

## HD30513

## 10 – 800 MHz Low Noise Amplifier

### Features

- Frequency Range: 10-800MHz
- Gain: 60dB
- P<sub>1dB</sub>: +19dBm
- OIP3: +33dBm
- Noise Figure: 2.1dB (typ.)
- DC Power: 12V to 15V @ 160mA
- SMA-female



### Description

HD30513 is a high gain Low Noise Amplifier, with frequency range of 10 to 800MHz.

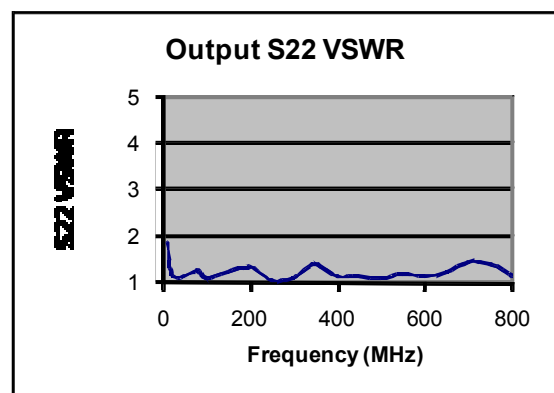
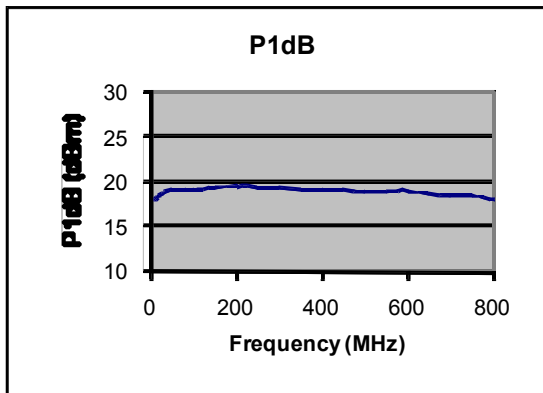
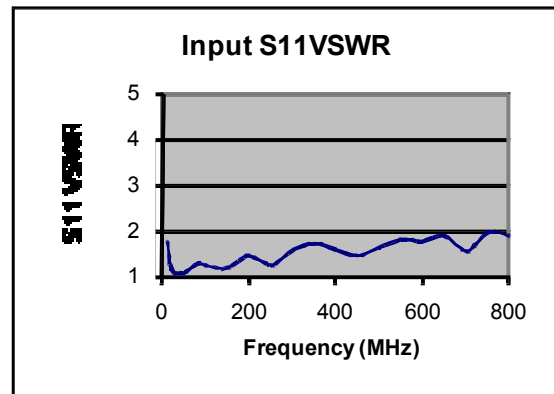
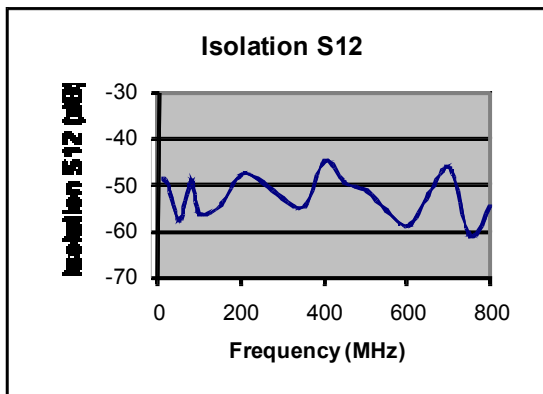
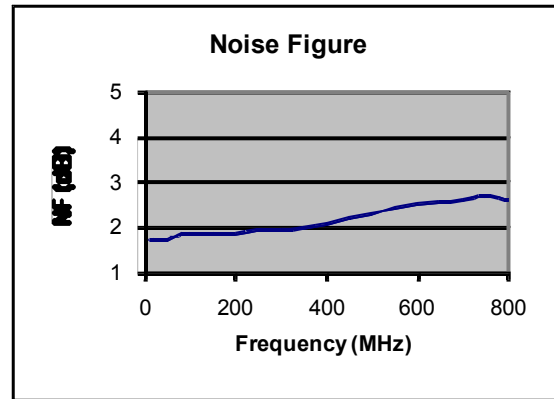
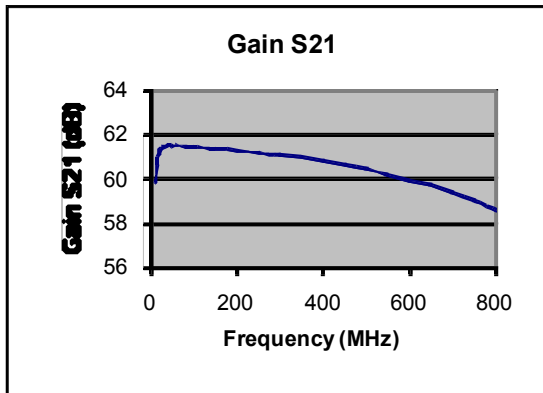
### Electrical Specifications @+25 °C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ω, V<sub>supply</sub> = +12VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	10		800
Gain (S <sub>21</sub> ) f = 10MHz	dB		59.5	
f = 400MHz	dB		60.8	
f = 800MHz	dB		58.8	
Gain Flatness	dB		±1.5	
Output Power P <sub>1dB</sub>	dBm		+19	
Saturated Output Power P <sub>Sat</sub>	dBm		+21	
Output Third Order Intercept IP3	dBm		+33	
Noise Figure	dB		2.1	3.0
Reverse Isolation (S <sub>12</sub> ) @500MHz	dB		-45	
VSWR-Input (S <sub>11</sub> )	ratio:1	1.7@10MHz	1.6@400MHz	1.9@800MHz
VSWR-Output (S <sub>22</sub> )	(unitless)	1.9@10MHz	1.2@400MHz	1.2@800MHz
DC Power Supply - voltage	V	11	12	15
DC Power Supply - current	mA		160	
Operating Temperature	°C	-40		+85
Size (RF/DC feedthrough excluded)	Inch	1.79 (L) x 1.10 (W) x 0.45 (H)		
Weight	Oz	1.4		

