

WPA0001B

1 – 150 MHz, 1 Watt Power Amplifier
July 2013, REV C



Key Features

- 1 ~ 150 MHz, 50 Ohm impedance
- 29 dBm P_{1dB}
- 17 dB gain
- 1.5:1 VSWR
- 43 dBm IP₃
- Precision machined housing
- RoHS compliant

Applications

- VHF
- PA driver amplifiers
- RF bench tests
- Fixed wireless communication

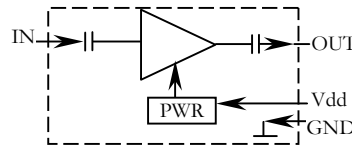
Additional heat sink is required for continuous operation!



Absolute Maximum Ratings

Input CW RF Power	24 dBm
DC Voltage, V _{dd}	-0.5, +16V
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

Functional Block Diagram



Ordering Information

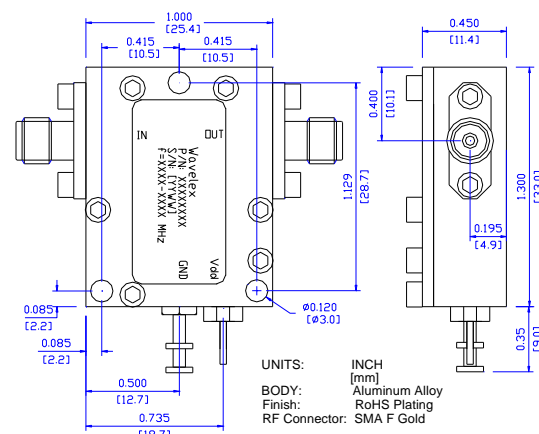
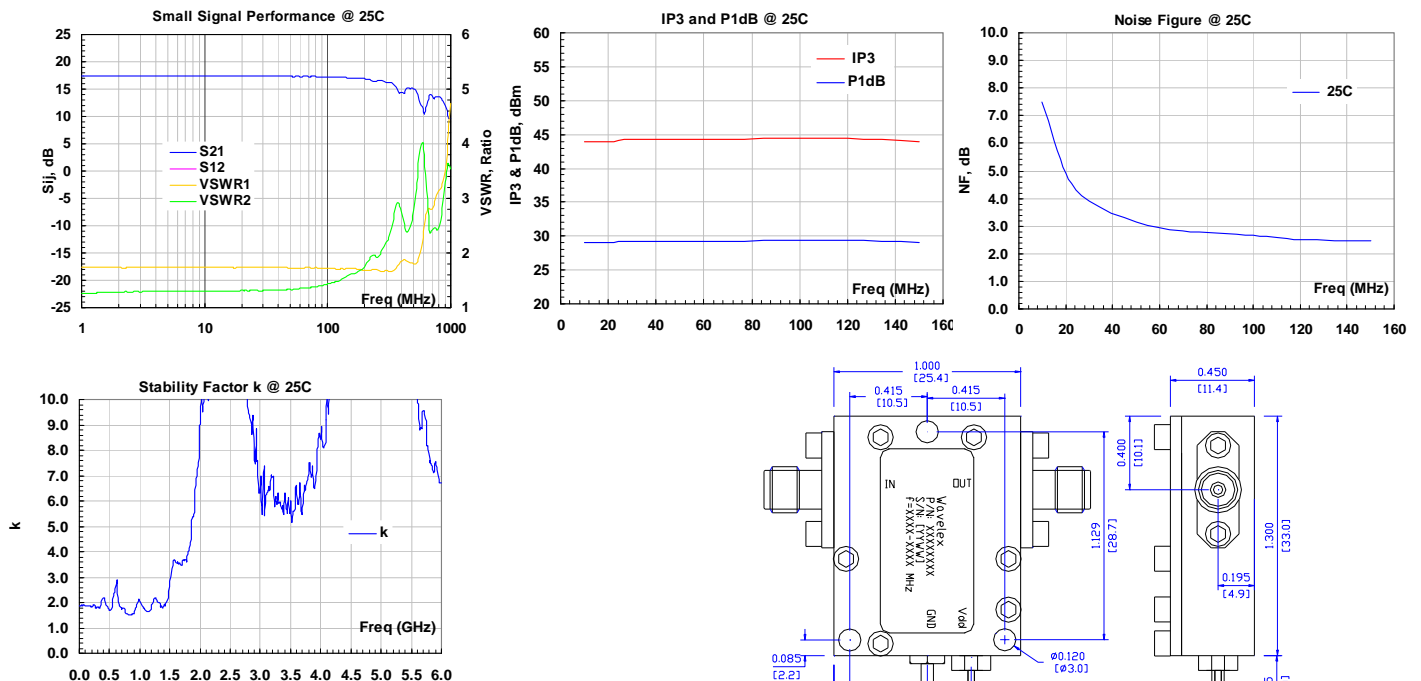
Model	Connectors
WPA0001B	SMA Female

Marking: WPA0001B

Specifications (Tested at +25°C)

tem	Symbol	Test Constraints	Min	Nom	Max	Unit
Frequency Range	BW	50 Ohm Impedance	1		150	MHz
Gain	S ₂₁	1 – 150 MHz	15	17	19	dB
Noise Figure	NF	10 – 150 MHz		3.0		dB
VSWR	SWR _i	1 – 150 MHz		1.5:1	2:1	Ratio
Gain Flatness	ΔG	1 – 150 MHz		+/- 0.2		dB
Reverse Isolation	S ₁₂	1 – 150 MHz		25		dB
Output Power 1dB Compression Point	P _{1dB}	1 – 150 MHz	28	29		dBm
Output-Third-Order Interception point	IP ₃	Two-Tone, P _{out} = 10 dBm each, 1 MHz separation	40	43		dBm
Current Consumption	I _{dd}	V _{dd} = +12.0 V		220		mA
Power Supply Operating Voltage	V _{dd}		+12		+16	V
Operating Temperature	T _o		-40		+85	°C
Thermal Resistance	R _{th,c}	Junction to case			32	°C/W

Typical Performance



Outline, IP-3