

DATASHEET

CODAN SATCOM



High Performance LB61 Series X-Band Low Noise Block Down Converter (LNB)

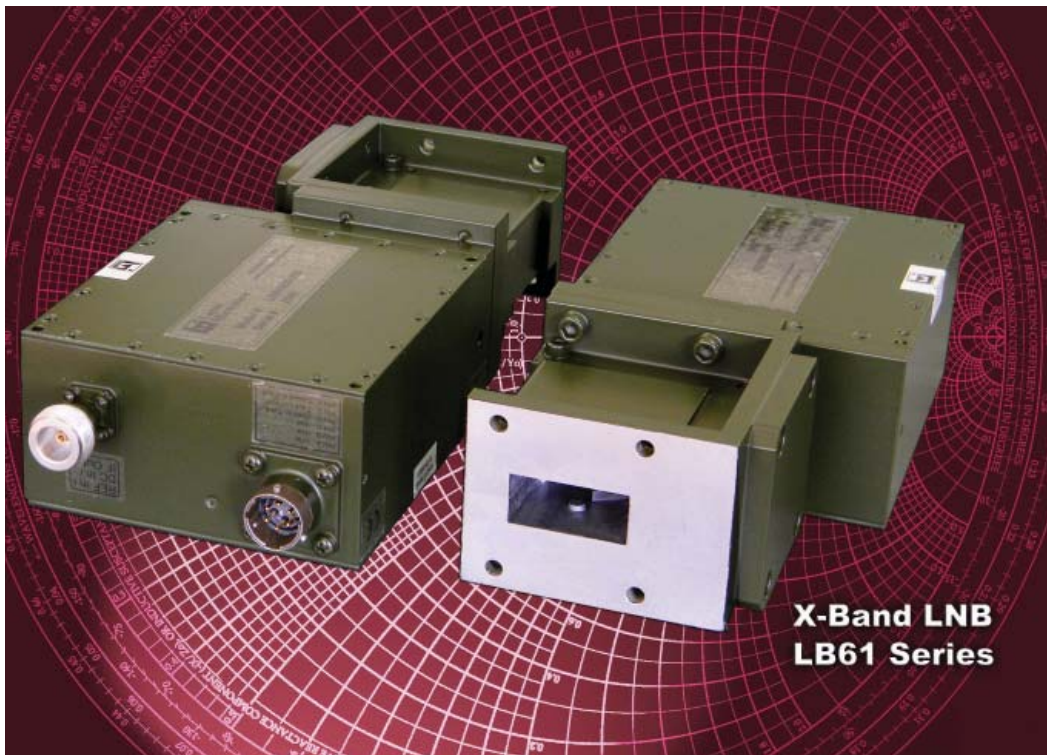
General Information

Intended for either indoor or outdoor environments, Locus Microwave, Inc., designed the LB61 X-Band LNB for use in professional outdoor systems and includes an input WG isolator and interstage Tx reject filter. The LB61's exceptional design and performance provides a cost-competitive solution and a history of field-proven reliability.

Specifications included are for a standard product. Please contact the factory for your custom or specific performance needs.

Features:

- Input WG Isolator
- Outdoor packaging
- Integral Tx reject filter
- Input waveguide window
- Integral fault Alarm



This item is subject to International Traffic in Arms Regulations (ITAR) and is classified as 22 CFR, Part 121, Category XI (a) (5) per United States Munitions List (USML). Compliance with the Department of State ITAR is required for export of this item.

