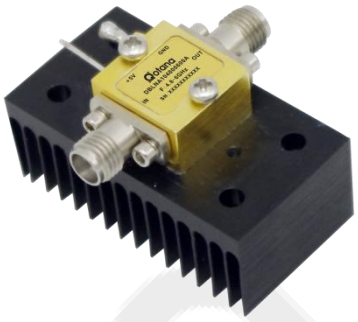
P/N:DBLNA104800600A

QOTANA TECHNOLOGIES

Low Noise Amplifier 4.8GHz~6GHz

Features

- Gain: 15dB Typical
- Noise Figure: 1.5dB Typical
- P1dB Output Power: +18dBm Typical
- Supply Voltage: +5V



Typical Applications

- Wireless Infrastructure
- Military & Aerospace
- Fiber Optics

RF Microwave & VSAT
Test Instrument

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	4.8		5.4	5.4		6	GHz
Gain	14	16		13.5	15		dB
Gain Flatness		±0.25			±0.5		dB
Gain Variation Over Temperature(-45 ~ +85)		±0.5			±0.5		dB
Noise Figure		1.5	1.8		1.5	1.8	dB
Input VSWR		1.5	1.8		1.5	1.8	: 1
Output VSWR		1.5	1.8		1.7	2.0	: 1
Output Power for 1 dB Compression (P1dB)	15	17		15	18		dBm
Saturated Output Power (Psat)		18			19		dBm
Output Third Order Intercept (OIP3)		28			28		dBm
Supply Current (Idd) (Vcc=+5V)		75	100		75	100	mA
Isolation S12		-30			-27		dB

Weight	0.88 ounces	Impedance	50ohms
Input /Output Connector	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 Seal (Option with extra charge)

