



L- to C-Band Block-Up-Converter

20, 40, 80Watts,
10MHz External Reference. ODU



Not all BUCs are equal: Raditek C-Band Block-Up-Converter Family is so compact, its small size and weight facilitate direct feed horn/antenna mounting. It weighs only 5½ lbs, with up to 80W Psat, and has a built-in AC (90-265VAC 50-60Hz auto-ranging) power supply, with -48V (DC) optionally available too. These BUCs have the best in class RF performance, including: Internal output isolator and Internet based monitor and control, with both serial and analog interfaces.

Key Features

- Up to 80W Psat in this super-compact and light weight package 6.25"x6.45"x3.9" only!
 - Suitable for feed horn mounting
 - Best RF performance:
 - Phase noise 10dB better than IESS308/309
 - Psat of 49dBm Spurious below -60dBc
 - Wide dynamic range of Gain Control
 - Integrated L-Band to C-Band conversion
- Available also in Standard, Extended, Palapa and Insat frequency [options](#).
- Built In Output Isolator
 - Output power measurement has RMS detector
 - Configuration via RS-232 serial console, packet protocol RS-485 - User friendly HTTP based GUI and SNMP optional
 - Built in auto-ranging AC power supply
 - -48VDC isolated power supply ([optional](#))
 - Field upgradable software
 - Status LED
 - Overdrive Protection on 80W model

Order Examples: RBUC-L-Cs-Nf-CPR137-ER10M-20W-AC-ODU-i13

Description: (Block Up Converter, L Band(950-1525MHz) to C(5.85-6.425GHz), N-Type Female IF Input Connector, CPR137 Grooved RF Output Connector, 10MHz External Reference, 20 Watts, AC A90-265V), Outdoor Unit

Additional Options: Opt: Cs Standard, Ce Extended, Ci Insat, Cp Palapa

40, 80Watts -48V DC (32-72V) Isolated

*Contact us for the part number per frequency sub-band options.

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20,40W PSAT

Parameter	20W	40W
RF Performance		
RF Frequency Range-Available in/switched:	5.85-6.425GHz (other frequency options available)	
IF Frequency Range	950-1525MHz	
LO Frequency	4.9 GHz (other options available)	
Conversion	Single Conversion; non-inverting	
Output Power at 1dB compression point	43dBm min	46dBm min
Saturated Power	44dBm typ	47dBm typ
Conversion Gain	72dB min, 75dB 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; -95dBc/Hz @ 100kHz	-80dBc/Hz @ 1kHz; -115dBc/Hz @ 1MHz -90dBc/Hz @ 10kHz
Linearity: 2 tone IMD Spectral Re-growth	-26dBc 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	90-265VAC 50-60Hz auto-ranging	
48V DC Voltage Range (optional)	32-72VDC Isolated	
Power Consumption	180W	220W
Mechanical		
Size	6.25"x6.45"x3.9"	
Weight	5.5lbs	
Cooling	Forced Air	
Operating temperature	-40°C to +60°C	
Relative Humidity	Up to 100% condensing	
Interfaces		
IF Input Connector	N-type female	
RF Output Connector	CPR137 Grooved	
AC Power In	MS3112E10-8P	
RS485-RS232-Ethernet-SNMP	MS3112E14-19S	

