



PERFORMANCE

	Ku-band Transceiver (CubeSat)	1 Gbit Transponder	SDR Transceiver (Small Sat)
FUNCTIONAL CHARACTERISTICS			
Band	-	-	Ka-Band (transmitter) S-Band (receiver)
Frequency (transmit)	18.2-20.2 GHz	18.2 – 20.2 GHz	26.5 – 40 GHz
Frequency (receive)	29-31 GHz	29 – 31 GHz	2 – 4 GHz
Transmitter output	5 W	~ 5 W	2 W
Modulation	QPSK or BPSK	QPSK or BPSK	QPSK/ DOQOSK (transmitter) BPSK (receiver)
Data rate	1 GB/sec /transmit/ receive	1 Gbits	> 10 (transmitter) 0.128 (receiver)
PHYSICAL CHARACTERISTICS			
Dimensions	< 0.5 U	0.25 U	< 0.5 U
Weight	400 g	0.4 kg	< 0.6 kg
Power (DC)	20 W	20 W	15W per TX W (transmitter) 3W(receiver)
ENVIRONMENTAL CHARACTERISTICS			
Thermal (operational)	-40 °C to +60 °C	-40 °C to +60 °C	-40 °C to +60 °C
INTERFACES			
Power supply	5 - 12 V	5 – 12 V	5 -15 V(transmitter)

CONFIGURATION MANAGEMENT: Specifications are subject to change. Please refer to latest version.

FEATURES

- Small size and low power
- Transmit and receive high data rates (>1Gbps)

APPLICATIONS

- Small satellite missions with high data rate requirements

IN PARTNERSHIP

NewSpace Systems is a South African, privately owned company, whose activities are geared around a “lean”, yet high-quality engineering and verification approach. Particularly strong in the area of Attitude Control Systems, and with the capability to design and manufacture a range of components and sub-systems; at NewSpace we are able to offer our client’s even more thanks to our incredible partners.

For this particular product offering NewSpace has partnered with a leader in communications systems for small spacecraft and nanosatellites based in the United States. Established in 2000 in Florida, this company has proven itself increasingly dynamic and today boasts a diverse, global customer base that has yielded solid partnerships with prominent academic institutions, multiple government agencies and leading aerospace companies.

As a partner and African representative, NewSpace today has the pleasure of making these cutting edge Ka- band and Ku-band transceiver systems available to our clients.