

Onyx Single Board Computer Unit

uCOM-BT

SMARC CPU Module with Onboard Intel® Atom™/Celeron® Processor SoC



Features

- Intel® Atom™ E3800 Product Family Processor SoC
- Onboard DDR3L 2 GB Memory
- Gigabit Ethernet x 1
- 18/24-bit Single Channel LVDS, HDMI, DDI x 1
- High Definition Audio Interface
- SATA x 2
- USB2.0 x 2, 12-bit GPIO, USB3.0 x 1
- PCI-Express [x1] x 3
- SMARC Spec v1.0, 82mm x 50mm

Specifications

Main Specifications

Processor	Intel® Atom™ Processor SoC E3826: Dual Core 1.46G/7W E3815: Single Core 1.46G/5W E3845: Quad Core 1.91G/10W
Form Factor	SMARC
System Memory	Onboard DDR3L 2 GB
Chipset	Intel® Atom™ Processor SoC
I/O Chipset	Intel® Atom™ Processor SoC
Expansion Interface	PCI Express [x1] x 3, LPC Bus x 1, SPI x 1, I2C, I2S
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 2, USB3.0 x 1
Serial Port	2-wire UART (Tx/Rx) x 1, 4-wire UART x 1
Ethernet	Intel® I211/I210 for 10/1000/1000Base-TX
Parallel Port	—
Storage	SATA x 2
Audio	High definition audio
Display Chipset	Intel® Atom™ Processor SoC
Display Output	Supports CRT/LCD Simultaneous/Dual view display
LCD Interface	18-bit single channel LVDS (Shared with eDP)
Resolutions	LCD: up to 1366x768@ single LVDS HDMI: Upto 1920 x 1080
Memory	—
PS/2 Port	—
GPIO	12-bit GPIO

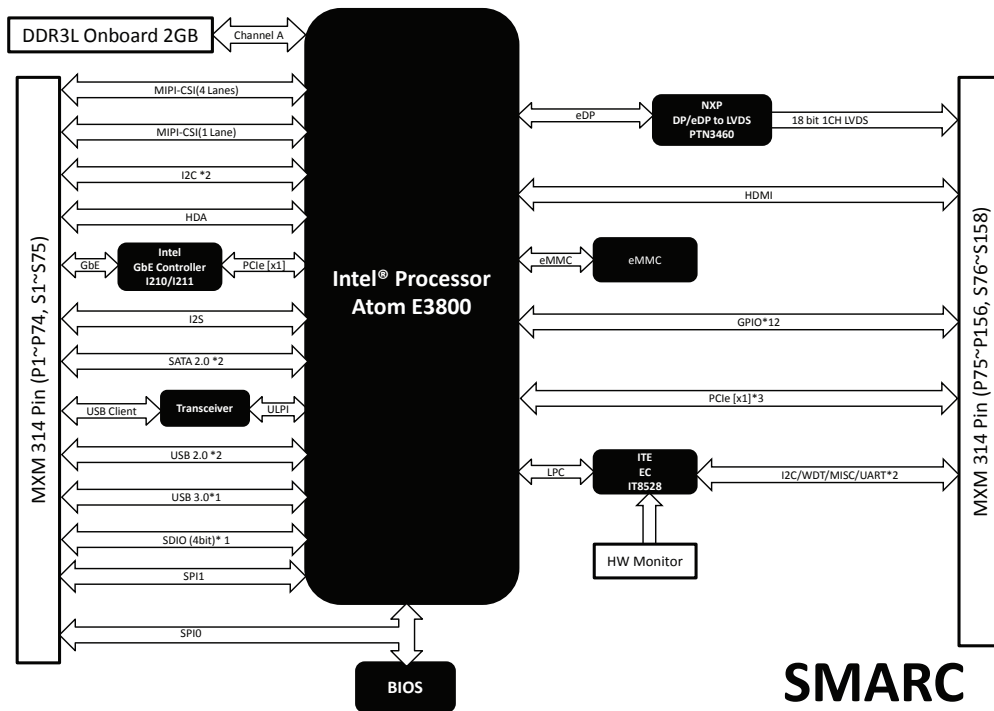
Mechanical and Environmental

Power Requirement	Optional: + 6.5V~20V AT/ATX, Standard: +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 E3826
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"(82mm x 50mm)
MTBF (Hours)	—

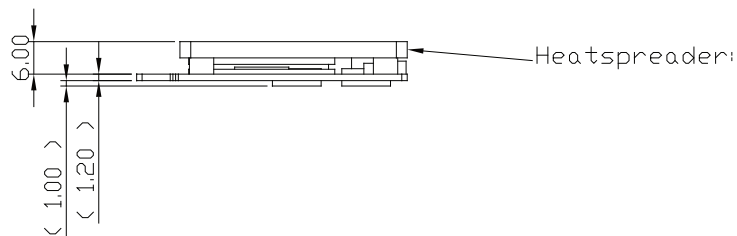
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Block Diagram



Dimension / Unit: mm



Ordering Information

- uCOM-BT-A10
SMARC, Atom™ E3826 Processor SoC, 2C/1.58 GHz, 2 GB DDR3L GbE, USB3.0, SATA
- uCOM-BT-A10-01
SMARC Intel® Atom™ E3815 Processor SoC