

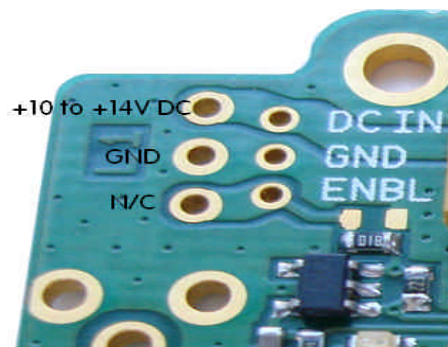
Features

- +30dBm Ave (WCDMA ACPR <-45dBc @5MHz Offset)
- Small Size (57mm x 35mm x 6.5mm)
- 13dB Gain
- Single 12V +/-2Vdc Supply
- Built-in thermal shutdown
- Supply "GOOD" LEDs
- Built-in Harmonic filter

Applications

- COFDM Wireless Links
- Body Worn Surveillance
- OEM Unit for integrators
- 2.4GHz FEMs and Boosters

Power Connections



Overview

The LPA9V0 2375MHz RF power amplifier offers excellent linearity and efficiency with an extremely small footprint. This is a single stage design based on highly reliable InGaP/GaAs HBT technology and is optimised for multi-carrier modulation schemes. This model is tuned for operation at 2375MHz and incorporates a Low Pass RF output filter which provides attenuation of harmonic frequencies.

With an on-board switching power supply and compact size, this PA is ideal for system builders and integrators.

DC Specification

Parameter	Min	Typ	Max	Unit
Input Voltage (Vin)	10	12	14	V
Quiescent Current Vin = 12V, No Signal		300		mA
Operating Current Vin = 12V, Pout=30dBm Avg		500		mA
Power Consumption Pout=30dBm Avg		6		W

RF Specification

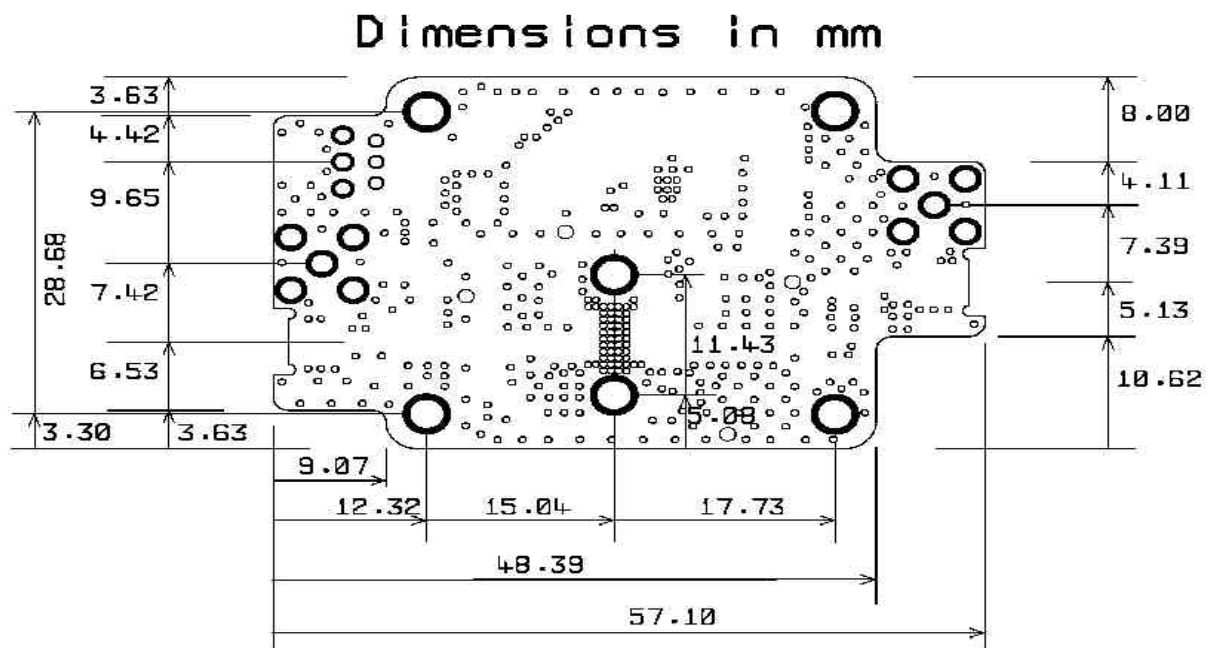
Parameter	Min	Typ	Max	Unit
Frequency Band	2300	2375	2450	MHz
Linear Power Gain	13	13.5	14	dB
Linear Power Output @ WCDMA ACPR=-45dBc		30		dBm
Input Return Loss (S11)	-10	-15		dB
Output Return Loss (S22)	-8	-10		dB
Max Input Power			+25	dBm
Load VSWR			10:1	

Mechanical

Parameter	Type
RF Connectors	INPUT: SMA or MCX male or female jack OUTPUT: SMA or MCX male or female jack
Power Connector	3-PIN 2.54mm or direct solder to pads or Molex Sherlock 3-Way
Dimensions	57mm x 35mm x 6.5mm (excluding connectors) 74mm x 35mm x 6.5mm (with end launch SMA connectors fitted)

Note: Adequate heatsinking must be provided by bolting the PA to the product casework or bulkhead via the 2xM2.5 mounting holes provided close to the PA device.

