Transceiver Daughterboards
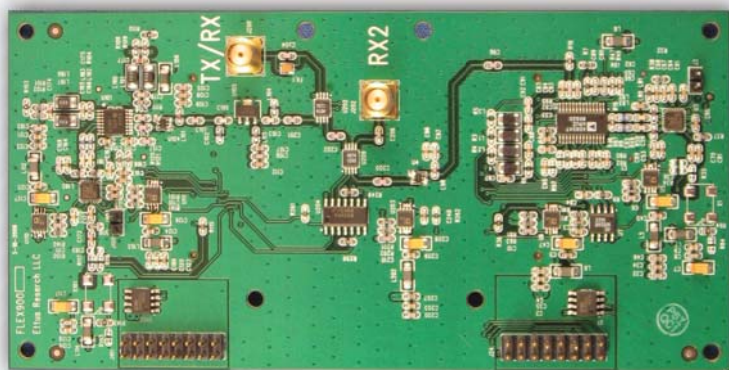## For the USRP Software Radio System

DESCRIPTION

Daughterboards turn a USRP or USRP2 motherboard into a complete RF transceiver system. Just add an antenna, and you are ready for two-way, high bandwidth communications in many popular frequency bands. The boards have many features which facilitate their integration into more complex systems, such as digital control lines and the option for split transmit and receive ports.

FEATURES

- 30 MHz transmit and receive bandwidth

- Fully synchronous design, MIMO capable

- All functions controllable from software or FPGA

- Independent local oscillators (LOs) for TX and RX enable split-frequency operation

- < 200us PLL lock time, can be used for frequency hopping

- Built-in T/R switching

- TX and RX on same connector or use auxiliary RX port

- 16 digital I/O lines to control external devices like antenna switches

- Built-in analog RSSI measurement

- 70 dB of AGC range

- Adjustable transmit power

- Full-duplex capable (with some limitations)

RFX900

BOARDS

WBX
- Frequency Range: 50 MHz to 2.2 GHz
- Transmit Power: 100mW (20dBm)

The frequency range of the WBX covers many bands of interest, including white spaces, broadcast television, public safety, land-mobile communications, low-power unlicensed devices, wireless sensor networks, cell phones and six amateur radio bands.

RFX400
- Frequency Range: 400 to 500 MHz
- Transmit Power: 100mW (20dBm)

Coverage of public safety, low-power unlicensed devices, motes, amateur radio and TV bands.

RFX900
- Frequency Range: 750 to 1050 MHz
- Transmit Power: 200mW (23dBm)

For use with cellular, paging, motes and two-way radio, in addition to the ISM band.

RFX1200
- Frequency Range: 1150 to 1450 MHz
- Transmit Power: 200mW (23dBm)

Coverage of navigation, satellite, and amateur bands.

RFX1800
- Frequency Range: 1.5 to 2.1 GHz
- Transmit Power: 100mW (20dBm)

Coverage of DECT, US-DECT, and PCS (including unlicensed) frequencies.

RFX2400
- Frequency Range: 2.3 to 2.9 GHz
- Transmit Power: 50mW (17dBm)

The RFX2400 comes with a bandpass filter around the ISM band (2400-2483 MHz). The filter can be easily bypassed, allowing for coverage of the full frequency range.

XCVR2450
- Frequency Range: 2.4 to 2.5 GHz, and 4.9 to 5.9 GHz
- Transmit Power: 100mW (20dBm)

The XCVR2450 covers both the ISM band at 2.4 GHz and the entire 4.9 to 5.9 GHz band, including the public safety, UNII, ISM, and Japanese wireless bands.