

Features

- Ultra Wideband Solid State Power Amplifier
- Gain: 45dB Typical
- Psat: 40dBm Typical
- Supply Voltage: +28V



Typical Applications

- Wireless Infrastructure
- Military & Aerospace
- Fiber Optics

RF Microwave & VSAT
Test Instrument

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	18		26	26		40	GHz
Gain	40	45		40	45		dB
Gain Flatness		±6.0			±6.0		dB
Gain Variation Over Temperature (-45°C~+85°C)		±6.0			±6.0		dB
Input Return Loss		15			15		dB
Saturated Output Power (Psat)	38	40		37	40		dBm
Isolation S12		-50			-50		dB
Supply Current (Vcc=+28V)		4	6		4	6	A
Power-added Efficiency		10			10		%

Weight	16.5 ounces (Max.)	Impedance	50ohms
Input / Output Connectors	2.92mm-Female	Material	Aluminum
Finish	Nickel Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Optional)

QOTANA TECHNOLOGIES
10W Ultra Wide Band Power Amplifier 18GHz~40GHz
Absolute Maximum Ratings

Operating Voltage	+30V
RF Input Power	+5dBm

Note: Maximum RF input power is set to assure safety of amplifier. Input power may be increased at own risk to achieve full power of amplifier. Please reference gain and power curves.

Biassing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output with 50 Ohm source/load. (in band VSWR10dB return loss)
Step 3	Connect +28V

Power OFF Procedure

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

Environmental Specifications

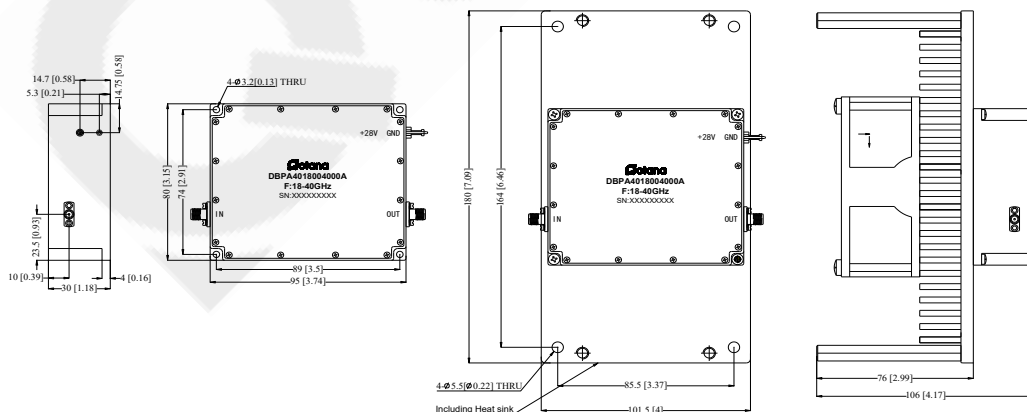
Operational Temperature	-45°C~+85°C
Storage Temperature	-55°C~+125°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH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

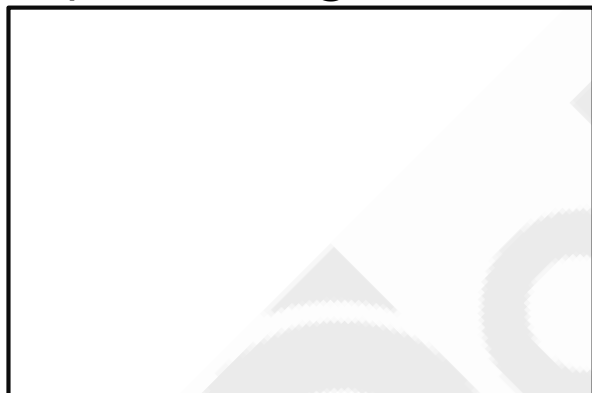
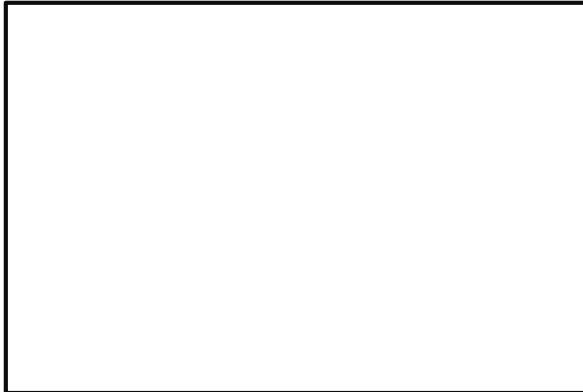
Note: The operating temperature for the unit is specified at the package base. It is the user's responsibility to ensure the part is in an environment capable of maintaining the temperature within the specified limits

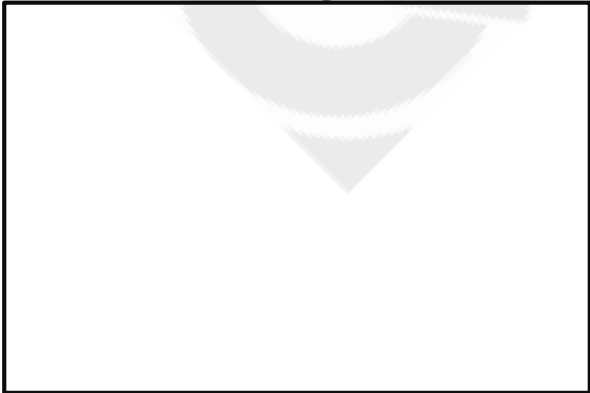
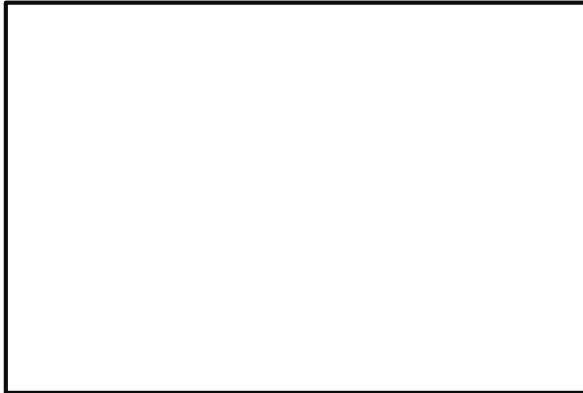
Outline Drawing:

All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)



Gain@+25°C**Input Return Loss@+25°C****Output Return Loss@+25°C****Isolation @+25°C****Gain @-45°C****Input Return Loss @-45°C**

Output Return Loss@-45°C**Isolation@-45°C****Gain@+85°C****Input Return Loss @+85°C****Output Return Loss@+85°C****Isolation@+85°C**

Gain vs. Output Power**P1dB-P5dB vs. Frequency****Power Added Efficiency****Left IM3 vs. Pout****Right IM3 vs. Pout****Current**

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.