

TETHERS UNLIMITED, INC.

SWIFT-SLX[®]



SOFTWARE DEFINED RADIO S-BAND TRANSCEIVER

SPECIFICATIONS

FREQUENCY RANGE

1700 - 2500 MHz

INPUT VOLTAGE

9 - 34.6 VDC

RF MODULATION

BPSK / QPSK / OQPSK / 8PSK / 16APSK /
SGLS

DC POWER CONSUMPTION

Tx: 12W Max / Rx: 8W Max / Standby: 4W Max
Tx + Rx: 16W Max

FORWARD ERROR CORRECTION

LDPC/BCH/REED SOLOMON/
CONVOLUTIONAL

OPERATING TEMPERATURE

-30 C to +60 °C

BANDWIDTH

Tx: 10 MHz
Rx: 6.8 MHz

MASS

< 300g

PEAK THROUGHPUT

Up to 6 Mbps

DIMENSIONS

90.4 mm x 98 mm x 36.5 mm

INTERFACE OPTIONS

1x Ethernet, 2x RS-422, 2x LVDS, Spacewire,
1PPS/clock

ENVIRONMENTAL

Pre-qualified to NASA GEVS shock/vibe

TX POWER

Up to +33 dBm, finely adjustable

RADIATION ENVIRONMENT

40krad TID

ANTENNA PORTS

1 TX port SMA
1 RX port SMA

LIFETIME

3+ years, depending upon orbit

RECEIVER SENSITIVITY

-130 dBm @ 1 ksym/s, BPSK

ENCRYPTION

AES-256 up & down, FIPS140-2 Level 1 available
Compatible with CryptoSWIFT-T1, KI-55, KI-103

MAX RECEIVER INPUT

-20 dBm

WAVEFORM / AIR INTERFACE

CCSDS Standard / SGLS / USB

MAX RECEIVER INPUT WITHOUT DAMAGE

0 dBm

APPLICATIONS

SATCOM, SmallSats, UAVs, High Altitude Aircraft

FREQUENCY ACCURACY

+/- 1.5 ppm Max



DESCRIPTION

The SWIFT-SLX is a S-band and L-band software defined transceiver that has one of the smallest size, weight and power form factors for its capabilities. With a wide array of electrical interfaces and AES encryption, the SWIFT-SLX is ideally suited to many different applications.

