

FEATURES

- 25W of Saturated Output Power for High Data Rate Capability
- Industry's Highest Efficiency drawing only 125W at Linear Output Power
- Ultra-Compact 3.25 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-422, OpenBMIP
Optional: Ethernet
- Optional OpenBMIP
- Meets requirements for MIL-STD-188-164 terminals



The 25W SUPERWIDE **STINGER** Ka-Band Block Upconverter is the industry's smallest & lightest weight 25W solid state power amplifier at Ka-Band. Mission Microwave's proprietary power combining technology and thorough system optimization have produced a rugged 3.25 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.

Ka-Band STINGER Block Upconverter

Super Wideband 25W

Frequency (selectable)

Band 1	27.50 to 28.50 GHz
Band 2	28.25 to 29.25 GHz
Band 3	29.00 to 30.00 GHz
Band 4	30.00 to 31.00 GHz

LO Frequency

Band 1	26.55 GHz
Band 2	27.30 GHz
Band 3	28.05 GHz
Band 4	29.00 GHz

Output Power

P _{RATED} (nom)	44 dBm / 25 W
P _{LIN1C}	42 dBm / 15.8 W
P _{LIN2C}	41 dBm / 12.6 W

Gain (nom)

60 dB

Gain Variation

Over temp, fixed freq	4.0 dB p-p
Over freq fixed 1 GHz band	4.0 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
Per MIL-STD-188-164C	

Spectral Regrowth

QPSK @ 1.5x SR @ P _{LIN1C}	<-30 dBc
OQPSK @ 1x SR @ P _{LIN1C}	<-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
@ 1 MHz	-102 dBc/Hz
@10 MHz	-112 dBc/Hz

Input VSWR

2.1:1 typ

Output VSWR

1.35:1 max

AM/PM Conversion

@ P_{LIN1C} 2.0° / dB

Noise Power Density

Receive Band	-150 dBm / Hz
Transmit Band	-75 dBm / Hz

Spurious Output

In-band (2 MHz guard band)	-60 dBc
Out-of-band	-60 dBc
LO Leakage @ P _{LIN}	-10 dBm

Prime Power

22 to 54 VAC

Power Consumption

P _{RATED} (nom)	165 W
P _{LIN2C} (nom)	125 W

Operating Temperature

-40°C to +60°C

Relative Humidity

100% condensing, IP67

Shock

MIL-810H, 516.8-1
20g peak, 11ms
Sawtooth

Vibration

MIL-810H, 514.8C-4
Transportation

Maximum Input Power

+10 dBm

M&C

12-pin connector
RS-485 or RS-232
Optional: Ethernet

Dimensions

L x W x H (in)	9.0 x 3.5 x 3.5
L x W x H (mm)	229 x 89 x 89

Weight

Lbs	3.25
kg	1.5