Azista

X-Band Satellite Data Transmitter

Upto 1 Gbps Data Transmission

An extremly compact cubesat compatible X-Band Transmitter designed for advanced missions for very high data throughput.

Features

- Very high throughput in the cubesat form factor. Also suitable for nano/micro/small satellites
- Wide range of Modulations - QPSK, 8PSK, 16APSK, 32APSK
- Flexible state-of-the-art modulation and error correction coding
- Adaptive coding and modulation to maximize throughput for various Es/No
- Customizable data and control interfaces

High speed data downlink from LEO

Compact Size

Easy Integration

Specification	Details
Throughput	**1 Gbps**
Modulation	QPSK, 8PSK, 16APSK, 32APSK
Transmission Frequency	Factory settable 8.1-8.5 GHz
Symbol rate	250 Msymb/s (customizable)
Frequency stability, including temperature and aging	±10 ppm
Control and telemetry interface	RS-485 or I2C or CAN-2B
Discrete telemetry	1 Temperature sensor DS18S20
Error correction coding and framing	DVB-S2
Spectral mask	SFCG-21-2R4; baseband SRRC 0.35
Output power	2.5 W
Power supply	12 V (11 - 16 V) non-isolated, 22 w power consumption (peak)
SEL tolerance	most parts >40 MeV·cm^2/mg, overcurrent protection
Operating temperature	-20°C to +50°C
Storage temperature	-50°C to +65°C
Radiation at the component level	>6 krad (average enclosure shielding 1.5 g/cm^2)
MTTF	250k hours
Data interface	Customizable LVDS or CMOS. 5 pairs for serial data (clock input/output, data, optional enable)
Connectors	Micro-D (MIL-DTL-83513) female (9-pin power, 21-pin data/control) SMA female 50 Ω RF output
Mass	360g
Size	87x93x30 mm^3