Jersey Microwave

PERFORMANCE TO MEET YOUR NEEDS!

Ka-BAND FREQUENCY BLOCK UP/DOWN CONVERTERS

Jersey Microwave has taken their standard field proven line (over 1500 delivered) of L-band to Ka-band high performance Frequency Block Converters and re-packaged them to handle the harsh Outdoor Environment. The Jersey "ODU" Series covers every standard Ka frequency band and can accommodate custom frequency bands and specifications. Jersey Microwave engineers have over 25 years of designing and manufacturing frequency conversion products.

Features/Options

Low Phase Noise exceeds IESS308/309 & MIL-STD-188-164A

Quick Delivery

High Performance

Also available in Dual, Tri & Quad bands

Auto-switchover of 5/10MHz external reference or manually selectable internal reference

Ethernet Capability

RS 422 / RS 485

Higher Output Power

Alternate Gain options

Gain Control

Custom Frequencies

Monitor Ports

Mute Control

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Standard Frequency Bands

KaBUC ODU | Up Converter Series

Model Number	Input Frequency	Output Frequency	LO Frequency
KABUC-247252-2010-ODU	950-1450 MHz	24.75-25.25 GHz	23.8 GHz
KABUC-275285-2010-ODU	950-1950 MHz	27.50-28.50 GHz	26.55 GHz
KABUC-276291-2010-ODU	950-2450 MHz	27.60-29.10 GHz	26.65 GHz
KABUC-285295-2010-ODU	1000-2000 MHz	28.50-29.50 GHz	27.5 GHz
KABUC-288296-2010-ODU	975-1725 MHz	28.875-29.625 GHz	27.9 GHz
KABUC-291293-2010-ODU	1300-1500 MHz	29.10-29.30 GHz	27.8 GHz
KABUC-290295-2010-ODU	1000-1500 MHz	29.00-29.50 GHz	28.0 GHz
KABUC-292300-2010-ODU	1000-1800 MHz	29.20-30.00 GHz	28.2 GHz
KABUC-295300-2010-ODU	1100-1600 MHz	29.50-30.00 GHz	28.4 GHz
KABUC-290300-2010-ODU	1000-2000 MHz	29.00-30.00 GHz	28.0 GHz
KABUC-295305-2010-ODU	1000-2000 MHz	29.50-30.50 GHz	28.5 GHz
KABUC-300308-2010-ODU	1000-1800 MHz	30.00-30.80 GHz	29.0 GHz
KABUC-300310-2010-ODU	1000-2000 MHz	30.00-31.00 GHz	29.0 GHz

KaBUC ODU | Down Converter Series

Model Number	Input Frequency	Output Frequency	LO Frequency
KABDC-178193-3015-ODU	17.80-19.30 GHz	950-2450 MHz	16.85 GHz
KABDC-183188-3015-ODU	18.30-18.80 GHz	1000-1500 MHz	17.3 GHz
KABDC-188193-3015-ODU	18.80-19.30 GHz	1000-1500 MHz	17.8 GHz
KABDC-193198-3015-ODU	19.30-19.80 GHz	1000-1500 MHz	18.3 GHz
KABDC-198203-3015-ODU	19.80-20.30 GHz	1000-1500 MHz	18.8 GHz
KABDC-195202-3015-ODU	19.50-20.20 GHz	1000-1700 MHz	18.5 GHz
KABDC-202212-3015-ODU	20.20-21.20 GHz	1000-2000 MHz	19.2 GHz
KABDC-360380-1010-ODU	36.00-38.00 GHz	1000-3000 MHz	35.0 GHz

