

HD30154

700 – 1500 MHz Low Noise Amplifier

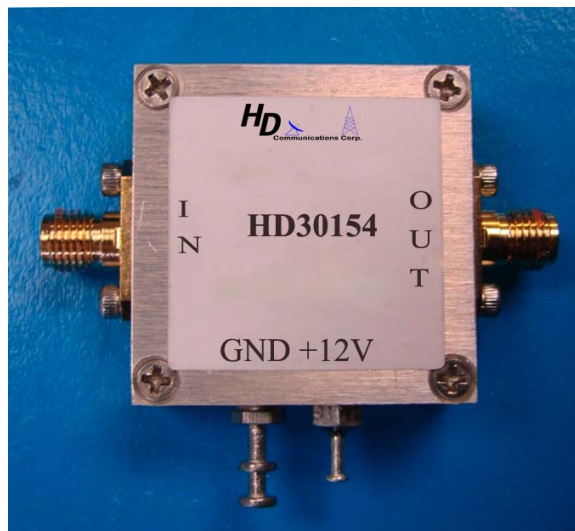
Features

- Frequency Range: 700 – 1500MHz
- Gain: 37dB
- P_{1dB} : +19dBm
- IP3: +33dBm
- Noise Figure: 0.6dB (typ.)
- DC Power: 12V @ 140mA
- SMA-female connectorized

Performance measured @ 1100MHz

Description

HD30154 is a 0.6dB Noise Figure Low Noise Amplifier operates with frequency range from 700 to 1500MHz.



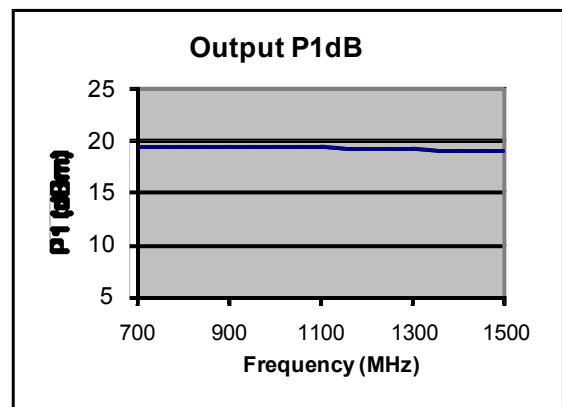
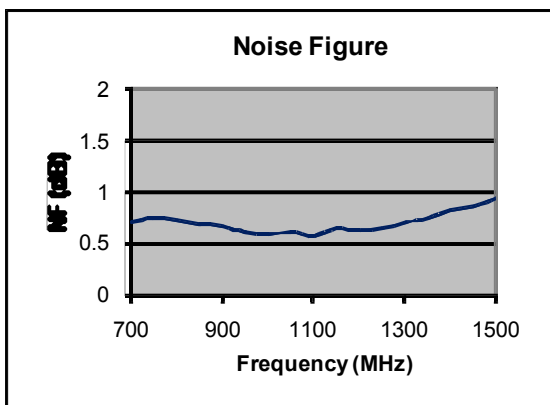
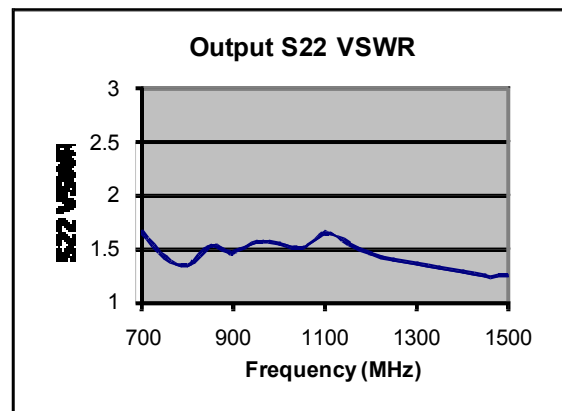
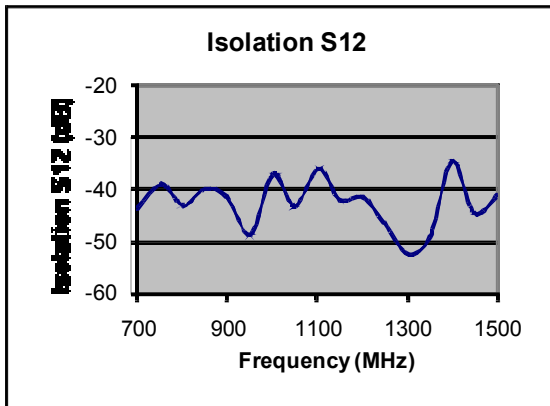
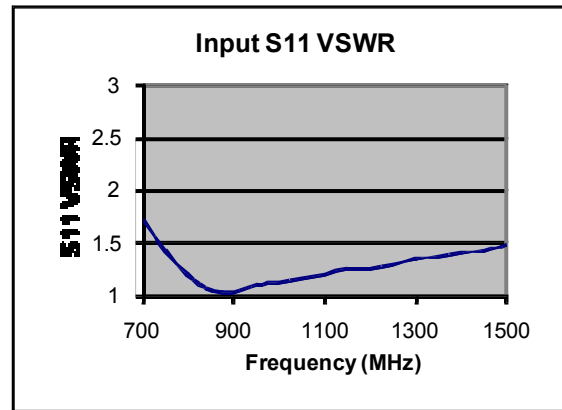
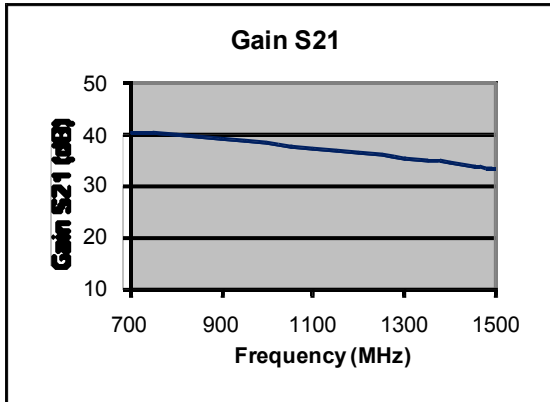
Electrical Specifications @+25 °C, $Z_{in}=Z_{out}=50\ \Omega$, $V_{supply} = +12VDC$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	700		1500
Gain (S21) f = 700MHz	dB		40	
f = 1100MHz	dB		37	
f = 1500MHz	dB		33	
Output Power P_{1dB}	dBm		+19	
Saturated Output Power P_{Sat}	dBm		+20.5	
Output Third Order Intercept IP3	dBm		+33	
Noise Figure @ 1100MHz	dB		0.6	0.8
Reverse Isolation (S12) @ 1100MHz	dB		-35	
VSWR-Input (S11)	ratio:1	1.8@700MHz	1.2@1100MHz	1.5@1500MHz
VSWR-Output (S22)	(unitless)	1.7@700MHz	1.7@1100MHz	1.3@1500MHz
DC Power Supply - voltage	V	11	12	13
DC Power Supply - current	mA		140	150
Operating Temperature	°C	-40		+85
Size (RF/DC feedthru's excluded)	Inch	1.25 (L) x 1.25 (W) x 0.56 (H)		
Weight	Oz	1.6 (45 grams)		

