



# SWIFT™ -XTS

Software Defined S-Band Transceiver and X-Band Transmitter

## Description

The SWIFT-XTS combines an S-band transceiver and an X-band transmitter into an incredible system that allows for transmission of Command, Control, Telemetry, and Mission Data within a small integrated solution. With a wide array of electrical interfaces and AES encryption, the SWIFT-XTS is ideally suited to many different applications, from the Earth to the Moon and anything in between.



## Why XTS?



**Highspeed data  
downlink**



**S-band up/down  
X-band down**



**Multi-Functional**  
Telemetry, Command, and  
Control (TTC) AND Mission  
Data Transfer



**Low SWaP**  
125 x 105 x 60mm and  
weighs 800 grams



# Specifications

Performance	Specification
<b>S-Band Transceiver</b>	
Peak Throughput	Tx: up to 25 Mbps Rx: up to 5 Mbps
Frequency Range	1700 – 2300 MHz
Bandwidth	Tx: 10 MHz      Rx: 9.9 MHz
Tx Power	+33 dBm
<b>X-Band Transmitter</b>	
Peak Throughput	Up to 100 Mbps (max 50 Mbps with HDLC framing)
Frequency Range	8000 – 8500 MHz
Instantaneous Bandwidth	50 MHz
Tx Power	+33 dBm

## Modulation Options- reconfigurable on-orbit

Rx	Tx
BPSK, AMFSK, SGLS, USB	BPSK, QPSK, OQPSK, 8PSK, 16APSK, SGLS, USB

SWaP	Specification
Size	(L) 125 x (W) 105 x (H) 60 mm with copper strap
Mass	800 grams with copper strap
Input Voltage	9 – 34.6 VDC
Operating Power	44 W max
Standby Power	4 W max
Operating Temperature	-30C to +60C
Radiation	40 Krad TID, 200 MeV non-destructive latch-up, rad-hard flash
Vibration	22.6 Grms

## Interfaces\*

- RS-422
- LVDS
- 2 Tx port SMA (1 S-band, 1 X-band)
- 1 Rx port SMA

## Encryption (Optional Add-On)\*\*

- AES-256 up & down
- Compatible with KI-55, KI-103

\*Additional Interfaces Available

\*\*Pairing a XTS with TUI's Crypto-SWIFT allows for type 1 encryption

## Features

- CCSDS TM/TC/AOS/Security Packet, Gryphon Framing
- NTIA/SFCG Mask Compliant
- PN Ranging (one-way, two-way)
- Coherent or non-coherent