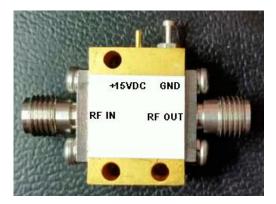


# Dynamic Engineers Inc.

2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 TEL: 281-870-8822EMAIL:Sales@DynamicEngineers.com LNA1913X-4GHz-8GHz-A 4 to 8GHz LNA with Field Replaceable RF Connector

#### **Picture**



#### **Features and Benefits**

4.0 to 8.0 GHz Frequency Range Gain Flatness <±0.5dB (typical) Typical N.F. <=0.5dB Advance PHEMT Technology Reverse Voltage Protection MIL-883, MIL45208 construction and reliability

#### **Typical Applications**

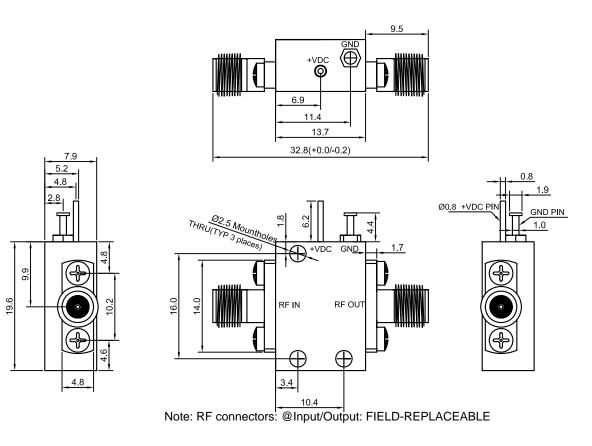
SATCOM Wireless

#### **Description**

The LNA1913X-4GHz-8GHz-A is an octave band LNA with an industry low Noise Figure and Gain Flatness across the entire band. Lower NF options are also available in smaller sub-bands.

### Mechanical Drawing & Pin Connections

Drawing No: MD170004-1



Unit: mm 1mm=0.0394inch

Rev.1



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# Key Specifications at 23°C

Parameter		Value			Note
	Min.	Тур.	Max.		
Frequency	4.0		8.0	GHz	Customizable
Gain	35	37	-	dB	Customizable
Gain Flatness	-	±0.5	±1.0	dB	Customizable
In/Out VSWR	-	1.5	2.0	-	Customizable
Output P1dB	+10	+11	-	dBm	Customizable
DC Power	+11	+15	+16	V@mA	140 mA typ
Noise Figure	-	0.5	0.6	dB	@23°C

### **Absolute Maximum Ratings**

Parameter	Value			Unit	Note
Parameter	Min.	Тур.	Max.		
Operating Temperature (Case)	-40		+95	C	95% humidity, non-condensing
Storage Temperature (Case)	-54		+115	C	95% humidity, non-condensing
RF Input Power	-		+19	dBm	CW
Die Junction Temp (Tj)	-		+150	C	For GaAs devices
Positive Supply Voltage			+16	V	At +V DC terminal
Negative Voltage	-		-10	V	Reverse Voltage

Fle Trace/Chan Response Marker/Analysis Stimulus Utility Help	
🥱 🥐 Percent of Spar	1 24.00 %
Trail NF LogM 0.500dB/ 0.60dB	Tr 2 IN VSWR SWR 1.000U/ 2.00U Tr 3 OUT VSWR SWR 1.000U/ 2.00U
3.10 1: 4.000 GHz 0.60 dB 2.60 2: 5.000 GHz 0.51 dB	7.00 1: 4.000 H= 2.00   6.00 2 5000 H= 1.52   5.00 3 6.000 H= 1.52
2.60 2. 5.000 bHz 0.51 uB 2.10 3. 6.000 bHz 0.50 dB	5.00 3 6.000 GHz 1.55
4: 7.000 GHz 0.53 dB	4: 7.000 BHz 1.59
1.60 > 5: 9.000 pHz 0.59 dB	4.00 5. 8000 HHz 1.7 3.00 51: 4.000 HHz 1.1
	2 5000 5H5 1.2
0.10 1 2 3 4	1.00 4.44 7.000 DH2 1.4 0.00 2 8 5.4 8.000 DH2 1.4
-0.90	4.00
1.40	-2.00
-1.90 Ch 1 Avg = 2 Swps: 3/3	-3.00 Ch 1 Avg = 2 Swps: 3/3
L >Ch1: NFCS Start 3.00000 GHz - Stop 9.00000 GHz	2 Ch1: NFCS Start 3.00000 GHz Stop 9.00000 GH
Tr. 4 GAIN LooM 2.000d87 36.4d8	Tr 5 OUT P1dB LogM 2000dBm/ 10.0dBm
46,40 × 1: 4.000 GHz 37,49 dB 44,40 2: 5.000 GHz 37,43 dB	20.00 >1: 4.000 FHz 1).05 dB 18.00 2: 5:000 FHz 1).56 dB
12 40 3: 6.000 GHz 37.37 dB	16 00 GHz 11,85 dB
4: 7.000 GHz β7.36 dB	4: 7.000 GHz 12.10 dB
4L14J 38.40 <u>1</u> 5: 8:000 GHz 37.23 dB	12 10 1
35 40	
34.40	8.00
32.40	6.00
30.40	4.00
28.40	2.00
26.40 Ch 1 Avg - 2 Ships: 3/3	0.00 Ch 2
Ch1: NFCS Start 300000 GHz - Stop 9.00000 GHz	4 Ch2: GCA Start 3.00000 GHz Stop 9.00000 GH
Tr 6 S21 Delay 50.00ps/ 250ps	
500.00	
400.00	
350.00	
300.00	
250.00	
200.00	
150.00	
100.00	
50.00	
0.00 Ch 3 Avg = 1	
5 Ch3: Start 3.00000 GHz	Stop 9.00000 GHz
old CH1: NF&Mem CASNC 2P Avg-5 Smooth-24.00%	LCL

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Dynamic Engineers reserves the right to make changes to the company datasheet(s) along with other information contained inside; such as data tables and graphs without notification to potential customers who may have earlier revisions in their possession.