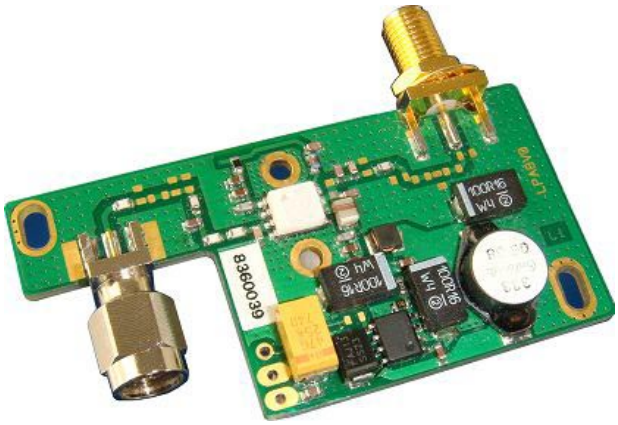
1394MHz 1 Watt (COFDM) PA
Data Sheet



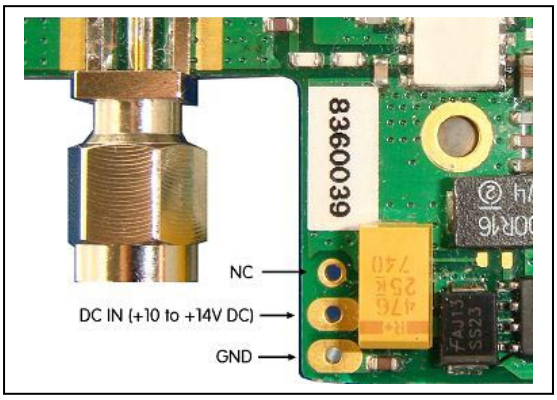
Features

- +30dBm Ave (WCDMA ACPR <-45dBc @5MHz Offset)
- Very Small Size (60mm x 30mm x 6.5mm)
- + 10dB Gain
- Single 12V +/-2Vdc Supply

Applications

- COFDM Wireless Links
- Hi Power WLAN
- Body Worn Surveillance

Power Connections



Overview

The LPA8V0 1394MHz RF power amplifier offers excellent linearity and efficiency with an extremely small footprint. This is a single stage design based on highly reliable GaAs HBT technology and is optimised for multi-carrier applications. This model is tuned for operation at 1394MHz and incorporates a 5th order Low Pass RF output filter which provides attenuation of harmonic frequencies.

With an integrated switching power supply and compact size for its class, 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		550		mA
Power Consumption Pout=30dBm Avg		6		W

RF Specification

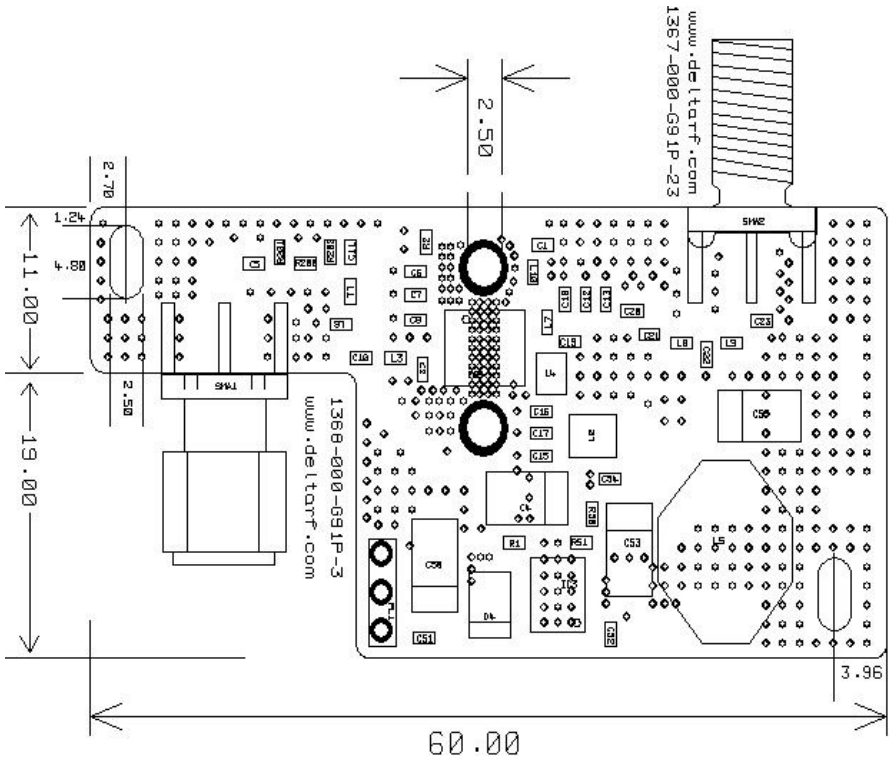
Parameter	Min	Typ	Max	Unit
Frequency Band	1374	1394	1414	MHz
Linear Power Gain	9.5	10	10.5	dB
Linear Power Output @ WCDMA ACPR=-45dBc		30		dBm
Input Return Loss (S11)	-8	-10		dB
Output Return Loss (S22)	-10	-15		dB
Max Input Power			+25	dBm
Load VSWR			4:1	

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
Dimensions	60mm x 30mm x 6.5mm (excluding connectors)

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 Input Return Loss (S11)

