

Features

- Gain: 35dB Typical
- P1dB Output Power: 29dBm Typical
- Supply Voltage: +24V @ 700mA
- 50 Ohm Matched Input / Output
- Size: 4.02" x 1.85" x0.47 "



Typical Applications

- Wireless Infrastructure
 - Military & Aerospace
 - Fiber Optics
- RF Microwave & VSAT
Test Instrument

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	20		30	30		47	GHz
Gain	30	43		28	32		dB
Gain Flatness		±8.0			±3.0		dB
Gain Variation Over Temperature(-45 ~ +85)		±3.0			±3.0		dB
Input VSWR		1.6			1.8		:1
Output 1dB Compression Point (P1dB)	25	29		27	29		dBm
Saturated Output Power (Psat)		29			29		dBm
Supply Current (Idd) (Vcc=+24V)		700	1200		700	1200	mA
Power Added Efficiency		5			5		%
Isolation S12		-60			-55		dB

Weight	33.16 ounces	Impedance	50ohms
Input / Output Connectors	2.4mm-Female (2.92mm female optional)	Material	Copper
Finishing	Standard: Gold 40 micron; Nickel 220 micron thickness	Package Sealing	Epoxy Sealed (Standard)
	Option: Gold 80 micron; Nickel 180 micron thickness		Hermetically Sealed (Option with extra charge)

