



Block Up Converter, LBand to X LBand(950-1450M) to X(7.9-8.4G), TNC, N or F Type Female Connectors 5-80 Watts

Features & Benefits

- ❖ 2-20 Watt DC Power
- ❖ Integrated BUC/SSPA packaging for higher performance
- ❖ NMS- friendly interfaces enabling remote management of your earth station RF
- ❖ AGC or ALC circuits hold gain or output level constant
- ❖ Customer selectable gain
- ❖ Advanced customer interfaces
 - TCP/IP HTTP with embedded web pages
 - SNMP
 - TELNET through TCP/IP
 - FSK through TX IFL cables
 - RS232/485 SERIALPORT
 - Handheld terminal
- ❖ Switching logic built into BUC eliminates need for external controller

Order Examples: RBUC-L(950-1450M) to X(7.9-8.4)-Nf-ER10M-5W-t5

Description: (Block Up Converter, L Band(950-1450MHz) to X(7.9-8.4GHz), N-Type Female Connector, 5 Watts

Additional Options: N or F Type Female or TNC 5, 10, 20, 25, 40, 50, 60 or 80 Watts



RBUC-LBand(950-1450M) to X(7.9-8.4)-NF-5-80W-t5

Specifications may be subject to change

11/18/12

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Block Up Converter, LBand to X LBand(950-1450M) to X(7.9-8.4G), 5-80 Watts

LBand Input		
Frequency range	RF	IF
	7900 to 8400 MHz	950 to 1450 MHz
VSWR / Impedance		
1.5:1 max / 50 Ohm		
Connector		
Type N female (50 Ohm)		
Connector options		
Type F (75 Ohm), TNC (50 Ohm)		
Input power detector		
-55 to -20 dBm		
Gain		
Small Signal Gain (L-band to RF) with attenuator set to 0 dB		
5 W	68 dB min	
10 W	71 dB min	
20 W	74 dB min	
25 W	75 dB min	
40 W	77 dB min	
50 W	78 dB min	
60 W	79 dB min	
80 W	80 dB min	
Attenuator range		
16 dB variable in 0.1 dB steps		
Gain flatness		
5 W to 50 W		60 W to 80 W
Full band		3 dB p-p max
36 MHz		1 dB p-p max
1 MHz		0.25 dB p-p
Gain variation over temperature		
Open loop		3 dB p-p max
With AGC		1 dB p-p max
Noise Figure		
10 dB max. at min. attenuation		

RF Output		
Interface	CPR-112G	
VSWR	1.5:1 max	
Rated output power (P1dB)		
5 W	+37 dBm min	
10 W	+40 dBm min	
20 W	+43 dBm min	
25 W	+44 dBm min	
40 W	+46 dBm min	
50 W	+47 dBm min	
60 W	+47.8 dBm min	
80 W	+49 dBm min	
IMD3 (2 carriers, 3 dB TOBO) -27 dBc max		
Level stability with ALC +0.5 dB		
Output power detector range Rated power to -20 dB		
Power reading accuracy + 1.0 dB max.		
Spurious In band	-65 dBc	
Out of band	Complies with MIL-STD 188-164	
Harmonics	-50 dBc max.	
Output Noise Power Density		
TX Band	< -80 dBm/Hz	
RX Band (with RX reject filter)	< -170 dBm/Hz	
RX Band (w/o RX reject filter)	< -80 dBm/Hz	
Mute	-70 dBc max.	
AM-PM Conversion	< 3.0 deg/dB @ rated power	
Group Delay		
Linear	0.03 ns/MHz	
Parabolic	0.003 ns/MHz ²	
Ripple	1 ns p-p over any 36 MHz	

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SSB Phase Noise	BUC	
External reference		
10 Hz	-120 dBc/Hz	-40 dBc/Hz
100 Hz	-130 dBc/Hz	-70 dBc/Hz
1 kHz	-143 dBc/Hz	-80 dBc/Hz
10 kHz	-152 dBc/Hz	-90 dBc/Hz
100 kHz	-155 dBc/Hz	-100 dBc/Hz
1 MHz	-155 dBc/Hz	-110 dBc/Hz
External Reference (multiplexed on TX IFL)		
Frequency	10 MHz	
Level	-12 to +5 dBm	
Internal Reference - optional		
Local Oscillator Frequency 6950 MHz		
Sense	Non-inverting	

BUC Power Supply	DC	AC
Voltage	48 + 11 VDC	100 to 240 VAC
Option for 5 W, 10 W:	24 + 4 VDC	
DC via coax available on 5 W - 20 W		
Power Consumption		
5 W	72 W	85 VA
10 W	110 W	135 VA
20 W	168 W	200 VA
25 W	192 W	225 VA
40 W	350 W	400 VA
50 W	432 W	485 VA
60 W	450 W	530 VA
80 W	576 W	656 VA
Monitor and Control		
FSK (multiplexed on TX IFL), RS232/485		
Hand-held Terminal, TCP / IP (HTTP, Telnet, SNMP)		
Environmental	5 W to 40 W	50 W to 80 W
Operating temperature	-40 to +60°C	-40 to +55°C
Relative humidity	100% condensing	
Altitude	10,000 ft., (3,000 m) ASL	
Mechanical DC powered AC powered		
5 W - 10 W 12.2x7.2x4.2 in.	12.2x7.2x4.5 in.	
13 lbs	14 lbs	
20 W - 40 W 12.2x7.2x6.2 in.	12.2x7.2x6.5 in.	
18 lbs	19 lbs	
50 W - 80 W 12.2x7.2x6.7 in.	12.2x7.2x7.0 in.	
18.5 lbs	19.5 lbs	