



L to Ku-Band Block-Up-Converter

200-250Watts,
10MHz Ext Reference, ODU



The new Raditek 200-250W Ku band BUC's are a very compact and an extremely powerful new product family, the most powerful and feature rich for its size: up to 250W, saturated power. A Plug-in Power Supply can easily be replaced in the field; this important feature increases the installed lifetime. The RF sample port measures true RMS power, It has built in redundancy functionality, Monitor and Control has capabilities via Ethernet and Serial / Analog Interfaces. The very compact size and high power is because of the exceptional design and best thermal efficiency.

Key Features

- The combining method allows to reach extremely high power density-up to 250W Psat in 16"x13"x10.7" only!.
- **Superior RF performance:**
 - * Phase noise to 10dB better than IESS308/309
 - * P1dB of 53dBm (200W); Psat up to 54dBm
 - * Spurious below -60dBc
 - * Wide dynamic range Gain Control
- **RF Overdrive Protection**
- **Weights only 92 lbs**
- **200W (P1dB) or 250W (Psat)**
- **Available in both standard and Extended Ku-Band**
- **Switchable LO option - Standard and Extended Ku-Band in one unit**
- **Input and Output True RMS Power Detection**
- **Configuration via RS-232 serial access, packet protocol RS-485 – simple HTTP based GUI and SNMP optional**
- **Automated Level Control (ALC) Option**
- **Redundant ready - no external controller required for 1:N redundant configuration**
- **Field replaceable plug-In Power Supply**
- **Field upgradable software**
- **Status LED**

Order Examples: RBUC-L(950-1450M)-Ku(14.0-14.5)-Nf-WR75-ER10M-200W-AC-ODU-i13

Description: (Block Up Converter, L Band(950-1450MHz) to Ku(14.0-14.5GHz), N-Type Female IF Input Connector, WR75 Grooved RF Output Connector, 10MHz External Reference, 200 Watts Psat, AC 190-265V, ODU)

Additional Options: **Input** **Output** **250W**
 L(950-1700M) Kue(13.75-14.5GHz)

RBUC-L-Ku-Nf-WR75-ER10M-200-250W-AC-ODU-i13

Specifications may be subject to change

09/19/13

WORLD HQ: 1702L Meridian Ave. Suite 127, San Jose, Ca 95125, U.S.A.

Tel: (408) 266-7404

FAX: (408) 266-4483

WEB: www.raditek.com

E-mail: sales@raditek.com

L to Ku-Band Block-Up-Converter

200-250Watts, 10MHz Ext Reference, ODU

200-250W Ku-Band BUC Specification		
RF Performance	Ku Standard	Ku Extended
RF Frequency Range-Available in/switched:	14-14.5GHz (Ku)	13.75-14.5GHz (KuE)
L or IF Frequency Range	950-1450MHz	950-1700MHz
LO Frequency	13.05GHz	12.8GHz

	200W	250W
Output Power at 1dB compression point	52dBm min (158W)	53dBm min (200W)
Saturated Power	53dBm typ (200W)	54dBm typ (250W)
Power Consumption	1600W	1800W

General Specifications	
Conversion	Single Conversion; non-inverting
Conversion Gain	75dB min, 77dB typ
Gain Flatness	±1dB typ ±1.5dB max over full band; ±0.5dB max over any 40MHz
Gain Stability	±1.5dB over full temperature range
Gain Control	20dB min dynamic range
External Reference Frequency	10MHz multiplexed with IF In
External Reference Required Phase Noise	-130dBc/Hz @ 100Hz -140dBc/Hz @ 1kHz -150dBc/Hz @ 10kHz -155dBc/Hz @ 100 kHz
Up-Converter Phase Noise	-70dBc/Hz @ 100Hz; -80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz -95dBc/Hz @ 100kHz -115dBc/Hz @ 1MHz
Linearity: 2 tone IMD Spectral Re-growth	-25dBc at 3dB total power back off from P1dB -30dBc for QPSK at 1.5xsymbol rate at 2dB back off from P1dB
Output Spurious: Non-signal related	-60dBc
Signal related	-55dBc
Power	
AC Voltage Range	190-265VAC 50-60Hz PFC
Mechanical	
Size	16"x13"x10.7"
Weight	92lbs
Cooling	Forced Air
Operating temperature	-40°C to +55°C
Relative Humidity	Up to 100% condensing
Interfaces	
IF Input Connector	N-type female
RF Output Connector	WR75 grooved
RF Sample	N-type female
AC Power In	TE 788188
M&C Interfaces	Serial: MS3112E12-10S; Alarm Int MS3112E12-14S; Ethernet RJ45
Redundant Interfaces	Redundancy Protection: MS3112E14-19S; Switch Int MS3112E14-15S