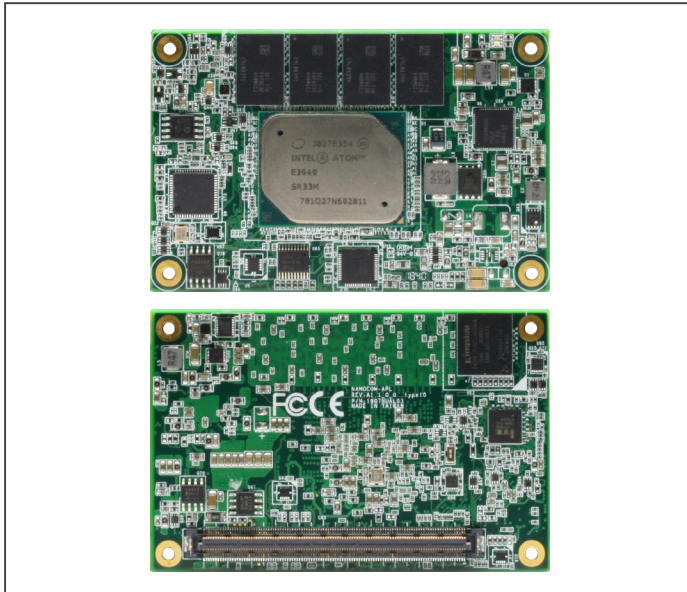


NanoCOM-APL

COM Express Type 10 CPU Module with Onboard Intel® Atom™/Celeron®/Pentium® Processor



Features

- Intel® Atom™/Celeron®/Pentium® Processor
- Onboard Memory LPDDR4 up to 8GB
- Intel I210/I211 Gigabit Ethernet x 1
- 18/24-bit Single Channel LVDS/eDP, DDI x 1
- SATA3 x2 , Onboard eMMC up to 64GB (Optional)
- USB 2.0 x 8 , USB 3.2 Gen 1 x 2
- PCIe [x1] x 4
- COM Express Mini Size, Type 10, COM.0 R2.1



Specifications

System	
Form Factor	COM Express Mini Size, Type 10
CPU	Intel® Atom™/Celeron®/Pentium® Processor
CPU Frequency	Up to J1900, 2.00GHz
Chipset	Intel® Atom™/Celeron®/Pentium® SoC
Memory Type	Onboard LPDDR4 up to 2400 MT/s
Max. Memory Capacity	Up to 8GB
BIOS	AMI BIOS, Legacy Free
Wake on LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	Standard: +12V
Power Supply Type	AT/ ATX
Power Consumption (Typical)	0.82A@12V, full load, E3950
Dimension (L x W)	3.31" x 2.17" (84mm x 55mm)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C) -40°F ~ 185°F (-40°C ~ 85°C) optional
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	885,779 Hours
Certification	CE/FCC Class A
Display	
Display Controller	Intel® HD Graphic 505/500
Video Output	Dual Display : Single Channel LVDS (18/24bit) or eDP, DDI x 1
I/O	
Ethernet	Intel® I211AT GbE x 1
Audio	High Definition Audio Interface
USB port	USB 2.0 x 8, USB 3.2 Gen 1 x 2
Serial Port	2Wire UART(Tx/Rx) x 2
HDD Interface	SATA3 x 2
Expansion	PCIe [x1] x 4 (up to 3 devices) LPC SMBus I2C
GPIO	GPIO 8-bit
Onboard Storage	Onboard eMMC (Up to 64GB, optional)
TPM	—

