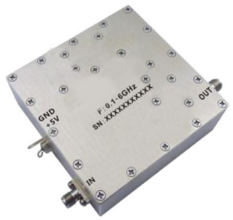
ALC-Automatic Level Control 0dBm Output Ultra Wide Band Amplifier 0.1GHz~6GHz

Features

- Ultra Wide Band 0.1-6GHz
- Input power dynamic range ≤60dB
- Output Power: 0dBm Typical
- Supply Voltage: +5V



Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Units
Frequency Range	0.1		6	GHz
Gain		Pout - Pin		dB
Gain Flatness		±2.5		dB
Input level	-60	0	+10	dBm
Input VSWR		1.8		: 1
Output VSWR		1.8		: 1
Output Power	-5	0	+5	dBm
Output Stabilization		±0.5		dBm
Response Time		30		us
IMD3		-30		dBc
Supply Current (Idd) (Vcc=+5V)		450	550	mA

Weight	8.9 ounces (Max.)	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Nickel Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Optional)

Absolute Maximum Ratings

Operating Voltage	+5.5V @25℃
RF Input Power (RFIN)	+10dBm @25℃

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

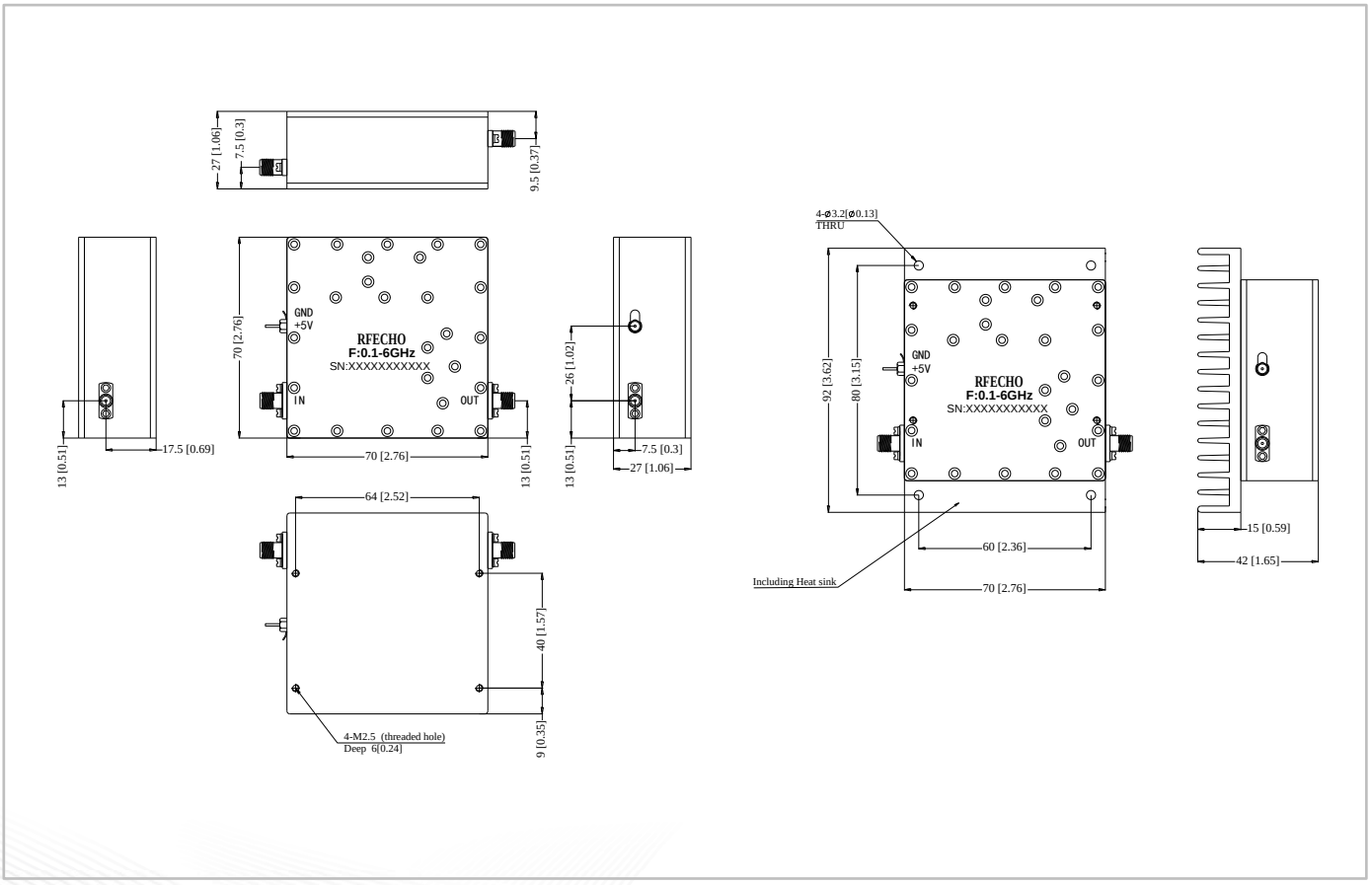
Environmental Specifications

Operational Temperature	-40ºC~+85ºC
Storage Temperature	-50ºC~+105ºC
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

