

# WLA1020A

## 1.0 – 2.0 GHz, Low Noise Amplifier

April 2013, REV B



### Key Features

- 1.0 ~ 2.0 GHz, 50 Ohm impedance
- 1.0 dB noise figure
- 33 dB gain
- 1.35:1 VSWR
- 12 dBm P<sub>1dB</sub>
- Precision machined housing
- RoHS compliant

### Applications

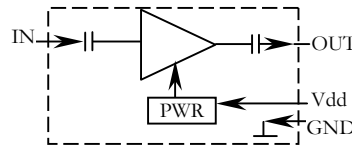
- GPS, PCS, 3G
- Receiver amplifiers
- RF bench tests
- Mobile base station applications



### Absolute Maximum Ratings

Input CW RF Power	10 dBm
Maximum DC Voltage, V <sub>dd</sub>	-0.5, +32
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

### Functional Block Diagram



### Ordering Information

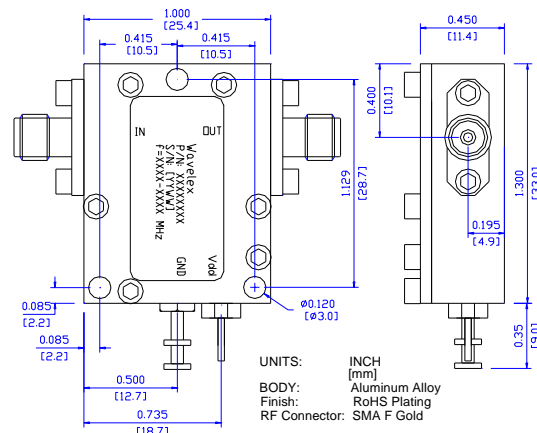
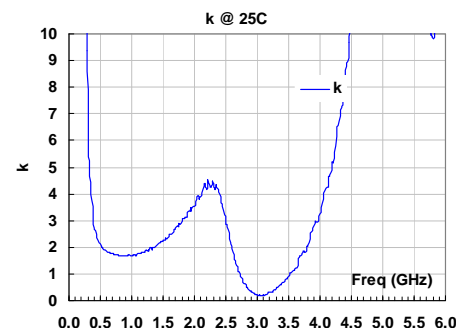
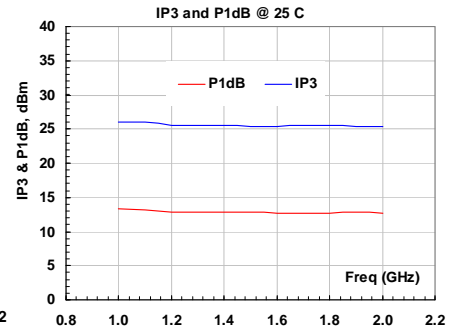
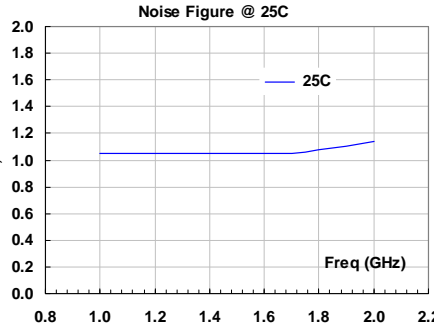
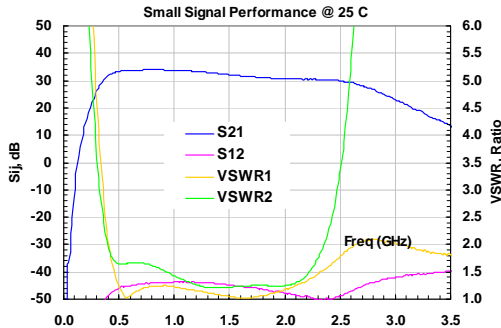
Model	Connectors
WLA1020A	SMA Female

Marking: WLA1020A

### Specifications (Tested at +25°C)

tem	Symbol	Test Constraints	Min	Nom	Max	Unit
Frequency Range	BW	50 Ohm Impedance	1.0		2.0	GHz
Gain	S <sub>21</sub>	1.0 – 2.0 GHz	30	33	36	dB
Noise Figure	NF	1.0 – 2.0 GHz		1.0	1.3	dB
VSWR	SWR <sub>i</sub>	1.0 – 2.0 GHz, all RF ports		1.35:1	1.5:1	Ratio
Gain Flatness	ΔG	1.0 – 2.0 GHz		+/- 1.0		dB
Reverse Isolation	S <sub>12</sub>	1.0 – 2.0 GHz		40		dB
Output Power 1dB Compression Point	P <sub>1dB</sub>	1.0 – 2.0 GHz	9	12		dBm
Output-Third-Order Interception point	IP <sub>3</sub>	Two-Tone, P <sub>out</sub> = 0 dBm each, 1 MHz separation	22	25		dBm
Current Consumption	I <sub>dd</sub>	V <sub>dd</sub> = +12.0 V		40		mA
Power Supply Operating Voltage	V <sub>dd</sub>		+8	+12	+16	V
Operating Temperature	T <sub>o</sub>		-40		+85	°C
Thermal Resistance	R <sub>th,c</sub>	Junction to case			215	°C/W

### Typical Performance



### Outline, IP-3

Specifications and information are subject to change without notice.