

FPS Series

0.1–20GHz Divide-By-8 Prescaler

Features

- Input Frequency: 0.1-20GHz
- Output Frequency: 0.0125-2.5GHz
- Divide Ratio: 8
- Output Power: +4dBm
- Phase Noise: -150dBc/Hz
- DC Power: 5V
- Internal Voltage Regulator
- Reverse Voltage Protection
- SMA Female Connector

Picture



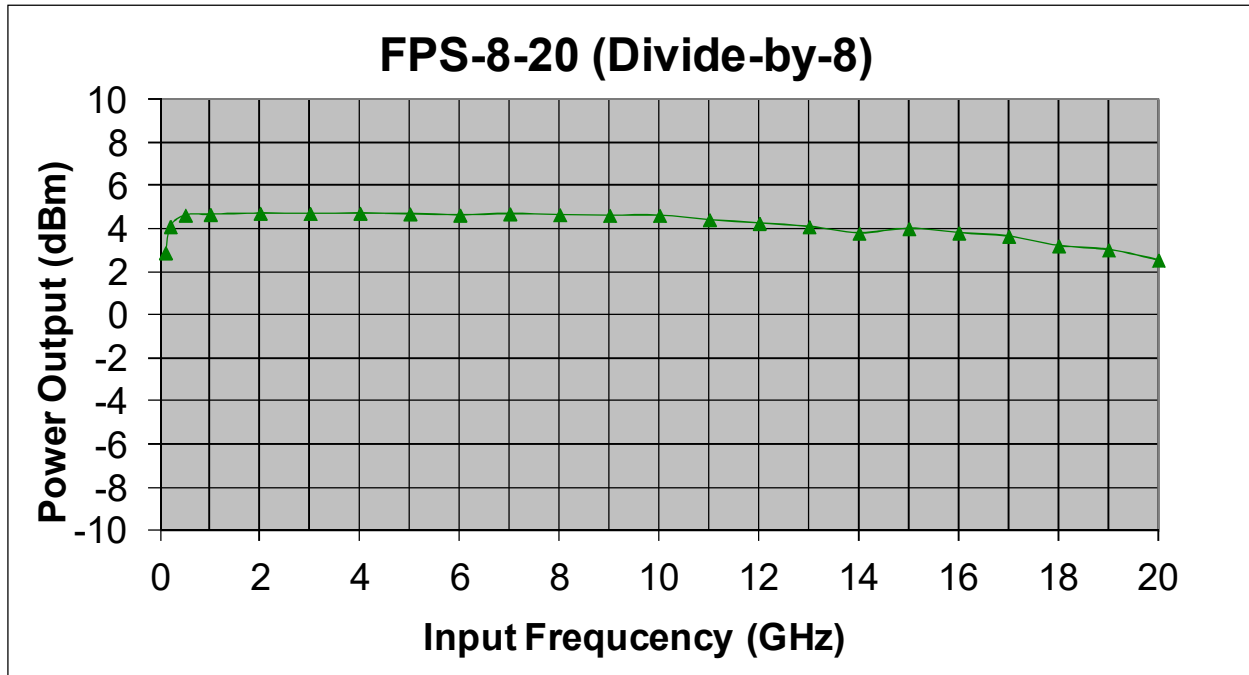
Description

FPS-8-20 is a wideband frequency 0.1 – 20GHz divider with divide ratio of 8.

Electrical Specifications @ +25 °C, $Z_{IN} = Z_{OUT} = 50 \Omega$, DC Supply = +5V

Parameter	Unit	Minimum	Typical	Maximum
Input Frequency Range	GHz	0.1		20
Output Frequency Range	GHz	0.0125		2.5
Fixed Divide Ratio			8	
Input Power Range				
f = 0.1GHz – 0.25GHz	dBm	+5	+5	+10
f = 0.25GHz – 1GHz	dBm	-2	0	+10
f = 1GHz – 10GHz	dBm	-16	0	+10
f = 10GHz – 18GHz	dBm	-12	0	+10
f = 18GHz – 20GHz	dBm	-9	0	+10
Output Power				
f = 0.1GHz – 1GHz	dBm	0	+4	
f = 1GHz – 10GHz	dBm	+1	+4	
f = 10GHz – 20GHz	dBm	-1	+3	
SSB Phase Noise (100KHz Offset)	dBc/Hz		-150	
DC Power Supply	V	4.5	5	15
Supply Current	mA		150	170

Typical Performance @ +25 °C



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

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Absolute Maximum Ratings

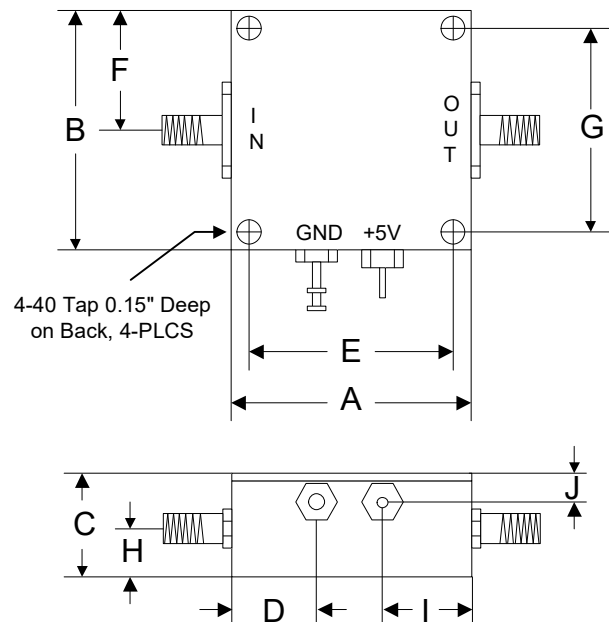
Parameter	Absolute Maximum
RF Input Power	+10dBm
Supply Voltage	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

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