

HD30059

5 – 17 GHz Low Noise Amplifier

Features

- Frequency Range: 5-17GHz
- Gain: 18dB
- P_{1dB} : +14dBm
- IP3: +25dBm
- Noise Figure: 1.9dB (typ.)
- DC Power: 5V @ 100mA
- SMA-female connectorized

range of 5GHz to 17GHz.



Description

HD30059 is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency

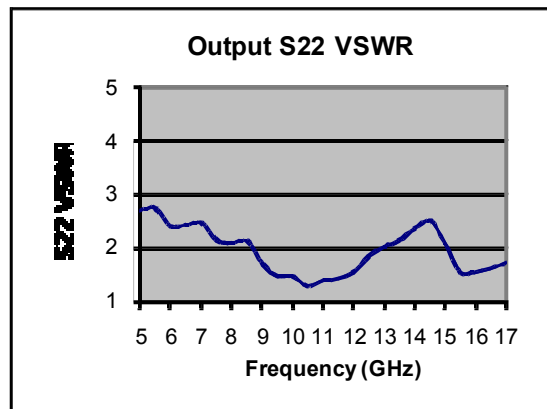
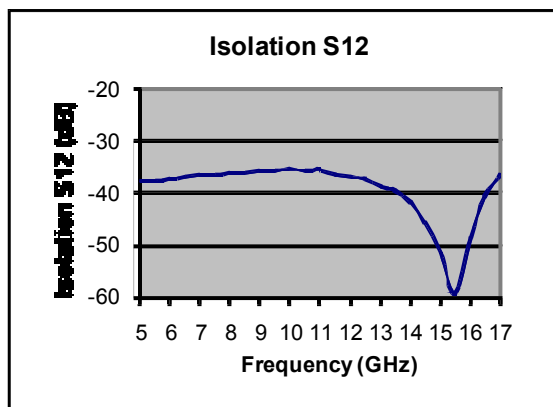
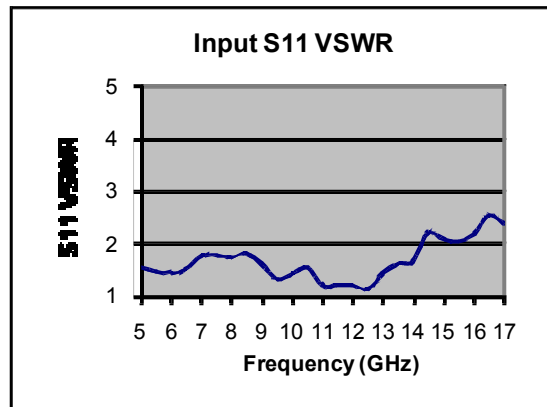
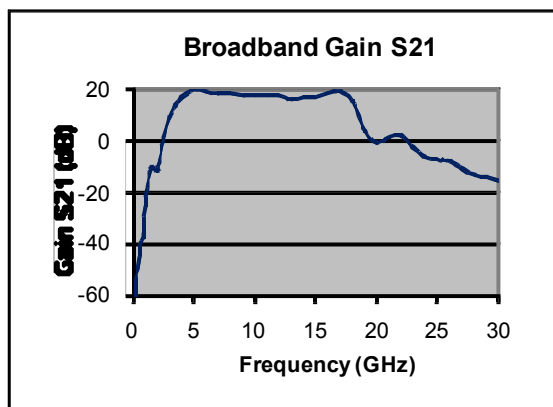
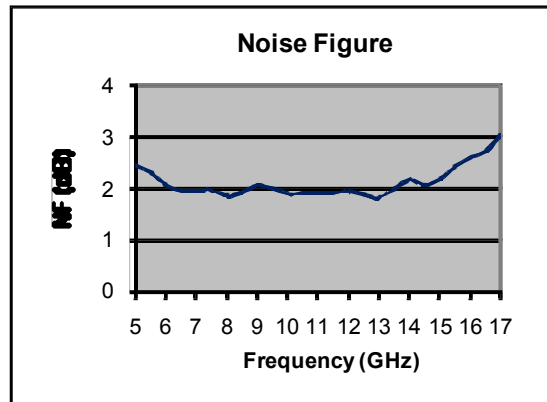
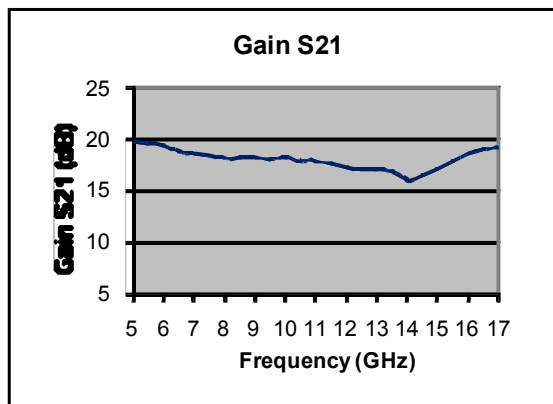
Electrical Specifications @+25 °C, $Z_{in}=Z_{out}=50\text{ Ohm}$, $V_{supply} = +5VDC$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	5		17
Gain (S21) $f = 5\text{GHz}$	dB		19.5	
$f = 11\text{GHz}$	dB		18.0	
$f = 17\text{GHz}$	dB		19.0	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P_{1dB}	dBm	+13	+14	
Saturated Output Power P_{Sat}	dBm		+17	
Output Third Order Intercept IP3	dBm	+22	+25	
Noise Figure @ 11GHz	dB		1.9	2.1
Reverse Isolation (S12) @ 11GHz	dB		-35	
VSWR-Input (S11)	ratio:1	1.6 @5GHz	1.2 @ 11GHz	2.4 @17GHz
VSWR-Output (S22)	(unitless)	2.7 @5GHz	1.4 @ 11GHz	1.8 @17GHz
DC Power Supply - voltage	V	4.5	5.0	5.5
DC Power Supply - current	mA		100	110
Operating Temperature	°C	-40		+85
Size (RF/DC feedthru's excluded)	Inch	1.00 (L) x 0.75 (W) x 0.45 (H)		
Weight	Oz	0.6 (17 grams)		

