

**Features**

- Gain: 36dB
- Output power +43dBm typical
- Supply Voltage: +28V @ 2300 m A
- 50 Ohm Matched Input / Output
- Size: 6.299" x 7.087" x2.283"


**Typical Applications**

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

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	0.7		3	3		6	GHz
Gain	33	36		33	36		dB
Gain Flatness		±2.5			±2.0		dB
Gain Variation Over Temperature (-45 ~ +85)		±1.5			±1.5		dB
Input VSWR		1.3			1.4		: 1
Output Power for 1 dB Compression (P1dB)	41	43		40	42		dBm
Saturated Output Power (Psat)		44			43		dBm
Supply Current (I <sub>dd</sub> ) (V <sub>cc</sub> =+28V)		700	2300		700	2300	mA
Efficiency at P1dB	25	30		20	25		%
Isolation S12		-65			-60		dB
Input Max Power(no damage)			+5			+5	dBm

Weight	ounces	Impedance	50 ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finishing	Standard: Gold 40 micron; Nickel 220 micron thickness	Package Sealing	Epoxy Sealing (Standard)
	Option: Gold 80 micron; Nickel 180 micron thickness		Hermetically Sealed (Option with extra charge)

**QOTANA TECHNOLOGIES**

**Wide Band Power Amplifier 0.7GHz~6GHz**

**Absolute Maximum Ratings**

Operating Voltage	+28V
RF Input Power (RFIN)	+5dBm

**Biassing Up Procedure**

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +28V biasing

**Power OFF Procedure**

Step 1	Turn off +28V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

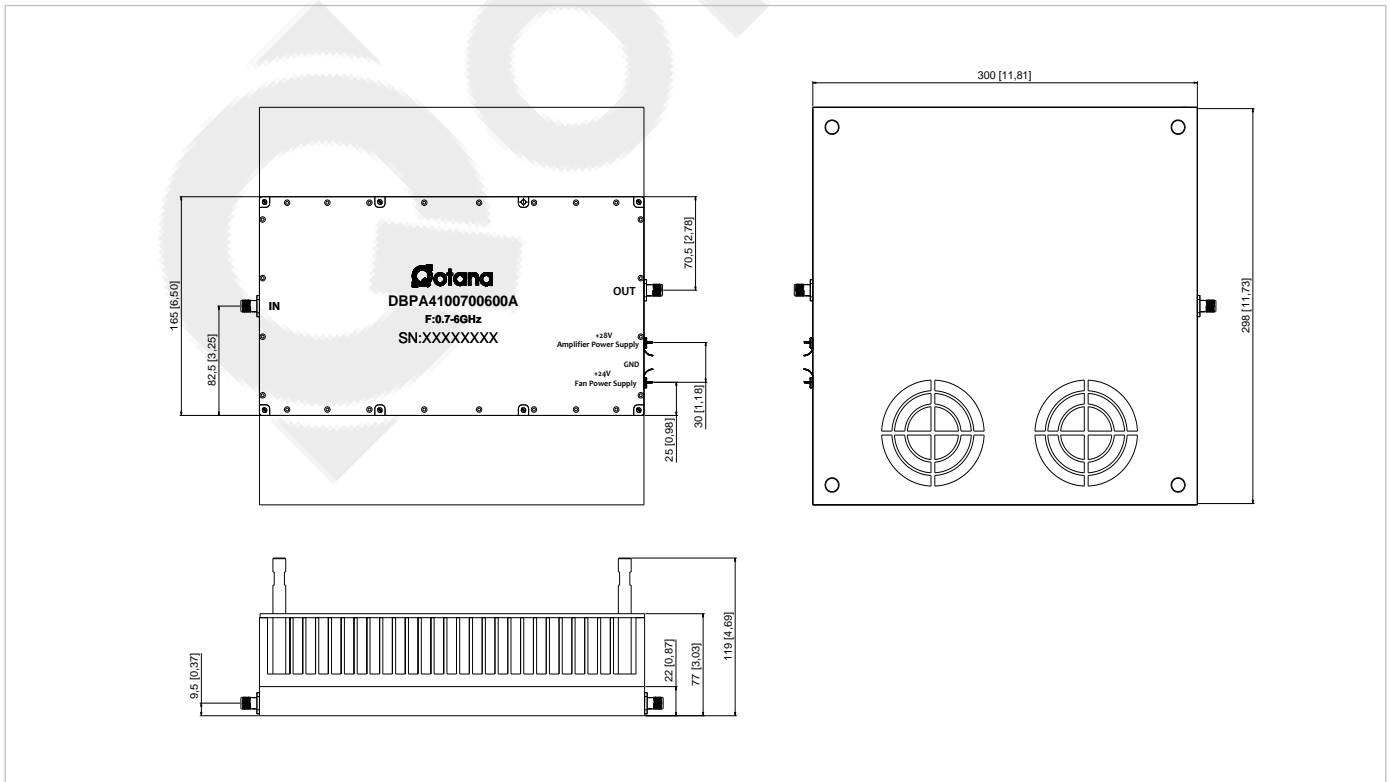
**Environmental Specifications**

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)

