

DATASHEET

High Performance L-Band Low Noise Amplifiers

General Information

Intended for either indoor or outdoor environments, the Locus Microwave L31 Series L-Band Low Noise Amplifier (LNA) provides a combination of superior performance, reliability and cost effectiveness.

Features

- Outdoor packaging
- Integral Fault Alarm



L31 Series Low Noise Amplifiers

CODAN SATCOM

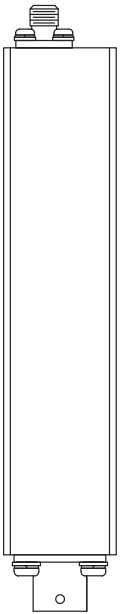


	Range	Units	Notes
Electrical Specifications			
Frequency	1.510-1.577 or 1.525-1.561 1.500-1.700*	GHz GHz	
Noise Temperature	30, 35, 40, 45 or 50 max.	K	@+23°C
1.500-1.700 GHz*	35, 40, 45 or 50 max.	K	@+23°C
Gain	50 or 60 min.	dB	
Gain Flatness	+/-0.5 max.	dB	per full band
1.500-1.700 GHz*	+/-1.0 max.	dB	per full band
Gain Slope	+/-0.25 max	dB	per 10 MHz
P _{1dB}	+10, 12, 18 or 20 min.	dBm	
VSWR			
Input	1.3 typ., 1.5 max.	:1	
1.500-1.700 GHz*	1.5 typ., 2.0 max.	:1	
Output	1.3 typ., 1.5 max.	:1	
1.500-1.700 GHz*	1.5 typ., 2.0 max.	:1	
Overdrive	0 max.	dBm	non-damaging
AM/PM Conversion	0.1 max.	°/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
1.500-1.700 GHz*	0.5 max.	ns p-p	per 40 MHz
Power Requirement			
Input Voltage	+12 to +24	VDC	110/220 VAC available
Current	220 nom.	mA	
Fault Alarm	contact closure	Form 'A'	current sensing
Mechanical Specifications			
Outline	LMI Dwg #11490	inches	
Weight	.65	lbs.	
Finish	paint	white	
Connectors			
RF Input	N or SMA	Female	
RF Output	N or SMA	Female	
Power/Alarm	4 pin	MS-type	mate included
Environmental			
Operating Temperature	-40 to +60	°C	
Humidity	100	%	with condensation

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

06/11

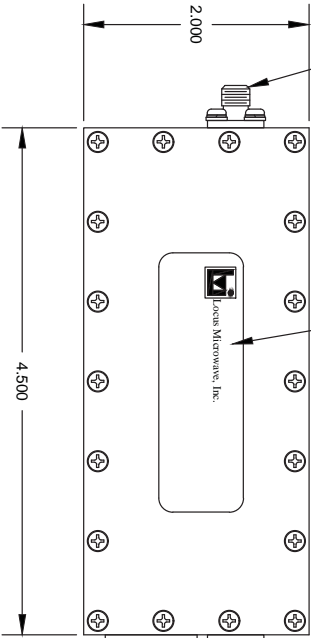
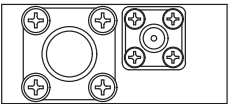
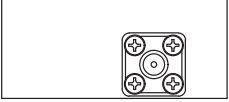
REVISION HISTORY				DATE
ZONE	REV	CHANGE NO.	DESCRIPTION	
...	-		INITIAL RELEASE	11/02/25



