



# ILA110165N

## 1.1 – 1.65 GHz LOW NOISE AMPLIFIER

REV B  
July 2015

### Key Features



- 1.1 ~ 1.65 GHz, 50 Ohm Impedance
- 0.5 dB Noise Figure
- 32 dB Gain
- 1.35:1 VSWR
- 7 dBm P<sub>1dB</sub>
- Precision Machined Housing
- Single DC Power Supply
- Meet MIL-STD-202g

### Applications

- GPS
- Receiver Amplifiers
- RF Bench Tests
- Mobile Base Station



### Absolute Maximum Ratings

Parameters	Units	Ratings
DC Power Supply Voltage	V	-0.5,32
RF Input CW Power	dBm	10
Storage Temperature	°C	-40 ~ +85
Operating Temperature	°C	-40 ~ +85

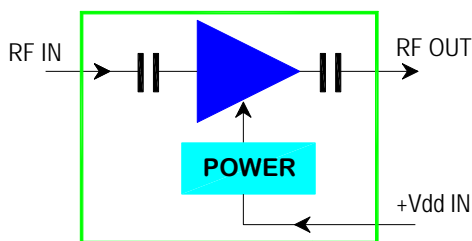
Operation of this device beyond any one of these parameters may cause permanent damage.

### Specifications

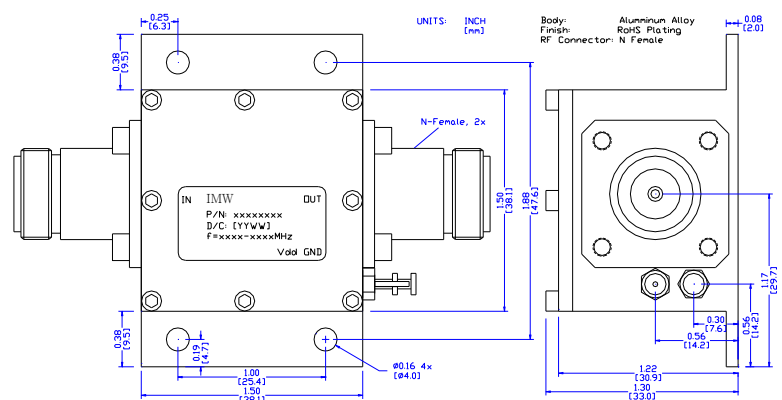
Summary of the key electrical specifications at 25°C

Index	Testing Item	Symbol	Test Constraints	Min	Nom	Max	Unit
1	Frequency Range	BW	50 Ohm Impedance	1.1		1.65	GHz
2	Gain	S <sub>21</sub>	1.1 – 1.65 GHz	31	32	35	dB
3	Gain Variation	ΔG	1.1 – 1.65 GHz		+/- 1.0		dB
4	VSWR	SWR <sub>i</sub>	1.1 – 1.65 GHz, all RF ports		1.35:1	1.5:1	Ratio
5	Reverse Isolation	S <sub>12</sub>	1.1 – 1.65 GHz	40	45		dB
6	Noise Figure	NF	1.1 – 1.65 GHz		0.5	0.8	dB
7	Output Power 1dB Compression Point	P <sub>1dB</sub>	1.1 – 1.65 GHz	4	7		dBm
8	Output-Third-Order Interception Point	IP <sub>3</sub>	Two-Tone, P <sub>out</sub> = 0 dBm each, 1 MHz Separation	14	17		dBm
9	Current Consumption	I <sub>dd</sub>	V <sub>dd</sub> = +12.0 V		20		mA
10	Power Supply Operating Voltage	V <sub>dd</sub>		+8	+12	+16	V
11	Operating Temperature	T <sub>o</sub>		-40		+85	°C
12	Thermal Resistance	R <sub>th,c</sub>	Junction to case			215	°C/W

### Functional Block Diagram



### Outline, IP-2 Housing



### Ordering Information

Model Number	Connectors	
	IN	OUT
ILA110165N	N Female	N Female

Specifications and information are subject to change without notice.

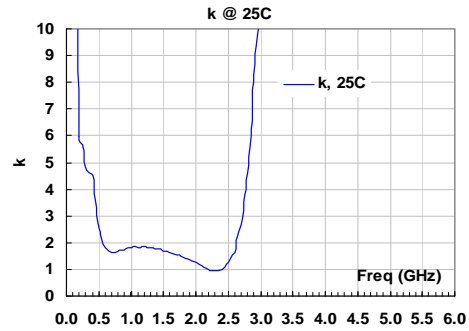
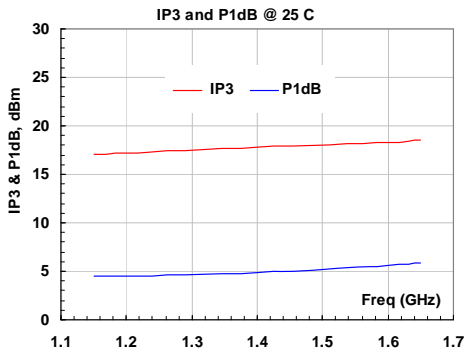
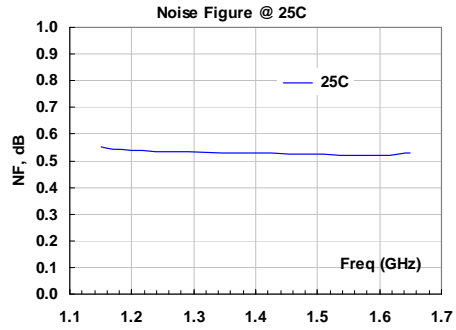
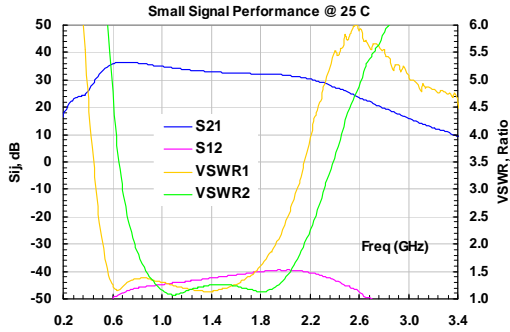


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### Typical Data



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