Mechanical Footprint



Typical Characteristics

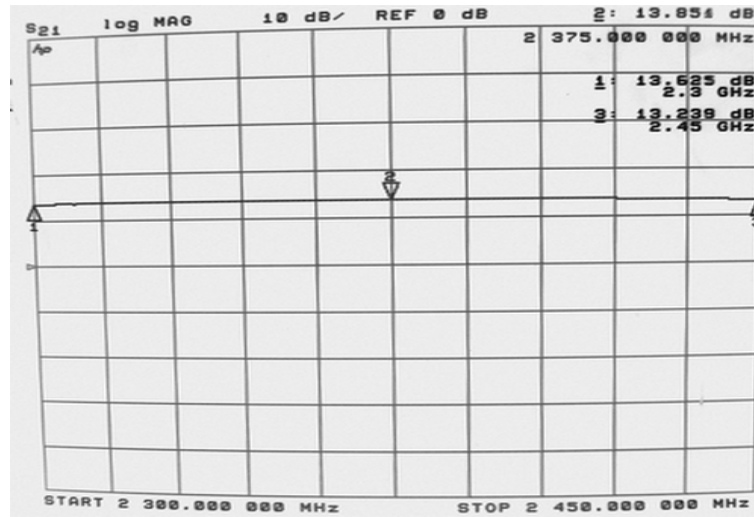


Figure 1 Typical Gain (S21)

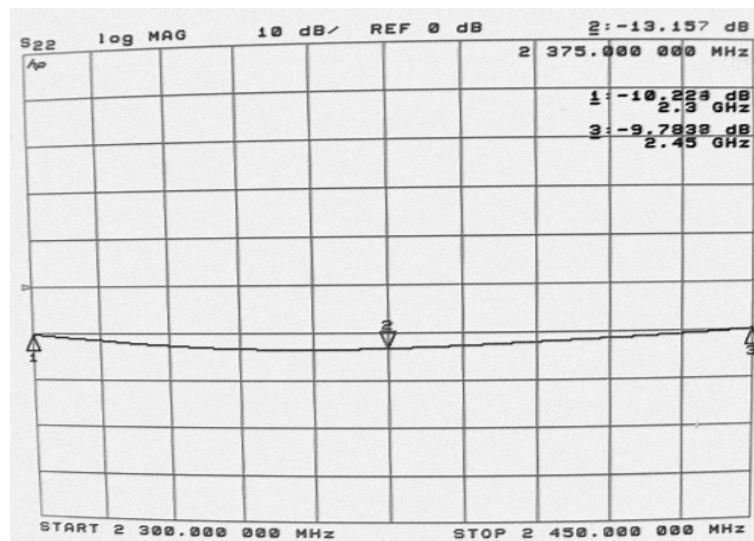


Figure 2 Typical Output Return Loss (S22)

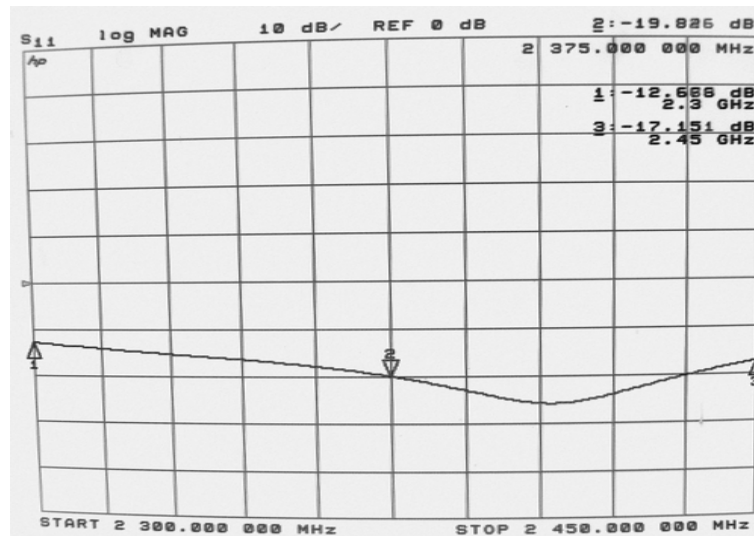


Figure 3 Typical Input Return Loss (S11)

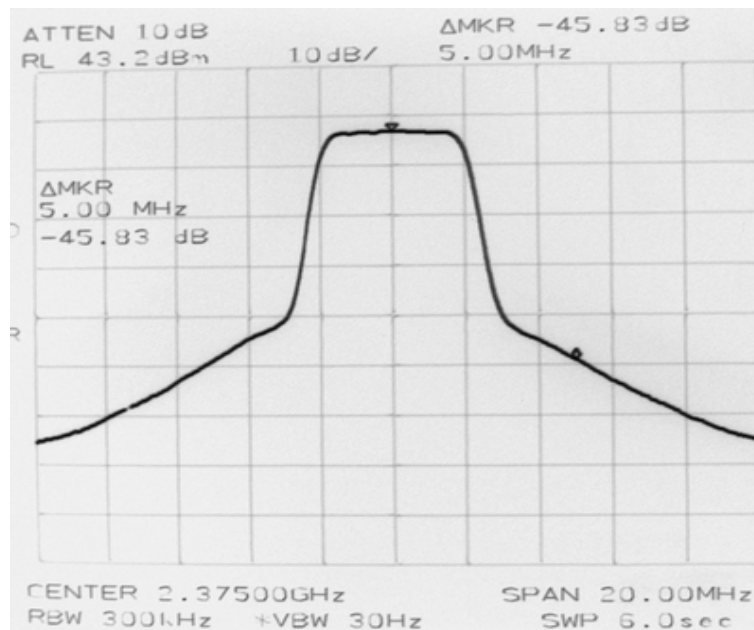


Figure 4 WCDMA Spectrum (1 Watt RF Power)

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