GATEWORKS CORPORATION
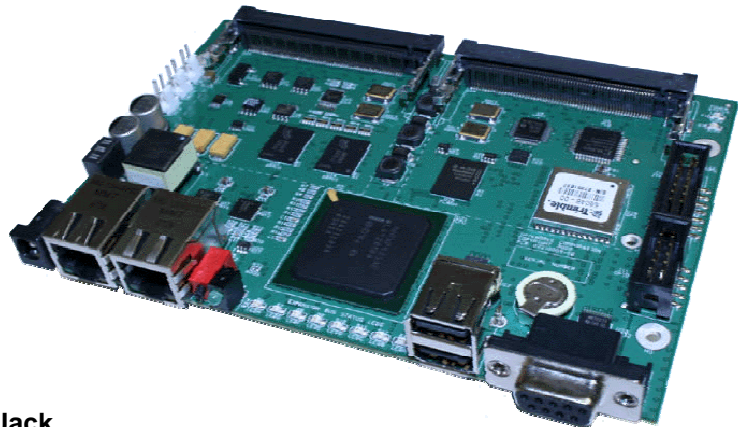
NEW!

Cambria GW2358-4 Network Computer

A high performance quad Mini-PCI Intel® XScale® IXP435/667MHz processor for enterprise and residential network applications

The GW2358-4 is a member of the Gateworks Cambria Network Processor family. The GW2358-4 meets the requirements for enterprise and residential network applications. This network processor consists of an Intel® IXP435 XScale® operating at 667MHz, 128Mbytes of DDRII-400 SDRAM, and 32Mbytes 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, two USB Host ports, 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 voltage, RS232 serial port for management and debug, and watchdog timer. The GW2358 also supports GPS and RS485 serial port as ordering options. Power is applied through a dedicated connector or through either Ethernet connector with the unused signal pairs in a passive power over Ethernet architecture. The mechanical dimensions and front panel connector locations are compatible with the GW2348. A board support package is included for Linux 2.6 operating systems.

FEATURES

- ♦ **Intel® XScale® IXP435 667MHz Processor**
- ♦ **128Mbytes DDRII SDRAM Memory**
- ♦ **32Mbytes Flash Memory**
- ♦ **Compact Flash Socket**
- ♦ **Four Type III Mini-PCI Sockets**
- ♦ **Two 10/100 Base-TX Ethernet Ports**
- ♦ **Two v2.0 Host USB Ports**
- ♦ **RS232 Serial Port**
- ♦ **General Purpose Digital I/O**
- ♦ **1Kbyte Serial EEPROM**
- ♦ **Battery Powered Real Time Clock**
- ♦ **Voltage and Temperature Monitor**
- ♦ **Watchdog Timer**
- ♦ **Front Panel LED and Reset Switch**
- ♦ **Passive Power Over Ethernet and Barrel Jack**
- ♦ **Reverse Voltage and Transient Protection**
- ♦ **8 to 48VDC Input Voltage Range**
- ♦ **20W Shared Between Mini-PCI Sockets**
- ♦ **6W Typical Operating Power**
- ♦ **-40°C to 85°C Operating Temperature**
- ♦ **Linux v2.6 Board Support Package**
- ♦ **1 Year Warranty**
- ♦ **Optional GPS and RS485 Serial Port**

SPECIFICATIONS

ELECTRICAL

Input Voltage
- ▾ 8 to 48VDC

Operating Current
- ▾ 0.25A Typical @ 24VDC

MECHANICAL

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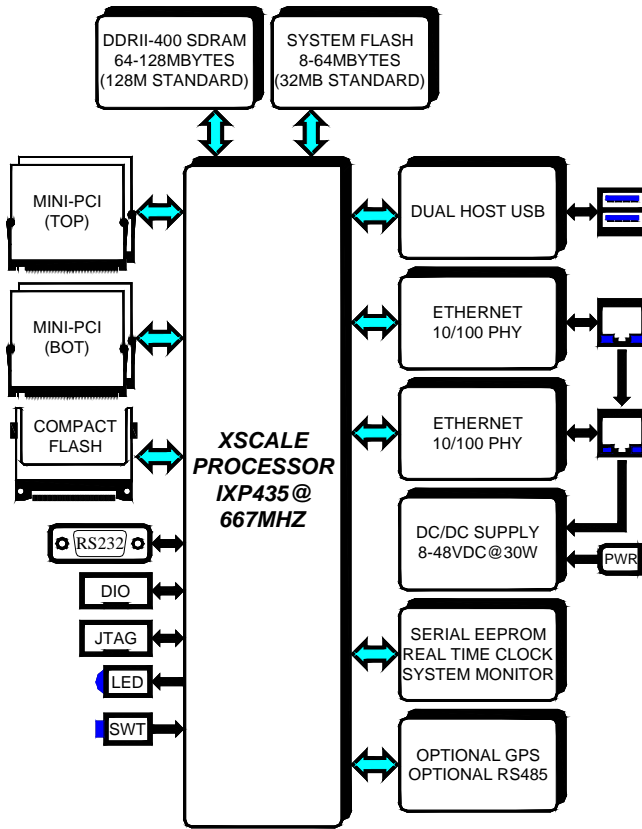- ▾ 4.0in x 6.0in x 1.2in (102mm x 152mm x 30mm)

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 GW2358-4 Functional Diagram

ORDERING OPTIONS

Standard Configuration
GW2358-4
- IXP435 CPU @ 667MHz
- 128Mbytes SDRAM
- 32Mbytes Flash
- Four Type III Mini-PCI Slots

Development Kit
GW2358-DEVKIT
- GW2358-4 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 GW2358 can be customized for volume applications by changing the features listed below. Contact the factory for additional information.
- Intel IXP43x processor type and speed
- DDRII SDRAM from 64Mbytes to 128Mbytes
- Flash from 8Mbytes to 64Mbytes
- 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