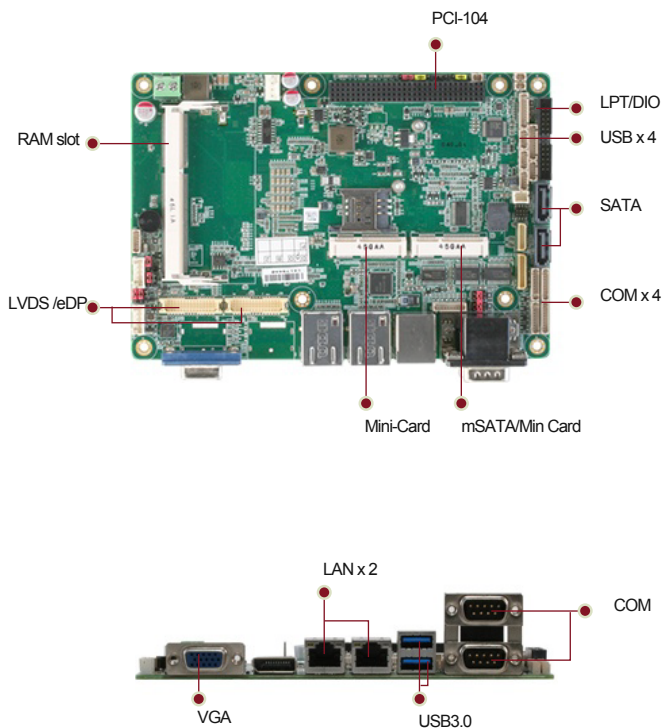


Onyx Single Board Computer Unit EPIC-BDU7

EPIC Board with 5th Generation Intel® Core™ i3/i5/i7/ Celeron® ULT SoC Processor



Features

- Onboard 5th Generation Intel® Core™ i3/i5/i7/ Celeron® ULT SoC Processor
- DDR3L 1600 MHz SODIMM x 1, Up to 8 GB
- VGA Co-lay DP, LVDS 1 (Co-lay DP), LVDS 2 (eDP)
- SATA 3.0 Gb/s x 2, mSATA/Mini-Card x 1
- USB 3.0 x 2, USB 2.0 x 4
- Gigabit Ethernet x 2, RJ-45 x 2
- RS-232 x 4, RS-232/422/485 x 2
- Mini-Card x 1, SIM x 1 (Optional)
- +12V or 9-24V Operation
- Optional Touch Screen, TPM and 2W Audio Amp., PCI-104

Specifications

Main Specifications

Processor	5th Generation Intel® Core™ i3/i5/i7/ Celeron® ULT SoC Processor
Form Factor	EPIC
System Memory	204-pin SODIMM DDR3L 1600 MHz, up to 8 GB
Chipset	Intel® Q87 Express, I/O Nuvoton NCT6791D
H/W Status Monitoring	Monitoring system temperature, voltage status, cool fan status
Expansion Interface	Mini-Card x 1 (half size), SIM x 1 (optional) PCI-104 x1 (Optional)
BIOS	AMI/SPI
Wake on LAN	Yes
Watchdog Timer	1~255 step by software program

I/O

USB	USB 3.0 x 2, USB 2.0 x 4, USB 1/2 total support 1.5A on rear I/O
Serial Port	COM: RS-232 x 4 COM2, COM3: RS-232/422/485 x 2 (Ring/ +5V/ +12V)
Ethernet	Gigabit Ethernet, RJ-45 x 2
Parallel Port	SPP/EPP/ECP x1 (co-lay with DIO)
Storage	SATA 3.0 Gb/s x 1, mSATA/Mini-Card x 1 (Full size)
Audio	Line-out, Line-in, Mic-in; Audio 2W Amp. (optional)
Display Chipset	5th Generation Intel® Core™ i3/i5/i7/ Celeron® ULT SoC Processor
Display I/O	Supports 16-bits(Programmable, 8-in/8-out) Co-lay LPT(default)
VGA	VGA up to 2560 x 1600 @ 60 Hz or DP up to 1920 x 1200 @ 60 Hz
LVDS	LVDS (18/24-bit dual-channel) up to 1920 x 1200@ 60 Hz
LCD Interface	CRT Co-lay DP, LVDS 1(Co-lay DP), LVDS 2 (eDP)

