

FDR Series

0.9-2.0GHz Input Frequency Doubler

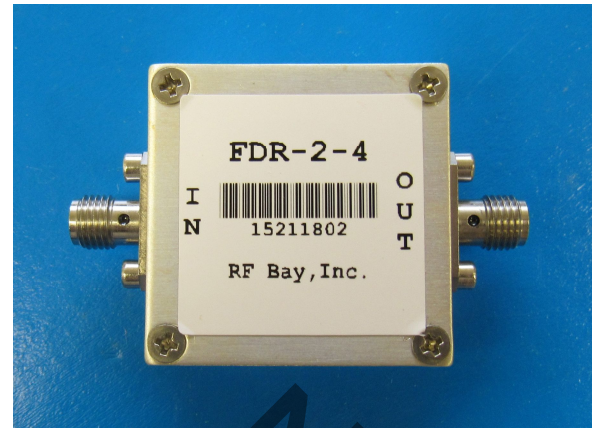
Features

- Input Frequency: 0.9 – 2.0GHz
- Output Frequency: 1.8 – 4.0GHz
- Conversion Loss: 14dB
- F0 Isolation: 35dB
- Input Drive Level: +12 to +18dBm
- No DC Power Required
- SMA Connector

Description

FDR-2-4 is a passive frequency doubler operates with input frequency range from 0.9 to 2.0GHz and output frequency range from 1.8 to 4.0GHz.

