

WLA1045L

1.0 – 4.2 GHz, Low Noise Limiter Amplifier
August 2016, REV B



Key Features

- 1.0 ~ 4.2 GHz, 50 Ohm impedance
- 1.25 dB noise figure
- 26 dB gain
- 1.5:1 VSWR
- 30.0 dBm Max P_{IN}
- Precision machined housing
- RoHS compliant

Applications

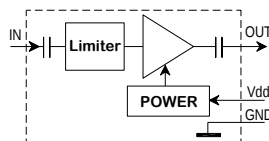
- GPS, DCS, PCS, 3G
- S-band and C-band
- Receiver amplifiers
- RF bench tests
- Mobile base station applications



Absolute Maximum Ratings

Input CW RF Power	30 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

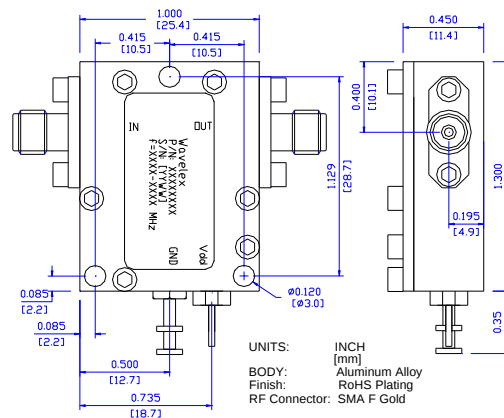
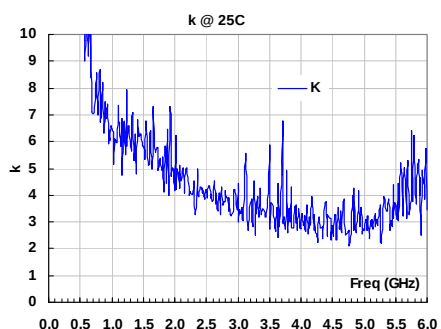
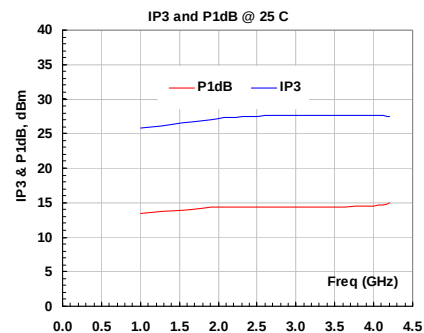
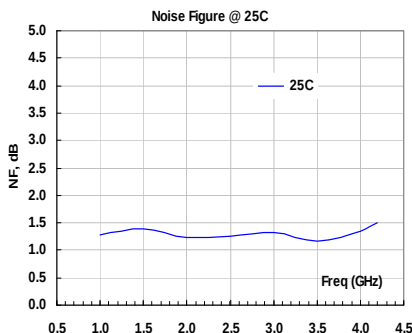
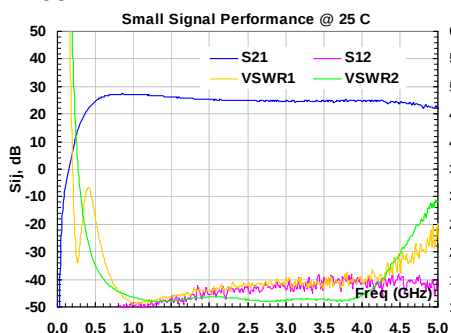
Model	Connectors
WLA1045L	SMA Female

Marking: WLA1045L

Specifications (Tested at +25°C)

tem	Symbol	Test Constraints	Min	Nom	Max	Unit
Frequency Range	BW	50 Ohm Impedance	1.0		4.2	GHz
Gain	S ₂₁	1.0 – 4.0 GHz	23.5	26.0	28.5	dB
Noise Figure	NF	1.0 – 4.0 GHz		1.25	1.7	dB
Input VSWR	SWR ₁	1.0 – 4.0 GHz		1.5:1	1.8:1	Ratio
Output VSWR	SWR ₂	1.0 – 4.0 GHz		1.4:1	1.7:1	Ratio
Gain Flatness	ΔG	1.0 – 4.0 GHz		+/- 1.0		dB
Reverse Isolation	S ₁₂	1.0 – 4.0 GHz		45		dB
Output Power 1dB Compression Point	P _{1dB}	1.0 – 4.0 GHz	12	15		dBm
Output-Third-Order Interception point	IP ₃	Two-Tone, P _{out} = 0 dBm each, 1 MHz separation	24	26		dBm
Current Consumption	I _{dd}	V _{dd} = +12.0 V		50		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

Typical Performance



Outline, IP-3

Specifications and information are subject to change without notice.