Custom bands & custom specifications can be provided

ELECTRICAL SPECIFICATION	UP CONVERTER	DOWN CONVERTER
Gain	20 dB ±2 dB	30 dB ±2 dB
Gain Flatness		
— Over RF Band	1 GHz BW: ±1.25 dB max. / 500 MHz BW: ±1.00 dB max.	
— Over any 125 MHz Segment	±0.50 dB max.	
Gain Stability	±0.50 dB / day max. at constant temperature ±1 dB over -20° to +60°C ±1.5 dB over -30°C to +70°C	
Gain Control	@ L-Band Input	@ L-Band Output
Range	25 dB	20 dB
Step Size (Digital 9-bit)	0.1 dB	0.1 dB
Output Power Po (1dB)	+10 dBm min.	+15 dBm min.
Intermodulation Distortion (With two output carriers @ 0 dBm per)	-40 dBc max.	-50 dBc max.
Output Spurious (In-Band): — Signal Dependent (Po = 0 dBm) — Signal Independent — LO Leakage	-70 dBc max. -80 dBm max. -80 dBm max.	
Rejection at Receive Band	-70 dBc max.	N/A
2IF + LO @ Pout = -10 dBm (max gain)	-60 dBc max.	N/A
Image Rejection	80 dB min.	70 dB min.
Output Noise Density	-132 dBm/Hz max	N/A
Noise Figure @ 25°C (max gain)	N/A	15 dB max.
Return Loss: Input Output	18 dB min. 17 dB min.	17 dB min. 18 dB min.
Reference Input Frequency	10 MHz	
Reference Input Level	-10 dBm to +5 dBm	
Frequency Stability (internal reference option)	± 2 x 10^{-8} per day @ fixed temp, ±5 x 10^{-8} over operating temp.	
Frequency Accuracy (internal reference option)	<±1 KHz	
Group Delay	2 nsec peak-to-peak max	
Type / Frequency Sense	Single Conversion / No Inversion	

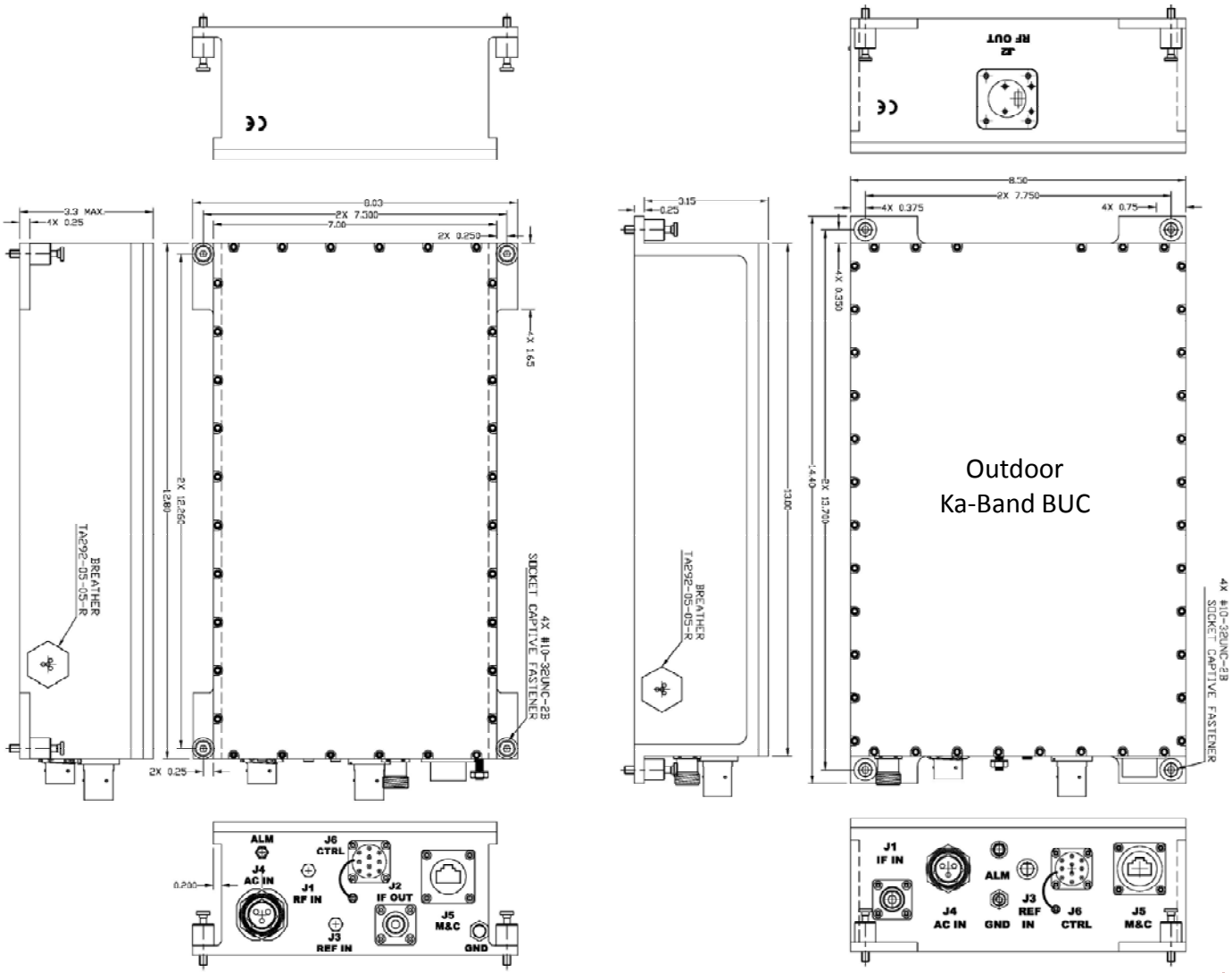
Power Requirements	UP CONVERTER	DOWN CONVERTER
Voltage Standard	90 – 260 VAC, Single Phase	
Frequency	47-63 Hz	
Power	30 Watts max	25 Watts max
DC Voltage (Option)	20-48VDC	