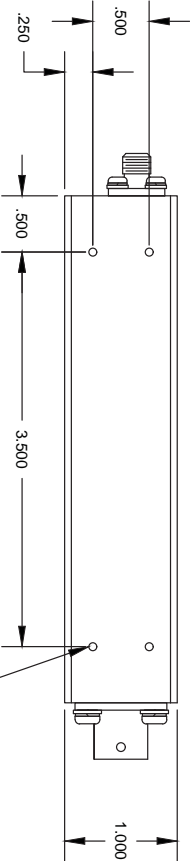
RF INPUT
SMA FEMALE SHOWN
N FEMALE AVAILABLE

PRODUCT LABEL
LOCATION

RF OUTPUT
SMA FEMALE SHOWN
N FEMALE AVAILABLE



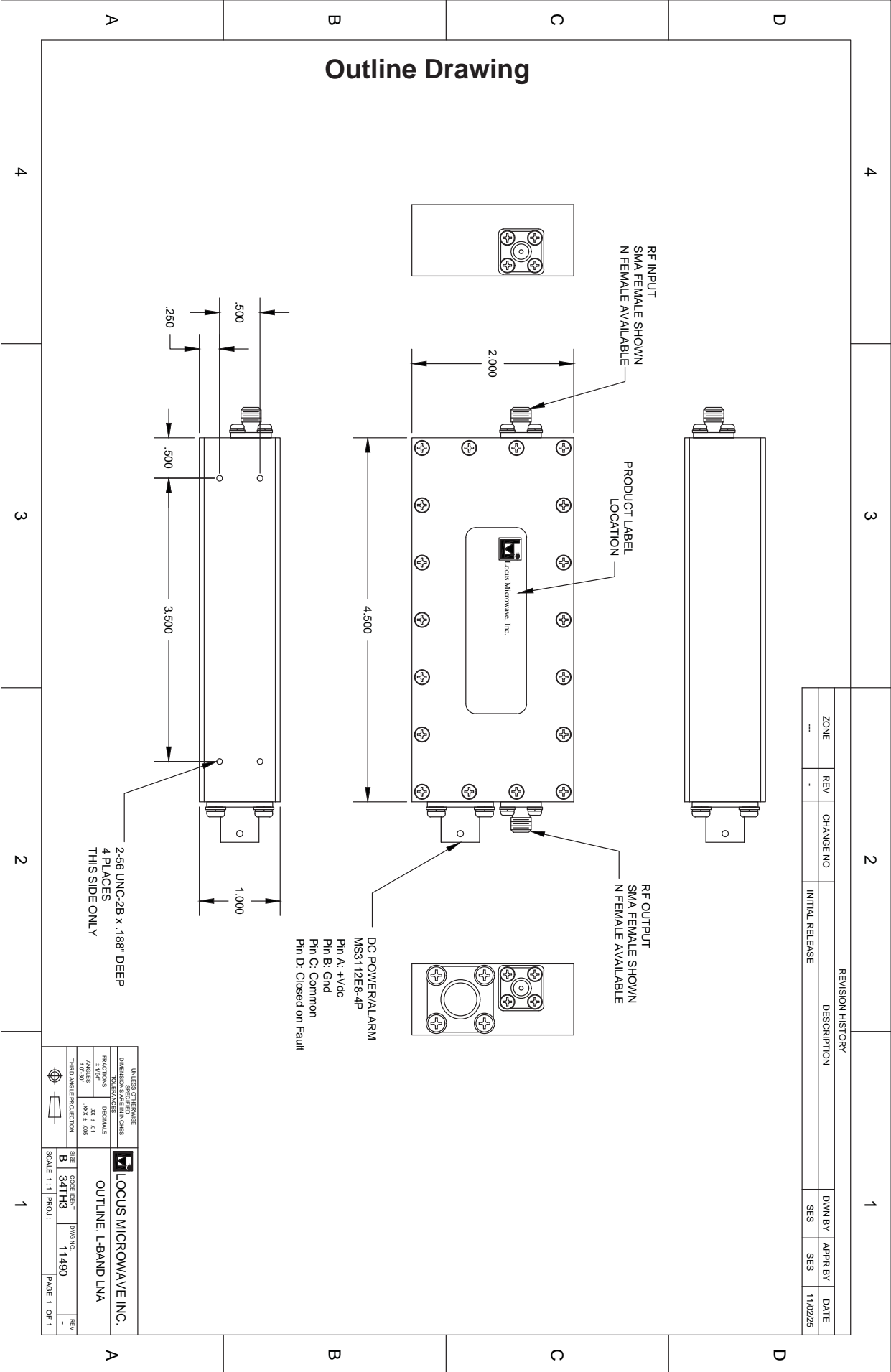
DC POWER/LARM
MSS312E8-4P
Pin A: +Vdc
Pin B: Gnd
Pin C: Common
Pin D: Closed on Fault



