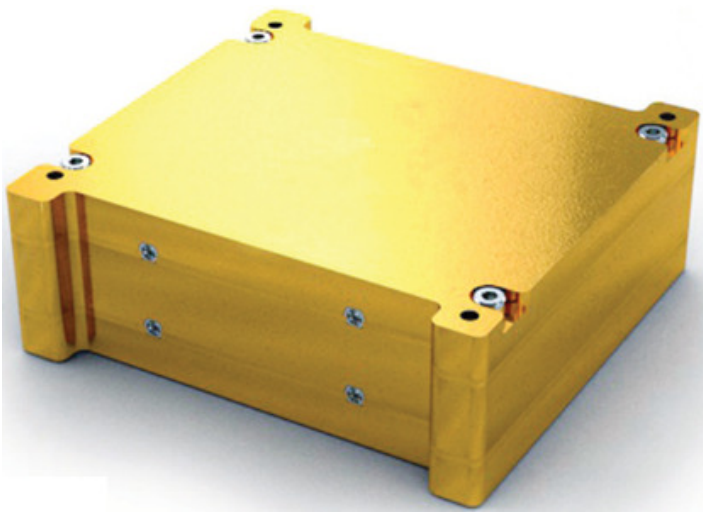


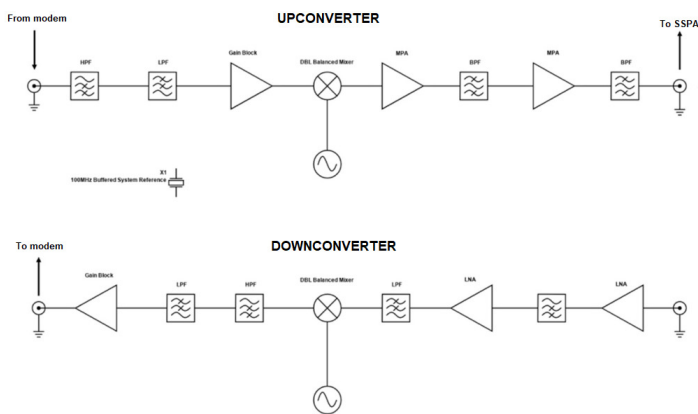
CubeSat Ka-band Transceiver

Overview

The TXMission™ Ka-band Transceiver is an innovative miniaturized transceiver designed for CubeSats and other smallsat and airborne applications. It can be provided standalone or fully integrated with our Quest™ satellite modem.



The transceiver achieved space heritage in early 2021. It includes a high-precision clock for LO generation, which can also be provided as a clock reference for other modules. Alternatively, the transceiver can lock to an external clock reference.



Block Diagram

Specification

- Tx frequency range: 18.2 to 20.2GHz
- Tx output power: 2W
- Tx power consumption: 7W
- Tx IF input power: -30 to 0dBm
- Tx phase noise: < -60dBc/Hz
- Tx spurious: < -50dBc/4kHz
- Rx frequency range: 27.5 to 30.0GHz
- Rx gain: 30dB
- Rx power consumption: 6W
- Rx RF input power: -90 to -30dBm
- Rx noise figure: 2.5dB
- Rx phase noise: < -60dBc/Hz
- Rx spurious: < -60dBc/4kHz (Rx)
- Power supply: 6 to 42V (unregulated)
- Size: 96 x 90 x 33mm
- Mass: < 0.8kg
- Connectors: SMPM (RF); SMA (IF); Panel mount (DC power)
- Enclosure plating: Gold
- Operating temperature: -40°C to +70°C
- Frequency ranges can be customized on request
- Our products are designed for earth observation, telecoms, space research, IOT/5G, intelligence gathering and other smallsat/LEO/HAPS/airborne applications