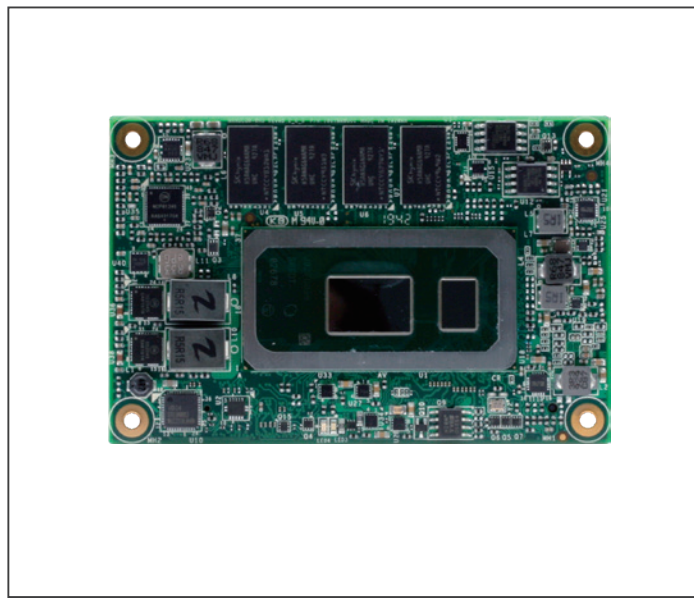


NanoCOM-WHU Preliminary

COM Express Type 10 with 8th Generation Intel® Core™ ULT Series Processor

COM Express CPU Modules



Features

- 8th Generation Intel® Core™/Celeron™ ULT Processor
- Onboard DDR4 memory, up to 8GB
- Gigabit Ethernet x 1
- eDP, DDI x 1
- High Definition Audio Interface
- SATA3 x 2, eMMC onboard (up to 64GB)
- USB 3.2 x 2, USB 2.0 x 8
- PCI-Express [x1] x 4
- GPIO x8, SMBus, I2C, LPC
- COM Express Type 10, Mini size, 84mm x 55mm

Specifications

System	
Form Factor	COM Express Mini size, 84mm x 55mm
CPU	8th Generation Intel® Core™ ULT Series Processor
CPU Frequency	—
Chipset	Onboard 8th Generation Intel® Core™ SoC
Memory Type	Onboard DDR4-2400/2133, non ECC support.
Max. Memory Capacity	Up to 8GB
BIOS	AMI BIOS, Legacy free BIOS
Wake on LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	Standard: +12V
Power Supply Type	AT Mode
Power Consumption (Typical)	TBD
Dimension (L x W)	3.31" x 2.17" (84 mm x 55 mm)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	TBD
Certification	CE/FCC Class A
Display	
VGA/LCD Controller	Intel® UHD Graphics 620 / 610
Video Output	eDP, DDI x 1
LVDS Interface	—
I/O	
Ethernet	Intel® I219 GbE x 1
Audio	HD Audio x 1
USB port	USB 2.0 x 8, USB 3.2 x 2
Serial Port	2-wire UART x 2 (TX/RX)
HDD Interface	SATA3 x 2
Onboard Storage	eMMC
Expansion Slot	PCIe [x1] x4, I2C, LPC, SMBus
GPIO	8-bit
TPM	fTPM