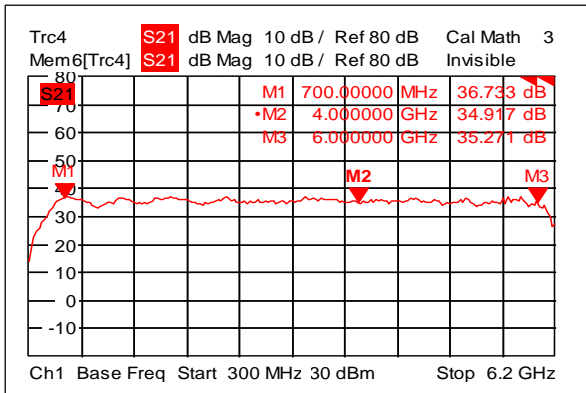
Heat Sink required during operation(Sold Separately)



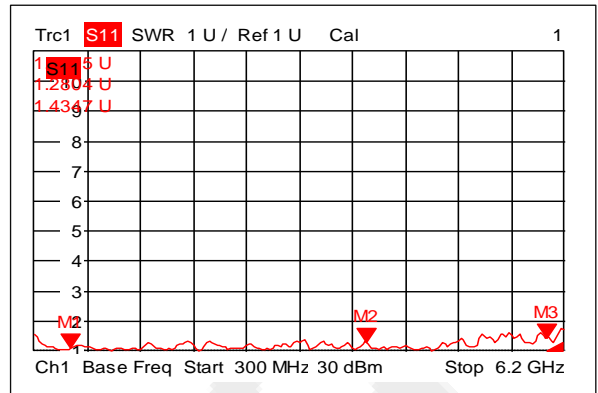
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**Wide Band Power Amplifier 0.7GHz~6GHz**

