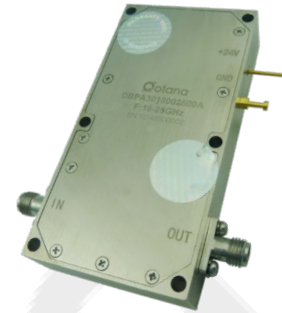


**Features**

- Gain: 38dB typical
- Output power +32dBm typical
- High P1dB: +31 dBm typical
- Supply Voltage: +24V



**Typical Applications**

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT  
Fiber Optics

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	18		26	26		28	GHz
Gain	35	38		33	36		dB
Gain Flatness		±1.5			±1.5		dB
Gain Variation Over Temperature (-40°C~+85°C)		±2.0			±2.0		dB
Input VSWR		1.5	1.8		1.5	1.8	:1
Output 1dB Compression Point (P1dB)	30	32		30	32		dBm
Saturated Output Power (Psat)		33			33		dBm
3rd Order Intermodulation Product (IM3) @P1dB		15			15		dBc
Supply Current (Vcc=+24V)		1000	1500		1000	1500	mA
Efficiency at Psat (RF Output Power / DC Power Consumption)		12			12		%

Weight	10 Max. ounces	Impedance	50ohms
Input / Output Connectors	2.92mm - Female	Material	Copper
Finish	Nickel (220 micron thickness)	Package Sealing	Epoxy Sealed

