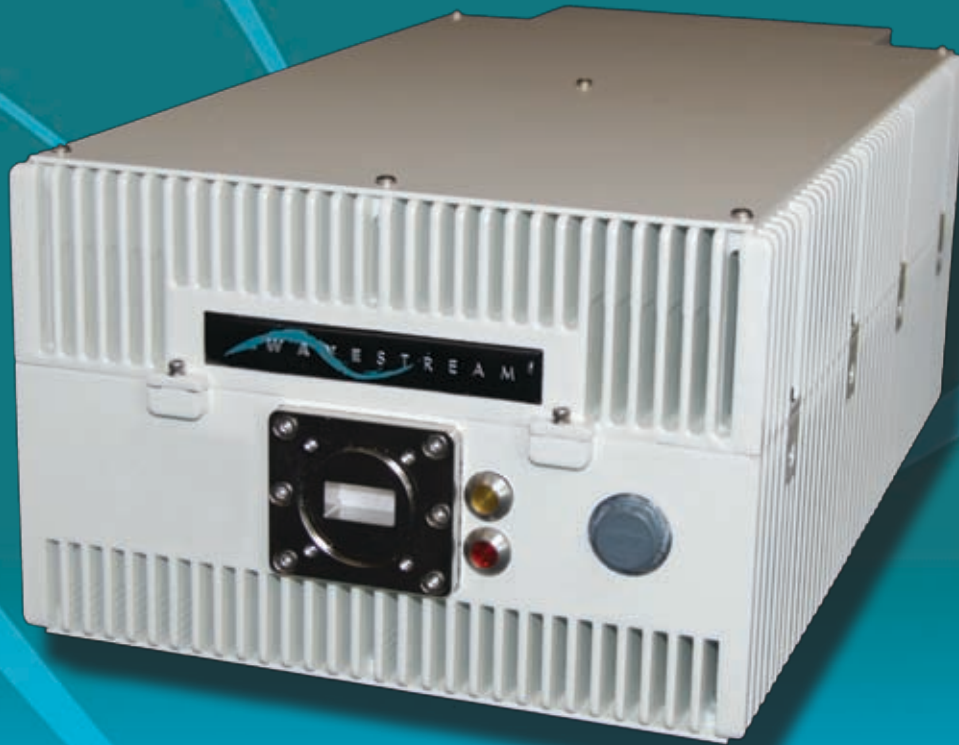


# 80 W Ku-band Matchbox Block Upconverter



## Matchbox Block Upconverter

**MBB-KUS080**

**MBB-KUE080**

The 80 Watt Matchbox Block Upconverter (BUC) takes high efficiency to a new level in solid-state power amplifiers. Wavestream's Spatial Power Advantage™ enables packing 80W P<sub>1dB</sub> into a rugged 25 lb unit that can be mounted directly on the feed arm of medium aperture antennas, maximizing the power into the feed and further enhancing system-level efficiency.

The compact 8" x 5" x 15" BUC provides the required linearity for high definition broadcast service. It provides high reliability to minimize life cycle costs even in the most demanding applications and extreme environments (-40°C to +60°C). Unit includes choice of frequency band (14.0-14.5 GHz or 13.75-14.5 GHz), L-band to Ku-band upconversion, serial or Ethernet monitor and control, adjustable attenuation and output power monitoring.

### KEY FEATURES & BENEFITS

- ▶ 80 W P<sub>1dB</sub> power for higher data rate capability
- ▶ Industry leading efficiency with <600 W for 80W output power
- ▶ Rugged 25 lb package
- ▶ Mounts on feed arm for simple integration
- ▶ High reliability lowers life cycle cost
- ▶ Redundancy option available

W A V E S T R E A M

# Matchbox Block Upconverter

**MBB-KUS080**

**MBB-KUE080**

## RF Specifications

Transmit Frequency	14.0-14.5 GHz or 13.75-14.5 GHz
IF Frequency	950 - 1450 MHz or 950 - 1700 MHz (extended)
Frequency Reference (10 MHz on IF)	0 dBm+/-5 dB
Small Signal Gain	70 dB nominal
Power Control	20 dB Step Attenuator
P1dB Output Power	>49 dBm
Rated Output Power	49 dBm
Intermodulation with two equal carriers at 3dB total power backoff from rated power	-25 dBc
Spectral Regrowth at 2 dB below rated power at 1.0x symbol rate offset for OQPSK or QPSK	-30 dBc
Receive Band Noise	-150 dBW/ 4 KHz
Output Spurious	-55 dBc
AM/PM Conversion up to rated power	2 deg/dB

## Power

AC Power	90 - 240 VAC, 50-60 Hz
AC Prime Draw At rated output power	600W Max

## Interfaces

IF Port Connector	Type N Female
IF Input Impedence	50 ohms
RF Sample Port	Type N Female
RF Port Connector	WR-75
RF Output VSWR	1.25:1 max
AC Connector	4-pin Circular
M&C Connector	19-pin Military Circular
Monitor and Control	Serial RS-485 (SA-bus), Forward Power Monitor, Step Attenuator, Ethernet Option

## Physical

Size	8" W x 5" H x 15" L
Weight	25 lbs
Operating Temperature	-40° C to +60° C
Non-Operating Temperature	-50° C to +70° C



Wavestream manufactures high-power solid-state amplifiers that meet the needs of today's communications and sensing systems. Wavestream's Spatial Power Advantage™ enables higher output powers from smaller packages with greater efficiency at lower cost than previously possible. Wavestream is leading the industry to provide higher mobility amplifier solutions for satellite communications, bringing new capability to communicate around the world.

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