



Block Up Converter, (70M or LBand) to C(5.85-6.75GHz) N-Type or BNC Connectors Indoor Unit



Reliability

Field proven with system deployed world-wide.
Raditek Block Up-Converters can withstand temperature
from -10°C to +50°C up to 95% non-condensing humidity.

Quality Assurance

All Raditek Block Up-Converters are designed and
manufactured according to ISO 9001 standard

Features

- Compact unit, single 1 RU package
- User selectable spectrum inversion
- Redundant Ready
- Available for wide satellite bands
- RS232, RS485 and SNMP interface for remote Monitor and Control (M&C)
- Full M&C through LCD & Keypad or serial remote

Order Examples: RBUC-IF(70M) to C(5.85 to 6.750)-BNCf-IDU-g11

Description: (Block Up Converter, IF(70MHz) to C(5.85 to 6.750GHz), BNC Female Connector, Indoor Unit.

Additional Options: L(950-1825M) N-Type Female

Output Parameters	
Output Frequency	5.85 to 6.750GHz
Impedance	50Ω
VSWR	1.6:1
Output Power @P1dB	+0dBm min
Input Parameters	
Input Frequency	950-1825MHz (for L to C) 70 ± 18MHz (for IF(70MHz) to C)
Impedance	50Ω
VSWR	1.44:1
Input Power	-5 to -25dBm
Transfer Parameters	
Frequency spectrum	User selectable (for IF(70MHz) to C)
Conversion Gain	28dB min
Gain Adjustment	25dB
Gain Flatness	±0.75dB over 36MHz Bandwidth ±2dB over Full Bandwidth
Gain Stability	±0.25dB over 24hours at constant temperature
In Band Spurious	
Carrier dependent	-55dBc at max gain
Carrier Independent	-65dBm max
Out Band Spurious exclude LO	-60dBm max
Third Order Inter-modulation products	40dBc @ two carriers 2MHz apart, 8dB back off from Prated for each carrier

RBUC-(70M or LBand) to C(5.85-6.75)-IDU-g11

Specifications may be subject to change

11/18/12

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Block Up Converter, (70M or LBand) to C(5.85-6.75GHz) Indoor Unit

Transfer Parameters Continued	
Phase Noise (for IF to C)	
@1KHz	-73dBc/Hz
@10KHz	-83dBc/Hz
@100KHz	-93dBc/Hz
Phase Noise (for L to C)	
@1KHz	-75dBc/Hz
@10KHz	-85dBc/Hz
@100KHz	-95dBc/Hz
Rear Panel Connections	
IF/L Input	BNC Female (for IF to C) N-Type Female (for L to C)
RF Band Output	SMA Female
10MHz Ext REF Connector - (Optional)	BNC Female
Remote Connector	DB 9 Female
Power IN	AC/DC
Monitor and Control	
Interface	RS232/ RS485/ SNMP
Monitoring parameters	LO & Temperature Alarms
Control Parameters	Gain Adjustment @ 0.5dB Step
Power Supply Requirement	
AC Input Voltage	100 to 240VAC 50/60Hz
Power Consumption	35W
Environmental	
Operating temperature	-10 to 50°C
Humidity	up to 95% (Non-condensing)
Mechanical	
Dimension	480L x 330W x 44H mm
Weight	3.5kg (for L to C) 4.0kg (for IF to C)

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OPTIONAL ADDITIONAL SPECS for C Band Up Converter	
Type	· Synthesized up conversion. · Dual conversion · No inversion · Image rejection -80 dBc in band
Step size	125 KHz
Stability (time)	$\pm 1 \times 10^{-9}$ /day
Stability (temp)	$\pm 1 \times 10^{-8}$ /day
Preset channels	32 frequencies
IF INPUT CHARACTERISTICS	
Return loss	23 dB minimum
RF OUTPUT CHARACTERISTICS	
Output level	+5 dBm @1 dB comp
Carrier mute	-70 dBc
Spurious	Carrier: -60 dBc at 0 dBm output
Inter mod	-40 dBc (2 carriers) @ 0 dBm output
Return loss	20 dB minimum
Connector (IF)	N-TYPE Female
TRANSFER CHARACTERISTICS	
Gain (minimum)	28 dB
Gain adjust (minimum)	25 dB min in 0.5 dB steps or less
Ripple	± 0.25 dB over 36 MHz Span
Gain slope	0.05 dB/MHz
IF band width	36 MHz
AM to PM conversion	0.1 deg/ dB @ -5 dBm output
GROUP DELAY	
Linear	0.03ns / MHz
Parabolic	0.01ns / MHz ²
Ripple	1.0ns peak - to - peak
POWER SUPPLY	
Voltage	200 to 240 VAC, 50 $\pm$ 10% Hz Single Phase

FRONT PANEL	
Display (LCD)	Indication & control of Frequency, input attenuator, status, channel, Gain etc
Test points	RF port, IF port
LED Indicators	Power, External Ref, Remote, RF ON, LO fault, Signal Fault
REAR PANEL	
RF out / IF	in N/ BNC
Ref out / in	5/10 MHz, BNC female
M&C interface	Ethernet LAN (SNMP with Web enable), RS 485/ RS232

OTHERS	
Size of single converter	19" rack mountable, standard 1U height
MTBF	55,000 Hrs (Typical)
Warranty	2 Years

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