

High-Performance Software-Defined K/Ka-Band Transmitter

Capabilities

SWIFT-KTX provides small satellites with a high throughput downlink in Ka-band. When coupled with the current Gen1 processor, the Katransmitter can push 25 Msym/s in one of two operational bands. The next generation processor, SWIFT-HB, which is in development, will increase that capability to 150 Msym/s which means that modulation at 16APSK can achieve data rates as high as 600MB/s.



Features

- >3 year LEO mission design life
- Size: 86 x 86 x 40mm
- Mass: < 500 grams
- Power: 6-34.6V unregulated DC
 - Integrated latch-up/fault detection & protection
- Power consumption: 25 W
- High-speed interface options:
 - o 1Gbit Ethernet
 - 200 Mbps SpaceWire (LVDS)
 - o 200 Mbps sync. HDLC over LVDS
- Flexible mounting options
- >500 MHz real modulation bandwidth
- Two discrete designs covering approximately:
 - o 18-23 GHz
 - o 23-28 GHz
- OP1dB ~ 30 dBm, Psat ~ 33 dBm; Output Power Adjustable over ~ 20 dB Range
- WR-42 waveguide output port
- Network compatibility
 - Verified w/ MMR/QMR and ViaSat VHR modems
 - TDRS compatibility verification pending
- Runtime configurable link parameters
 - BPSK/QPSK/OQPSK/8PSK*/16APSK*
 - LDPC/BCH/Reed-Solomon/Convolutional
 - Continuously adjustable symbol rates

Gen1 KTX shipping now

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