

Embedded Single Board for OEM/ODM

ONYX PICO-APL1

Pico-ITX Board with Intel® Atom™ E3900/ Pentium® N4200/ Celeron® N3350 Processor



Features

- Intel® Atom™ E3900/ Pentium® N4200/ Celeron® N3350 Processor SoC
- DDR3L 1867 MHz SODIMM x 1, up to 8 GB
- 18/24-bit Dual Channel LVDS LCD (Optional)
- Supports Triple Display (Optional)
- SATA 6.0Gb/s x 1, mSATA (Full Size) x 1
- Intel® Gigabit Ethernet x 1, RJ-45 x1
- USB 3.2 Gen 1 x 2, USB 2.0 x 1
- RS-232 x 1, RS-232/422/485 x 1 (Optional by Cable)
- Mini-Card x 1 (Half-Size)
- BIO Connector for Daughter Board (Optional)
- Digital I/O 4-bit



Specifications

System

Form Factor	Pico-ITX
CPU	Intel® Atom™ E3900/ Pentium® N4200/ Celeron® N3350 Processor SoC
CPU Frequency	Up to 2.0GHz
Chipset	Intel® Atom™ E3900/ Pentium® N4200/ Celeron® N3350 Processor SoC
Memory Type	204-pin DDR3L SODIMM x 1, DDR3L 1867MHz, Max. 8GB
Memory Capacity	Up to 8 GB
BIOS	AMI/SPI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	+12V AT / ATX (default)
Power Supply Type	AT / ATX (default)
Power Consumption	Intel® N3350 Processor, DDR3L 8GB 0.91A@+12V
System Cooling	Heat-spreader / heatsink optional
Dimension (L x W)	3.94" x 2.84" (100 mm x 72 mm)
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)	170,000
Certification	CE / FCC

Display

Chipset	Intel® Atom™ E3900/ Pentium® N4200/ Celeron® N3350 Processor SoC
Resolution	LVDS (18/24bit 2CH) 1920 x 1200 (optional) HDMI 1.4b up to 3840 x 2160 DDI (BIO)
LCD Interface	18/24bit 2CH LVDS

I/O

Storage / SSD	SATA 6.0Gb/s x 1, mSATA or Mini-PCIe by BOM (Full size) x 1
Ethernet	Intel® Gb Ethernet i210AT, 10/100/1000Base-TX, RJ-45 x 1
USB Port	USB 3.2 Gen 1 x 2, Rear IO, USB 2.0 x 1
Serial Port	COM1: RS-232 x 1, COM2: RS-232/422/485 x 1 (Ring/ +5V/ +12V)
Audio	Line-out x1
DIO	4-bit (2-in, 2-out)
Expansion Slot	Mini Card (Half-size) x 1, BIO (optional) x 1, I2C or SMBus x 1
SIM	—
TPM	—
Touch	—