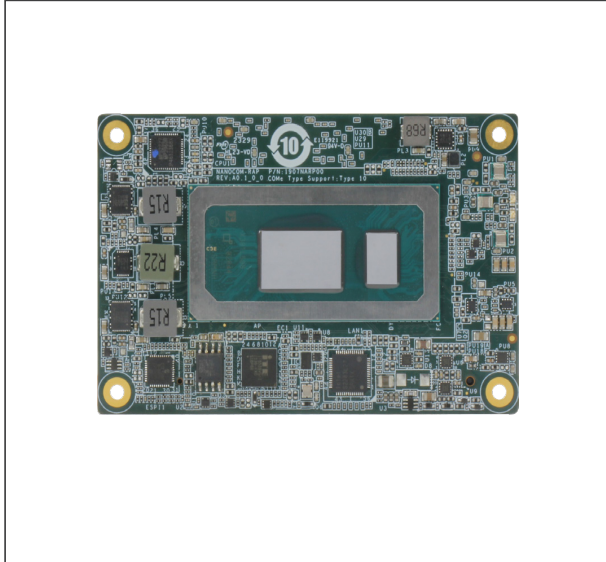


NanoCOM-RAP

COM Express Type 10 with 13th Generation Intel® Core™ U-series Processors

COM Express CPU Modules



Features

- Onboard LPDDR5, up to 16GB
- Onboard NVMe, up to 128GB (Optional)
- eDP x 1, DDI x 1
- USB 2.0 x 8, USB 3.2 Gen 2 x 2
- PCIe [x1] x 4
- Intel® I226-IT GbE x 1
- COM Express Type 10, 3.31" x 2.17" (84mm x 55mm)



Specifications

System	
Form Factor	COM Express Mini Size, Type 10
CPU	13th Generation Intel® Core™ U-series Processors: Intel® Core™ i7-1365UE (10C/12T, 1.70 GHz, 15W) Intel® Core™ i5-1335UE (10C/12T, 1.30 GHz, 15W) Intel® Core™ i3-1315UE (6C/8T, 1.20 GHz, 15W) Intel® Processor U300E (5C/6T, 1.10 GHz, 15W)
Chipset	Integrated with Intel® SoC
Memory	Onboard LPDDR5, up to 16GB
Onboard Storage	NVMe, up to 128GB (Optional)
BIOS	AMI UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Dimension	3.31" x 2.17" (84mm x 55mm)
Security	TPM2.0
Power	
Power Requirement	+9V-15V and +5VSB for ATX, +9-15V for AT
Power Type	AT/ATX
Power Consumption (Typical)	Intel® Core™ i7-1365UE, LPDDR5 16GB, 2.82A@ +12V
Display	
Graphics Controller	Intel® UHD Graphics for 13th Gen Intel® Processors
Video Output	Dual Display: DDI x 1, up to 3840 x 2160 eDP x 1, up to 3840 x 2160 @60Hz
I/O	
Ethernet	Intel® I226-IT 2.5GbE x 1
Audio	High Definition Audio Interface
USB Port	USB 2.0 x 8, USB 3.2 Gen 2 x 2
Serial Port	2-Wire UART x 2 (Tx/Rx)
HDD Interface	SATA 6Gb/s x 2

Expansion	PCIe [x1] x 4 LPC x 1
GPIO	8-bit
SMBus/I2C	I2C x 1, SMBus x 1
Environment	
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C) WITAS 2: -40°F ~ 185°F (-40°C ~ 85°C) on selected CPU SKU
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
EMC	CE/FCC Class A
OS Support	Windows® 10 (64-bit) Linux Ubuntu 22.04.2/Kernel 5.19
Weight	0.15 lb. (0.07Kg)

