HD24681 0Hz-17MHz DC Coupled Amplifier

Features

- 3-dB Bandwidth: 17MHz
- Gain: 30dB
- P_{1dB}: +14dBm
- IP3: +25dBm
- Input/Output: 50 Ω
- DC Power: 12V
- SMA Connector

Description

HD24681 is a 50 Ω 30dB gain DC Coupled Amplifier operates with 3-dB bandwidth of 17MHz, designed for low frequency, small signal application.

Electrical Specifications @ +25 °C, Zin, Zout = 50 Ω

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range (-3dB)	MHz	0		17
Power Gain f = 0Hz	dB		30	
f = 1MHz	dB		29.9	
f = 17MHz	dB		27.3	
Voltage Gain (RL=∞) f = 0 Hz			64	
P_{1dB} f = 100KHz	dBm		+14	
f = 17MHz	dBm		+14	
IP3 f= 17MHz	dBm		+25	
Input Voltage Noise	nV/√Hz		0.92	
Output Voltage f = 100KHz RL=∞	Vp-p		8.0	
Pin= -14dBm f = 17MHz RL=∞	Vp-p		6.0	
VSWR f = 300KHz – 17MHz				
Input VSWR			1.12:1	
Output VSWR			1.15:1	

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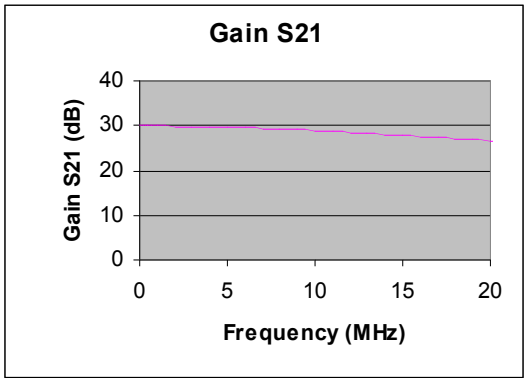
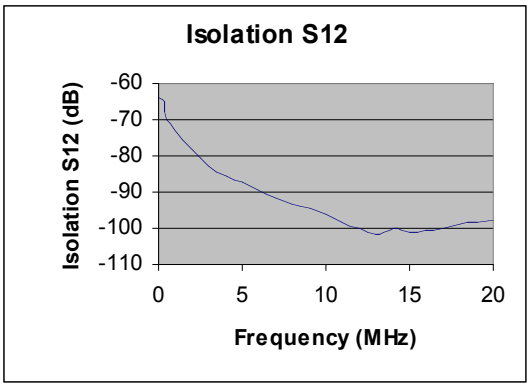
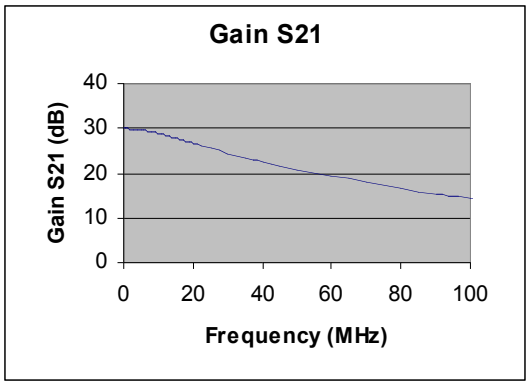
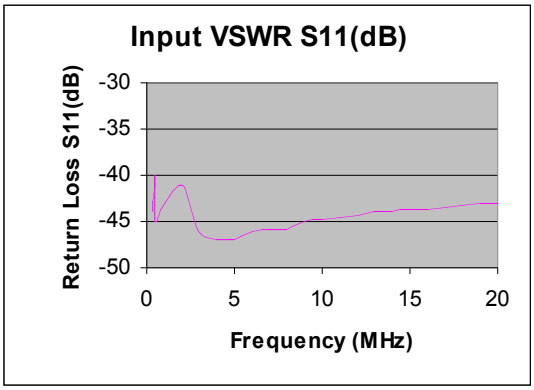
DC Power Supply	V	8	12	15
Supply Current	mA		45	

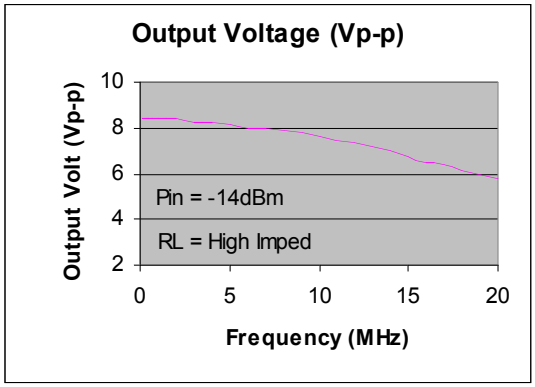
Typical Performance @ +25 °C

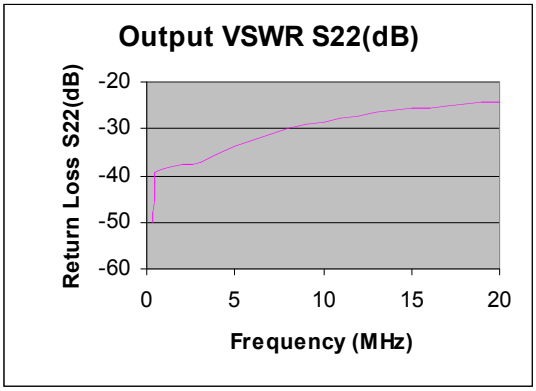












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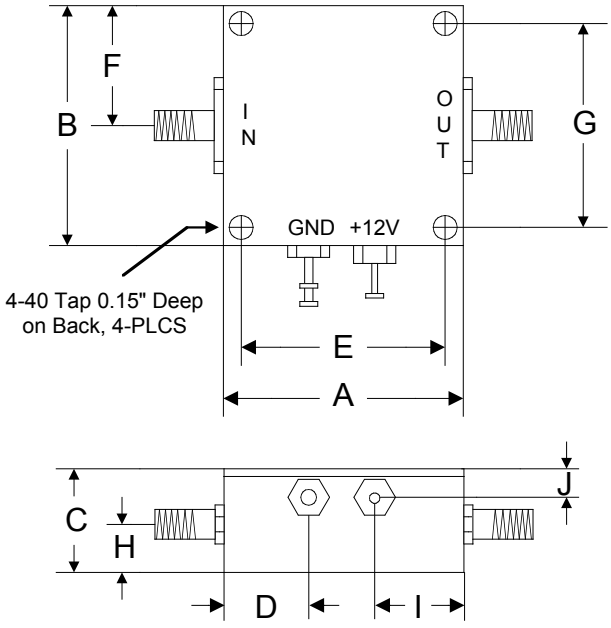
Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+13dBm
Input DC Voltage	± 2V
Supply Voltage	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline



	A	B	C	D	E	F	G	H	I	J
Inch	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76

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