



Dual-board GNSS RF Front End for software defined radio applications, receiver testing and validation. Example applications include:

- GPS/Galileo+Glonass, or GPS/Galileo+Compass
- Bi-static radar
- Attitude determination (2 PRIMO II connected together)

#### Board details:

- $V_{IN_{min}} = 5V$ ,  $V_{IN_{max}} = 16V$ ,  $I_{max} < 150mA$
- Two MAX2769 sharing one clock (Rakon 0.5 PPM TCXO)
- 1 CPLD to work as glue logic between MAX2769 to the USB2.0 microcontroller
- 1 USB2.0 microcontroller
- both antenna inputs powered with 3.3V
- Hardware (jumpers) or software (PRIMO II library) configuration of the two MAX2769
- All lines broken out (to enable connection to a FPGA or connecting two together)
- Alternative clock input and additional clock output onboard (not exposed from box)



#### Technical details:

##### The MAX2769

- 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 CPLD

- compresses the samples bits in a byte
- performs logic level translation
- performs basic signal conditioning

##### The USB2.0 micro

- sustains transfer speeds up to 30 MBytes/sec
- configures the CPLD
- configures each of the MAX2769 separately



Nottingham Scientific Ltd, Loxley House, Tottle Road, Nottingham, NG2 1RT, UK

Tel: +44 (0)115 9682960 Email: [enquiries@nsl.eu.com](mailto:enquiries@nsl.eu.com) Http: [www.nsl.eu.com](http://www.nsl.eu.com)