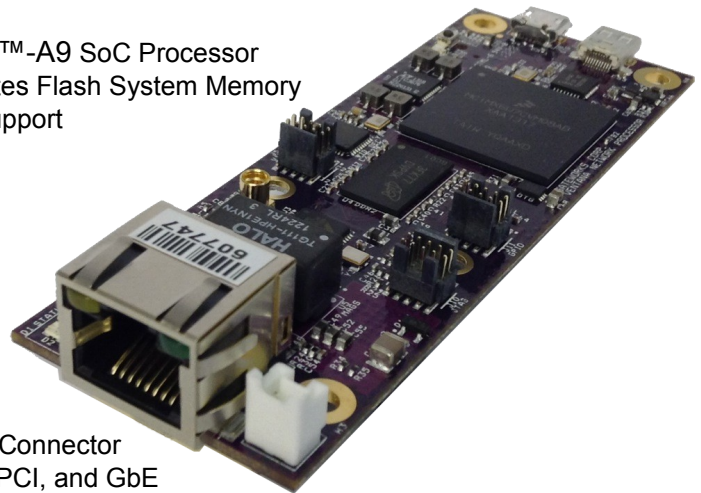


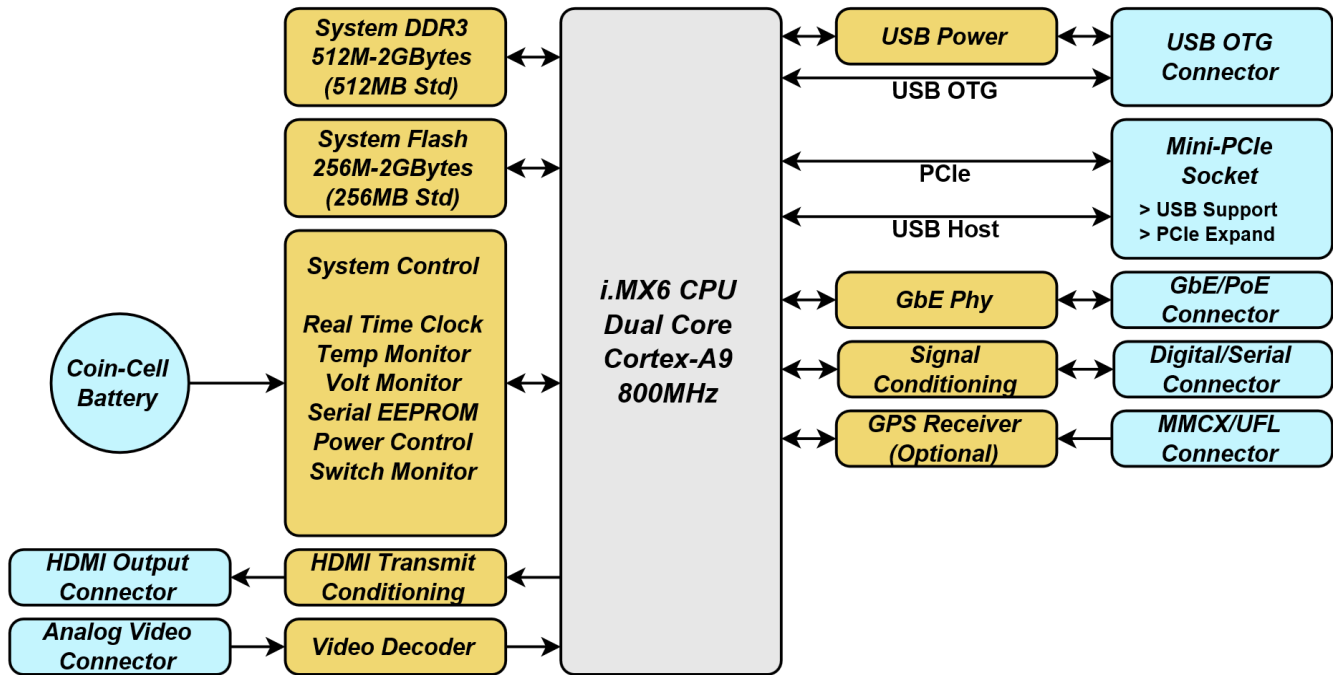
A miniature 35x100mm network processor with Mini-PCle, GbE Ethernet, USB OTG, and video input/output capabilities