Packing List

- NANOCOM-RAP

Optional Accessories

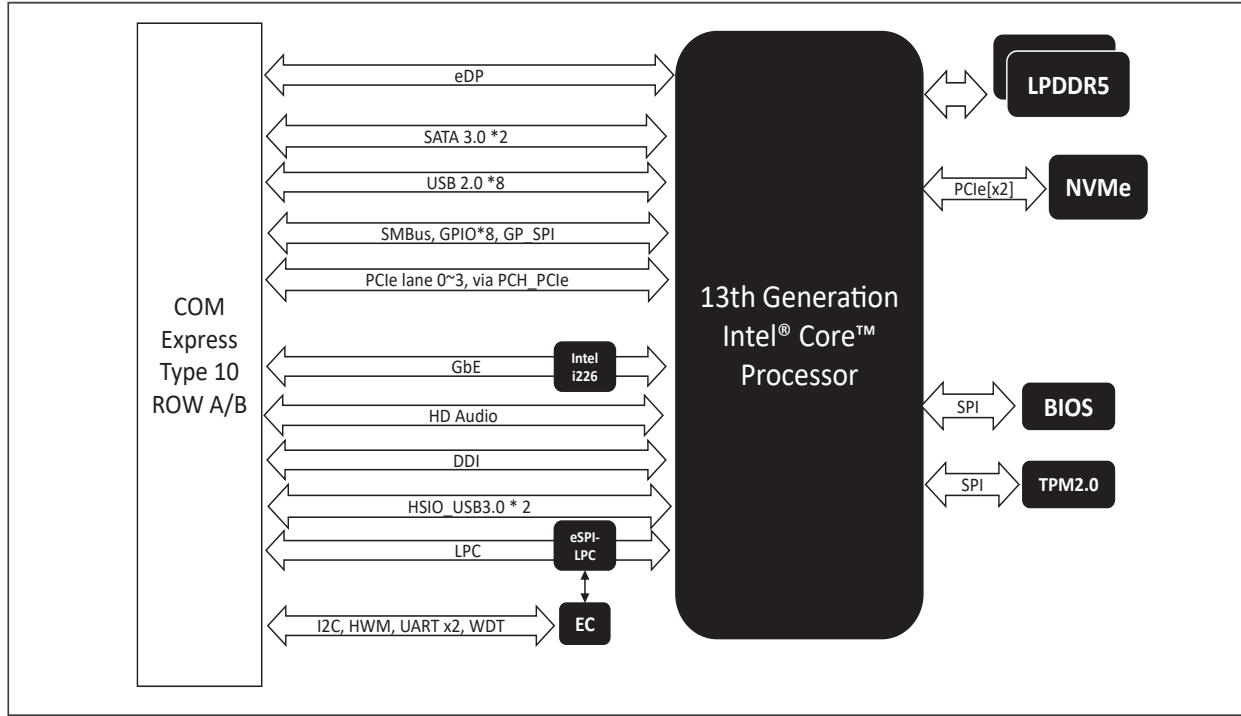
Part Number	Description
ECB-920A-A11-0001	COMe Type 6/10 Carrier Board. ATX. 2.5GbE. 8USB. 2COM. 4SATA. PCIe. AT/ATX. Rev. A1.1
NANOCOM-RAP-HSP01	Heat Spreader. 84 x 55 x 11 mm. Black
NANOCOM-RAP-FAN01	Cooler. 84 x 55 x 18 mm. 4pin.

NanoCOM-RAP

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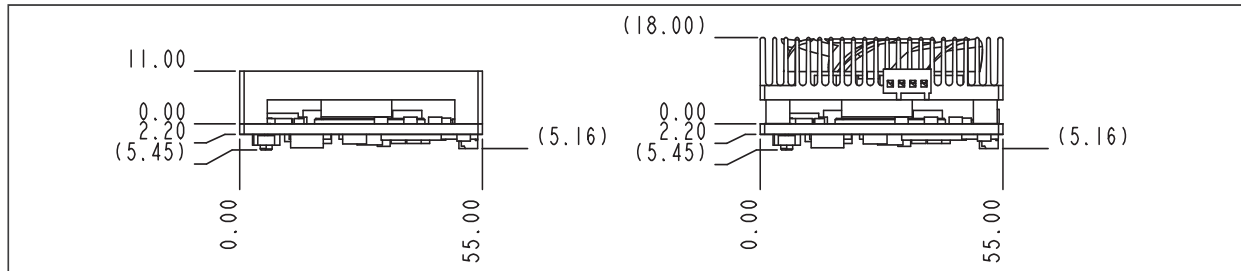
COM Express CPU Modules

Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	COM Express Type	CPU	Memory	ECC support	Display	Storage	LAN	USB	UART	Expansion	Power	Temperature	Others
NANOCOM-RAP-A10-0001	Type 10	Intel® Core™ i7-1365UE	16GB Onboard LPDDR5x	—	eDP x 1, DDI x 1	SATA III x 2 128GB NVMe	Intel® I226-IT x 1	USB 3.2 Gen 2 x 2 USB 2.0 x 8	2-Wire UART x 2 (Tx/Rx)	PCIe [x1] x 4	9V-15V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C, SMBus
NANOCOM-RAP-A10-0002	Type 10	Intel® Core™ i5-1335UE	16GB Onboard LPDDR5x	—	eDP x 1, DDI x 1	SATA III x 2 128GB NVMe	Intel® I226-IT x 1	USB 3.2 Gen 2 x 2 USB 2.0 x 8	2-Wire UART x 2 (Tx/Rx)	PCIe [x1] x 4	9V-15V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C, SMBus
NANOCOM-RAP-A10-0003	Type 10	Intel® Core™ i3-1315UE	8GB Onboard LPDDR5x	—	eDP x 1, DDI x 1	SATA III x 2 64GB NVMe	Intel® I226-IT x 1	USB 3.2 Gen 2 x 2 USB 2.0 x 8	2-Wire UART x 2 (Tx/Rx)	PCIe [x1] x 4	9V-15V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C, SMBus
NANOCOM-RAP-A10-0004	Type 10	Intel® Processor U300E	8GB Onboard LPDDR5x	—	eDP x 1, DDI x 1	SATA III x 2 64GB NVMe	Intel® I226-IT x 1	USB 3.2 Gen 2 x 2 USB 2.0 x 8	2-Wire UART x 2 (Tx/Rx)	PCIe [x1] x 4	9V-15V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C, SMBus
NANOCOM-RAPW2-A10-0001	Type 10	Intel® Core™ i7-1365URE	16GB Onboard LPDDR5x	—	eDP x 1, DDI x 1	SATAIII x 2 128GB NVMe	Intel® I226-IT x 1	USB 3.2 Gen 2 x 2 USB 2.0 x 8	2-Wire UART x 2 (Tx/Rx)	PCIe [x1] x 4	9V-15V	-40°C ~ 85°C	LPC, GPIO 8-bit, I2C, SMBus

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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