

## Key Features

- 0.7 ~ 3.0 GHz, 50 Ohm impedance
- 0.9 dB noise figure
- 28.5 dB gain
- 1.4:1 VSWR
- +/-0.5 dB Gain Flatness
- Precision machined housing
- RoHS compliant

## Applications

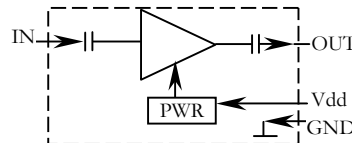
- WiMAX
- Security System
- Receiver amplifiers
- Measurement
- Mobile Infrastructures



### Absolute Maximum Ratings

|                              |                |
|------------------------------|----------------|
| Input CW RF Power            | 10 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

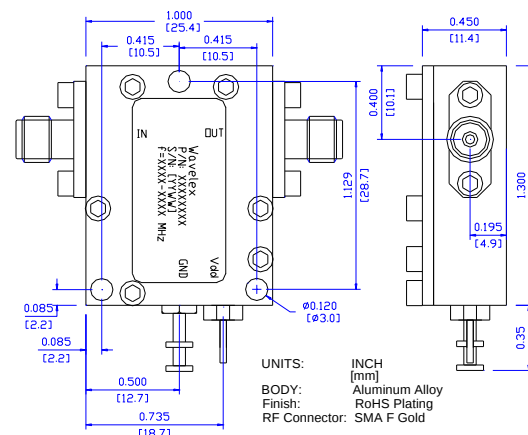
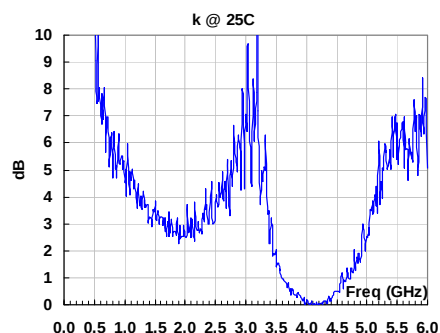
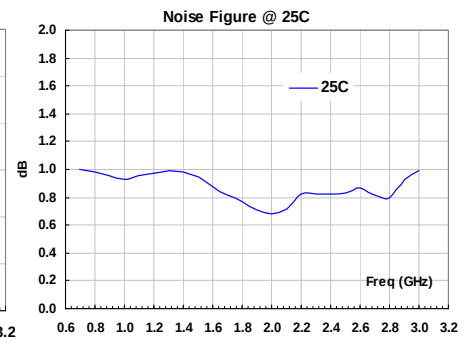
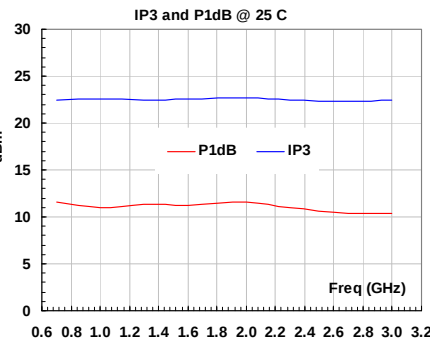
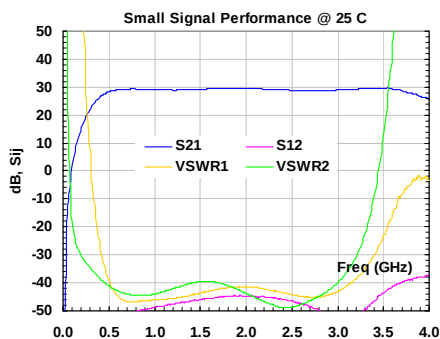
| Model    | Connectors |
|----------|------------|
| WLA0730A | SMA Female |

**Marking:** WLA0730A

### Specifications (Tested at +25°C)

| tem                                   | Symbol            | Test Constraints                                          | Min | Nom     | Max     | Unit  |
|---------------------------------------|-------------------|-----------------------------------------------------------|-----|---------|---------|-------|
| Frequency Range                       | BW                | 50 Ohm Impedance                                          | 0.7 |         | 3.0     | GHz   |
| Gain                                  | S <sub>21</sub>   | 0.7 – 3.0 GHz                                             | 28  | 29      | 30      | dB    |
| Noise Figure                          | NF                | 0.7 – 3.0 GHz                                             |     | 0.9     | 1.2     | dB    |
| VSWR                                  | SWR <sub>i</sub>  | 0.7 – 3.0 GHz, all RF ports                               |     | 1.4:1   | 1.6:1   | Ratio |
| Gain Flatness                         | ΔG                | 0.7 – 3.0 GHz                                             |     | +/- 0.5 | +/- 0.7 | dB    |
| Reverse Isolation                     | S <sub>12</sub>   | 0.7 – 3.0 GHz                                             | 42  | 45      |         | dB    |
| Output Power 1dB Compression Point    | P <sub>1dB</sub>  | 0.7 – 3.0 GHz                                             | 10  | 11      |         | dBm   |
| Output-Third-Order Interception point | IP <sub>3</sub>   | Two-Tone, P <sub>out</sub> = 0 dBm each, 1 MHz separation | 20  | 22      |         | dBm   |
| Current Consumption                   | I <sub>dd</sub>   | V <sub>dd</sub> = +12.0 V                                 |     | 47      |         | 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.*

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