QOTANA TECHNOLOGIES

Wide Band Power Amplifier 20GHz~47GHz

Absolute Maximum Ratings

Operating Voltage	+28V
RF Input Power (RFIN)	0dBm

Biassing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +24V biasing

Power OFF Procedure

Step 1	Turn off +24V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

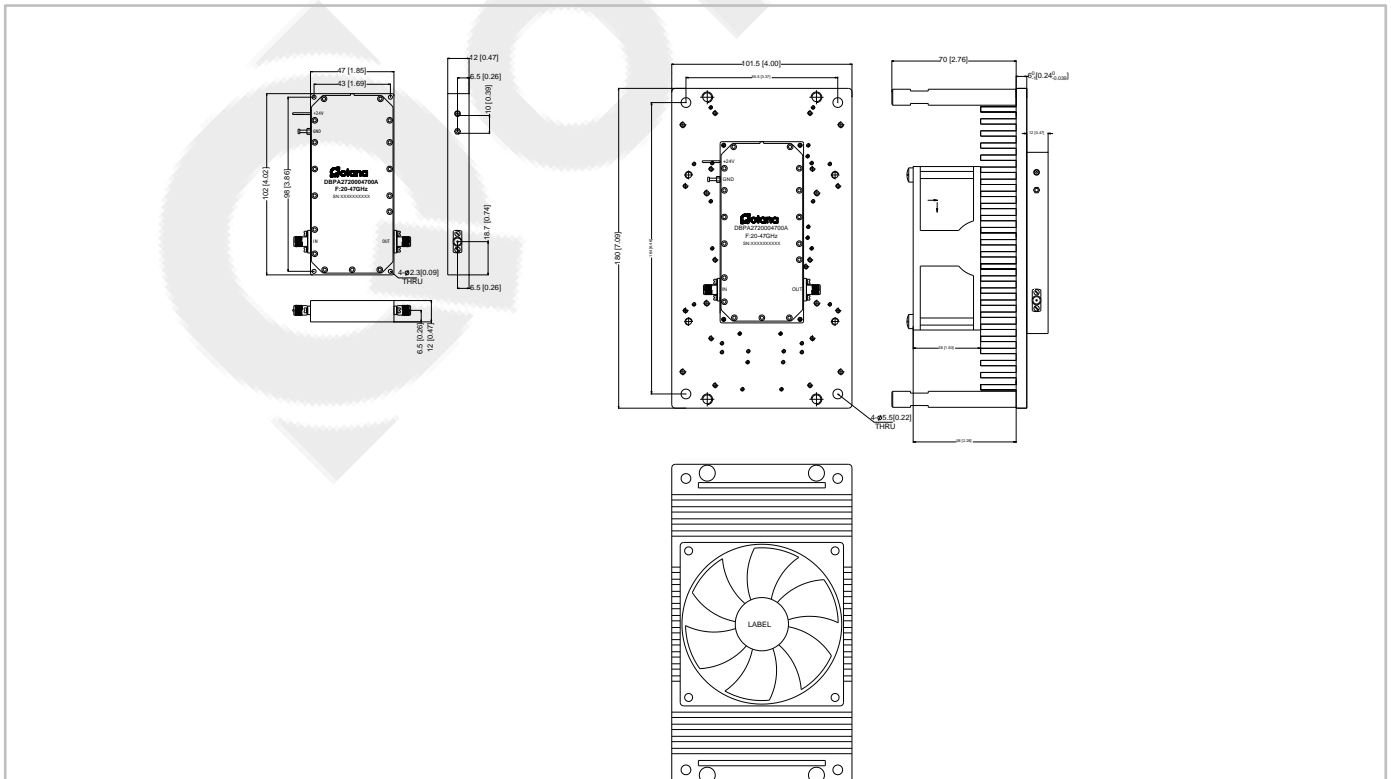
Environmental Specifications

Operational Temperature	-45°C~+85°C
Storage Temperature	-55°C~+125°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40°C
Shock	20G for 11msec half sine wave,3 axis both directions

Outline Drawing:

All Dimensions in mm (inches)

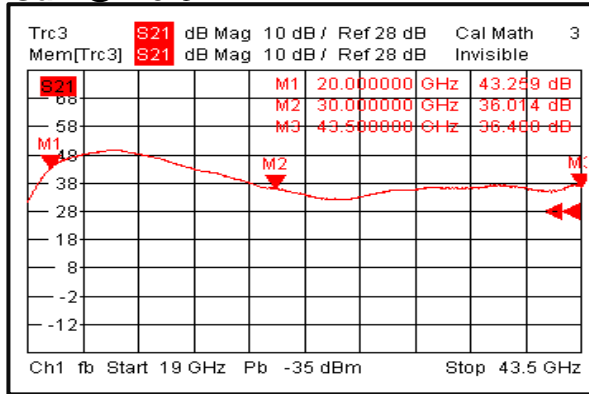
Heat Sink required during operation(Sold Separately)



