

TETHERS UNLIMITED, INC.

SWIFT®-UTRX



SOFTWARE DEFINED RADIO UHF-BAND TRANSCEIVER

SPECIFICATIONS

FREQUENCY RANGE

370 - 750 MHz

RF MODULATION

BPSK / QPSK / OQPSK / 8PSK / 16APSK

FORWARD ERROR CORRECTION

LDPC/BCH/REED SOLOMON/
CONVOLUTIONAL

BANDWIDTH

5 MHz

PEAK THROUGHPUT

3.33 Msym/s

INTERFACE OPTIONS

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

TX POWER

Up to 36.5 dBm

ANTENNA PORTS

1 TX port SMA
1 RX port SMA

RECEIVER SENSITIVITY

- 117 dBm @ 10 ksym/s, BPSK

MAX RF INPUT

- 20 dBm

MAX RF INPUT WITHOUT DAMAGE

0 dBm

FREQUENCY ACCURACY

+/- 1.5 ppm Max

INPUT VOLTAGE

9 - 34.6 VDC

DC POWER CONSUMPTION

Standby: 4W Max
Tx: 48W Max
Rx: 10W Max

OPERATING TEMPERATURE

-30 C to +60 °C

MASS

< 650g

DIMENSIONS

90.4 mm x 98 mm x 62 mm

ENVIRONMENTAL

Pre-qualified to NASA GEVS shock/vibe

RADIATION ENVIRONMENT

10Krad TID; Baseband Board tested to 40krad

LIFETIME

3+ years, depending upon orbit

ENCRYPTION

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

WAVEFORM / AIR INTERFACE

CCSDS Standard

APPLICATIONS

SATCOM, SmallSats, UAVs, High Altitude Aircraft



DESCRIPTION

The SWIFT-UTRX is a UHF-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-UTRX is ideally suited to many different applications.



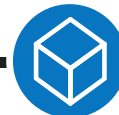
AS9100
Certified



Low
Power



Light
Weight



Small
Footprint



High
Performance