

## FPS Series

## 0.1–12GHz Divide-By-40 Prescaler

### Features

- Input Frequency: 0.1-12GHz
- Output Frequency: 2.5-300MHz
- Divide Ratio: 40
- Output Power: -1dBm
- Phase Noise: -147dBc/Hz
- DC Power: 12V
- Internal Voltage Regulator
- Reverse Voltage Protection
- SMA Female Connector

### Picture



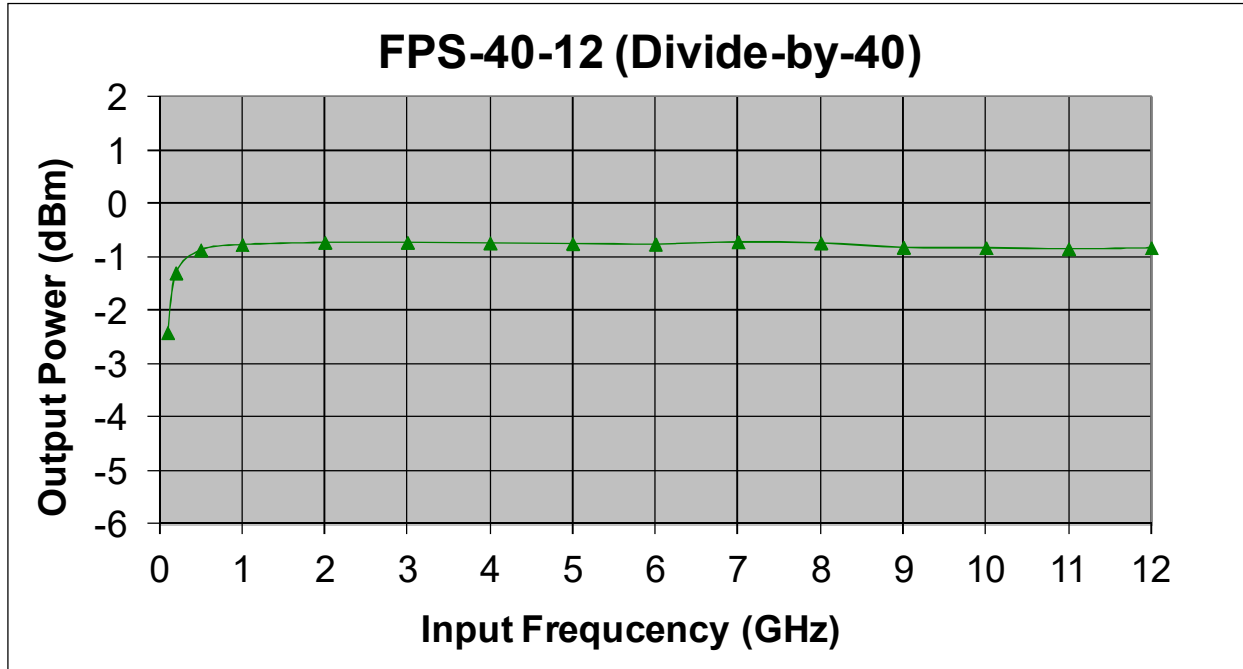
### Description

FPS-40-12 is a wideband frequency 0.1 – 12GHz divider with divide ratio of 40.

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

Parameter	Unit	Minimum	Typical	Maximum
Input Frequency Range	GHz	0.1		12
Output Frequency Range	MHz	2.5		300
Fixed Divide Ratio			40	
Input Power Range				
f = 0.1GHz – 1GHz	dBm	-3	0	+10
f = 1GHz – 10GHz	dBm	-15	0	+10
f = 10GHz – 12GHz	dBm	-10	0	+2
Output Power				
f = 0.1GHz – 1GHz	dBm	-5	-2	
f = 1GHz – 12GHz	dBm	-4	-1	
SSB Phase Noise (100KHz Offset)	dBc/Hz		-147	
DC Power Supply	V	9	12	15
Supply Current	mA		150	170

Typical Performance @ +25 °C



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

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### Absolute Maximum Ratings

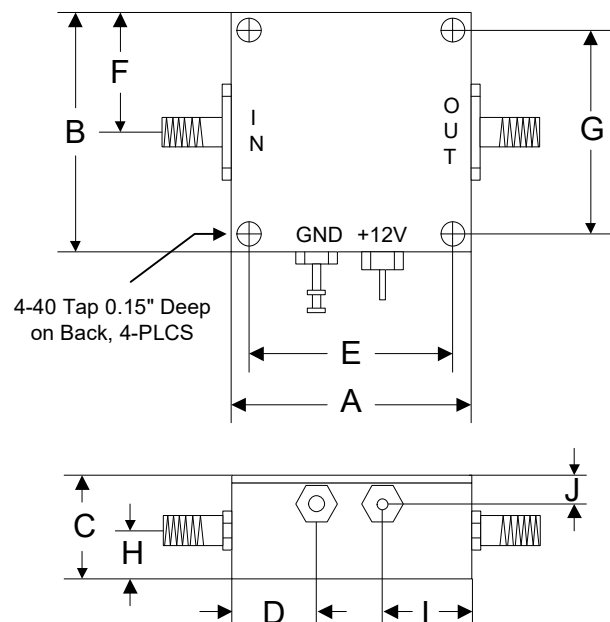
Parameter	Absolute Maximum
RF Input Power	+13dBm
Supply Voltage	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### 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
<b>Inch</b>	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
<b>mm</b>	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76