The Creonic L-band RF receiver FMC card allows to receive RF signals between 925 and 2,250 MHz. It is ideally suited for satellite communication with standard satellite dishes since it includes a DiSEqC driver IC for LNB controlling. Due to the low-pin-count (LPC) FMC connector it can be used with all FMC carrier boards that support $V_{adj} = 1.8V$.

Key components

- RF tuner with programmable bandwidth

- Dual-channel 12-bit ADC, up to 250 Msps

- Clock generation with optional external clocking

- Temperature compensated crystal oscillator (TCXO) for high frequency stability

- DAC for analog RF gain control

- DiSEqC driver IC with 13/18V and 22 kHz output for LNB control

- Low-Pin-Count (LPC) FMC connector, compliant with VITA 57.1 FMC standard

- 75 Ω male SMB connectors for RF and clock signals

- Voltage and temperature sensors

Key Features

- RF band 925 MHz – 2,250 MHz

- programmable bandwidth from 40 MHz to 100 MHz

- Low Noise Amplifier (LNA) included

- input power -75dBm to 0dBm

- 1.8V LVDS IOs

- DiSEqC support for LNB control

Applications

- Satellite communication

- Nanosatellites

- CubeSats

- Rapid prototyping

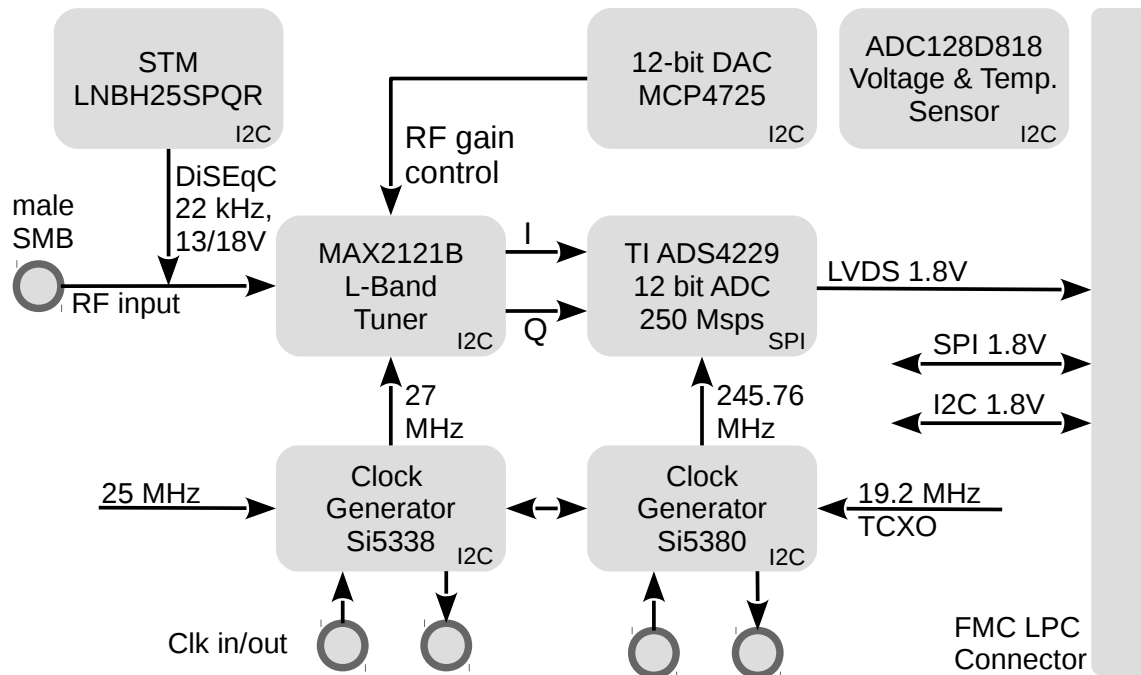- Software Defined Radio (SDR)

Deliverables

- FMC PCB

- FPGA firmware (VHDL)

- Software firmware (C++)

- Comprehensive documentation

Standards

- DVB-S2X / DVB-S2

- DVB-RCS2 / DVB-RCS

- CCSDS

- and many more

The following figure gives an overview of the components on the FMC satellite receiver board.

Related Products

[DVB-S2X Demodulator](#)
[DVB-S2X LDPC and BCH Decoder](#)
[CCSDS AR4JA LDPC Decoder](#)
[DVB-RCS2 Turbo Decoder](#)

About Creonic

Creonic is an ISO 9001:2008 certified provider of ready-for-use IP cores for several algorithms of communications such as forward error correction (LDPC and Turbo coding), synchronization, and MIMO. The company offers the richest product portfolio in this field, covering standards like DVB-S2X, LTE-A, DVB-RCS2, DOCSIS 3.1, CCSDS, WiFi, WiGig, and UWB. The products are applicable for ASIC and FPGA technology and comply with the highest requirements with respect to quality and performance. For more information, please visit www.creonic.com.

Contact

Creonic GmbH
Bahnhofstr. 26-28
67655 Kaiserslautern
Germany

Phone:	+49 631 3435 9880	
Fax:	+49 631 3435 9889	
Web:	www.creonic.com	
E-mail:	sales@creonic.com	

Twitter: Creonic_IPCores
Facebook: Creonic
LinkedIn: Creonic