

HD30153

350 – 1550 MHz Low Noise Amplifier

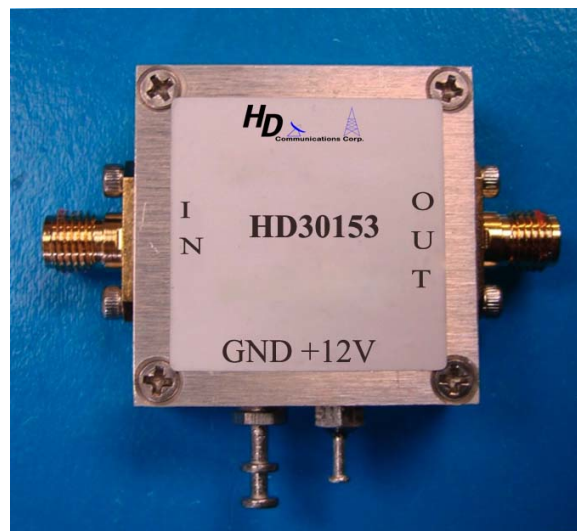
Features

- Frequency Range: 350 – 1550MHz
- Gain: 34dB
- P_{1dB} : +18.5dBm
- IP3: +32dBm
- Noise Figure: 0.5dB (typ.)
- DC Power: 12V @ 170mA
- SMA-female connectorized

Performance measured @ 950MHz

Description

HD30153 is a 0.5dB Noise Figure Low Noise Amplifier operates with frequency range from 350 to 1550MHz.