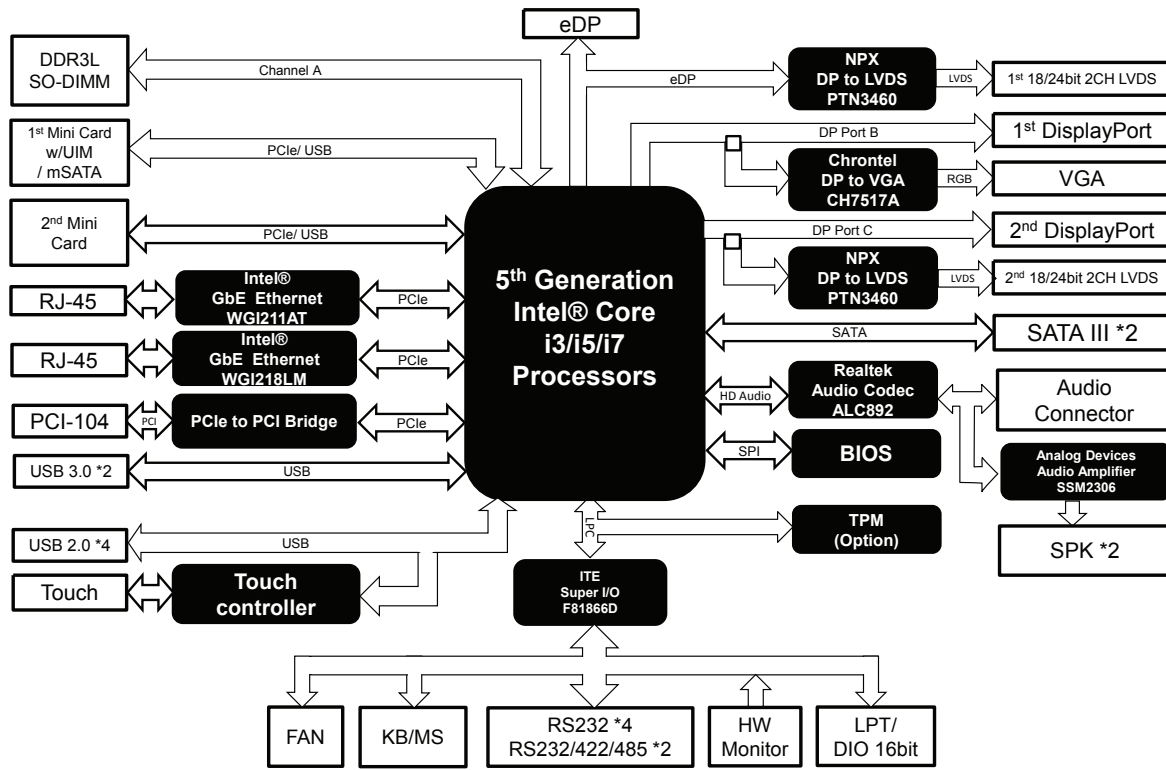
Mechanical and Environmental

Battery	Lithium battery
Power Requirement	+12V or +9~24V AT/ATX(default)
Power Consumption	—
Operating Humidity	0% ~ 90% RH, non-condensing
Operating Temperature	32°F ~140°F (0°C ~ 60°C)
Storage Temperature	-40 °F ~ 176 °F (-40 °C ~ 80 °C)
Gross weight	1.2 lb (0.5 Kg)
Dimensions(W x D x H)	4.5" x 6.5" (115mm x 165mm)
MTBF (Hours)	—

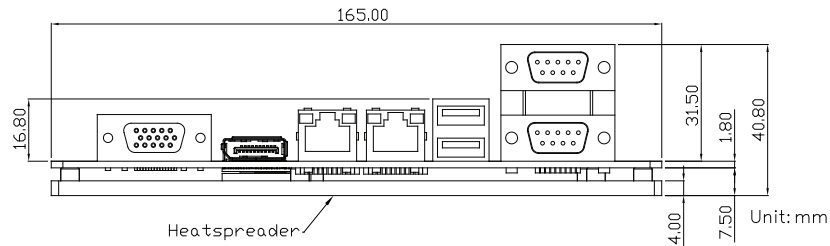
EPIC-BDU7

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Block Diagram



Dimension / Unit: mm



Ordering Information

Part Number	CPU	Memory	Fan/Fanless	Display	LVDS	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Power Temp	Others
EPIC-BDU7-A10-0001 (TBD)	i3-5650U	DDR3L (Max. 8 GB)	Heat Spreader	CRT + DP + LVDS	LVDS1 24b 2CH	SATA x 1, mSATA/Mini-Card x 1	GbE x 2	USB3.0 x 2 USB2.0 x 4	4	2	Mini-Card x 1	9~24V (ATX)	0°C ~ 60°C	LPT or DIO 16-bit, Audio
EPIC-BDU7-A10-0002 (TBD)	i3-5350U	DDR3L (Max. 8 GB)	Heat Spreader	CRT + DP + LVDS	LVDS1 24b 2CH	SATA x 1, mSATA/Mini-Card x 1	GbE x 2	USB3.0 x 2 USB2.0 x 4	4	2	Mini-Card x 1	9~24V (ATX)	0°C ~ 60°C	LPT or DIO 16-bit, Audio
EPIC-BDU7-A10-0003 (TBD)	i3-5010U	DDR3L (Max. 8 GB)	Heat Spreader	CRT + DP + LVDS	LVDS1 24b 2CH	SATA x 1, mSATA/Mini-Card x 1	GbE x 2	USB3.0 x 2 USB2.0 x 4	4	2	Mini-Card x 1	9~24V (ATX)	0°C ~ 60°C	LPT or DIO 16-bit, Audio