

Parameters of Test Units

Globalstar, L.P., is proposing to test the parameters of a new type of Mobile Earth Station (“MES”) terminal for Globalstar™ service.

The unit to be tested performs only the transmit function (in simplex mode), and is hereby referred to as a Remote Telemetry Unit (“RTU”). Remote Telemetry is essentially low volume of telemetric data transmitted very infrequently (once an hour or day or week, etc.) at very low data rates. This RTU is an additional type of Globalstar user terminal whose manufacturer, Axonn Inc. of New Orleans, Louisiana, will apply for type certification within the United States.

The MES designs are currently under design and production by Axonn Inc. The type of antenna will vary depending on the radio application. The radio type, service offered, frequency band of operation, and applicable antenna type is indicated below.

<i>Radio Type</i>	<i>Radio Designator</i>	<i>Services Offered</i>	<i>Frequency Bands (MHz)¹</i>	<i>Antenna Designation</i>
RTU (stationary and mobile applications)	Single-mode	Globalstar™ Remote Telemetry	Tx: 1610—1620	GS Tx

¹ Tx = transmit band
Rx = receive band

For the MES mode:

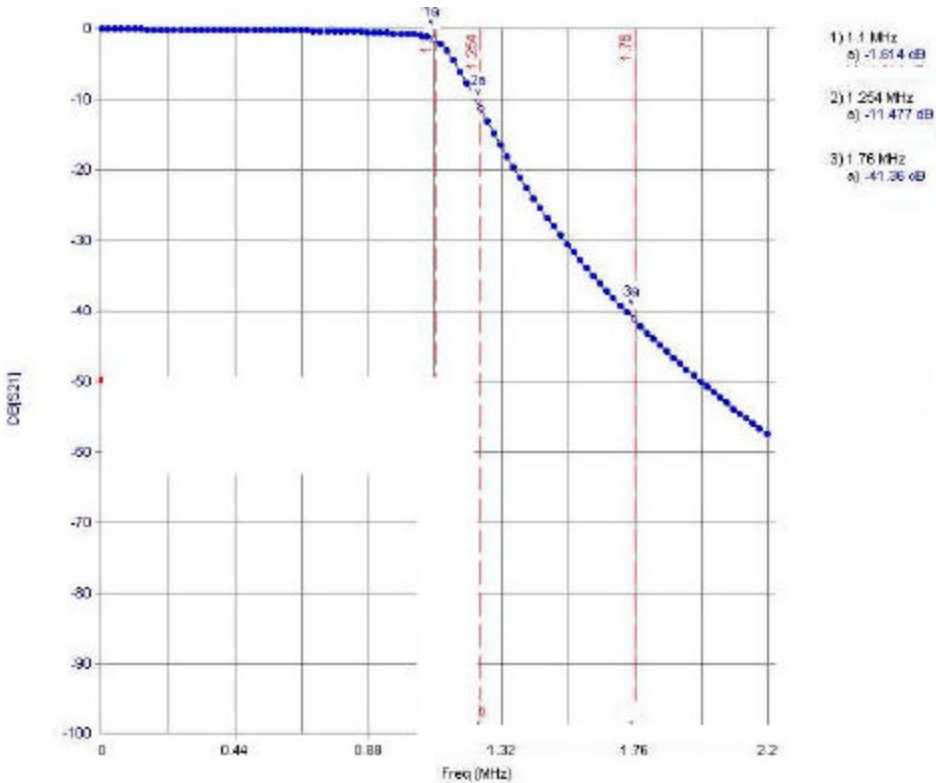
- a) Frequency of operation: Transmit band of 1610 to 1620 MHz. Globalstar™ terminals are designed with the capability to operate in the entire 1610—1626.5 MHz band; however, in the U.S. the MES will operate only in the 1610—1620 MHz range, consistent with the FCC license held by L/Q Licensee. Any references in this application to the 1610-1626.5 MHz band apply to the MES capability only. The Globalstar™ RTU transmits in one of four 2.5 MHz wide CDMA channels within 1610—1620 MHz frequency range.
- b) Antenna Polarization: Left hand circular
- c) Emission Designator: 1M23G7W
- d) Maximum EIRP: The maximum EIRP is dictated by the maximum available transmitter power for a particular radio and its peak antenna gain.
- e) Maximum EIRP density: The EIRP density is the EIRP divided by the channel bandwidth of 2.5 MHz and further corrected for the required 4 kHz bandwidth.

Telemetry Mode

<i>Radio Type and Mode</i>	<i>Max Tx Power Available (dBW)</i>	<i>Peak Antenna Gain (dBic or dBi)</i>	<i>Max EIRP (dBW)</i>	<i>(e) Max EIRP Density (dBW/4 kHz)*</i>
RTU (both stationary and mobile modes)	-6.5	3.5	-3	-30.9

***Peak ERP is 26 dBm**

- f) Description of Modulation: The Globalstar™ MES transmitter realizes direct sequence spreading at a chip rate of 1.25 MHz. Baseband filtering is implemented as shown in the figure below. The signal is modulated to form BPSK modulation.



Filter Frequency Response

Protection of GPS and Radio-Astronomy

The filter described above is sufficient to ensure protection for adjacent-band transmissions in the Radio Navigation Satellite Service. Globalstar will take all steps required by 47 C.F.R. § 25.213(a) to ensure protection for the Radio-Astronomy Service.

