RF BAY
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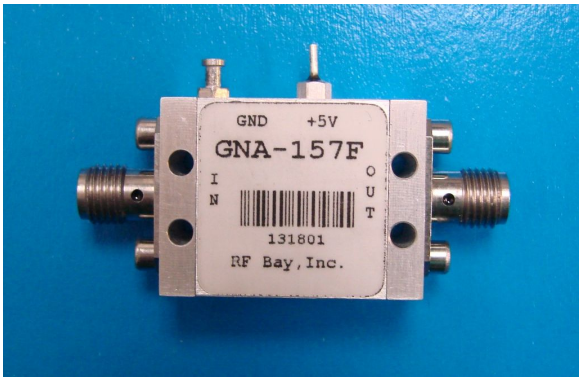
GNA-157F

GNA Series — 6 – 18GHz Low Noise Amplifier

Features

- Frequency Range: 6-18GHz
- Gain: 26dB
- P_{1dB}: +11dBm
- IP3: +25dBm
- Noise Figure: 1.9dB (typ.)
- DC Power: 5V @ 65mA
- RF Connector: SMA-female

Photo



Description

GNA-157F is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency range of 6GHz to 18GHz.

Electrical Specifications @+25 °C, Z_{in}=Z_{out}=50 Ω, DC Voltage = +5VDC

Parameter		Unit	Minimum	Typical	Maximum
Frequency Range		GHz	6		18
Gain S21	f = 6GHz	dB	22.5	24.5	
	f = 12GHz	dB	24.0	26.0	
	f = 18GHz	dB	20.0	22.0	
Gain Flatness		dB		± 2.5	± 3.0
Gain Variation Over Temperature		dB/°C		0.02	0.03
Output Power P_{1dB}	f = 12 GHz	dBm	+10	+11	
Saturated Output Power P_{Sat}	f = 12GHz	dBm	+11	+13	
Output Third Order Intercept IP3	f = 12GHz	dBm	+23	+25	
Noise Figure	f = 12GHz	dB		1.9	2.4
Reverse Isolation S12	f = 12GHz	dB	-30	-37	
Input VSWR S11	f = 12GHz			2.0:1	2.5:1
Output VSWR S22	f = 12GHz			1.6:1	2.0:1
DC Power Supply - voltage		V	4.5	5.0	5.5
DC Power Supply - current		mA		65	75

