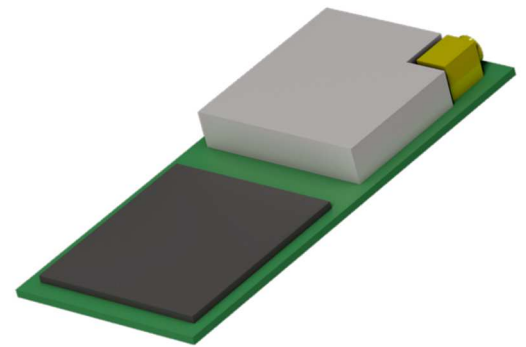


VHF/UHF Transceiver

An integrated TM/TC transceiver and ham radio payload solution

PYXIS SPACE is a young and innovative supplier for the small satellite sector, committed to the New Space philosophy of fast, cost-efficient, and reliable development. The company builds on more than 15 years of heritage in satellite technology and provides compact, high-performance solutions tailored to the needs of research institutes, universities, and commercial missions worldwide.

Our VHF/UHF transceiver, designed for CubeSat applications in Low Earth Orbit, is a flight-proven transceiver, integrating transmitter, receiver, LNA and power amplifier, and optimized for operation in the VHF and UHF amateur radio bands. Besides TM/TC operations it is also able to provide additional services to the amateur radio community. Its half-duplex transceiver is compatible to common amateur radio equipment as the ground station counter part. It is integrated into a single small SMT module that can be mounted onto any carrier board.



FEATURES

- Narrow-band TM/TC transceiver for sub 1 GHz VHF and UHF space radio bands
- Optimized for amateur radio operations
- Additional operation modes:
 - SSTV-FM analog amateur radio image transmission of in-orbit images
 - APRS digipeater
 - CW beacon
- Configuration fully adjustable in-orbit by the user

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SPECIFICATIONS

Frequencies	144-146 MHz or 430-440 MHz
Mode	half duplex
Data Rates / Modulation	1200 bps AFSK 9600 bps G3RUH compatible GFSK/GMSK
Protocol / Framing	AX.25 / HDLC
Transmit Power	adjustable up to 31.5 dBm
Power Supply @ 5V	RX < 100 mW TX < 5 W @ max. TX power
Interfaces	CAN 2.0B, UART
Form Factor	surface mounted module
Antenna Connector	single MCX for RX & TX
Operational Temperature	-20 °C to +85 °C
Dimensions / Mass	30 x 62 x 6 mm ³ / < 50 g
TRL	9
Radiation	10 kRad

OPTIONS

- Sub-1GHz non-amateur radio bands
- Custom data rates, modulation and protocol / framing schemes incl. FEC
- Special commands to access GPIOs or satellite CAN bus via radio interface
- SSTV and APRS amateur radio services