

WLA1116A

1.1 – 1.65 GHz, Low Noise Amplifier

April 2013, REV B



Key Features

- 1.1 ~ 1.65 GHz, 50 Ohm impedance
- 0.50 dB noise figure
- 32 dB gain
- 1.35:1 VSWR
- 7.0 dBm P_{1dB}
- Precision machined housing
- RoHS compliant

Applications

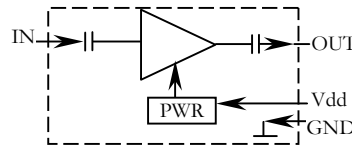
- GPS
- Receiver amplifiers
- RF bench tests
- Mobile base station applications



Absolute Maximum Ratings

Input CW RF Power	10 dBm
Maximum DC Voltage, V_{dd}	-0.5, +32
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

Functional Block Diagram



Ordering Information

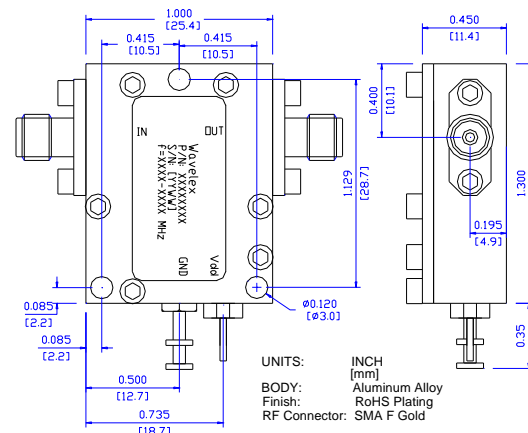
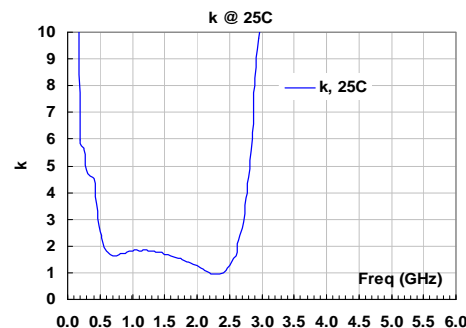
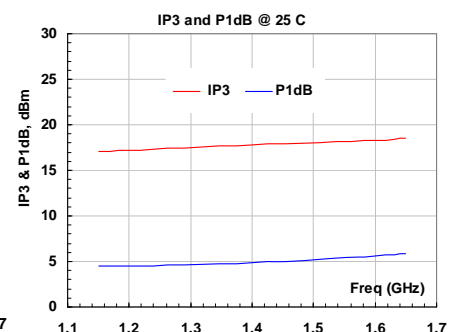
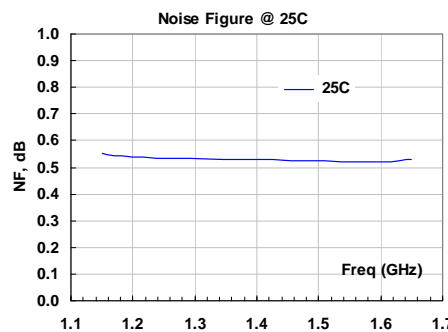
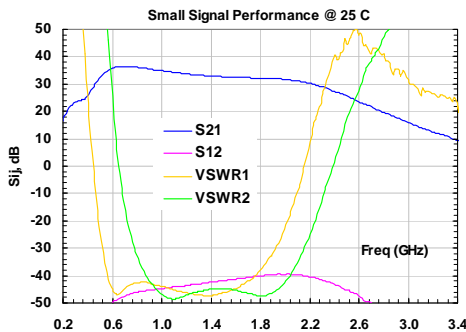
Model	Connectors
WLA1116A	SMA Female

Marking: WLA1116A

Specifications (Tested at +25°C)

tem	Symbol	Test Constraints	Min	Nom	Max	Unit
Frequency Range	BW	50 Ohm Impedance	1.1		1.6	GHz
Gain	S_{21}	1.1 – 1.65 GHz	31	32	35	dB
Noise Figure	NF	1.1 – 1.65 GHz		0.5	0.8	dB
VSWR	SWR_i	1.1 – 1.65 GHz, all RF ports		1.35:1	1.5:1	Ratio
Gain Flatness	ΔG	1.1 – 1.65 GHz		+/- 1.0		dB
Reverse Isolation	S_{12}	1.1 – 1.65 GHz	40	45		Deg
Output Power 1dB Compression Point	P_{1dB}	1.1 – 1.65 GHz	4	7		dBm
Output-Third-Order Interception point	IP_3	Two-Tone, $P_{out} = 0$ dBm each, 1 MHz separation	14	17		dBm
Current Consumption	I_{dd}	$V_{dd} = +12.0$ V		20		mA
Power Supply Operating Voltage	V_{dd}		+8	+12	+16	V
Operating Temperature	T_o		-40		+85	°C
Thermal Resistance	$R_{th,c}$	Junction to case			215	°C/W

Typical Performance



Outline, IP-3

Specifications and information are subject to change without notice.