



IPA009011N

88 - 110 MHz, 1 W POWER AMPLIFIER

REV B
July 2015

Key Features



- 88 ~ 110 MHz, 50 Ohm Impedance
- 30 dBm P_{1dB}
- 17 dB Gain
- 1.5:1 VSWR
- 43 dBm IP_3
- Precision Machined Housing
- Single DC Power Supply
- Meet MIL-STD-202g

Applications

- FM Broadcast
- PA Driver Amplifiers
- RF Bench Tests
- Fixed Wireless Applications



Absolute Maximum Ratings

Parameters	Units	Ratings
DC Power Supply Voltage	V	-0.5, 16
RF Input CW Power	dBm	24
Storage Temperature	°C	-40 ~ +85
Operating Temperature	°C	-40 ~ +85

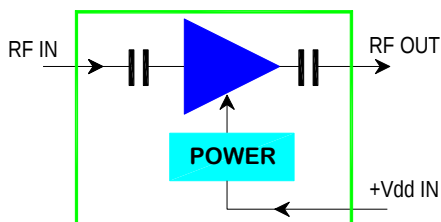
Additional heat sink is required for continuous operation!

Specifications

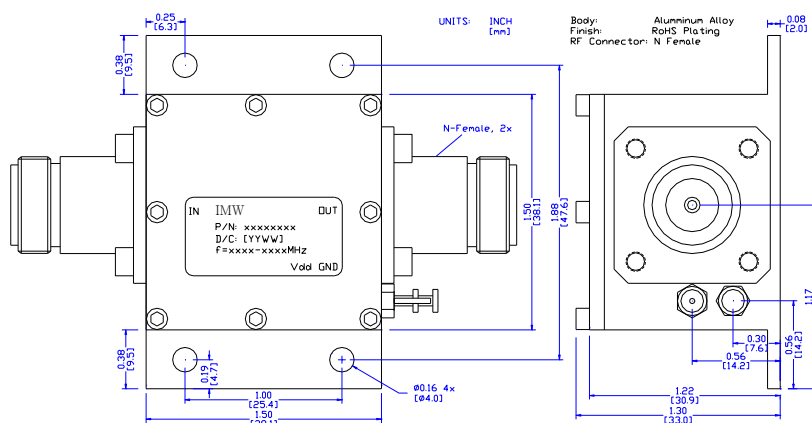
Summary of the key electrical specifications at 25°C

Index	Testing Item	Symbol	Test Constraints	Min	Nom	Max	Unit
1	Frequency Range	BW	50 Ohm Impedance	88		110	MHz
2	Gain	S_{21}	88 ~ 110 MHz	16	17	18	dB
3	Gain Variation	ΔG	88 ~ 110 MHz		+/- 0.1		dB
4	VSWR	SWR_i	88 ~ 110 MHz all RF ports		1.5:1	2:1	Ratio
5	Reverse Isolation	S_{12}	88 ~ 110 MHz		25		dB
6	Noise Figure	NF	88 ~ 110 MHz		2.5		dB
7	Output Power 1dB Compression Point	P_{1dB}	88 ~ 110 MHz	28	30		dBm
8	Output-Third-Order Interception Point	IP_3	Two-Tone, $P_{out} = 10$ dBm each, 1 MHz Separation	40	43		dBm
9	Current Consumption	I_{dd}	$V_{dd} = +12.0$ V		220		mA
10	Power Supply Operating Voltage	V_{dd}		+12		+16	V
11	Operating Temperature	T_o		-40		+85	°C
12	Thermal Resistance	$R_{th,c}$	Junction to case			32	°C/W

Functional Block Diagram



Outline, IP-2 Housing



Ordering Information

Model Number	Connectors	
	IN	OUT
IPA009110N	N Female	N Female

Specifications and information are subject to change without notice.

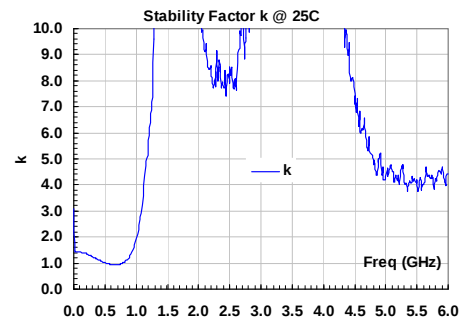
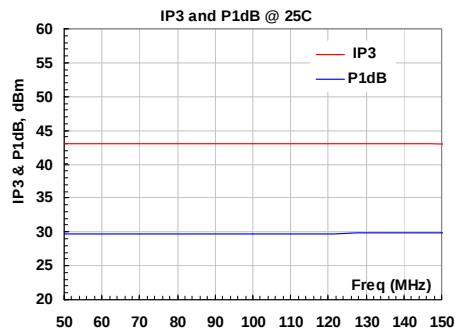
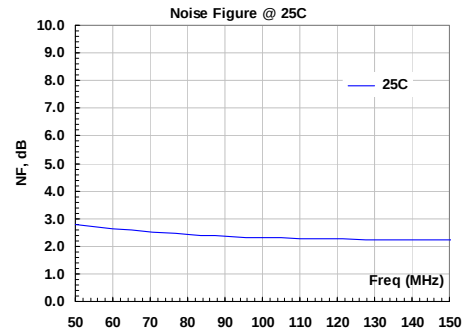
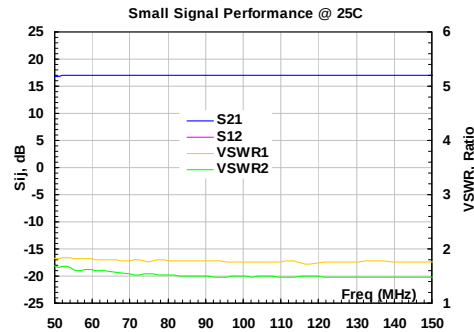


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Typical Data



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