

FEATURES

- 55W of Saturated Output Power for High Data Rate Capability
- Industry's Highest Efficiency drawing only 185W at Linear Output Power
- Ultra-Compact 3.75 lb Package
- High Reliability for long life under the harshest conditions
- Small enough to be mounted directly to the feed of most antennas
- Multiple M&C interfaces: RS-485, RS-232, optional Ethernet
- Built-in Redundancy Controller



The 55W **STINGER** Block Upconverter is the industry's smallest & lightest weight 55W solid state power amplifier. Mission Microwave's proprietary power combining technology and thorough system optimization have produced a rugged 3.75 lb amplifier that can mount directly to the feed port of most satellite antennas, eliminating additional loss 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.

Ku-Band STINGER Block Upconverter

55W

Frequency (optional)

Standard Band	14.00 to 14.50 GHz
Extended Band	13.75 to 14.50 GHz

L-Band Input

Standard Band	950 to 1450 MHz
Extended Band	950 to 1700 MHz

Reference

10 MHz	-5 to +5 dBm
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Output Power

P _{RATED} (typ)	47.4 dBm / 55 W
P _{LIN1C}	45.4 dBm / 34.6 W
P _{LIN2C}	44.4 dBm / 27.5 W

Gain (nom)

68 dB

Gain Variation

Over temp, fixed freq	3.5 dB p-p
Over freq fixed temp full band	3.5 dB p-p
36 MHz	1.0 dB p-p

Variable Attenuator

31 dB 0.25 dB step

Intermodulation

2 carriers @ P _{LIN2C}	-25 dBc
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Spectral Regrowth

QPSK @ 1.5x SR @ P _{LIN1C}	<-30 dBc
OQPSK @ 1x SR @ P _{LIN1C}	<-30 dBc

Input VSWR

2:1 typ

Output VSWR

1.35:1 max

Phase Noise

@ 10 Hz	-33 dBc/Hz
@ 100 Hz	-63 dBc/Hz
@ 1 KHz	-73 dBc/Hz
@ 10 KHz	-83 dBc/Hz
@ 100KHz	-93 dBc/Hz
@ 1 MHz	-103 dBc/Hz

AM/PM Conversion

@ P _{LIN1C}	2.0° / dB
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Noise Power Density

Receive Band	-145 dBm / Hz
Transmit Band	-77 dBm / Hz

Spurious Output

In-band	-60 dBc
Out-of-band	-60 dBc
LO Leakage	-15 dBm max

Prime Power

+22 to +54 VDC

Power Consumption

P _{RATED} (typ)	235 W
P _{LIN2C}	185 W

Operating Temperature

-40°C to +60°C

Relative Humidity

100% condensing, IP67

Shock

20g peak, 11 ms,
1/2 sine

Vibration

MIL-810F, 514.5C-2
transportation

Maximum Input Power

+10 dBm

M&C

4-wire Interface (selectable)	RS-485, RS-232
	Optional: Ethernet

Dimensions

L x W x H (in)	10.4" x 3.5" x 3.5"
L x W x H (mm)	264 x 89 x 89

Weight

lbs	3.75
kg	1.7