RADITEK

SATCOM
L-Ku Band BUC

Block Up Converter L to Ku-Band(Std/Extd), N-Type Female Connector, 10MHz Ext Reference, 16, 20, 25 and 40Watt Options, Outdoor Unit

16/20/25 W

40W

This small and lightweight BUC is ideal for SOTM applications while also offering benefits for fixed and maritime applications.

Designed to be mounted on the feed horn, the BUC has “Best in Class” efficiency and “lowest power consumption”.. The unit works on a wide range DC power supply of 38V to 60V. Innovative and efficient thermal design makes this BUC on of the smallest, robust, reliable and rugged enough to withstand outdoor conditions in the industry.

The unit can be configured to work in 1:1 redundant mode by adding on a simple redundancy option to the basic unit

Order Examples: RBUC-L(950-1700M) to Ku(13.75-14.50)-Nf-ER10M-40W-ODU-g11

Description: *(Block Up Converter, L Band(950-1700MHz) to Ku(13.75-14.50GHz), N-Type female Connector, 10MHz External Reference, 40 Watts, Outdoor Unit*

Additional Options: **L(950-1450M)** **Ku(14.00-14.50)** **16W, 20W, 25W or 40W**

Features

- Compact and lightweight
- Feed mountable
- Available in both standard and extended Ku-Band
- Forward power detection facility
- Intuitive monitoring & control through RS232/485 & Ethernet (SNMP & HTTP)
- Auto ranging 38 to 60VDC Power Supply
- Automatic fault identification & alarm generation
- Wide operating temperature range -40ºC to +60ºC
- IP65 rated housing (Weather proof Construction)
- RoHS compliant

Quality Assurance

All BUCs go through stringent quality checks in addition to well defined Electrical Stress Screening to ensure operation in harsh outdoor environments. Our BUCs are also subjected to seal test for water ingress verification

Reliability

Field proven under harsh environment conditions, Our ODUs can withstand temperature ranging from -40ºC to +60ºC with up to 100% humidity

Frequency Ranges

	IF (MHz)	RF Transmit (GHz)	LO (GHz)
Ku Standard	950 -1450	14.0-14.5	13.05
Ku Extended	950-1700	13.75-14.5	12.8

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RF Specifications	
Output Power	42dBm (16W), 43dBm (20W) & 44dBm (25W)
Output Power (Psat)	46dBm (40W)
Output Power (PLinear)	44dBm (40W)
Spectral Re-growth	30dBc @ 2dB below rated power (p-linear) at 1.0 x symbol rate offset for OQPSK or QPSK
Small Signal Gain	68dB min.(16, 20, 25W), (70dB min(40W)
Gain Flatness	±2dB over the O/P frequency band
Gain Variation	±2dB over the operating temperature range
Gain Control	20 dB in step of 0.5 dB
Inter modulation	-25dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power (16W, 20W & 25W)
O/P spurious	According to EN301428
Phase Noise @ Offset	
1KHz	-73dBc/Hz
10KHz	-83dBc/Hz
100KHz	-93dBc/Hz
I/P VSWR	1.5:1
O/P VSWR	1.25:1 (with optional external isolator)
Noise Power Density Tx BD	70dBW/ 4KHz
Rx BD	142dBW/ 4KHz
DC Power	
Prime Power	48VDC (range 38 to 60VDC) via external MS connector
Power Consumption	150W (Typical for 16 W)
	200W (Typical for 20 W)
	250W (Typical for 25 W)
	280W (Typical @ 46dBm for 40W)
Interfaces	
IF Input Interface	50 Ohms N-type Female
Output Interface	WR 75G
External Reference	
Frequency	10MHz
Power	-5dBm to +5dBm
External reference phase noise requirement @ frequency offset	
1KHz	-150dBc/Hz
10KHz	-155dBc/Hz
100KHz	-160dBc/Hz

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Monitor And Control	
Monitor	BUC temperature Status alarm RF output power LED status indication
Control	Attenuation RF output mute
Interface	RS232/485 & Ethernet (SNMP & HTTP) via external MS connector
Tx Redundancy	External RCU (optional for 1+1 redundancy system requirement)
Environmental	
Operating Temperature	-40ºC to +60ºC
Humidity	Up to 100% Weather protection sealed to IP65
Mechanical	
Dimensions	200L x 130W x 99H mm (16W, 20W, & 25W)
	200L x 130W x 130H mm (40W)
Weight	3.5kg / 7.5lbs (16W, 20W, & 25W
	3.7kg / 8.14lbs (40W)
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 Part 15 Class B	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)

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