

Silex Wi-Fi 6 Radio Development Kit

The GW11048-5 is a development kit to support the validation of the Silex SX-SDMAX and SX-PCEAX Wi-Fi 6 radios (radios sold separately). The kit is based on the Gateworks Venice GW7200 Single Board Computer (SBC) pre-loaded with a Ubuntu Linux BSP to allow an out of box evaluation of the Silex radios. The GW7200 SBC is based on the NXP™ i.MX8M Mini 64-bit ARM® Cortex™-A53 SoC operating at 1.6GHz. The SBC features 8GBytes of eMMC System Flash, 1GBytes of LPDDR4 DRAM, two GbE Ethernet ports and two Mini-PCIe expansion sockets that can be used for Mini-PCIe peripherals such as WiFi radios and cellular 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 and Nano SIM slot are standard along with a 3-Axis accelerometer. Board options include an onboard TPM 2.0 chip and a u-blox GPS. System health is monitored by the Gateworks System Controller which provides real time clock, voltage and temperature monitoring, programmable pushbutton, and programmable board shut-down and wake-up for remote applications. 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. The kit includes a JTAG adapter for programming and serial console access, power supply, Mini-PCIe half card adapter for the SX-PCEAX radio and other accessory cables to get the board up and running quickly.

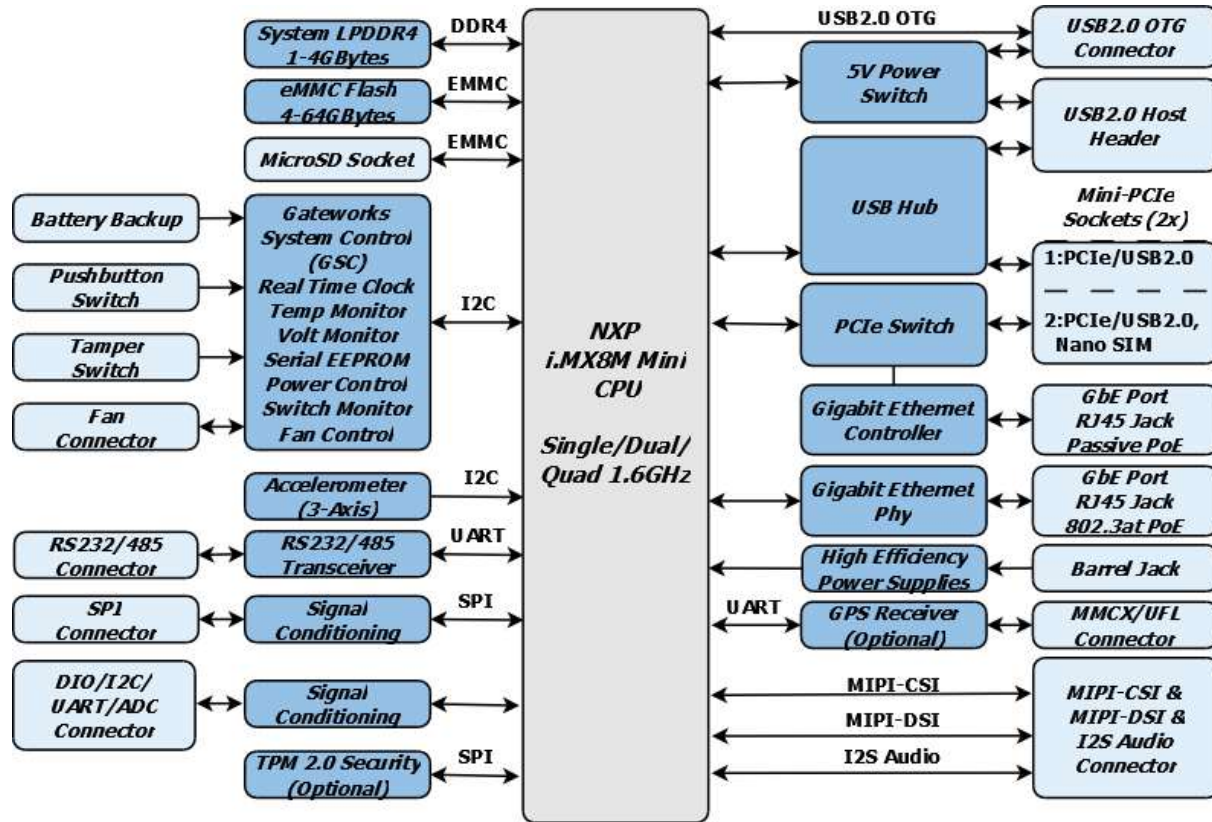
DEVELOPMENT KIT FEATURES

- Development Kit for Evaluation of Silex SX-SDMAX and SX-PCEAX Wi-Fi 6 Radios (Radios sold separately)
- Pre-Loaded Linux Radio Drivers for SX-SDMAX and SX-PCEAX Wi-Fi 6 Radios
- Kit Includes:
 - Venice GW7218-00 SBC
 - JTAG Adapter for programming and serial console access
 - AC/DC Power supply
 - Mini-PCIe half card adapter
 - Additional accessory cables

GW7218-00 BOARD FEATURES

- NXP™ 64-bit i.MX8M Mini 1.6GHz Quad Core ARM® Cortex™-A53 SoC
- 8GBytes eMMC Flash, 1GByte LPDDR4 DRAM
- Two GbE Ethernet Ports
- Two High-Power Gen 2 Mini-PCIe Sockets w/USB 2.0
- MicroSD and Nano SIM slot
- Digital I/O, Analog Input, I2C, SPI Ports
- RS232/RS485 and TTL Serial Ports
- USB 2.0 OTG Port
- MIPI-DSI/CSI Port, I2S Audio
- Digital 3-axis MEMS Accelerometer
- 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 barrel jack or over Ethernet with 802.3af/at Active or Passive PoE
- 6W@25°C Typical Operating Power
- 15W Available for Mini-PCIe Sockets
- Reverse Voltage and Surge Protection
- -40°C to +85°C Operating Temperature
- 1 Year Warranty





Venice GW7218-00 Block Diagram

SPECIFICATIONS

Electrical

Input Voltage

- 8 to 60VDC Barrel Jack or Active PoE

Operating Current

- 163mA Typical @ 24VDC

Mechanical

Dimensions

- 70x100x21mm (2.75x3.9x0.8in)

Weight

- 2.8 oz (80g)

Environmental

Operating Parameters

- Temperature: -40°C to +85°C
- Humidity (non-condensing): 20% to 90%
- MTBF: 31.8 Years at 55°C

Storage Parameters

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

- Power Supply and JTAG Programmer
- Ethernet & Accessory Cables
- Mini-PCIe Half Card Adapter

Additional SBCs without Dev Kit

- **GW7218-00** - GW7200 SBC w/Silex BSP Preloaded

Silex Radios - Sold by Silex

- **SX-SDMAX** - SX-SDCAX-2530 MicroSD Radio
 - NXP IW611 Chipset
 - 802.11a/b/g/n/ac/ax (1x1)
 - MHF Connector x 1
- **SX-PCEAX** - SX-PCEAX-HMC Half Card Mini-PCIe Radio
 - QCA2066 Chipset
 - 802.11a/b/g/n/ac/ax (2x2)
 - MHF4 Connector x 2

ORDERING OPTIONS

Development Kit - GW11048-5-A

- GW7200 Single Board Computer
- Silex Ubuntu Linux BSP