

100KHz – 50MHz Divide-By-N Prescaler

Features

- Input Frequency: 100KHz-50MHz
- Output Frequency: F_{in}/N
- Divide Ratio: N (2 to 256 preset)
- Output Power: +12dBm
- Phase Noise: -144dBc/Hz
- DC Power: 12V
- SMA Connector

Description

HD31398 is a 0.1-50MHz frequency divider with divide ratio of 2 to 256 (N must be specified when ordering). The AC coupled square wave output with 2.2 Vp-p

(into 50 Ω) swing fits many PLL applications.

Picture



Electrical Specifications @ +25 °C, $Z_s = Z_L = 50 \Omega$

Parameter	Unit	Minimum	Typical	Maximum
Input Frequency Range F_{in}	MHz	0.1		50
Output Frequency Range	MHz		F_{in}/N	
Fixed Divide Ratio		N (Must be between 2 and 256, Factory set)		
Input Power Range				
f = 100KHz – 200KHz	dBm	+10		+17
f = 200KHz – 1MHz	dBm	+3		+17
f = 1MHz – 5MHz	dBm	-10		+17
f = 5MHz – 50MHz	dBm	-20		+17
Output Power to 50 Ohm Load	dBm		+12	
Output Voltage Swing (8pF Load)	Vp-p	4.5	4.8	
SSB Phase Noise (100KHz Offset)	dBc/Hz		-144	
DC Power Supply	V	7	12	24
Supply Current	mA		70	

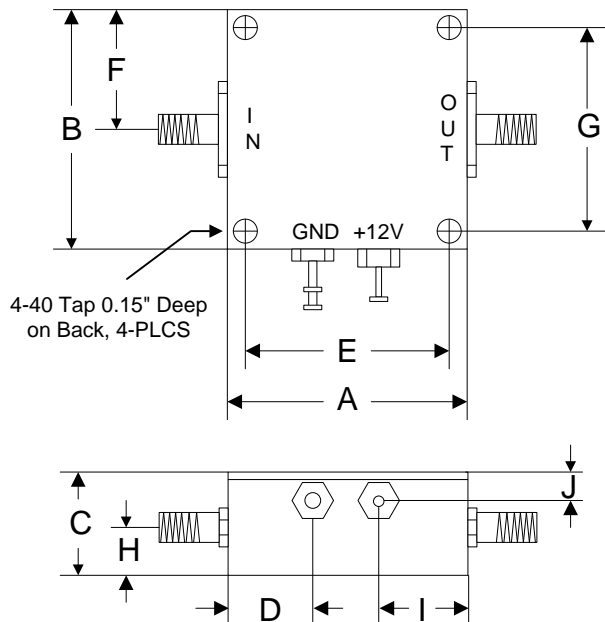
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Order Example: FAS-100 (N=100, Divide by 100)

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+20dBm
Supply Voltage	+25V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +100 °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

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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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