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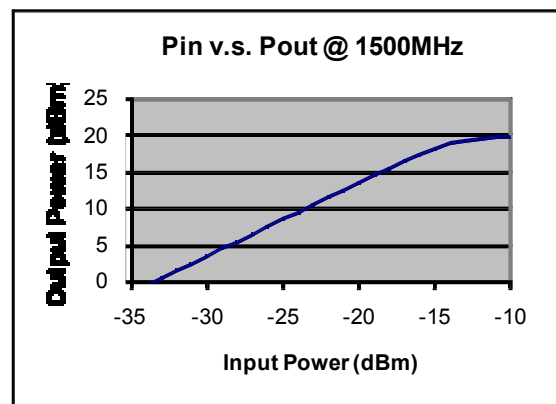
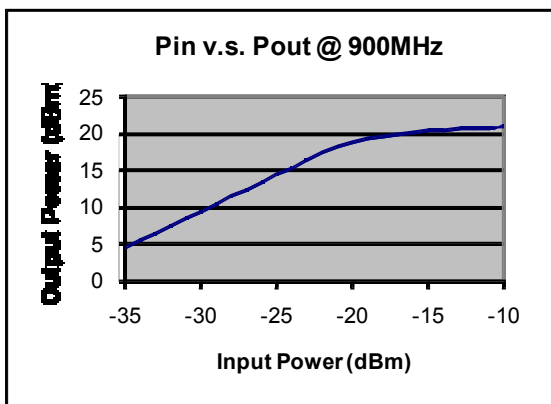
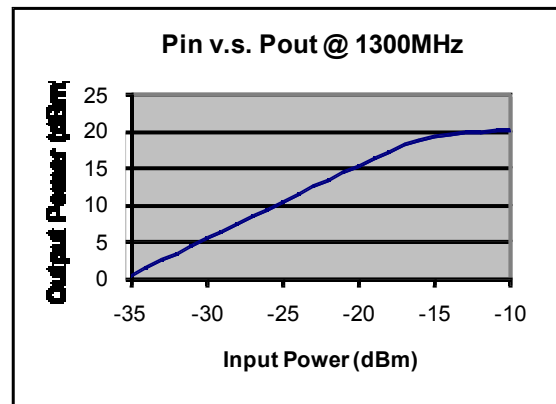
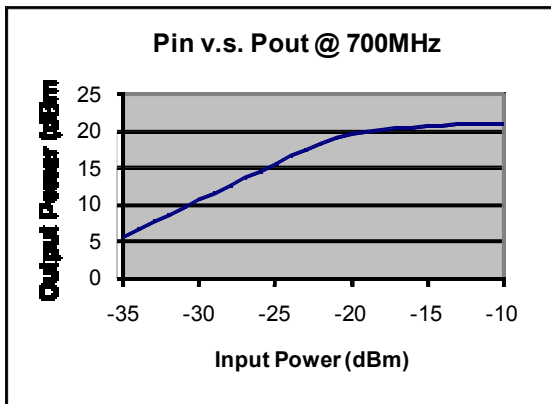
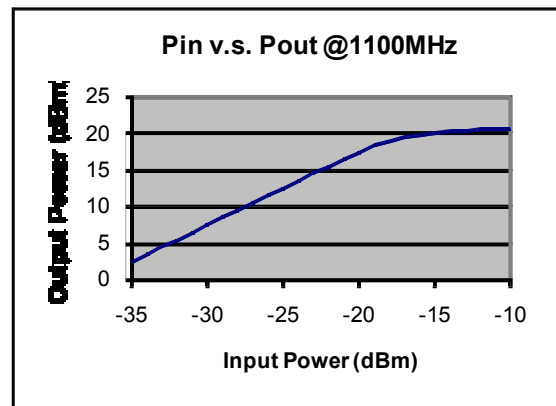
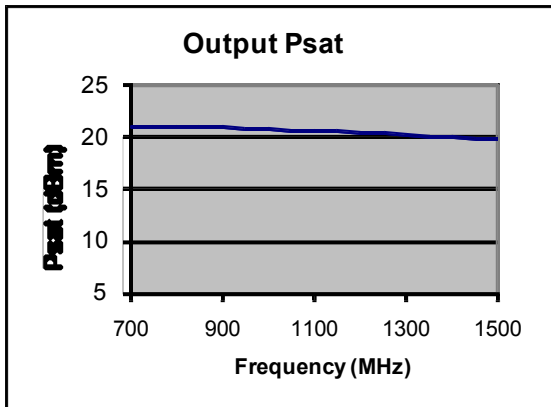
Typical Performance @+25 °C



