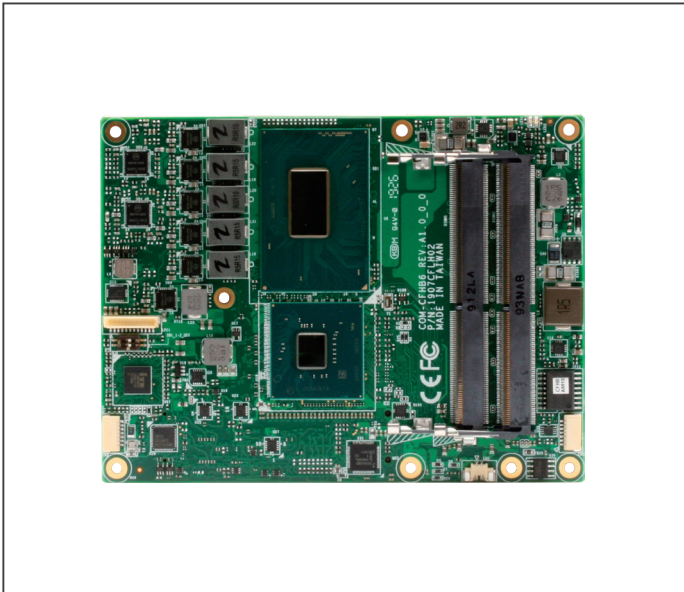


COM Express Type 6 Basic Size with 8th/9th Generation Intel® Core™ H-Series / Xeon™ Processors



Features

- Intel® Coffee Lake-H 8th / 9th Generation i3/i5/i7/ Xeon-E Processors
- 3x SODIMM DDR4 2666 Memory up to 48GB, ECC support (by SKU, with CM246 PCH)
- Intel I219 Gigabit Ethernet
- VGA, 18/24-bit 2ch LVDS or 4-lane eDP, DDI up to 3
- High Definition Audio Interface
- SATA x 4, USB2.0 x 8, USB 3.0 X 4
- PCI-Express [x1] x 8, PCI-Express[x16] x1
- GPIO x 8, SMBus, I2C, LPC
- COM Express Basic Size, Pin-Out Type 6, 125mmx95mm



Specifications

System	
Form Factor	COM Express Basic Size, Type 6
CPU	8th/9th Gen Intel® Core™ / Xeon™-E Series Processor (i7-8850H / i5-8400H / i3-8100H / Xeon™-E2176M)
CPU Frequency	Up to Xeon-E2176M, 6c/ 2.7GHz
Chipset	Intel® QM370/CM246 PCH
Memory Type	S0-DIMM DDR4 2666 Socket x 3
Max. Memory Capacity	up to 48GB,ECC Support (only with CM246 PCH)
BIOS	AMI BIOS, Legacy free BIOS
Wake on LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	Normal: +12V
Power Supply Type	AT/ATX Selection
Power Consumption (Typical)	Intel® Xeon® E-2176M CPU @2.70GHz, DDR4 16GB x 3, Full load: 62.4W, 5.2A@12V
Dimension (L x W)	4.92" x 3.75" (125mm x 95mm)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C) -20°C ~ 70°C by screening
Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)
Operating Humidity	10% ~ 95% relative humidity, non-condensing
MTBF (Hours)	80,000
Certification	CE/FCC Class A
Display	
VGA/LCD Controller	Intel® GT2-P630 (E2176M) / GT2-630 (i7/i5/i3 Series)
Video Output	VGA, 18/24b 2ch LVDS/eDP, DDI x 2 (3rd one can be added if VGA not require)
LVDS Interface	Supports 18-bit and 24-bit dual channel
I/O	
Ethernet	Intel® Ethernet I219 GbE x1
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 3 x 4
Onboard Storage	—
Expansion Slot	PCIe [x1] x 8 PCIe [x16] x 1 LPC x1 SMBUS x 1 2-wire UART x 2
GPIO	8-bit
TPM	Support 1.2 / 2.0 (Optional)

