

HD24680

0-40MHz DC Coupled Amplifier

Features

- 3-dB Bandwidth: 40MHz
- Gain: 23dB
- P_{1dB}: +14dBm
- IP3: +24dBm
- Input/Output: 50 Ω
- DC Power: 12V
- SMA Connector

Description

HD24680 is a 50 Ω 23dB gain DC Coupled Amplifier operates with 3-dB bandwidth of 40MHz, designed for low frequency, small signal application.



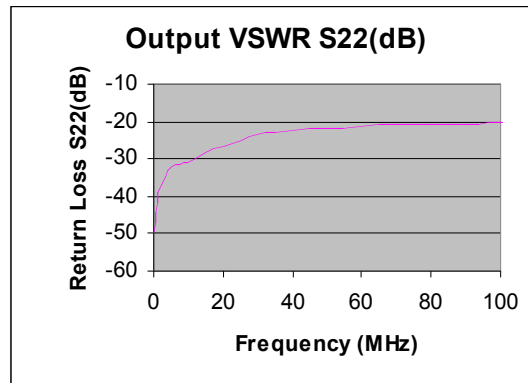
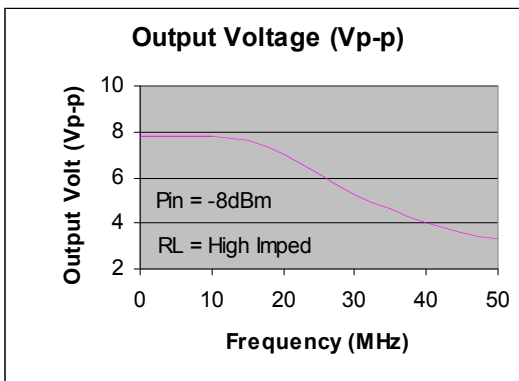
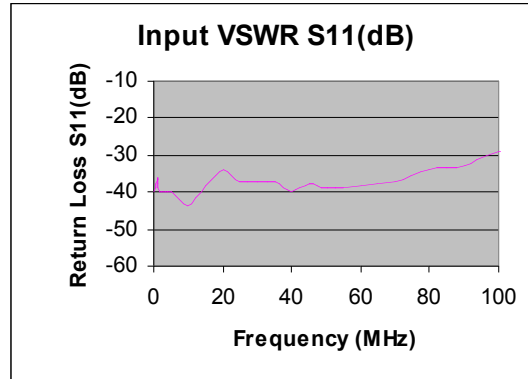
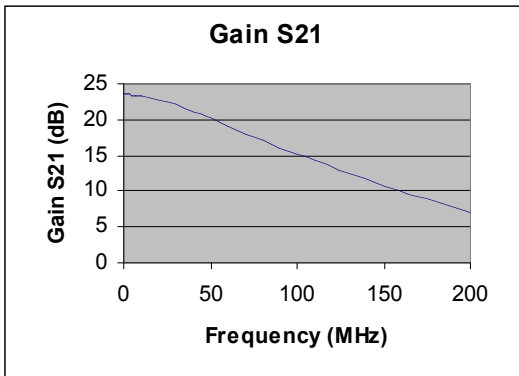
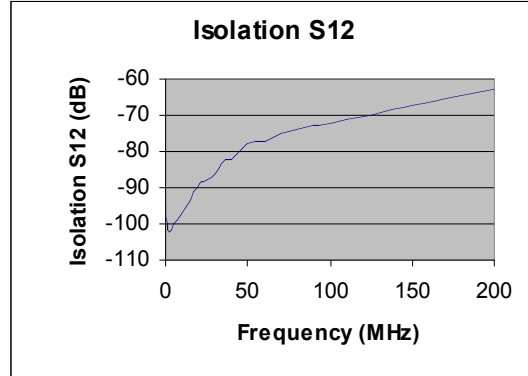
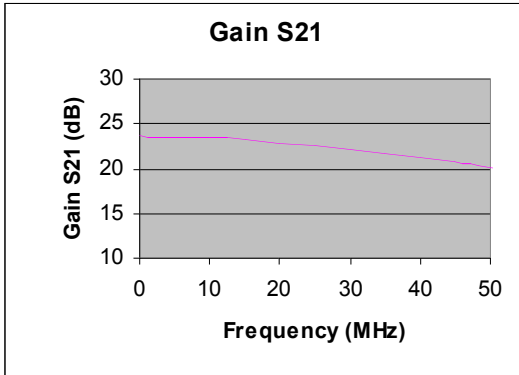
Electrical Specifications @ +25 °C, Z_{in}, Z_{out} = 50 Ω

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range (-3dB)	MHz	0		40
Power Gain f = 0Hz	dB		23.5	
f = 1MHz	dB		23	
f = 40MHz	dB	20	21	
Voltage Gain (RL=∞) f = 0 Hz			30	
P _{1dB} f = 100KHz	dBm		+14	
f = 40MHz	dBm		+14	
IP3 f= 40MHz	dBm		+24	
Input Voltage Noise	nV/√Hz		0.92	
Output Voltage f = 100KHz RL=∞	Vp-p		7.8	
Pin= -8dBm f = 40MHz RL=∞	Vp-p		4.0	
VSWR f = 300KHz – 40MHz				
Input VSWR			1.10:1	
Output VSWR			1.15:1	
DC Power Supply	V	8	12	15
Supply Current	mA		45	

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Typical Performance @ +25 °C



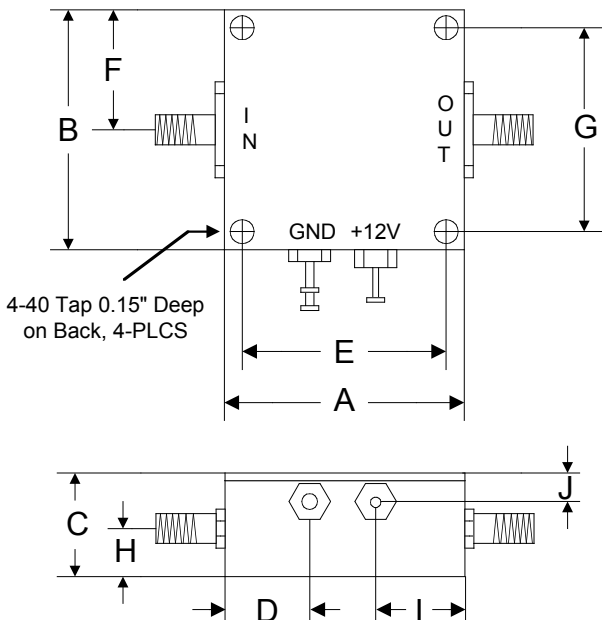
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+13dBm
Input DC Voltage	$\pm 2V$
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