

# TETHERS UNLIMITED, INC.

# SWIFT-UTX<sup>®</sup>



## SOFTWARE DEFINED RADIO UHF-BAND TRANSMITTER

### SPECIFICATIONS

#### FREQUENCY RANGE

370-450 MHz

#### INPUT VOLTAGE

9 - 34.6 VDC

#### RF MODULATION

BPSK / QPSK / OQPSK / 8PSK / 16APSK

#### DC POWER CONSUMPTION

Standby: 4W Max  
Tx: 48W Max

#### FORWARD ERROR CORRECTION

LDPC/BCH/REED SOLOMON/  
CONVOLUTIONAL

#### OPERATING TEMPERATURE

-30 C to +60 °C

#### BANDWIDTH

5 MHz

#### MASS

< 300g

#### PEAK THROUGHPUT

3.33 Msym/s

#### 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 36.5 dBm

#### RADIATION ENVIRONMENT

10Krad TID; Baseband Board tested to 40krad

#### ANTENNA PORTS

1 TX port SMA

#### LIFETIME

3+ years, depending upon orbit

#### FREQUENCY ACCURACY

+/- 2 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-UTX is a UHF-band software defined 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-UTX is ideally suited to many different applications.



AS9100  
Certified



Low  
Power



Light  
Weight



Small  
Footprint



High  
Performance