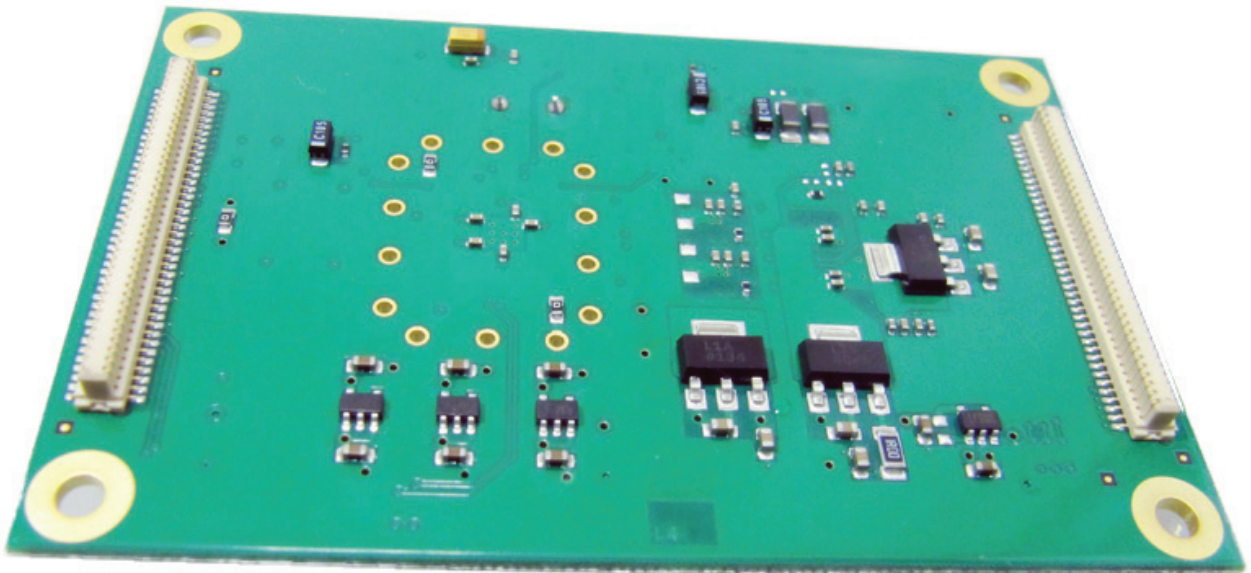


DI-6X RX

RX component for DI-6X main board



DI-6X RX-DVBS is a very flexible **XILINX** based platform for a wide range of applications. The Ultimate **XILINX VirtexVI** with different high speed connections allows **DI-6X RX-DVBS** to be the right platform for the next generation of equipments.

The **DI-6X RX-DVBS** is built with 2 components:

MAX2112

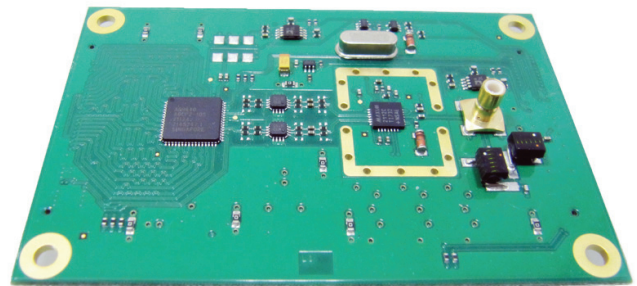
The **MAX2112** directly converts the satellite signals from the LNB to baseband using a broadband I/Q downconverter. The operating frequency range extends from 925MHz to 2175MHz. The device includes an LNA and an RF variable-gain amplifier, I and Q downconverting mixers, and baseband lowpass filters with programmable cutoff frequency control and digitally controlled baseband variable-gain amplifiers. Together, the RF and baseband variable-gain amplifiers provide more than 80dB of gain control range. The IC is compatible with virtually all DVB-S2 demodulators.

AD9640

The **AD9640** is a dual 14-bit, 80/105/125/150 MSPS analog-to-digital converter (ADC). The AD9640 is designed to support communications applications where low cost, small size, and versatility are desired. The AD9640 has several functions that simplify the automatic gain control (AGC) function in the system receiver. The fast detect feature allows fast overrange detection by outputting four bits of input level information with very short latency.

Features

- 925MHz to 2175MHz Frequency Range
- Monolithic VCO
 - Low Phase Noise: -97dBc/Hz at 10kHz
 - No Calibration Required
- High Dynamic Range: -75dBm to 0dBm
- Integrated Variable BW LP Filters: 4MHz to 40MHz
- Integer 1 to 8 input clock divider
- IF sampling frequencies to 450 MHz
- Internal ADC voltage reference
- Integrated ADC sample-and-hold inputs
- Flexible analog input range: 1 V p-p to 2 V p-p
- Differential analog inputs with 650 MHz bandwidth
- ADC clock duty cycle stabilizer
- 95 dB channel isolation/crosstalk



DI-6X RX-DVBS (side B)

Applications

- DirecTV and Dish Network DBS
- DVB-S2
- VSATs
- Communications
- Diversity radio systems
- I/Q demodulation systems
- Smart antenna system
- General-purpose SAT software radios
- Broadband data applications