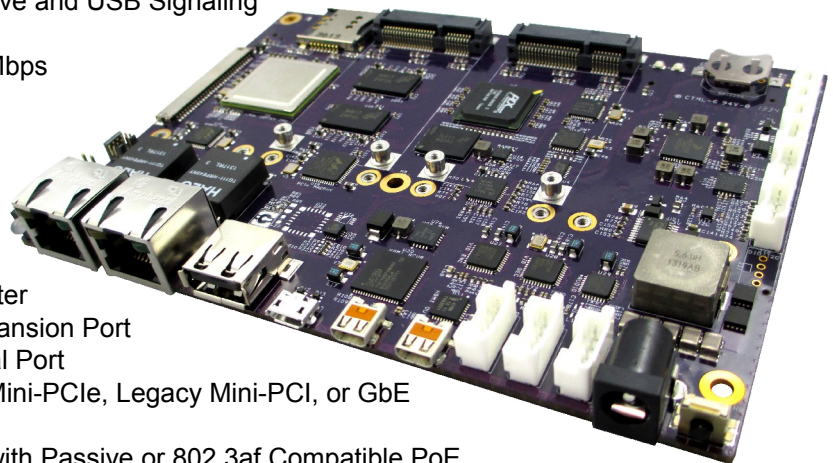


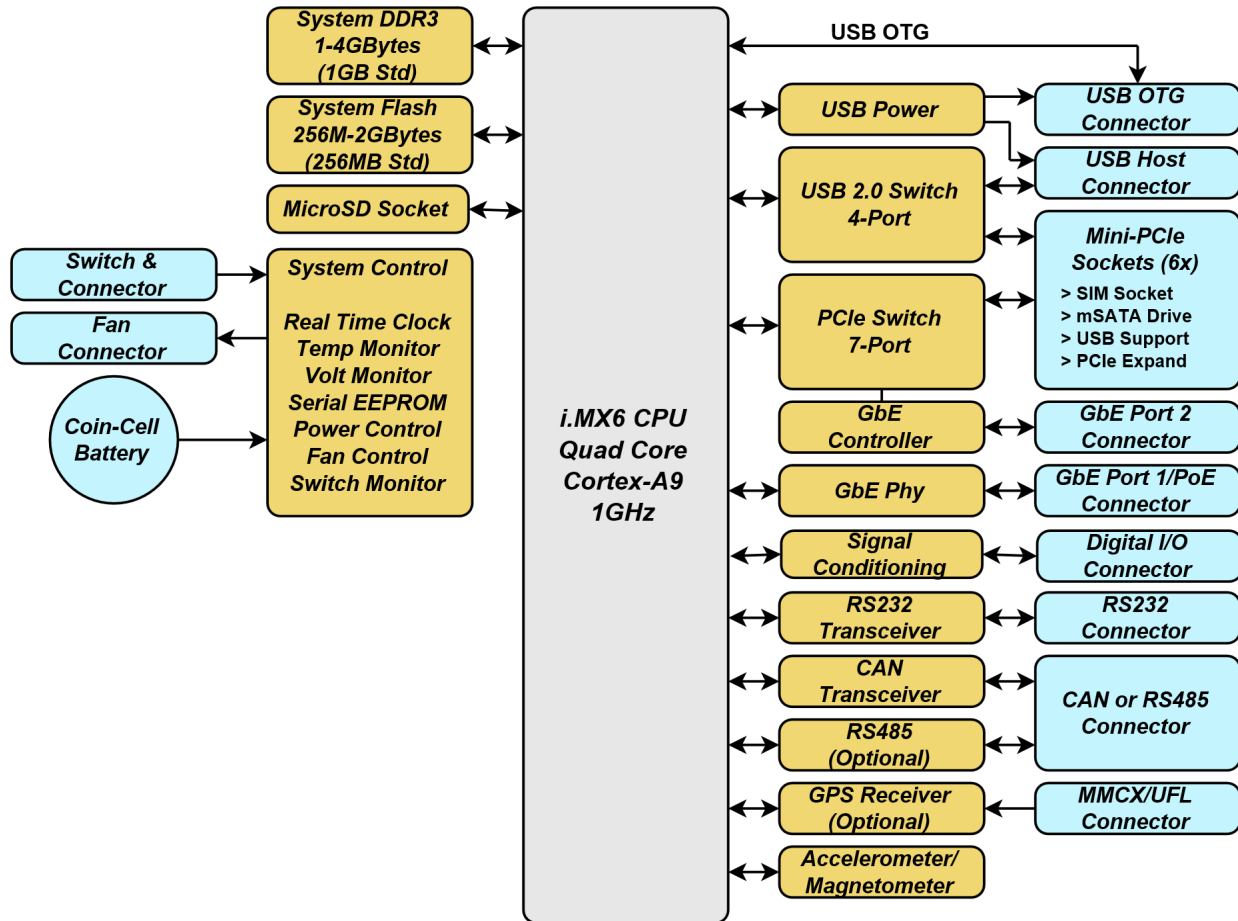
A high performance 140x100mm network processor with six Mini-PCle sockets, GbE Ethernet, and USB

