

100mW - 2.4GHz POWER AMPLIFIER



TECHNICAL DATA SHEET

OPA_PA20DBM_2G4

Model OPA_PA20DBM_2G4 is a power amplifier with a typical small signal gain of 30 dB and a nominal P1dB of +22 dBm at 2.4GHz.

The amplifier requires an operating voltage between 8 VDC and 14 VDC power supply. The connectorized SMA module includes a SAW filter element, a DC/DC converter and a power ON indicator.

This power amplifier is designed to be used with the OPA_UPCONVQO100 module and will guaranty optimums performances for an output power level of 20dBm.

Features:

- Frequency: 2.4GHz
- 2 Stages MMIC based amplifier
- Power ON LED indicator
- P1dB: 22 dBm Typ

Specifications @ +25 °C, ZS = ZL = 50

Parameter	Unit	Minimum	Typical	Maximum
Frequency	MHz		2400	
Gain	dB		30	
Output P1dBm	dBm		22	
Output IP3	dBm		36	
H2 Rejection @ Pout=20dBm H3 Rejection @ Pout=20dBm	dB	35		
DC Power Supply	V	8		14
Supply current @8V Supply current @10V Supply current @12V Supply current @14V	mA		142 116 98 85	
Input/output impedance	Ohm		50	

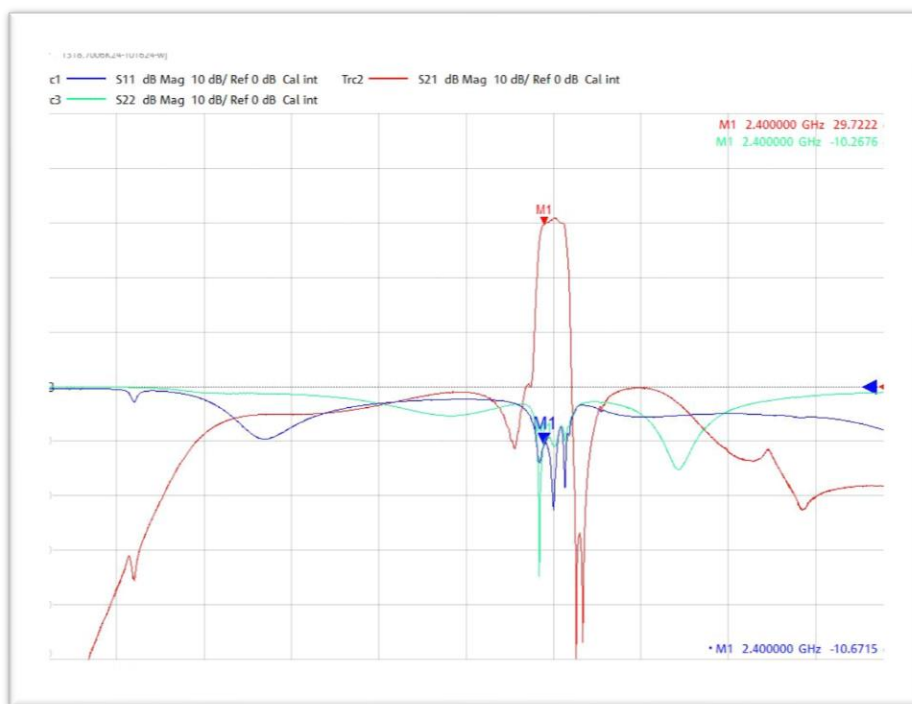
100mW - 2.4GHz POWER AMPLIFIER



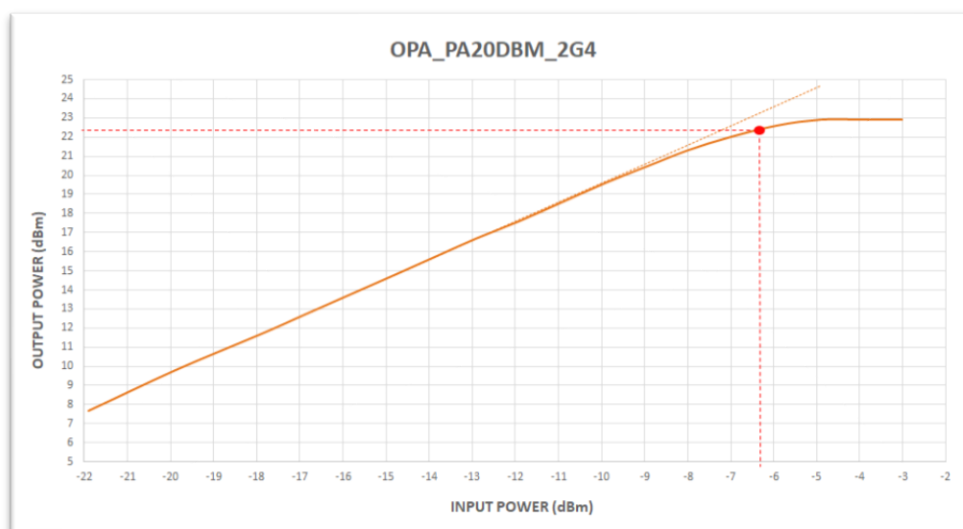
TECHNICAL DATA SHEET

OPA_PA20DBM_2G4

Typical performance data:

