

HD30161

300 – 1200 MHz Low Noise Amplifier

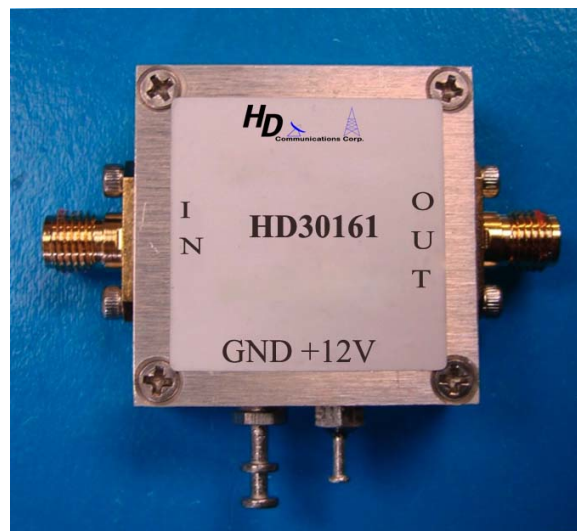
Features

- Frequency Range: 300 – 1200MHz
- Gain: 40dB
- P_{1dB} : +19dBm
- IP3: +34dBm
- Noise Figure: 0.5dB (typ.)
- DC Power: 12V @ 125mA
- SMA-female connectorized

Performance measured @ 750MHz

Description

HD30161 is a 0.5dB Noise Figure Low Noise Amplifier operates with frequency range from 300 to 1200MHz.



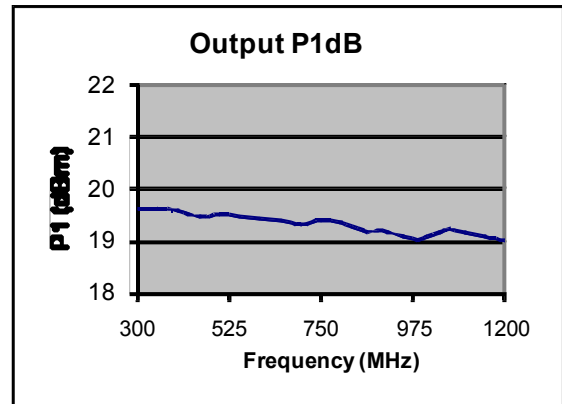
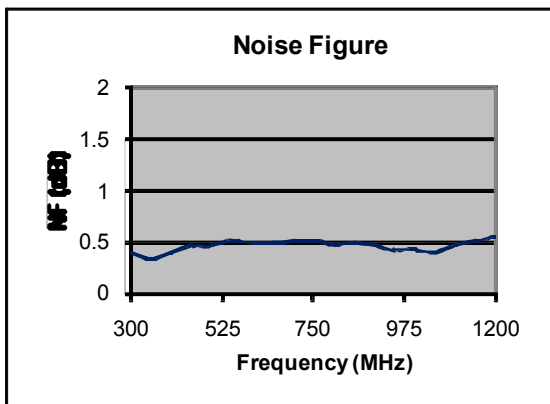
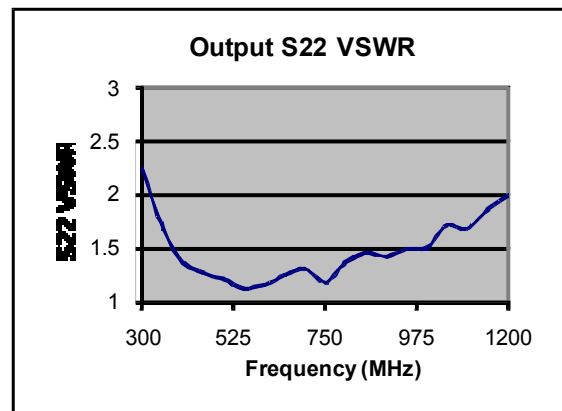
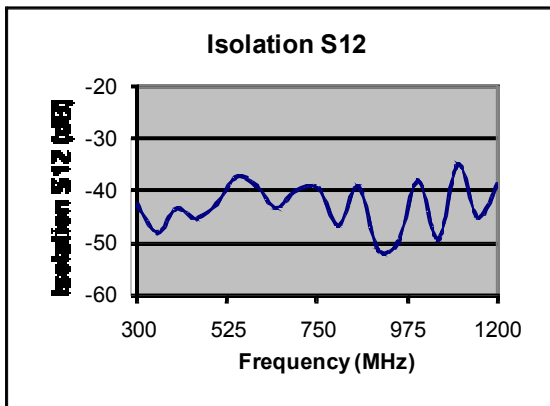
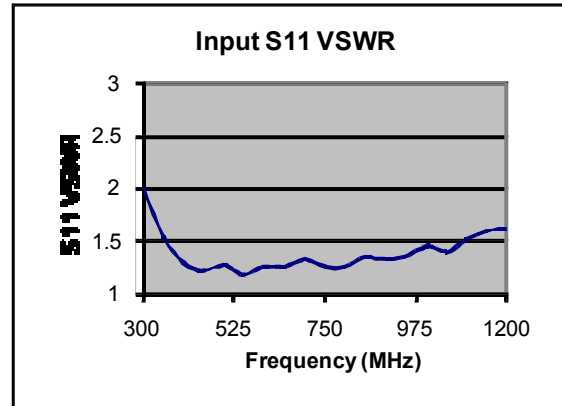
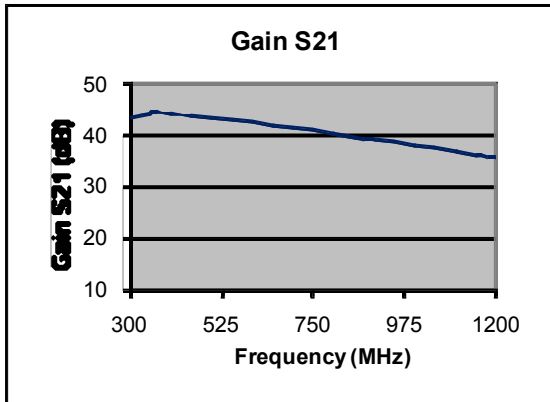
Electrical Specifications @ +25 °C, $Z_{in}=Z_{out}=50\ \Omega$, $V_{supply} = +12VDC$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	300		1200
Gain (S21) f = 300MHz	dB		43	
f = 500MHz	dB		43	
f = 750MHz	dB		40	
f = 1000MHz	dB		38	
f = 1200MHz	dB		35	
Output Power P_{1dB}	dBm		+19	
Output Third Order Intercept IP3	dBm		+34	
Noise Figure @750MHz	dB		0.5	0.7
Reverse Isolation (S12) @750MHz	dB		-40	
VSWR-Input (S11)	ratio:1	2.0@300MHz	1.3@750MHz	1.7@1200MHz
VSWR-Output (S22)	(unitless)	2.3@300MHz	1.2@750MHz	2.0@1200MHz
DC Power Supply - voltage	V	11	12	13
DC Power Supply - current	mA		125	135
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)		

