

BROADBAND LOW NOISE AMPLIFIER ABL0600-33-3509

Features:

- ➤ Broad band operation from 2.0 to 6.0 GHz
- ➤ Low VSWR, unconditional stable
- > Small size, low cost
- ➤ SMA female connector I/O
- ➤ Single DC power supply, internal voltage regulator allowing operating voltage from +8V to +15V range
- ➤ Operating temperature -40~+75°C, storage temperature -55~+125°C



General Description

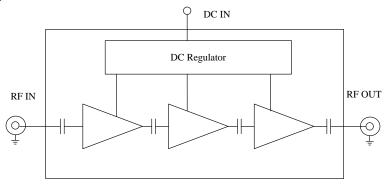
ABL0600-33-3509 is a three stage pHEMT transistor based broadband low noise amplifier module operating in the frequency of 2.0 to 6.0GHz. The amplifier provides 35dB of small signal gain with 0.9dB noise figure and excellent gain flatness, as well as good VSWR at both input and output. The amplifier requires only a positive DC power supply, its built-in DC voltage regulator allows for different DC voltage supply application.

Electrical Specifications

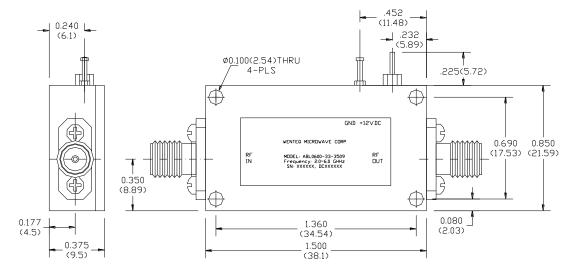
| Parameters | Units | Specifications | | |
|---------------------------------|--------|----------------|---------|---------|
| | | Minimum | Typical | Maximum |
| Frequency Range | MHz | 2000 | | 6000 |
| Noise Figure @25°C | dB | | 0.9 | 1.10 |
| Nominal SS Gain @25°C | dB | 33.0 | 35.0 | 37.0 |
| P-1dB Compression Point | dB | +12.0 | +14.0 | |
| Gain flatness | dB | | +/-1.0 | +/-1.25 |
| Gain Variation over temperature | dB | | +/-1.5 | |
| Input VSWR | - | | 1.5:1 | 2.0:1 |
| Output VSWR | - | | 1.6:1 | 2.0:1 |
| Reverse Isolation | dB | 55.0 | 60.0 | |
| Spurious | dBc | | | -70.0 |
| Operating Temperature | °C | -40.0 | | +75.0 |
| Survival Temperature | °C | -55.0 | | +125.0 |
| DC Voltage | V | +8.0 | +12.0 | +15.0 |
| DC Supply Current | mA | 80.0 | 90.0 | 110.0 |
| RF In/Out connectors | - | SMA female | | |
| DC Input Connector | - | Feed-thru PIN | | |
| Size | inches | 1.5×0.85×0.375 | | |

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Functional Diagram



Mechanical Structure:



Note: All units in inches.

Absolute Maximum Ratings

| DC Voltage | +15V | | |
|-----------------------|------------|--|--|
| RF Input Power | +10dBm | | |
| Storage Temperature | -55~+125°C | | |
| Operating Temperature | -40~+75°C | | |



Electrostatic sensitive device, please observe precautions for handling this amplifier.