

Block Up Converter L to C Band
 Block Down Converter C to L Band
 Up to 4 converter modules in a single 1RU



Standard C / Extended - Ce (5.85-6.425GHz)

Palapa\Insat - Cz (6.425-7.025GHz), Indoor Unit



Our Frequency Converters offer a new best in class for the Industry. Not only for ease of operation, but lowest cost too. They embody embedded redundancy options and extensive monitor and control via: front panel, serial ports (EIA232/EIA485) and Ethernet

There may be up to 4 converter modules in a single 1RU shelf, and they can be configured for various applications and bands. The reference with autosensing can lock to an external 5/10 MHz reference or utilize the built-in high stability, reference oscillator.

Hot-swappable shelf redundancy option and extensive monitor and control via front panel, serial ports EIA232/EIA485 and Ethernet

Key Features:

- Superior RF performance:
 - Phase noise >8dB better than IESS308/309
 - In-band Spurious < -60dBc
 - Superior Gain flatness
- Available in all C band options Standard, extended, Palapa and Insat
- User Friendly front panel with menu driven graphical display
- 5MHz or 10MHz external reference with Autosense.
- *Up to 4 frequency converters in a single 1RU chassis (1.75" H x 19" W x 19" D)
- Full featured M&C Interface via serial EIA485, EIA232, Ethernet:
 - 20dB Gain Control
 - Input and output power detectors
 - Automated level control (ALC) mode optional
- 1:N Redundant ready
- RF and L-Band monitoring optional
- 48VDC isolated power supply optional

Order Examples: RBUC-L-Ce-Nf-AC-IDU-i13

Description: (Block Upconverter, L Band to Ce(5.85-6.425GHz), N Female Connector, 90 to 265VAC, Indoor Unit)

Order Examples: RBDC-C-L-Nf-AC-IDU-i13

Description: (Block Downconverter, C(3.4-4.2GHz) to L Band, N Female Connector, 90 to 265VAC, Indoor Unit)

Additional Options: (6.425-7.025GHz) – DC 48V – (ER5M or ER10M - 5MHz or 10MHz External Reference)

*Please specify number of 4 frequency converters and combinations at time of order.

Block Up and Down Converter Family, Rack Mount: C Band

Standard C / Extended - Ce (5.85-6.425GHz), Palapa\Insat - Cz (6.425-7.025GHz), Indoor Unit

L- to Ku-Band Up- Converter Rack Mount System

Parameter	Up-Converter		Down-Converter
RF Performance	Stand C/Extended C	Palapa/Insat	C Band
RF Frequency Range-Available in/switched:	5.85-6.425GHz	6.425-7.025GHz	3.4-4.2GHz
IF Frequency Range	950-1825MHz	950-1550MHz	950-1750MHz
LO Frequency	4.9GHz	5.475GHz	5.15GHz
Input Return Lost	16 dB		18 dB
Output Return Lost	18 dB		16 dB
Noise Figure	5 dB Max		
Conversion	Single Conversion; non-inverting		inverting
Output Power at 1dB compression point	10dBm min		
Conversion Gain	35dB		
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		
External Reference Frequency	10MHz		
External Reference Required Phase Noise	-130dBc/Hz @ 100Hz -140dBc/Hz @ 1kHz -150dBc/Hz @ 10kHz -155dBc/Hz @ 100 Hz		
Up-Converter Phase Noise	-70dBc/Hz @ 100Hz; -80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz; -95dBc/Hz @ 100kHz; -115dBc/Hz @ 1MHz		
Spurious:	Signal related*	-55dBc	
	Non signal related	-60dBc	
*For Up Extended C-Band signal related Spurious is -50dBc			
Monitor & Control Features:			
Interfaces			
	Serial - EIA485	DB9 Connector rear panel	
	Serial - EIA232	RJ45 or DB9 Front Panel	
	10/100 base-T Ethernet	RJ45 rear panel	
	Alarm and Control	DB9 Connector rear panel	
	Redundant protection interface	HD15 Connector rear panel	
Controls:	Gain Control	via Serial, Ethernet, Front panel	
	LO Select - Standard/Extended Ku Band Toggle	via Serial, Ethernet, Front panel	
	Mute Control	via Serial, Ethernet, Front panel, Red Int.	
	Local/Remote toggle	Serial(Ethernet)/Front panel toggle	
	Clear Alarm	via Serial, Ethernet, Front panel	
Indicators			
	Lock Status	via Serial, Ethernet, Front panel	
	Gain Status	via Serial, Ethernet, Front panel	
	IF Power Detect	via Serial, Ethernet, Front panel	
	RF Power Detect	via Serial, Ethernet, Front panel	
	Temperature	via Serial, Ethernet, Front panel	
	Summary Alarm Status	via Serial, Ethernet, Front panel, Red Int	
	Mute Status	via Serial, Ethernet, Front panel, Red Int	
Power Supply		Mechanical	
Input Voltage	90 to 265VAC 50/60Hz PFC	Width	19" Rack
Input Voltage	48VDC Optional	Height	1RU
Environmental		Depth	19"
Operating temperature	0 to 60 °C	Color	Metallic
Storage Temperature	-40 to +85 °C	Cooling	Forced air
		IF/RF Connectors	
		IF	N-type (other options available)
		RF	N-type
		10MHz Ref In/Out	BNC (other options available)

RBUDC-L-C-ER10M-AC-IDU-i13

Specifications may be subject to change

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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