

Embedded Single Board for OEM/ODM

ONYX PICO-BSW1

Pico-ITX Board with Intel® Atom™ x5-E8000/ Pentium®/ Celeron® N3000 Processor SoC



Features

- Onboard Intel® Atom™ x5-E8000/ Pentium®/ Celeron® N3000 Series Processor SoC
- DDR3L 1600/1066 SODIMM x 1, Up to 8 GB
- LVDS up to 48-bit (2CH)
- Supports Triple Displays (Optional)
- HDMI Up to 3840 x 2160 (4K) Resolution
- SATA 3.0 x 1, mSATA (Full Size) x 1 or MiniCard x 1 (Optional)
- Gigabit Ethernet x 1, RJ-45 x 1
- USB 3.2 Gen 1 x 2
- RS-232 x 1, RS-232/422/485 x 1
- BIO Connector for Daughter Board (Optional)
- Mini-Card x 1 (Half-Size)
- Digital I/O 4-bit



Specifications

System

Form Factor	Pico-ITX
CPU	Intel® N3160 Quad Core 1.6GHz (6W), Intel® N3060 Dual Core 1.6GHz (6W), Intel® X5-E8000 Quad Core 1.04GHz (5W)
CPU Frequency	Up to 2.24GHz
Chipset	Intel® N3160 Quad Core 1.6GHz (6W), Intel® N3060 Dual Core 1.6GHz (6W), Intel® X5-E8000 Quad Core 1.04GHz (5W)
Memory Type	204-pin DDR3L SODIMM x 1, DDR3L 1600, Max. 8GB
Memory Capacity	Up to 8GB
BIOS	AMI/SPI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	+12V DC
Power Supply Type	AT/ATX (default) optional lockable connector
Power Consumption	Intel® Pentium® N3160@ DDR3L-1600MHz 8GB, 0.91A@+12V
System Cooling	Heat-spreader / heatsink optional
Dimension (L x W)	3.94" x 2.84" (100 mm x 72 mm)
Gross Weight	0.44 lb (0.2 kg)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MFTB (Hours)	100,000
Certification	CE / FCC

Display

Chipset	Intel® N3160 Quad Core 1.6GHz (6W), Intel® N3060 Dual Core 1.6GHz (6W), Intel® X5-E8000 Quad Core 1.04GHz (5W)
Resolution	LVDS (18/24bit 2CH) 1920 x 1200 HDMI up to 3840 x 2160 (4K) DDI (optional by BIO board)
LCD Interface	18/24-bit 2CH LVDS

I/O

Storage / SSD	SATA 6.0Gb/s x 1, mSATA/MiniCard (Full size) x 1
Ethernet	Realtek RTL 8111E, 10/100/1000Base-TX, RJ-45 x 1
USB Port	USB 3.2 Gen 1 x 2 Rear I/O
Serial Port	COM1:RS-232 x 1 COM2:RS-232/422/485 x1(Ring/ +5V/+12V)
Audio	Line-out x 1
DIO	4-bit (2-in, 2-out)
Expansion Slot	Mini Card(Half-size) x 1, BIO x 1, I2C x 1 or Smbus x 1, LPC