

HD30515

100 – 3000 MHz Low Noise Amplifier

Features

- Frequency Range: 100-3000MHz
- Gain: 43dB
- P_{1dB} : +18dBm
- OIP3: +35dBm
- Noise Figure: 3.6dB (typ.)
- DC Power: 12V to 15V @ 190mA
- SMA-female



Description

HD30515 is a 43dB gain RF Amplifier, with frequency range of 100 MHz to 3000MHz.

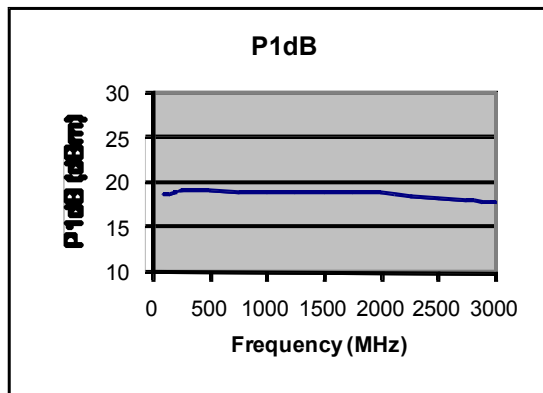
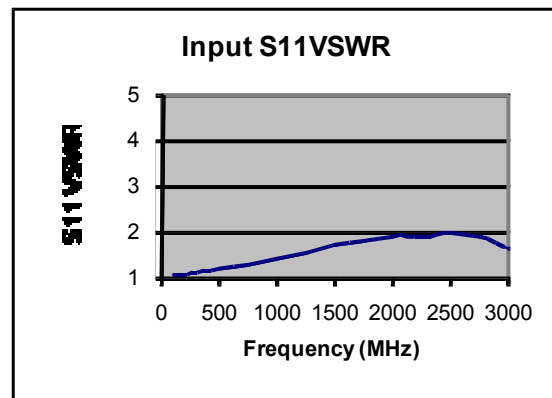
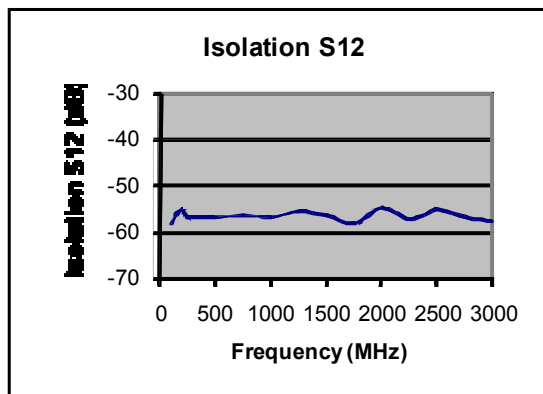
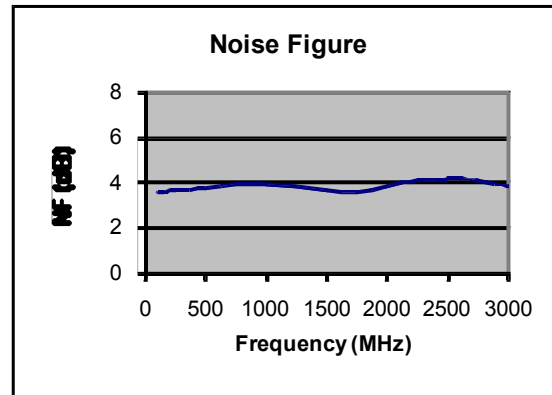
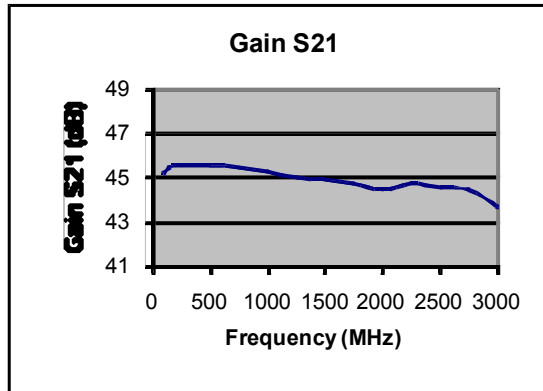
Electrical Specifications @+25 °C, $Z_{in}=Z_{out}=50\ \Omega$, $V_{supply} = +12VDC$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	100		3000
Gain (S21) f = 100MHz	dB	43.0	45.0	
f = 1500MHz	dB		44.5	
f = 3000MHz	dB		43.5	
Gain Flatness	dB		± 1.3	
Output Power P_{1dB}	dBm		+18	
Saturated Output Power P_{Sat}	dBm		+19.5	
Output Third Order Intercept IP3	dBm		+35	
Noise Figure	dB		3.6	4.5
Reverse Isolation (S12) @1500MHz	dB		-56	
VSWR-Input (S11)	ratio:1	1.1@100MHz	1.7@1500MHz	1.6@3000MHz
VSWR-Output (S22)	(unitless)	1.5@100MHz	1.7@1500MHz	1.4@3000MHz
DC Power Supply - voltage	V	11	12	15
DC Power Supply - current	mA		190	
Operating Temperature	°C	-40		+85
Size (RF/DC feedthrough excluded)	Inch	1.79 (L) x 1.10 (W) x 0.45 (H)		
Weight	Oz	1.4		

