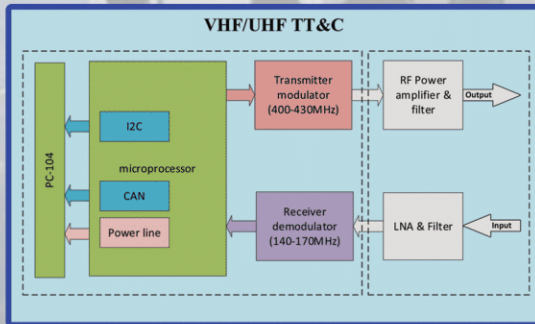


1. TT&C transceivers

VHF/UHF Telemetry & Telecommand Transceiver

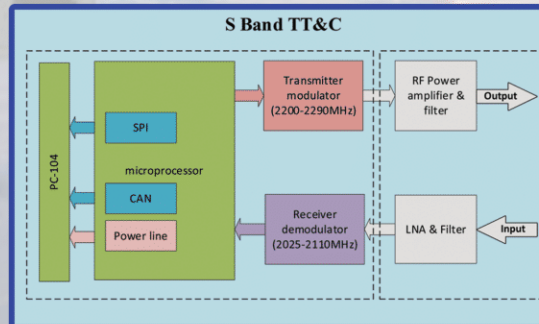
- LEO Satellite Mission
- 2 years lifetime in orbit
- CubeSat PC - 104 Compatible
- Radiation Hardened
- Low power consumption
- In flight configuration



Parameter	Specification
Frequency range	TX: 400-430MHz RX:140-170MHz
Data rate	1 to 40 Kbps
Modulation	FSK, GMSK
Automatic frequency correction	Up to 10KHz
RF Output Power	27-33dBm
Sensitivity	-116 dBm for 10Kbps with 1e-3 BER and 5 KHz doppler
Dimension	90*95*16mm
Mass	<140 g
Power Consumption	For TX<7W,for RX<250mW , 5v DC voltage
Operating Temperature Range	-30 to +60°C
Data interface	CAN
Command & Telemetry interface	CAN,I2C

S-Band Telemetry & Telecommand Transceiver

- LEO Satellite Mission
- 2 years lifetime in orbit
- CubeSat PC - 104 Compatible
- Radiation Hardened
- Low power consumption
- In flight configuration

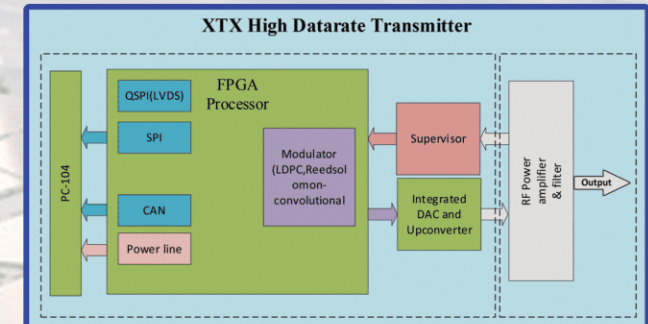


Parameter	Specification
Frequency range	TX: 2200-2290MHz RX:2025-2110MHz
Data rate	1 to 100 Kbps
Modulation	FSK, BPSK,GMS,ASK
Automatic frequency correction	Up to 75KHz
RF Output Power	27-33dBm
Sensitivity	-101 dBm for 100Kbps with 1e-3 BER and 75 KHz doppler
Dimension	90*95*40mm
Mass	<340 g
Power Consumption	For TX<10W,for RX<1W
Operating Temperature Range	-30 to +60°C
Data interface	CAN
Command & Telemetry interface	CAN,I2C

2. Payload Transmitter

XTX High Data rate Transmitter

- LEO Satellite Mission
- 2 years lifetime in orbit
- CubeSat PC - 104 Compatible
- Radiation Hardened
- Low power consumption
- In flight configuration



Parameter	Specification
Frequency range	8025-8400MHz
Data rate	1 to 50 Mbps
Modulation	QPSK, OQPSK
RF Output Power	27-33dBm
Dimension	90*95*30mm
Mass	300 g
Power Consumption	<14W, 12W Typical
Operating Temperature Range	-30 to +60°C
Data interface	SPI, QSPI
Command interface	CAN