

TETHERS UNLIMITED, INC.

SWIFT®-KTX



SOFTWARE DEFINED RADIO KA-BAND TRANSMITTER

SPECIFICATIONS

FREQUENCY RANGE

Option 1: 24 - 27 GHz
Option 2: 20.2 - 21.2 GHz

INPUT VOLTAGE

9 - 34.6 VDC

RF MODULATION

BPSK / QPSK / OQPSK / 8PSK / 16APSK

DC POWER CONSUMPTION

Standby: 4W Max
Tx: 22W Max

FORWARD ERROR CORRECTION

LDPC/BCH/REED SOLOMON/
CONVOLUTIONAL

OPERATING TEMPERATURE

-30 C to +60 °C

BANDWIDTH

50 MHz

MASS

< 300g

PEAK THROUGHPUT

Up to 25 Mbps

DIMENSIONS

90.4 mm x 98 mm x 40 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

10Krad TID

ANTENNA PORTS

1 TX port Waveguide

LIFETIME

3+ years, depending upon orbit

FREQUENCY ACCURACY

+/- 1.5 ppm Max

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-KTX is a Ka-band software defined radio transmitter 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-KTX is ideally suited to many different applications.

