CODAN SATCOM

DATASHEET

High Performance C-Band Low Noise Amplifiers

General Information

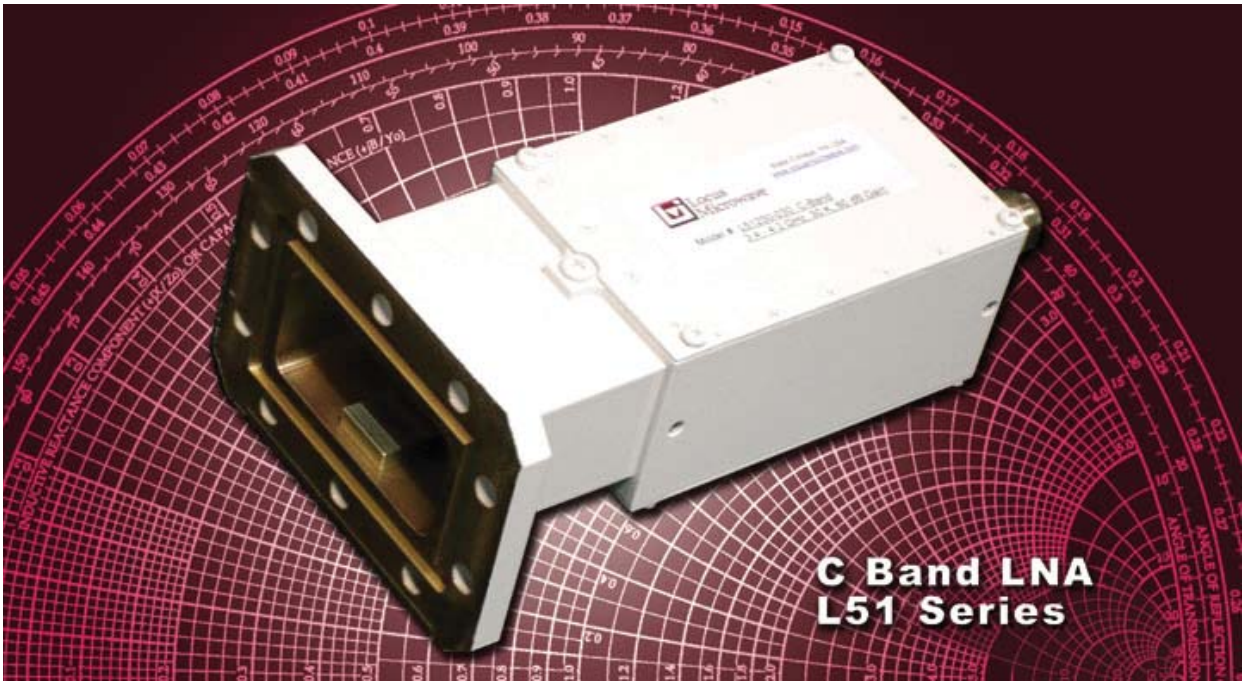
Intended for either indoor or outdoor environments, the Locus Microwave L51 Series C- Band Low Noise Amplifier (LNA) provides a combination of superior performance, reliability and cost effectiveness.

Features

- Outdoor packaging
- Integral Fault Alarm

Reference Documents

- LMI Drawing 10130 (VDC)
- LMI Drawing 10134 (VAC)



176 Technology Dr., Suite 200, Boalsburg, PA 16827 USA • Tel: +1 814 466 6275 • Fax: +1 814 466 1104
www.locusmicrowave.com
www.codansatcom.com

