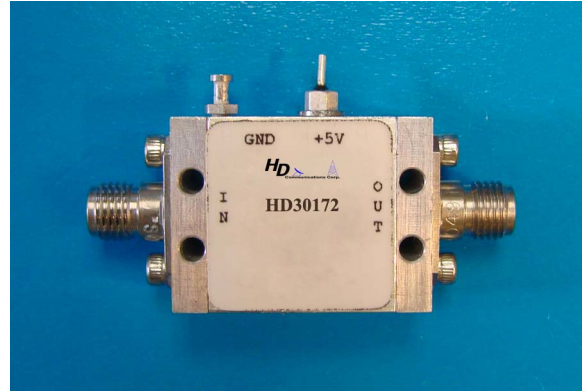


## HD30172

## 20 – 36 GHz Low Noise RF Amplifier

### Features

- Frequency Range: 20-36GHz
- Gain: 24dB
- P<sub>1dB</sub>: +11dBm
- IP3: +21dBm
- Noise Figure: 3dB (typ.)
- DC Power: 5V @ 80mA
- 2.92mm K-female connectorized



### Description

HD30172 is a high performance Microwave Driver Amplifier, with standard frequency range of 20GHz to 36GHz.

### Electrical Specifications @ +25 °C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ohm, V<sub>supply</sub> = +5VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	20		36
Gain (S <sub>21</sub> ) f = 20GHz	dB		20.0	
f = 28GHz	dB		24.0	
f = 36GHz	dB		19.0	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P <sub>1dB</sub>	dBm	+10	+11	
Saturated Output Power P <sub>Sat</sub>	dBm		+13	
Output Third Order Intercept IP3	dBm	+20	+21	
Noise Figure @28GHz	dB		3.3	3.7
Reverse Isolation (S <sub>12</sub> ) @28GHz	dB		-44	
VSWR-Input (S <sub>11</sub> )	ratio:1	2.0 @ 20GHz	1.4 @ 28GHz	2.2 @ 36GHz
VSWR-Output (S <sub>22</sub> )	(unitless)	1.8 @ 20GHz	2.1 @ 28GHz	2.0 @ 36GHz
DC Power Supply - voltage	V	4.5	5.0	5.5
DC Power Supply - current	mA		80	90
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)		

**HD30172**

**20 – 36 GHz Low Noise RF Amplifier**

**Typical Performance @+25 °C**

