



ILA002050N

20 - 500 MHz LOW NOISE AMPLIFIER

REV B
July 2015

Key Features



- 20 ~ 500 MHz, 50 Ohm Impedance
- 1.0 dB Noise Figure
- 20 dB Gain
- 1.5:1 VSWR
- 10 dBm P_{1dB}
- Precision Machined Housing
- Single DC Power Supply
- Meet MIL-STD-202g

Applications

- VHF & UHF
- Receiver Amplifiers
- RF Bench Tests
- Fixed Wireless Applications



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

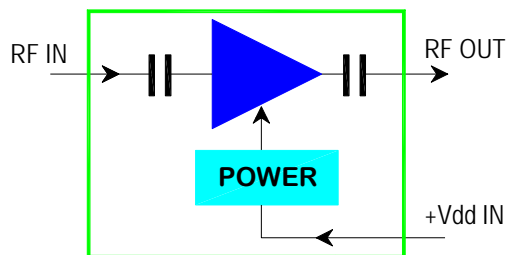
Operation of this device beyond any one of these parameters may cause permanent damage.

Specifications

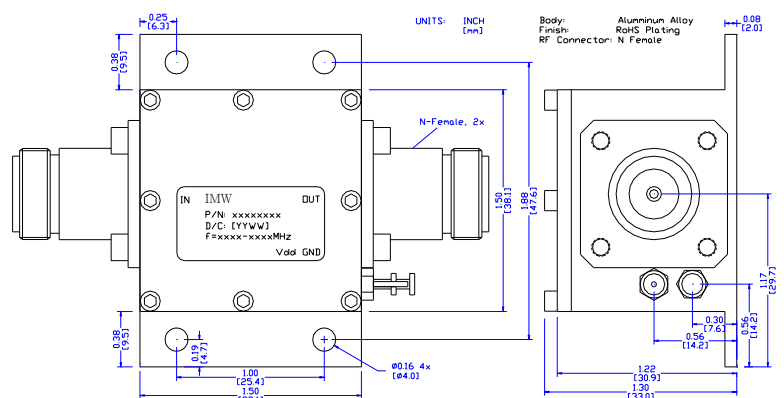
Summary of the key electrical specifications at 25°C

Index	Testing Item	Symbol	Test Constraints	Min	Nom	Max	Unit
1	Frequency Range	BW	50 Ohm Impedance	20		500	MHz
2	Gain	S ₂₁	20 – 500 MHz	18	20	22	dB
3	Gain Variation	ΔG	20 – 500 MHz		+/- 1.0		dB
4	VSWR	SWR _i	20 – 500 MHz all RF ports		1.5:1	1.8:1	Ratio
5	Reverse Isolation	S ₁₂	20 – 500 MHz	15	20		dB
6	Noise Figure	NF	20 – 500 MHz		1.0	1.4	dB
7	Output Power 1dB Compression Point	P _{1dB}	20 – 500 MHz	8	10		dBm
8	Output-Third-Order Interception Point	IP ₃	Two-Tone, P _{out} = 0 dBm each, 1 MHz Separation	18	20		dBm
9	Current Consumption	I _{dd}	V _{dd} = +12.0 V		20		mA
10	Power Supply Operating Voltage	V _{dd}		+8	+12	+16	V
11	Operating Temperature	T _o		-40		+85	°C
12	Thermal Resistance	R _{th,c}	Junction to case			215	°C/W

Functional Block Diagram



Outline, IP-2 Housing



Ordering Information

Model Number	Connectors	
	IN	OUT
ILA002050N	N Female	N Female

Specifications and information are subject to change without notice.

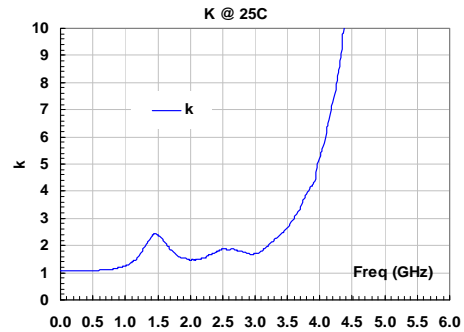
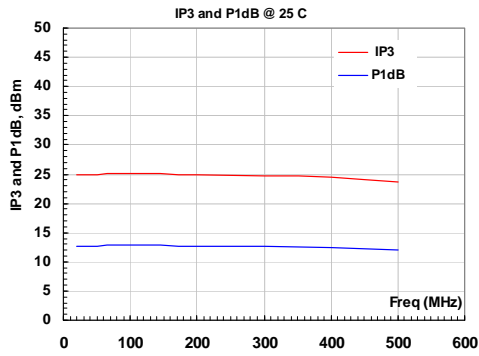
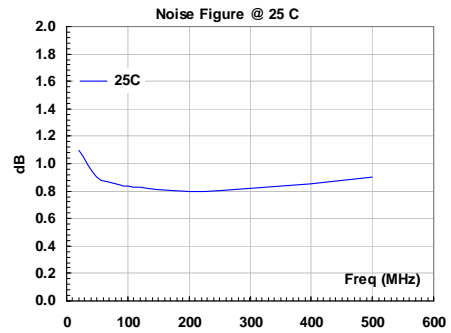
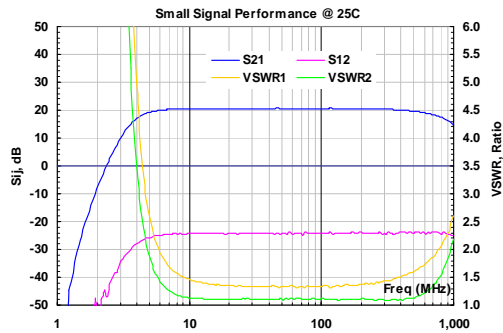


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Typical Data



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