

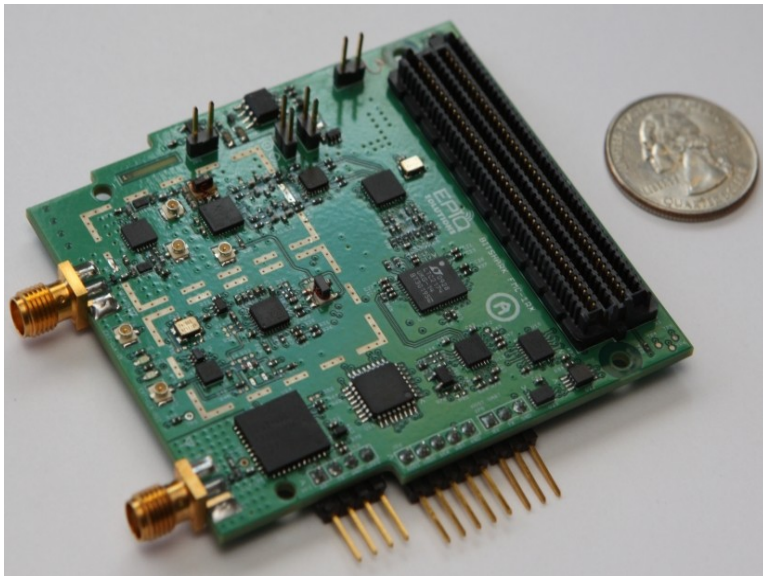


Bitshark FMC-1RX

Broadband configurable RF receiver

The Bitshark FMC-1RX is a broadband, high performance single-tuner RF receiver card that is compliant with the FPGA Mezzanine Card (FMC/VITA 57) digital interface standard. It supports a tuning range between 300 MHz and 4 GHz, while supporting user-defined channel bandwidths up to 50 MHz. Digitized baseband I/Q samples are provided by dual A/D converters and are accessible on the FMC interface for use by the host system. Targeted at commercial wireless radio applications, the Bitshark FMC-1RX supports the following frequency bands:

- ▶ GSM (850/900/1800/1900 MHz)
- ▶ iDEN (800 MHz)
- ▶ CDMA2K/EVDO (450/800/1900/2100 MHz)
- ▶ UMTS (Bands I-XIV)
- ▶ TD-SCDMA (1.9/2.0/2.4 GHz)
- ▶ WiFi/802.11 b/g (2.4 GHz)
- ▶ WiMAX/802.16 d/e (2.3-2.7 GHz, 3.3-3.8 GHz)
- ▶ LTE (Bands 1-40)
- ▶ TV Whitespace (400-700 MHz)
- ▶ ...plus many others



Key Features

- FMC/VITA 57 digital interface for integration with many FPGA development platforms
- Direct conversion (zero-IF) architecture
- Single RF tuner covering 300 MHz to 4 GHz
- Configurable baseband channel filter supporting RF bandwidths up to 50 MHz
- Integrated high-stability 26 MHz TCVCXO
- Dual 14-bit 105 MSPS A/D converters
- Low-jitter programmable A/D sample clock with 1 Hz resolution
- Integrated GPS receiver with 1PPS
- ASCII-based control interface through UART
- Phase-coherent reception with multiple FMC-1RX boards
- Example spectrum analyzer application using an FPGA development board and a host PC
- Pricing starting at \$2500 USD (quantity 1)
- Custom variants available for low NRE