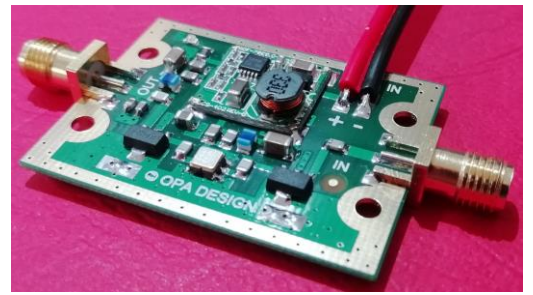


Small Signal Gain – Return Loss



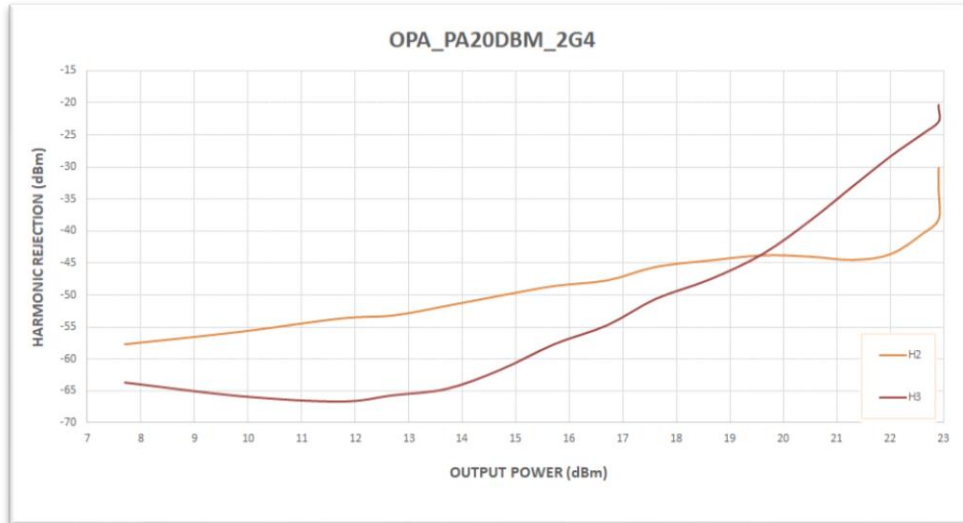
Output Power vs. Input Power

100mW - 2.4GHz
POWER AMPLIFIER

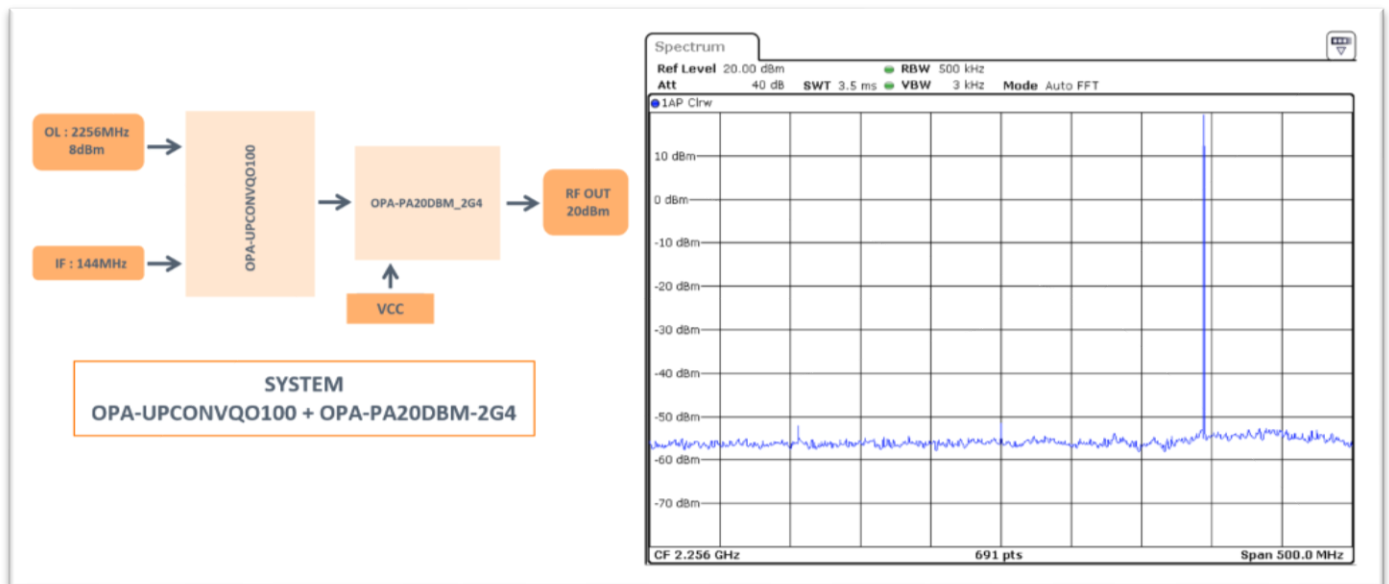


TECHNICAL DATA SHEET

OPA_PA20DBM_2G4



Harmonic Rejection (H2 - H3) Vs Output Power



Output Spectrum: Up-Converter system

100mW - 2.4GHz POWER AMPLIFIER



TECHNICAL DATA SHEET

OPA_PA20DBM_2G4

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+5dBm
DC Input Power	14V
Operating Temperature	-10°C to +55°C
Storage Temperature	-40°C to +85°C

Outline