Mechanical Configuration	UP CONVERTER	DOWN CONVERTER
Weight	13.5 lbs max	12.0 lbs max
RF Connectors	WR-28 Flat	2.92 mm Female
IF Connectors	N Female	N Female
Reference connector	SMA Female	
AC Power Connector	PT07C12-3P (027)	
M & C Control Connector	PT02E—12-10P (025)	
Ethernet (Option)	RJ45 Female (RJF2SA1B)	

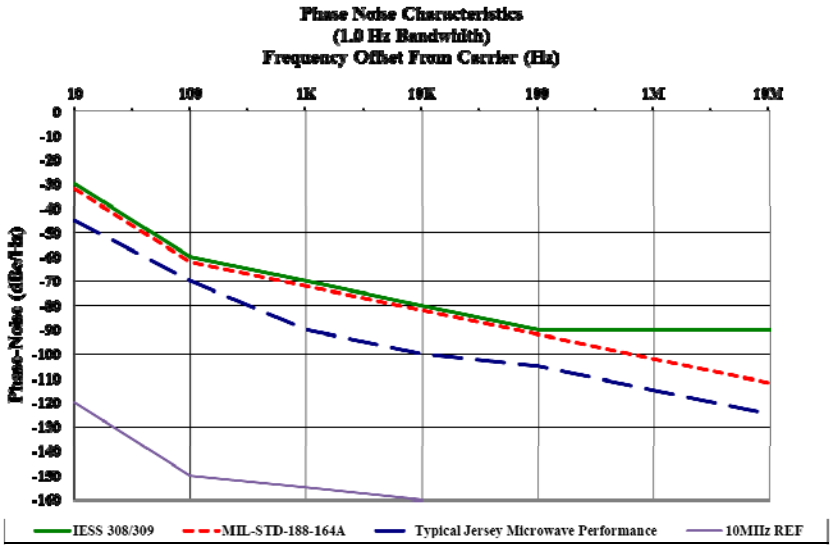
Environmental	Operating	Non-Operating
Temperature	-40° C to + 70° C	-40° C to + 85° C
Altitude	Up to 10,000 feet	Up to 50,000 feet
Humidity	Up to 100% Condensation	
Vibration	Normal Commercial Carrier Handling	

Note: Specifications are subject to change without notice.

Standard Mechanical Outlines



Note: Dimensions are in inches.



Please contact or visit us at our newly custom renovated design and manufacturing facility located in Flanders, New Jersey.