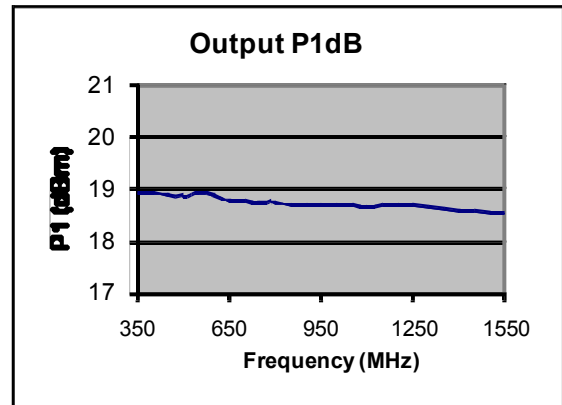
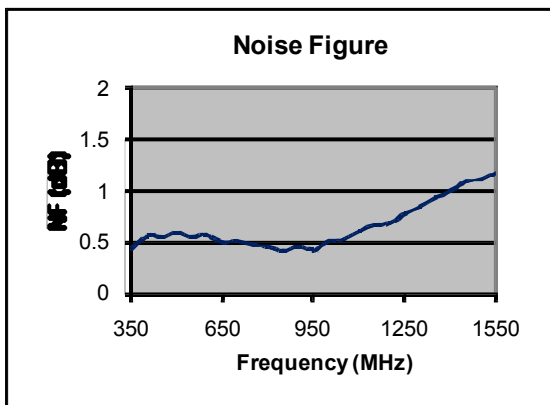
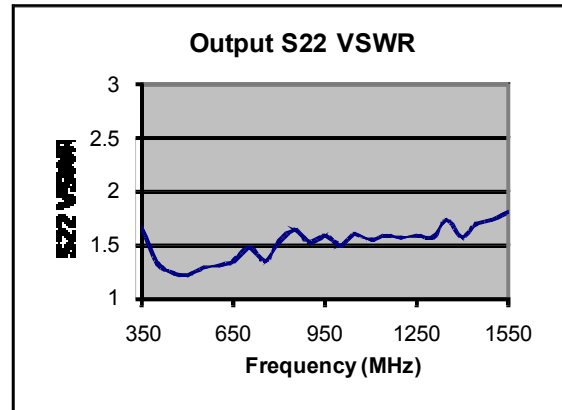
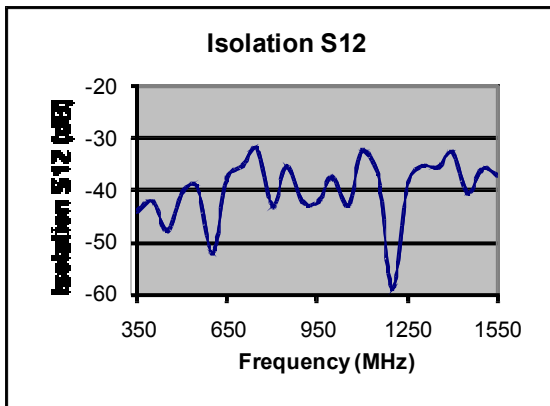
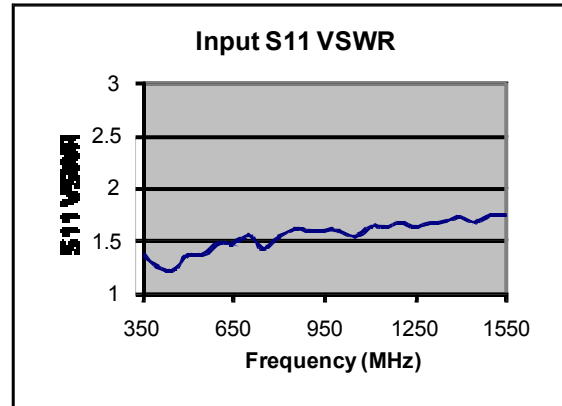
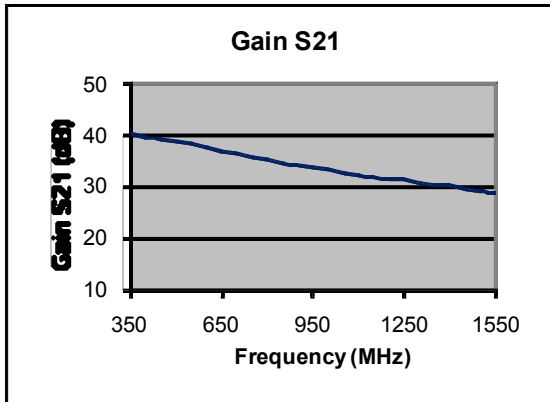
Electrical Specifications @ +25 °C, $Z_{in}=Z_{out}=50\ \Omega$, $V_{supply} = +12VDC$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	350		1550
Gain (S21) f = 350MHz	dB		40	
f = 650MHz	dB		37	
f = 950MHz	dB		34	
f = 1250MHz	dB		31	
f = 1550MHz	dB		29	
Output Power P_{1dB}	dBm		+18.5	
Output Third Order Intercept IP3	dBm		+32	
Noise Figure @950MHz	dB		0.5	0.7
Reverse Isolation (S12) @950MHz	dB		-40	
VSWR-Input (S11)	ratio:1	1.4@350MHz	1.6@950MHz	1.8@1550MHz
VSWR-Output (S22)	(unitless)	1.7@350MHz	1.6@950MHz	1.8@1550MHz
DC Power Supply - voltage	V	11	12	13
DC Power Supply - current	mA		170	180
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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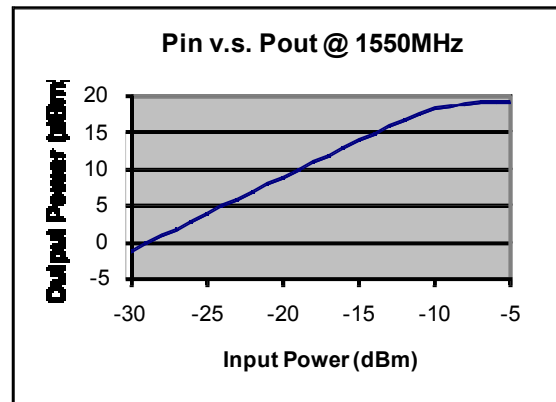
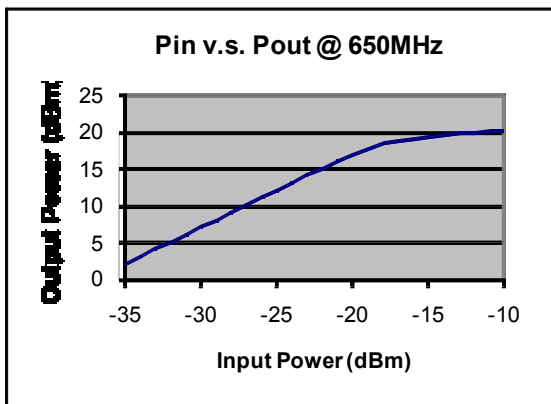
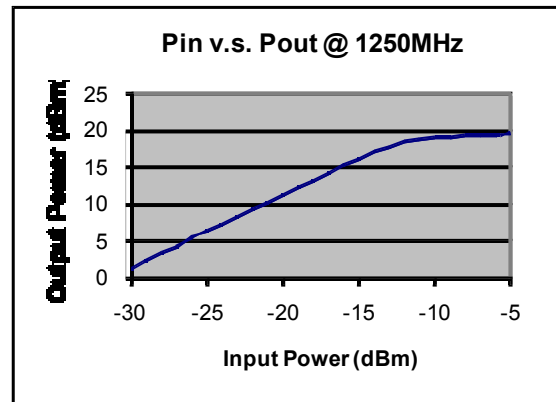
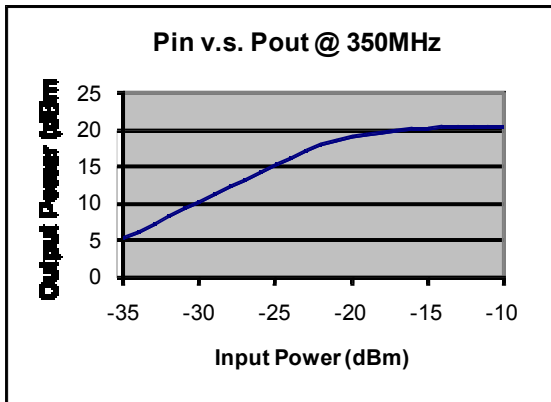
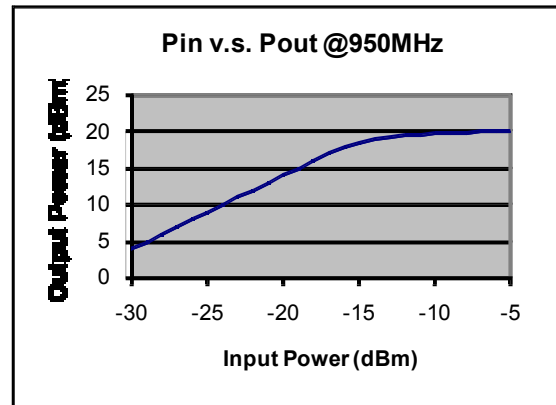
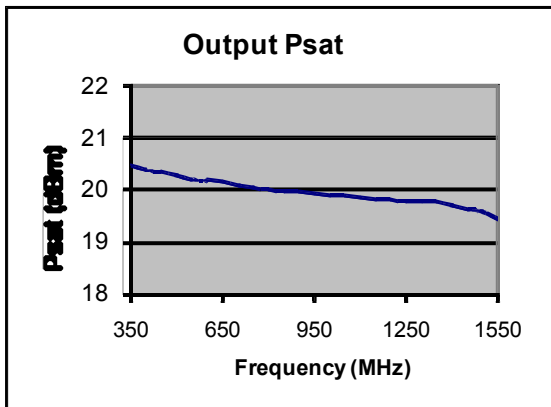
Typical Performance @+25 °C



