



Blue Cubed

Communications Made Robust & Modular

Bluefin Agile X-band Transmitter
Low SWaP, 25Mbps



www.bluecubed.net

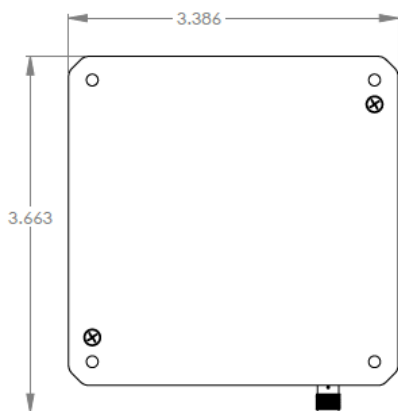
TECHNICAL DESCRIPTION

The Bluefin X-band transmitter is an agile software defined transmitter manufactured to support small satellite missions in the Earth Exploration Satellite Service (EESS 8025-8400MHz) and the Space Research Service (SRS 8400-8500MHz), including the Deep Space portion of the SRS from 8400-8450MHz. The system provides BPSK and OQPSK modulation with built-in convolutional encoding (K=7, R=1/2). The Bluefin is available in variants with 1W and 2W RF outputs and supports narrow band data rates of 10kbps to 25Mbps in addition to a wideband CDMA mode.

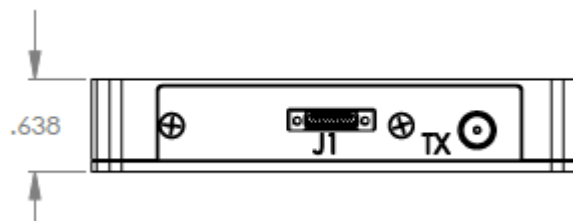
Bluefin X-band Transmitter Specifications

Operating Frequency	8000-8700MHz Integer VCO mode at steps of 50MHz Fractional VCO mode at steps of 1Hz
RF Power	1W with 2W option
Data Rates supported	25Mbps/N down to 10kbps N is an integer
Modulation supported	BPSK, OQPSK & CDMA
FEC	Convolutional; K=7, R=1/2
Interfaces	RS-232 or RS-422 : Configuration interface LVDS : Data interface (includes hardware flow control)
Mass	148g
Operating temperature	-30°C to +50°C
Qualification	GSFC-STD-7000

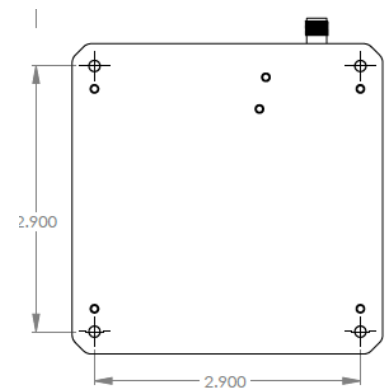
MECHANICAL DETAILS



Top View



Front View



Bottom View

Blue Cubed can provide detailed link budgets and costing for specific use cases.

Proudly made in Colorado.



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