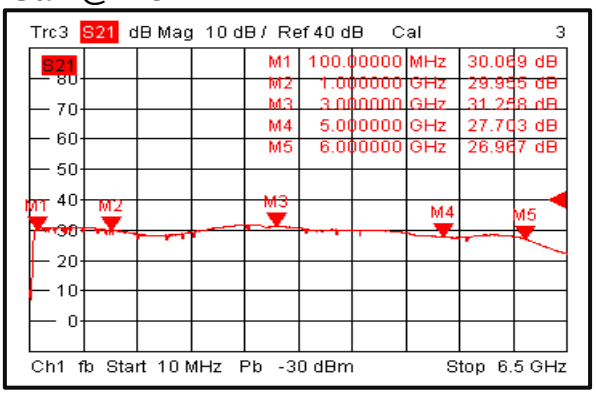
Outline Drawing:

All Dimensions in mm (inches)

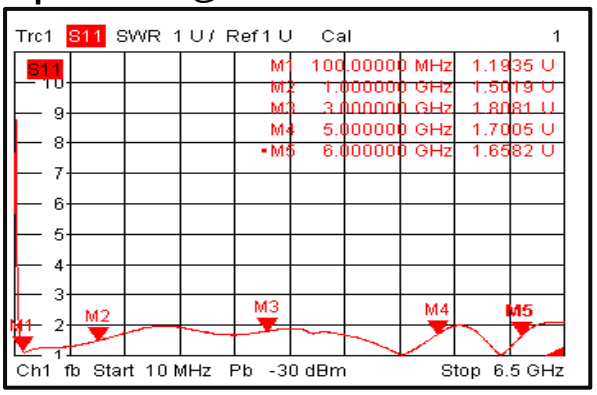
Heat Sink required during operation(Sold Separately)