Block Up Converter L to C-Band

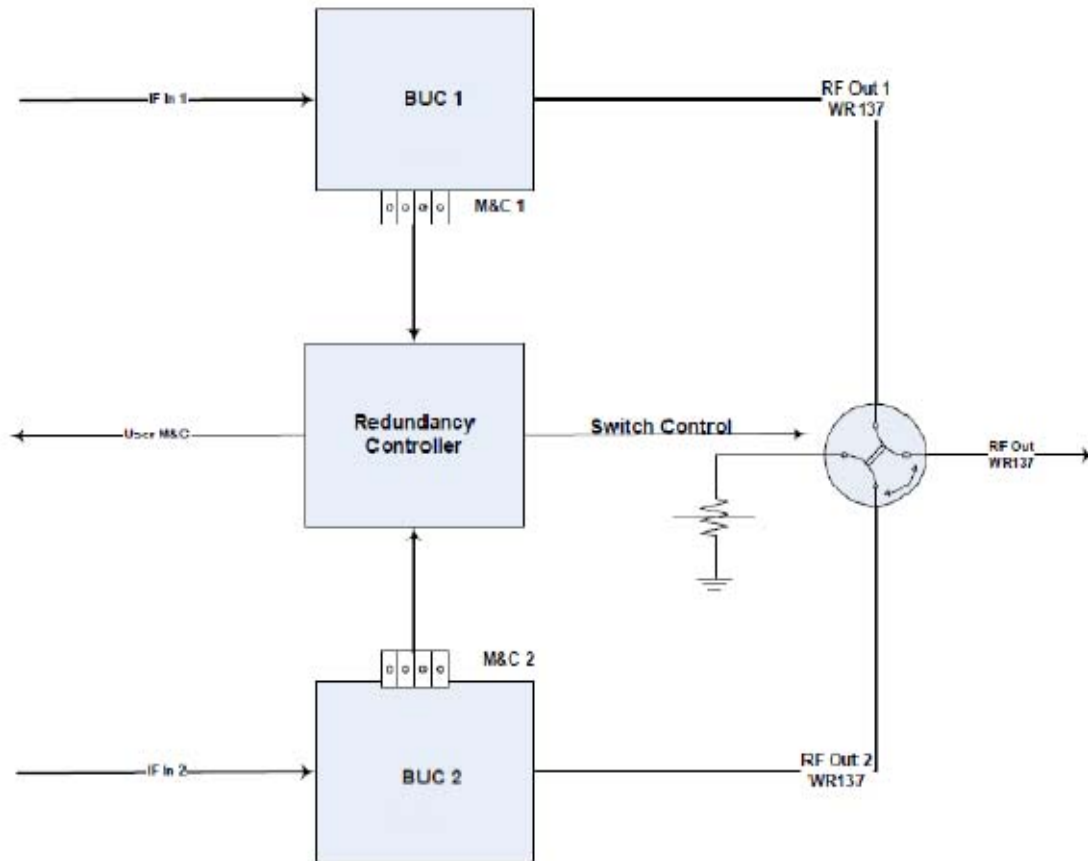
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80W PSAT

Parameter	80W
RF Performance	
RF Frequency Range-Available in/switched:	5.85-6.425GHz (other frequency options available)
IF Frequency Range	950-1525MHz
LO Frequency	4.9 GHz
Conversion	Single Conversion; non-inverting
Rated Power	49dBm
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 rated power -30dBc at 6dB total power back off from rated power -30dBc for QPSK at 1.5xsymbol rate at 2dB back off from rated power
Output Spurious: Non-signal related	-60dBc
Signal related	-55dBc
Power	
AC Voltage Range	90-265VAC 50-60Hz auto-ranging
48V DC Voltage Range (optional)	32-72VDC Isolated
Power Consumption	350W at rated power 270W at 3dB back off from rated power
Mechanical	
Size	6.25"x6.45"x3.9"
Weight	5.5lbs
Cooling	Forced Air
Operating temperature	-40°C to +60°C
Relative Humidity	Up to 100% condensing
Interfaces	
IF Input Connector	N-type female
RF Output Connector	CPR137 grooved
AC Power In	MS3112E10-8P
RS485-RS232-Ethernet-SNMP	MS3112E14-19S

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1:1 C-Band BUC Redundant System



Note 1. System IF input can be routed to an input splitter or coaxial switch (as a part of ganged WG switch) depending on system configuration.

Note 2. Stand by unit can be running in hold over mode using internal low stability reference clock signal to provide "hot standby" operation in case of external reference being switched to the active unit only.

Note 3. Indoor RU Remoter control Panel can be added to the system as an option for customer convenience.