Picture



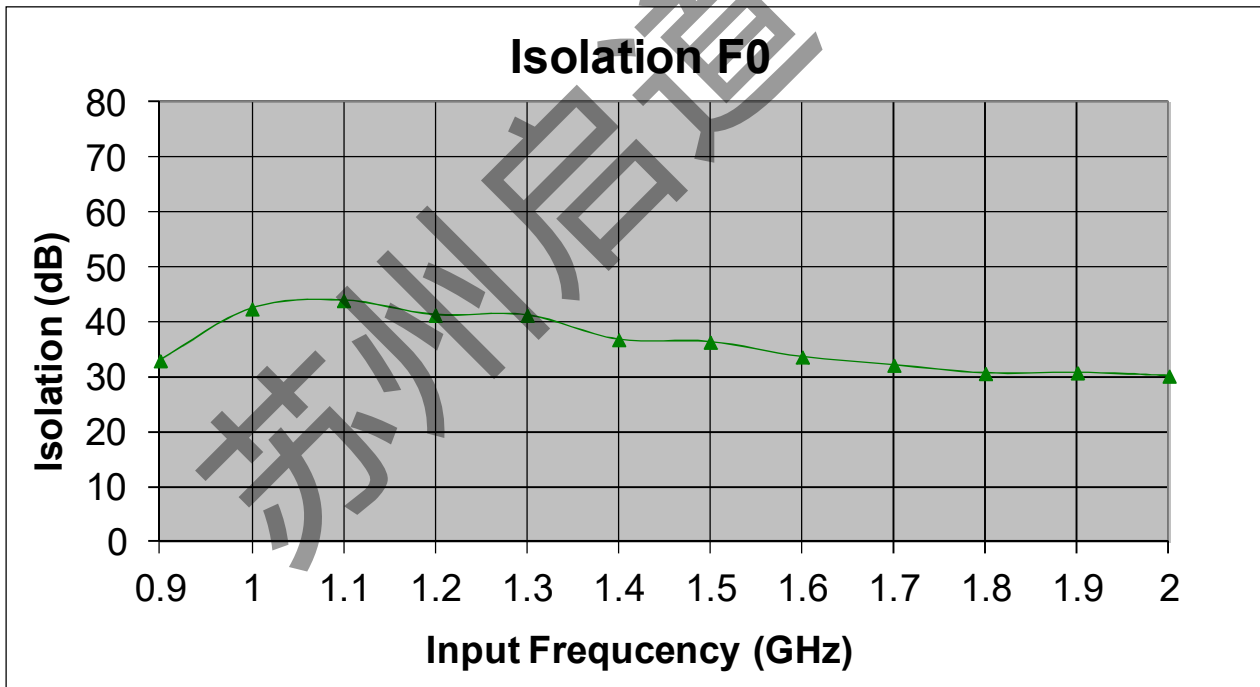
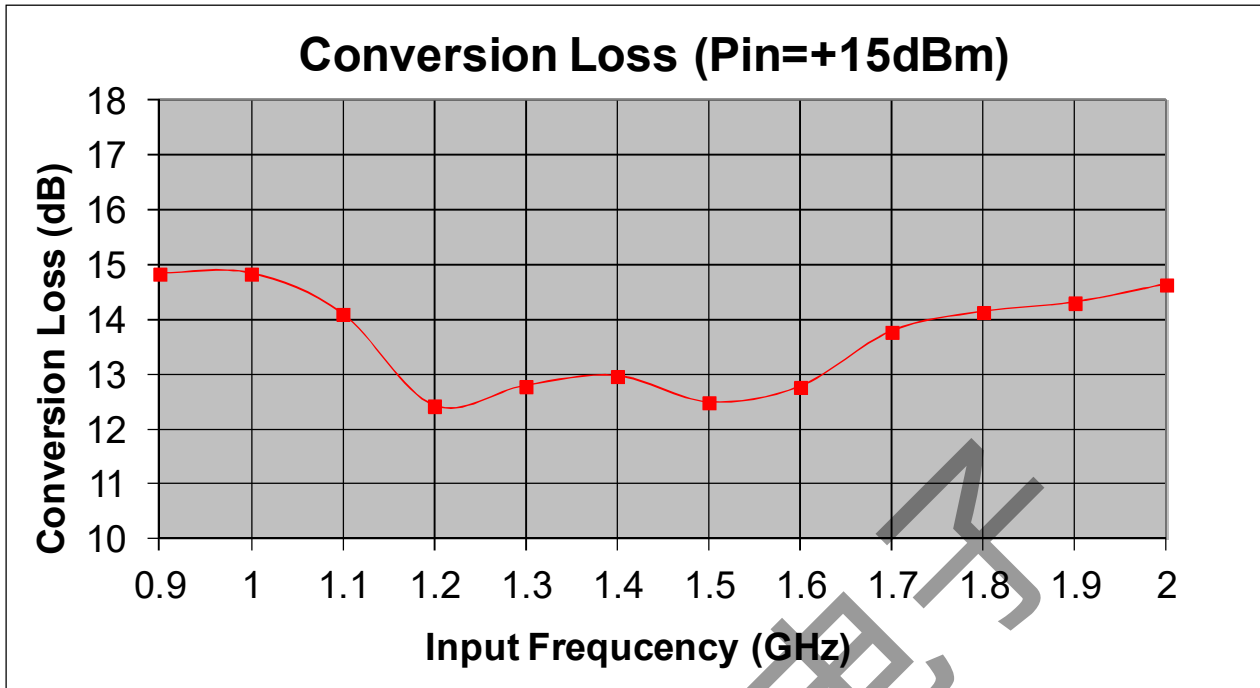
Electrical Specifications @ +25 °C, $Z_{IN} = Z_{OUT} = 50\Omega$, $P_{IN} = +15\text{dBm}$

Parameter	Unit	Min.	Typ.	Max.
Input Frequency Range F0	GHz	0.9		2.0
Output Frequency Range 2F0	GHz	1.8		4.0
Conversion Loss	dB		14	17
Input power P_{IN}	dBm	+12		+18
F0 Isolation *	dB	20	35	
3F0 Isolation *	dB	25	40	
Input VSWR S_{11} @ 1.42GHz			2.2:1	3.5:1
Output VSWR S_{22} @ 2.85GHz			2.7:1	3.5:1