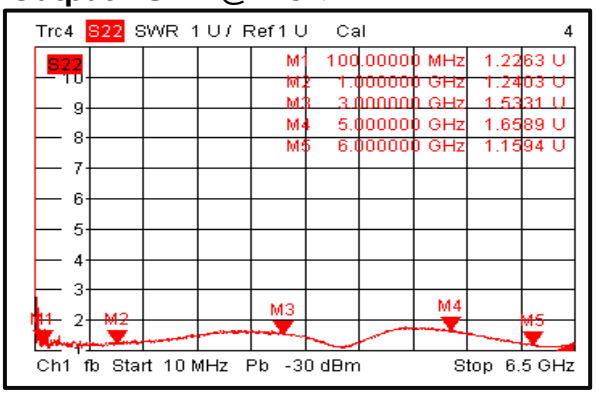
Gain@+25℃



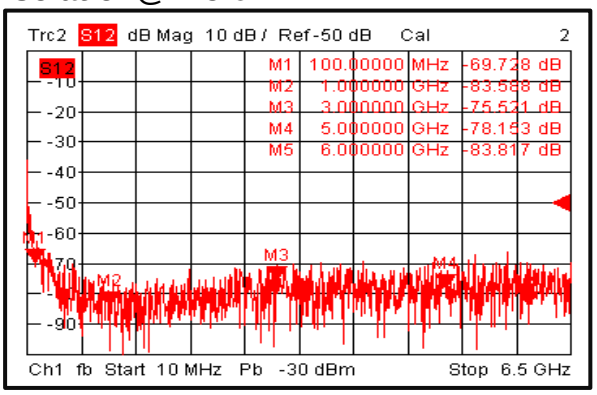
Input VSWR@+25℃



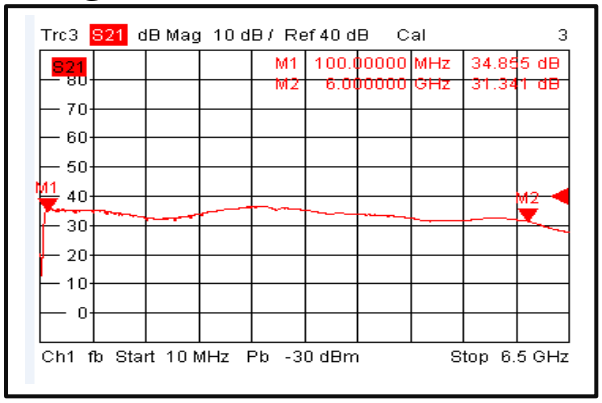
Output VSWR@+25℃



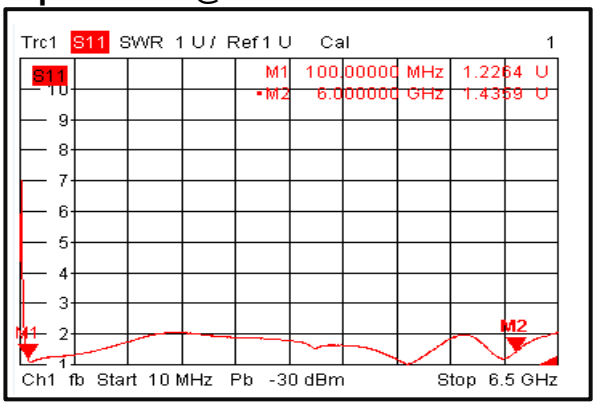
Isolation@+25℃



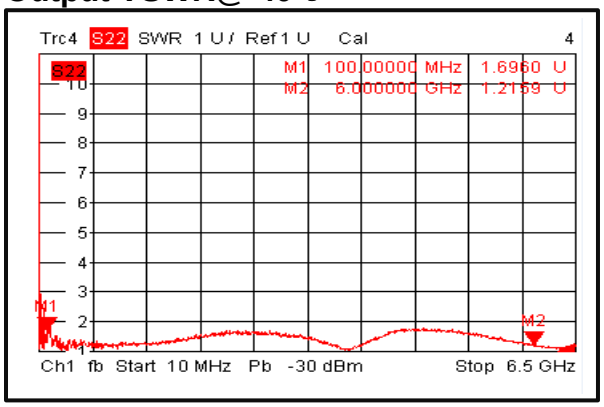
Gain@-40℃



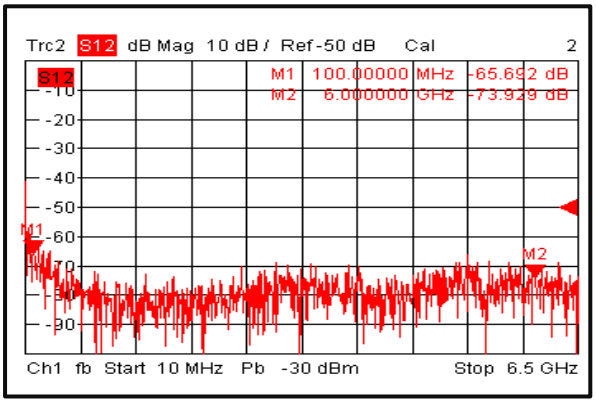
Input VSWR@-40℃



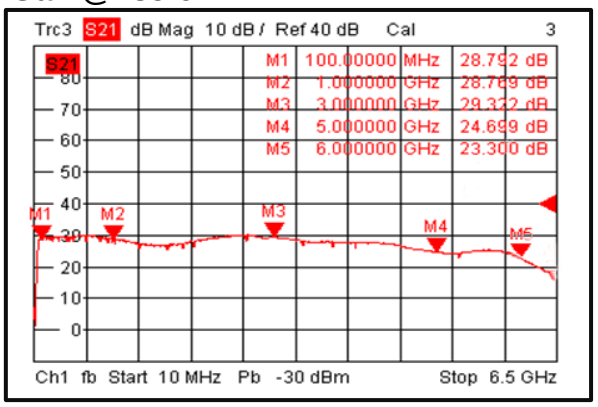
Output VSWR@-40℃



