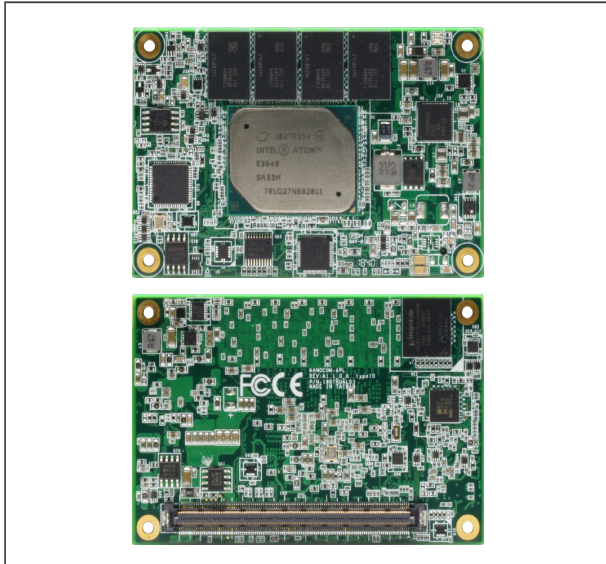


NanoCOM-APL

COM Express Type 10 with Intel Atom® X/Celeron® Processor N/Pentium® Processor N Series Processors

COM Express CPU Modules



Features

- Onboard LPDDR4, up to 8GB
- Onboard eMMC, up to 64GB (Optional)
- LVDS x 1, DDI x 1
- USB 2.0 x 8, USB 3.2 Gen 1 x 2
- PCIe [x1] x 4
- Intel® I211-AT 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	Intel Atom® Processor X Series: Intel Atom® x7-E3950 (4C/4T, 1.60 GHz, 12W) Intel Atom® x5-E3940 (4C/4T, 1.60 GHz, 9.5W) Intel Atom® x5-E3930 (2C/2T, 1.30 GHz, 6.5W) Intel® Celeron® Processor N Series: Intel® Celeron® Processor N3350 (2C/2T, 1.10 GHz, 6W) Intel® Pentium® Processor N Series: Intel® Pentium® Processor N4200 (4C/4T, 1.10 GHz, 6W)
Chipset	Integrated with Intel® SoC
Memory	Onboard LPDDR4 1866MHz, up to 8GB
Onboard Storage	eMMC, up to 64GB (Optional)
BIOS	AMI UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Dimension	3.31" x 2.17" (84mm x 55mm)
Security	fTPM
Power	
Power Requirement	+12V and +5VSB for ATX, +12V for AT
Power Type	AT/ATX
Power Consumption (Typical)	Intel Atom® x7-E3950, 0.82A @12V
Display	
Graphics Controller	Intel® HD Graphics 500 Intel® HD Graphics 505
Video Output	Dual Display: DDI x 1, up to 3840 x 2160 18/24-bit Single-Channel LVDS/eDP x 1, up to 1366 x 768
I/O	
Ethernet	Intel® I211-AT GbE x 1
Audio	High Definition Audio Interface

USB Port	USB 2.0 x 8, USB 3.2 Gen 1 x 2
Serial Port	2-Wire UART x 2 (Tx/Rx)
HDD Interface	SATA III x 2
Expansion	PCIe 2.0 [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)
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 20.04.3/Kernel 5.11.0
Weight	0.15 lb. (0.07Kg)