The GW5100 is the smallest member of the Gateworks 5th generation Ventana family of network processor boards targeted for small embedded applications such as Man Portable Units (MPUs), Unmanned Aerial Vehicles (UAV) equipment, digital signage, and robotics. The GW5100 features the Freescale™ i.MX6 Dual Core ARM® Cortex™-A9 SoC processor operating at 800MHz, 512Mbytes of DDR3-800 DRAM, and 256Mbytes of System Flash. A Mini-PCle expansion socket supports 802.11abgn radios, 4G WiMAX radios, 3G CDMA/GSM cellular modems and other PCI Express peripherals. The analog composite/component video input and HDMI output extend the GW5100 into wireless video applications. The Gateworks System Controller provides embedded features such as real time clock, voltage and temperature monitor, serial EEPROM, programmable pushbutton 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 8W of power to the Mini-PCle socket for supporting the latest high-power radios. Power is applied through a dedicated connector or an Ethernet jack in a passive Power over Ethernet architecture. An ordering option replaces the 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 800MHz Dual Core ARM® Cortex™-A9 SoC Processor
- ◆ 512Mbytes DDR3-800 SDRAM Memory and 256Mbytes Flash System Memory
- ◆ High-Power Gen 2 Mini-PCle Socket with USB 2.0 Support
- ◆ GbE Ethernet Port
- ◆ USB 2.0 OTG Port up to 480Mbps
- ◆ Three Video Inputs Support CVBS, Y/C, YPrPb
- ◆ HDMI 1.4 Output Port with Audio Support
- ◆ Digital and Serial I/O Expansion
- ◆ Real Time Clock with Battery Backup
- ◆ Voltage and Temperature Monitor
- ◆ Serial Configuration EEPROM
- ◆ Programmable Watchdog Timer
- ◆ Optional GPS Receiver with MMCX or U.FL Antenna Connector
- ◆ Optional PCIe Expansion for Mini-PCle, Legacy Mini-PCI, and GbE
- ◆ 8 to 42VDC Input Voltage Range (Revision A and B)
- ◆ 8 to 60VDC Input Voltage Range (Revision C and Later)
- ◆ Power Through Dedicated Connector or Ethernet with Passive PoE
- ◆ 2W@25°C Typical Operating Power
- ◆ 8W Available for Mini-PCle Socket
- ◆ Reverse Voltage Protection
- ◆ -40°C to +85°C Operating Temperature
- ◆ OpenWrt, OpenEmbedded/Yocto, and Android Board Support Packages
- ◆ 1 Year Warranty





Ventana GW5100 Block Diagram

SPECIFICATIONS

Electrical

Input Voltage

- ▼ 8 to 42VDC Passive PoE (Revision A and B)
- ▼ 8 to 60VDC Passive PoE (Revision C and Later)

Operating Current

- ▼ 0.08A Typical @ 24VDC

Mechanical

Dimensions

- ▼ 35x100x21mm (1.4x3.9x0.8in)

Weight

- ▼ 1 oz (28g)

Environmental

Operating Parameters

- ▼ Temperature: -40°C to +85°C
- ▼ Humidity (non-condensing): 20% to 90%
- ▼ MTBF: 94.3 Years at 55°C

Storage Parameters

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

ORDERING OPTIONS

Standard Configuration - GW5100

- ▼ i.MX6 Dual Core CPU @ 800MHz
- ▼ 512Mbytes DDR3-800 DRAM
- ▼ 256Mbytes System Flash
- ▼ One Mini-PCle Socket

Development Kit - GW5100

- ▼ GW5100 Network Computer
- ▼ U-Boot Loader
- ▼ OpenWrt Linux Board Support Package
- ▼ Ethernet, USB, and Video Cables
- ▼ Passive PoE Power Injector and Power Supply
- ▼ JTAG Programmer

Product Customization

The GW5100 can be customized for volume applications. Contact the factory for additional information.

- ▼ i.MX6 processor type and speed
- ▼ DDR3 DRAM up to 2Gbytes
- ▼ System Flash up to 2Gbytes
- ▼ Removing peripherals to achieve lowest cost