Packing List

- COM-CFHB6-A10

Optional Accessories

- **ECB-920A-A10-0001**
COMe Type 1/6/10. Carrier Board.ATX.GbE.8USB, 2COM.4SATA.PCIE.AT/ATX.Legacy Free.Rev. A.10
- **COM-CFHB6-FAN01**
CPU Cooler.FAN+Heat Sink.125*95*41.55mm for COM-CFHB6
- **COM-CFHB6-HSP01**
Heat Spreader.125*95.Black.COM-CFHB6
- **COM-FAN01**
CPU Cooler.125*95.Silver.use w/HSP

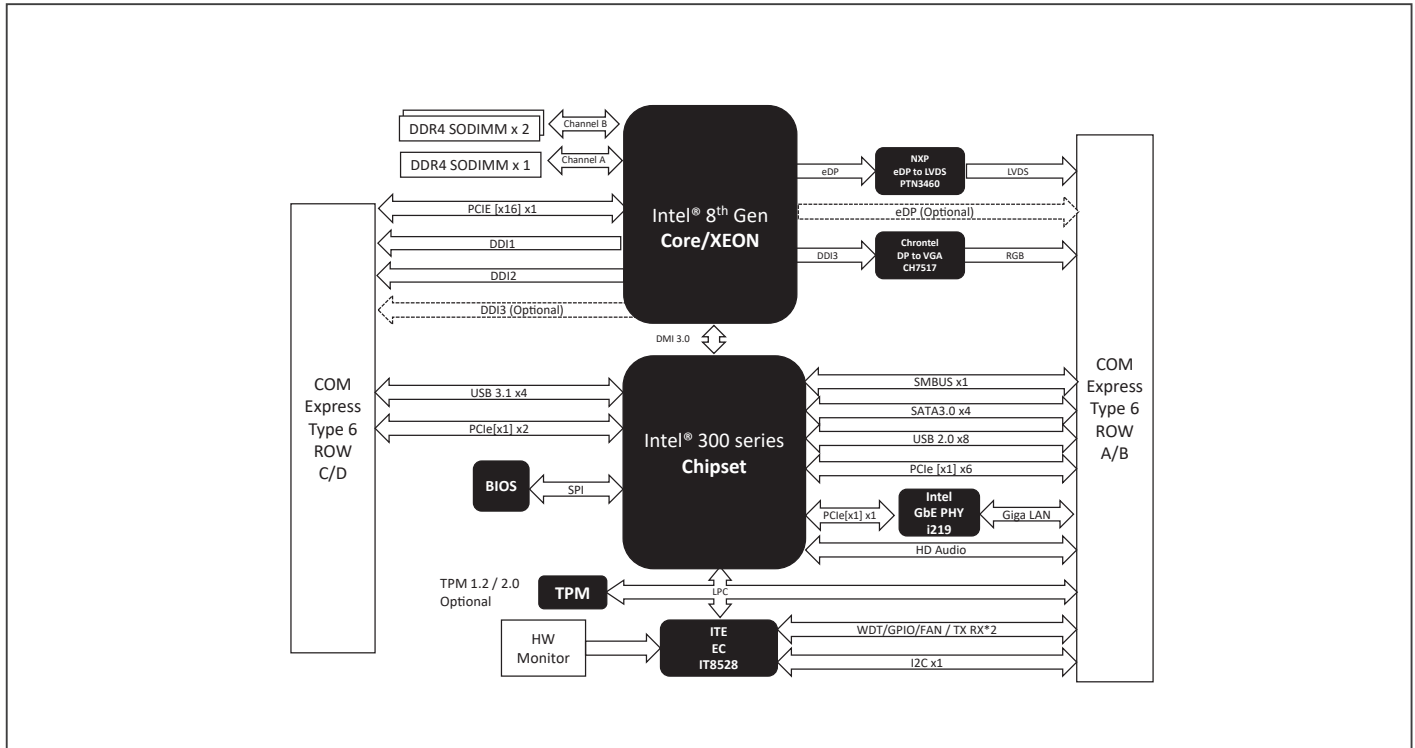
CPU Support Matrix

CPU	Core/Thread. Base Clock/Turbo	Cache	ECC Support	Graphic	Chipset
XEON E-2176M	6c/12t 2.7GHz/4.4GHz	12M	V	GT2-P630	CM246
i7-8850H	6c/12t 2.6GHz/4.3GHz	9M	X	GT2-630	QM370
i5-8400H	4c/8t 2.5GHz/4.2GHz	8M	X	GT2-630	QM370
i3-8100H	4c/4t 3.0GHz	6M	X	GT2-630	QM370

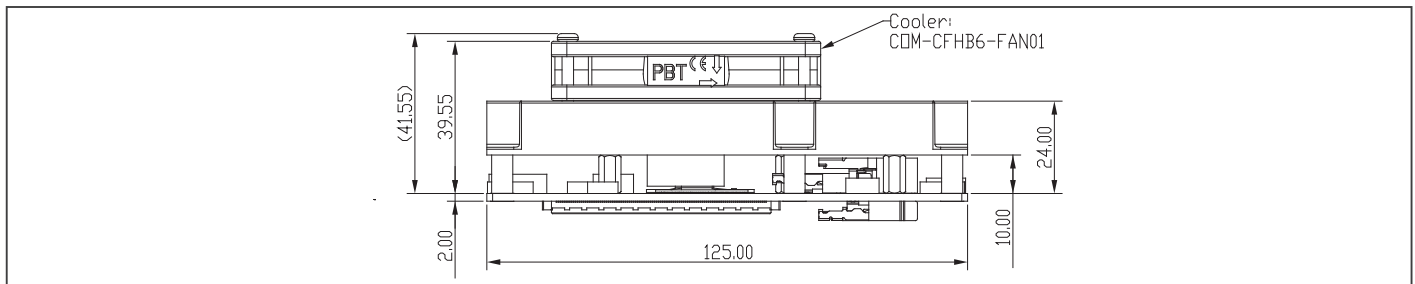
CPU Support Matrix 2

CPU	Core/Thread. Base Clock/Turbo	Cache	ECC Support	Graphic	Chipset
