SWIFT®-SLX

Flexible High-Performance L- and S-Band Communications

Capabilities

- ≈2W max. S-band Tx w/ ≈40 MHz max. bandwidth
- 1.7-2.7 GHz Tx frequency coverage
- Independent receivers w/ ≈7 MHz typ. bandwidth
- 1.5-3.5 GHz Rx frequency coverage in ≈100 MHz chunks
- ≈0.75 dB typ. receiver noise figure
- Arbitrary waveform/modulation/coding
- Typical LEO max.: 5 Mbps up/20 Mbps down
- 100% re-programmable w/ fail-safe boot modes
- Optional diplexer for full-duplex L-/S-band ops

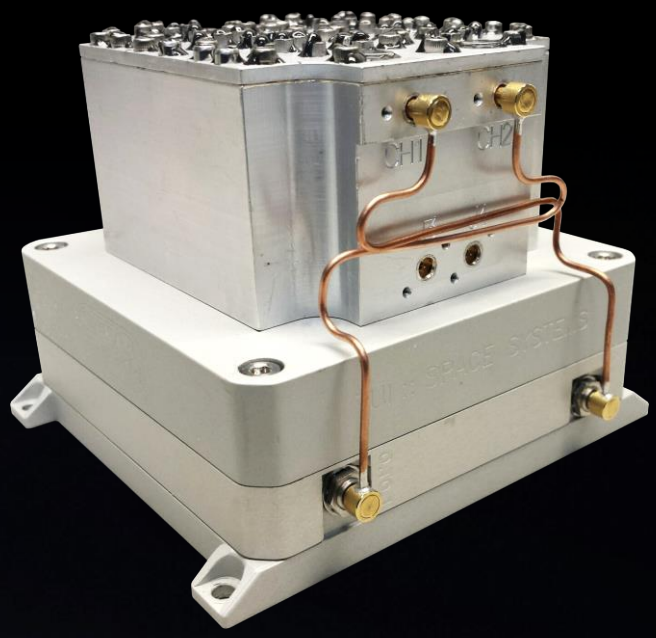
Specifications

- > 3 year LEO mission design life
- 86 x 86 x 25-35mm (0.25U) (excl. diplexer)
- ≈300 grams (excluding diplexer)
- 6-36V unregulated DC
- Pre-qualified to NASA GEVS shock/vibe
- Pre-qualified to -40 to +60°C
- Scalable power consumption
  - 3.0W active standby
  - 6.5W single receive
  - 12W transmit only
  - 15W transmit and single receive

Network Compatibility

Optional AFSCN-specific firmware interoperable with all non-deprecated modes in ICD-0502E. In addition to AM/FSK, direct carrier PSK uplinks are supported giving the SWIFT-SLX the ability to interoperate with both traditional and newer commercial ground stations.

- NASA's NEN, TDRS (SN), DSN
- Verified w/ RT Logic T400XR, Cortex T70, and Amergint satTRAC
- Simultaneous SGLS and USB uplink reception
- Interface compatible with KI-55 and GNOME Type-1 encryption module
- Onboard commercial-grade AES-256/GCM "full-rate" encryption available, including compatibility with GRYPHON personalities of KIV-7MS



Flight Units Available Now!

Tethers Unlimited, Inc.

