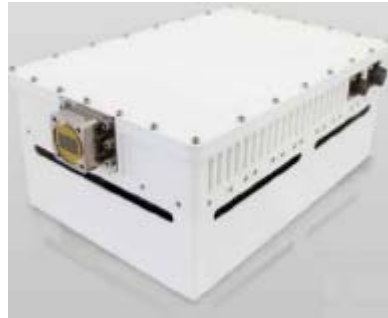


RADITEK

SATCOM L-Ku Band BUC

Block Up Converter L to Ku-Band, 230VAC, 10MHz Ext Reference, 80, 125 or 200 Watts, Redundant



Small and lightweight our BUC is ideal for mobile and satellite uplink applications.

This unit works on a wide range AC power supply of 96VAC to 264VAC.

Innovative and efficient thermal design.

Make it one of the smallest, robust, reliable and

Rugged enough to withstand outdoor conditions in the industry.

Built-in redundancy feature eliminates the use of an external controller for 1:1 redundancy operation.

This eliminates messy cabling at the antenna making this a very elegant solution.

Extensive M/C interface with RS232/RS485/Ethernet (SNMP & HTTP) & Bluetooth.

Order Examples: RBUC-L(950-1700M) to Ku(13.75-14.50)-230VAC-ER10M-200W-1+1-g11

Description: (Block Up Converter, L Band(950-1700MHz) to Ku(13.75-14.50GHz), 230VAC, 10M Ext. Reference, 200 Watts, Redundant

Additional Options: L(950-1450M) Ku(14.00-14.50) 80W, 125W or 200W

Features

- Compact and lightweight
- Available in standard and extended Ku-Band
- Forward & reverse power detection
- Input power detection
- Intuitive monitoring & control through RS232/RS485 & Ethernet (SNMP & HTTP) and Bluetooth
- Automatic fault identification & alarm generation
- Temperature compensation facility
- Built-in redundancy facility
- Built-in 10MHz reference with auto-detection
- Built-in receive reject filter
- Sample port for output monitoring
- Wide operating temperature range -40°C to +60°C
- RoHS Compliant
- Waterproof

RF Specifications

Transmit Frequency	14.00GHz – 14.5GHz 13.75GHz – 14.5GHz	Gain Flatness Full Band	±2dB
IF Frequency Range	950MHz – 1450MHz 950MHz – 1700MHz	Gain Slope over 40MHz	±1dB
LO Frequency	13.05GHz 12.80GHz	Gain Variation over temperature	±2dB @ from -40°C to +60°C
Output Power P _{sat} / P _{Linear}		Gain Control	20dB in steps of 0.5dB
80W	49dBm / 48dBm	O/P spurious	According to EN301428
125W	51dBm / 48dBm	Phase Noise @ Offset	
200W	53dBm / 50dBm	1KHz	-73dBc/Hz
Spectral Re-growth	30dBc @ P _{Linear}	10KHz	-83dBc/Hz
Third Order Intermod (two tone)	-25dBc @ two signal 2MHz apart at P _{Linear}	100KHz	-93dBc/Hz
Small Signal Gain		I/P VSWR	1.3:1
80W	70dB Min	O/P VSWR	1.25:1
125W	75dB Min	Noise Power Density Tx BD	70dBW/4KHz
200W	75dB Min	Rx BD	142dBW/4KHz

RBUC-LBand to Ku-230VAC-ER10M-80-200W-1+1-g11

Specifications may be subject to change

11/18/12

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Block Up Converter L to Ku-Band, 230VAC, 10MHz Ext Reference, 80, 125 or 200 Watts, Redundant

DC Power

Prime Power	230VAC (range 96V to 264VAC)
Power Consumption	
80W	500W max (500W @ P _{linear})
125W	1200W max (800W @ P _{linear})
200W	1800W max (1700W @ P _{linear})

Interfaces

IF Input Interface	50Ohms N-type Female
Output Interface	WR 75G

External Reference

Frequency	10MHz
Power	+5dBm to +5dBm
Internal reference	Built-in (Auto detection)
External reference phase noise Requirement @ frequency offset	
1KHz	-150dBc/Hz
10KHz	-155dBc/Hz
100KHz	-160dBc/Hz