Packing List

- NANOCOM-APL

Optional Accessories

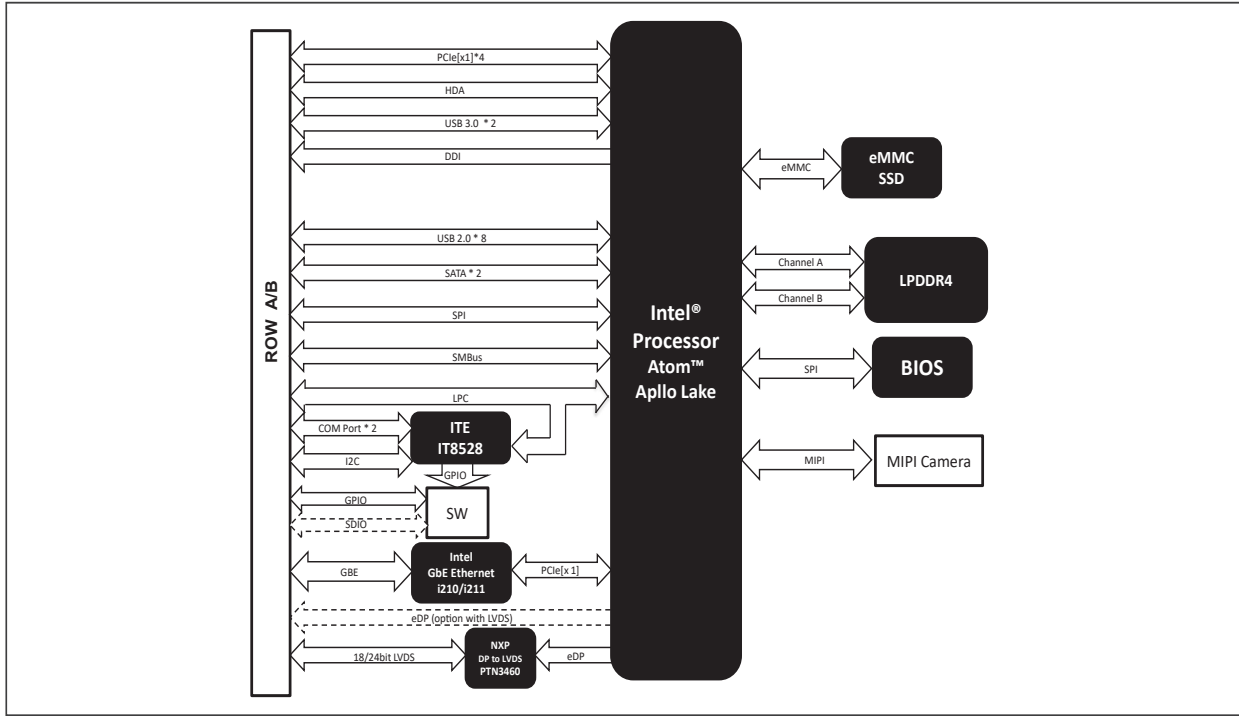
Part Number	Description
ECB-920A-A11-0001	COMe Type 6/10 Carrier Board. ATX. 2.5GbE. 8USB. 2COM. 4SATA. PCIe. AT/ATX. Rev. A1.1
NanoCOM-APL-E-HSP01	Heat Spreader. 84 x 55 x 11 mm. Black. NanoCOM-APL For E39xx CPU only
NanoCOM-APL-N-HSP01	Heat Spreader. 84 x 55 x 11 mm. Black. NanoCOM-APL For Nxxx CPU only
NANOCOM-APL-E-FAN01	Cooler. 84 x 55 x 18mm. 4pin. NanoCOM-APL E39XX Series

NanoCOM-APL

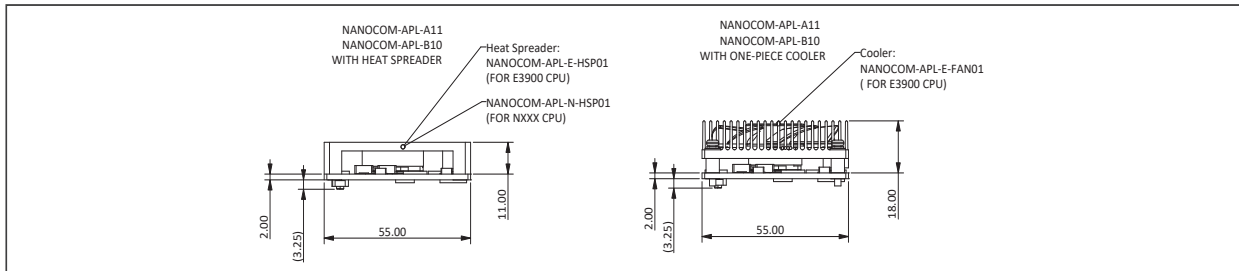
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COM Express CPU Modules

Block Diagram Unit: mm



Dimension Unit: mm



Ordering Information

Part Number	COM Express Type	CPU	Memory	ECC support	Display	Storage	LAN	USB	UART	Expansion	Power	Temperature	Others
NANOCOM-APL-A11-F001	Type 10	Intel® Pentium® Processor N4200	4GB Onboard LPDDR4	—	LVDS x 1, DDI x 1	SATA III x 2, 32GB eMMC	Intel® I211-AT x 1	USB 3.2 Gen 1 x 2 USB 2.0 x 8	2-Wire UART x 2 (Tx/Rx)	PCIe [x1] x 4	12V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C, SMBus
NANOCOM-APL-A11-F002	Type 10	Intel® Celeron® Processor N3350	4GB Onboard LPDDR4	—	LVDS x 1, DDI x 1	SATA III x 2, 32GB eMMC	Intel® I211-AT x 1	USB 3.2 Gen 1 x 2 USB 2.0 x 8	2-Wire UART x 2 (Tx/Rx)	PCIe [x1] x 4	12V	0°C ~ 60°C	LPC, GPIO 8-bit, I2C, SMBus
NANOCOM-APL-A11-F003	Type 10	Intel Atom® x7-E3950	8GB Onboard LPDDR4	—	LVDS x 1, DDI x 1	SATA III x 2, 64GB eMMC	Intel® I211-AT x 1	USB 3.2 Gen 1 x 2 USB 2.0 x 8	2-Wire UART x 2 (Tx/Rx)	PCIe [x1] x 4	12V	0°C ~ 60°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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