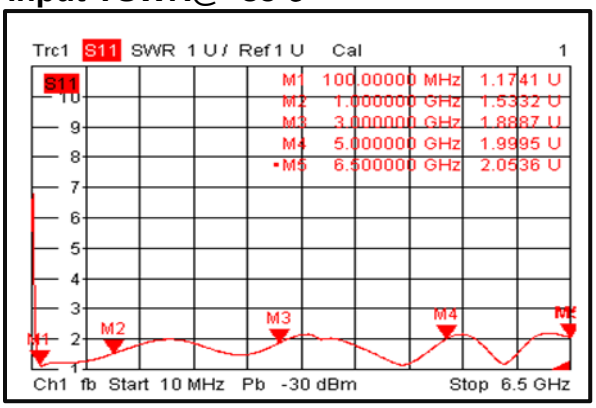
Isolation@-40℃



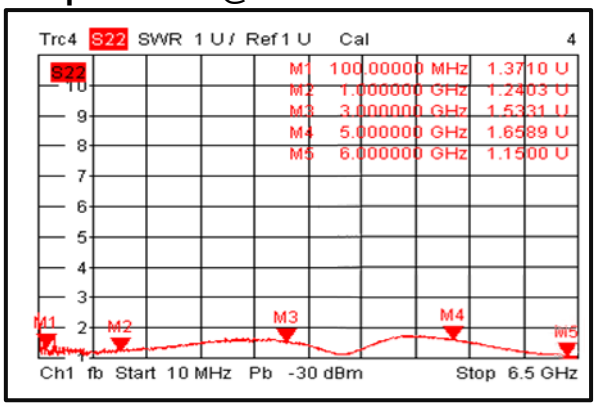
Gain@+85℃



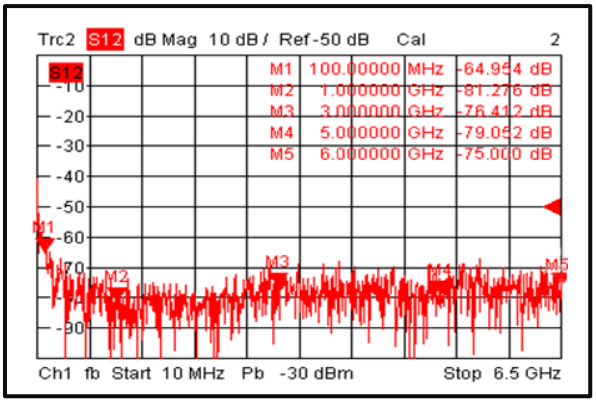
Input VSWR@+85℃



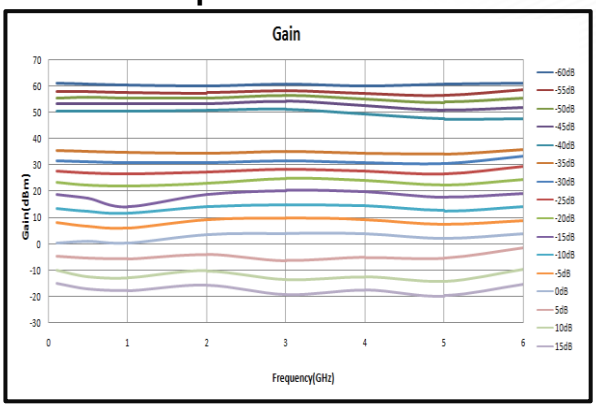
Output VSWR@+85℃



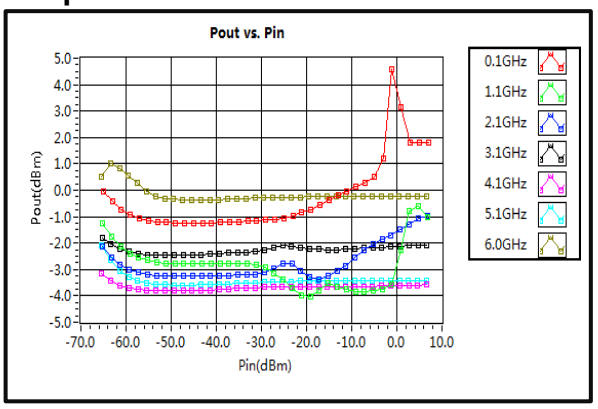
Isolation@+85℃



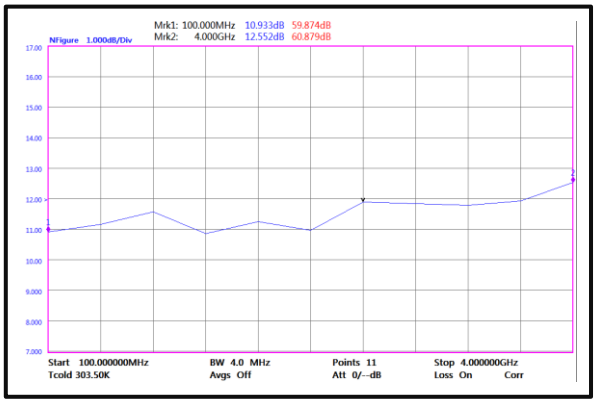
Gain vs. Output Power



Output Power



Noise Figure(100MHz-4GHz)



Noise Figure(4GHz-6GHz)