HD30161

300 – 1200 MHz Low Noise Amplifier

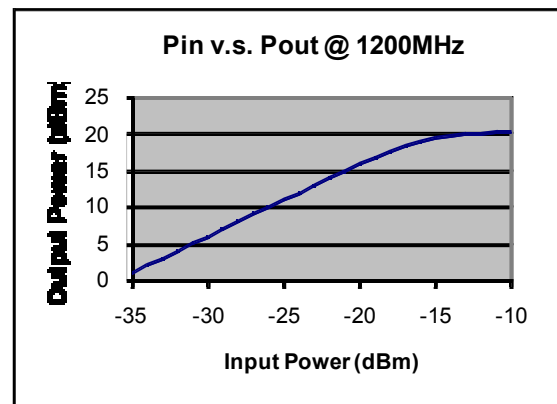
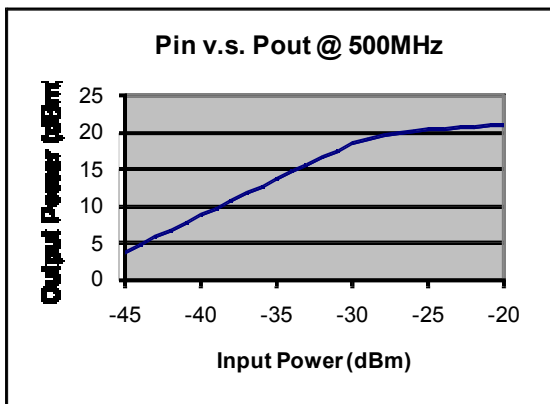
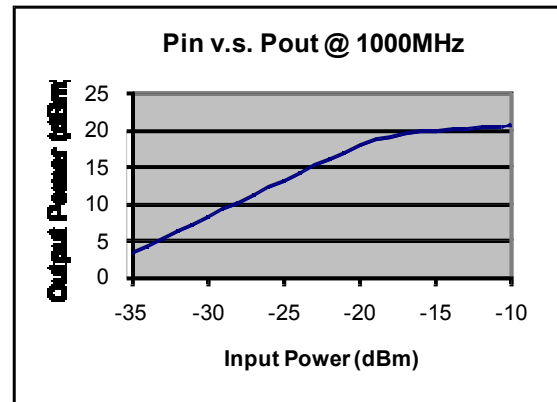
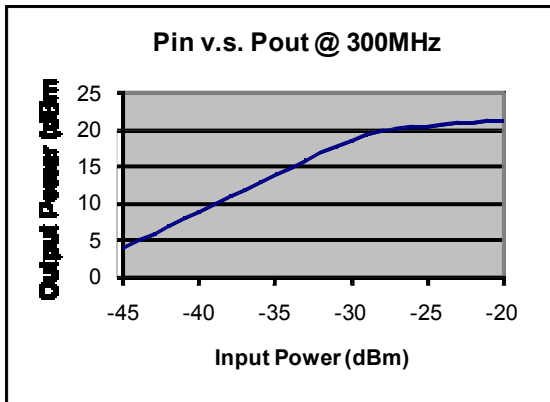
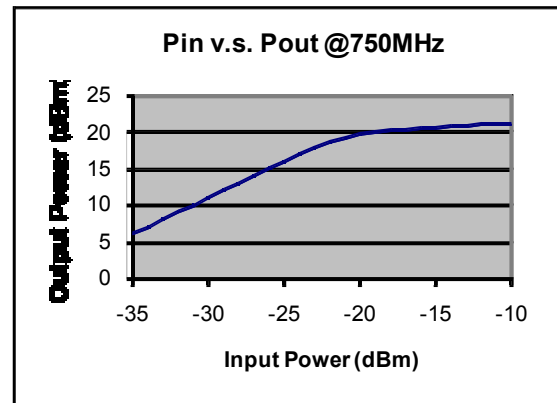
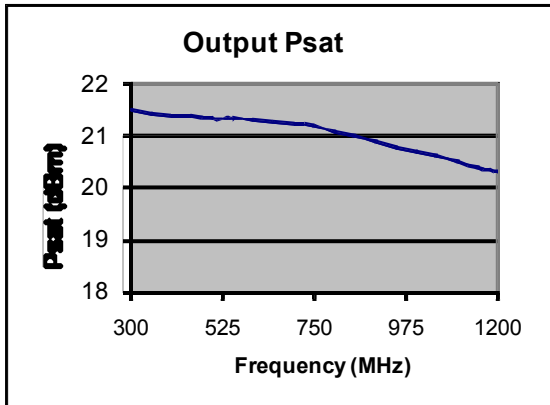
Typical Performance @+25 °C



HD30161

300 – 1200 MHz Low Noise Amplifier

Typical Performance @+25 °C



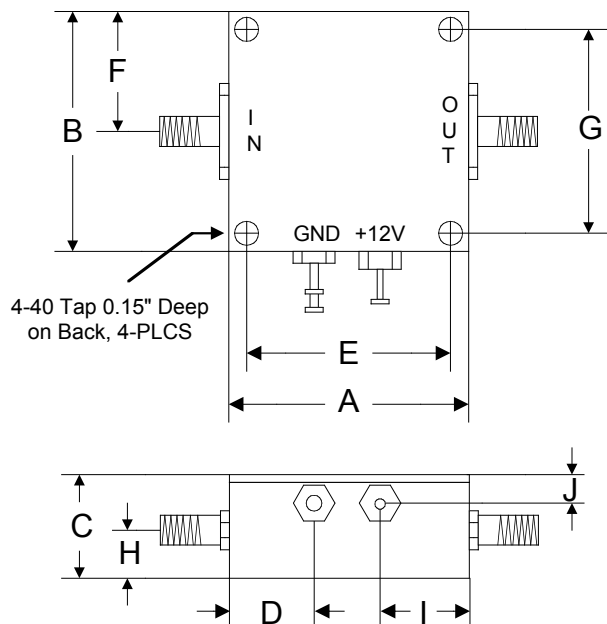
HD30161

300 – 1200 MHz Low Noise Amplifier

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