

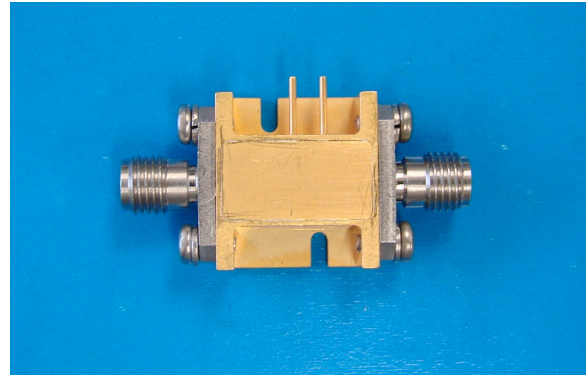
HD Communications, Corp.

HD31294

1 – 18GHz Low Noise Amplifier

Features

- Frequency Range: 1 - 18GHz
- Gain: 30dB min
- P_{1dB}: +20dBm
- IP3: +30dBm
- Noise Figure: 3.5dB max.
- DC Power: 15V @ 330mA
- Field Replaceable SMA-F



Description

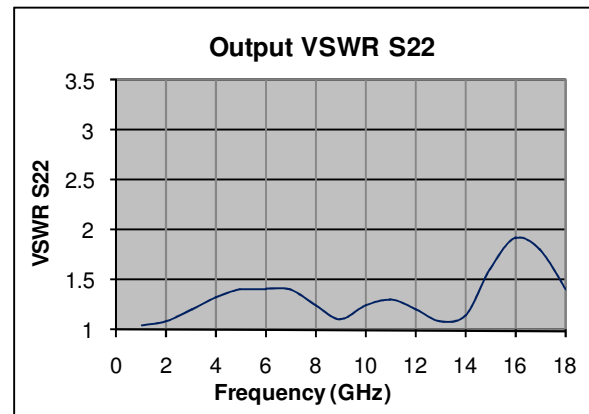
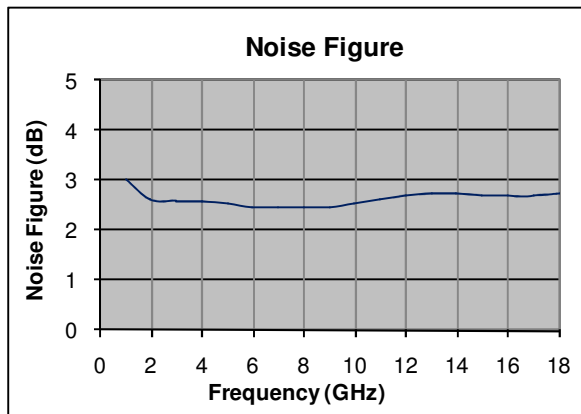
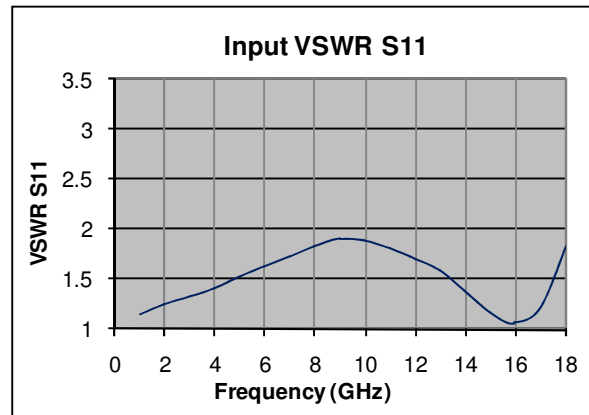
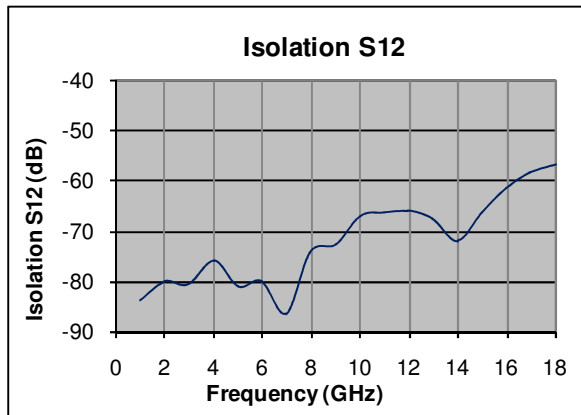
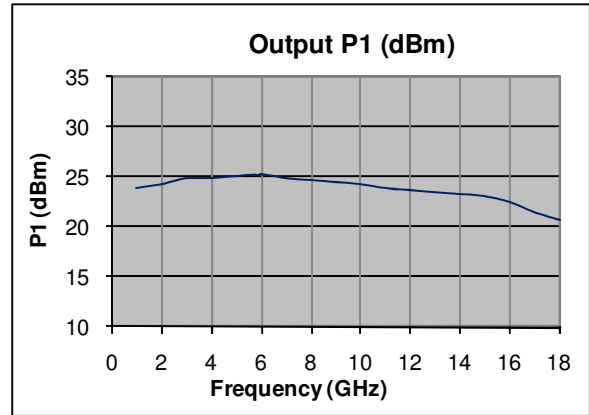
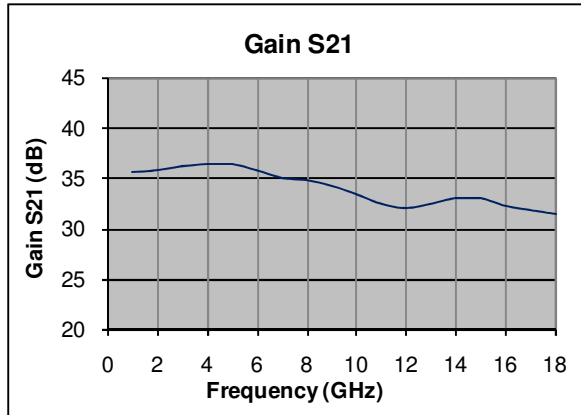
HD31294 is a high performance Microwave Low Noise (&Driver) Amplifier, with standard frequency range of 1GHz to 18GHz.

Electrical Specifications @+23 °C, Z_{in}=Z_{out}=50 Ω, V_{supply} = +15VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	1		18
Gain (S21)	dB	30		
Gain Flatness	dB			±2.5
Output Power P _{1dB}	dBm	+20		
Output Third Order Intercept IP3	dBm		+30	
Noise Figure	dB		2.5	3.5
Isolation (S12)	dB	-50		
VSWR-Input (S11)	ratio:1			2.5:1
VSWR-Output (S22)	(unitless)			2.5:1
DC Power Supply - voltage	V	12	15	
DC Power Supply - current	mA		330	360
Operating Temperature	°C	-54		+85
Size (RF/DC feedthru's excluded)	Inch/mm	0.650 x 0.646 x 0.223/16.5 x 16.4 x 5.7 (LxWxH)		
Weight	Oz	0.35 (10 grams)		

WARNING: MUST USE HEAT SINK IF CASE TEMPERATURE EXCEEDS 50 °C

Typical Performance @ +25 °C



Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+15dBm
Supply Voltage (Survival)	+16V
Operating Temperature	-54 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline