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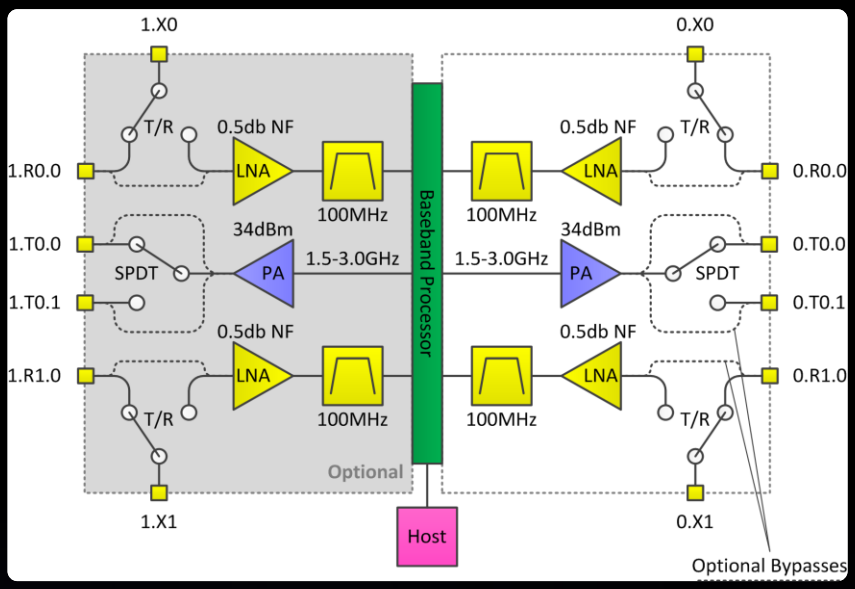
SWIFT®-SLX

Flexible RF Connectivity

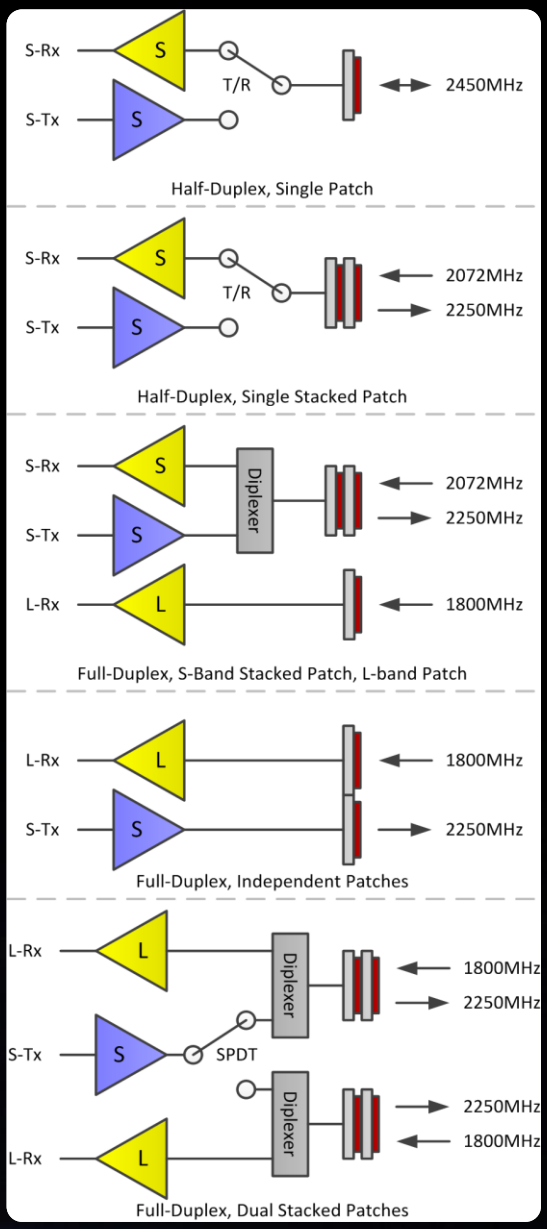
	Qty	Freq. Range	Bandwidth	Power
Tx	2	1.5-2.5 GHz	≈40 max. MHz Inst.	33 dBm /ea
Rx	4	1.0-4.0 GHz	≈100 MHz Tuning ≈7 MHz Inst.	0.75 dB NF



Typical Use	Band	Frequency Range
Uplink	L-band Uplink	1755 to 1850 MHz
Uplink / Downlink	Mobile Satellite	1930 to 2025 MHz
Uplink	USB S-band	2025 to 2110 MHz
Downlink	USB S-band	2200 to 2300 MHz
Uplink / Downlink	ISM S-band	2400 to 2483 MHz

This parallel RF connectivity can be leveraged in multiple ways to create a variety of half- and full-duplex L- and S-band communication systems. If you don't see what you need, just ask! There are too many options to list here!

Connection Examples



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