

## RADIOSAT<sup>®</sup>

# K/KA-BAND TRANSPONDER

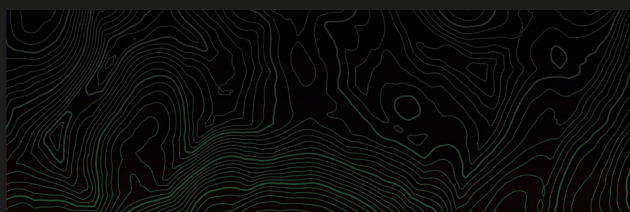


MINIATURIZED NON-REGENERATIVE TRANSPONDER  
DESIGNED FOR CUBESAT AND SMALL SATELLITES  
FOR LEO AND GEO APPLICATIONS.

## 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 analog bandwidth can be customized from 400 kHz to 200 MHz. 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

- Customizable analog bandwidth: from 400kHz to 200MHz
- Receiver and transmitter can be tuned independently
- Receiver sensitivity: -104dBm @400kHz
- 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)

