



Ultra Wide Band Low Noise Amplifier

0.05GHz ~ 20GHz

Features

- Gain: 28dB Typical
- Noise Figure: 2.0dB Typical
- P1dB Output Power: +23dBm Typical
- Supply Voltage: +12V
- 50 Ohm Matched



Typical Applications

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

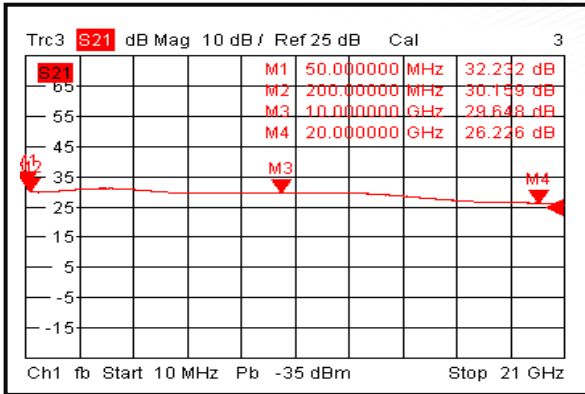
RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	0.05		0.2	0.2		10	10		20	GHz
Gain	27	30	34	27	29	33	25	27	31	dB
Gain Flatness		±1.0			±1.0	±1.5		±1.5	±2.0	dB
Gain Variation Over Temperature (-40°C~+85°C)		±0.5			±1.0			±2.0		dB
Noise Figure		4.0			2.0	4.0		2.5	4.5	dB
Input VSWR		3			1.8	2		1.8	2	: 1
Output VSWR		1.5			1.5	1.8		1.5	1.8	: 1
Output 1dB Compression Point (P1dB)		22		21	23		19	21		dBm
Saturated Output Power (Psat)		24			25			23		dBm
Output Third Order Intercept (OIP3)		30			32			30		dBm
Supply Current (Vcc=+12V)		260	350		260	350		260	350	mA
Isolation S12		-60			-65			-60		dB

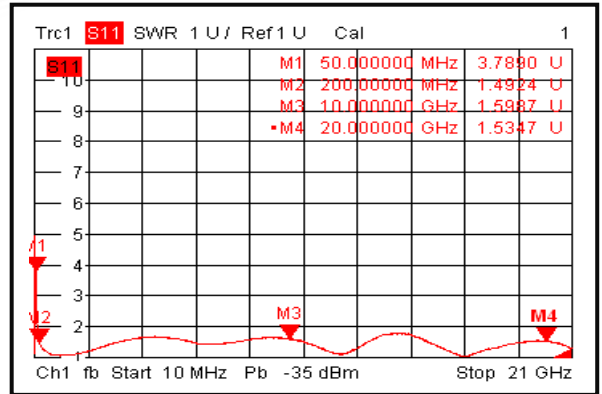
Weight	0.35 ounces (Max.)	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Optional)