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Typical Performance @+25 °C



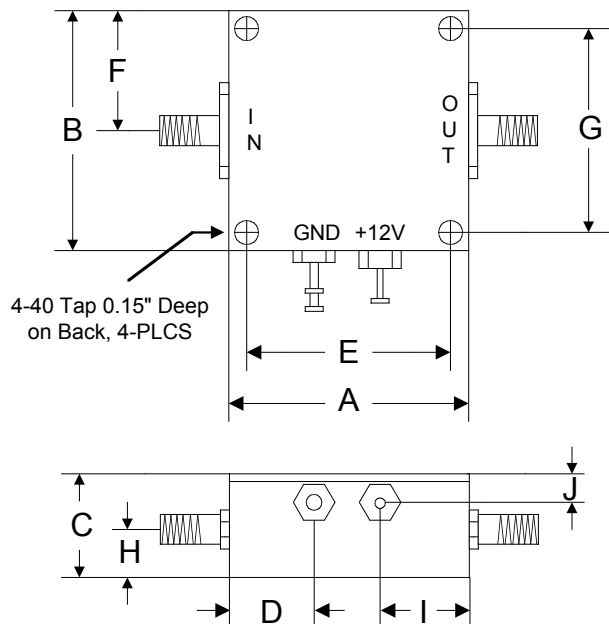
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+13dBm
Supply Voltage	+15V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline



	A	B	C	D	E	F	G	H	I	J
Inch	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76