



ILA170220N

1.7 – 2.2 GHz LOW NOISE AMPLIFIER

REV B
July 2015

Key Features



- 1.7 ~ 2.2 GHz, 50 Ohm Impedance
- 1.0 dB Noise Figure
- 15 dB Gain
- 1.35:1 VSWR
- 13 dBm P_{1dB}
- Precision Machined Housing
- Single DC Power Supply
- Meet MIL-STD-202g

Applications

- DCS, PCS, 3G
- 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

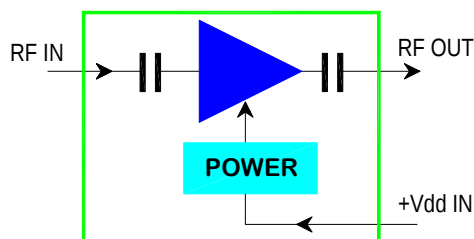
Operation of this device beyond any one of these parameters may cause permanent damage.

Specifications

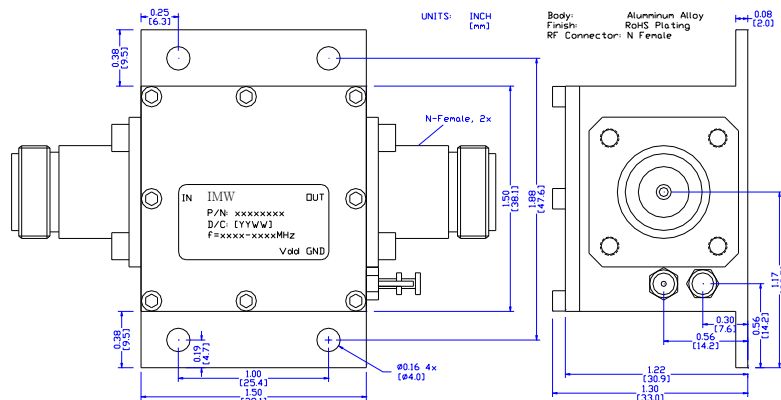
Summary of the key electrical specifications at 25°C

Index	Testing Item	Symbol	Test Constraints	Min	Nom	Max	Unit
1	Frequency Range	BW	50 Ohm Impedance	1.7		2.2	GHz
2	Gain	S_{21}	1.7 – 2.2 GHz	13	15	17	dB
3	Gain Variation	ΔG	1.7 – 2.2 GHz		+/- 0.5		dB
4	VSWR	SWR_i	1.7 – 2.2 GHz, all RF ports		1.35:1	1.5:1	Ratio
5	Reverse Isolation	S_{12}	1.7 – 2.2 GHz		25		dB
6	Noise Figure	NF	1.7 – 2.2 GHz		1.0	1.4	dB
7	Output Power 1dB Compression Point	P_{1dB}	1.7 – 2.2 GHz	10	13		dBm
8	Output-Third-Order Interception Point	IP_3	Two-Tone, $P_{out} = 0$ dBm each, 1 MHz Separation	23	27		dBm
9	Current Consumption	I_{dd}	$V_{dd} = +12.0$ V		25		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
ILA170220N	N Female	N Female

Specifications and information are subject to change without notice.

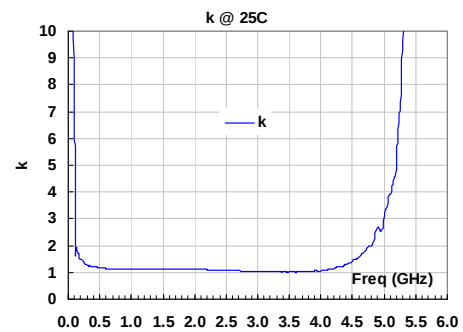
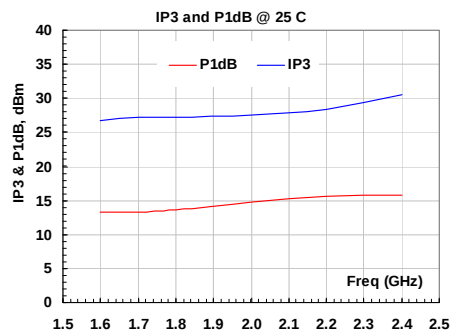
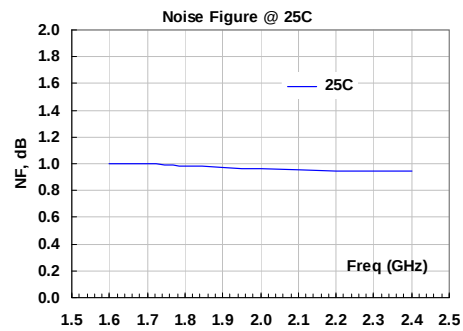
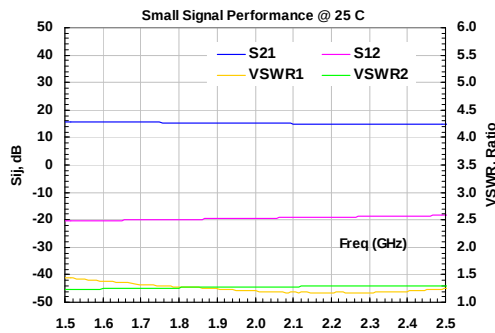


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Typical Data



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