Monitor and Control

Monitor	BUC temperature Status alarm Output power Reverse power Input power LED status indication
Control	Attenuation RF output mute
Interface	RS232/RS485 & Ethernet (SNMP & HTTP) Bluetooth (optional)
Tx Redundancy	Built-in

Environmental

Operating Temperature	-40°C to +60°C
Humidity	Up to 100% Weather protection sealed to IP65

Compliance Standards

IEC 609501-2nd Edition	International Safety Standard for Information Technology Equipment
ETSI EN 301 489-12	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) Standard for radio equipment and services; Part 12: Specific conditions for Very Small Aperture Terminal, Satellite Interactive Earth Stations operated in the frequency ranges between 4GHz and 30GHz in the Fixed Satellite Service (FSS)
ETSI EN 301 489-1	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
FCC Class A	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)

Mechanical

Size	
80W	330L x 200W x 130H mm
125W	400L x 260W x 200H mm
200W	550L x 350W x 260H mm
Weight	
80W	8.0kg
125W	17.0kg
200W	30.0kg
Color	White Powder Coat

RBUC-LBand to Ku-230VAC-ER10M-80-200W-1+1-g11

Specifications may be subject to change

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Block Up Converter L to Ku-Band, 230VAC, 10MHz Ext Reference, 80, 125 or 200 Watts, Redundant

250WattsOption

RF Specifications

Transmit Frequency	14.00GHz – 14.5GHz 13.75GHz – 14.5GHz
IF Frequency Range	950MHz – 1450MHz 950MHz – 1700MHz
LO Frequency	13.05GHz 12.80GHz
Output Power Psat / PLinear	
250W	54dBm / 51dBm
Spectral Re-growth	30dBc @ PLinear
Third Order Intermod (two tone)	-25dBc @ two signal 2MHz apart at PLinear
Small Signal Gain	
250W	80dB Min
Gain Flatness Full Band	±2dB
Gain Slope over 40MHz	±1dB
Gain Variation over temperature	±2dB @ from -40°C to +60°C
Gain Control	20dB in step of 0.5dB
O/P spurious	According to EN301428
Phase Noise @ Offset	
1KHz	-73dBc/Hz
10KHz	-83dBc/Hz
100KHz	-93dBc/Hz
I/P VSWR	1.3:1
O/P VSWR	1.25:1
Noise Power Density Tx BD	70dBW/4KHz
Rx BD	142dBW/4KHz

DC Power

Prime Power	230VAC (range 96V to 264VAC)
Power Consumption	
250W	2000VA

Interfaces

IF Input Interface	50Ohms N-type Female
Output Interface	WR 75G

External Reference

Frequency	10MHz
Power	-5dBm to +5dBm
Internal reference	Built-in (Auto detection)
External reference phase noise	
Requirement @ frequency offset	
1KHz	-150dBc/Hz
10KHz	-155dBc/Hz
100KHz	-160dBc/Hz

Monitor and control

Monitor	BUC temperature Status alarm Output power Reverse power Input power LED status indication
Control	Attenuation RF output mute
Interface	RS232/RS485 & Ethernet (SNMP & HTTP) Bluetooth (Optional) / Wifi (Optional)
Tx Redundancy	Built-in

Enviromnemtal

Operating Temperature	-40°C to +60°C
Humidity	Up to 100% Weather protection sealed to IP65

Mechanical

Size	
250W	550L x 440W x 350H mm
Weight	
250W	49kg
Color	White Powder Coat

Compliance Standard

IEC 609501-2nd Edition	International Safety Standard for Information Technology Equipment
ETSI EN 301 489-12	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) Standard for radio equipment and services; Part 12: Specific conditions for Very Small Aperture Terminal, Satellite Interactive Earth Stations operated in the frequency ranges between 4GHz and 30GHz in the Fixed Satellite Service (FSS)
ETSI EN 301 489-1	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
FCC Class A	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)

