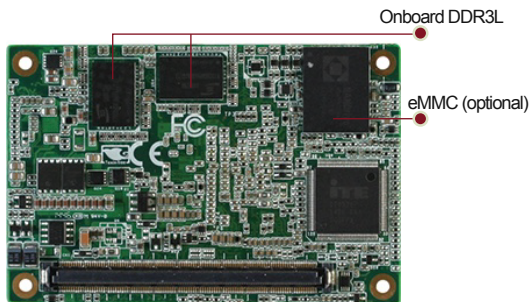
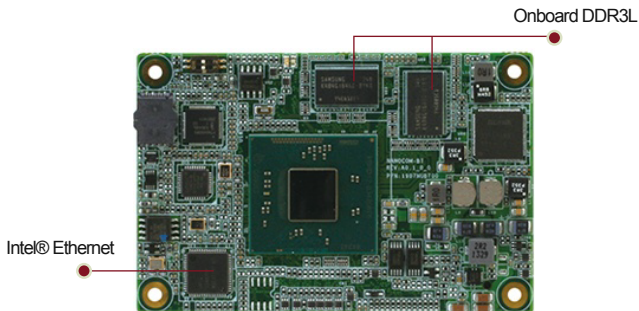
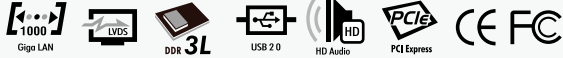


Onyx Single Board Computer Unit

NanoCOM-BT

COM Express Type 10 CPU Module with Onboard Intel® Atom™ SoC Processor



Features

- Intel® Atom™ E3800 Product Family/Celeron® N2000 Series SoC Processor
- Onboard DDR3L 2 GB Memory
- Gigabit Ethernet x 1
- 18/24-bit Single Channel LVDS LCDs, DDI x 1
- High Definition Audio Interface
- SATA x 2, eMMC (Optional)
- USB2.0 x 6 + USB2.0/USB3.0 x 1, GPIO 8-bit, PCI-Express [x1] x 3
- COM Express Pin-out Type 10
- Nano Module Size, 84mm x 55mm , COM.0 Rev. 2.1

Specifications

Main Specifications

Processor	Intel® Atom™ E3800 Product Family/Celeron® N2000 Series N2930: Quad Core 1.83 GHz/ 7.5W, N2807: Dual Core 1.58 GHz/ 4.5W E3845: Quad Core 1.91 GHz/ 10W, E3827: Dual Core 1.73 GHz/ 8W E3826: Dual Core 1.46 GHz/ 7W, E3825: Dual Core 1.33 GHz/ 6W E3815: Single Core 1.46 GHz/ 5W
Form Factor	COM Express Nano Module, Pin-out Type 10, COM.0 Rev. 2.1
System Memory	Onboard DDR3L 2 GB
Chipset	Intel® Atom™ E3800 Product Family/Celeron® N2000 Series SoC CPU
I/O Chipset	Intel® Atom™ E3800 Product Family/Celeron® N2000 Series SoC CPU
Expansion Interface	PCI-Express [x1] x 3, LPC Bus x 1, SMbus x 1
BIOS	AMI BIOS, Legacy free BIOS
Wake on LAN	Yes
Watchdog Timer	ITE IT8528
H/W Status Monitoring	Supports CPU Temperature Monitoring.

I/O

USB	USB2.0 x 6 + USB2.0/USB3.0 x 1
Serial Port	TX/RX x 2
Ethernet	Intel® I211/I210 for 10/1000/1000Base-TX
Parallel Port	—
Storage	SATA x 2, eMMC up to 16 GB (optional)
Audio	High definition audio
Display Chipset	Intel® Atom™ E3800 Product Family/Celeron® N2000 Series SoC CPU
Display Output	Supports CRT/LCD Simultaneous/Dual view display
LCD Interface	18/24-bit single channel LVDS
Resolutions	LCD: Up to 1920 x 1200@ single 24-bit LVD DDI: Up 2560 x 1600 (Display Port)
Memory	Shared system memory up to 512 MB
PS/2 Port	—
GPIO	Up to 4 in and 4 out share with SDIO

