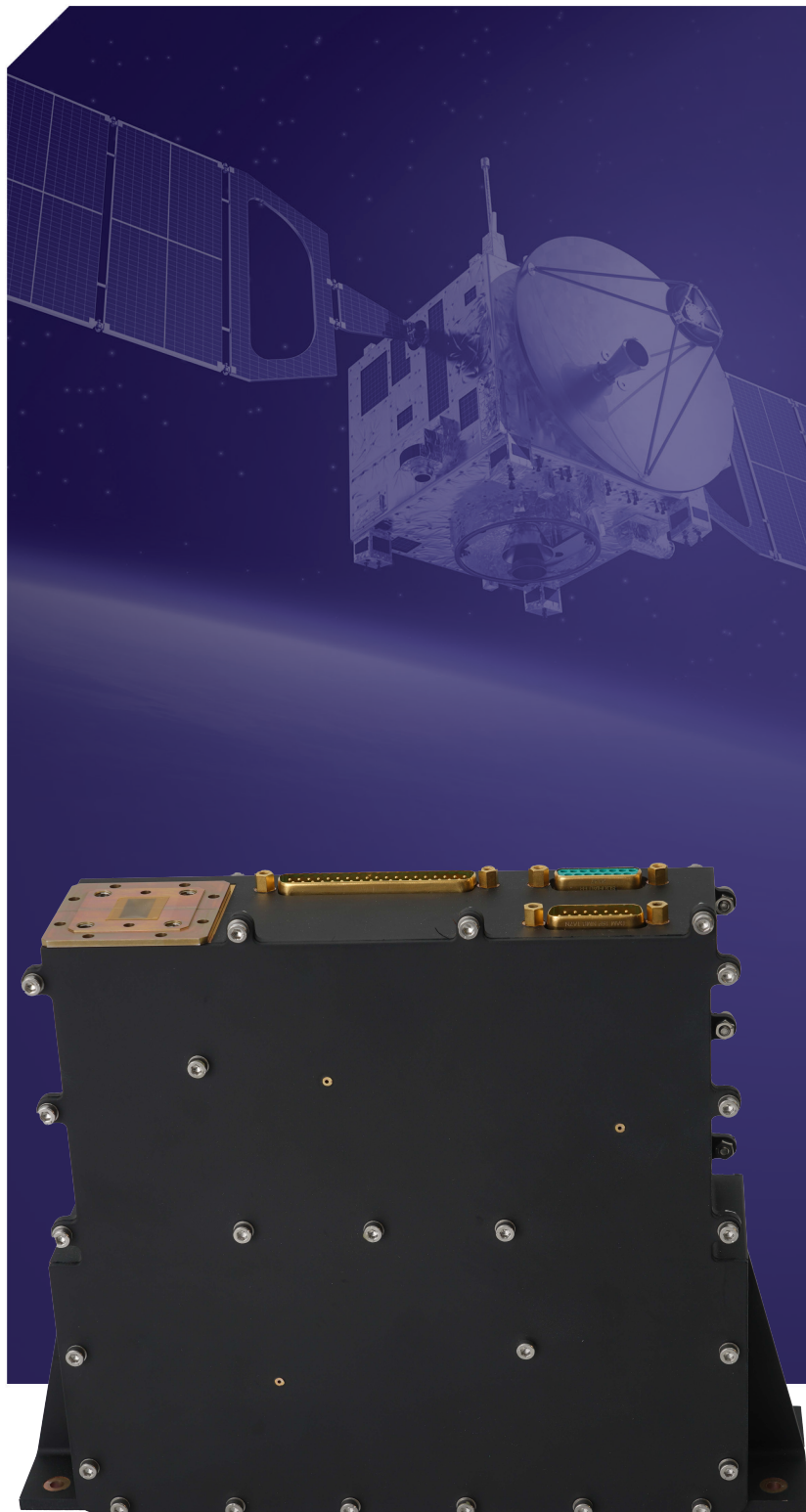


# SATELLITE TELECOMMAND RECEIVER

## TELEMETRY, COMMAND & RANGING SUBSYSTEM PRODUCTS

### FEATURES

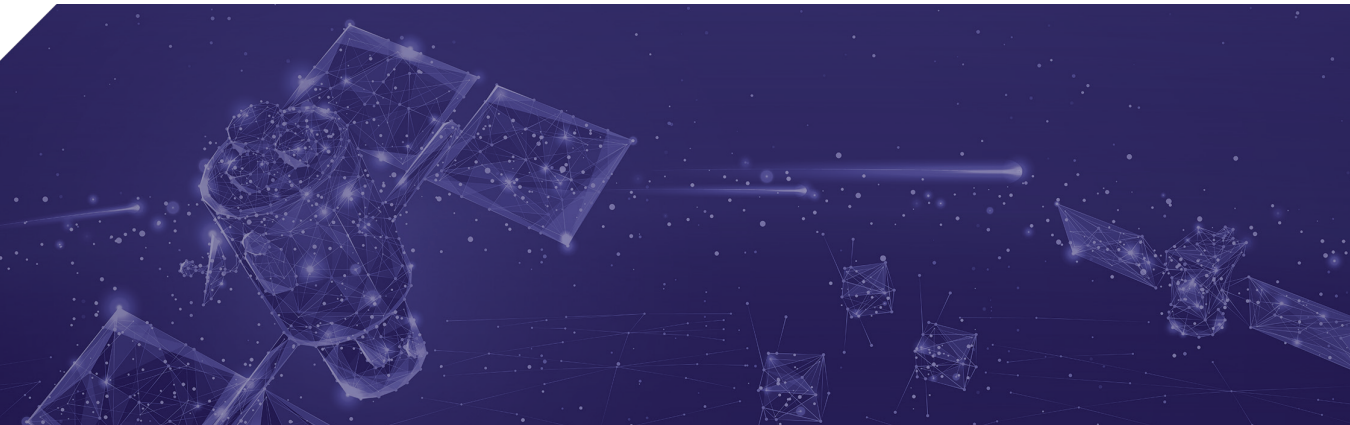
- In-orbit frequency agility up to 250 MHz
- Standard PCM/BPSK/FM demodulation
- Cost effective and state-of-the-art design using latest qualified components
- Compact design for low mass and size
- Vertical mounting for dense system layout
- Low non-recurring engineering costs with the help of frequency 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



*Ku-band Satellite  
Telecommand Receiver*

## OVERVIEW

Telecommand Receiver, which has been developed and qualified to operate on geostationary satellites, is responsible for receiving the commands uplinked from the ground stations and transmit the demodulated data to satellite management unit which is responsible for executing them. These time tagged control commands are sent to the satellite for actions such as controlling the movement of the satellite or turning on and off of other equipment on the satellite. Telecommand Receiver is a state-of-the-art RF equipment with the flexibility to change the frequency inorbit and works on Ku-Band frequencies.



SPECIFICATION	KU-BAND SATELLITE TELECOMMAND RECEIVER	NOTES
Operating Frequency Range	13.5 to 14.0 GHz	
Frequency Agility Range	250 MHz	with 100 kHz steps
Subcarrier Frequency	8 - 16 KHz	In - flight configurable
Input Power Range	-112/-60 dBm	
Modulation	PCM/BPSK/FM	Options available upon request
Data Rate	Up to 4,000 bps	500, 1,000, 2,000 or 4,000 bps available
Bit Error Rate	$< 10^{-7}$ @1,000 bps (@-112 dBm)	
Ranging Delay Variation	60 ns - pp	
Data Interface	CAN-SU, RS-422	Options available upon request
Power Consumption	$< 17$ W	
Mass	$< 1.9$ Kg	
Dimensions	235 x 180 x 60 mm	



### 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.