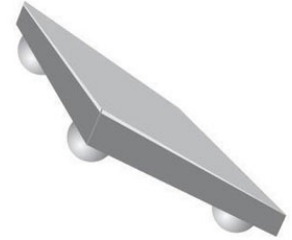


## RF Detector 100MHz to 6000MHz 15dBm 4-Pin WLCSP T/R



Images are for reference only

[Inquiry](#)

**Manufacturer:** [Analog Devices, Inc](#)

**Package/Case:** WLCSP-4

**Product Type:** RF Integrated Circuits

**RoHS:** RoHS Compliant/Lead free 

**Lifecycle:** Active

### General Description

The ADL5500 is a mean-responding power detector for use in high frequency receiver and transmitter signal chains from 100 MHz to 6 GHz. It is easy to apply, requiring only a single supply between 2.7 V and 5.5 V and a power supply decoupling capacitor. The input is internally ac-coupled and has a nominal input impedance of 50  $\Omega$ . The output is a linear-responding dc voltage with a conversion gain of 6.4 V/V rms at 900 MHz. The on-chip, 1 k $\Omega$  series resistance at the output combined with an external shunt capacitor creates a low-pass filter response that reduces the residual ripple in the dc output voltage. The ADL5500 is intended for true power measurement of simple and complex waveforms. The device is particularly useful for measuring high crest factor (high peak-to-rms ratio) signals, such as CDMA2000, W-CDMA, and QPSK/QAM-based OFDM waveforms. The ADL5500 offers excellent temperature stability with near 0 dB measurement error across temperature. The high accuracy range, centered around +3 dBm at 900 MHz, offers  $\pm 0.1$  dB error from  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  over an 8.5 dB range. The ADL5500 reduces calibration requirements with low drift across a 30 dB range over temperature and process variations. The ADL5500 operates from  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  and is available in a 4-ball, 1.0 mm  $\times$  1.0 mm wafer-level chip scale package. It is fabricated on a proprietary high ft silicon bipolar process.

### Key Features

True rms response

Excellent temperature stability

Up to 30 dB input dynamic range at 3.9 GHz

50  $\Omega$  input impedance

1250 mV rms, +15 dBm, maximum input

Single-supply operation: 2.7 V to 5.5 V

Low power: 3 mW at 3 V supply

RoHS compliant

### Recommended For You

**ADF4153BCPZ**

Analog Devices, Inc  
QFN

**ADF5355BCPZ**

Analog Devices, Inc  
LFCSP32

**AD8318ACPZ**

Analog Devices, Inc  
LFCSP

**AD6620ASZ**

Analog Devices, Inc  
QFP

**ADF4107BCPZ**

Analog Devices, Inc  
QFN

**ADL5513ACPZ-R7**

Analog Devices, Inc  
LFCSP-16

**AD8319ACPZ**

Analog Devices, Inc  
LFCSP

**ADRF6755ACPZ**

Analog Devices, Inc  
QFN

**ADL5535ARKZ-R7**

Analog Devices, Inc  
SOT89

**AD608AR**

Analog Devices, Inc  
SOP16

**ADF4107BRUZ-REEL7**

Analog Devices, Inc  
TSSOP16

**ADRF6780ACPZN**

Analog Devices, Inc  
QFN

**AD8317ACPZ**

Analog Devices, Inc  
LFCSP

**AD608ARZ**

Analog Devices, Inc  
SOP16

**AD8318ACPZ-REEL7**

Analog Devices, Inc  
LFCSP