

RADIOSAT[®]

K/KA-BAND TRANSPONDER

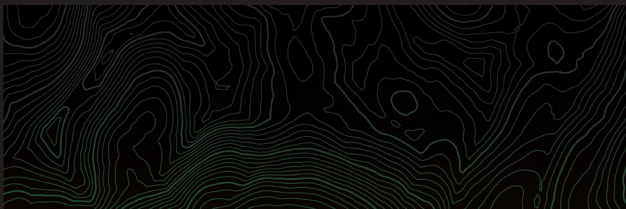


MINIATURIZED NON-REGENERATIVE TRANSPONDER
DESIGNED FOR CUBESAT AND SMALL SATELLITES
FOR LEO AND GEO APPLICATIONS.

OVERVIEW

A miniaturized non regenerative transponder designed for CubeSat and Small Satellites for LEO and GEO applications. With a volume of 1 U and a mass of 1.2 kg, the transponder operates in Ka-band and it is characterized by low power consumption.

The transponder allows two signal bandwidths, 400 kHz or 700 kHz. The radio can operate with the most common modulation schemes and offers a versatile beacon function. Telemetry and Telecommand functions are available over the common standards.



APPLICATIONS

- LEO small satellite services
- GEO satellite services

KEY FEATURES

KA-BAND FREQUENCIES

- Uplink 27.6 – 30.0 GHz
- Downlink 17.8 – 20.2 GHz

POWER SUPPLY

- Power consumption: < 45W
- Input supply from 12V to 18V
- Energy efficient design features and dedicated MCU

PERFORMANCE

- Selectable bandwidth: 400 kHz or 700 kHz
- Receiver and transmitter can be tuned independently
- Receiver sensitivity: -104dBm
- RF output power: up to 5W

WORK ENVIRONMENT

- Operating temperature range: -20 °C to +70 °C
- Non-operating temperature range: -30 °C to +90 °C

INTERFACES

- 2.92mm gold plated RF connectors
- Space Qualified connectors
- TM/TC over RS485, RS422, RS232
- Additional debug and PC control

ACCOMMODATION

- Mass 1.2 kg
- Volume: 1 U (configurable)

