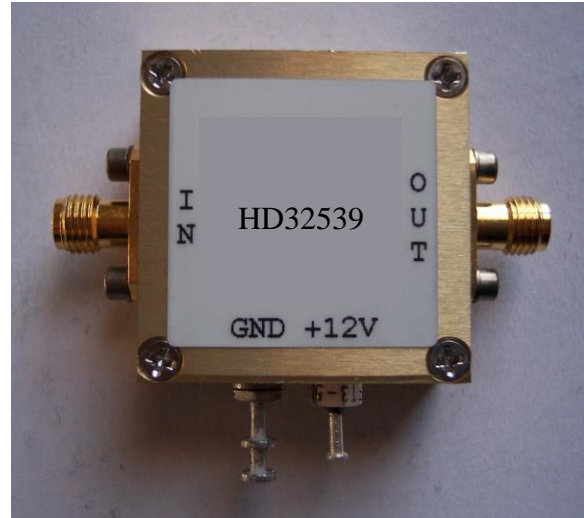


## 600-630MHz Input Frequency Tripler

### Features

- Input Frequency: 600 – 630MHz
- Output Frequency: 1800 – 1890MHz
- Conversion Gain: 12dB
- F0 Isolation: 35dB
- Input Drive Level: 0dBm
- DC Power: 12V
- SMA Connector

### Picture



Performance @ 615MHz, Pin = 0dBm

### Description

HD32539 is an active frequency tripler operates with input frequency range from 600 to 630MHz and output frequency range from 1800 to 1890MHz.

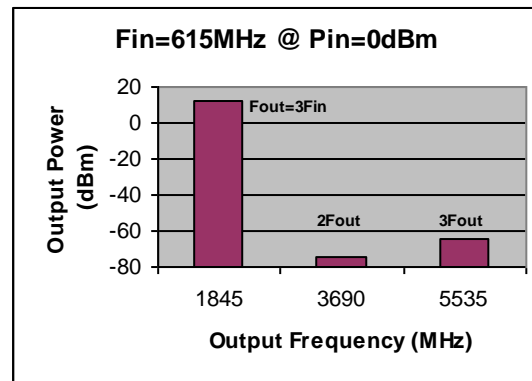
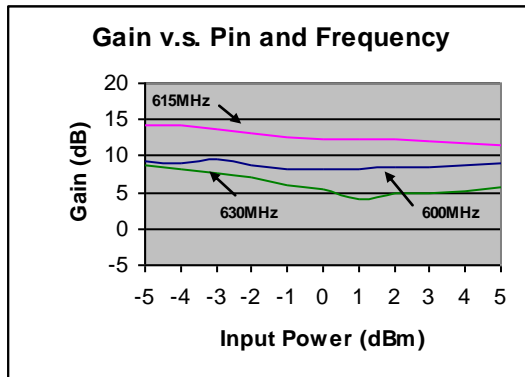
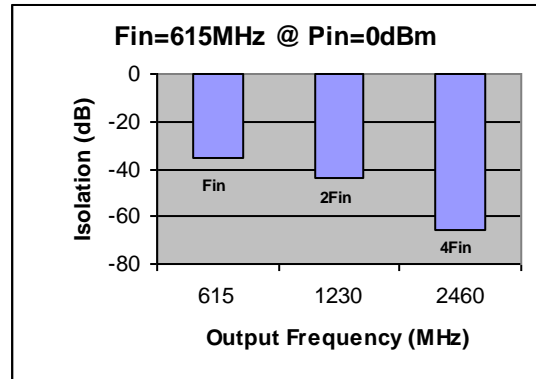
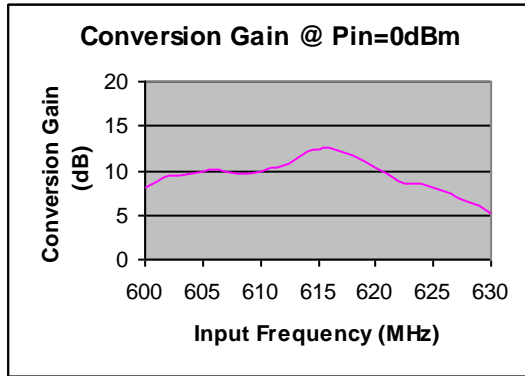
### Electrical Specifications @ +25 °C, $Z_S = Z_L = 50$ Ohms, Pin = 0dBm