* Isolation with respect to output power level of 2F0

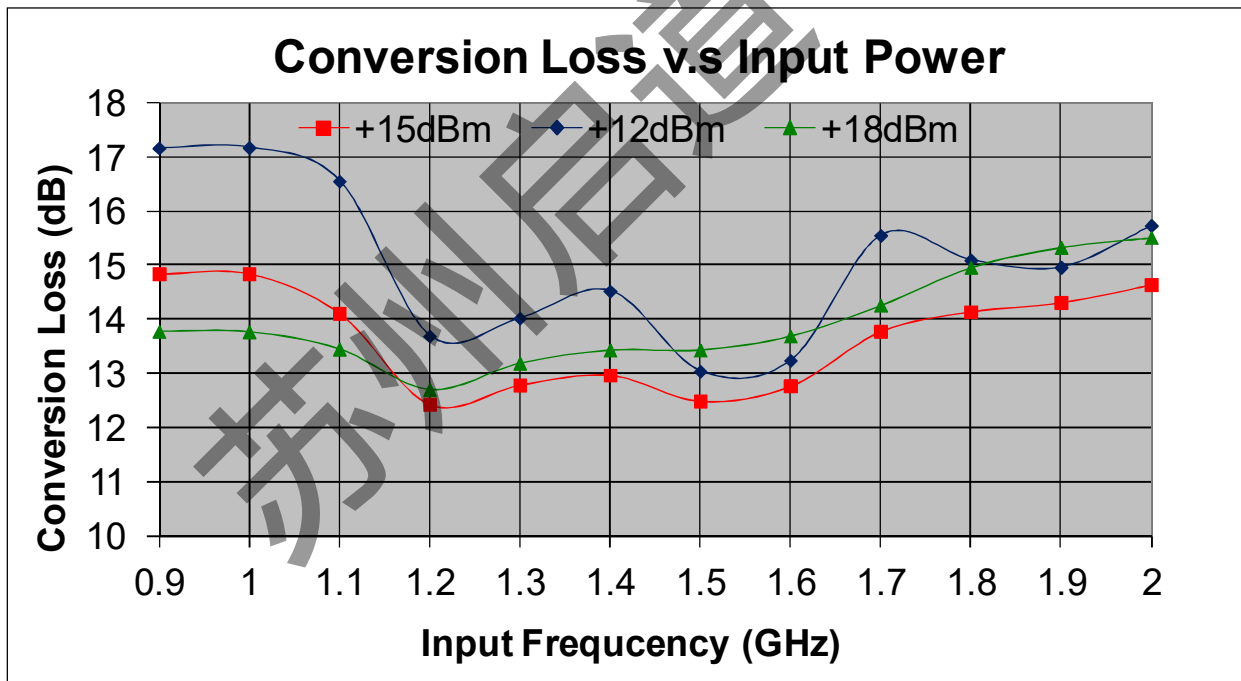
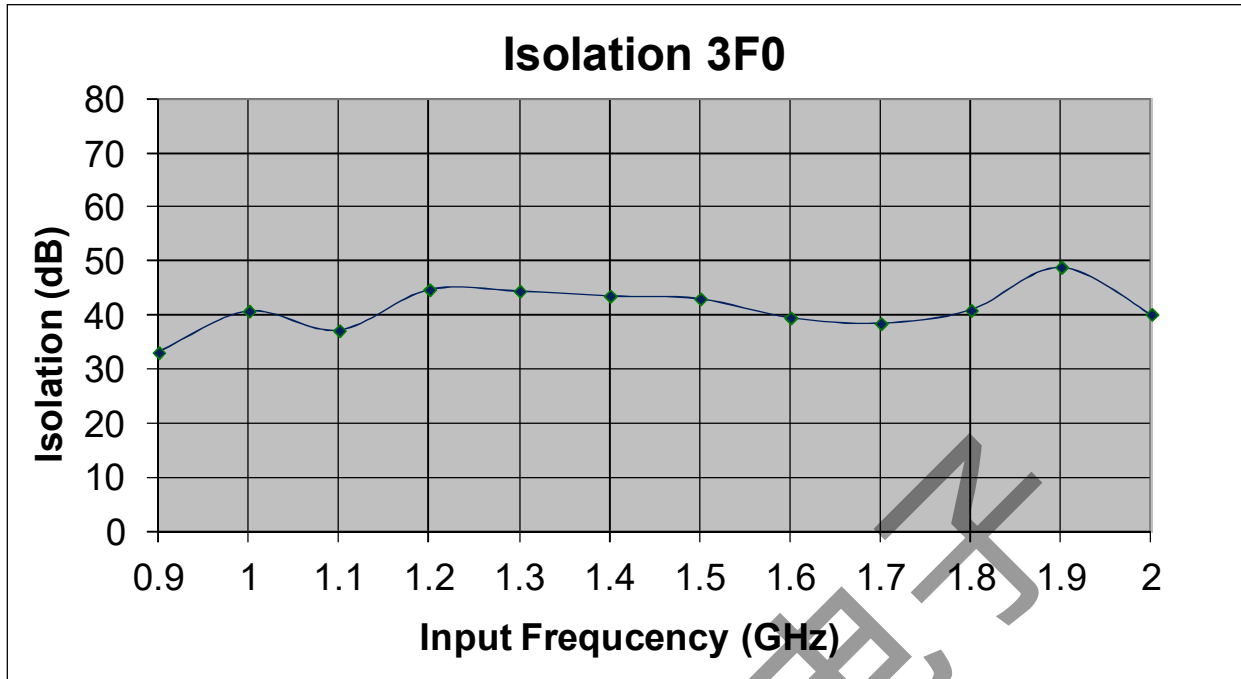
