

300-310MHz Input Frequency Tripler

Features

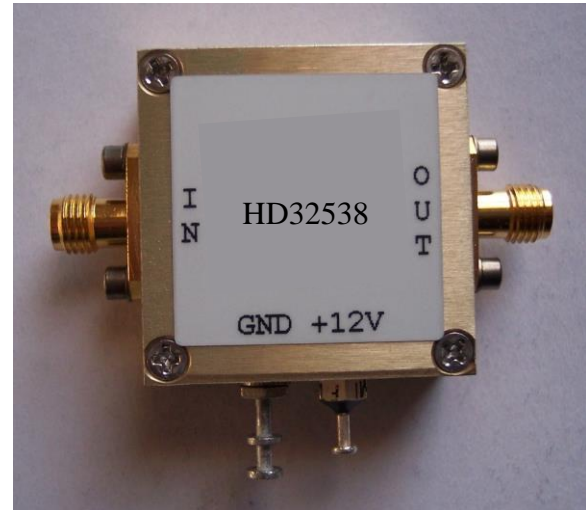
- Input Frequency: 300 – 310MHz
- Output Frequency: 900 – 930MHz
- Conversion Gain: 13B
- F0 Isolation: 60dB
- Input Drive Level: 0Bm
- DC Power: 12V
- SMA Connector

Performance@305MHz, Pin= 0Bm

Description

HD32538 is an active frequency tripler operates with input frequency range from 300 to 310MHz and output frequency range from 900 to 930MHz.

Picture



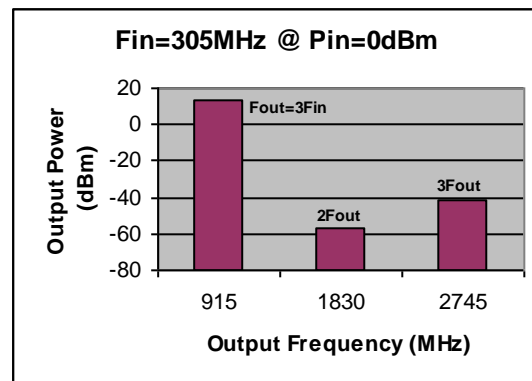
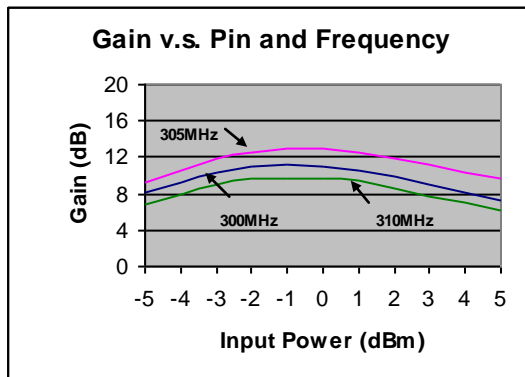
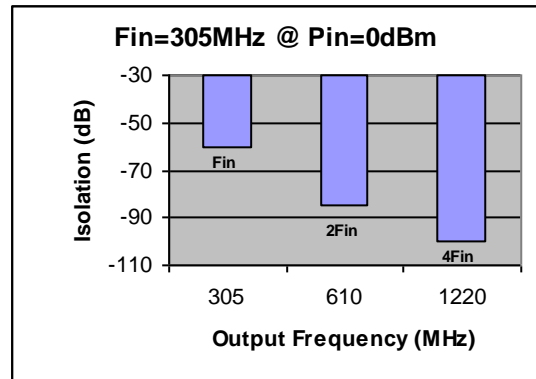
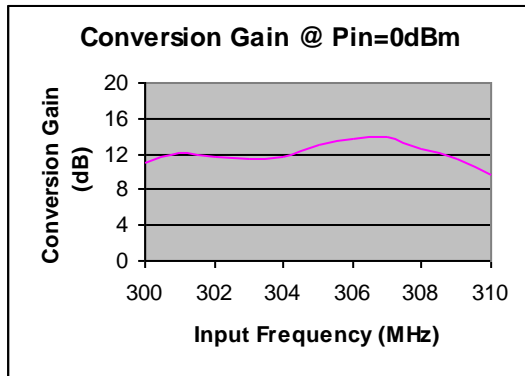
Electrical Specifications @ +25 °C, $Z_s = Z_L = 50 \text{ Ohms}$, Pin = 0Bm

