

GNA Series

5 – 15GHz Low Noise Amplifier

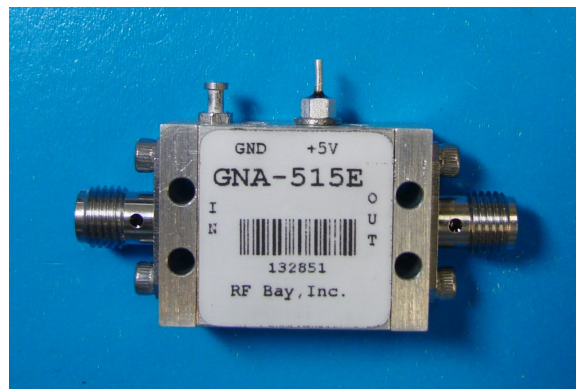
Features

- Frequency Range: 5-15GHz
- Gain: 27dB
- P_{1dB}: +10dBm
- IP3: +25dBm
- Noise Figure: 1.9dB (typ.)
- DC Power: 5V @ 65mA
- SMA-female connectorized

Description

GNA-515E is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency range of 5GHz to 15GHz.

Photo



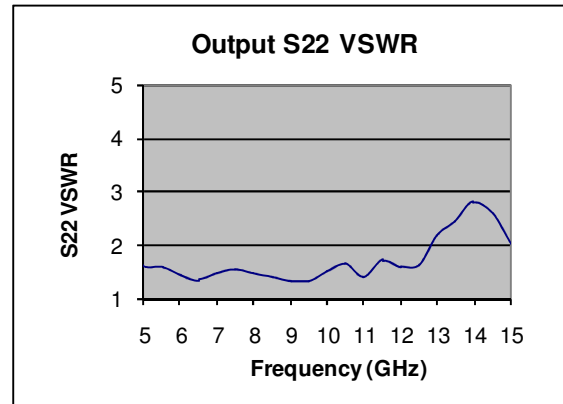
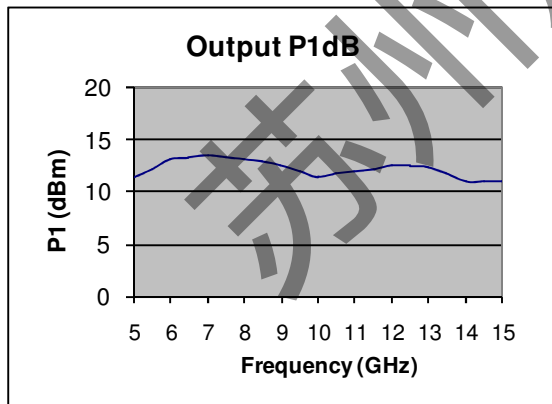
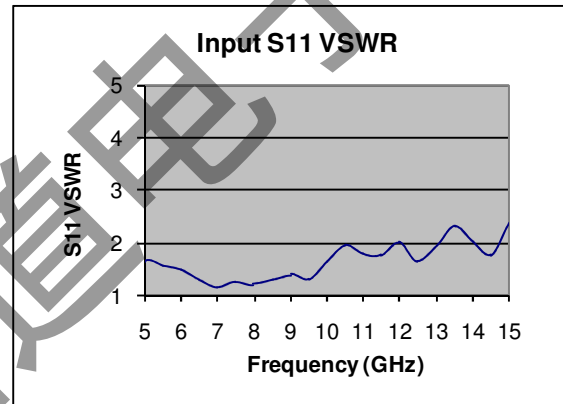
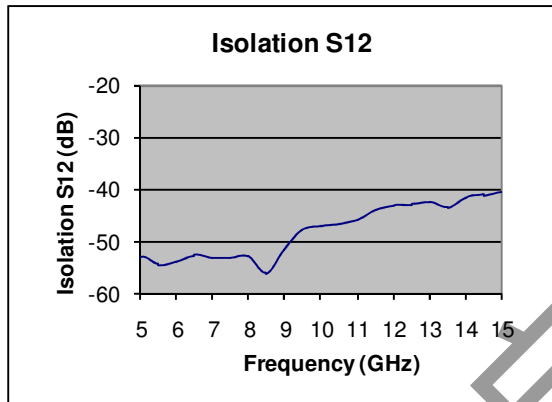
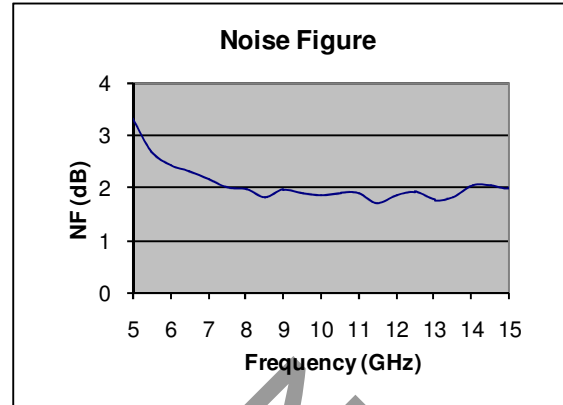
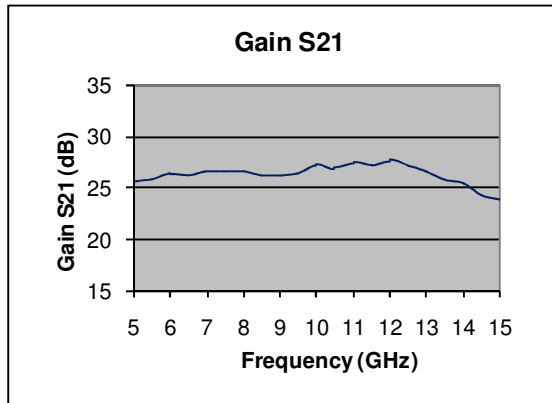
Electrical Specifications @+25 °C, Z_{in}=Z_{out}=50 Ohm, V_{supply} = +5VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	5		15
Gain (S ₂₁) f = 5GHz	dB		25.5	
f = 10GHz	dB		27.0	
f = 15GHz	dB		23.8	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P _{1dB}	dBm	+10	+11	
Saturated Output Power P _{Sat}	dBm		+13	
Output Third Order Intercept IP3	dBm		+25	
Noise Figure @10GHz	dB		1.9	2.1
Reverse Isolation (S ₁₂) @10GHz	dB		-47	
VSWR-Input (S ₁₁)	ratio:1	1.7 typ@5GHz	1.7 typ@10GHz	2.4 typ@15GHz
VSWR-Output (S ₂₂)	(unitless)	1.6 typ@5GHz	1.5 typ@10GHz	2.0 typ@15GHz
DC Power Supply - voltage	V	4.5	5.0	5.5
DC Power Supply - current	mA		65	75
Operating Temperature	°C	-40		+85
Size (RF/DC feedthru's excluded)	Inch	1.00 (L) x 0.75 (W) x 0.45 (H)		
Weight	Oz	0.6 (17 grams)		

