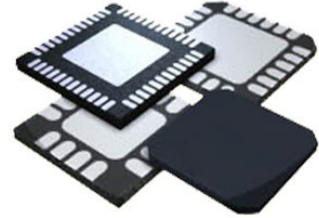


### Quadrature Dmod 16-Pin QFN EP

<b>Manufacturer:</b>	<a href="#">Analog Devices, Inc</a>
<b>Package/Case:</b>	QFN
<b>Product Type:</b>	RF Integrated Circuits
<b>Lifecycle:</b>	Obsolete



Images are for reference only

[Inquiry](#)

### General Description

The LT5506 is a 40MHz to 500MHz monolithic integrated quadrature demodulator with variable gain amplifier (VGA), designed for low voltage operation. It supports standards that use a linear modulation format. The chip consists of a VGA, quadrature down-converting mixers and lowpass noise filters. The LO port consists of a divide-by-two stage and LO buffers. The IC provides all building blocks for IF down-conversion to I and Q baseband signals with a single supply voltage of 1.8V to 5.25V. The VGA gain has a linear-in- dB relationship to the control input voltage. Hard-clipping amplifiers at the mixer outputs reduce the recovery time from a signal overload condition. The lowpass filters reduce the out-of-band noise and spurious frequency components. The cut-off frequency of the noise filters is approximately 8.8MHz. The external 2xLO frequency is required to be twice the IF input frequency for the mixers. The standby mode provides reduced supply current and fast transient response into the normal operating mode when the I/Q outputs are AC-coupled to a baseband chip.

## Key Features

Wide Range 1.8V to 5.25V Supply

Frequency Range: 40MHz to 500MHz

THD < 0.12% (-58dBc) at 800mVP-P Differential Output Level

8.8MHz I/Q Lowpass Output Noise Filters

IF Overload Detector

Baseband I/Q Amplitude Imbalance: 0.2dB

Baseband I/Q Phase Imbalance: 0.6°

6.8dB Noise Figure at Max Gain

Input IP3 at Low Gain: -0.5dBm

Low Supply Current: 27mA

Low Delay Shift Over Gain Control Range: 2ps/dB

Outputs Biased Up While in Standby

16-Lead QFN 4mm x 4mm Package with Exposed Pad

## Application

IEEE802.11

High Speed Wireless LAN

Wireless Local Loop

## Recommended For You

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### **LTC5507ES6#TRMPBF**

Analog Devices, Inc

SOT23-6

### **LTC5564IUD#PBF**

Analog Devices, Inc

QFN

### **LT5534ESC6**

Analog Devices, Inc

SC70-6

### **LT5534ESC6#PBF**

Analog Devices, Inc

SC70-6

### **LTC5531ES6**

Analog Devices, Inc

SOT23-6

### **LTC5569IUF#PBF**

Analog Devices, Inc

QFN16

### **LT5557EUF#PBF**

Analog Devices, Inc

QFN

### **LT5537EDDB#TRMPBF**

Analog Devices, Inc

DFN-8

### **LT5581HDDB#TRPBF**

Analog Devices, Inc

DFN

### **LT5534ESC6#TRMPBF**

Analog Devices, Inc

SC-70

### **LTC5536ES6**

Analog Devices, Inc

TSOT23-6

### **LTC5596IDC#TRMPBF**

Analog Devices, Inc

DFN8

**LTC5548IUDB#TRMPBF**

Analog Devices, Inc

QFN-12

**LTC5508ESC6**

Analog Devices, Inc

SC70-6

**LTC5510IUF#PBF**

Analog Devices, Inc

QFN16