

Bobcat 64Ku

64W Ku-band GaN SATCOM Block Upconverter

- POWERFUL:** 32W linear power
- EFFICIENT:** 180W DC power draw at linear power
- COMPACT:** 5.0 lbs in 120 cu inch package
- RUGGED:** -40C to +60C, MIL-STD-810 environment
- FLEXIBLE:** Interchangeable with X- and Ka-band Bobcats

The smallest, most rugged Ku-band Block Upconverter to provide 32W 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 64Ku

64W Ku-band GaN SATCOM BUC

Frequency and Input Levels

| | |
|--|-------------------|
| RF Output Frequency (other options available) | 13.75 to 14.5 GHz |
| IF Input Frequency | 950 to 1700 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} | 48 dBm (64W) |
| Maximum CW Power, P_{MAX} | 47 dBm (50W) |
| Linear Power, P_{LIN} (min) | 45 dBm (32W) |
| 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 | \pm 0.2 radian |
| over any 36 MHz | \pm 0.4 radian |
| over any 72 MHz | \pm 0.5 radian |
| over any 90 MHz | \pm 0.6 radian |
| over any 120 MHz | \pm 0.7 radian |
| Input VSWR | 1.5:1 |
| Output VSWR | 1.3:1 |

Prime Power/Environment/Interfaces

| | |
|--------------------------|--|
| 22-56 VDC Prime Power | 180W @ 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 | 5.0 lb (2.2 kg) |
| Dimensions | 4.4" x 4.0" x 6.8" (11.2cm x 10.2cm x 17.3cm) |

For additional information visit: www.xicomtech.com
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