XEON E-2276ME/ML	6c/12t ; HE:2.8GHz/4.5GHz ;HL:2.0GHz/4.2GHz	12M	V	GT2-P630	CM246
XEON E-2254ME/ML	4c/8t; HE:2.6GHz/3.8GHz; HL:1.7GHz/3.5GHz	8M	V	GT2-P630	CM246
i7-9850HE/HL	6c/12t; HE:2.7GHz/4.4GHz; HL:1.9GHz/4.1GHz	9M	X	GT2-630	QM370
i3-9100HL	4c/4t; 3.0GHz	6M	V	GT2-630	CM246

Block Diagram Unit: mm



Dimension Unit: mm



Ordering Information

Part Number	COM Express Type	CPU	Memory	Display	LVDS	Storage	LAN	USB	UART	Expansion	Power	Temperature	Other
COM-CFHB6-A10-0001	Type 6	Xeon E-2176M	DDR4 SO-DIMM x 3	VGA, DDIx2 (up to 3)	18/24b 2ch LVDS/eDP	SATAIII x4	GbE x1	USB 2.0 x8 USB 3.1 x4	2-wire (Tx/Rx) x 2	PCIe [x1] x 8 PCIe[x16] x1 LPC x1 SMBUS x 1	+12V	0°C ~ 60°C	—
COM-CFHB6-A10-0002	Type 6	i7-8850H	DDR4 SO-DIMM x 3	VGA, DDIx2 (up to 3)	18/24b 2ch LVDS/eDP	SATAIII x4	GbE x1	USB 2.0 x8 USB 3.1 x4	2-wire (Tx/Rx) x 2	PCIe [x1] x 8 PCIe[x16] x1 LPC x1 SMBUS x 1	+12V	0°C ~ 60°C	