



# IPA003009N

## 30 - 90 MHz, 1 W POWER AMPLIFIER

REV B  
July 2015

### Key Features



- 30 ~ 90 MHz, 50 Ohm Impedance
- 30 dBm P<sub>1Db</sub>
- 17 dB Gain
- 1.5:1 VSWR
- 43 dBm IP<sub>3</sub>
- Precision Machined Housing
- Single DC Power Supply
- Meet MIL-STD-202g

### Applications

- VHF
- 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

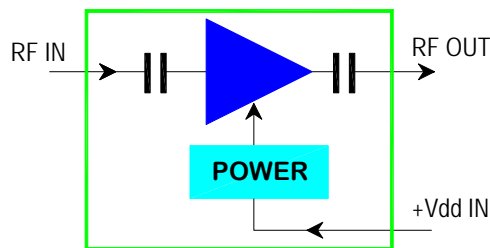
**Additional heat sink is required for continuous operation!**

### Specifications

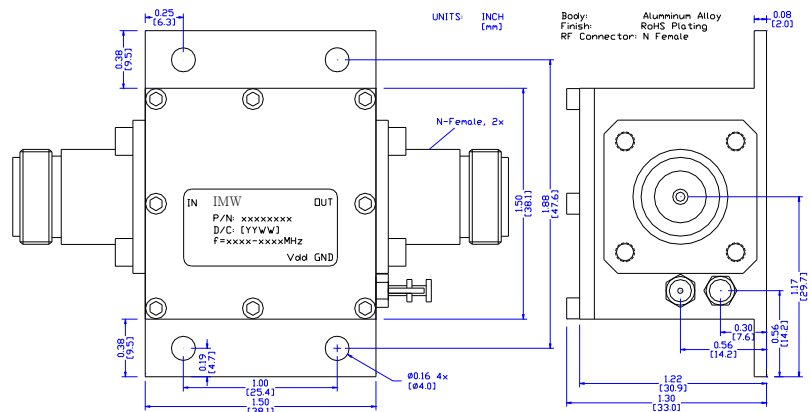
Summary of the key electrical specifications at 25°C

Index	Testing Item	Symbol	Test Constraints	Min	Nom	Max	Unit
1	Frequency Range	BW	50 Ohm Impedance	30		90	MHz
2	Gain	S <sub>21</sub>	30 – 90 MHz	15	17	19	dB
3	Gain Variation	ΔG	30 – 90 MHz		+/- 0.2		dB
4	VSWR	SWR <sub>i</sub>	30 – 90 MHz all RF ports		1.5:1	2:1	Ratio
5	Reverse Isolation	S <sub>12</sub>	30 – 90 MHz		25		dB
6	Noise Figure	NF	30 – 90 MHz		2.5		dB
7	Output Power 1dB Compression Point	P <sub>1dB</sub>	30 – 90 MHz	28	30		dBm
8	Output-Third-Order Interception Point	IP <sub>3</sub>	Two-Tone, P <sub>out</sub> = 10 dBm each, 1 MHz Separation	40	43		dBm
9	Current Consumption	I <sub>dd</sub>	V <sub>dd</sub> = +12.0 V		220		mA
10	Power Supply Operating Voltage	V <sub>dd</sub>		+12		+16	V
11	Operating Temperature	T <sub>o</sub>		-40		+85	°C
12	Thermal Resistance	R <sub>th,c</sub>	Junction to case			32	°C/W

### Functional Block Diagram



### Outline, IP-2 Housing



### Ordering Information

Model Number	Connectors	
	IN	OUT
IPA003009N	N Female	N Female

Specifications and information are subject to change without notice.

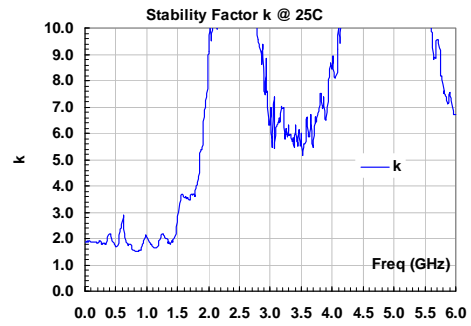
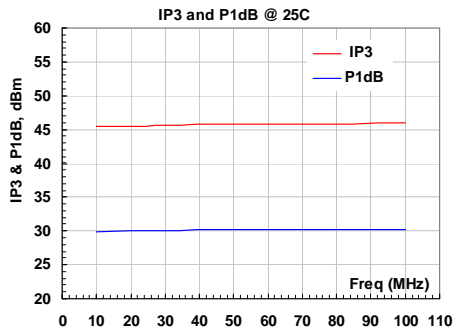
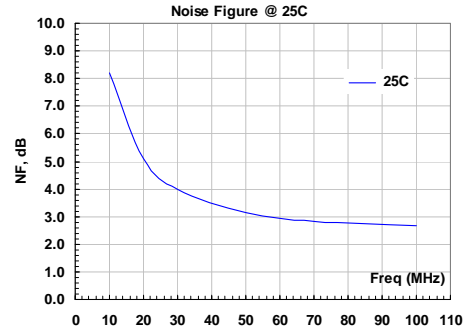
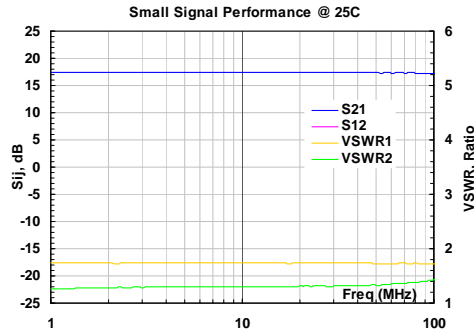


# IPA003009N

## 30 - 90 MHz, 1 W POWER AMPLIFIER

REV B  
July 2015

### Typical Data



Specifications and information are subject to change without notice.