

Bobcat 32Ka

32W Ka-band GaN SATCOM Block Upconverter

POWERFUL:	<i>16W linear power (single carrier)</i>
EFFICIENT:	<i>160W DC power draw at linear power</i>
COMPACT:	<i>4.5 lbs in 110 cu inch package</i>
RUGGED:	<i>-40C to +60C, MIL-STD-810 environment</i>
FLEXIBLE:	<i>Interchangeable with X- and Ku-band Bobcats, Dual-band 29-30/30-31GHz option</i>

The smallest, most rugged Ka-band Block Upconverter to provide 16W of linear power for satcom uplinks.

High efficiency GaN solid-state design enables big power from a box while still handling the toughest environments.

If you need a sleek, powerful BUC to speed up your compact terminal - you need a Bobcat™.



Go to xicomtech.com
to see our interchangeable X-, Ku- and Ka-band
Bobcat product line for solutions across the spectrum.

Bobcat 32Ka

32W Ka-band GaN SATCOM BUC

Frequency and Input Levels

RF Output Frequency (other options available)	30.0 to 31.0 GHz
IF Input Frequency	1000 to 2000 MHz
Input Level, No Damage	+10 dBm max
LO Reference Frequency	External 10 MHz
LO Reference Level	0 dBm $\pm$ 5 dB
IF/REF Input Impedance	50 ohms

Output RF Power and Linearity

Eq. Saturated Power, P_{SAT}	45 dBm (32W)
Maximum CW Power, P_{MAX}	44 dBm (25W)
Linear Power, P_{LIN} (min)	42 dBm (16W)
Spectral Regrowth @ P_{LIN} (QPSK, OQPSK, 5.0 SR, $\alpha=0.2$)	30 dBc max @ >1 SR offset
Intermodulation Products @ P_{LIN} wrt sum of 2 equal carriers	-25 dBc max
AM to PM Conversion @ P_{LIN}	2.0°/dB max

GAIN

Small Signal (typical)	55 dB $\pm$ 5 dB
Gain Attenuation Range	25 dB in 0.1 dB steps
Gain Variation (over 40 MHz)	1.0 dB p-p max
Gain Variation (over full band)	3.0 dB p-p max
Gain Slope (max)	0.04 dB/MHz
Gain Stability, over 24 hours	0.5 dB p-p max
Gain Variation over Temp	4.0 dB p-p max

Noise and Spurious

Noise Power Transmit Band	-76 dBW/4 kHz
Noise Power Receive Band	-150 dBW/4 kHz
AC Line Spurious sum of all spurs	-30 dBc
single sideband sum	-36 dBc
Harmonics	-60 dBc
Output Spurious @ P_{LIN} (excludes 1 MHz band)	-60 dBc

Phase Noise

Phase Noise (max)	
100 Hz	-63 dBc/Hz
1 kHz	-73 dBc/Hz
10 kHz	-83 dBc/Hz
100 kHz	-93 dBc/Hz
1 MHz	-103 dBc/Hz
Reference Phase Noise (max)	
10 Hz	-125 dBc/Hz
100 Hz	-155 dBc/Hz
1 kHz	-165 dBc/Hz

Phase Linearity and VSWR

Transmit Phase Linearity up to P_{LIN}	
over any 2 MHz	± 0.2 radian
over any 36 MHz	± 0.4 radian
over any 72 MHz	± 0.5 radian
over any 90 MHz	± 0.6 radian
over any 120 MHz	± 0.7 radian
Input VSWR	1.5:1
Output VSWR	1.3:1

Prime Power/Environment/Interfaces

22-56 VDC Prime Power	160W @ P_{LIN}
Operating Temp Range	-40° to +60°C
Non-Operating Temp Range	-50° to +70°C
Altitude (max)	12,000 ft. MSL
Humidity	100% condensing
Shock/Vibration	Normal transportation
M&C Interface	Ethernet or Serial Rs-232 (SNMP with v3 Option)

Weight and Dimensions

Weight	4.5 lb (2.0 kg)
Dimensions	3.5" x 4.4" x 7.6" (8.89cm x 11.18cm x 19.30cm)

For additional information visit: www.xicomtech.com
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