





# **CPUT X-Band Transmitter**



### PRODUCT CODE: 01-00079

This product is customizable, prices are based on requirements.

For more detailed pricing, and to request a quote please submit an enquiry.

## Enquiry

The XTX is an extremely compact X-Band transmitter designed for CubeSat missions. It is compatible with the CubeSat standard and is ideal for space missions where a high data rate downlink is required.

The transmitter implements OQPSK and QPSK modulation with transmission data rates of up to 50 Mbps. It uses an open network encoding scheme based

on the IntelSAT IESS-308 specification which makes this product compatible with low-cost commercial satellite receivers.

Technology by CPUT.

#### MAIN FEATURES

Low Power consumption

Transmission data rates of 3 to 50 Mbps

Covers the  $8.025-8.45\ \text{GHz}$  frequency range and is user programmable within

bands

Industry standard encoding and modulation techniques

Simple digital interfaces

Transmit output power adjustable from 24 dBm to 33 dBm

#### PERFORMANCE METRICS

Temperature: -25°C to +61°C

Power Consumption: < 10 W

Mass: < 150 g

Dimensions: 96 mm x 90 mm

Voltage: 4 V - 30 V

Frequency: 8.025 GHz - 8.45 GHz

RF Power: 2 Watt (33 dBm) Channel Spacing: 1 MHz

TX SNR: > 20 dB

Spurious Response: < -60 dBc

A nadir facing X-Band patch antenna can also be incorporated into the CubeSat design. Its small size, low profile, rugged design and high directionality make it an excellent addition to the system.

This product comes with a user manual, flight board and STEP model.

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