

HD30157

1000 – 2000 MHz Low Noise Amplifier

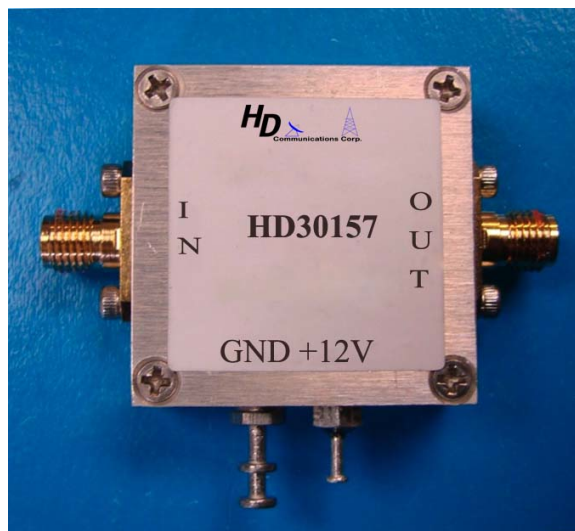
Features

- Frequency Range: 1000–2000MHz
- Gain: 35dB
- P_{1dB} : +23dBm
- IP3: +37dBm
- Noise Figure: 1dB (typ.)
- DC Power: 12V @ 180mA
- SMA-female connectorized

Performance measured @ 1500MHz

Description

HD30157 is a 1dB Noise Figure Low Noise Amplifier operates with frequency range from 1000 to 2000MHz.



