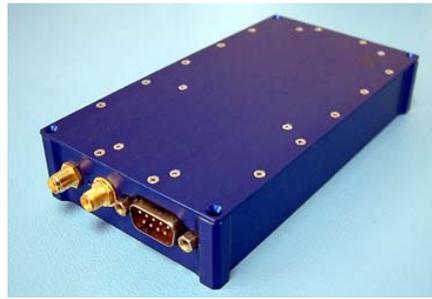


SQRX

Multi-Band Receiver



General Specifications:	
Frequency Range:	10 MHz to 1,300 MHz
Frequency Resolution:	100 Hz tuning steps
IF Bandwidth:	4 kHz, 15 kHz or 150 kHz
Tuning Step Time:	75 msec
Modulation:	AM, FM, CW, SSB, FM Wide
Receiver Type:	Triple conversion
1st IF Frequency:	266.7 MHz and 429.1 MHz
2nd IF Frequency:	10.7 MHz
3rd IF Frequency:	455 kHz
FM Sensitivity:	-117 dBm for 12 dB SINAD
Image Rejection:	> 56 dB
Blocking Dynamic Range:	Beyond ± 25 kHz from center, > 35 dB Beyond ± 75 kHz from center, > 40 dB Beyond ± 1 MHz from center, > 65 dB
Audio Response:	2 Hz - 6 kHz FM Narrow; 2 Hz - 40 KHz FM Wide 500 Hz - 3.2 kHz SSB/CW; 100 Hz - 3 kHz AM
Maximum Data Rate (GMSK):	64 kbps for 150 kHz BW; 9.6 kbps for 15 kHz BW
RSSI Output:	Digital and Analog output
Interface:	Serial to flight computer
Power consumption:	800 mW
Input Voltage:	5 volts
Size:	130 x 70 x 25 mm (5 x 3 x 1 inches)
Mass:	270 grams (9.5 ounces)
Operating Temperature:	-10°C to +50°C
Power/Control Connector:	DE-9
Antenna Connection:	50 Ohm grounded SMA antenna port for static and Corona discharge protection
Data/Audio Connector:	SMA, & DE-9
Flight Qualification:	4 out of 4 successful flights

Potential Applications

- Agile, wide frequency range receiver for satellite communications links.
- Monitor ground, air or space-based radio signals from 10 MHz to 1300 MHz.
- Spectrum survey from space for future satellite missions.
- Confirmation of frequency & interference levels.
- Agility to avoid frequency conflicts with other users.
- On board diagnostic tool to detect presence of local frequencies.
- Multi-mode communications in 2 m, 70 cm, or 23 cm amateur bands.
- Bent pipe (loopback) communications from 10 MHz to 1.3 GHz.
- Satellite-to-satellite communications receiver.
- Flying spectrum analyzer.
- Earth mapping of RF rich or quiet zones.
- Radio frequency propagation monitor.
- Search and rescue emergency communications.
- Downed pilot frequency monitor.
- Aurora and magnetic disturbance monitor.
- Lightning and noise floor monitor.
- Meteor trail ionization monitor.
- Agile IF for many up or downed converters.