Packing List

- NanoCOM-WHU

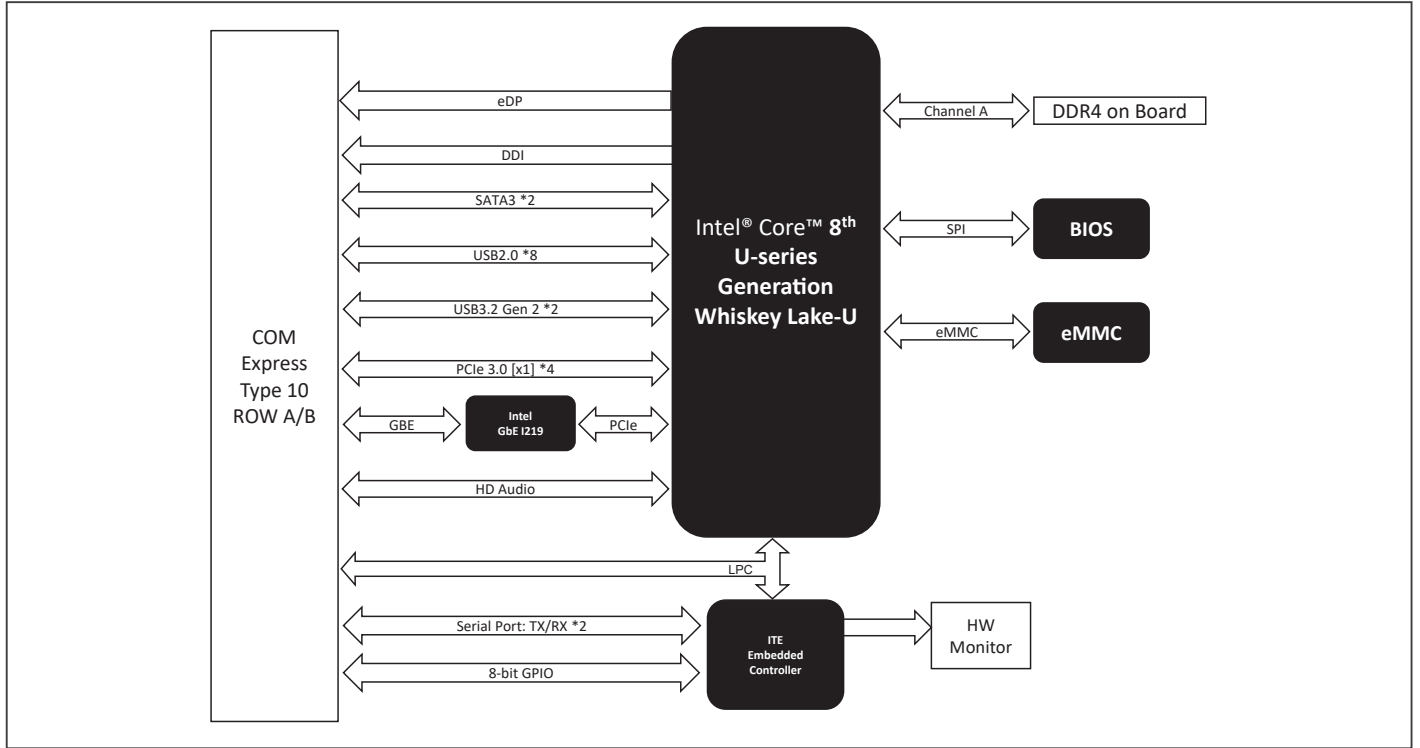
Optional Accessories

- **ECB-920A-A10-0001**
COM Type 1/6/10 Carrier Board, ATX, GbE, 8 USB, 2 COM, 4 SATA, PCIe, AT/ATX, Legacy Free, Rev. A1.0
- **NanoCOM-WHU-HSP01**
Heat Spreader, 84 x 55 x 11 mm, Black, NanoCOM-WHU
- **NanoCOM-WHU-FAN01**
CPU Cooler, 84 x 55 x 18 mm, Black, NanoCOM-WHU

CPU Support Chart

CPU	Core / Thread	Base Frequency	Max Turbo Frequency	Graphic
i7-8665UE	4c / 8t	1.70 GHz	4.40 GHz	Intel® UHD Graphics 620
i5-8365UE	4c / 8t	1.60 GHz	4.10 GHz	Intel® UHD Graphics 620
i3-8145UE	2c / 4t	2.20 GHz	3.90 GHz	Intel® UHD Graphics 620
Celeron 4305UE	2c / 2t	2.00 GHz	2.00 GHz	Intel® UHD Graphics 610

Block Diagram Unit: mm



Dimension Unit: mm



Ordering Information

Part Number	COM Express Type	CPU	Memory	Display	LVDS	Storage	LAN	USB	UART	Expansion Slot	Power	Power Temp	Others
NANOCOM-WHU-A10-0001	Type 10	i7-8665UE	Onboard DDR4 8GB	eDP, DDI x 1	—	SATA3 x 2 eMMC 64GB	GbE x 1	USB 2.0 x 8 USB 3.2 x 2	2-Wire (Tx/Rx) x 2	PCIe [x1] x 4, I2C x 1, LPC x 1, SMBUS x 1	+12V	0°C ~ 60°C	—
NANOCOM-WHU-A10-0002	Type 10	i5-8365UE	Onboard DDR4 8GB	eDP, DDI x 1	—	SATA3 x 2 eMMC 64GB	GbE x 1	USB 2.0 x 8 USB 3.2 x 2	2-Wire (Tx/Rx) x 2	PCIe [x1] x 4, I2C x 1, LPC x 1, SMBUS x 1	+12V	0°C ~ 60°C	—
NANOCOM-WHU-A10-0003	Type 10	i3-8145UE	Onboard DDR4 8GB	eDP, DDI x 1	—	SATA3 x 2 eMMC 64GB	GbE x 1	USB 2.0 x 8 USB 3.2 x 2	2-Wire (Tx/Rx) x 2	PCIe [x1] x 4, I2C x 1, LPC x 1, SMBUS x 1	+12V	0°C ~ 60°C	—
NANOCOM-WHU-A10-0004	Type 10	Celeron 4305UE	Onboard DDR4 4GB	eDP, DDI x 1	—	SATA3 x 2 eMMC 32 GB	GbE x 1	USB 2.0 x 8 USB 3.2 x 2	2-Wire (Tx/Rx) x 2	PCIe [x1] x 4, I2C x 1, LPC x 1, SMBUS x 1	+12V	0°C ~ 60°C	—