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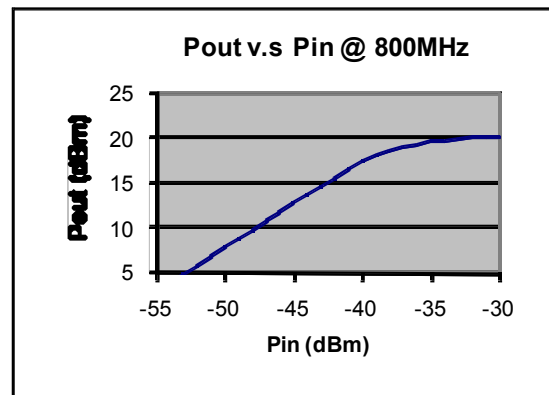
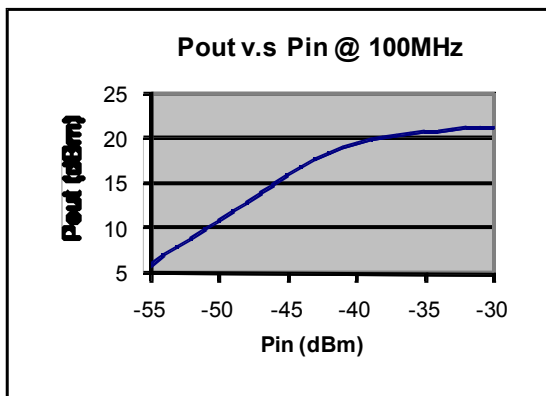
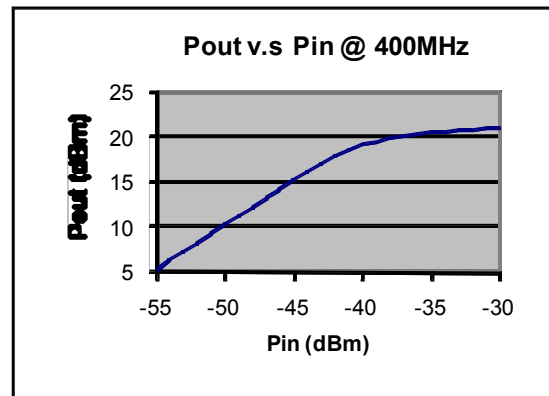
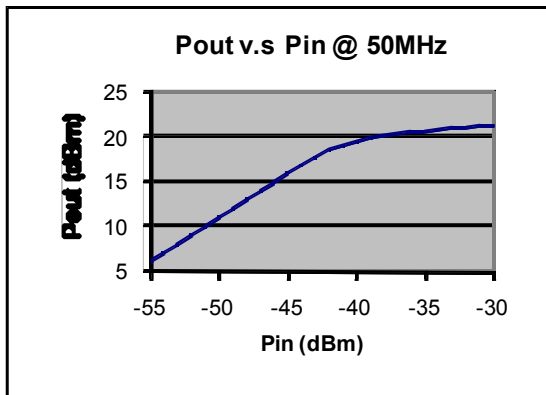
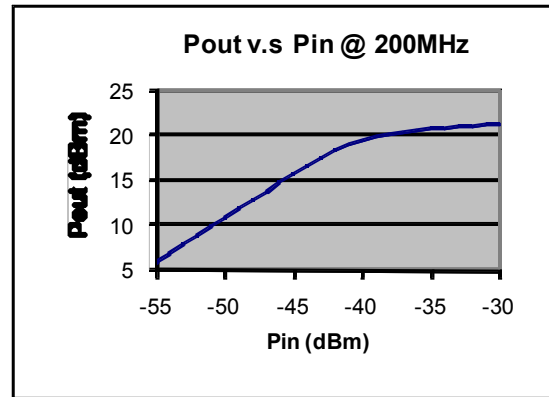
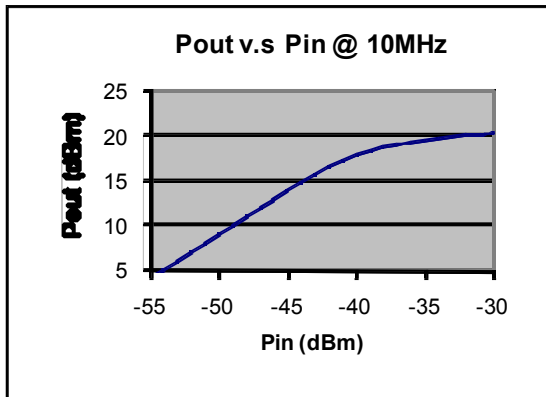
**Typical Performance @+25 °C**



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### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+13dBm
Supply Voltage	+20V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### Outline

