

FDR Series

4.0-8.0GHz Input Frequency Doubler

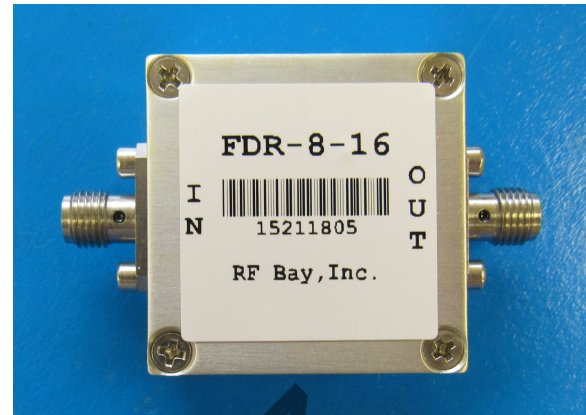
Features

- Input Frequency: 4.0 – 8.0GHz
- Output Frequency: 8.0 –16.0GHz
- Conversion Loss: 17dB
- F0 Isolation: 25dB
- Input Drive Level: +12 to +18dBm
- No DC Power Required
- SMA Connector

Description

FDR-8-16 is a passive frequency doubler operates with input frequency range from 4.0 to 8.0GHz and output frequency range from 8.0 to 16.0GHz.