Parameter	Unit	Min.	Typ.	Max.
Input Frequency Range	MHz	300	305	310
Output Frequency Range	MHz	900	915	930
Conversion Gain	dB	9.5	13	
Output Power $F_{in}=305\text{MHz}/F_{out}=915\text{MHz}$	dBm		13	
F ₀ Isolation * $F_{in}=305\text{MHz}/F_{in}=305\text{MHz}$	dB		60	
2F ₀ Isolation * $F_{in}=305\text{MHz}/2F_{in}=610\text{MHz}$	dB		85	
4F ₀ Isolation * $F_{in}=305\text{MHz}/4F_{in}=1220\text{MHz}$	dB		100	
Harmonic Output * $F_{in}=305\text{MHz}/2F_{out}=1830\text{MHz}$	dBc		69	
$F_{in}=305\text{MHz}/3F_{out}=2745\text{MHz}$	dBc		54	
VSWR Input/Output	1:		1.3/1.8	
DC Power Input	V	10	12	15
Operating Current	mA		150	

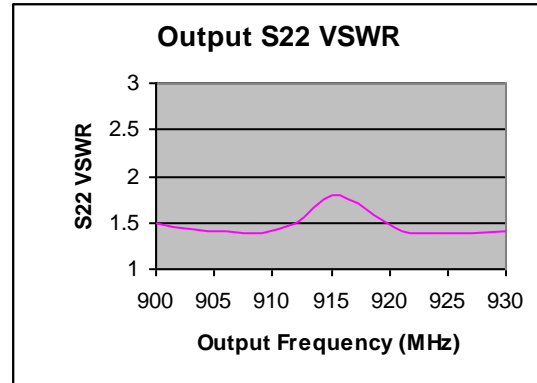
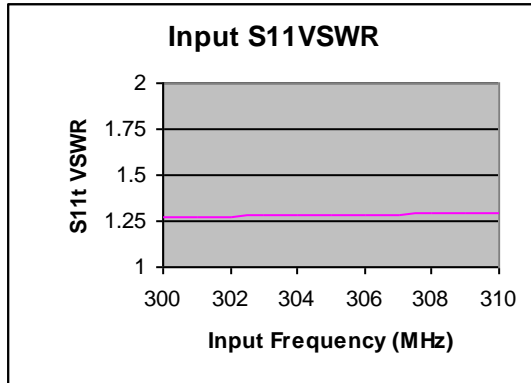
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* Isolation with respect to desired frequency output power level at 915MHz

Typical Performance @ +25 °C



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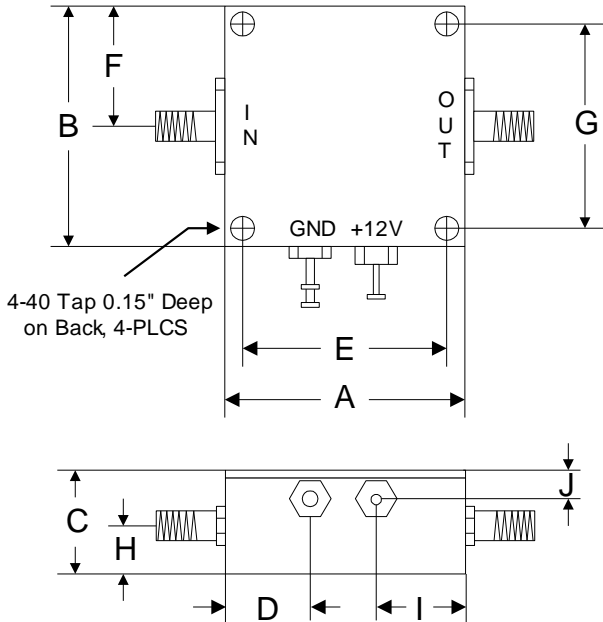


Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+20dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +105 °C

Outline

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	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