

STX

S-BAND TRANSMITTER

ALL NEW!

- + S-BAND TRANSMITTER
- + WITH DVB-S2 ENCODING
- + SPACEWIRE INTERFACE

Just Launched!

Available with DVB-S2

The STX is an extremely compact S-band transmitter designed specifically for nanosatellite missions, with a Cubesat Kit PC/104 form factor. The transmitter implements the DVB-S2 standard which supports QPSK, 8PSK, and 16APSK modulation at a symbol rate of 4 Msps. The maximum data throughput is over 12 Mbps.

The STX is ideal for space missions that require a medium data rate downlink. It implements a DVB-S2 standard (concatenated encoding optional) allowing the product to be compatible with commercial-off-the-shelf satellite demodulators. A nadir facing S-band patch antenna is available which is easily incorporated into the nanosatellite design.

TECHNICAL SPECIFICATIONS



DIMENSIONS 96 x 90 mm



UNIT TOTAL MASS < 120 g



BOARD TEMPERATURE -20 to 60 °C



INPUT VOLTAGE 7 V - 20 V



POWER CONSUMPTION < 12 W

PROCESSING

- LOW POWER FLASH BASED FPGA
- AVAILABLE IN DVB-S2 ENCODING
- BCH ENCODING FOR BURST ERROR CORRECTION
- LDPC ENCODING

RF SPECIFICATIONS

FREQUENCY RANGE	2.2 - 2.3 GHz
MAXIMUM RF POWER	2 Watt (33 dBm)
CHANNEL SPACING	100 kHz
SPURIOUS RESPONSE	< -60 dBc (TBC)
TX SNR	> 20 dB
EVM	< 7%
SYMBOL RATE	4 Msps

DELIVERABLES

- FLIGHT BOARD
- USER MANUAL + STEP MODEL
- ACCEPTANCE TEST REPORT

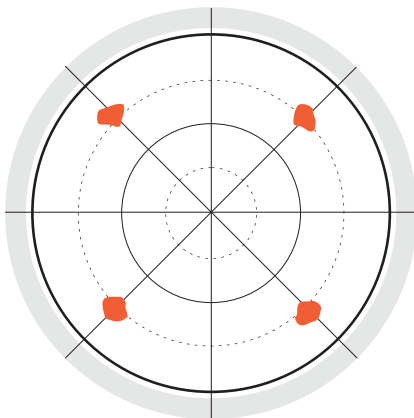
INTERFACES

1. LOW SPEED I²C BUS OR CAN 2.0 (TELEMETRY AND CONTROL)
2. SPACEWIRE, GENERIC LVDS, QSPI (HIGH SPEED DATA INTERFACE)
3. 50 Ω SMP RF CONNECTOR

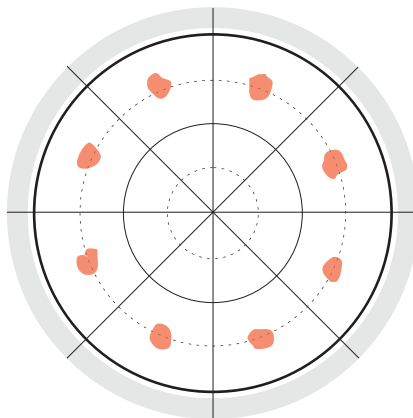
MODULATION

- CONFORMS TO SFCG 21 2R4 EMISSIONS

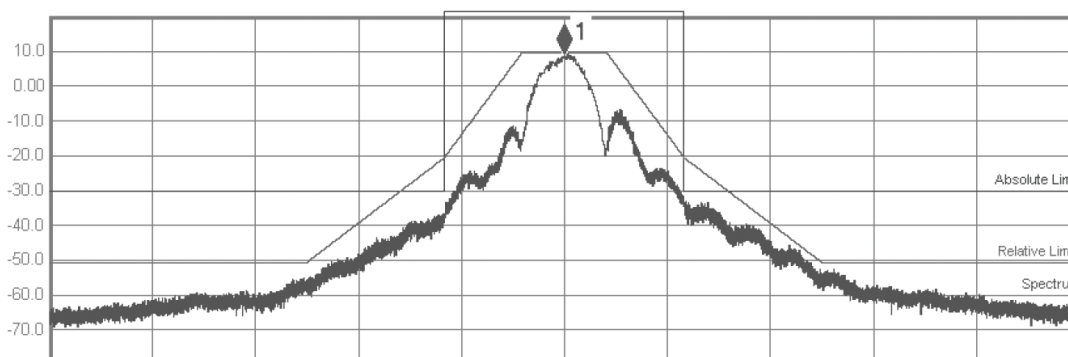
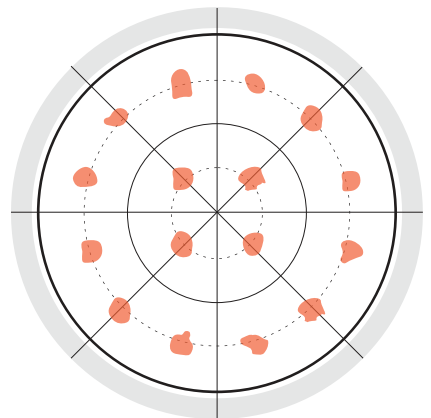
QPSK



8PSK



16APSK



SPECTRUM

 SPECTRUM ANALYSIS



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