

12 W Ka-band Matchbox Block Upconverter



Matchbox Block Upconverter MBB-KAM012

The 12 W Ka-band Matchbox BUC leads the industry in linear power for a 9-lb feedmount ready package, to ensure maximum available power at the feed flange. In a compact 10.4" x 5.4" x 5.1" package with the same mounting points as Wavestream's Ku-band Matchbox BUCs (16/25/40W), Wavestream has created a truly modular approach for dual-band capable mobile, flyaway, and VSAT terminals.

The Ka-band Matchbox is available in two prime DC power levels and offers 30 dB of step attenuation, serial RS-485, RS-232 or optional Ethernet control interface, and choice of IF.

KEY FEATURES & BENEFITS

- ▶ 12 W Ka-band output in a 9-lb package
- ▶ Industry-leading efficiency with 140 W power draw
- ▶ Identical mounting package to Ku-band Matchbox for easy conversion



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RF Specifications

Transmit Frequency	30.0-31.0 GHz
IF Frequency	1000-2000 MHz
Frequency Reference (10 MHz on IF)	0 dBm+/-5 dB
Saturated Output Power	41 dBm nominal
Linear Output Power <small>*Power at which all other RF requirements are met</small>	36 dBm
Small Signal Gain	50 dB nominal
Gain Variation (1 GHz)	-3 dB p-p
Intermodulation <small>Maximum third-order intermodulation product relative to combined power of two carriers</small>	-25 dBc
Spectral Regrowth (at Linear Power) <small>For QPSK and OQPSK modulation at 1.0x rate offset from carrier</small>	-30 dBc
Output Spurious	-60 dBc
DC Power	
DC Power (typical) <small>At linear output power</small>	140 W
Prime Power	28 V, 48 V
Interfaces	
Input IF Connector	Type N Female
IF Input Impedance	50 ohms
Output RF	WR-28
Output VSWR	1.5:1
DC & Monitor & Control Connector	12 Pin Military Circular
IF Input VSWR	2:1 max
Monitor and Control Protocol	Serial RS-485 (SA-bus), Ethernet Option, Step Attenuator

Physical

Size (includes Connectors)	10.4" L x 5.4" W x 5.1" H
Weight	9.4 lbs
Operating Temperature (Ambient Air)	-40° C to +60° C

Options

AC/DC Converter, 90-264 VAC, 50-60 Hz
RS-232

Wavestream develops and manufactures high-power solid-state amplifiers which meet the evolving needs of modern mobile and fixed communications systems. Wavestream's proprietary spatial power combining technologies enable higher amplifier output powers in smaller packages with greater efficiency and lower cost than competing solutions. Wavestream offers Ka-band, Ku-band, C-band and X-band SSPAs or BUCs for satellite uplink and tropospheric communications. Using Wavestream technology solid-state amplifiers are now a preferred choice to tubes in the low to moderate power segment of tube usage. With the introduction of its products Wavestream has become the industry-leading provider of a new generation of highly reliable solid-state amplifier solutions for commercial, defense and homeland security systems.



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Specifications subject to change without notice.