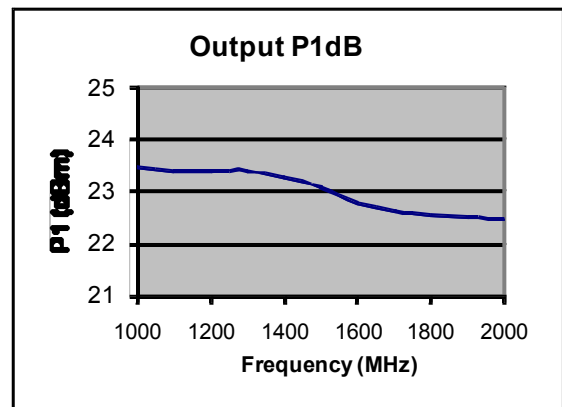
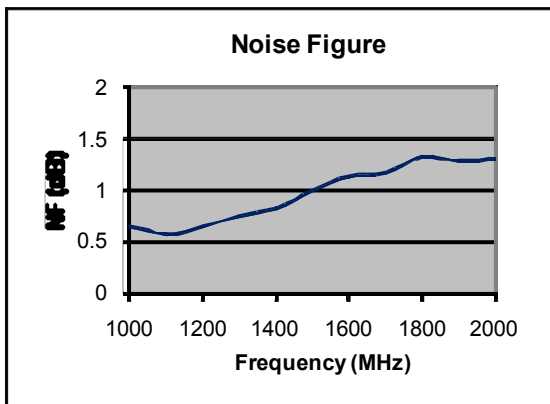
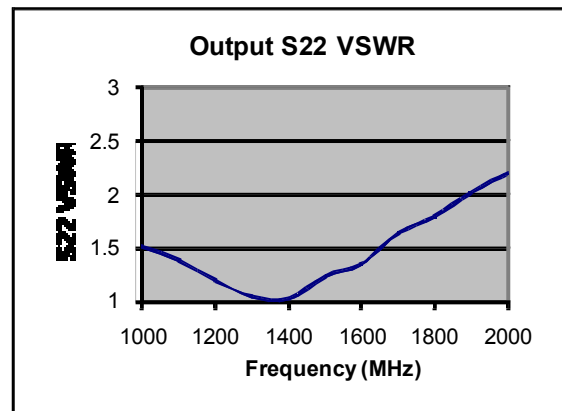
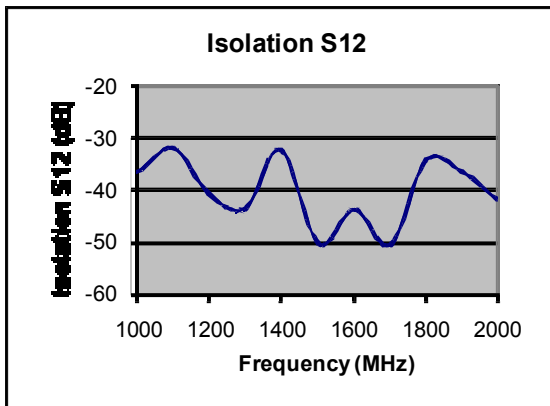
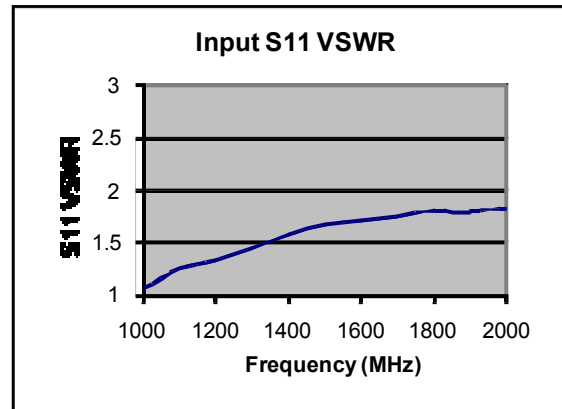
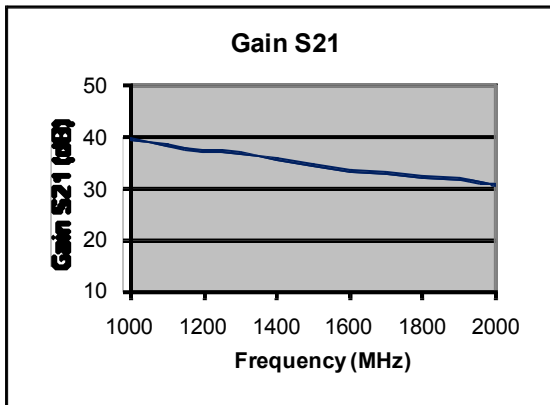
Electrical Specifications @+25 °C, $Z_{in}=Z_{out}=50\ \Omega$, $V_{supply} = +12VDC$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	1000		2000
Gain (S21) f = 1000MHz	dB		39	
f = 1500MHz	dB		35	
f = 2000MHz	dB		31	
Output Power P_{1dB}	dBm		+23	
Output Power P_{sat}	dBm		+24.6	
Output Third Order Intercept IP3	dBm		+37	
Noise Figure @1500MHz	dB		1.0	1.2
Reverse Isolation (S12) @1500MHz	dB		-45	
VSWR-Input (S11)	ratio:1	1.1@1000MHz	1.7@1500MHz	1.9@2000MHz
VSWR-Output (S22)	(unitless)	1.5@1000MHz	1.3@1500MHz	2.2@2000MHz
DC Power Supply - voltage	V	11	12	13
DC Power Supply - current	mA		180	210
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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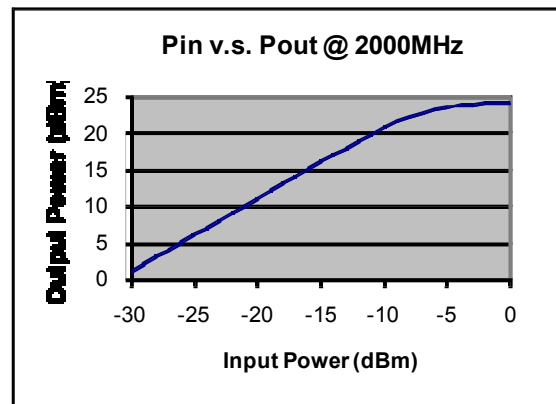
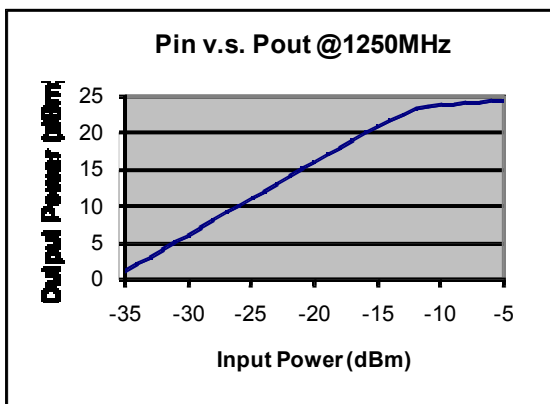
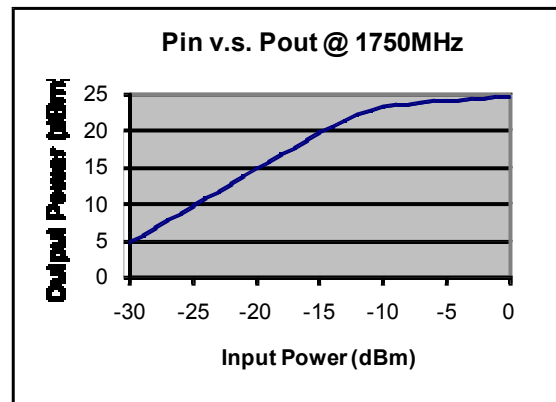
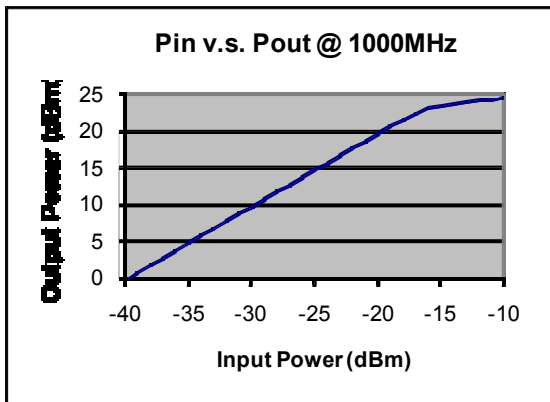
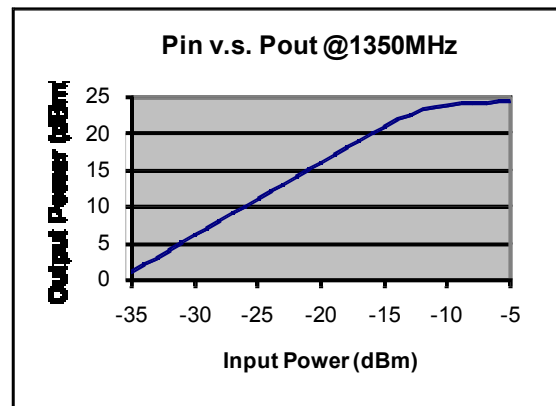
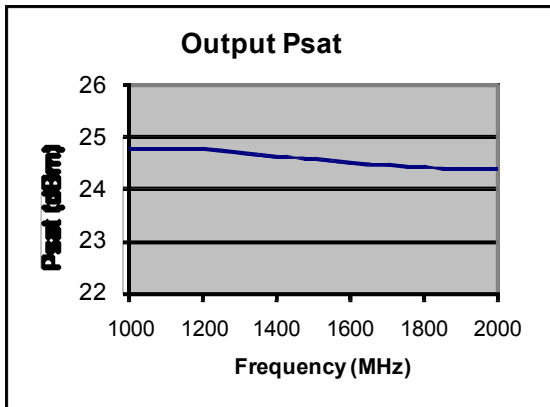
Typical Performance @+25 °C