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Absolute Maximum Ratings

Operating Voltage	5.5V
RF Input Power (RFIN)(Vcc= +5V)	+20dB m

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +5V biasing

Power OFF Procedure

Step 1	Turn off +5V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

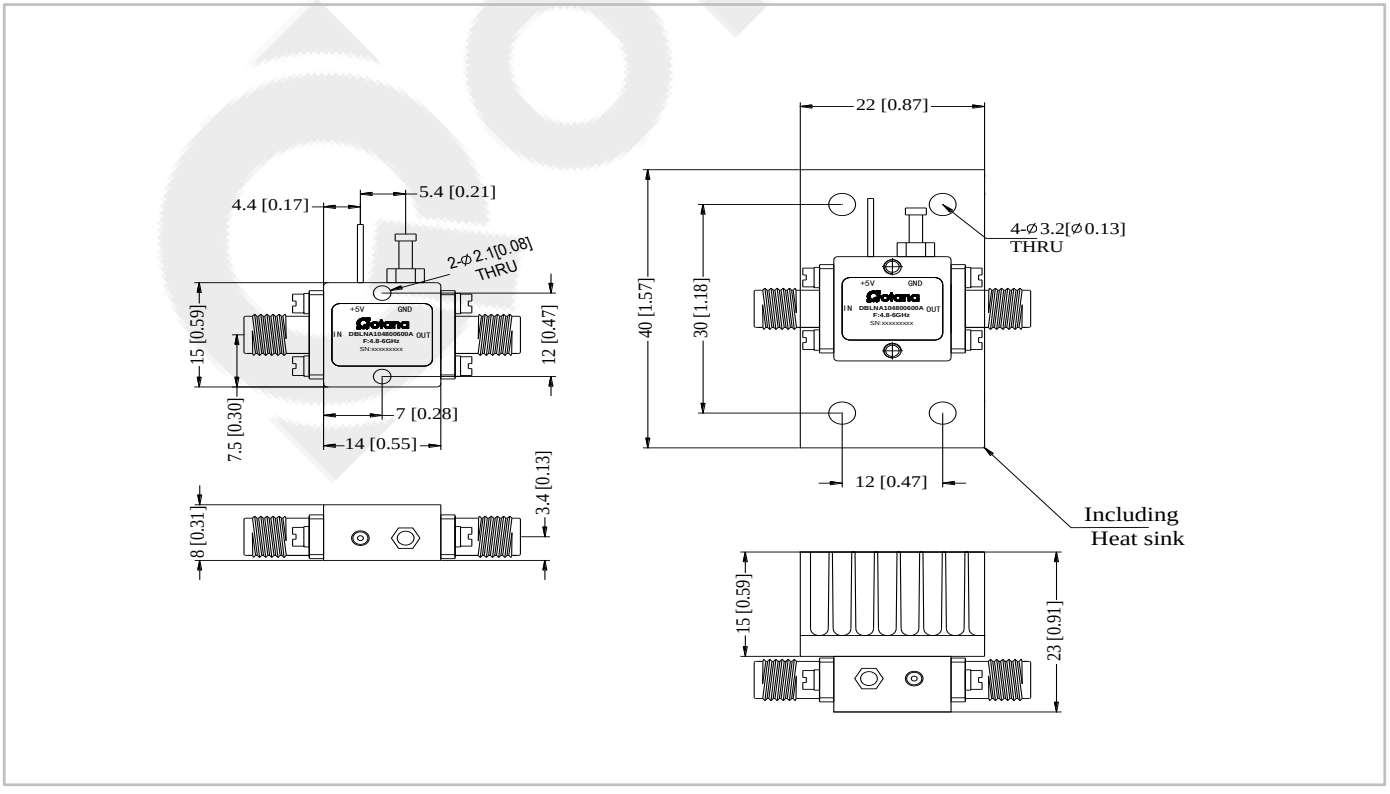
Environmental Specifications

Operational Temperature	-45ºC~+85ºC
Storage Temperature	-55ºC~+125ºC
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 35ºc, 95%RH at 40ºc
Shock	20G for 11msec half sine wave,3 axis both directions

Outline Drawing:

All Dimensions in mm (inches)

Heat Sink required during operation(Sold Seperately)

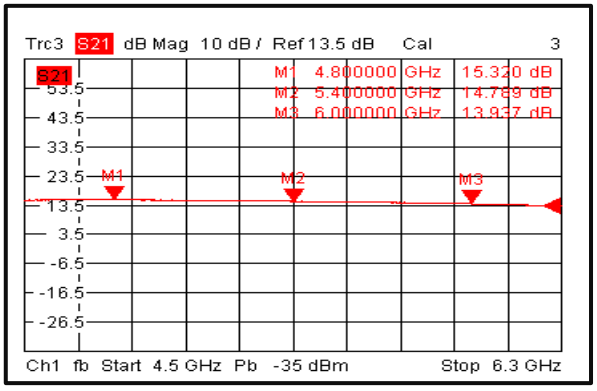


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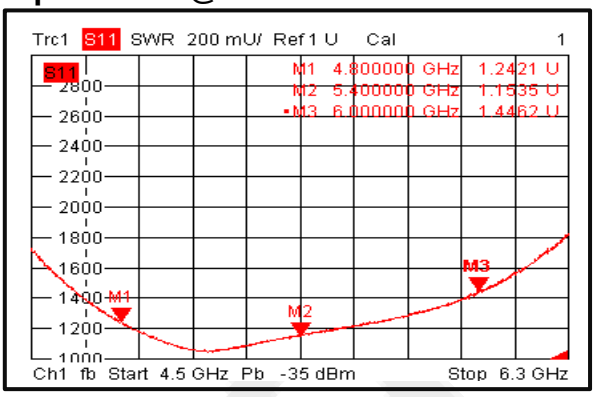
QOTANA TECHNOLOGIES

