

## HD30156

## 700 – 2000 MHz Low Noise Amplifier

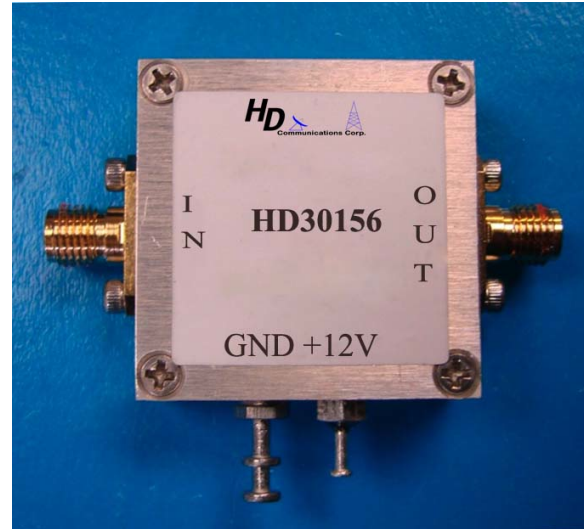
### Features

- Frequency Range: 700 – 2000MHz
- Gain: 35dB
- P<sub>1dB</sub>: +23dBm
- IP3: +37dBm
- Noise Figure: 0.8dB (typ.)
- DC Power: 12V @ 170mA
- SMA-female connectorized

Performance measured @ 1350MHz

### Description

HD30156 is a 0.8dB Noise Figure Low Noise Amplifier operates with frequency range from 700 to 2000MHz.