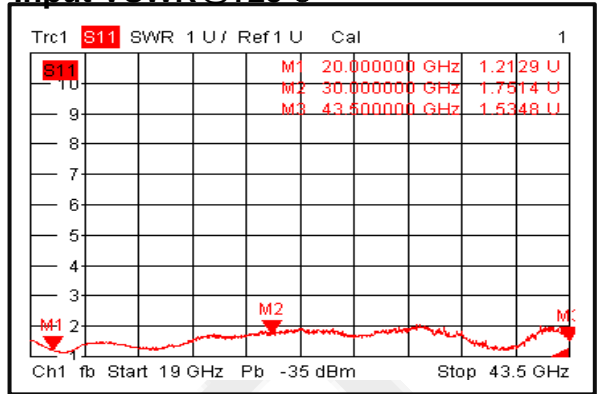
QOTANA TECHNOLOGIES

Wide Band Power Amplifier 20GHz~47GHz

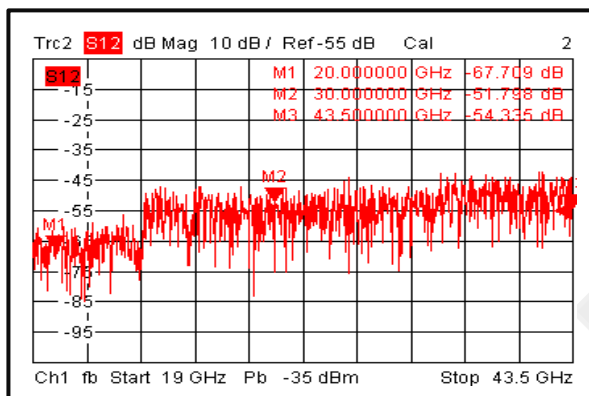
Gain@+25°C



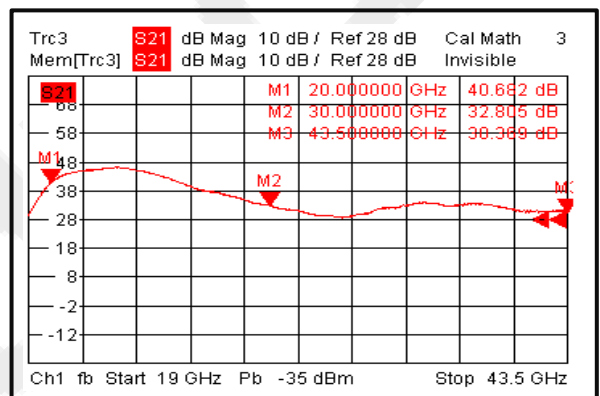
Input VSWR@+25°C



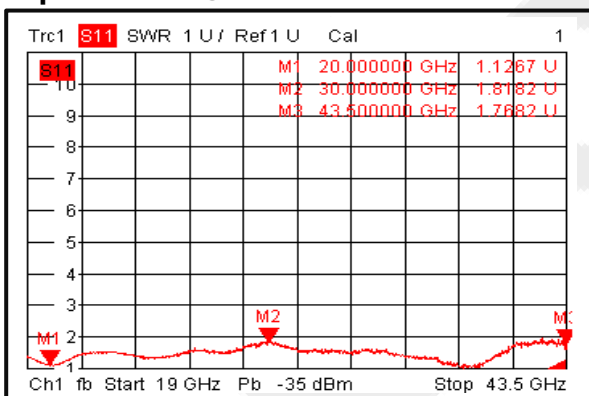
Isolation@+25°C



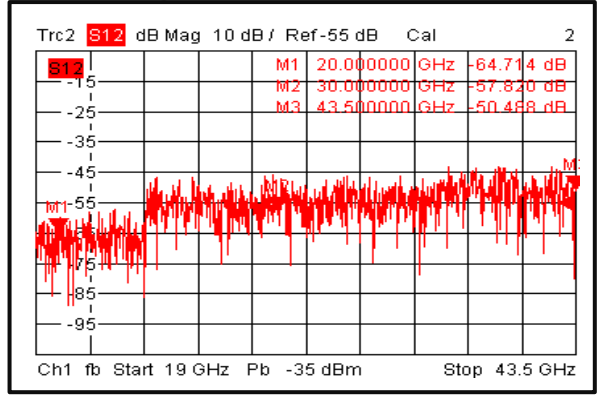
Gain@+85°C



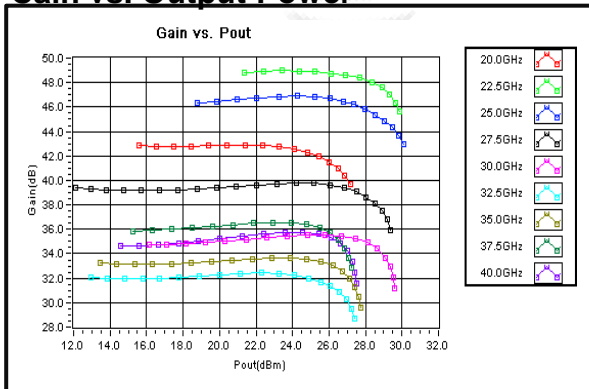
Input VSWR@+85°C



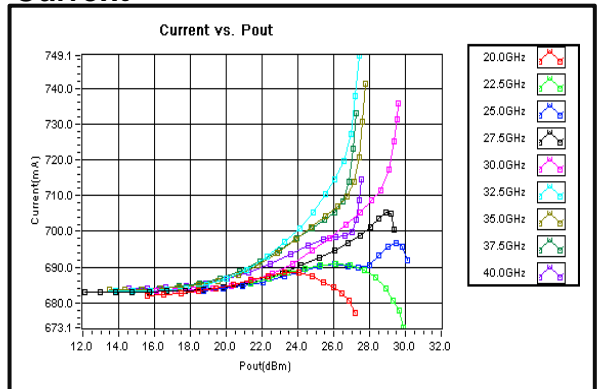
Isolation@+85°C



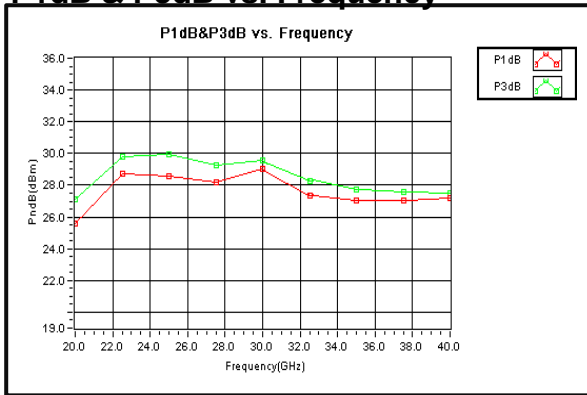
