

Test Description

Testing Description – The purpose of this request is to begin using C band telemetry for flight test operations at the Boeing-Mesa site (currently using strictly L band). As use of L band becomes more restricted, we've been directed to start adding C band capability. The requested authorization will not only allow us to use C band for testing our own products, but will allow us to bid on outside telemetry work.

1. 2 frequencies between 4400 MHz and 4950 MHz. (Transmitters are tunable in 0.5 MHz steps)
2. 2 frequencies between 5091 MHz and 5150 MHz. (Transmitters are tunable in 0.5 MHz steps)
3. Authorization for up to 20W power output.
4. Authorization for up to 20 MHz bandwidth.
5. 200 MIRAD around the Mesa facility.

Mfr – Quasonix

P/N - QSX-VDR2-1100-10-02-07AK-DP-STC-LD

P/N Description - STC Dual C-Band Telemetry Transmitter

(V) Variable Rate, auto-scaling of deviation and filter BW

(D) 4400.0 MHz to 4950.0 MHz

5091.0 MHz to 5150.0 MHz

Tuning in 0.5 MHz steps

(R) RS-422 clock and data interface, 120 ohms differential

(2) RS-232 serial control interface: 57,600 baud rate

(1) ARTM Tier 0 (PCM/FM), 0.05 - 14 Mbps: Yes

(1) ARTM Tier I (SOQPSK-TG), 1 - 28 Mbps: Yes

(0) ARTM Tier II (Multi-h CPM), 1 - 28 Mbps: No

(0) BPSK 0.05 - 10 Mbps, QPSK, OQPSK 0.05 - 20 Mbps: No

(10) Dual RF Outputs: 10 Watts (+40 dBm Minimum) Each

(02) Pin Out Configuration

(07AK) Package: 2" x 3" x 1.2" = 7.2 in³

Package height subject to change with final design.

Primary Connector: Female MDM-15

RF Output Connector: 2 X SMA Female

(-DP) Dual Power Option, 64 settings approximately 0.5 dB apart

(-STC) Dual Channel Telemetry Transmitter with Space Time Coding (STC)

(-LD) LDPC Forward Error Correction Encoding