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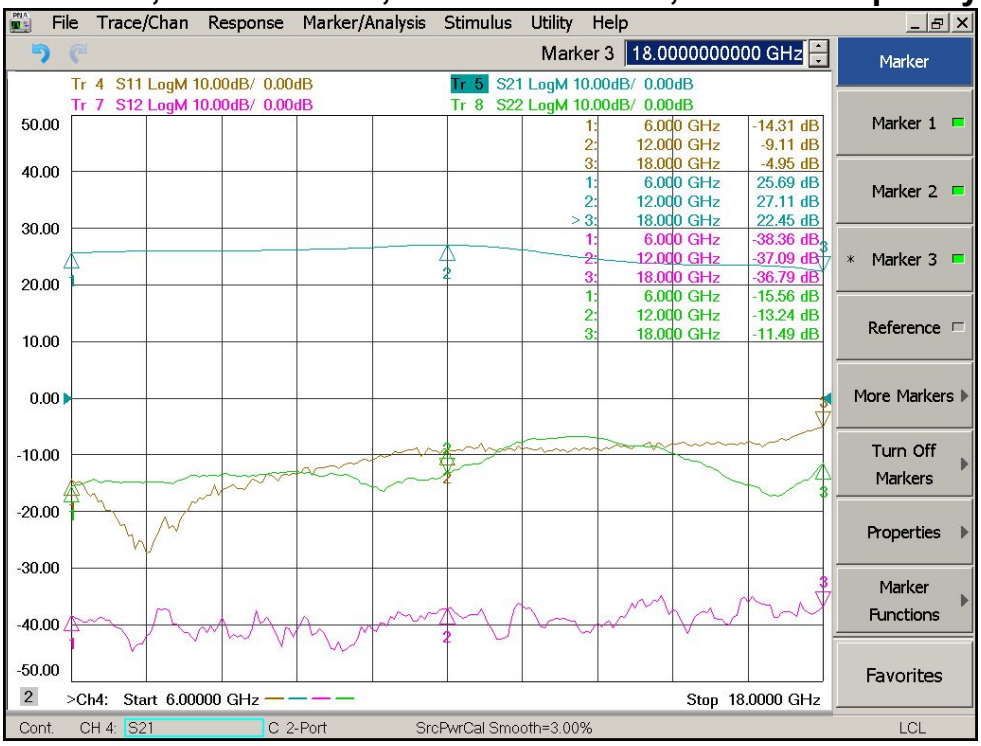
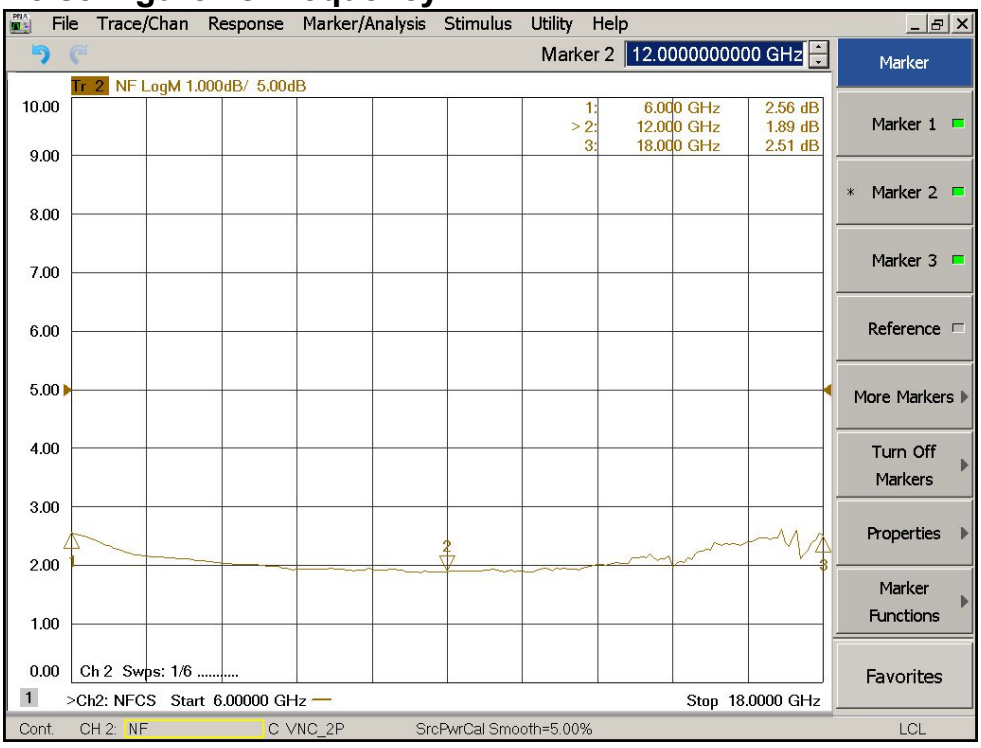
Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



