

WLA1116L

1.145 – 1.616 GHz, Low Noise Limiter Amplifier

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Key Features

- 1.145~ 1.616 GHz, 50 Ohm impedance
- 0.7 dB noise figure
- Built-in input limiter
- 31 dB gain
- 1.25:1 VSWR
- Precision machined housing
- RoHS compliant

Applications

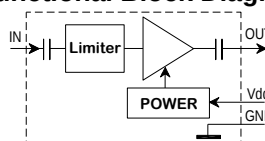
- GPS
- Receiver amplifiers
- RF bench tests
- Mobile base station applications
- DCS
- Fixed wireless



Absolute Maximum Ratings

Input CW RF Power	30 dBm
DC Voltage, V_{dd}	-0.5, +24V
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

Functional Block Diagram



Ordering Information

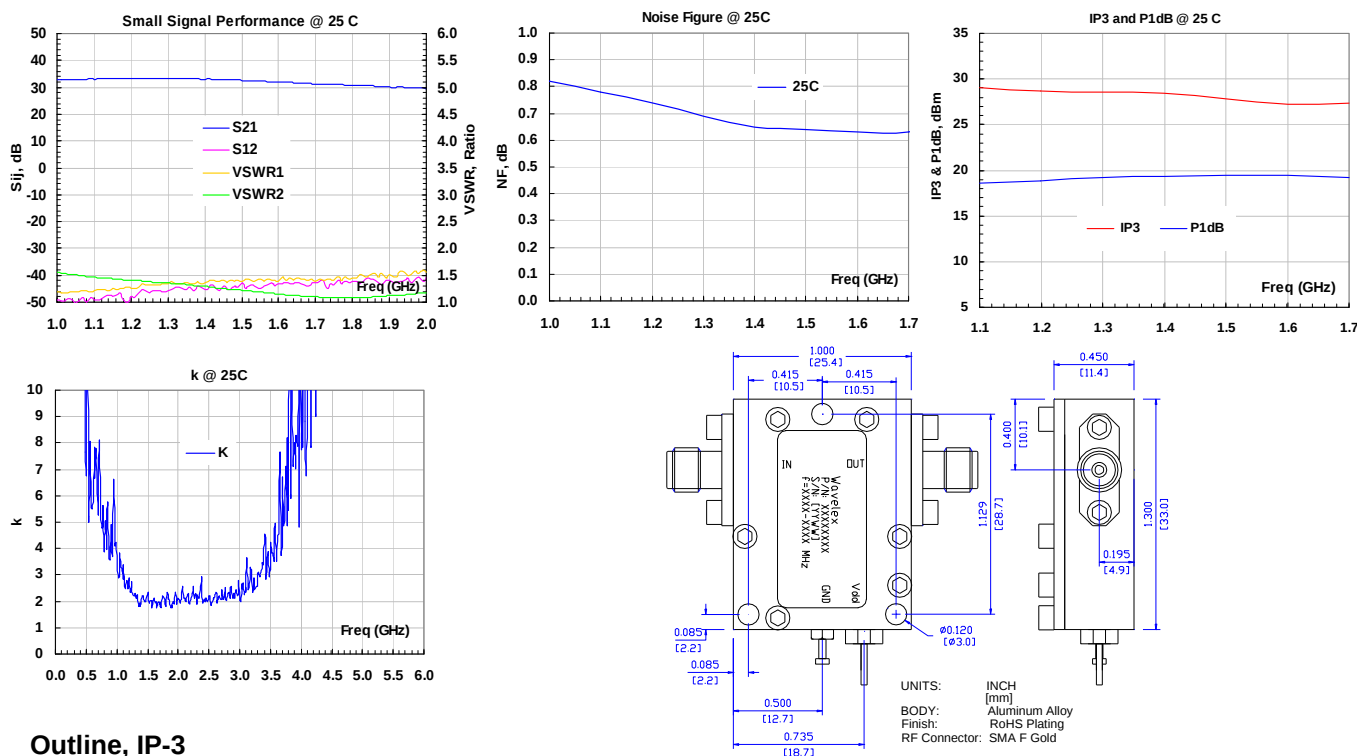
Model	Connectors
WLA1116L	SMA Female

Marking: WLA1116L

Specifications (Tested at +25°C)

tem	Symbol	Test Constraints	Min	Nom	Max	Unit
Frequency Range	BW	50 Ohm Impedance	1.145		1.616	GHz
Gain	S_{21}	1.145 – 1.616 GHz	30	32	34	dB
Noise Figure	NF	1.145 – 1.616 GHz		0.7	0.9	dB
VSWR	SWR_i	1.145 – 1.616 GHz, all RF ports		1.25:1	1.6:1	Ratio
Gain Flatness	ΔG	1.145 – 1.616 GHz		+/- 0.75		dB
Reverse Isolation	S_{12}	1.145 – 1.616 GHz		44		dB
Output Power 1dB Compression Point	P_{1dB}	1.145 – 1.616 GHz	18	19		dBm
Output-Third-Order Interception point	IP_3	Two-Tone, $P_{out} = 0$ dBm each, 1 MHz separation	26	28		dBm
Current Consumption	I_{dd}	$V_{dd} = +12.0$ V		80		mA
Power Supply Operating Voltage	V_{dd}		+7	+12	+16	V
Operating Temperature	T_o		-40		+85	°C
Thermal Resistance	$R_{th,c}$	Junction to case			215	°C/W
Maximum Average RF Input Power	$P_{IN, MAX}$	DC – 12.0 GHz			30	dBm

Typical Performance



Outline, IP-3