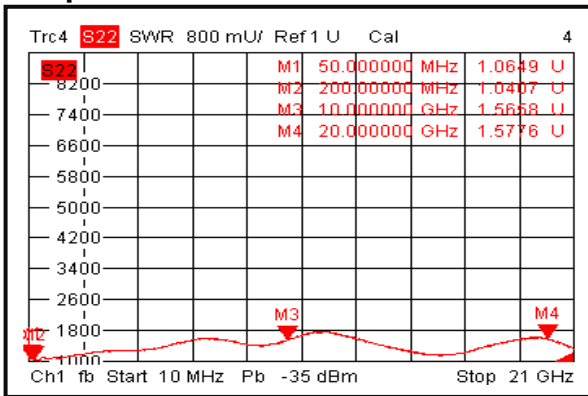
Gain @+25°C



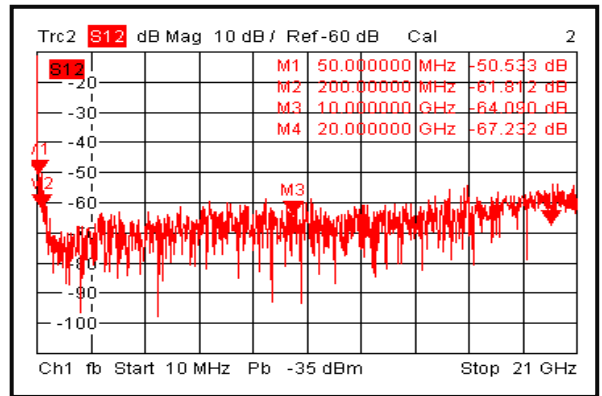
Input VSWR @+25°C



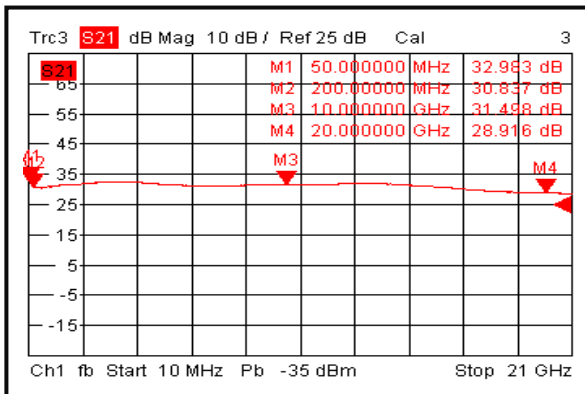
Output VSWR @+25°C



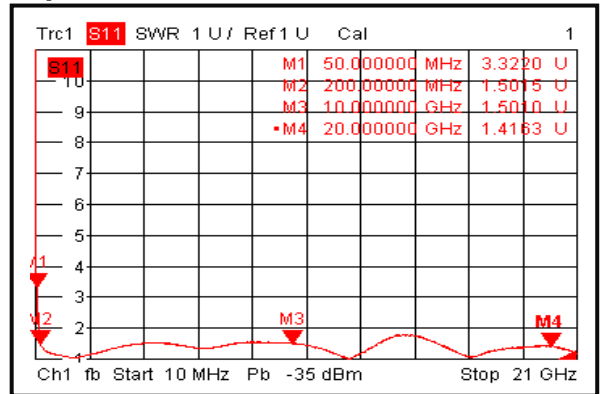
Isolation @+25°C



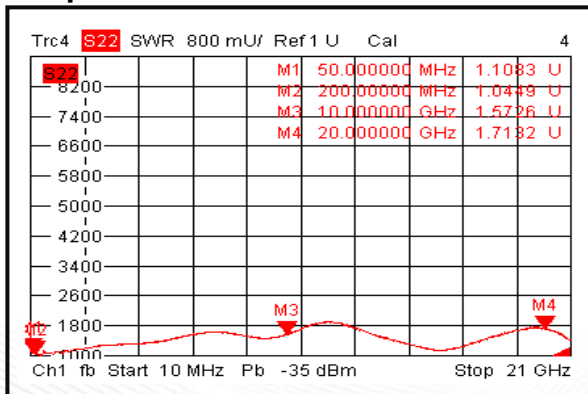
Gain @-40°C



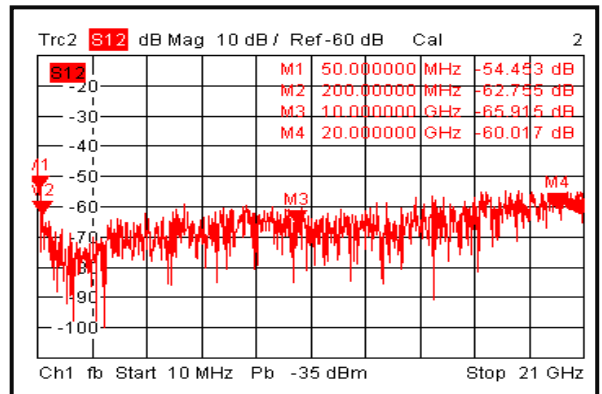
Input VSWR @-40°C



Output VSWR @-40°C

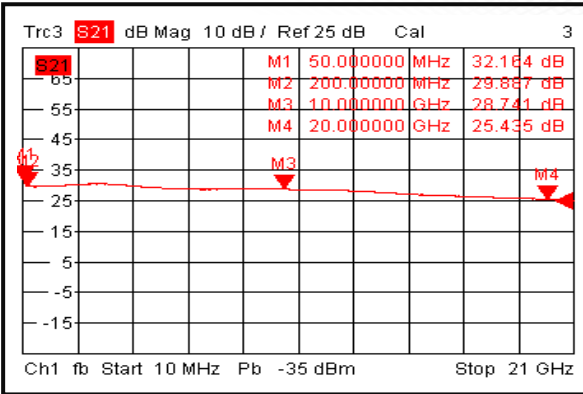


Isolation @-40°C