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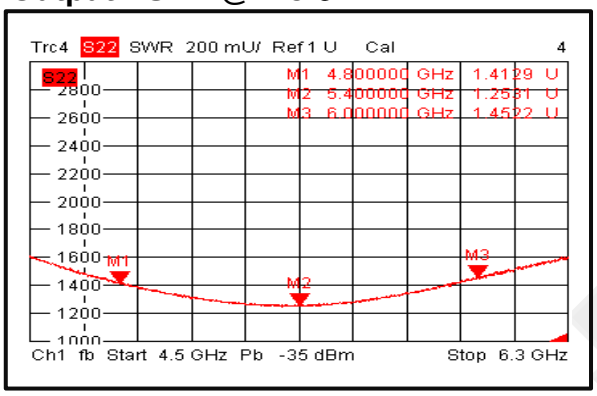
Gain@+25℃



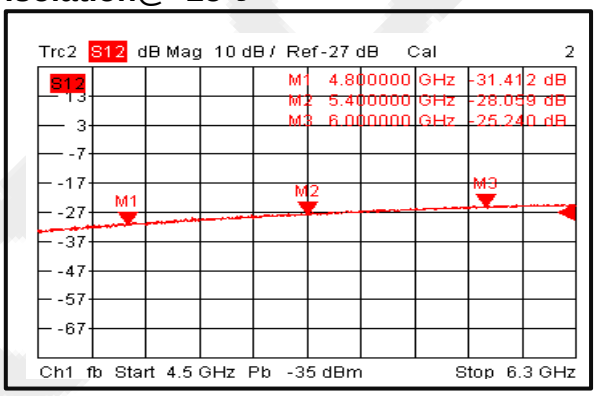
Input VSWR@+25℃



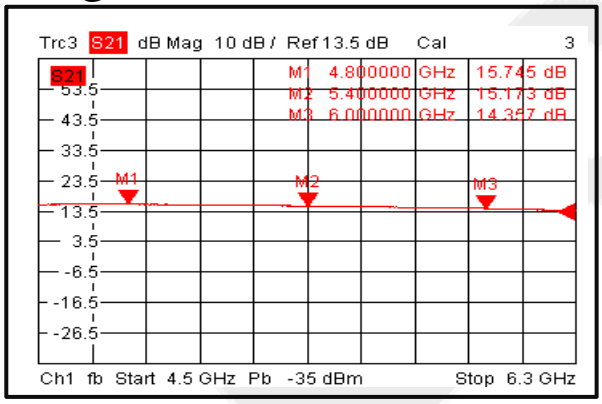
Output VSWR@+25℃



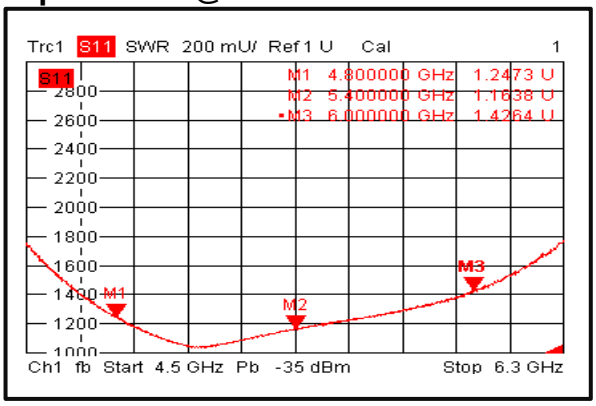
Isolation@+25℃



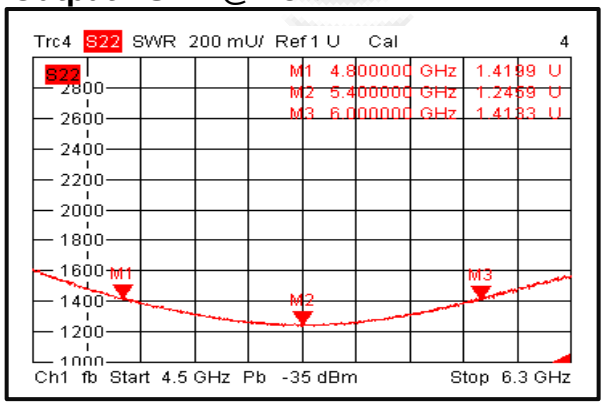