Picture



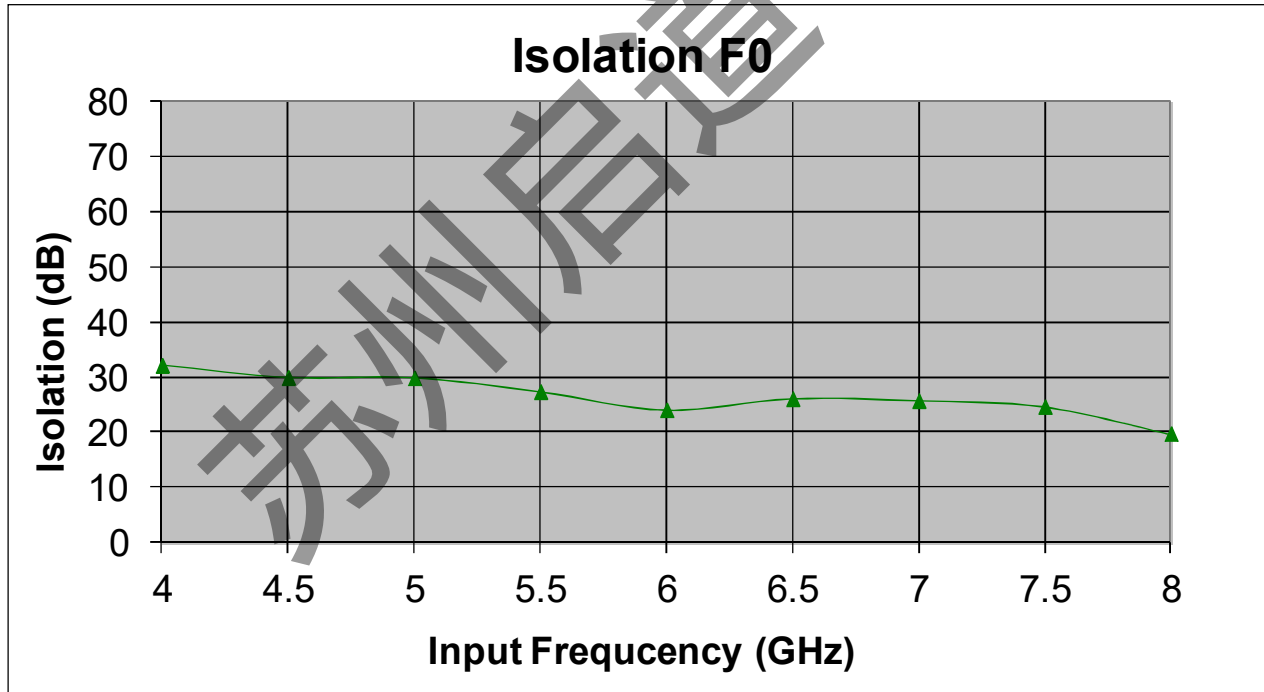
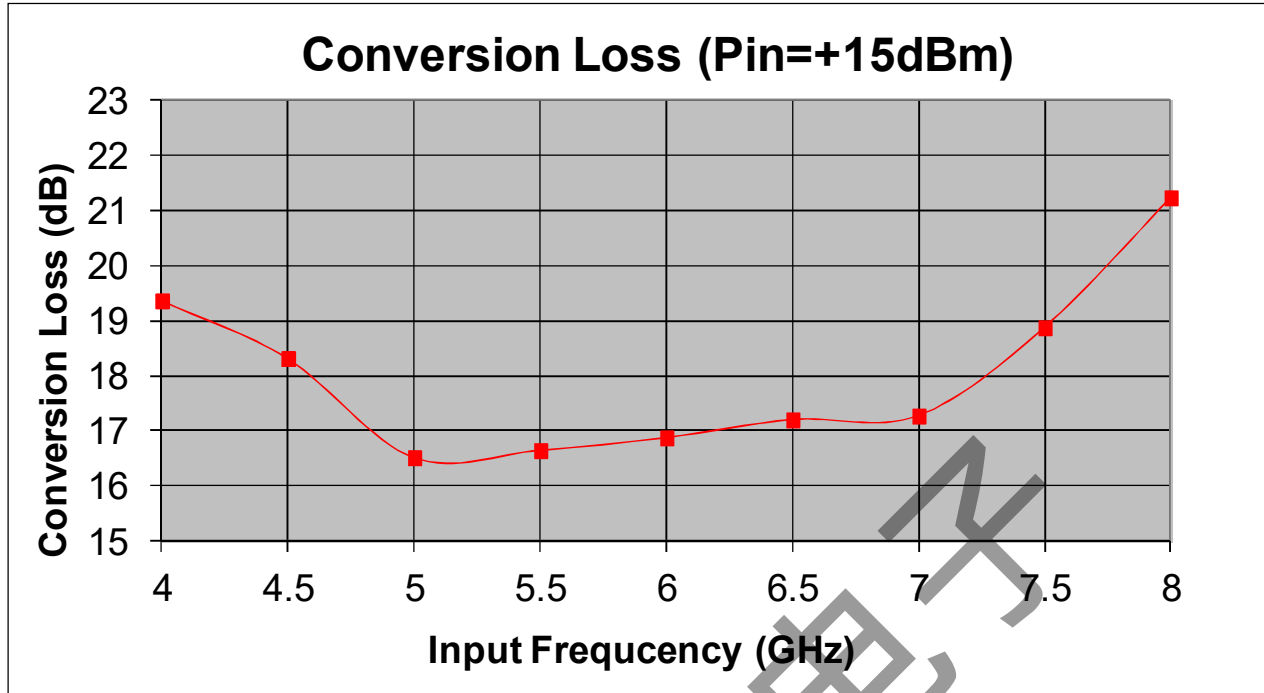
Electrical Specifications @ +25 °C, $Z_{IN} = Z_{OUT} = 50\Omega$, $P_{IN} = +15\text{dBm}$

Parameter	Unit	Min.	Typ.	Max.
Input Frequency Range F0	GHz	4.0		8.0
Output Frequency Range 2F0	GHz	8.0		16.0
Conversion Loss	dB		17	23
Input power P_{IN}	dBm	+12		+18
F0 Isolation *	dB	13	25	
3F0 Isolation *	dB	23	35	
Input VSWR S_{11} @ 6.0GHz			2.3:1	3.5:1
Output VSWR S_{22} @ 12.0GHz			2.0:1	3.0:1