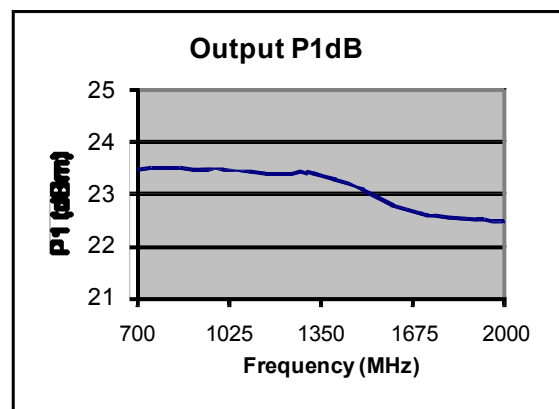
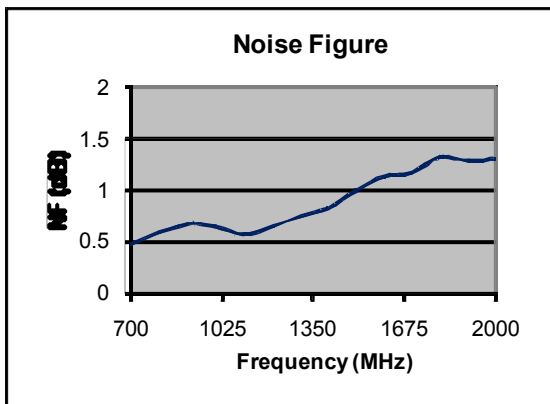
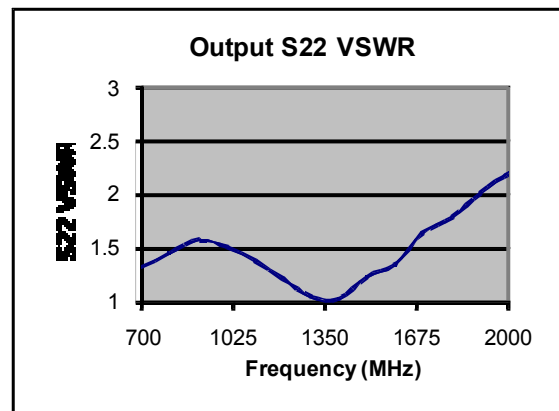
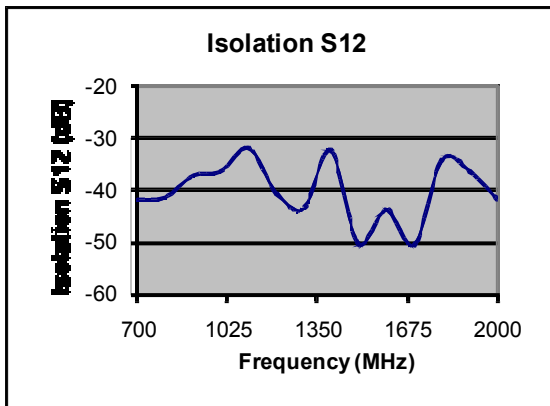
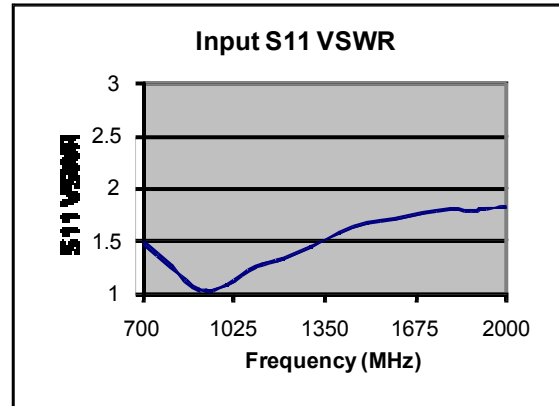
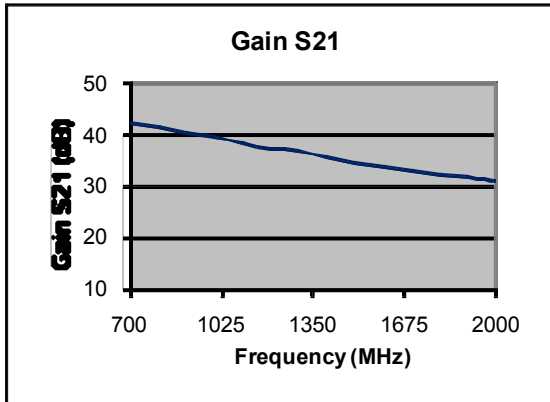
### Electrical Specifications @ +25 °C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ohm, V<sub>supply</sub> = +12VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	700		2000
Gain (S <sub>21</sub> ) f = 700MHz	dB		42	
f = 1000MHz	dB		39	
f = 1350MHz	dB		35	
f = 1700MHz	dB		33	
f = 2000MHz	dB		31	
Output Power P <sub>1dB</sub>	dBm		+23	
Output Third Order Intercept IP3	dBm		+37	
Noise Figure @1350MHz	dB		0.8	1.0
Reverse Isolation (S <sub>12</sub> ) @1350MHz	dB		-39	
VSWR-Input (S <sub>11</sub> )	ratio:1	1.5@700MHz	1.6@1350MHz	1.9@2000MHz
VSWR-Output (S <sub>22</sub> )	(unitless)	1.4@700MHz	1.2@1350MHz	2.2@2000MHz
DC Power Supply - voltage	V	11	12	13
DC Power Supply - current	mA		170	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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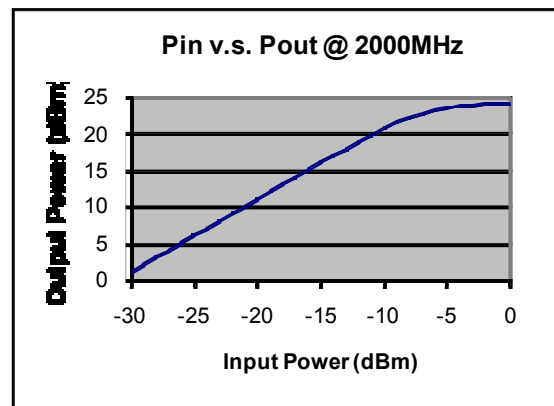
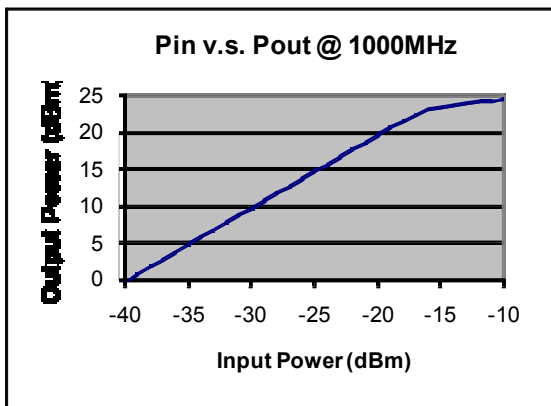
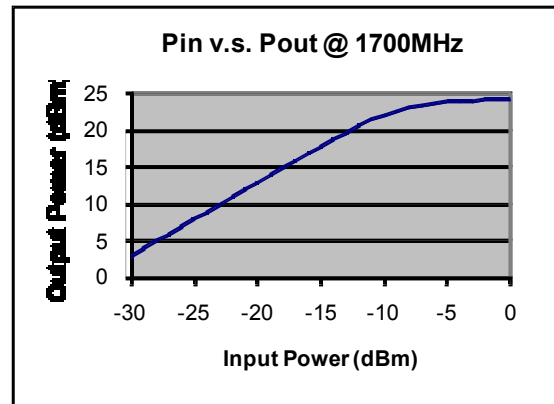
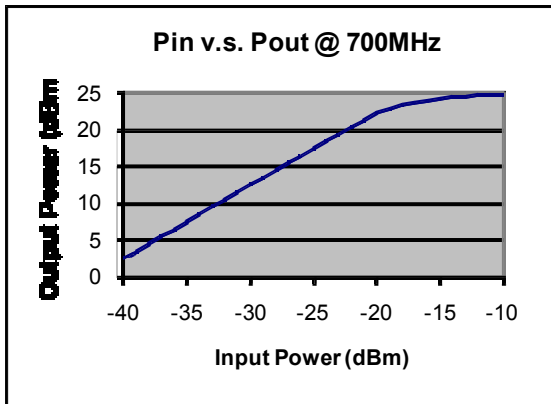
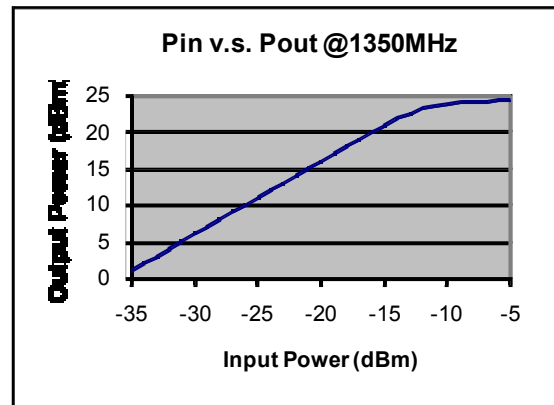
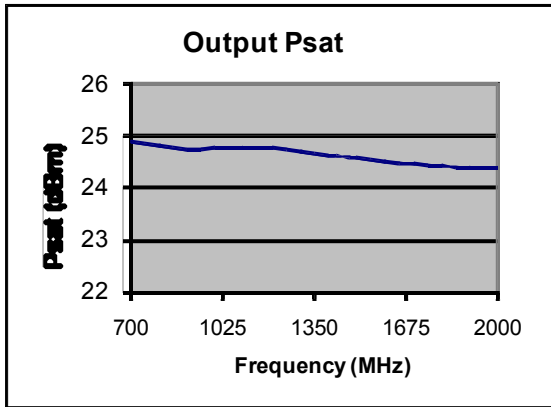
**Typical Performance @+25 °C**



