

# TETHERS UNLIMITED, INC.

# SWIFT-KTX<sup>®</sup>



## 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; Baseband Board tested to 40krad

#### 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.

