

SemaLink

SemaLink Ku-TX100 - Ku Band Agile Telemetry / Beacon Transmitter

Telemetry, Command & Ranging Subsystem Products



FEATURES

- In orbit frequency agility up to 250 MHz
- High output power
- Telemetry (modulated) or beacon (unmodulated) modes
- Standard PM modulation and BPSK/PM modulation schemes available
- Low spurious signals and phase noise
- Cost effective and state-of-the-art design using latest qualified components
- Compact design for low mass and size
- Vertical mounting for dense system layout
- Low non-recurring engineering costs with the help of frequency agility
- CAN-SU data protocol
- Compatible with major platforms' electrical and mechanical interfaces
- Electromagnetic compatibility per MIL-STD-461F
- Designed for GEO platforms
- Fully space qualified

*SemaLink Ku-TX100
Ku Band Agile Telemetry Transmitter*

OVERVIEW

SemaLink Ku-TX100 - Ku Band Agile Telemetry /Beacon Transmitter, which has been developed and qualified to operate on geostationary satellites, is responsible for transmitting the telemetry and health status data, that has been collected from the sensors on-board, to ground stations. These status data include mission critical data such as the operational status of the equipment or the exact attitude of the satellite. SemaLink Ku-TX100 - Ku Band Agile Telemetry /Beacon Transmitter is a state-of-the-art RF equipment with the flexibility to change the frequency in orbit and operates on Ku-Band frequencies. It has the capability to work as a modulated telemetry transmitter or an unmodulated beacon signal transmitter.



SPECIFICATION	KU-BAND SATELLITE TELEMETRY TRANSMITTER	NOTES
Operating Frequency Range	11.1 - 11.8 GHz	
Frequency Stability	±5 ppm @ EOL	
Frequency Agility Range	250 MHz	with 100 kHz steps
Output Power	30 dBm secondary: >5dBm	Simultaneous RF outputs different output power options upon request
Spurious & Harmonic Outputs	50 dBc	
Modulation	PM	
Data Rate	Up to 8,192 kbps	
Ranging Delay Variation	80 ns p-p	
Data Interface	CAN-SU, RS-422 < 17 W	Options available upon request
Power Consumption	< 17 W	
Mass	< 1.9 Kg	
Flight Heritage	TÜRKSAT 6A	



SPACE QUALIFIED

Fully space qualified equipment for geostationary satellites.



IN FLIGHT CONFIGURABLE

Frequency flexibility function allows in orbit change of operating frequency.



HIGH RELIABILITY

Designed for more than 15 years of lifetime in geostationary orbit with lowest cost possible.



SWaP-C DESIGN

Designed for low size, weight, power consumption and cost, required to meet state-of-the-art customer requirements.