Gain@-45℃



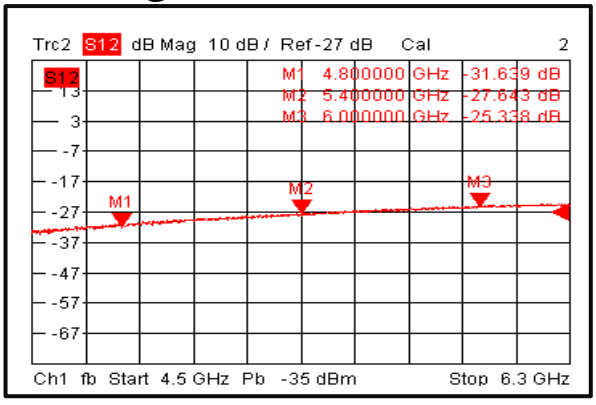
Input VSWR@-45℃



Output VSWR@-45℃



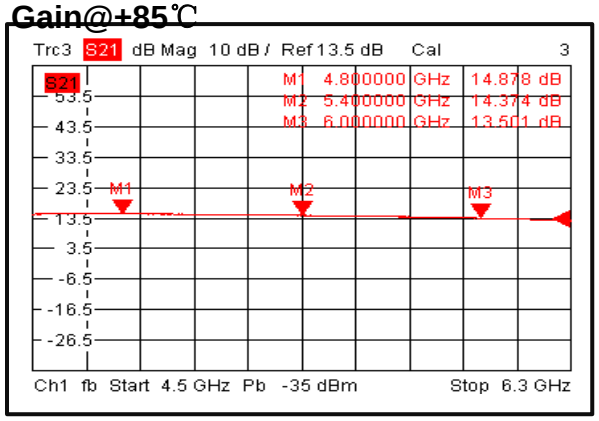
Isolation@-45℃



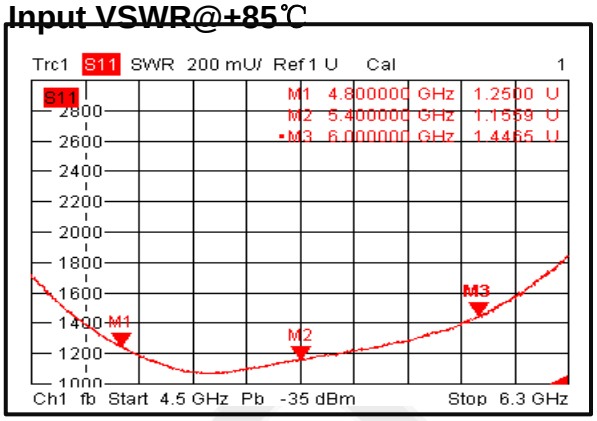
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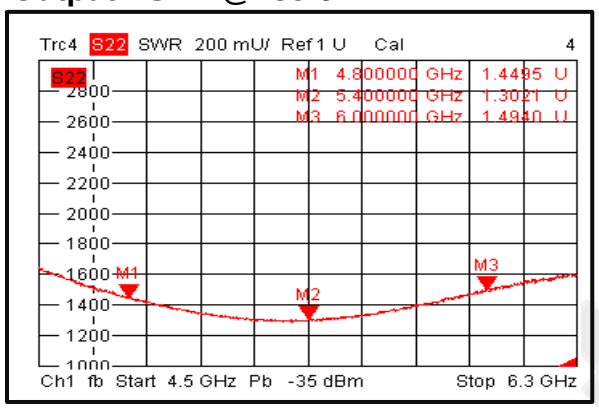
Gain@+85℃