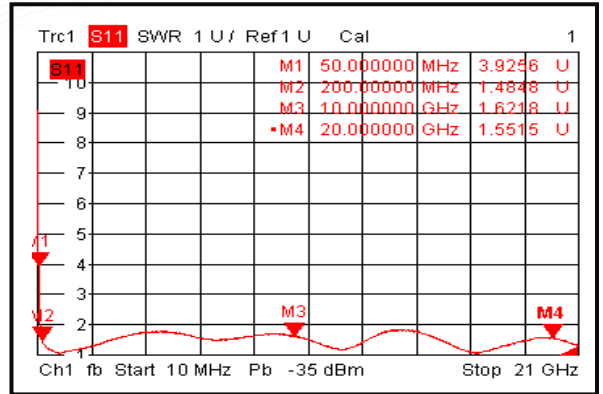




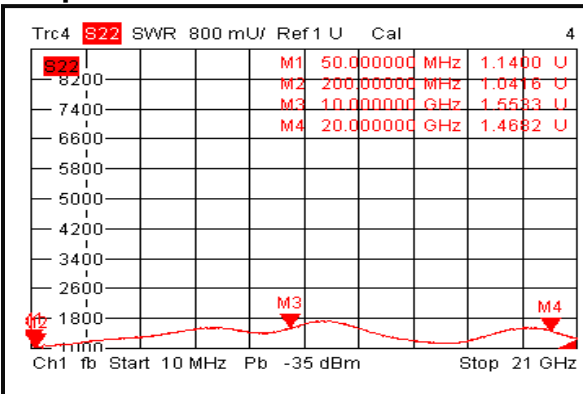
Gain @+85°C



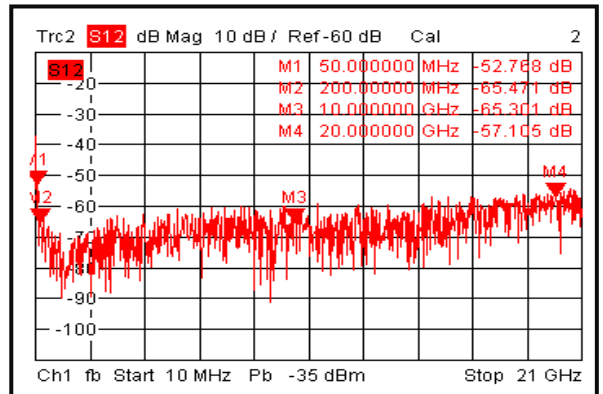
Input VSWR @+85°C



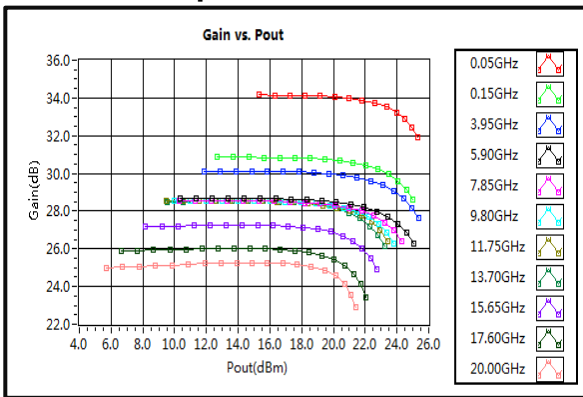
Output VSWR @+85°C



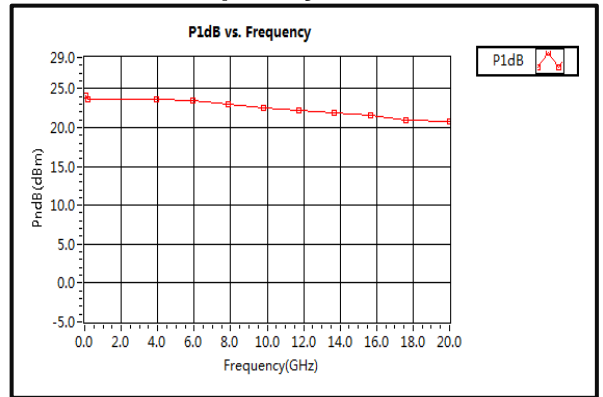
Isolation @+85°C



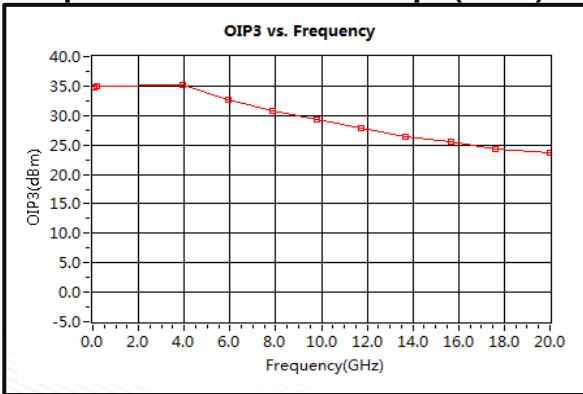
Gain vs. Output Power



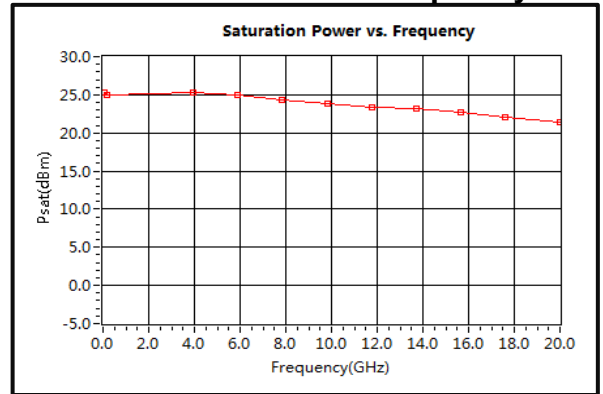
P1dB vs. Frequency



Output Third Order Intercept (OIP3)

