

### Features

- Frequency Range: 400-1000MHz
- Gain: 40dB
- P<sub>1dB</sub>: +17dBm
- OIP3: +31dBm
- Noise Figure: 0.7dB (typ.)
- DC Power: 9V to 15V @ 140mA
- SMA-female connectorized



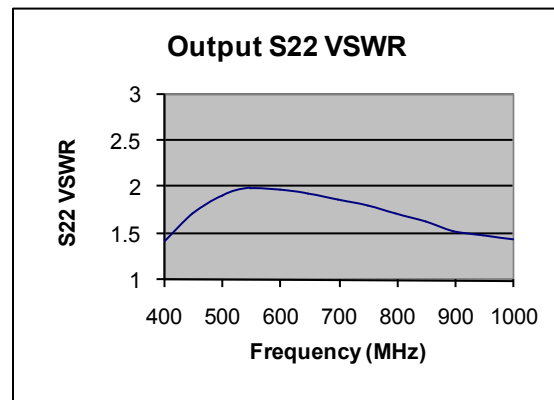
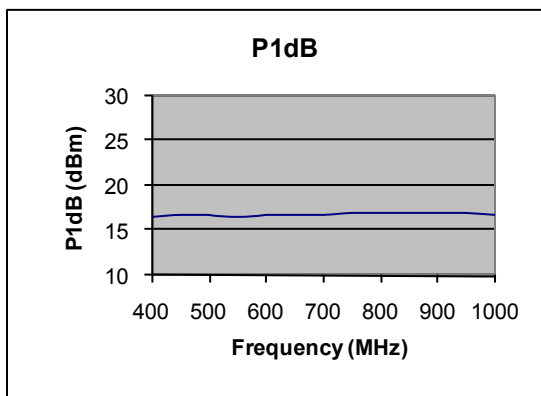
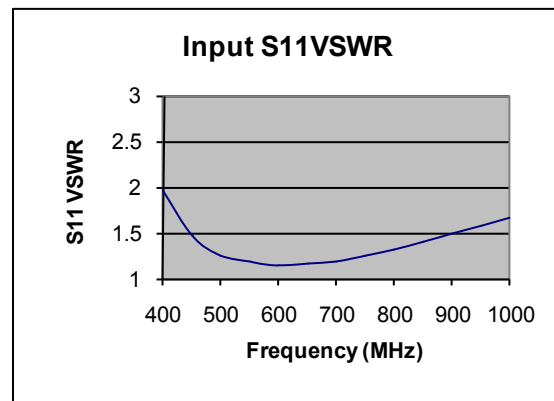
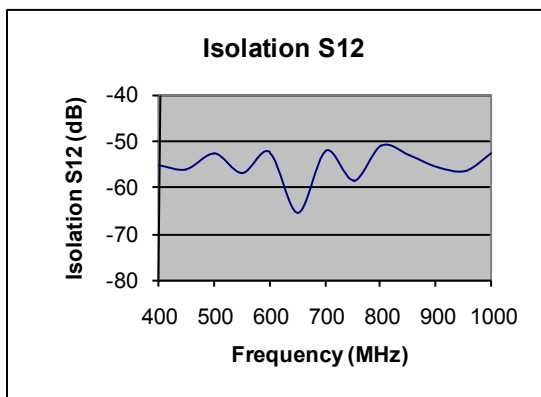
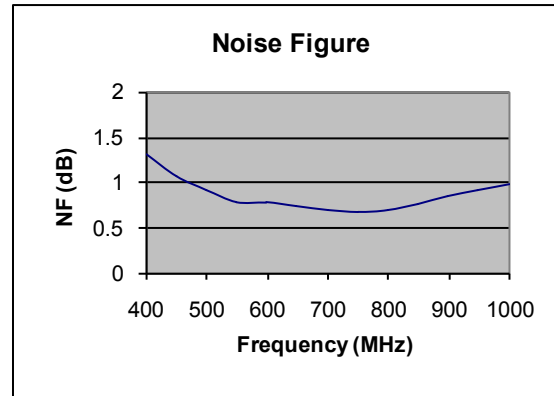
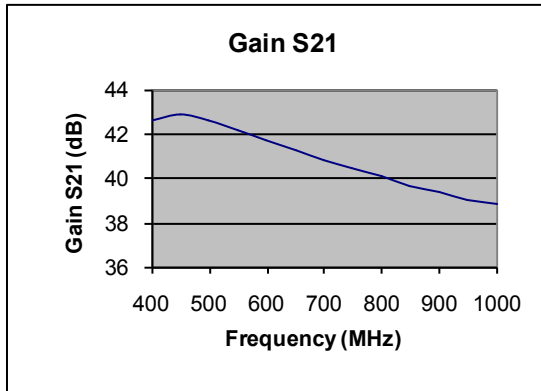
### Description

HD31304 is a high performance Low Noise (& Driver) Amplifier, with standard frequency range of 400 to 1000MHz.

### 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	400		1000
Gain (S <sub>21</sub> ) f = 400MHz	dB		42.5	
f = 700MHz	dB	40.0	41.0	
f = 1000MHz	dB		38.8	
Gain Flatness	dB		±2.0	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P <sub>1dB</sub>	dBm		+17	
Saturated Output Power P <sub>Sat</sub>	dBm		+20	
Output Third Order Intercept IP3	dBm		+31	
Noise Figure	dB		0.7	0.9
Reverse Isolation (S <sub>12</sub> ) @700MHz	dB		-50	
VSWR-Input (S <sub>11</sub> )	ratio:1	2.0@400MHz	1.2@700MHz	1.7@1000MHz
VSWR-Output (S <sub>22</sub> )	(unitless)	1.5@400MHz	1.9@700MHz	1.5@1000MHz
DC Power Supply - voltage	V	9	12	15
DC Power Supply - current	mA		140	
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		

**Typical Performance @+25 °C**



**Absolute Maximum Ratings**

Parameter	Absolute Maximum
RF Input Power	+15dBm
Supply Voltage	+20V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

**Outline**

