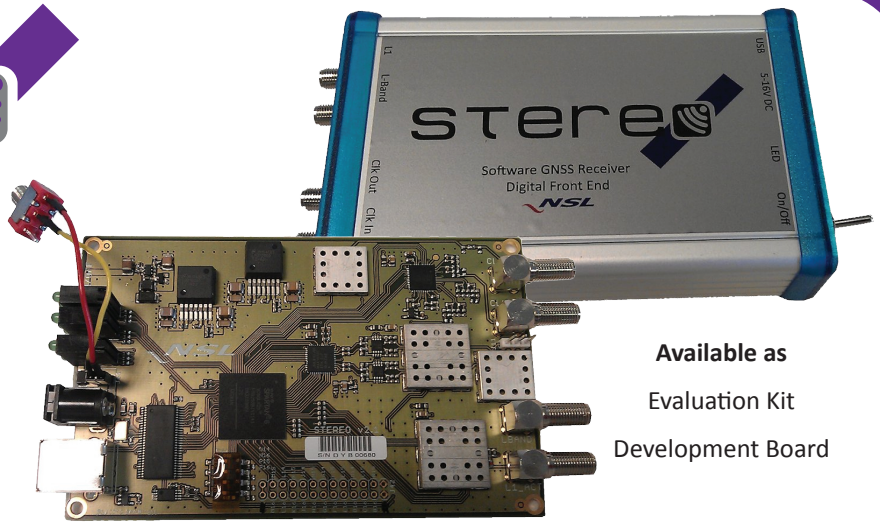
stereo



Fully flexible dual-board GNSS RF Front End for software defined radio applications. Stereo contains two Front Ends, the MAX2769B covering the GNSS Upper L-Band and the MAX2112 covering both the Upper and Lower L-Bands. Selectable frequencies include:

- GPS L1/L2/L2C/L5
- Galileo L1/E5/E5a/E5b/E6/AltBOC
- GLONASS G1/G2/G3
- Compass B1/B2/B3

Features:

- VIN = 3-16V, I_{max} < 750mA
- MAX2769B single-conversion, low-IF GNSS receiver
- MAX2112 DVB-S2 satellite tuner
- One shared clock (TXC 26MHz TCXO) with interfaces for alternate oscillators and external frequency input
- USB2.0 microcontroller
- FPGA to work as glue logic between Front Ends and the USB2.0 microcontroller (Xilinx Spartan-6 XC6SLX25-2FTG256C)
- LNA on both antenna paths
- Configurable 2, 4, 8-bit I&Q output data
- Configurable sampling frequency
- Software configuration of the MAX2769B MAX2112, the ADC, the FPGA, the TCXO reference, and the clock distribution chip
- Compatible with Open Source GNSS SDRs and supplied with Windows & Linux drivers, data grabber utilty, and configuration files

Available as

Evaluation Kit

Development Board

Technical details:

The MAX2769B

- the LO can tune GNSS signals between 1550 MHz and 1610 MHz
- has a bandwidth of 2.5, 4.2, 8, or 18 MHz (18 MHz only in low-pass filter mode)
- has a sampling frequency of up to 40 MHz

The MAX2112

- I and Q direct conversion receiver
- the LO can tune between 900 MHz and 2400MHz
- has a SSB bandwidth of 4 to 32MHz
- has a configurable gain

The USB2.0 micro

- Sustains transfer speeds up to 30MBytes/sec
- Configures the FPGA
- Configures the MAX2769B/2112 gain and registers
- Configures the TCXO reference

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