* Isolation with respect to output power level of 2F0

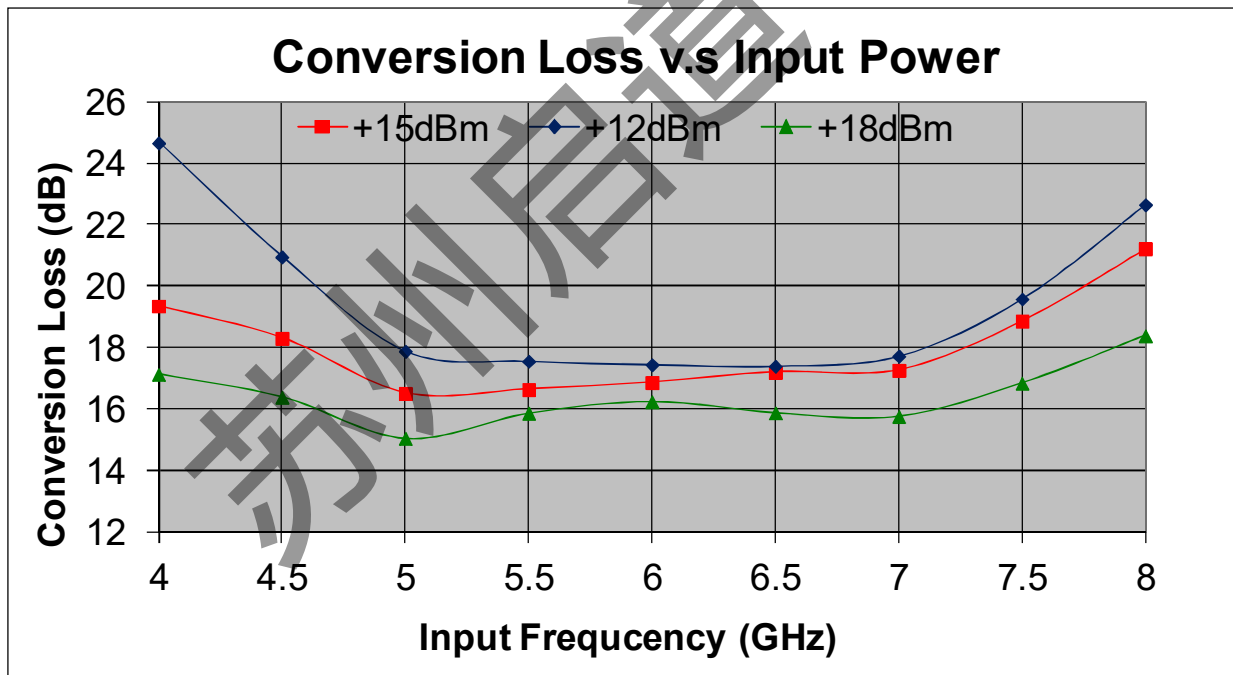
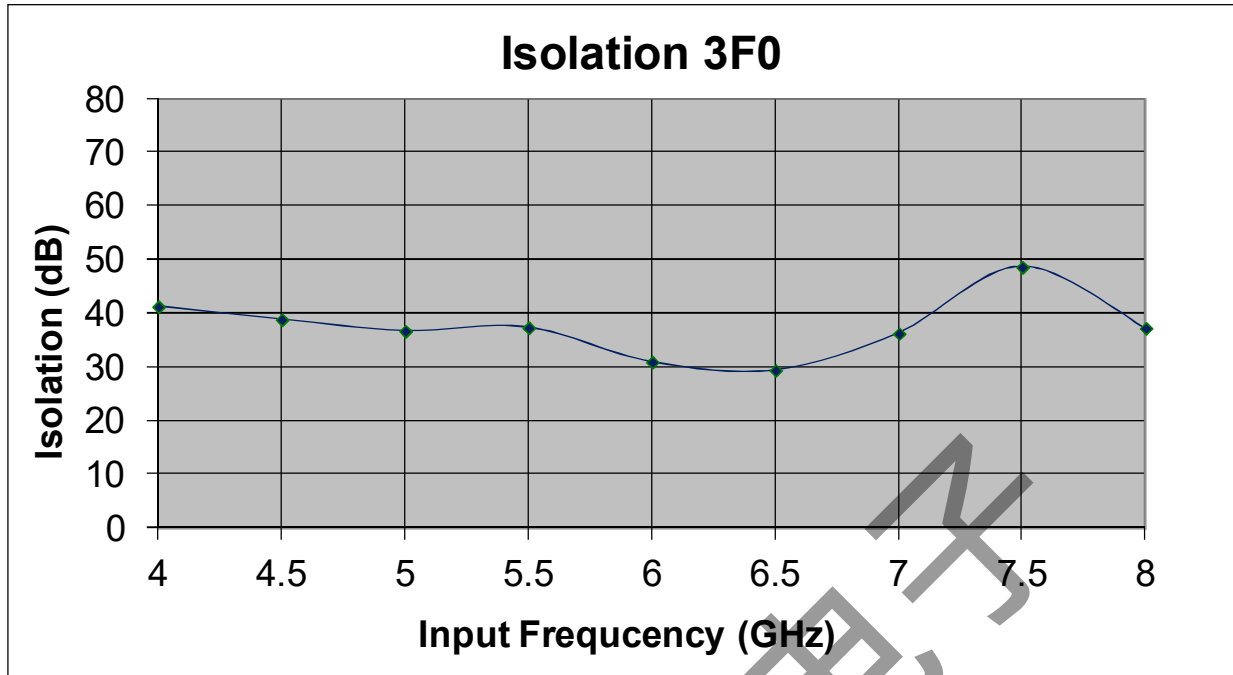
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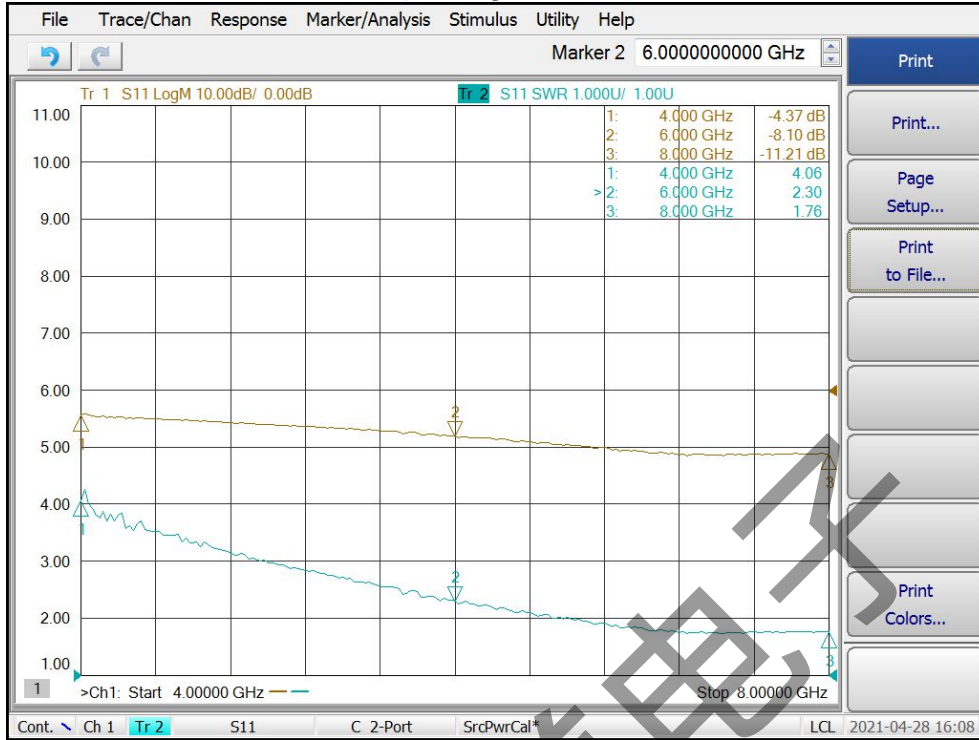