Gain vs. Output Power



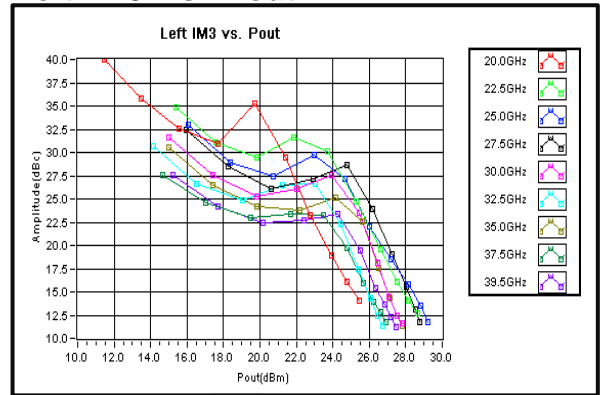
Current



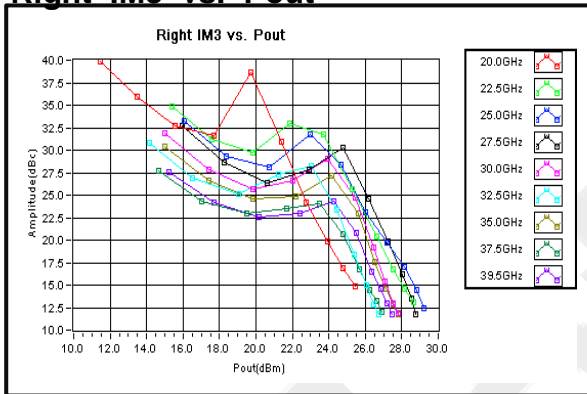
P1dB & P3dB vs. Frequency



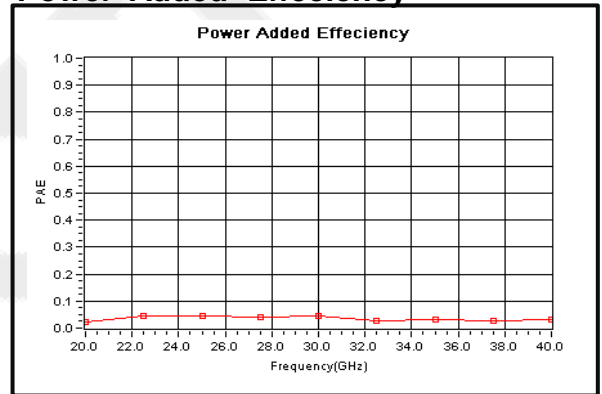
Left IM3 vs. Pout



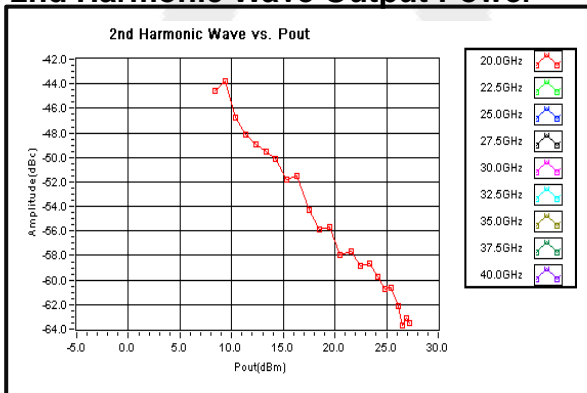
Right IM3 vs. Pout



Power Added Efficiency



2nd Harmonic Wave Output Power



QOTANA TECHNOLOGIES and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit www.qotana.com for additional data sheets and product information.