2-56 UNC-2B x .188" DEEP
4 PLACES
THIS SIDE ONLY

Outline Drawing

UNLESS OTHERWISE SPECIFIED		LOCUS MICROWAVE, INC.	
DIMENSIONS ARE IN INCHES		OUTLINE, L-BAND LNA	
FRACTIONS	DECIMALS	SIZE	CORE REV
3/16	.1875	B	34TH3
ANGLES	XX	SCALE	1:1
THIRD ANGLE PROJECTION		PROJ.	
			PAGE 1 OF 1





Model Number Configuration

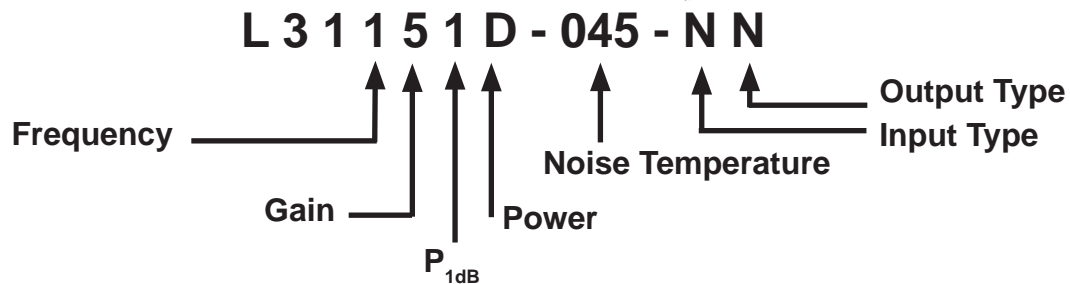
1 2 3 4 5 6 7
L 3 1 x x x x - x x x - x x

<p>1 Frequency</p> <p>0 = 1.510-1.577 GHz</p> <p>1 = 1.525-1.561 GHz</p> <p>2 = 1.500-1.700 GHz *1</p>	<p>2 Gain</p> <p>5 = 50 dB</p> <p>6 = 60 dB</p>	<p>3 P 1dB</p> <p>1 = 10 dBm</p> <p>2 = 12 dBm</p> <p>4 = 18 dBm</p> <p>5 = 20 dBm</p>	<p>4 Power</p> <p>D = 12-24 VDC</p> <p style="background-color: #cccccc;">A = 110/220 VAC</p>	<p>5 Noise Temperature</p> <p>030 K</p> <p>035 K</p> <p>040 K</p> <p>045 K</p> <p>050 K</p>
<p>6 Input Type</p> <p>S = SMA (Female)</p> <p>N = N (Female)</p>	<p>7 Output Type</p> <p>S = SMA (Female) *2</p> <p>N = N (Female)</p>	<p>A Accessories</p> <p>0 = None</p> <p>1 = 4 Pin Mate DC Only</p> <p>2 = 4 Pin Pigtail DC Only</p> <p style="background-color: #cccccc;">3 = 6 Pin Mate AC Only</p> <p style="background-color: #cccccc;">4 = 6 Pin Pigtail AC Only</p>	<p>B Finish</p> <p>0 = White</p> <p>1 = Dark Green</p> <p>2 = Desert Tan</p> <p>3 = Beige</p> <p>4 = Sand</p> <p>5 = Forest Green</p> <p>6 = Metalast</p>	<p>Federal Standard</p> <p>37925</p> <p>34094</p> <p>33446</p> <p>37722</p> <p>33303</p> <p>34083</p>

*1 NOTE: 35K NOISE TEMP MINIMUM

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

Example: 1.525-1.561 GHz, 50 dB Gain, +10 dBm P_{1dB}, DC Power, 45K Noise



Note: Selections shaded in gray will require Engineering review.

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