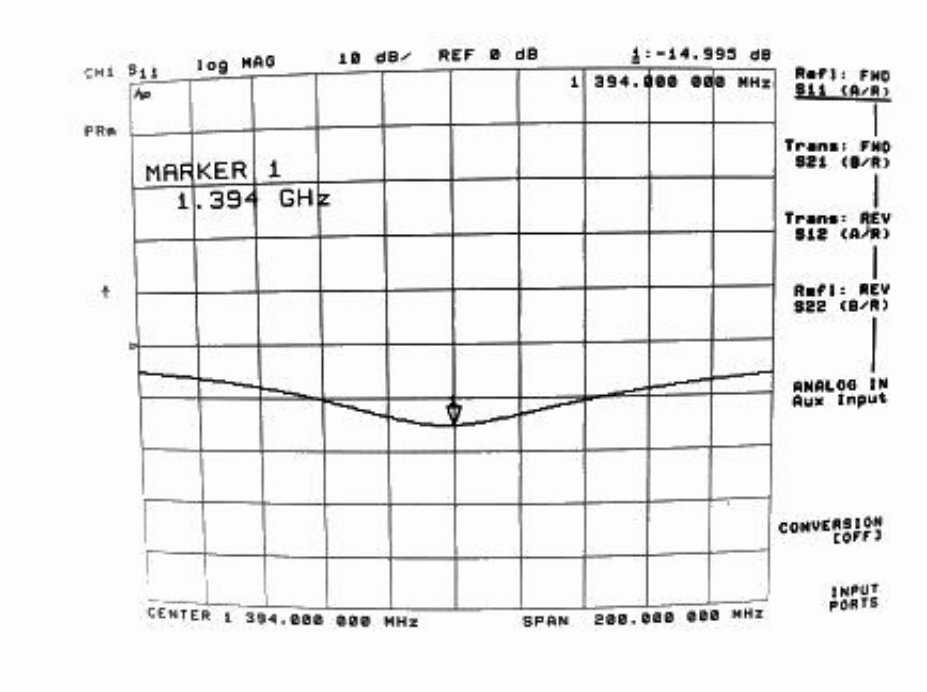


Figure 2 Typical Output return Loss (S22)

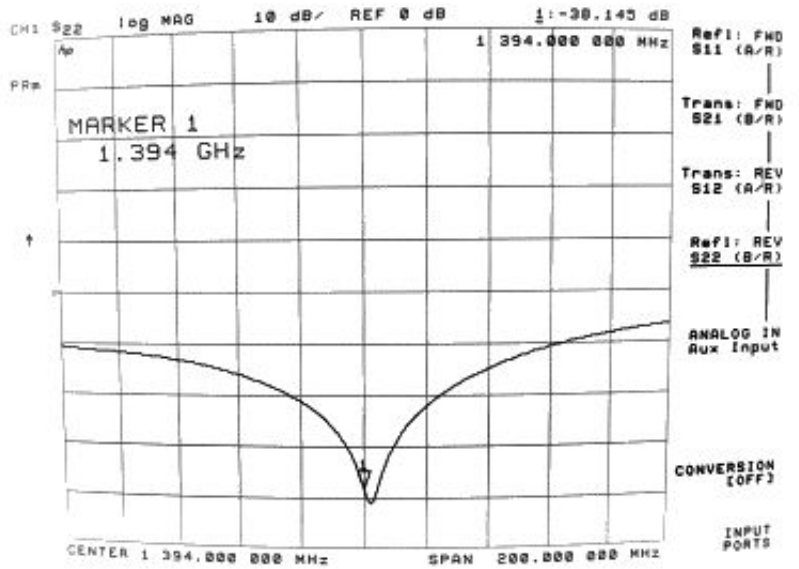
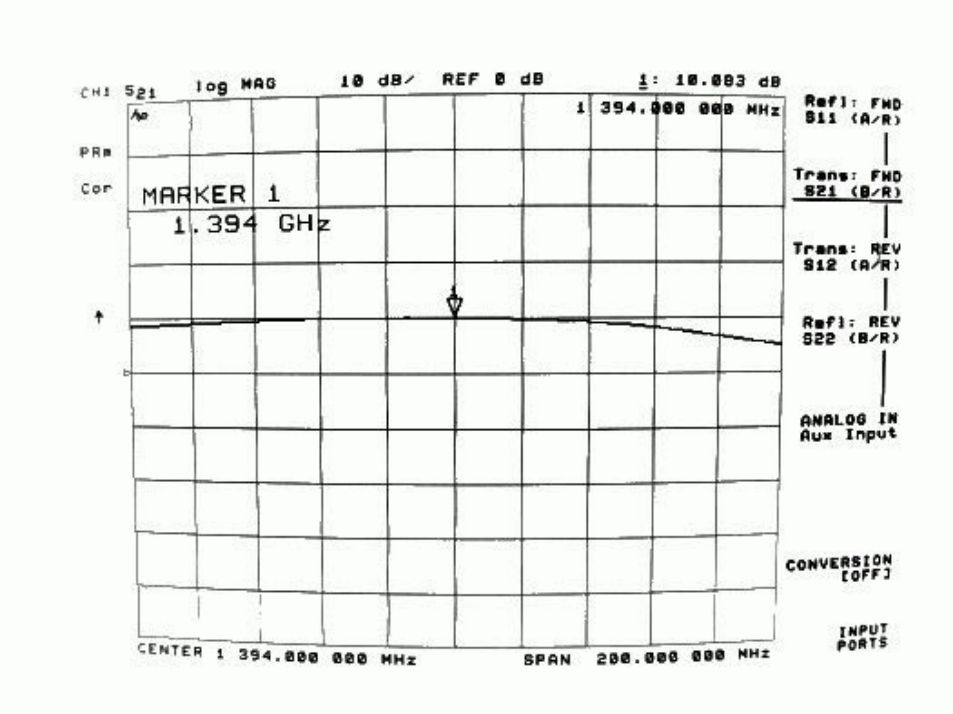


Figure 3 Typical Gain (S21)



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