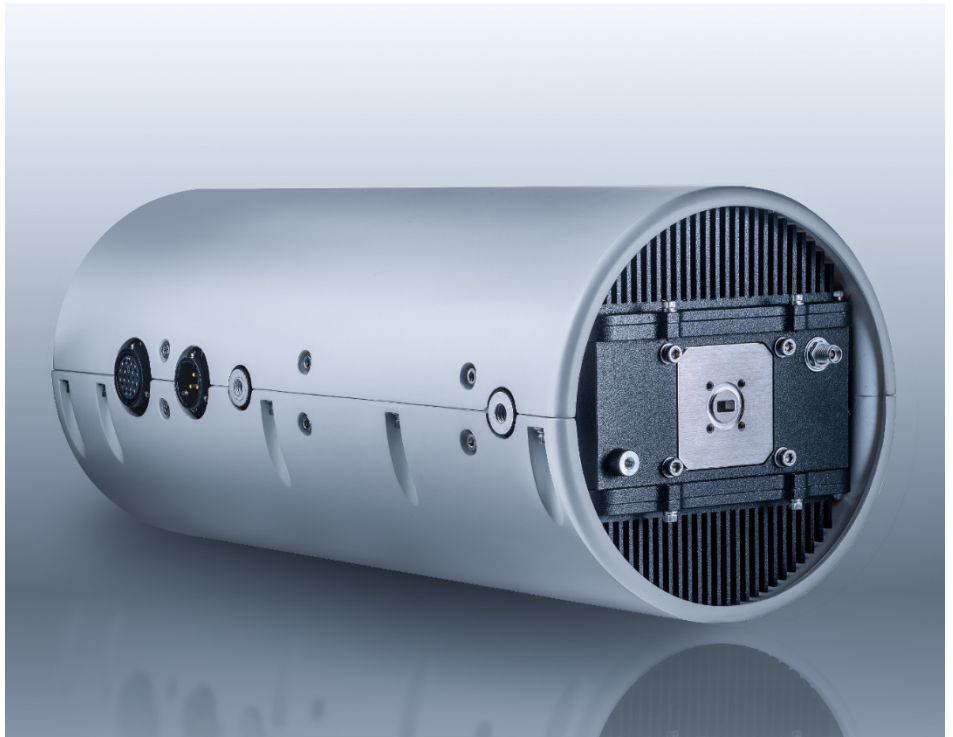


## FEATURES

- 50W for High Data Rate Capability
- Industry-Leading Efficiency drawing only 300W At Linear Output Power
- Extremely Compact 11 lb Package
- High Reliability for long life under the harshest conditions
- Small enough to integrate directly onto boom arm
- Integrated AC-DC power supply
- Multiple M&C interfaces: Ethernet, RS-485, RS-232, and Bluetooth remote control



The 50W *Javelin* Block Upconverter is the industry's most compact & lightweight Ka-Band 50W solid state power amplifier. Mission Microwave's proprietary power combining technology and thorough system optimization have produced a rugged 11 lb amplifier that mounts directly on an antenna boom, eliminating excess losses to the feed.

The revolutionary design features a compact form factor which provides improved cooling over more conventional package designs. Improved cooling equates to higher reliability, even in the most demanding of applications and extreme environments (-40°C to +60°C). The BUC's stellar performance offers the highest useable output power for the lowest power consumption of any amplifier in its class.

# Ka-Band *Javelin* Block Upconverter

# 50W

## Frequency (selectable)

Band 1	29.0 to 29.5 GHz
Band 2	29.5 to 30.0 GHz
Band 3	30.0 to 31.0 GHz

## L-Band Input

Band 1	950 to 1450 MHz
Band 2	1450 to 1950 MHz
Band 3	1000 to 2000 MHz

## Output Power

Saturated (P <sub>sat</sub> )	47 dBm / 50 W
Linear (P <sub>lin</sub> 1-Carrier)	45 dBm / 31.6 W
Linear (P <sub>lin</sub> 2-Carrier)	44 dBm / 25 W

## Gain (min)

65 dB

## Gain Variation

Over temp, fixed freq	3 dB p-p
Over freq fixed temp full band	3 dB p-p
36 MHz	0.6 dB p-p

## Variable Attenuator

30 dB 0.25 dB step

## Intermodulation

combined two equal carriers 3 dB BO from P <sub>sat</sub>	-25 dBc
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## Spectral Regrowth

QPSK @ 1.5 x SR and 2dB OBO	<-30 dBc
OQPSK @ 1 x SR and 2dB OBO	<-30 dBc

## Phase Noise

@ 10 Hz	-32 dBc/Hz
@ 100 Hz	-62 dBc/Hz
@ 1 KHz	-72 dBc/Hz
@ 10 KHz	-82 dBc/Hz
@ 100KHz	-92 dBc/Hz

## AM/PM Conversion

up to 2 dB OBO from P<sub>sat</sub> 2.0°/ dB

## Noise Power Density

Receive Band	-150 dBW / 4 kHz
Transmit Band	-80 dBW / 4 kHz

## Spurious Output

In-band	-60 dBc
Out-of-band	-60 dBc

## Prime Power

90 to 264 VAC  
50-60 Hz

## Power Consumption

Maximum	350 W
Linear (typ)	300 W

## Operating Temperature

-40°C to +60°C

## Relative Humidity

100% condensing

## Shock

20 g peak, 11 msec,  
1/2 sine

## Vibration

MIL-810E,  
514-4 transport

## M&C

19-pin connector	Ethernet, RS-232, RS485
Wireless	Bluetooth

## Dimensions

L x W x H (in)	13.2" x 5.5" x 5.5"
L x W x H (mm)	335 x 140 x 140

## Weight

lbs	11
kg	5.0

For information purposes only. Data subject to change

Patents Pending