**QOTANA TECHNOLOGIES**

**Wide Band Power Amplifier 18GHz ~ 28GHz**

**Absolute Maximum Ratings**

Operating Voltage	+28V
RF Input Power (RFIN)	2dBm

**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

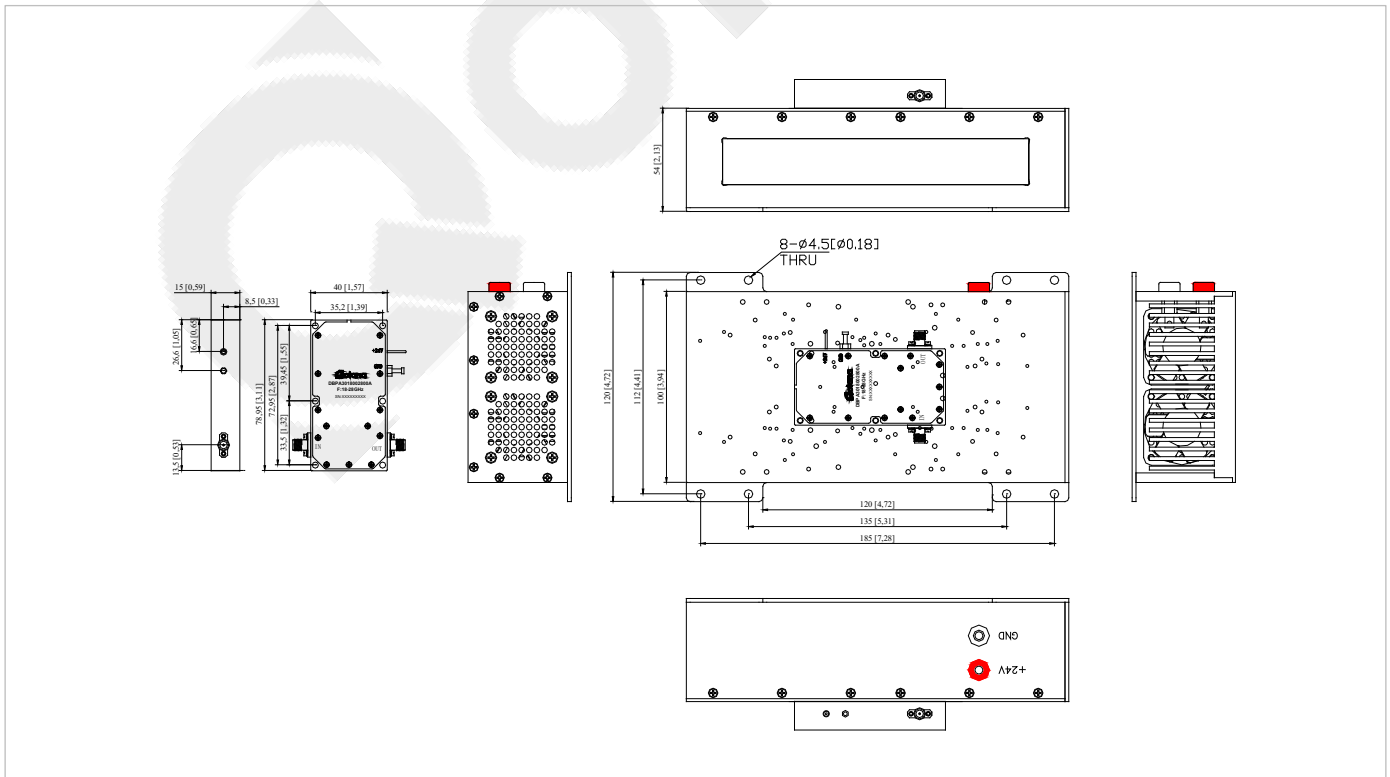
**Environmental Specifications**

Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°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

**Outline Drawing:**

All Dimensions in mm (inches)  
Housing Tolerances ±0.2 (0.008)

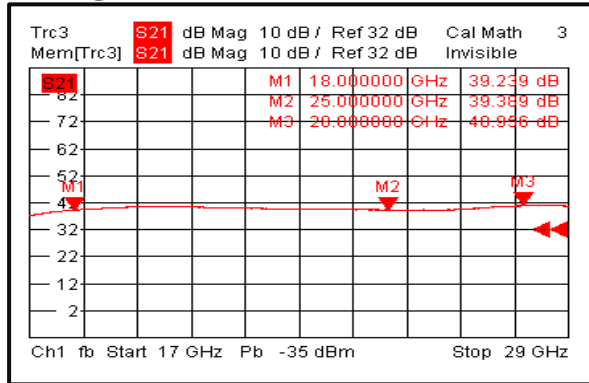
Heat Sink required during operation(Sold Separately)



