

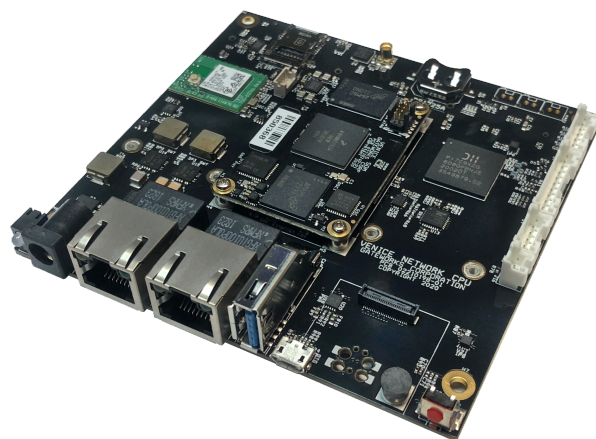
A 105x100mm i.MX8M Mini SBC with 3 Mini-PCle Slots, Two GbE Ethernet, PoE, Wifi/BLE and MIPI-CSI & MIPI-DSI

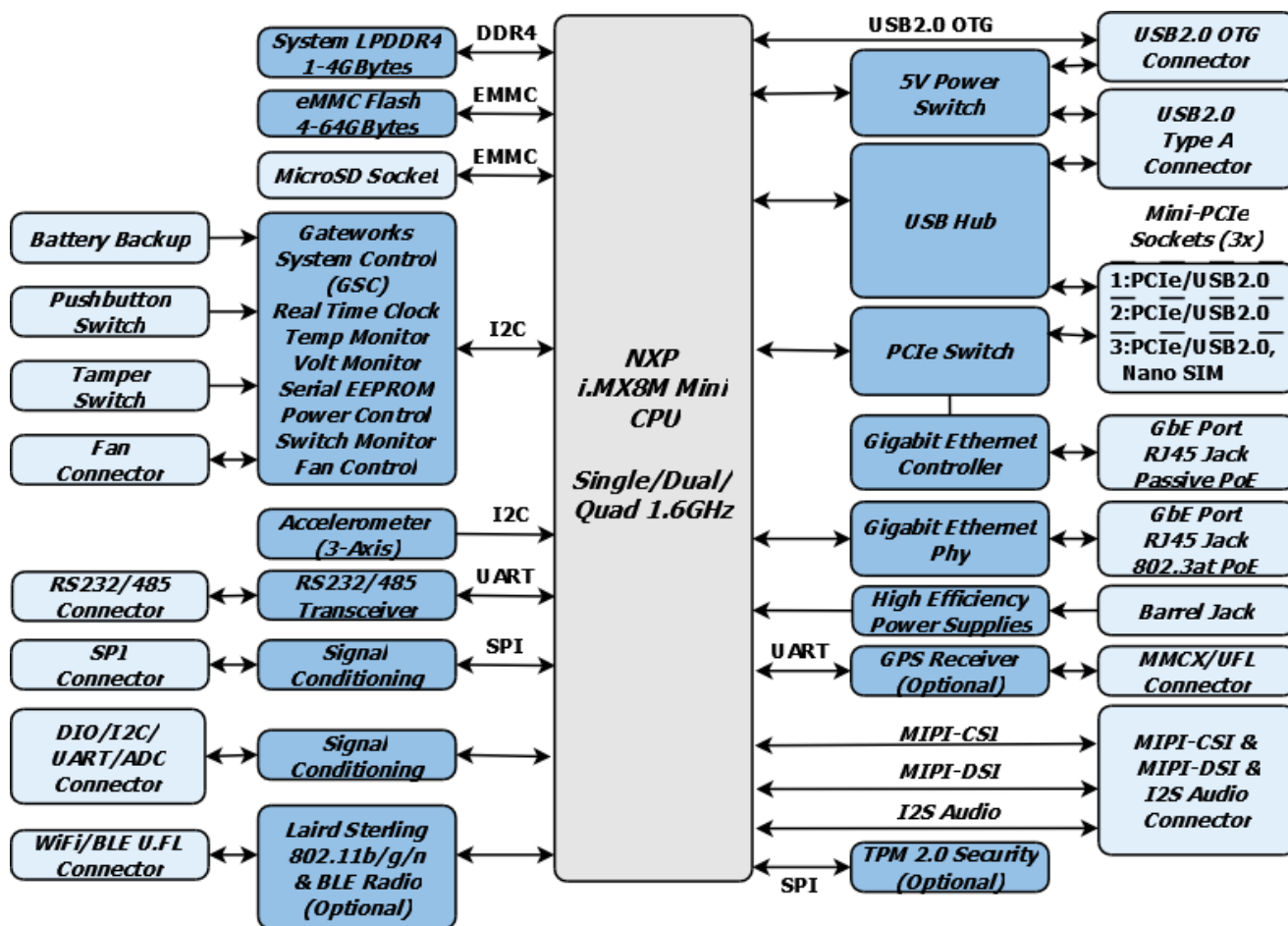
The GW7300-00 is a member of the Gateworks 7th generation Venice family of single board computers targeted for rugged and industrial embedded applications. The GW7300-00 features the 64-bit NXP™ i.MX8M Mini Quad Core ARM® Cortex™-A53 SoC processor operating at 1.6GHz, 1GBytes of LPDDR4 DRAM, and 8GBytes of eMMC System Flash. Two Mini-PCle expansion sockets can be used for PCI Express peripherals such as 802.11ax/ac/b/g/n WiFi radios and 5G/4G/3G/CATM1 cellular modems. A third Mini-PCle socket supports PCIe and USB for modems. Peripheral headers support Digital I/O, Analog Input, RS232/RS485/TTL Serial, I2C and SPI. A combined MIPI-DSI/CSI header with I2S audio offers video input/output. A MicroSD & Nano SIM slot are standard. A 3-Axis accelerometer is standard. An optional GPS and onboard Laird Sterling 802.11b/g/n/ac WiFi/Bluetooth module are available. The Gateworks System Controller provides embedded features such as real time clock, voltage and temperature monitor, programmable pushbutton, and programmable board shut-down and wake-up for remote applications. A wide-range DC input power supply provides up to 15W of power. Power is applied through a dedicated barrel jack or an Ethernet port in an active 802.3af/at or passive Power over Ethernet (PoE) architecture. Ubuntu Linux BSP is supported.