Parameter	Unit	Min.	Typ.	Max.
Input Frequency Range	MHz	600	615	630
Output Frequency Range	MHz	1800	1845	1890
Conversion Gain	dB	5	12	
Output Power $F_{in}=615\text{MHz}/F_{out}=1845\text{MHz}$	dBm		12	
F <sub>0</sub> Isolation * $F_{in}=615\text{MHz}/F_{in}=615\text{MHz}$	dB		35	
2F <sub>0</sub> Isolation * $F_{in}=615\text{MHz}/2F_{in}=1230\text{MHz}$	dB		43	
4F <sub>0</sub> Isolation * $F_{in}=615\text{MHz}/4F_{in}=2460\text{MHz}$	dB		65	
Harmonic Output * $F_{in}=615\text{MHz}/2F_{out}=3690\text{MHz}$	dBc		85	
$F_{in}=615\text{MHz}/3F_{out}=5535\text{MHz}$	dBc		75	
VSWR Input/Output	1:		1.7/2.1	
DC Power Input	V	10	12	15
Operating Current	mA		160	

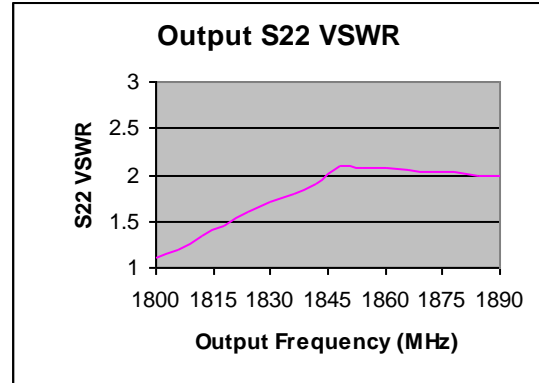
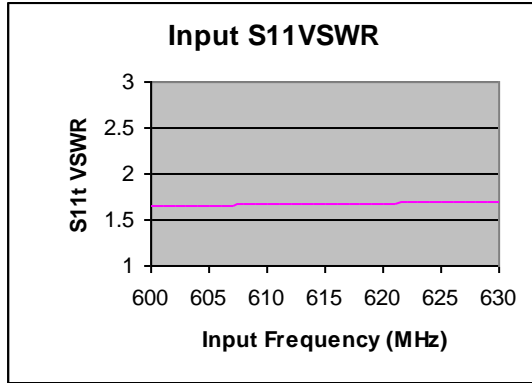
## 600-630MHz Input Frequency Tripler

\* Isolation with respect to desired frequency output power level at 1845MHz

### Typical Performance @ +25 °C



**600-630MHz Input Frequency Tripler**

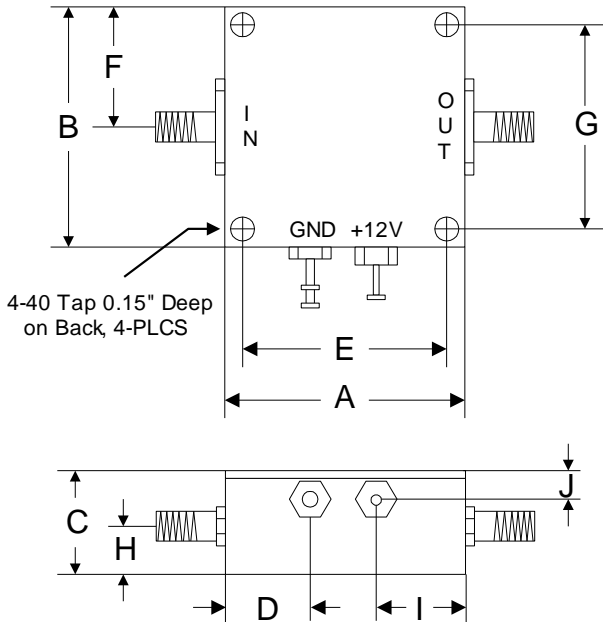


**Absolute Maximum Ratings**

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

**Outline**

**600-630MHz Input Frequency Tripler**



	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