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11561 DS Rev -

LB61 Series Low Noise Block Down Converter

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	Range	Units	Notes
Electrical Specifications			
Input Frequency	7.25-7.75	GHz	
Output Frequency	950-1450	MHz	
Local Oscillator Frequency	6.30	GHz	Phase Locked to ext. ref.
External Reference (Standard)			
Frequency	10	MHz	
Level	0 dBm +/-5 dB		
Phase Noise (SSB)			
@ 1 kHz offset	-72 min., -76 typ.	dBc/Hz	
@ 10 kHz offset	-82 min., -85 typ.	dBc/Hz	
@ 100 kHz offset	-92 min., -100 typ.	dBc/Hz	
Noise Temperature	45 or 50 max.	K	@+23°C
Gain	50 or 60 min.	dB	
Gain Flatness	+/-1.5 max.	dB	per full band
Gain Slope	+/-0.5 max.	dB	per 40 MHz
P_{1dB}	+10 min.	dBm	
Input VSWR	1.20 typ., 1.25 max.	:1	Input Isolator Included
Output VSWR	1.5 typ., 2.00 max.	:1	
Overdrive	0 max.	dBm	non-damaging
LO Leakage @ RF Input	-80 max.	dBm	
Signal Independent Spurious	-60 max.	dBm	in band
Signal Related Spurious	-65 min.	dBc	0 dBm output max.
Desense level (7.9-8.4 GHz) ¹	-25 min.	dBm	Interstage filter included
Image Rejection	60 min.	dB	
Power Requirement			
Input Voltage	+12 to +18	VDC	
Current	600 nom.	mA	
Fault Alarm	contact closure	Form 'C'	current sensing
Mechanical Specifications			
Outline	LMI Dwg #10683		
Weight	2.0 nom.	lbs.	
Finish	paint	white	
Connectors			
RF Input	UG-138/U or CPR112G	Flange	WR112 waveguide
RF Output	N or SMA	Female	
Power	6 pin	MS Type	mate included
Pressure Test	5	psi	
Environmental			
Operating Temperature	-40 to +60	°C	
Humidity	100	%	with condensation

Notes:

1. -30 max. with optional 60 dB Gain

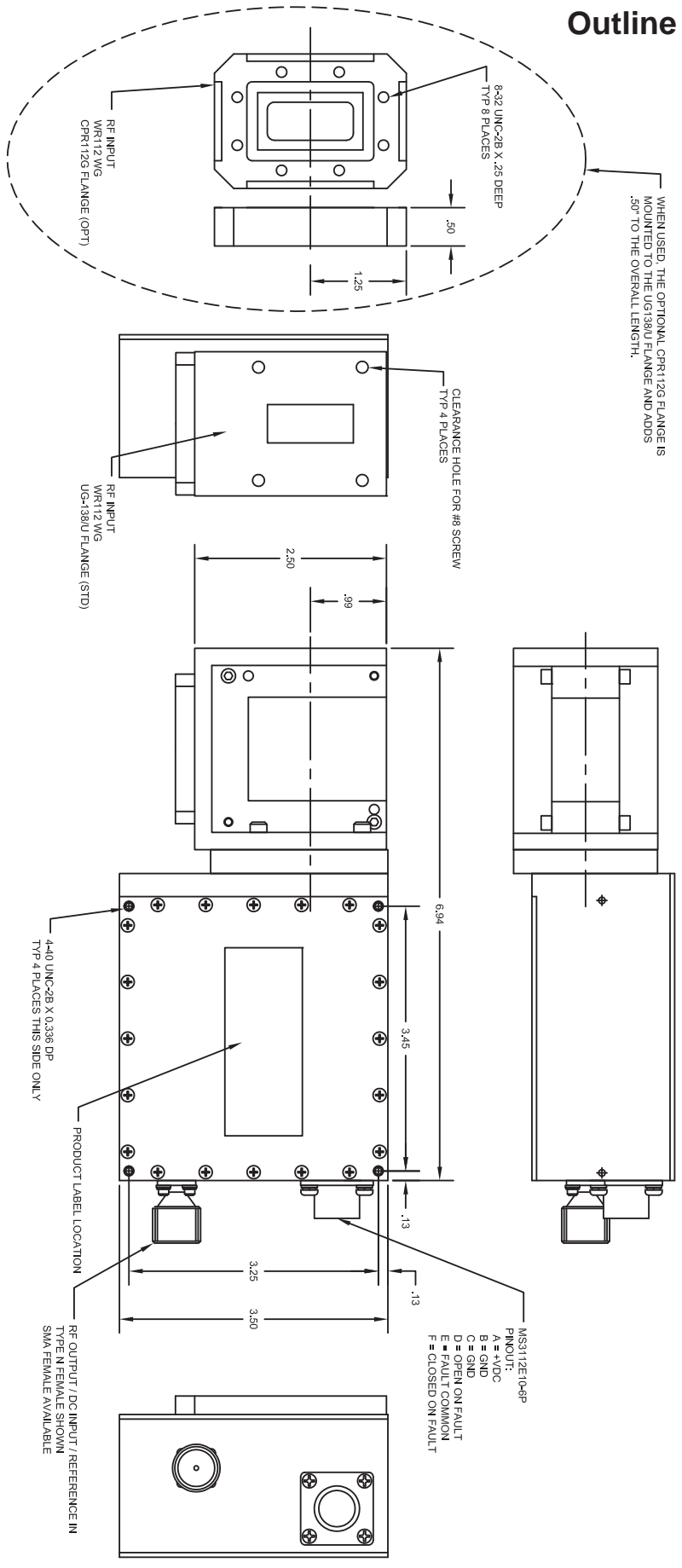
Specifications are subject to change at the discretion of Locus Microwave, Inc.

