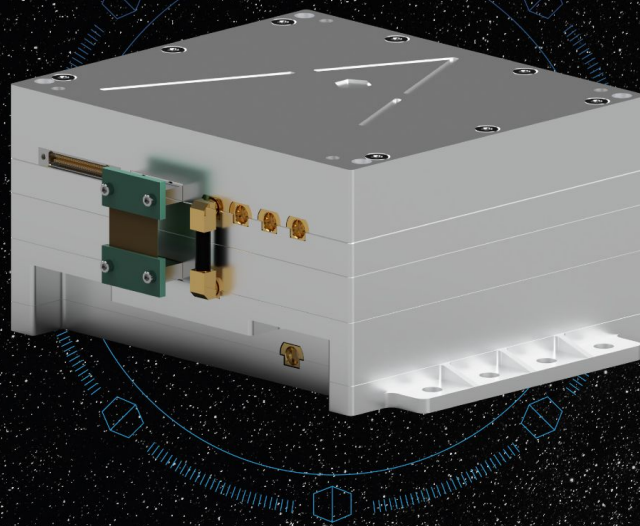


RADIOSAT

KA - BAND DATALINK TRANSMITTER



MINIATURIZED TRANSMITTER DESIGNED FOR CUBESAT AND SMALL SATELLITES FOR LEO EARTH OBSERVATION DATA DOWNLINK APPLICATION

OVERVIEW

A **miniaturized transmitter** designed for **LEO** CubeSat and Small Satellites for **Earth Observation/Exploration** data downlink applications. With a volume of **< 0.5 U** and a mass of **< 500 g** the transmitter operates in **Ka-band** from **25.5 to 27 GHz** and it can reach up to **4 Gbps** in transmission making it unique in size and performance ratio.

The transmitter is compliant with **DVB-S2X** with **ACM** and up to **256 APSK** that makes it compatible with all the most common commercial ground station segments. It is equipped with RADIOSAT SDR that allows to customize its protocols and waveforms up to **1 GHz instantaneous bandwidth**.

APPLICATIONS

- LEO small satellites services
- High datarate telemetry download
- Earth Observation/ Earth Exploration



KEY FEATURES

FREQUENCIES AND PERFORMANCE

- Downlink: 25.5 - 27 GHz
- RF output power: up to 5 W
- Datarate: up to 4 Gbps
- Modulation and channel coding:
DVB-S2X with ACM (up to 256 APSK)

WORK ENVIRONMENT and TESTING

- Operating temperature range:
-20 °C to +70 °C
- Non-operating temperature range:
-30 °C to +90 °C
- Vibration and TVAC qualified by
ECSS-E-ST-10-03C

INTERFACES

- SMP gold plated RF connectors
- Space qualified data and power connectors
- System telemetry and control with
CSP over CAN (opt. Ethernet or
RS422)
- Data over SpaceFibre (opt.
SpaceWire or Ethernet)

ADDITIONAL FEATURES

- Compatible with CCSDS packets
over DVB-S2X (CCSDS 131.3-B)
- In orbit FW and protocols
reprogramming
- Redundant boot flash with
automatic failover and watchdog
timers

POWER SUPPLY

- Power consumption: < 70 W
- Input supply from 12 V to 24 V

ACCOMODATION

- Mass: < 500 g
 - Volume: < 0.5 U (configurable)
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