

WLA0510A

0.5 – 1.0 GHz, Super Low Noise Amplifier

August 2016, REV B



Key Features

- 0.5 ~ 1.0 GHz, 50 Ohm impedance
- 0.5 dB noise figure
- 38 dB gain
- 1.25:1 VSWR
- 19 dBm P_{1dB}
- Precision machined housing
- RoHS compliant

Applications

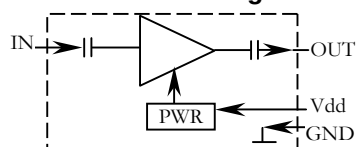
- UHF, Cellular, and GSM
- Receiver amplifiers
- RF bench tests
- Measurement
- Mobile base station applications



Absolute Maximum Ratings

Input CW RF Power	10 dBm
Maximum DC Voltage, V _{dd}	-0.5, +20
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

Functional Block Diagram



Ordering Information

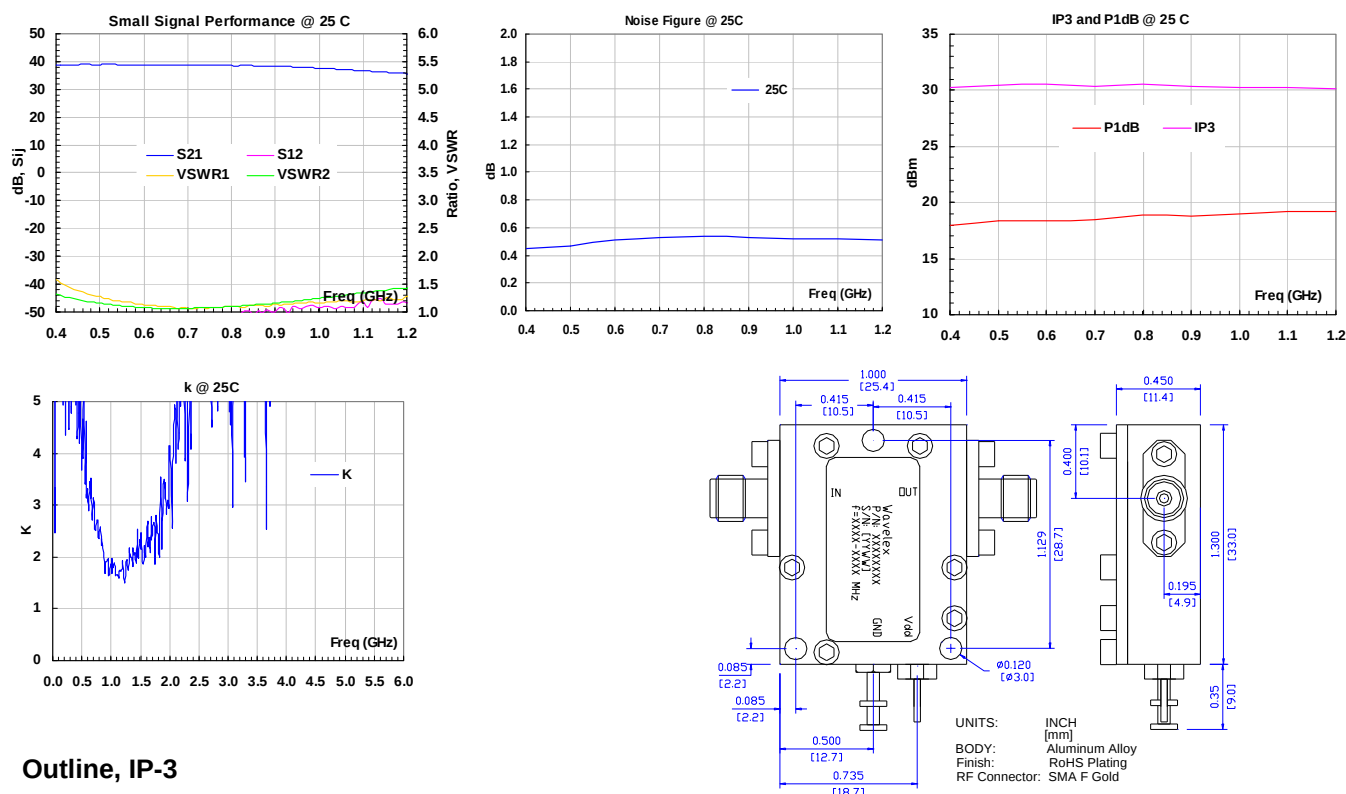
Model	Connectors
WLA0510A	SMA Female

Marking: WLA0510A

Specifications (Tested at +25°C)

tem	Symbol	Test Constraints	Min	Nom	Max	Unit
Frequency Range	BW	50 Ohm Impedance	0.5		1.0	GHz
Gain	S ₂₁	0.5 – 1.0 GHz	36	38	40	dB
Noise Figure	NF	0.5 – 1.0 GHz		0.5	0.7	dB
VSWR	SWR _i	0.5 – 1.0 GHz, all RF ports		1.25:1	1.5:1	Ratio
Gain Flatness	ΔG	0.5 – 1.0 GHz		+/- 1.0	+/- 1.5	dB
Reverse Isolation	S ₁₂	0.5 – 1.0 GHz	40	45		dB
Output Power 1dB Compression Point	P _{1dB}	0.5 – 1.0 GHz		19		dBm
Output-Third-Order Interception point	IP ₃	Two-Tone, P _{out} = 0 dBm each, 1 MHz separation		30		dBm
Current Consumption	I _{dd}	V _{dd} = +12.0 V		100		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.