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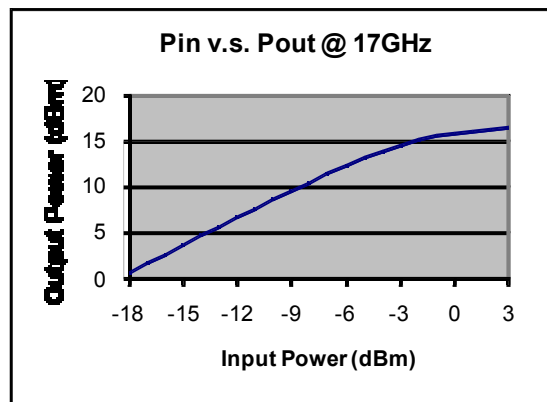
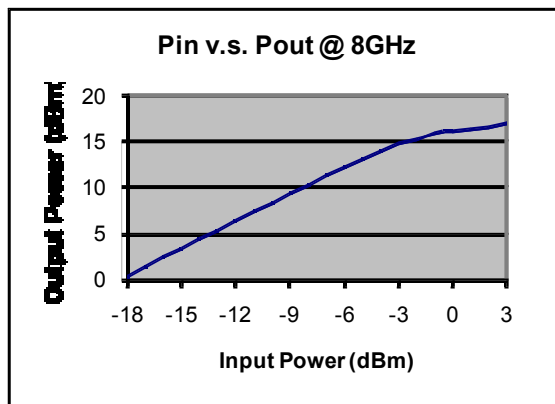
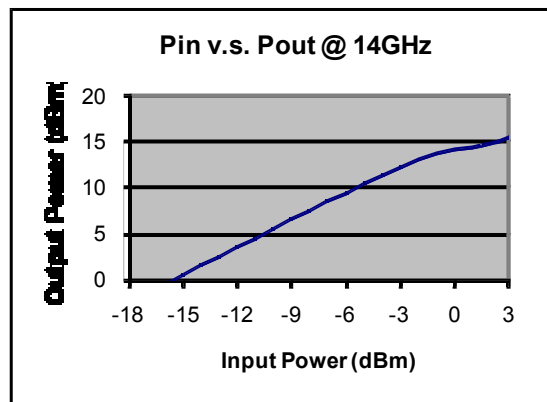
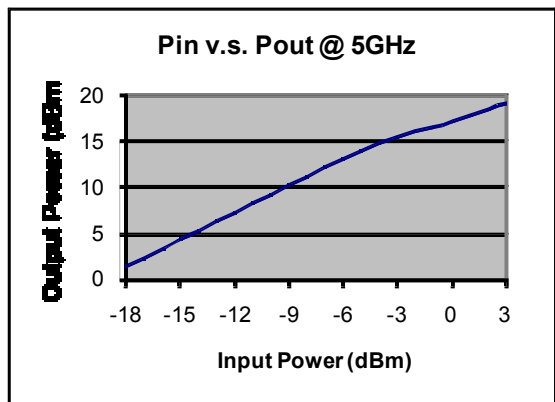
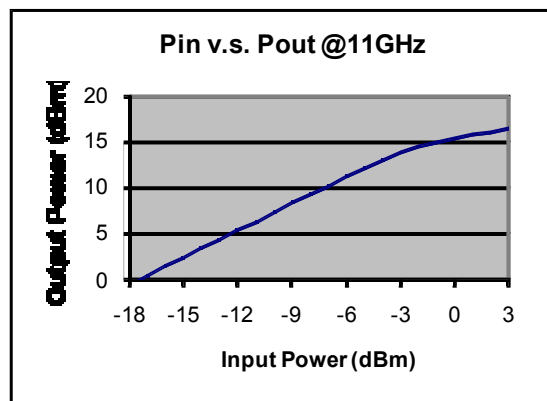
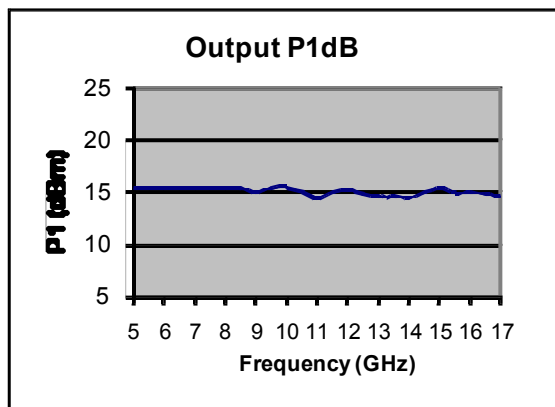
Typical Performance @+25 °C



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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+10dBm
Supply Voltage (Survival)	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline