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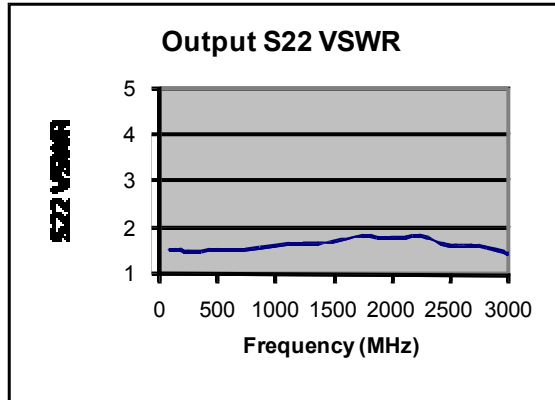
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Typical Performance @+25 °C

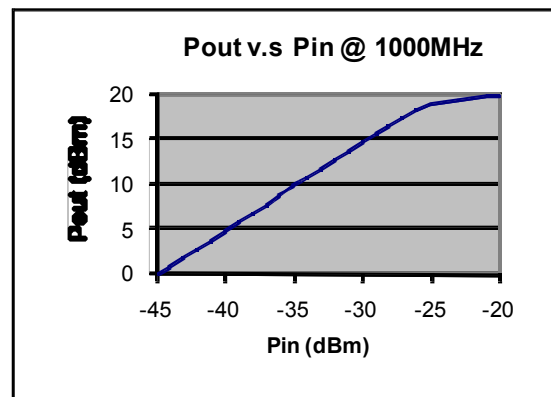
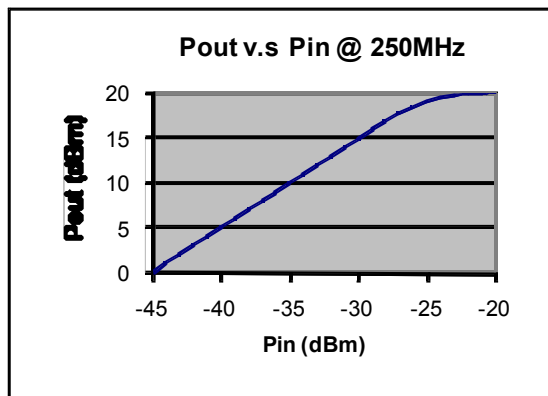
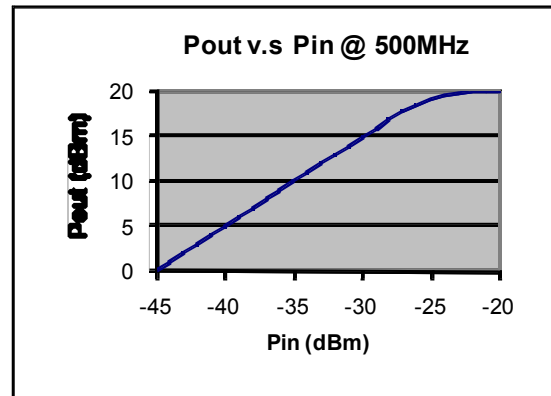
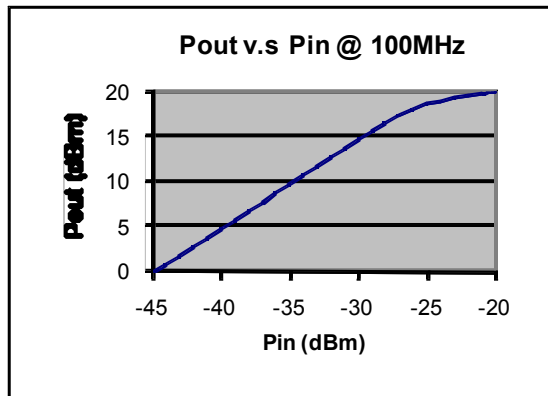


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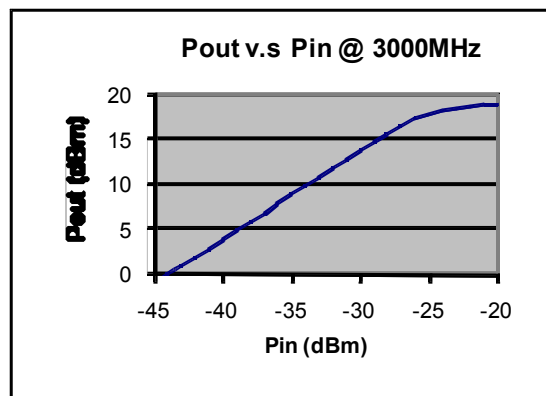
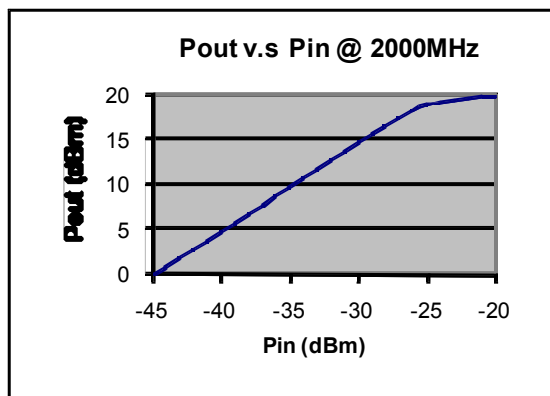


Typical Performance @+25 °C



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Absolute Maximum Ratings

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

Outline

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