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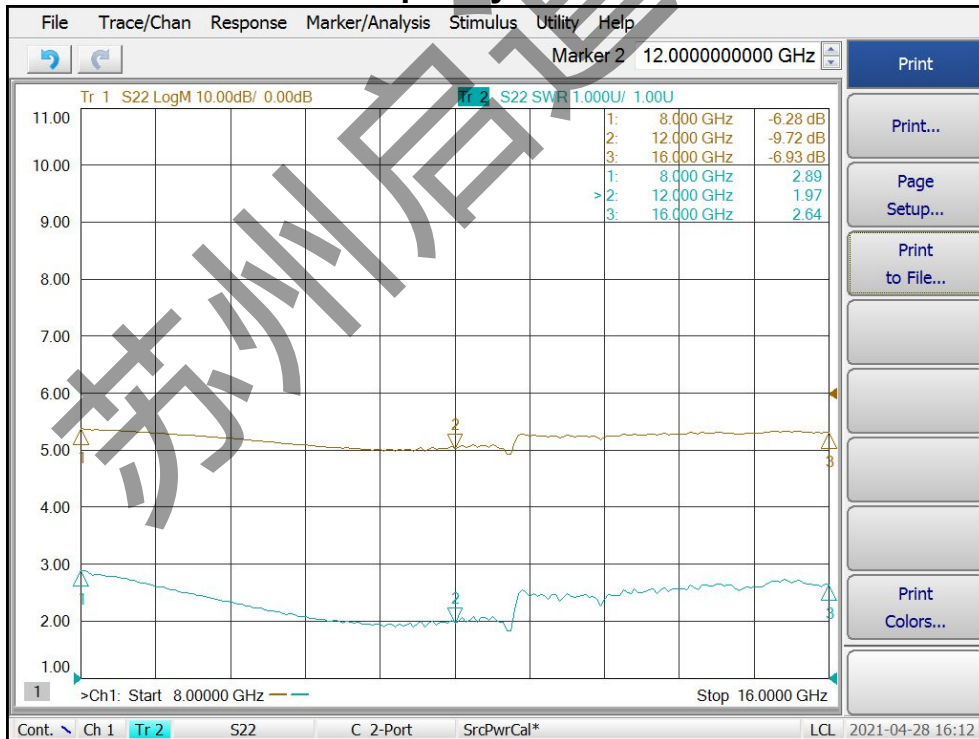
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Return Loss S11 vs Frequency