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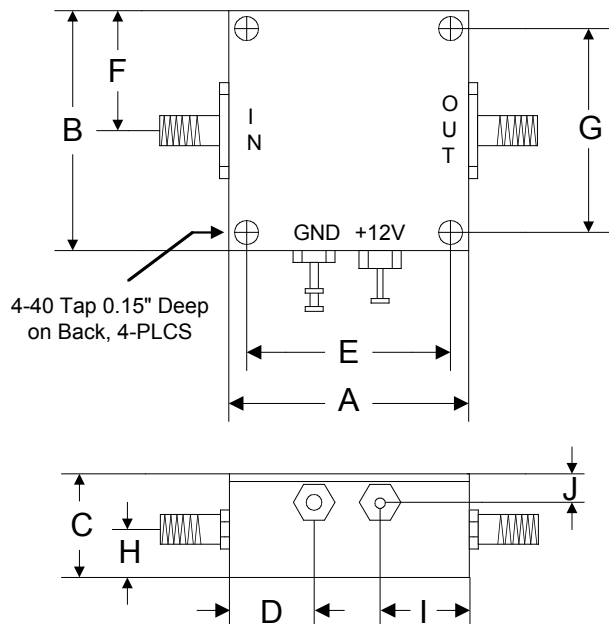
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Absolute Maximum Ratings

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