



Block Up Converter

L to C Band (Intelsat/ Insat/ Palapa/ Full C),
10MHz External Reference, N/F Connector,
20-60 Watts, Outdoor Unit



This small and lightweight BUC is ideal for mobile and satellite uplink applications. Designed to be mounted on the feed horn, the BUC has excellent efficiency and consumes less than 250W for 50W C-Band BUC. The unit works on a wide range DC power supply of 38V to 60V. The BUC is able to work up to 60°C. Innovative and efficient thermal design makes this BUC one of the smallest, lightest and most reliable in the industry.

With redundancy-ready feature, the unit can be easily configured to work in 1:1 redundant mode.

Order Examples: RBUC-L(950-1825M)-C(5.850-6.725)-Nf-WR137G-ER10M-20W-ODU-g11

Description: (Block Up Converter, L Band(950-1825MHz) to C(5.850-6.725GHz), N-Female Input Connector, WR137G Waveguide Output, 10MHz External Reference, 20 Watts, Outdoor Unit)

Additional Options: **Input** **Output** **Ff(F-Female)** **Nf(N-Female)** **20, 25, 40, 50 or 60 Watts**
 See Table Below See Table Below Input Output

Features

- Compact and lightweight
- Feed mountable
- Wide operating temperature range -40°C to +60°C
- Wide input DC Voltage range 38V to 60V
- Standard remote monitor & control through RS485, optional Ethernet (SNMP & HTTP)
- Excellent linearity
- Extremely reliable
- High power efficiency
- Available for all C-Band frequency ranges
- Excellent phase noise characteristics
- Low spurious
- Forward power detection facility
- Automatic fault identification & alarm generation
- Automatic temperature compensation feature

- Redundancy ready
- RoHS compliant
- Waterproof with IP65 standard
- LED indicator for BUC status

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 -40°C to +60°C with up to 100% humidity.

Frequency	TX (GHz)	IF (MHz)	LO (MHz)
Intelsat/ (Standard) CInt	5.850 to 6.425	950 to 1525	7375 / 4900
Insat CIn	6.725 to 7.025	1100 to 1400	8125 / 5625
Palapa / ST1 CPal	6.425 to 6.725	1150 to 1450	7875 / 5275
Full C C	5.850 to 6.725	950 to 1825	7675 / 4900

RBUC-L-C-Nf-WR137G-ER10M-20-60W-ODU-g11

Specifications may be subject to change

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Block Up Converter, L to C Band (Intelesat/ Insat/ Palapa/ Full C), 20-60 Watts, Outdoor Unit

RF Specifications	
Transmit Frequency IF	Intelsat / Full C / Insat / Palapa C
Frequency Range Output	Refer to table pg 1
Power @ P1dB	43dBm (20W) / 44dBm (25W)
	46dBm (40W) / 47dBm (50W)
Output Power @ Psat	47.8dBm (60W)
Small Signal Gain	70dB (typical for 20W / 25W)
	73dB (typical for 40W / 50W / 60W)
Gain Flatness	±2dB over the O/P frequency band
Gain Variation	±2dB over the operating temperature range
Gain Control	15dB in steps of 0.5dB
Inter Modulation	-27dBc @ 2 carriers 2MHz apart, 6dB back-off from Prated for each carrier (for 20W / 25W / 40W)
	-25dBc @ 2 carriers 2MHz apart, 6dB back-off from Prated for each carrier (for 50W / 60W)
O/P Spurious	According to EN301443
Phase Noise @ Offset	
	1 KHz -73dBc/Hz max
	10 KHz -83dBc/Hz max
	100 KHz -93dBc/Hz max
I/P VSWR	2.0:1 max
O/P VSWR	2.0:1 max
DC Power Requirement	
Prime Power	48VDC (range 38 to 60VDC)
Power Consumption	130W @ 48VDC input (Typical for 20W)
	150W @ 48VDC input (Typical for 25W)
	220W @ 48VDC input (Typical for 40W)
	250W @ 48VDC input (Typical for 50W)
	300W @ 48VDC input (Typical for 60W)
Power Supply Interface	3 pins DC Connector (optional common input via IFL)
Interfaces	
IF Input Interface	50 Ohms N
	75 Ohms F
Output Interface	WR 137G / 50 Ohms N-type Female (optional)
External Reference Requirement	
Frequency	10MHz
Power	-5dBm to +5dBm
External reference phase noise requirement @ frequency offset	
	1KHz -150dBc/Hz
	10KHz -155dBc/Hz
	100KHz -160dBc/Hz

Block Up Converter, L to C Band (Intelesat/ Insat/ Palapa/ Full C), 20-60 Watts, Outdoor Unit

Monitor & Control	
Monitor	BUC Temperature
	LO unlocked alarm
	Status alarm
	RF Output Power
	LED status indicator
Control	Adjustable gain with 0.5dB step size RF output mute
Interface	RS232/RS485 (Standard)
	Ethernet (SNMP & HTTP) (Optional)
Tx Redundancy	1:1 Redundancy- ready
Environmental	
Operating Temperature	-40°C to +60°C
	Optional (-40°C to +70°C for 40W)
Humidity	Up to 100%
	Weather protection sealed to IP65
Mechanical	
Size	234L x 171W x 87H mm / (9.2 x 6.7 x 3.4 in)
	(for 20W / 25W / 40W / 50W / 60W)
	194L x 151W x 87H mm / (7.6 x 5.9 x 3.4 in)
	(optional for 20W / 25W)
Weight	3.9kg / (8.6lbs) (for 20W / 25W / 40W / 50W / 60W)
	3.0kg / (6.6lbs) (optional for 20W / 25W)
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 4 GHz and 30 GHz 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)