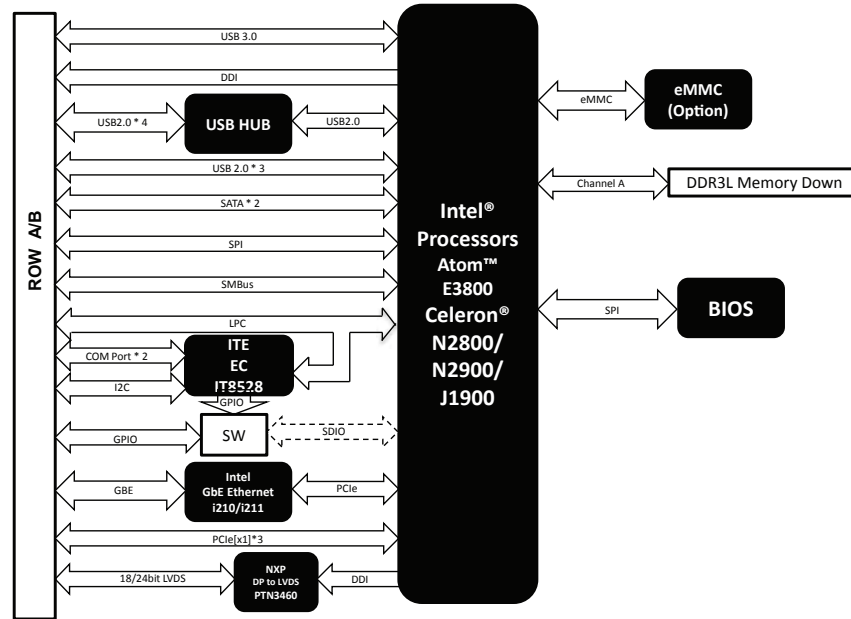
Mechanical and Environmental

Power Requirement	Standard : +7V ~ 20V AT/ATX, Optional: +5V, AT/ATX
Power Consumption (Typical)	Intel® Atom™ E3845 1.91 GHz, DDR3 2 GB, full load 0.7A@12V, 8.4W
Operating Humidity	0% ~ 90% RH, non-condensing
Operating Temperature	32 °F ~ 140 °F (0 °C ~ 60 °C) -40 °F ~ 185 °F (-40 °C ~ 85 °C) by E3800 family
Storage Temperature	-40 °F ~ 176 °F (-40 °C ~ 80 °C)
Gross weight	0.44 lb (0.2 kg)
Dimensions(W x D x H)	3.31" x 2.17"(84mm x 55mm)
MTBF (Hours)	92,000

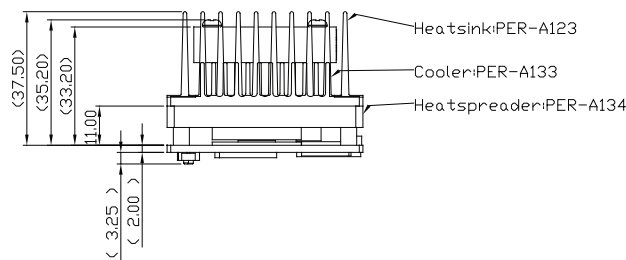
NanoCOM-BT

COM Express Type 10 CPU Module with Onboard Intel® Atom™ SoC Processor

Block Diagram



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-BT-A10-0001	10 (COM.0 Rev. 2.1)	Intel® Celeron® N2930	Onboard DDR3L 2 GB	eDP/ LVDS, DDI	24b, 1CH	SATA x 2	GbE x 1	USB2.0 x 6, USB2.0/USB3.0 x 1	2	PCI-Express [x1] x 3	+12V, AT/ ATX	0°C ~ 60°C	—
NANOCOM-BT-A10-0002	10 (COM.0 Rev. 2.1)	Intel® Celeron® N2807	Onboard DDR3L 2 GB	eDP/ LVDS, DDI	24b, 1CH	SATA x 2	GbE x 1	USB2.0 x 6, USB2.0/USB3.0 x 1	2	PCI-Express [x1] x 3	+12V, AT/ ATX	0°C ~ 60°C	—
NANOCOM-BT-A10-0003	10 (COM.0 Rev. 2.1)	Intel® Atom™ E3845	Onboard DDR3L 2 GB	eDP/ LVDS, DDI	24b, 1CH	SATA x 2	GbE x 1	USB2.0 x 6, USB2.0/USB3.0 x 1	2	PCI-Express [x1] x 3	+12V, AT/ ATX	0°C ~ 60°C	eMMC 16 GB
NANOCOM-BT-A10-0004	10 (COM.0 Rev. 2.1)	Intel® Atom™ E3827	Onboard DDR3L 2 GB	eDP/ LVDS, DDI	24b, 1CH	SATA x 2	GbE x 1	USB2.0 x 6, USB2.0/USB3.0 x 1	2	PCI-Express [x1] x 3	+12V, AT/ ATX	0°C ~ 60°C	—
NANOCOM-BT-A10-0005	10 (COM.0 Rev. 2.1)	Intel® Atom™ E3826	Onboard DDR3L 2 GB	eDP/ LVDS, DDI	24b, 1CH	SATA x 2	GbE x 1	USB2.0 x 6, USB2.0/USB3.0 x 1	2	PCI-Express [x1] x 3	+12V, AT/ ATX	0°C ~ 60°C	—
NANOCOM-BT-A10-0006	10 (COM.0 Rev. 2.1)	Intel® Atom™ E3825	Onboard DDR3L 2 GB	eDP/ LVDS, DDI	24b, 1CH	SATA x 2	GbE x 1	USB2.0 x 6, USB2.0/USB3.0 x 1	2	PCI-Express [x1] x 3	+12V, AT/ ATX	0°C ~ 60°C	eMMC 8 GB
NANOCOM-BT-A10-0007	10 (COM.0 Rev. 2.1)	Intel® Atom™ E3815	Onboard DDR3L 2 GB	eDP/ LVDS, DDI	24b, 1CH	SATA x 2	GbE x 1	USB2.0 x 6, USB2.0/USB3.0 x 1	2	PCI-Express [x1] x 3	+12V, AT/ ATX	0°C ~ 60°C	—