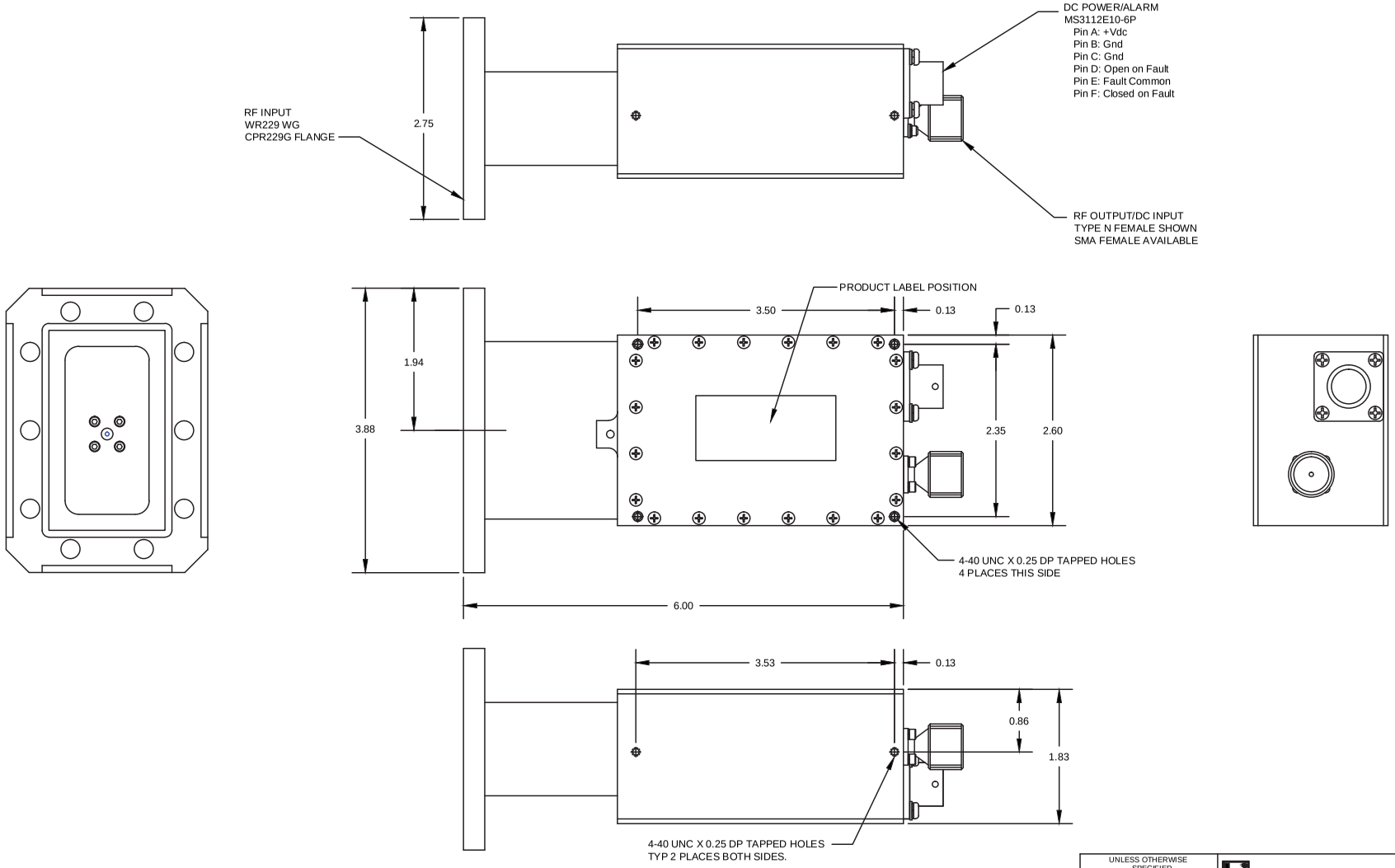
L51 Series Low Noise Amplifier

CODAN SATCOM

	Range	Units	Notes
Electrical Specifications			
Frequency	3.6 - 4.2 or 3.4 - 4.2	GHz	
Noise Temperature (choices)			
3.6 - 4.2 GHz	28, 30, 35 or 40 max.	K	@+23°C
3.4 - 4.2 GHz	30, 35 or 40 max.	K	@+23°C
Gain	50 or 60 min.	dB	
Gain Flatness			
3.6 - 4.2 GHz	+/-0.5 max.	dB	per full band
3.4 - 4.2 GHz	+/-1.0 max.	dB	per full band
Gain Slope	+/-0.2 max.	dB	per 40 MHz
P_{1dB}	+10 or 20 min.	dBm	
VSWR			
Input	1.20 typ., 1.25 max.	:1	
Output	1.25 typ., 1.50 max.	:1	
Overdrive	0 max.	dBm	non-damaging
	-10 max.	dBm	desense level (5.825-6.425 GHz)
AM/PM Conversion	0.05 max.	^{o}/dB	@-5 dBm output
Group Delay			
Linear	0.01 max.	ns/MHz	per 40 MHz
Parabolic	0.001 max.	ns/MHz^2	per 40 MHz
Ripple	0.1 max.	ns p-p	per 40 MHz
Power Requirement			
Input Voltage	+12 to +24	VDC	110/220 VAC available
Current	330 nom.	mA	
Fault Alarm	contact closure	Form ‘C’	current sensing
Mechanical Specifications			
Outline	LMI Dwg #10130	inches	
Weight	1.2 nom.	lbs.	
Finish	paint	white	
Connectors			
RF Input	CPR229G	Flange	WR229 waveguide
RF Output	N or SMA	Female	
Power	6 pin	MS-type	mate included
Pressure Test	5	psi	
Environmental			
Operating Temperature	-40 to +70	^{o}C	
Humidity	100	%	with condensation