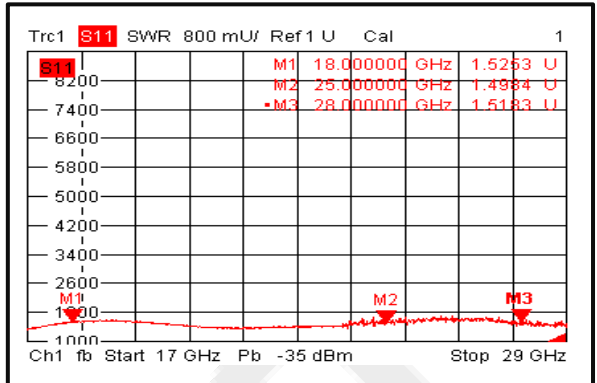
**QOTANA TECHNOLOGIES**

**Wide Band Power Amplifier 18GHz ~ 28GHz**

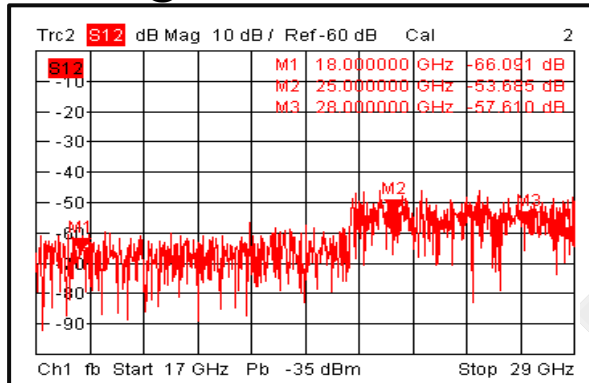
**Gain@+25°C**



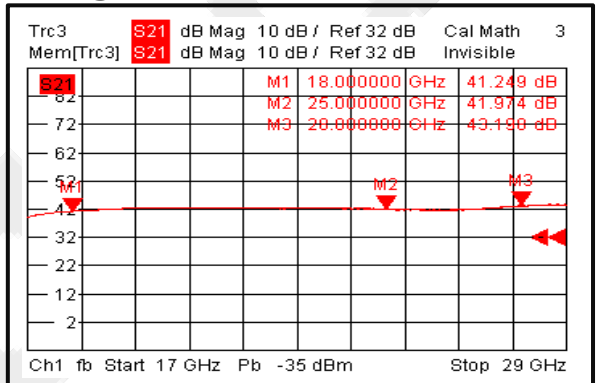
**Input VSWR @+25°C**



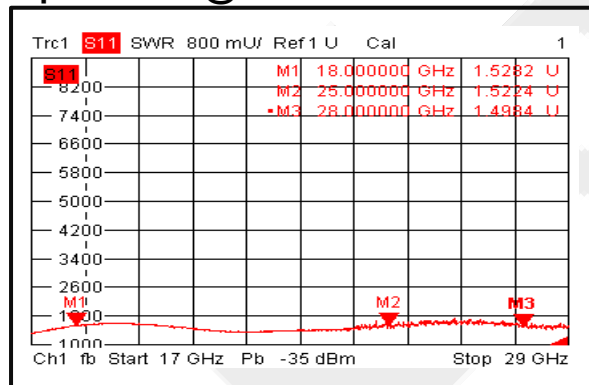
**Isolation@+25°C**



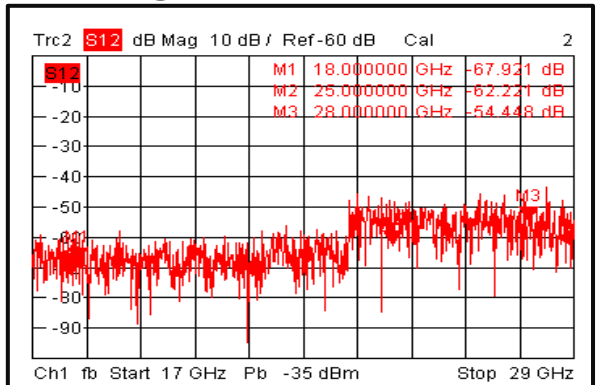
**Gain@-40°C**



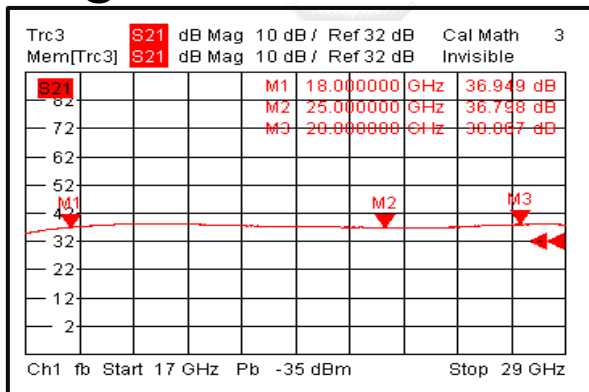
**Input VSWR @-40°C**



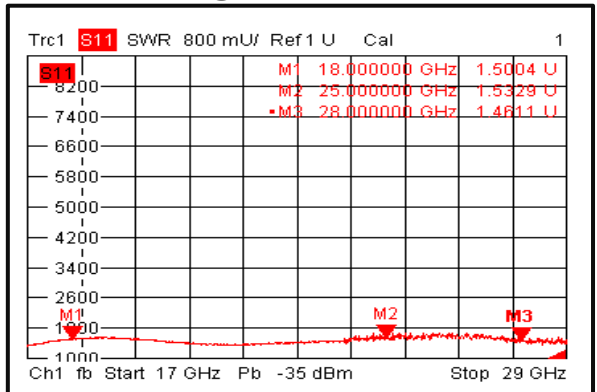