06/11

Outline Drawing

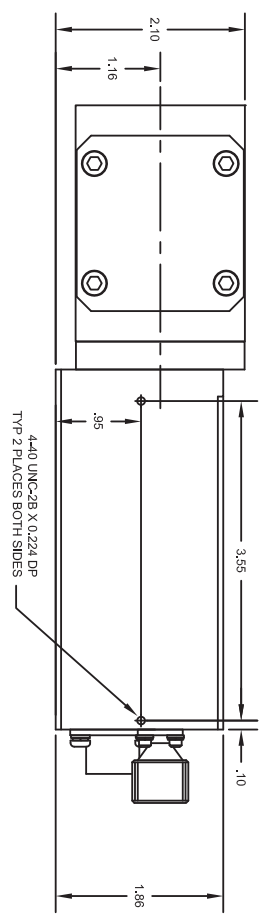
REVISION HISTORY			DWN BY	APPR BY	DATE
ZONE	REV	CHANGE NO			
-	-	-	JPD	JPD	08/04/18
-	A	558	JPD	JPD	09/05/27
-	B	927	SES	TDG	11/03/23

WHEN USED, THE OPTIONAL CPR112G FLANGES MOUNTED TO THE UG138U FLANGE ADDS .50" TO THE OVERALL LENGTH.



ITAR STATEMENT:

NOTE: Information contained within this document, may include references and descriptions of equipment that has been declared subject to ITAR, and is classified as 22 CFR, Part 121, Category XI (a)(5) per USML. It is the responsibility of the individual(s) in possession of this document to ensure compliance with the Department of State ITAR regulations for its handling and storage. Such responsibility extends to any reproduction or dissemination of the document or information contained herein, in whole or in part, in either electronic or hardcopy format.



UNLESS OTHERWISE SPECIFIED INCHES		LOCUS MICROWAVE INC.	
FRACTIONS	DECIMALS	SIZE	DATE
± 1/64"	.XX ± .01	C	34TH3
ANGLES	XXX ± .005	SCALE	1:1
TOLERANCES		PROJ.	
± 0.30			
THIRD ANGLE PROJECTION			
OUTLINE: X-BAND LNB		DWG NO.	10683
		REV	B
		PAGE	1 OF 1



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Model Number Configuration

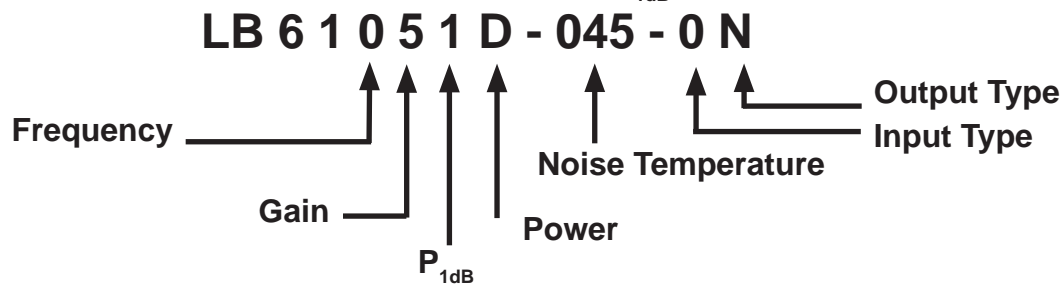
1 2 3 4 5 6 7

LB 6 1 x x x x - x x x - x x

1 Frequency 0 = 7.25-7.75 GHz	2 Gain 5 = 50 dB 6 = 60 dB	3 P 1dB 1 = 10 dBm	4 Power D = 12-18 VDC	5 Noise Temperature 045 K 050 K
6 Input Type 0 = UG-138/U Flange 1 = CPR112G Flange *1	7 Output Type S = SMA (Female) N = N (Female)	A Accessories 0 = None 1 = 6 Pin Mate 2 = 6 Pin Pigtail	B Finish 0 = White 1 = Dark Green 2 = Desert Tan 3 = Beige 4 = Sand 5 = Forest Green 6 = Metalast	Federal Standard 37925 34094 33446 37722 33303 34083

*1 NOTE: CPR112G Flange includes Gasket

Example: 7.25-7.75 GHz, 50 dB Gain, +10 dBm P_{1dB}, DC Power, 45K Noise



Please confirm configurations against product specifications, and with factory, prior to order.