GNA Series

5 – 15GHz Low Noise Amplifier

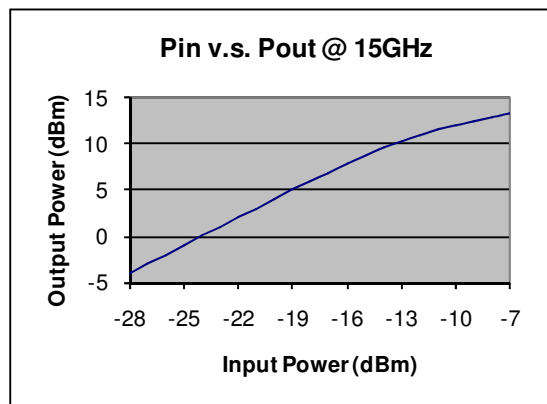
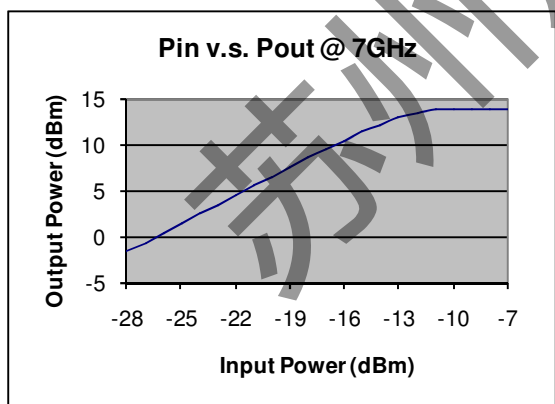
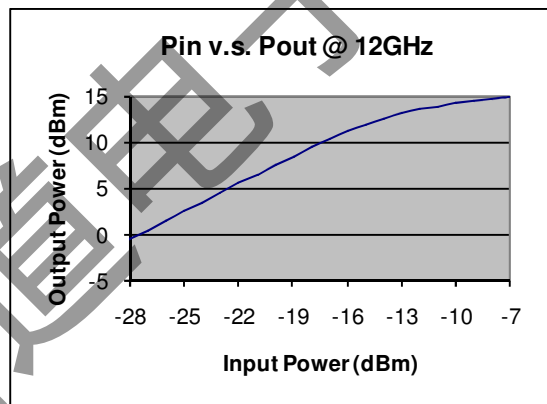
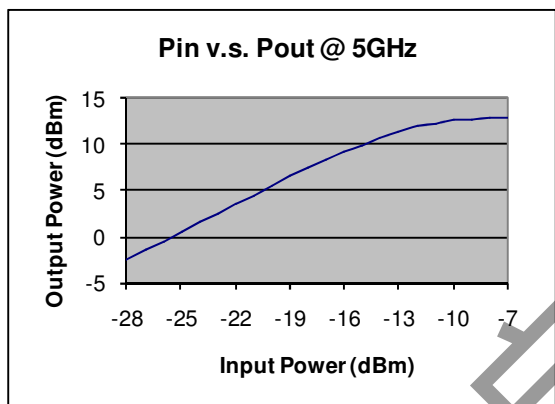
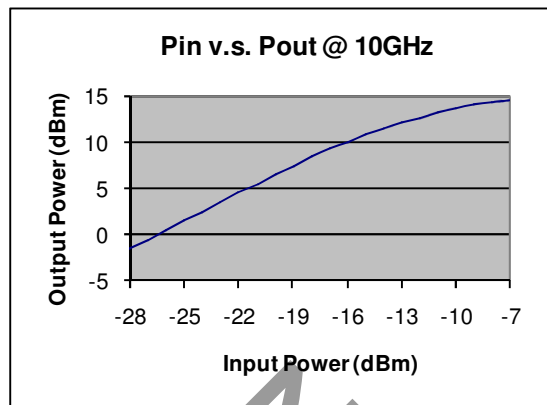
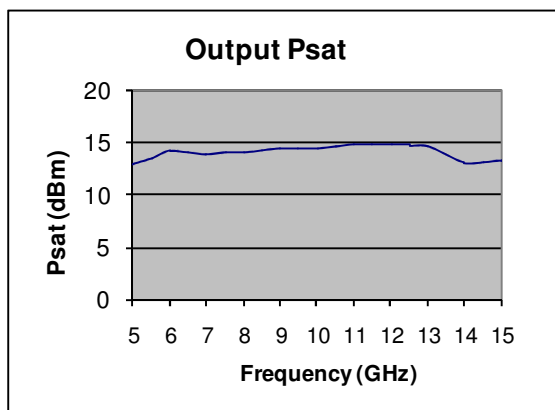
Typical Performance @+25 °C



GNA Series

5 – 15GHz Low Noise Amplifier

Typical Performance @+25 °C



GNA Series

5 – 15GHz Low Noise Amplifier

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