Specifications are subject to change at the discretion of Locus Microwave, Inc. 06/11

REVISION HISTORY						
ZONE	REV	CHANGE NO	DESCRIPTION	DWN BY	APPR BY	DATE
---	-	---	INITIAL RELEASE	JPD	JPD	08/05/05
---	A	906	ADD VIEWS, CHANGE FLANGE CALLOUT	SES	SES	11/02/24



Outline Drawing

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
FRACTIONS ± 1/64"
DECIMALS .XX ± .01 .XXX ± .005
ANGLES ± 0°-30'
THIRD ANGLE PROJECTION

LOCUS MICROWAVE INC.

OUTLINE, C-BAND LNA

SIZE	CODE IDENT	DWG NO.	REV
C	34TH3	10130	A

SCALE 1 : 1 | PROJ : | PAGE 1 OF 1

REVISION HISTORY						
ZONE	REV	CHANGE NO	DESCRIPTION	DWN BY	APPR BY	DATE
---	-	---	INITIAL RELEASE	JPD	JPD	06/05/12
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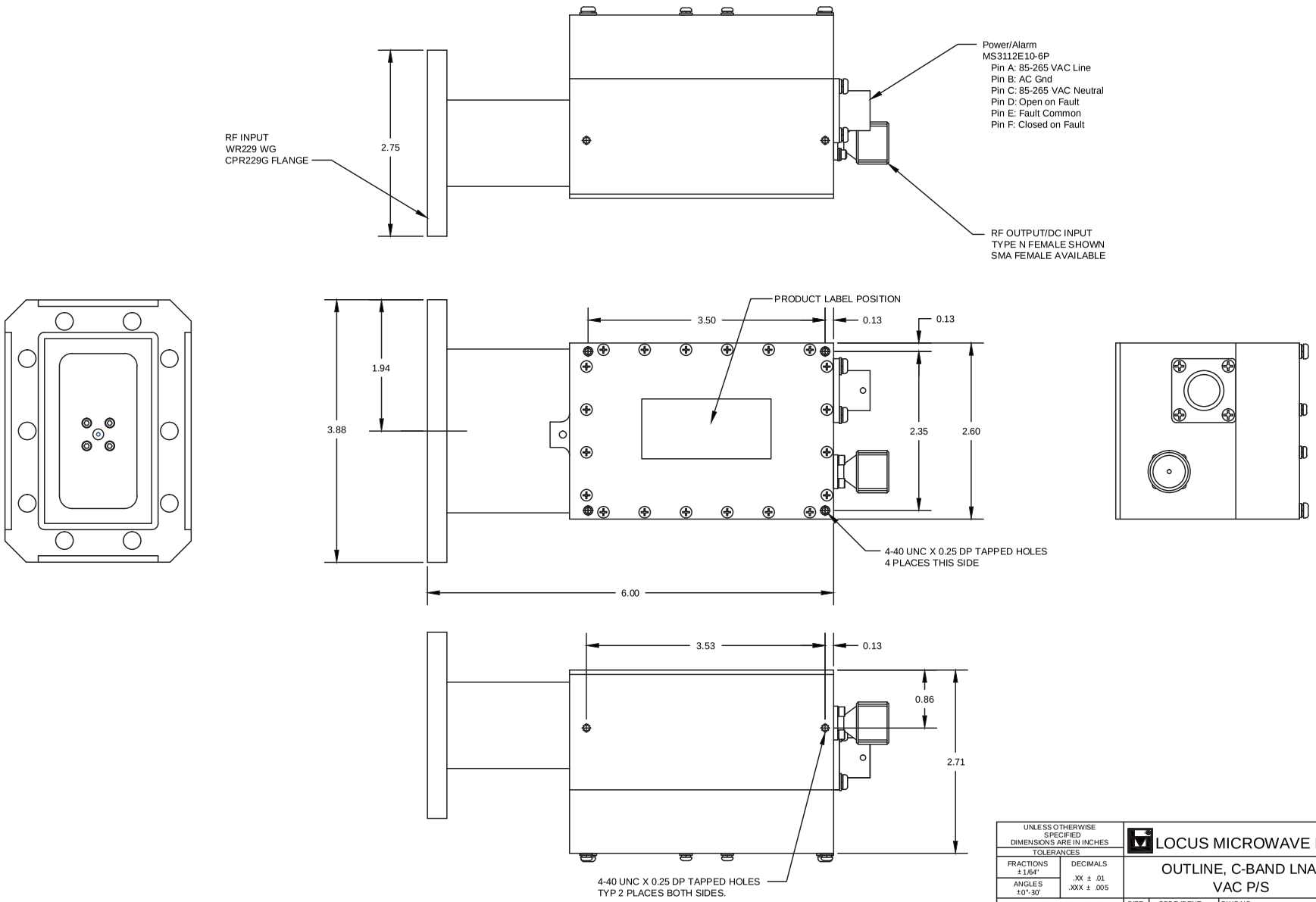


