

FEATURES

- ▶ 25W Linear Power for Higher Data Rate Capability
- ▶ Rugged, Lightweight Package Mounts on Feed Arm for Simple Integration
- ▶ High Reliability with 70,000 hr MTBF Lowers Lifecycle Costs



Buy Now!



Ka-Band Matchbox Block Upconverter

The Wavestream Advantage:

- Higher output power with less energy usage.
- Compact product footprint to meet critical space and weight limitations.
- Proven reliability and efficiency.
- Reduced lifecycle maintenance costs.

The 50W Ka-band Grid Block Upconverter (BUC) is the smallest, lightest and most efficient solid state amplifier built at this power level. Wavestream enables a full 25 Watts of linear power into the feed by packing it into a compact, rugged unit that can be mounted directly onto the feed arm of medium aperture antennas.

The 50W Ka-band Grid BUC is designed to operate in the most extreme environments, and offers field-proven reliability to support the most demanding satellite communications applications. The 50W Ka-band Grid BUC includes L-band to Ka-band upconversion, serial monitor and control, adjustable attenuation and forward and reverse output power monitoring.

RF Specifications

Transmit Frequency	30.0 - 31.0 GHz
IF Frequency	1000 - 2000 MHz
Frequency Reference (10 MHz on IF)	0 dBm \pm 5 dB
Small Signal Gain	60 dB nominal
Gain Adjustment	30 dB, 0.25 dB steps
Gain Variation (over frequency at fixed temperature)	3 dB p-p over 1000 MHz
Gain Variation (over temperature at fixed frequency)	3 dB p-p over operating range
Saturated Output Power	47 dB
Linear Output Power	44 dBm
Intermodulation (Third order intermodulation product relative to combined power of two carriers at Linear Output Power)	-25 dBc
Spectral Regrowth (For QPSK at 1.5x and for OQPSK at 1.0x symbol rate offset at Linear Output Power)	-30 dBc
Phase Noise	-32 dBc at 10Hz offset -62 dBc at 100Hz offset -72 dBc at 1 kHz offset -82 dBc at 10 kHz offset -92 dBc at 100 kHz offset -102 dBc at 1 MHz offset -112 dBc at >10 MHz offset
AM/PM Conversion (at Linear Output Power)	2 deg/dB
Noise Power Density - Transmit	-65 dBm/Hz (maximum)
Noise Power Density - Receive	-156 dBm/Hz (maximum)
Output Spurious	-60 dBc

Power

AC Power	90-264 VAC, 50-60 Hz
AC Power Draw (typical) (at Linear Output Power)	630W

Interfaces

IF Input Connector	Type N Female
IF Input Impedance	50 ohms
IF Input VSWR	2:1 maximum
RF Output Connector	WR-28
RF Output VSWR	1.25:1 maximum
RF Sample Port Connector	K-type (2.92 mm) Female
RF Sample Port	-65 dBc nominal
AC Connector	Amphenol #C016 20C003 100 12
Monitor & Control Connector	Amphenol #360011
Monitor & Control	Serial RS-485 or Ethernet
Power Control	30 dB minimum; 0.25 dB steps

Physical

Size	12.5"L x 14"W x 6.5"H
Weight	32lbs
Operating Temperature (Ambient Air)	-40°C to +60°C
Relative Humidity	100% Condensing
Shock & Vibration	Designed to withstand 20G at 11 ms ½ sine wave non-operating conditions, and MIL-STD-810E, method 514-4 transportation vibration
Altitude	10,000 ft above sea level (operating)

Base Model Number

JNB-KAM050



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