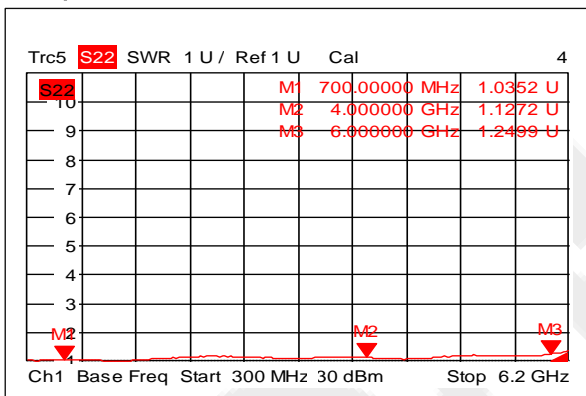
**Gain**



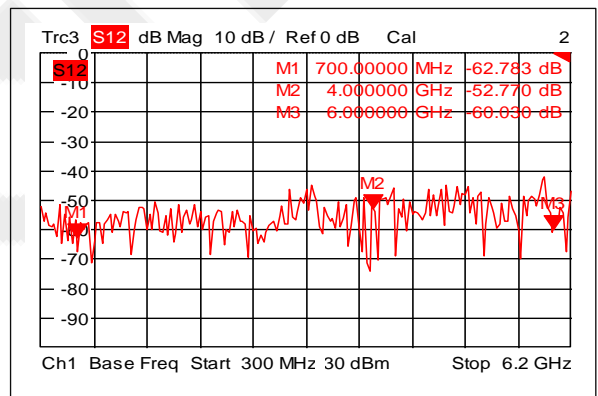
**Input VSWR**



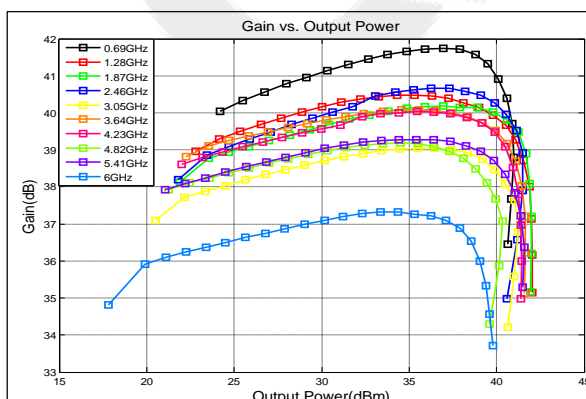
**Output VSWR**



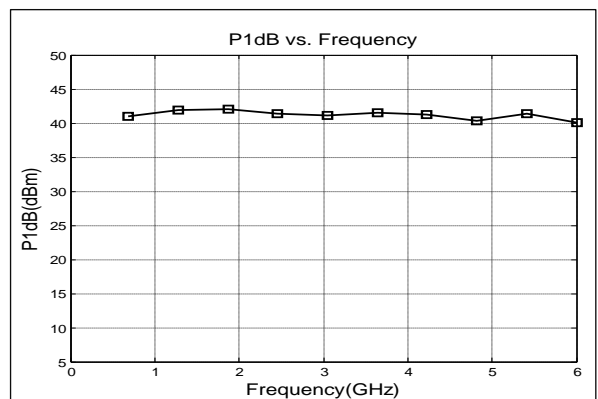
**Isolation**



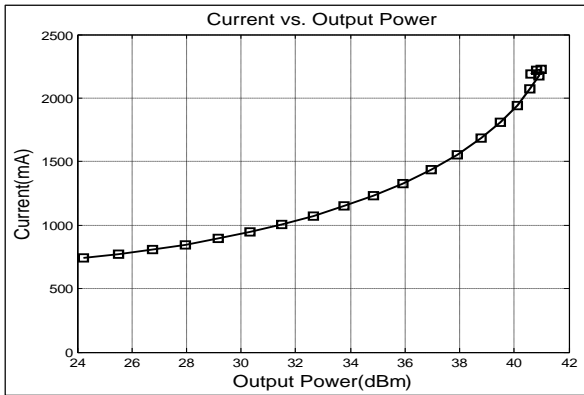
**Gain vs. Output Power**



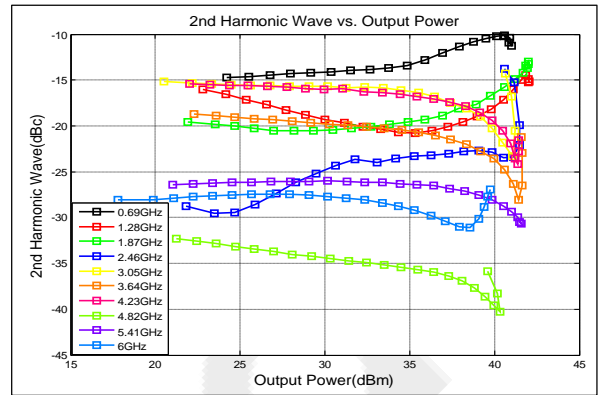
**P1dB vs. Frequency**



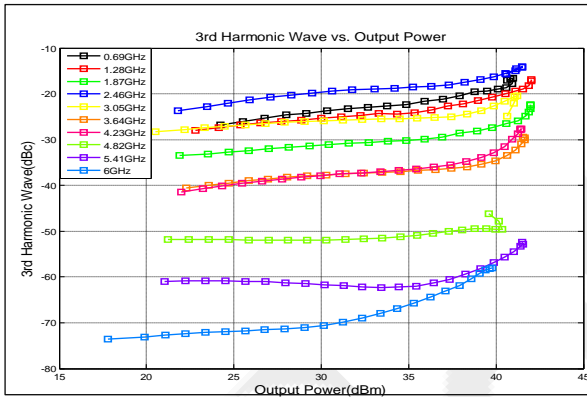
Current



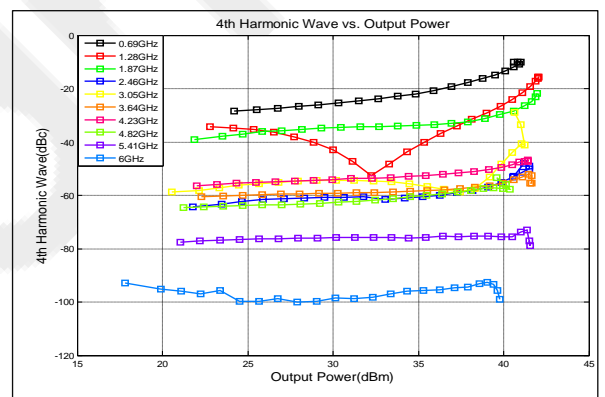
2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power



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