Outline Drawing

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		LOCUS MICROWAVE INC.	
TOLERANCES			
FRACTIONS ±1/64"	DECIMALS .XX ± .01 .XXX ± .005	OUTLINE, C-BAND LNA, VAC P/S	
ANGLES ±0°-30'			
THIRD ANGLE PROJECTION		SIZE C / CODE IDENT 34TH3	DWG NO. 10304 / REV A
		SCALE 1 : 1 / PROJ :	PAGE 1 OF 1

Model Number Configuration

1 2 3 4 5 6 7

L 5 1 x x x x - x x x - x x

1 Frequency	2 Gain	3 P 1dB	4 Power	5 Noise Temperature
0 = 3.6-4.2 GHz	5 = 50 dB	1 = 10 dBm	D = 12-24 VDC	028 K
1 = 3.4-4.2 GHz *1	6 = 60 dB	5 = 20 dBm	A = 110/220 VAC	030 K
				035 K
				040 K

6 Input Type	7 Output Type	A Accessories	B Finish	Federal Standard
1 = CPR229G Flange *2	S = SMA (Female)	0 = None	0 = White	37925
	N = N (Female) *3	1 = 6 Pin Mate	1 = Dark Green	34094
		2 = 6 Pin Pigtail DC ONLY	2 = Desert Tan	33446
		3 = 6 Pin Pigtail AC ONLY	3 = Beige	37722
			4 = Sand	33303
			5 = Forest Green	34083
			6 = Metalast	

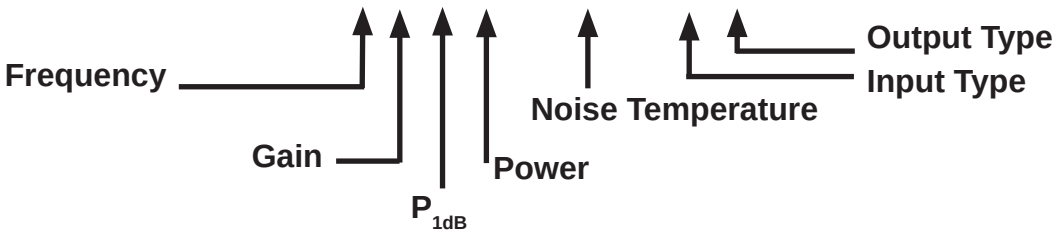
*1 NOTE: 30K NOISE TEMP MINIMUM

*2 NOTE: CPR229G Flange includes Gasket

*3 NOTE: LNAs ordered as components of a Redundancy system require an N (F) output connector.

Example: 3.6-4.2 GHz, 50 dB Gain, +10 dBm P_{1dB} , DC Power, 28K Noise

L 5 1 0 5 1 D - 028 - 1 S



Note: Selections shaded in gray will require Engineering review.

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