Packing List

- NanoCOM-APL

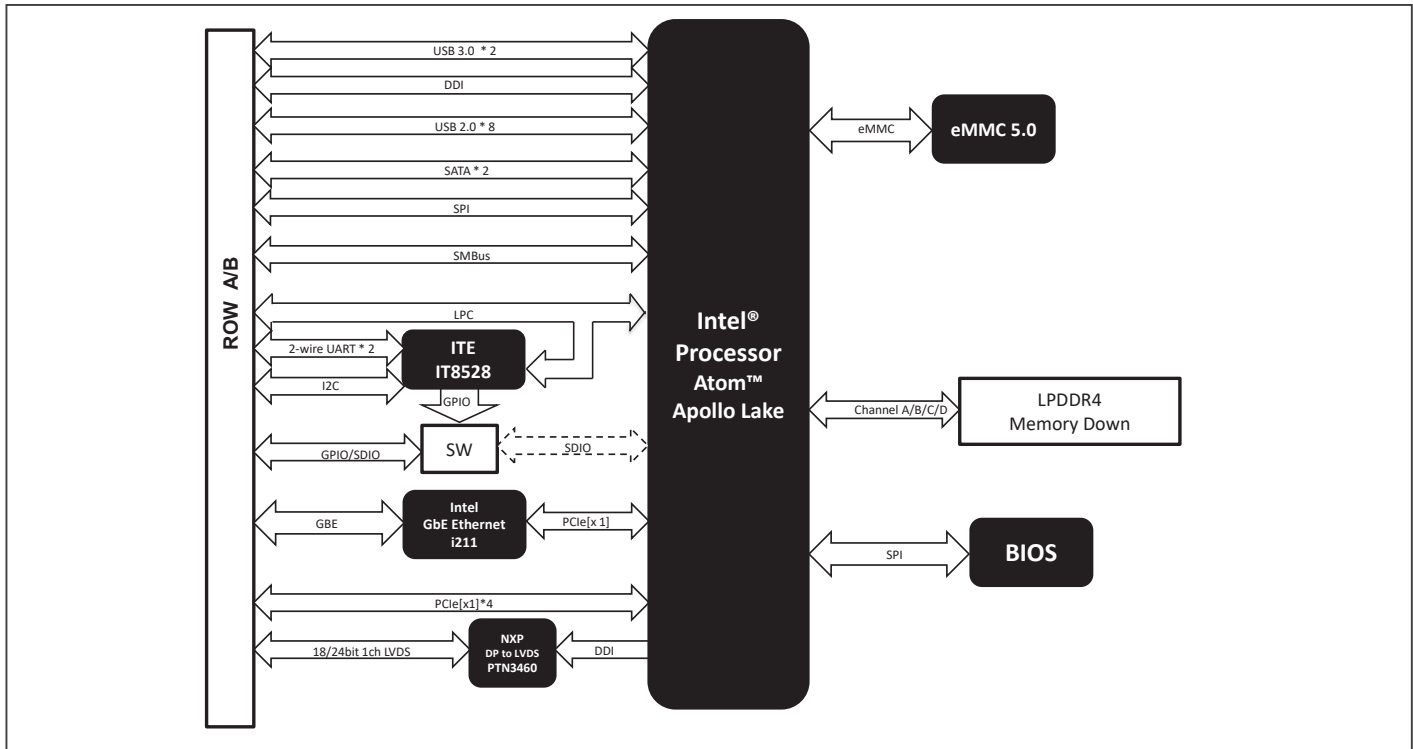
Optional Accessories

- **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-FAN02**
CPU cooler, 84 x 53 x 22.2 mm, Silver, use w/HSP

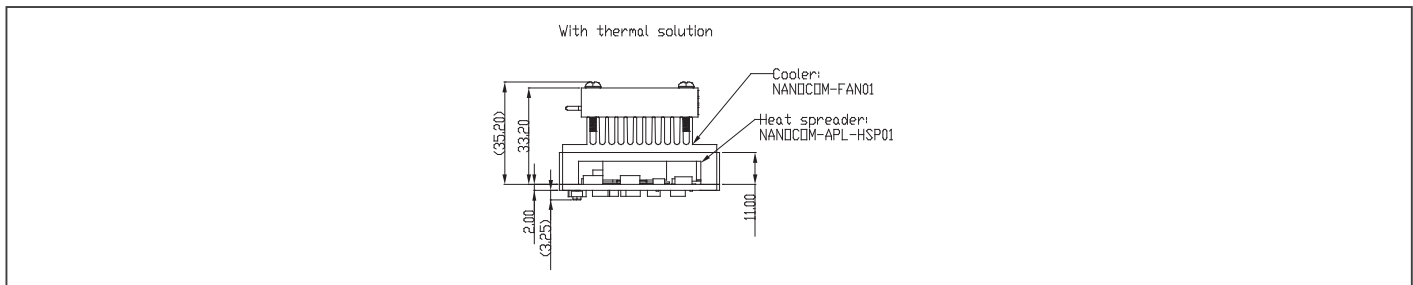
CPU Support Chart

CPU	Core/Thread	Base Frequency/Turbo	TDP	Graphic
N4200	4C/4T	1.10GHz / 2.50GHz	6W	Intel® HD Graphics 505
N3350	2C/2T	1.10GHz / 2.40GHz	6W	Intel® HD Graphics 500
E3950	4C/4T	1.60GHz / 2.00GHz	12W	Intel® HD Graphics 505
E3940	4C/4T	1.60GHz / 1.80GHz	9.5W	Intel® HD Graphics 500
E3930	2C/2T	1.20GHz / 1.80GHz	6.5W	Intel® HD Graphics 500
J3455	4C/4T	1.50GHz / 2.30GHz	10W	Intel® HD Graphics 500
J3355	2C/2T	2.00GHz / 2.50GHz	10W	Intel® HD Graphics 500

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	OTHERS
NANOCOM-APL-A11-F001	Type 10 (COM.0 Rev. 2.1)	N4200	Onboard LPDDR4 4GB	LVDS, DDIx1	18/24bits 1CH LVDS	SATA3 x 2, 32GB eMMC	GbE x 1	USB 3.2 Gen 1 x 2 USB 2.0 x 8	2 (Tx/Rx)	PCIe [x1] x4	12V	0°C - 60°C	LPC, SMBus, I2C
NANOCOM-APL-A11-F002	Type 10 (COM.0 Rev. 2.1)	N3350	Onboard LPDDR4 4GB	LVDS, DDIx1	18/24bits 1CH LVDS	SATA3 x 2, 32GB eMMC	GbE x 1	USB 3.2 Gen 1 x 2 USB 2.0 x 8	2 (Tx/Rx)	PCIe [x1] x4	12V	0°C - 60°C	LPC, SMBus, I2C
NANOCOM-APL-A11-F003	Type 10 (COM.0 Rev. 2.1)	E3950	Onboard LPDDR4 8GB	LVDS, DDIx1	18/24bits 1CH LVDS	SATA3 x 2, 64GB eMMC	GbE x 1	USB 3.2 Gen 1 x 2 USB 2.0 x 8	2 (Tx/Rx)	PCIe [x1] x4	12V	0°C - 60°C	LPC, SMBus, I2C