

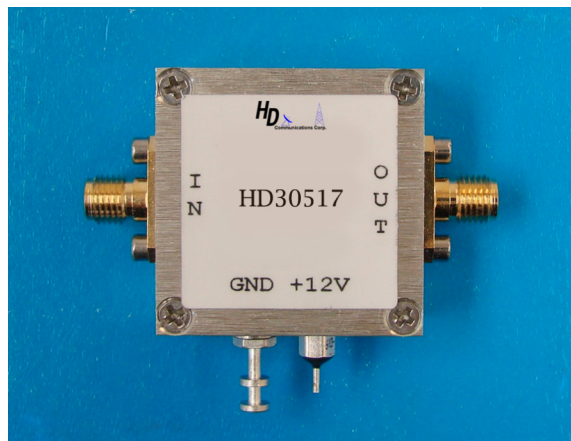
HD30517

50 – 450 MHz Low Noise Amplifier

Features

- Frequency Range: 50 - 450MHz
- Gain: 34dB
- P_{1dB} : +18.5dBm
- IP3: +34dBm
- Noise Figure: 1.4dB
- DC Power: 9-18V/100mA
- Internal Voltage Regulated
- Reverse DC Protection
- SMA Connector

Performance measured @ 225MHz



Description

HD30517 is a flat response Low Noise Amplifier operates in frequency range from 50MHz to 450MHz.

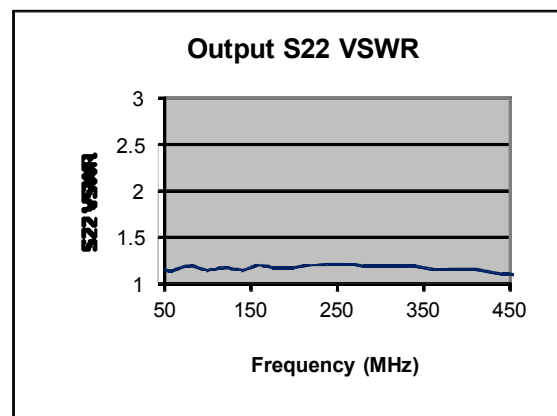
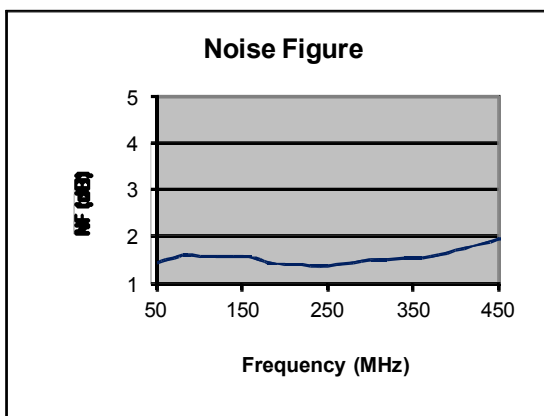
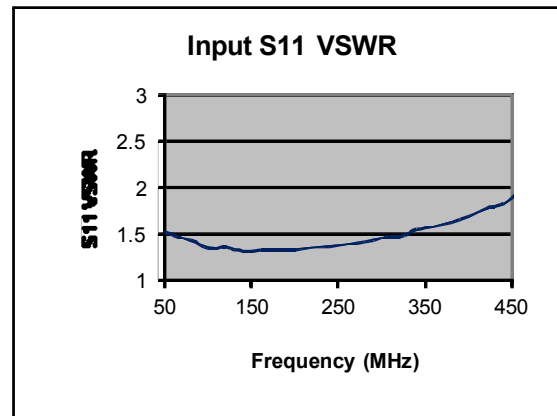
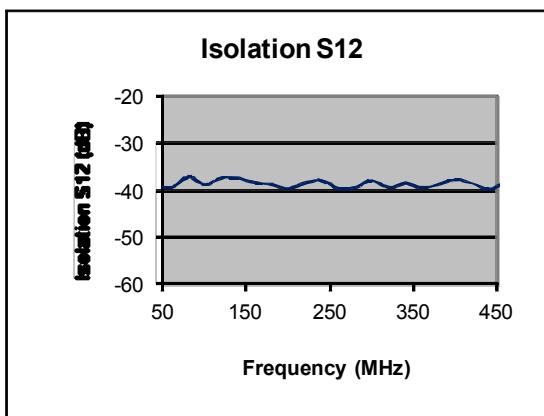
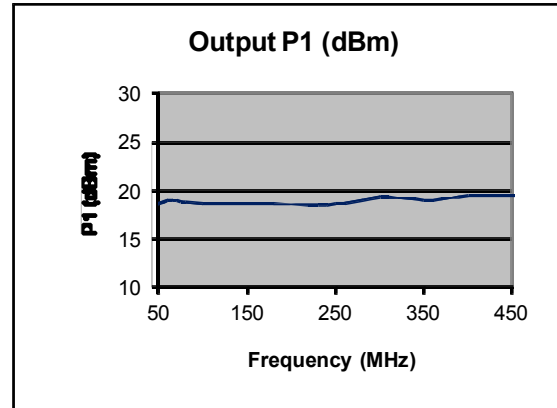
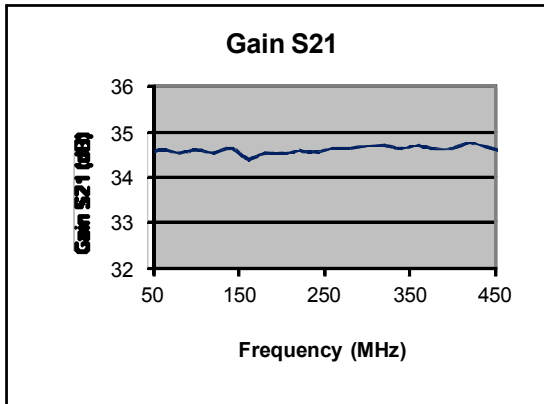
Electrical Specifications @ +25 °C, $Z_{in} = Z_{out} = 50 \Omega$, $V_{cc} = 12V$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	50		450
Gain $f = 50\text{MHz}$	dB		34.5	
$f = 100\text{MHz}$	dB		34.6	
$f = 250\text{MHz}$	dB	33	34.6	
$f = 400\text{MHz}$	dB		34.6	
$f = 450\text{MHz}$	dB		34.6	
Gain Flatness	dB		± 0.1	± 0.3
P_{1dB}	dBm	+17	+18.5	
IP3	dBm	+33	+34.0	
Noise Figure	dB		1.4	1.8
Reverse Isolation	dB		-38	-35
VSWR Input VSWR			1.4:1	1.5:1
Output VSWR			1.2:1	1.3:1
DC Power Supply	V	9	12 to 15	18
Supply Current	mA		100	