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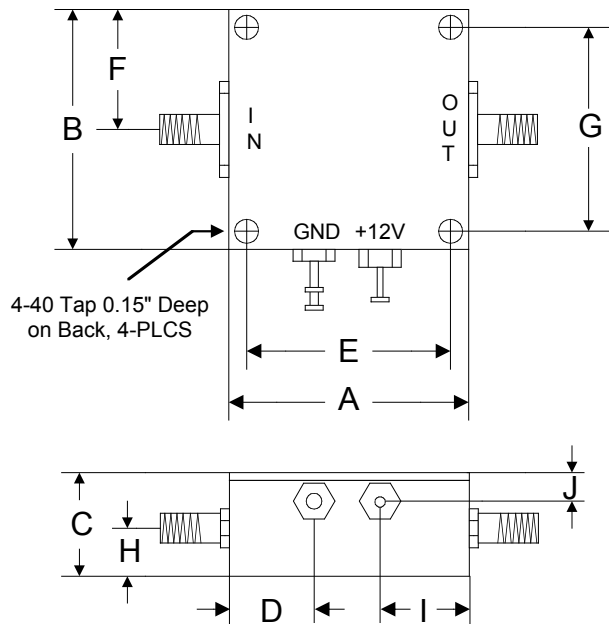
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### Absolute Maximum Ratings

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
<b>Inch</b>	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
<b>mm</b>	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76