

## HD30055

## 6 – 18 GHz Low Noise Amplifier

### Features

- Frequency Range: 6-18GHz
- Gain: 25dB
- P<sub>1dB</sub>: +11dBm
- OIP3: +24dBm
- Noise Figure: 2.1dB (typ.)
- DC Power: 5V to 15V @ 70mA
- SMA-female connectorized



### Description

HD30055 is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency range of 6 to 18GHz.

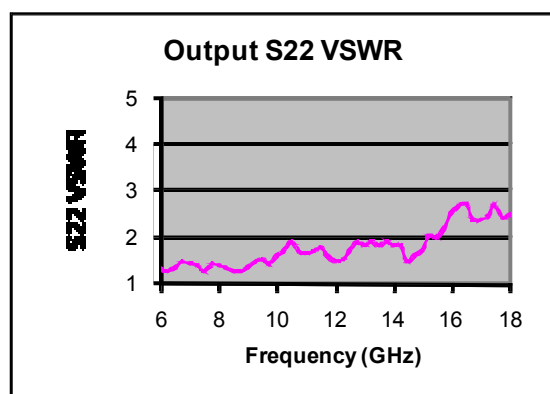
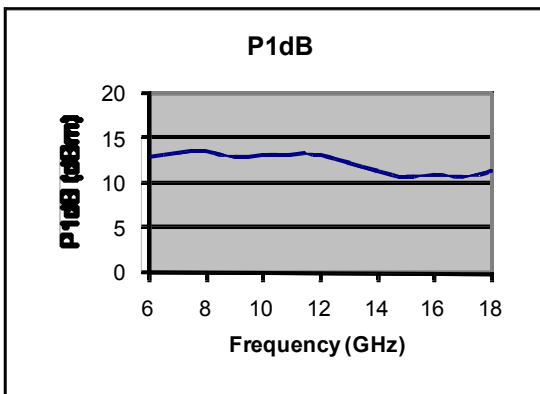
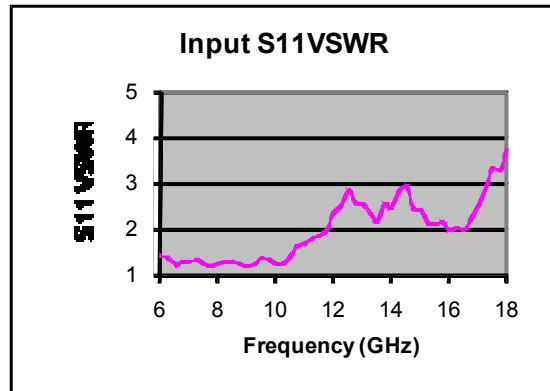
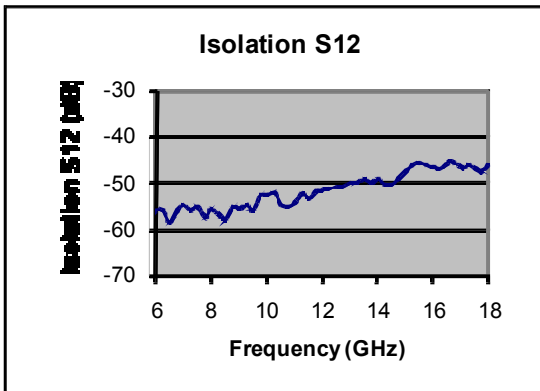
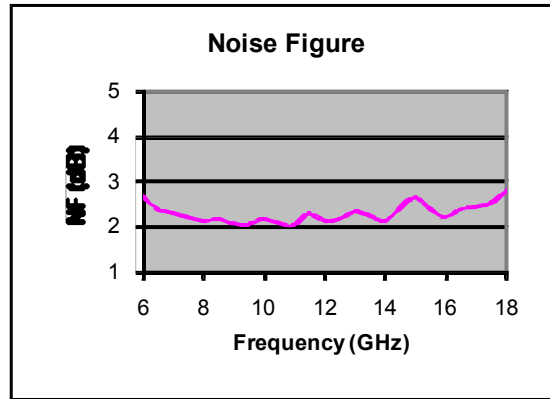
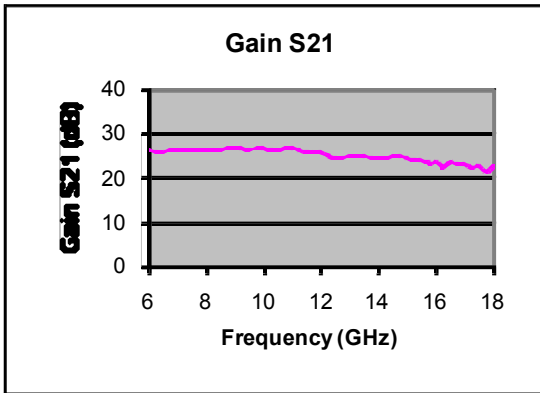
### Electrical Specifications @+25 °C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ω, V<sub>supply</sub> = +12VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	6		18
Gain (S21) f = 6GHz	dB		26.0	
f = 12GHz	dB		25.5	
f = 18GHz	dB		22.7	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P <sub>1dB</sub>	dBm		+11	
Saturated Output Power P <sub>Sat</sub>	dBm		+13	
Output Third Order Intercept IP3	dBm		+24	
Noise Figure	dB		2.1	2.5
Reverse Isolation (S12) @12GHz	dB		-50	
VSWR-Input (S11)	ratio:1	1.4 @6GHz	2.3 @12GHz	3.7 @18GHz
VSWR-Output (S22)	(unitless)	1.3 @6GHz	1.5 @12GHz	2.5 @18GHz
DC Power Supply - voltage	V	5	12	15
DC Power Supply - current	mA		70	
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		

**HD30055**

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**Typical Performance @+25 °C**



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### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+16dBm
Supply Voltage	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### Outline

