

TETHERS UNLIMITED, INC.

SWIFT[®]-X KTRX



SOFTWARE DEFINED RADIO KA-BAND TRANSCEIVER

SPECIFICATIONS

FREQUENCY RANGE

Tx: 20.2 - 21.2 GHz / Rx: 30 - 31 GHz
Tx / Rx: 24 - 27 GHz

RF MODULATION

BPSK / QPSK / OQPSK / 8PSK / 16APSK

FORWARD ERROR CORRECTION

LDPC/BCH/REED SOLOMON/
CONVOLUTIONAL

BANDWIDTH

Tx: 250 MHz / Rx: 200 MHz

PEAK THROUGHPUT

> 1 Gbps

INTERFACE OPTIONS

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

TX POWER

Up to +35 dBm, finely adjustable

ANTENNA PORTS

1 TX port Waveguide
1 RX port Waveguide

RECEIVER SENSITIVITY

Minimum - 117 dBm

MAX RF INPUT

- 20 dBm

MAX RF INPUT WITHOUT DAMAGE

0 dBm

FREQUENCY ACCURACY

+/- 1.5 ppm Max

INPUT VOLTAGE

22 - 36 VDC

DC POWER CONSUMPTION

Tx: 50 W MAX / Rx: 20 W MAX
Total: 60 W MAX

OPERATING TEMPERATURE

-30 C to +60 °C

MASS

< 1 kg

DIMENSIONS

160.5 mm x 96 mm x 60 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
Compatible with CryptoSWIFT-T1, KI-55, KI-103

WAVEFORM / AIR INTERFACE

CCSDS Standard, DVB-S2 Optional

APPLICATIONS

SATCOM, SmallSats, UAVs, High Altitude Aircraft



DESCRIPTION

The SWIFT-X KTRX is a Ka-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-X KTRX is ideally suited to many different applications.



AS9100
Certified



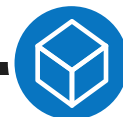
High
Bandwidth



Low
Power



Light
Weight



Small
Footprint



High
Performance