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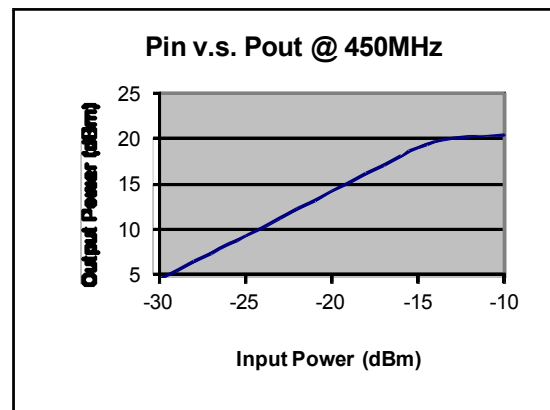
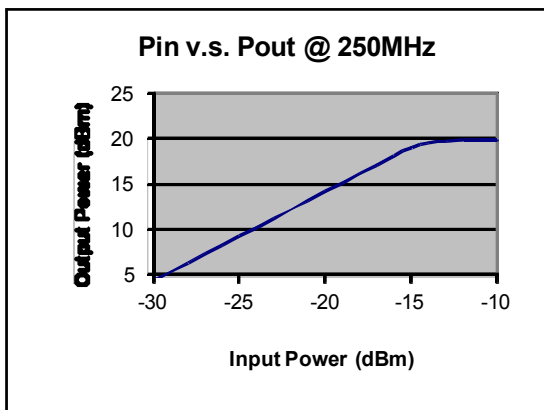
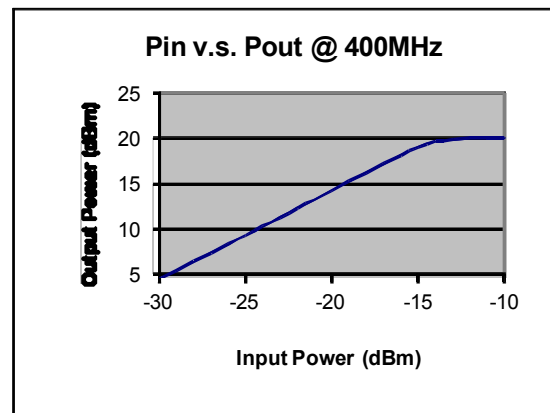
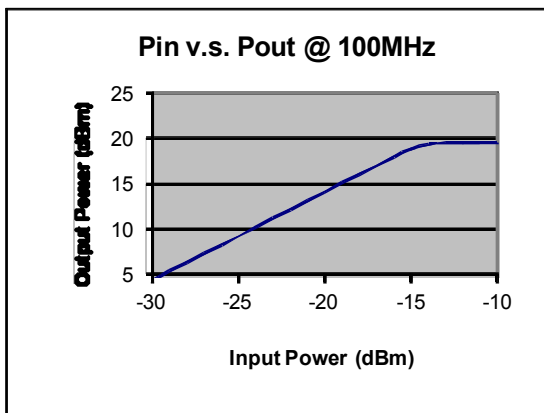
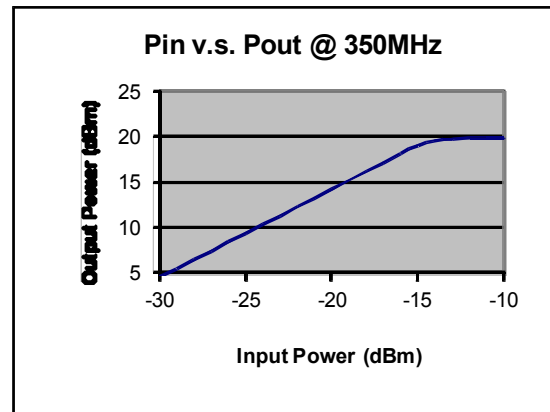
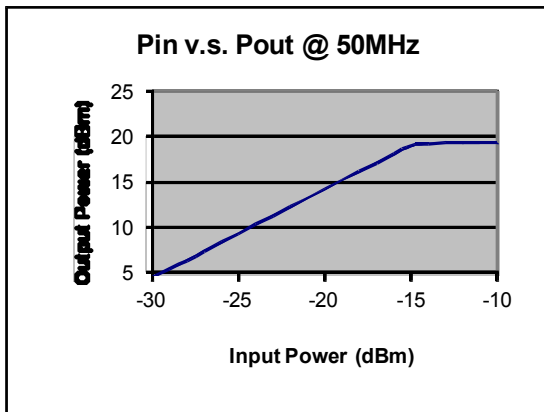
Typical Performance @ +25 °C



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Typical Performance @ +25 °C



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50 – 450 MHz Low Noise Amplifier

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+15dBm
Supply Voltage	+25V
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