The GW5410 is a member of the Gateworks 5th generation Ventana family of network processor boards targeted for a wide range of indoor and outdoor applications. The GW5410 features the Freescale™ i.MX6 Quad Core ARM® Cortex™-A9 automotive grade processor operating at 1GHz, 1Gbyte of DDR3-1066 SDRAM, and 256Mbytes of System Flash. Six Mini-PCle expansion sockets support any combination of 802.11abgn radios, 4G WiMAX radios, 3G CDMA/GSM cellular modems and other PCI Express peripherals. The Gateworks System Controller provides embedded features such as real time clock, voltage and temperature monitor, serial EEPROM, fan control, programmable pushbutton switch, tamper switch, and advanced power management with programmable board shut-down and wake-up for remote sensor applications. A wide-range DC input power supply provides up to 30W of power to the Mini-PCle sockets for supporting the latest high-power radios. Power is applied through a dedicated barrel jack or an Ethernet jack in a Power over Ethernet architecture. An ordering option replaces one Mini-PCle socket with an expansion connector for adding peripherals such as Mini-PCle sockets, legacy Mini-PCI sockets, additional GbE Ethernet ports, and GbE Ethernet Fiber ports. OpenWrt, OpenEmbedded/Yocto, and Android are supported.

FEATURES

- ◆ Freescale™ i.MX6 1GHz Quad Core ARM® Cortex™-A9 Automotive Grade Processor
- ◆ 1Gbyte DDR3-1066 SDRAM Memory and 256Mbytes Flash System Memory
- ◆ Micro SD™ Flash Expansion Socket Compatible with SD Specification 3.0
- ◆ Six High-Power Gen 2 Mini-PCle Sockets
Support for SIM Socket, mSATA Disk Drive and USB Signaling
- ◆ Two GbE Ethernet Ports
- ◆ USB 2.0 Host and OTG Ports up to 480Mbps
- ◆ CAN Bus 2.0B 1Mbps Serial Port
- ◆ Two RS232 Serial Ports
- ◆ Real Time Clock with Battery Backup
- ◆ Voltage and Temperature Monitor
- ◆ Serial Configuration EEPROM
- ◆ Programmable Watchdog Timer
- ◆ Digital 6-axis Accelerometer/Magnetometer
- ◆ General Purpose Digital I/O and I2C Expansion Port
- ◆ Optional GPS Receiver and RS485 Serial Port
- ◆ Optional PCIe Expansion for Additional Mini-PCle, Legacy Mini-PCI, or GbE
- ◆ 8 to 60VDC Input Voltage Range
- ◆ Power Through Barrel Jack or Ethernet with Passive or 802.3af Compatible PoE
- ◆ 4W@25°C Typical Operating Power
- ◆ 30W Shared Between Mini-PCle Sockets
- ◆ Reverse Voltage and Transient Protection
- ◆ -40°C to +85°C Operating Temperature
- ◆ OpenWrt, OpenEmbedded/Yocto and Android Board Support Packages
- ◆ 1 Year Warranty





Ventana GW5410 Block Diagram

SPECIFICATIONS

Electrical

Input Voltage

- ▼ 8 to 60VDC Barrel Jack or Passive PoE
- ▼ 36 to 60VDC 802.3af Compatible PoE

Operating Current

- ▼ 0.17A Typical @ 24VDC

Mechanical

Dimensions

- ▼ 140x100x13mm (5.5x3.9x0.5in)

Weight

- ▼ 4 oz (114g)

Environmental

Operating Parameters

- ▼ Temperature: -40°C to +85°C
- ▼ Humidity (non-condensing): 20% to 90%
- ▼ MTBF: 39.4 Years at 55°C

Storage Parameters

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

ORDERING OPTIONS

Standard Configuration - GW5410

- ▼ i.MX6 Quad Core CPU @ 1GHz
- ▼ 1Gbyte DDR3-1066 SDRAM
- ▼ 256Mbytes System Flash
- ▼ Six Mini-PCle Sockets

Development Kit - GW5410

- ▼ GW5410 Network Computer
- ▼ U-Boot Loader
- ▼ OpenWrt Linux Board Support Package
- ▼ Ethernet, Serial, and USB Cables
- ▼ Passive PoE Power Injector and Power Supply
- ▼ JTAG Programmer

Product Customization

The GW5410 can be customized for volume applications. Contact the factory for additional information.

- ▼ i.MX6 processor type and speed
- ▼ DDR3 SDRAM up to 4Gbytes
- ▼ System Flash up to 2Gbytes
- ▼ Adding and removing peripherals