**Isolation@-40°C**



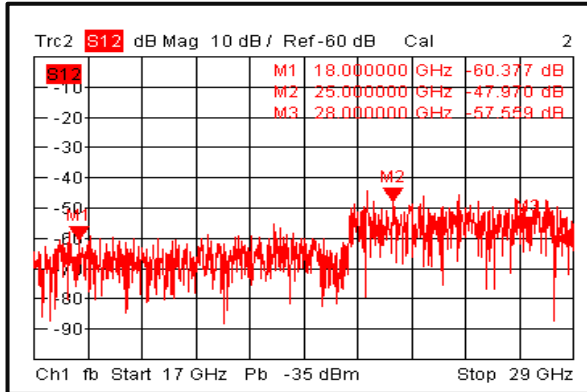
**Gain@+85°C**



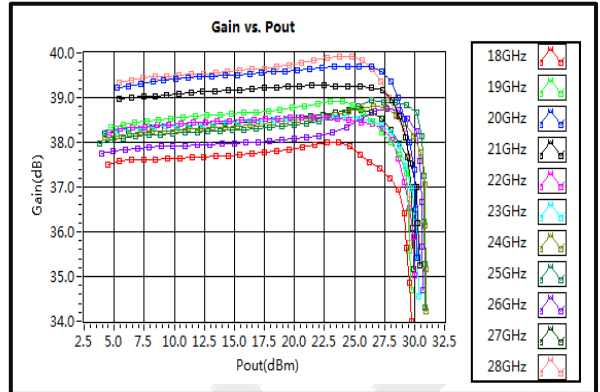
**Input VSWR @+85°C**



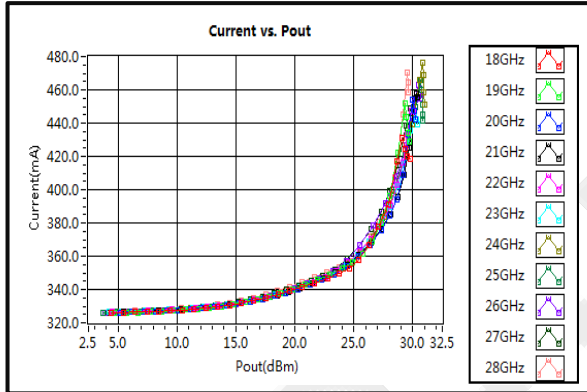
Isolation@+85°C



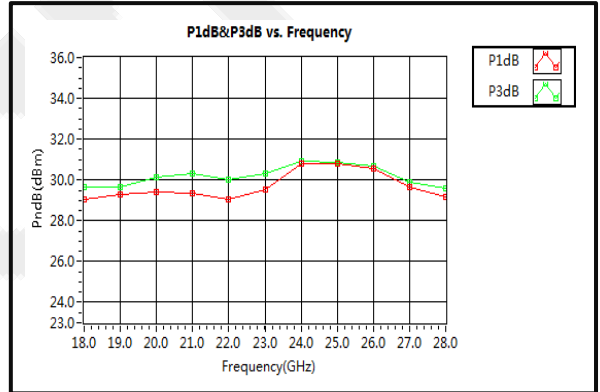
Gain vs. Output Power



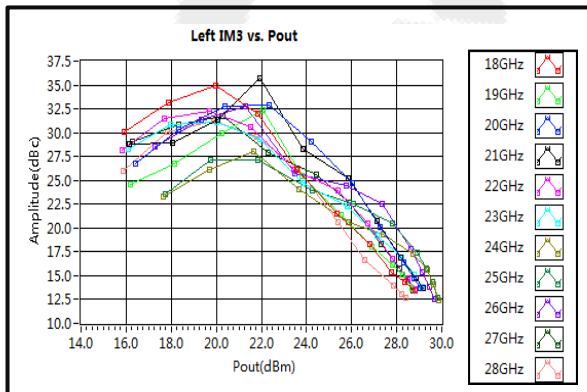
Current



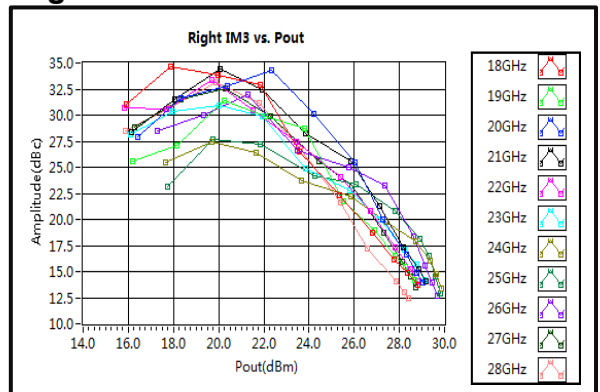
P1dB & P3dB vs. Frequency



Left IM3 vs. Pout



Right IM3 vs. Pout



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