

FEATURES

- ▶ Compact, Lightweight Package
- ▶ Industry-leading Efficiency
- ▶ Flexible Power Source
- ▶ Instant On, No Warm Up Time
- ▶ 1:1 Redundancy Kits Available



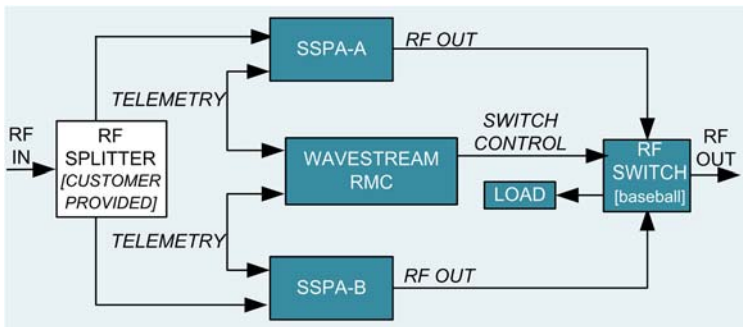
Ku-Band PowerStream Block Upconverter

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.



1:1 Redundant Configuration (optional)



The PowerStream® 100W Ku-band Block Upconverter (BUC) offers high linear power in a compact, lightweight “pack and go” package suitable for clamshell mobile antennas, high definition Satellite News Gathering (SNG) vehicles and small broadcast service hubs. The 100W Ku-band BUC can be mounted directly onto the feed arm of medium aperture antennas, maximizing the power into the feed and enhancing system-level efficiency. With an Instant On feature, there is no warm up time, ensuring communications are up and running immediately.

Designed for reliability and high output power in extreme environments, the 100W Ku-band BUC includes a choice of frequency band, L-band to Ku-band upconversion, serial or Ethernet monitor and control, adjustable attenuation, and output power monitoring.

Optional 1:1 Redundancy Kits are available to provide an integrated solution for uninterrupted, reliable satellite transmissions. The 1:1 Redundancy Kit integrates the waveguide, switch and mounting hardware, and offers ease of installation and subsequent maintenance to accommodate outdoor mounts.

RF Specifications

Transmit Frequency - Standard - Extended Band Option	14.0 - 14.5 GHz 13.75 - 14.5 GHz
IF Frequency - Standard - Extended Band Option	950 - 1450 MHz 950 - 1700 MHz
Frequency Reference (10 MHz on IF)	0 dBm \pm 5 dB
Small Signal Gain	70 dB nominal
Gain Adjustment	-20 dB, 2 dB steps nominal
Gain Variation (over frequency at fixed temperature)	0.5 dB over 36 MHz 3 dB over 500 MHz
Gain Variation (over temperature at fixed frequency)	3 dB p-p over operating range
Saturated Output Power	50 dBm
P₁ dB Output Power *	>49 dBm
Rated Output Power *	49 dBm
Intermodulation * (Third order intermodulation product relative to combined power of two carriers at 3 dB total power back-off from Rated Output Power)	-25 dBc
Spectral Regrowth (For QPSK at 1.5x and for OQPSK at 1.0x symbol rate offset or 2 dB back-off from Rated Output Power)	-30 dBc
Phase Noise	Meets IESS-308
AM/PM Conversion (up to 2 dB below Rated Output Power)	2 deg/dB
Noise Power Density - Transmit	-70 dBW/4 kHz (maximum)
Noise Power Density - Receive	-150 dBW/4 kHz (maximum)
Output Spurious	-55 dBc

Power

AC Power	90-264 VAC, 50-60 Hz
AC Power Draw (at Rated Output Power)	625W
AC Power Draw (at 3dB Back-off from Rated Output Power)	550W

* Guaranteed over temperature and frequency

Ku-Band PowerStream Block Upconverter

100W

Interfaces

IF Input Connector	Type N Female
IF Input Impedance	50 ohms
IF Input VSWR	2:1 maximum
RF Output Connector	Type N Female
RF Output VSWR	1.25:1 maximum
RF Sample Port Connector	WR-75
RF Sample Port	-46 dBc (typical)
AC Connector	4-Pin Connector, Male Amphenol C016 20C003 100 12
Monitor & Control Connector	19-Pin Military Circular, Male MS3112E14-19P
Monitor & Control	Serial RS-485 (SA-bus), Forward Power Monitor, Step Attenuator, Ethernet with SNMP Support
LED Indicator	Summary Fault, Loss of Lock, Inhibit

Physical

Size	15"L x 8"W x 5"H
Weight	22lbs
Operating Temperature (Ambient Air)	-40°C to +60°C
Relative Humidity	100% Condensing
Shock & Vibration	Designed to withstand 20G at 11 ms $\frac{1}{2}$ sine wave non-operating conditions, and MIL-STD-810E, method 514-4 transportation vibration
Altitude	10,000 ft above sea level (operating)

Options

28 VDC Power Option

1:1 Redundancy Kit - to include waveguide, switch, cable connectors, and mounting hardware

Rack Mount Controller - 1U rack mount chassis to control any Wavestream amplifier in a 1:1 configuration with LCD display and key status LEDs

Indoor to outdoor cable assemblies - available in 25', 50' or 100' lengths

Base Model Number

POB-KUS100

POB-KUE100



Digisat International Inc.
4195 W. New Haven Ave., Suite 15
Melbourne, FL 32904
USA
+1-321-676-5250
Email: sales@digisat.org
<http://www.digisat.org>