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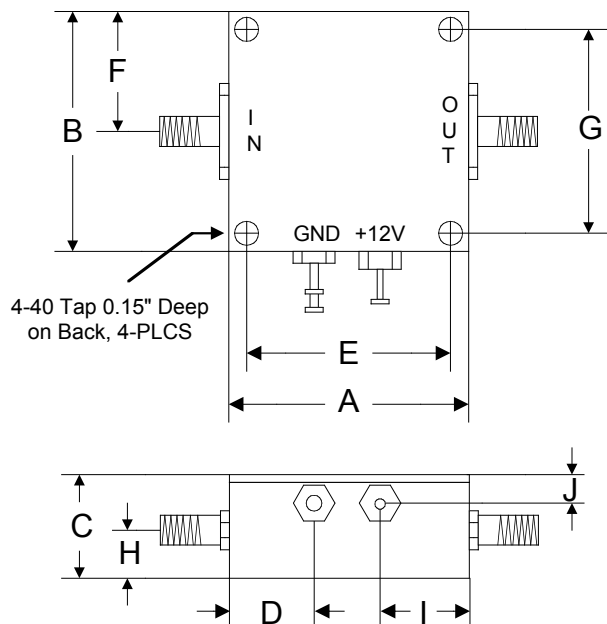
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Absolute Maximum Ratings

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