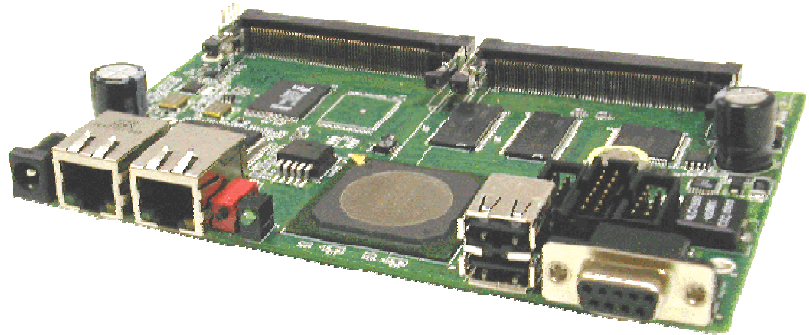


A full featured quad Mini-PCI Intel® XScale® IXP425/533MHz processor for enterprise and residential network applications

The GW2348-4 is a member of the Gateworks Avila Network Processor family. The GW2348-4 meets the requirements for enterprise and residential network applications. This network processor consists of an Intel® IXP425 XScale® operating at 533MHz, 64Mbytes of SDRAM, and 16Mbytes of Flash. Peripherals include four Type III Mini-PCI sockets, two 10/100 Base-TX Ethernet ports with IEC-6100-4 ESD and EFT protection, and Compact Flash socket. Additional features include digital I/O, serial EEPROM, real time clock with battery backup, system monitor to track operating temperature and input, two RS-232 serial ports for management and debug, fan controller, and watchdog timer. The GW2348 also supports USB as an ordering option. Power is applied through a dedicated power connector or through any Ethernet connector with the unused signal pairs in a passive power over Ethernet architecture. The mechanical dimensions and front panel connector locations are GW2358 compatible. A board support package is included for Linux 2.6 operating systems.

FEATURES

- ◆ Intel® XScale® IXP425 533MHz Processor
- ◆ 64Mbytes SDRAM Memory
- ◆ 16Mbytes Flash Memory
- ◆ Compact Flash Socket
- ◆ Four Type III Mini-PCI Sockets
- ◆ Two 10/100 Base-TX Ethernet Ports
- ◆ Two RS-232 Serial Ports
- ◆ General Purpose Digital I/O
- ◆ 1Kbyte Serial EEPROM
- ◆ Battery Powered Real Time Clock
- ◆ Voltage and Temperature Monitor
- ◆ Thermally Activated Fan Controller
- ◆ Watchdog Timer
- ◆ Front Panel LED and Reset Switch
- ◆ Passive Power Over Ethernet
- ◆ Reverse Voltage and Transient Protection
- ◆ 9 to 48VDC Input Voltage Range
- ◆ 20W Shared Between Mini-PCI Sockets
- ◆ 5W Typical Operating Power
- ◆ -40°C to 85°C Operating Temperature
- ◆ Linux v2.6 Board Support Package
- ◆ 1 Year Warranty
- ◆ Optional Dual Type A USB Host Ports



SPECIFICATIONS

ELECTRICAL

Input Voltage

- ▼ 9 to 48VDC

Operating Current

- ▼ 0.2A Typical @ 24VDC

MECHANICAL

Dimensions

- ▼ 4.0in x 6.0in x 1.2in (102mm x 152mm x 30mm)

Weight

- ▼ 5 oz (142g)

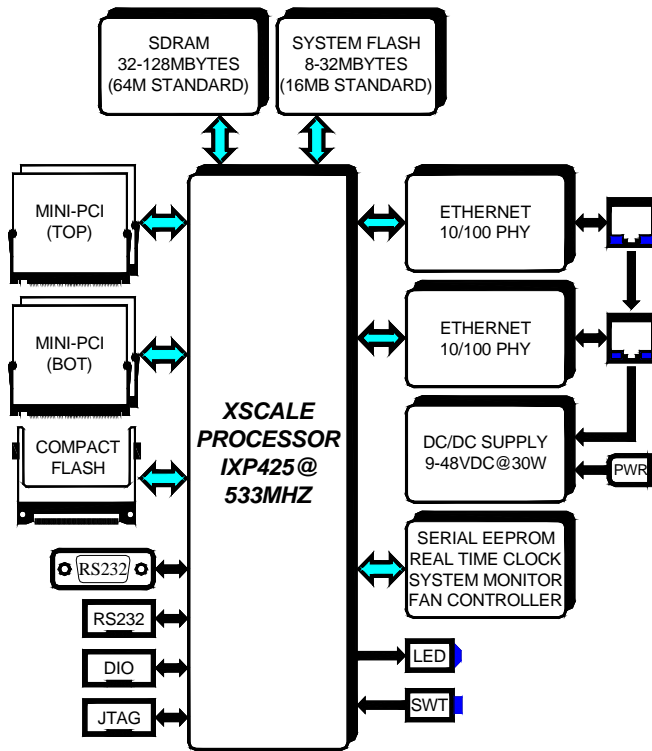
ENVIRONMENTAL

Operating Parameters

- ▼ Temperature: -40°C to +85°C
- ▼ Humidity (non-condensing): 20% to 90%
- ▼ MTBF: 60 years @ 55°C

Storage Parameters

- ▼ Temperature: -40°C to +85°C
- ▼ Humidity (non-condensing): 5% to 95%



Avila GW2348-4 Functional Diagram

ORDERING OPTIONS

Standard Configuration

GW2348-4

- ▼ IXP425 CPU @ 533MHz
- ▼ 64Mbytes SDRAM
- ▼ 16Mbytes Flash
- ▼ Four Type III Mini-PCI Slots

Development Kit

GW2348-DEVKIT

- ▼ GW2348-4 Network Computer
- ▼ Redboot v2.04 Loader
- ▼ Linux v2.6 Board Support Package
- ▼ USB, Ethernet and Serial Cables
- ▼ Passive PoE Power Supply
- ▼ JTAG Programmer with Linux & Windows Drivers

Other Configurations

The GW2348 can be customized for volume applications by changing the features listed below. Contact the factory for additional information.

- ▼ Intel IXP42x processor type and speed
- ▼ SDRAM from 32Mbytes to 128Mbytes
- ▼ Flash from 8Mbytes to 32Mbytes
- ▼ Adding optional peripherals
- ▼ Removing populated peripherals
- ▼ Operating temperature range

Product	CPU	Size (in)	Mini-PCI Sites	Ethernet Ports	PoE	Special Features	Operating Range
GW2347	IXP42x	4x4	1	1	Passive	Small, Low Power	6-20VDC
GW2357	IXP42x	4x4	1	1	802.3af	Small, 802.3af Power	38-60VDC
GW2353	IXP42x	4x7	2	1	Passive	Audio, Video, GPS, Auto	8-48VDC
GW2355	IXP42x	4x6	4	5	Passive	Optional GPS, QoS Switch	9-48VDC
GW2348-2	IXP42x	4x6	2	2	Passive	Low Cost Two Radio	9-48VDC
GW2348-4	IXP42x	4x6	4	2	Passive	Optional USB	9-48VDC
GW2358-4	IXP43x	4x6	4	2	Passive	USB, Optional GPS & RS485	8-48VDC

Other configurations of each product are possible. Contact factory for more information.

Gateworks Avila and Cambria Feature Comparison