

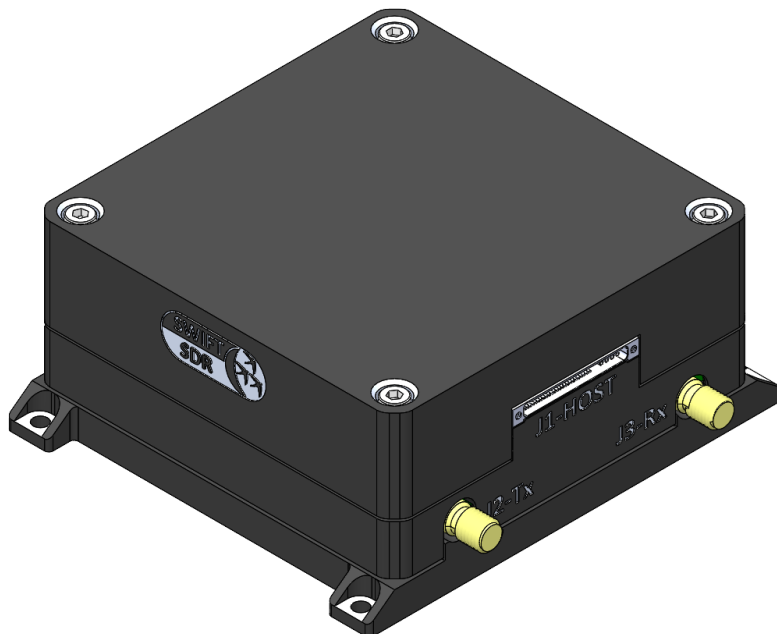


SWIFT™ -XTX

High-Performance X-Band Downlink

Description

The SWIFT-XTX is an X-band software defined transmitter that has one of the smallest size, weight and power form factors in the industry for its capabilities. As an integrated system, it combines the data interface, RF transmitter chain and power amplifier in a single package. With a wide array of electrical interfaces and AES encryption, the SWIFT-XTX is suited to many different applications, from the Earth to the Moon and anything in between.



Why XTX?



Low SWaP

Weighs 800 grams and <22W Operating Power



Modulation Options

Tx can be modulated based on your requirements

Modulation can be configured on-orbit



Encrypted Networking

AES-256 can be added to base configurations



Flight Heritage

Proven solution



Specifications

SDR Performance	Specification
Peak Throughput	Tx: Up to 100 Mbps (max 50 Mbps with HDLC framing)
Frequency Range	Tx: 8 – 8.5 GHz
Tx Bandwidth	50 MHz
Tx Power	+33 dBm (Finely Adjustable)
Rx Bandwidth	9.9 MHz
Operating Dynamic Range	-120 to -50 dBm

Modulation Options- reconfigurable on-orbit

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

SWaP	Specification
Size (with connectors and mounting feet)	(L) 107 x (W) 98 x (H) 46 mm
Mass	800 grams
Input Voltage	9 – 34.6 VDC
Operating Power	22 W
Standby Power	3 W
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 for TT&C (Prime and Redundant ports)
- LVDS for Data Transfer
- 1 Tx port SMA

Encryption (Optional Add-On)

- AES-256
- Compatible with KI-55, KI-103, Iron Fortress (KI-18x2)

Forward Error Correction

- Convolutional Coding, Reed Solomon, LDPC, BCH

Features

- CCSDS TM/TC/AOS/Security Packet, Gryphon Framing
- NTIA/SFCG Mask Compliant
- Coherent or non-coherent