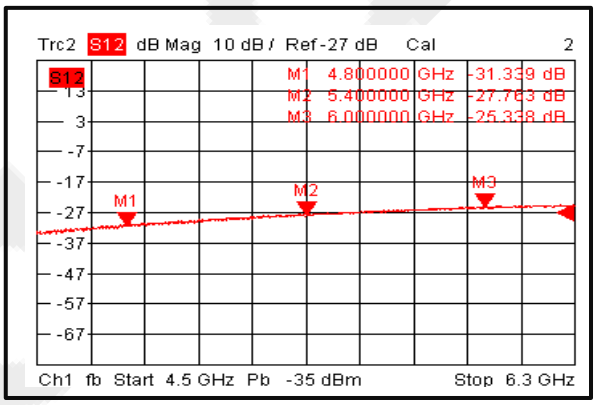
Input VSWR@+85℃



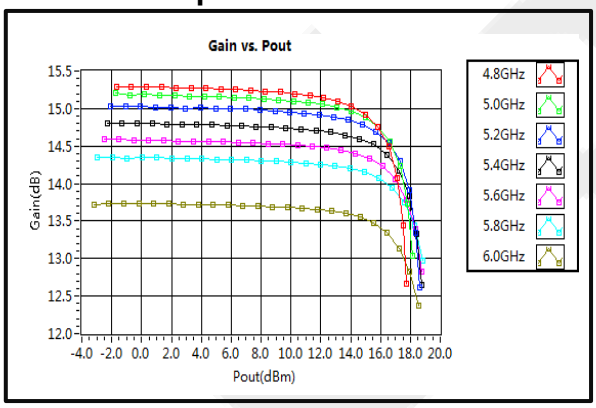
Output VSWR@+85℃



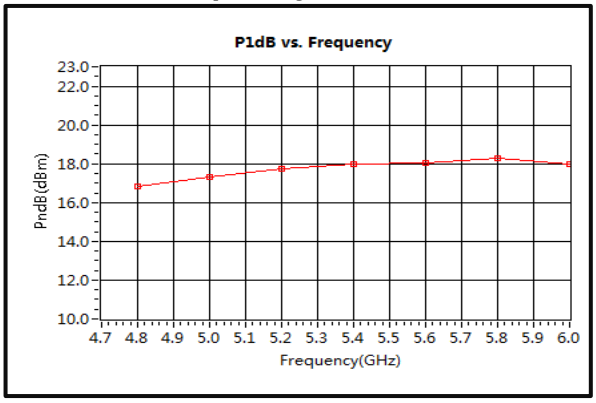
Isolation@+85℃



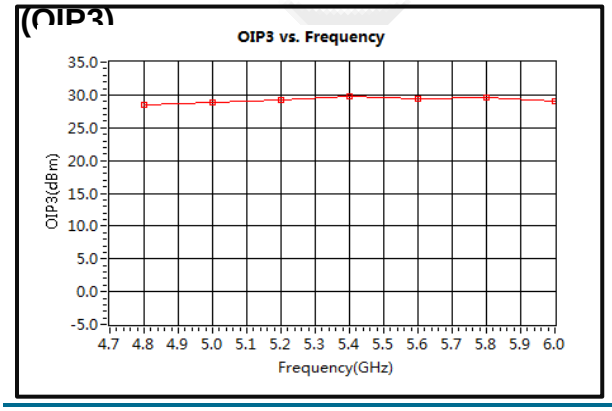
Gain vs. Output Power



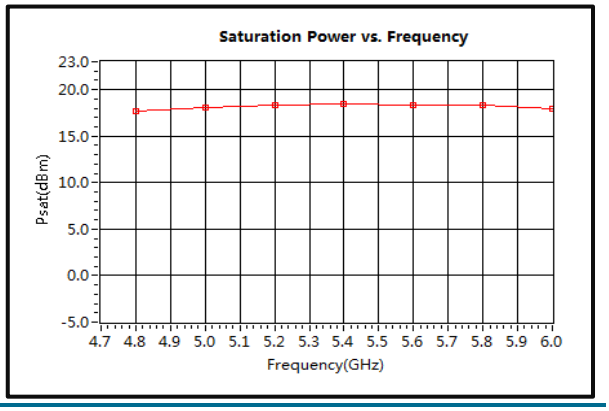
P1dB vs. Frequency



Output Third Order Intercept (OIP3)



