

FPS Series

0.1–13GHz Divide-By-20 Prescaler

Features

- Input Frequency: 0.1-13GHz
- Output Frequency: 5-650MHz
- Divide Ratio: 20
- Output Power: -2dBm
- Phase Noise: -145dBc/Hz
- DC Power: 12V
- Internal Voltage Regulator
- Reverse Voltage Protection
- SMA Female Connector

Picture



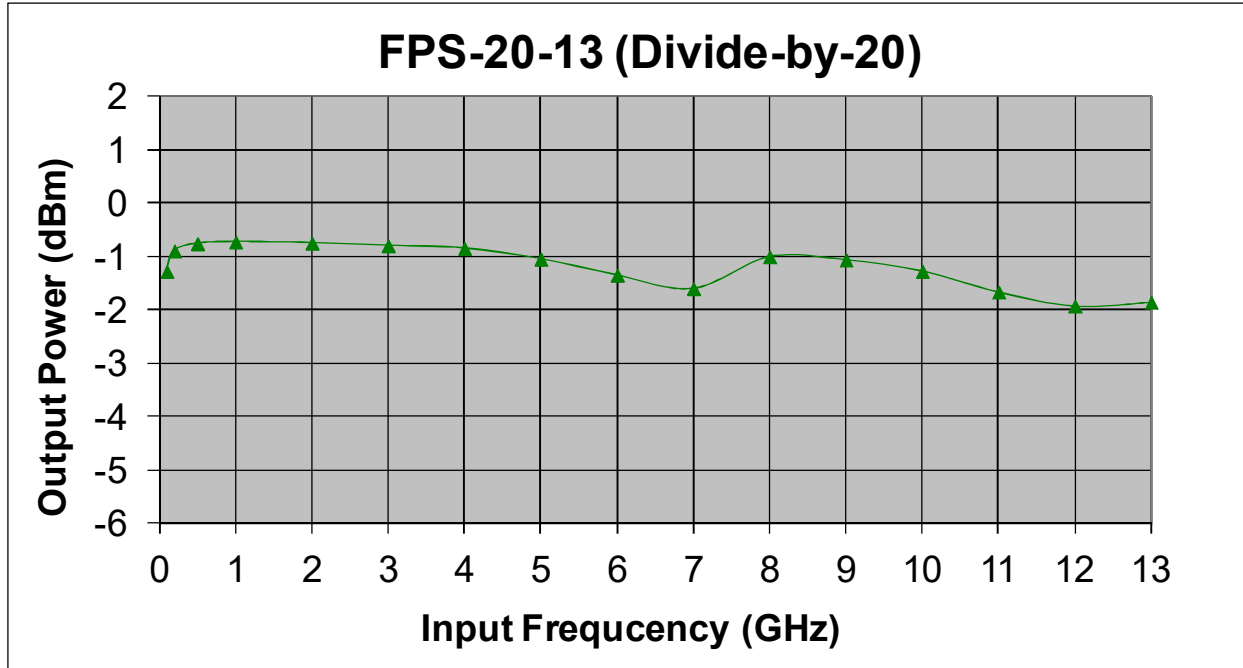
Description

FPS-20-13 is a wideband frequency 0.1 – 13GHz divider with divide ratio of 20.

Electrical Specifications @ +25 °C, $Z_{IN} = Z_{OUT} = 50 \Omega$, DC Supply = +12V

Parameter	Unit	Minimum	Typical	Maximum
Input Frequency Range	GHz	0.1		13
Output Frequency Range	MHz	5		650
Fixed Divide Ratio			20	
Input Power Range				
f = 0.1GHz – 1GHz	dBm	-1	0	+10
f = 1GHz – 10GHz	dBm	-15	0	+10
f = 10GHz – 12GHz	dBm	-10	0	+3
f = 12GHz – 13GHz	dBm	-5	0	+3
Output Power				
f = 0.1GHz – 1GHz	dBm	-4	-2	
f = 1GHz – 4GHz	dBm	-4	-1	
f = 4GHz – 13GHz	dBm	-5	-2	
SSB Phase Noise (100KHz Offset)	dBc/Hz		-145	
DC Power Supply	V	9	12	15
Supply Current	mA		200	220

Typical Performance @ +25 °C



Tested with $P_{in}=0\text{dBm}$

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Absolute Maximum Ratings

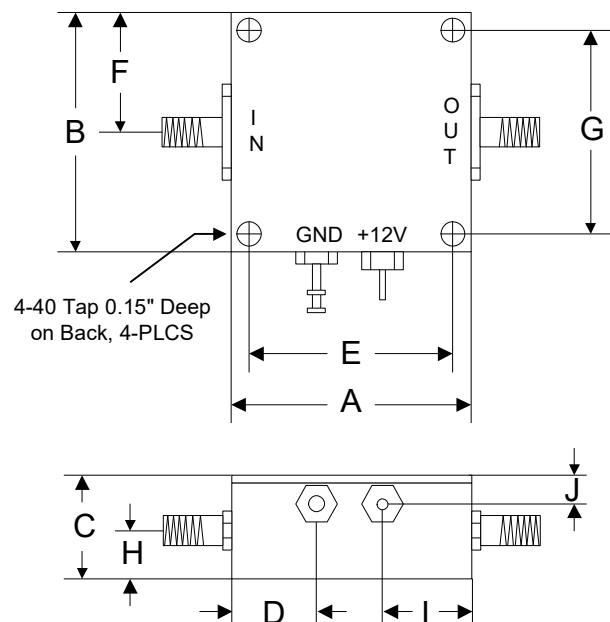
Parameter	Absolute Maximum
RF Input Power	+13dBm
Supply Voltage	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material



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