Return Loss S22 vs Frequency



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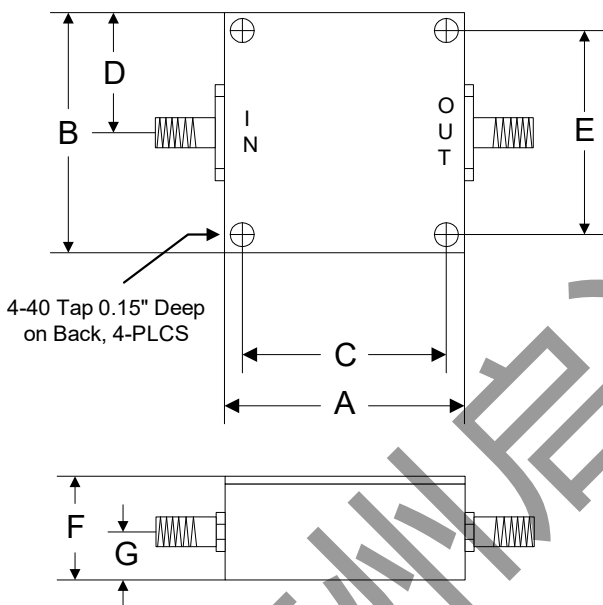
Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+27dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-65 °C to +150 °C

ESD Sensitive Material



Outline



	A	B	C	D	E	F	G
Inch	1.250	1.250	1.000	0.625	1.000	0.563	0.250
mm	31.75	31.75	25.40	15.88	25.40	14.29	6.35