SBC	CPU	DRAM	eMMC	GPS	WiFi/BLE
GW7300-00	Quad 1.6GHz	1GByte	8GBytes	No	No
GW7300-01	Quad 1.6GHz	4GByte	64GBytes	No	No
GW7301-00	Quad 1.6GHz	1GByte	8GBytes	Yes	Yes
GW7301-01	Quad 1.6GHz	4GByte	64GBytes	Yes	Yes

FEATURES

- NXP™ 64-bit i.MX8M Mini 1.6GHz Quad Core ARM® Cortex™-A53 SoC Processor
- 1GByte LPDDR4 DRAM Memory
- 8GBytes eMMC Flash System Memory
- Two High-Power Gen 2 Mini-PCle Sockets with PCIe and USB 2.0
- One High-Power Mini-PCle Socket with PCIe, USB 2.0 and Nano SIM
- MicroSD & Nano SIM slot
- Two GbE Ethernet Ports supporting 802.3at/af and Passive PoE
- Optional Laird Sterling 802.11b/g/n/ac WiFi & BLE v5.2 Module
- Optional u-blox GPS Receiver with MMCX Antenna Connector
- Digital I/O & Analog Port, I2C & SPI Port
- RS232/RS485 and TTL Serial Port
- USB 2.0 Host and OTG Ports
- MIPI-DSI and MIPI-CSI Port, I2S Audio
- Digital 3-axis MEMS Accelerometer
- TPM 2.0 Security Element (Opt.)
- Real Time Clock with Battery Backup
- Voltage and Temperature Monitor
- Serial Configuration EEPROM
- Programmable Watchdog Timer
- 8 to 60VDC Input Voltage Range
- Power Through Dedicated Connector or Ethernet with 802.3af/at Active or Passive PoE
- 6W@25°C Typical Operating Power
- 15W Available for Mini-PCle Sockets
- Reverse Voltage Protection
- -40°C to +85°C Operating Temperature (-25C for -01 Models)
- Ubuntu Linux Board Support Package
- 1 Year Warranty





Venice GW7300-00 Block Diagram

SPECIFICATIONS

Electrical

Input Voltage

- 8 to 60VDC Barrel Jack or Active PoE

Operating Current

- 250mA Typical @ 24VDC

Mechanical

Dimensions

- 105x100x21mm (4.1x3.9x0.8in)

Weight

- 3.8 oz (110g)

Environmental

Operating Parameters

- Temperature: -40°C to +85°C
 - *Note: -25°C to +85°C for -01 Models
- Humidity (non-condensing): 20% to 90%
- MTBF: 31.7 Years at 55°C

Storage Parameters

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

ORDERING OPTIONS

See table at beginning of datasheet

Development Kit - GW11049-1-A

- GW7300 Single Board Computer
- U-Boot Boot Loader
- Ubuntu Linux Board Support Package
- Ethernet & Accessory Cables
- Power Supply
- JTAG Programmer

Product Customization

The GW7300 can be customized for volume applications. Contact the factory for additional information.

- i.MX8M Mini processor type and speed
- LPDDR4 DRAM up to 4GBytes
- System Flash up to 64GBytes
- GPS & WiFi/BLE
- TPM 2.0 Security
- Removing peripherals to achieve lowest cost