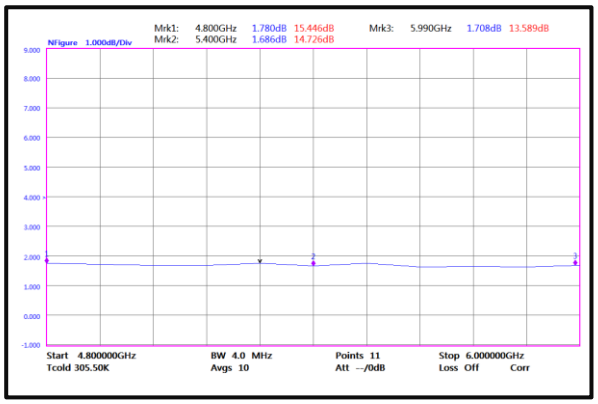
Saturation Power vs. Frequency



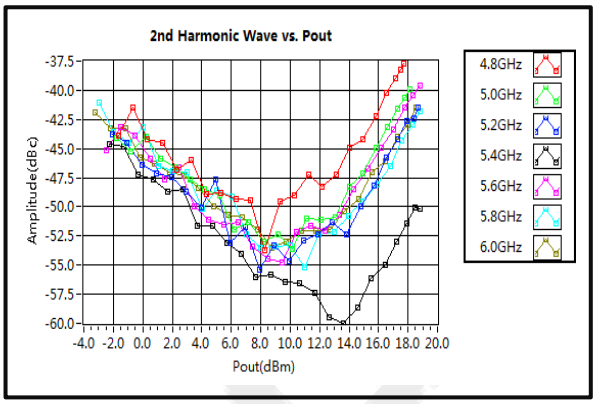
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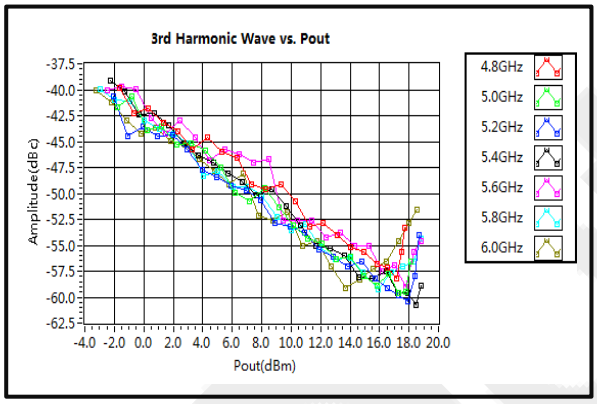
Noise Figure



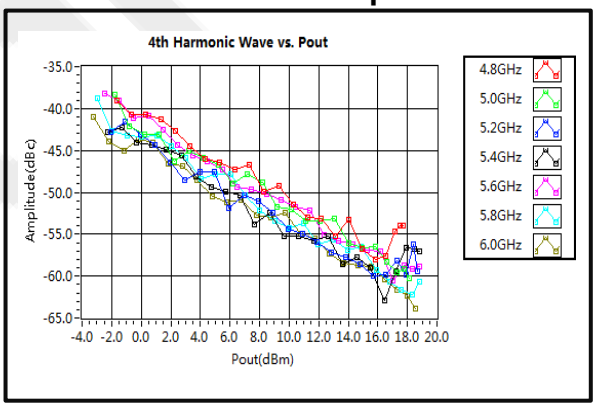
2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power



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