Noise Figure vs Frequency



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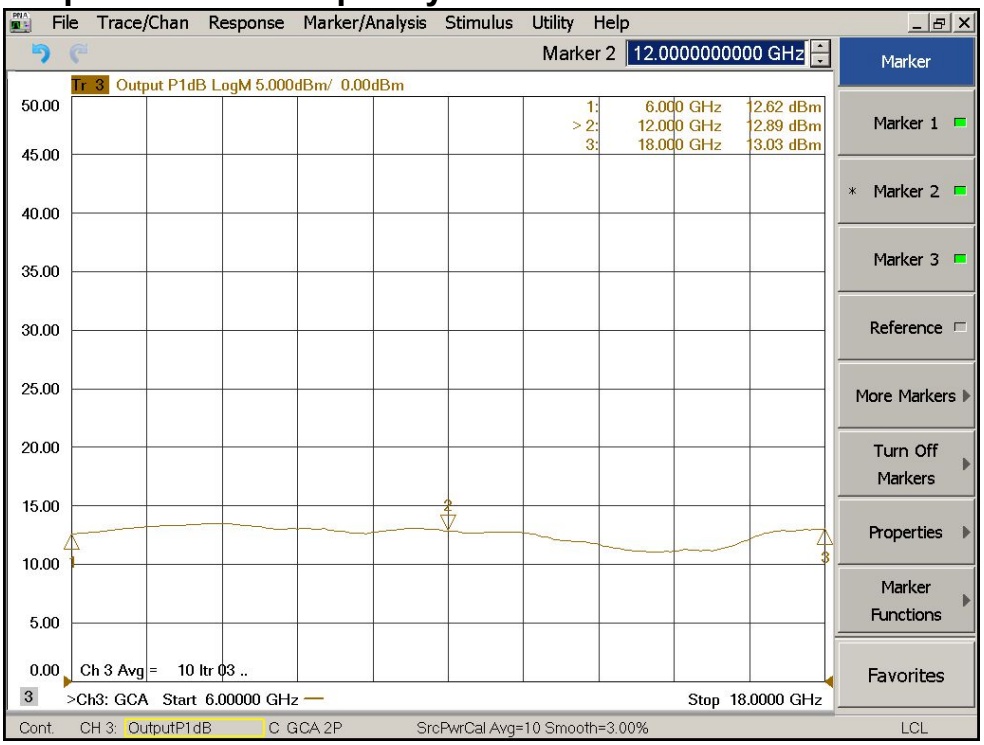
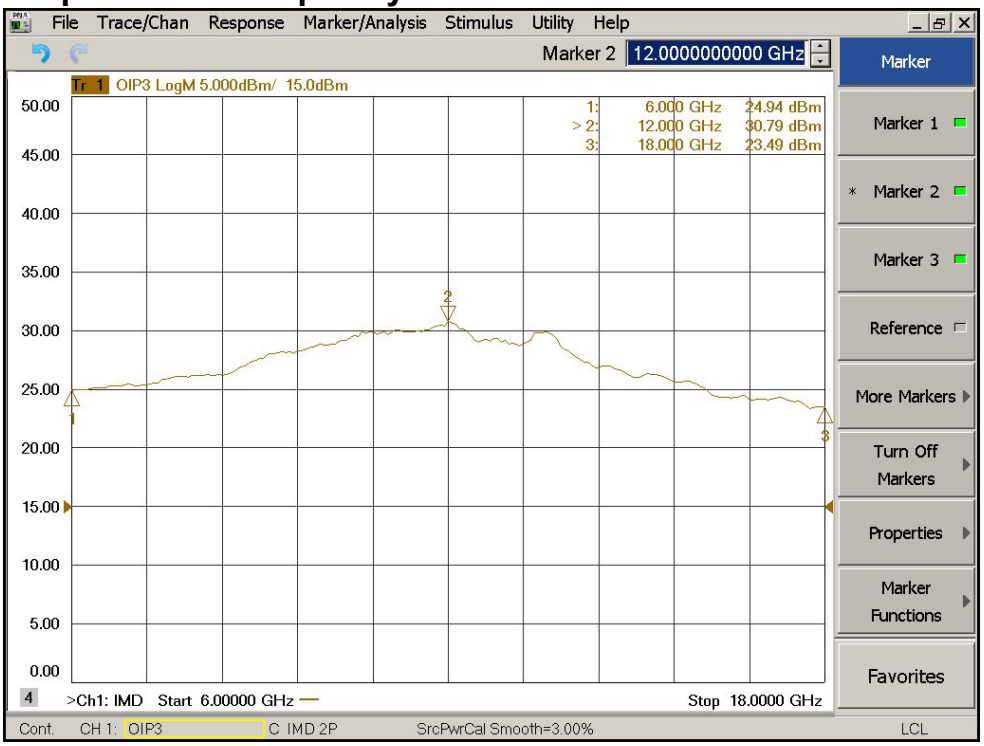
Output P1dB vs Frequency



Output IP3 vs Frequency



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Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+16V
RF Input Power	+20dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material

Outline