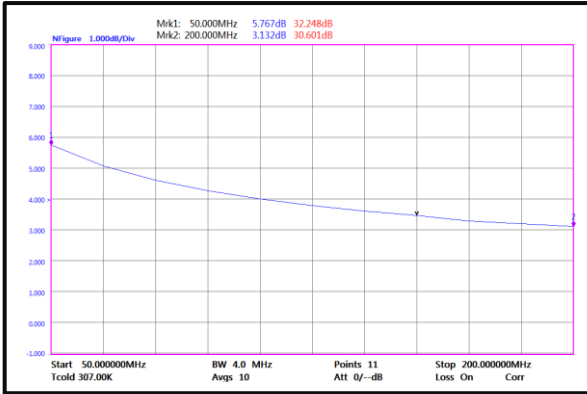


Saturation Power vs. Frequency

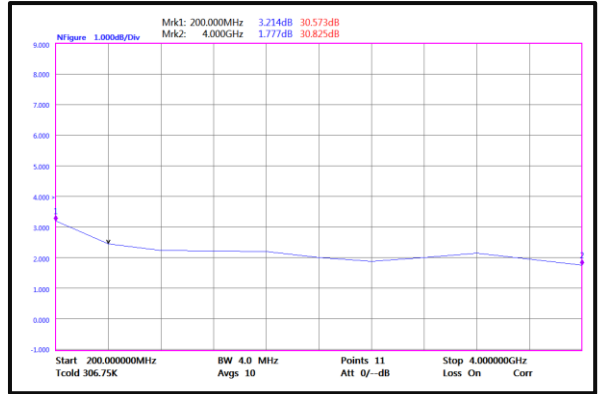




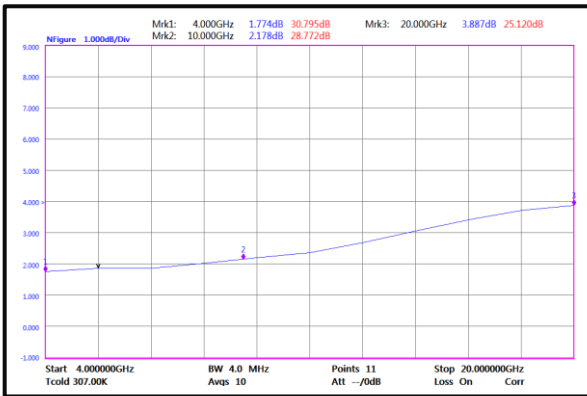
Noise Figure(50MHz-200MHz)



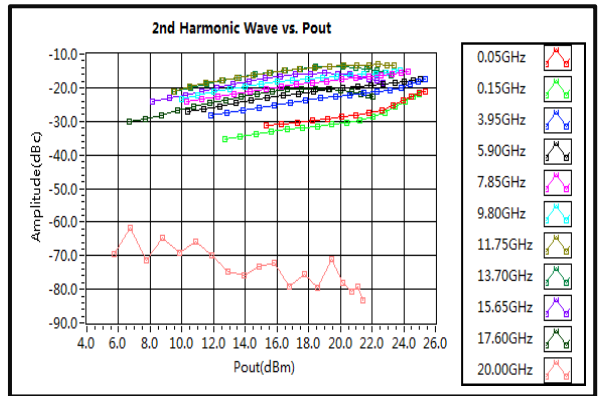
Noise Figure(200MHz-4GHz)



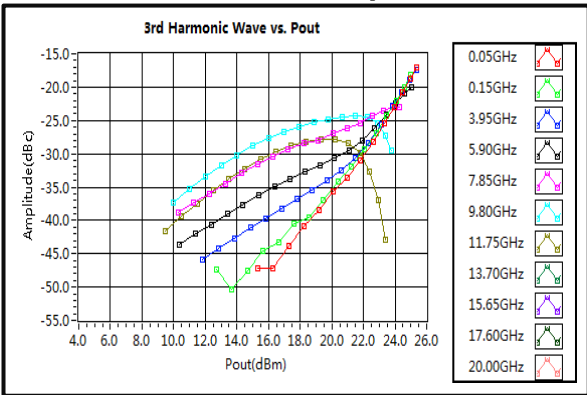
Noise Figure(4GHz-20GHz)



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

