

# WLA1722B

## 1.7 – 2.2 GHz, Low Noise Amplifier

September 2018, REV A



### Key Features

- 1.7 – 2.2 GHz, 50 Ohm impedance
- 0.9 dB noise figure
- 29.5 dB gain
- 1.3:1 VSWR
- 16 dBm P<sub>1dB</sub>
- Precision machined housing
- RoHS compliant

### Applications

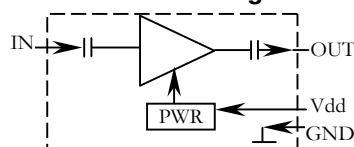
- DCS, PCS, 3G
- Receiver amplifiers
- RF bench tests
- Mobile base station applications



### Absolute Maximum Ratings

|                             |                |
|-----------------------------|----------------|
| Input CW RF Power           | 10 dBm         |
| DC Voltage, V <sub>dd</sub> | -0.5, +24V     |
| Operating Temperature       | -40°C to +85°C |
| Storage Temperature         | -40°C to +85°C |

### Functional Block Diagram



### Ordering Information

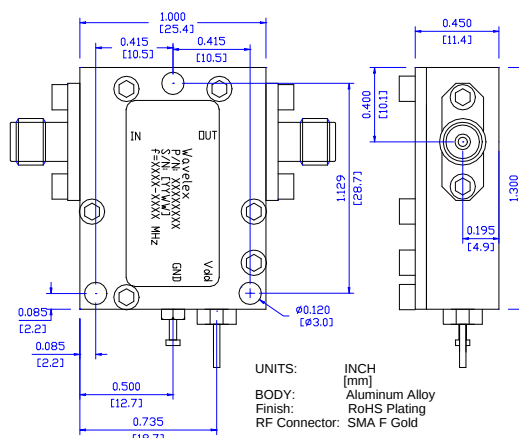
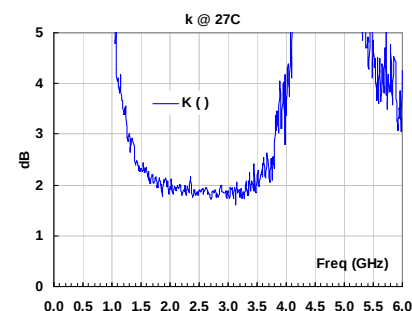
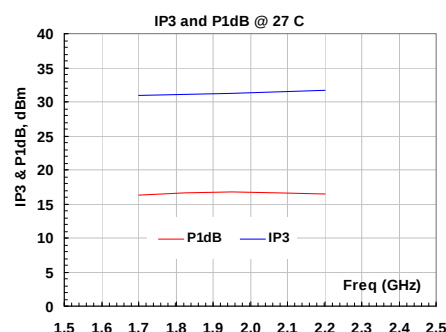
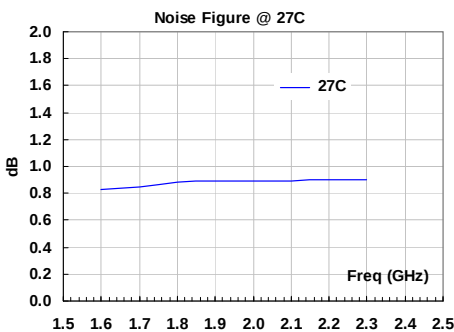
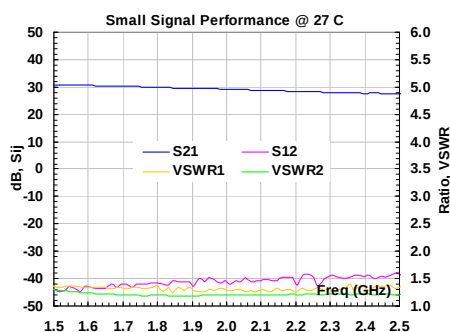
| Model    | Connectors |
|----------|------------|
| WLA1722B | SMA Female |

Marking: WLA1722B

### Specifications (Tested at +27°C)

| tem                                   | Symbol            | Test Constraints                                          | Min  | Nom     | Max   | Unit  |
|---------------------------------------|-------------------|-----------------------------------------------------------|------|---------|-------|-------|
| Frequency Range                       | BW                | 50 Ohm Impedance                                          | 1.7  |         | 2.2   | GHz   |
| Gain                                  | S <sub>21</sub>   | 1.7 – 2.2 GHz                                             | 27.5 | 29.5    | 31.5  | dB    |
| Noise Figure                          | NF                | 1.7 – 2.2 GHz                                             |      | 0.9     | 1.1   | dB    |
| VSWR                                  | SWR <sub>i</sub>  | 1.7 – 2.2 GHz, all RF ports                               |      | 1.3:1   | 1.5:1 | Ratio |
| Gain Flatness                         | ΔG                | 1.7 – 2.2 GHz                                             |      | +/- 0.8 |       | dB    |
| Reverse Isolation                     | S <sub>12</sub>   | 1.7 – 2.2 GHz                                             |      | 41      |       | dB    |
| Output Power 1dB Compression Point    | P <sub>1dB</sub>  | 1.7 – 2.2 GHz                                             | 15   | 16      |       | dBm   |
| Output-Third-Order Interception point | IP <sub>3</sub>   | Two-Tone, P <sub>out</sub> = 0 dBm each, 1 MHz separation | 30   | 31      |       | dBm   |
| Current Consumption                   | I <sub>dd</sub>   | V <sub>dd</sub> = +12.0 V                                 |      | 90      | 100   | mA    |
| Power Supply Operating Voltage        | V <sub>dd</sub>   |                                                           | +7   | +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.