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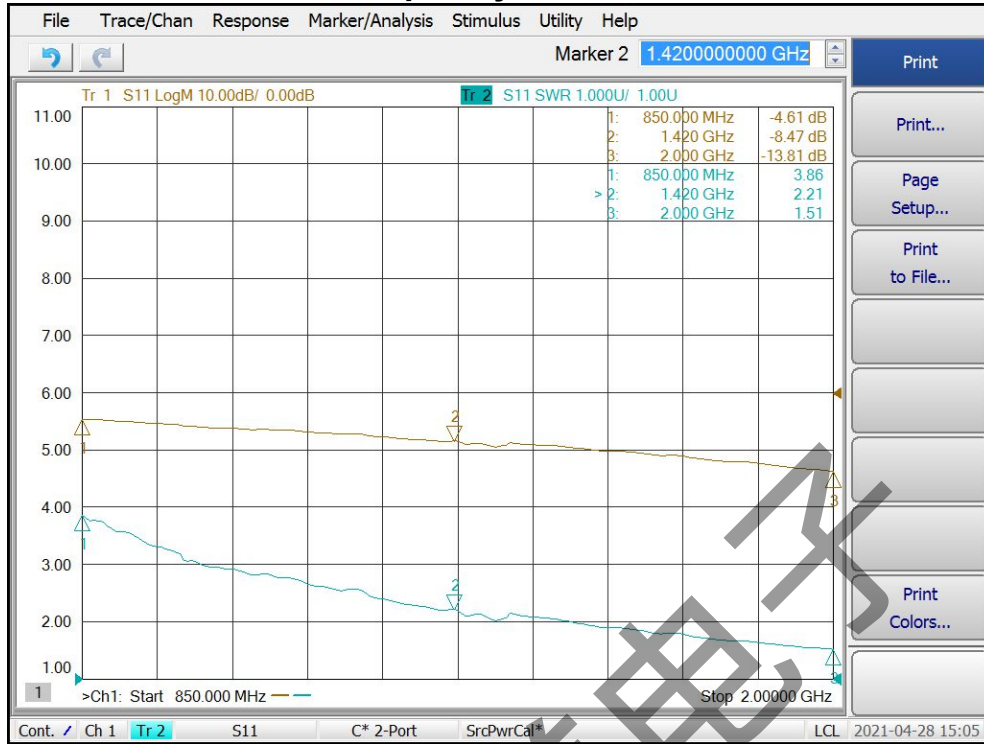
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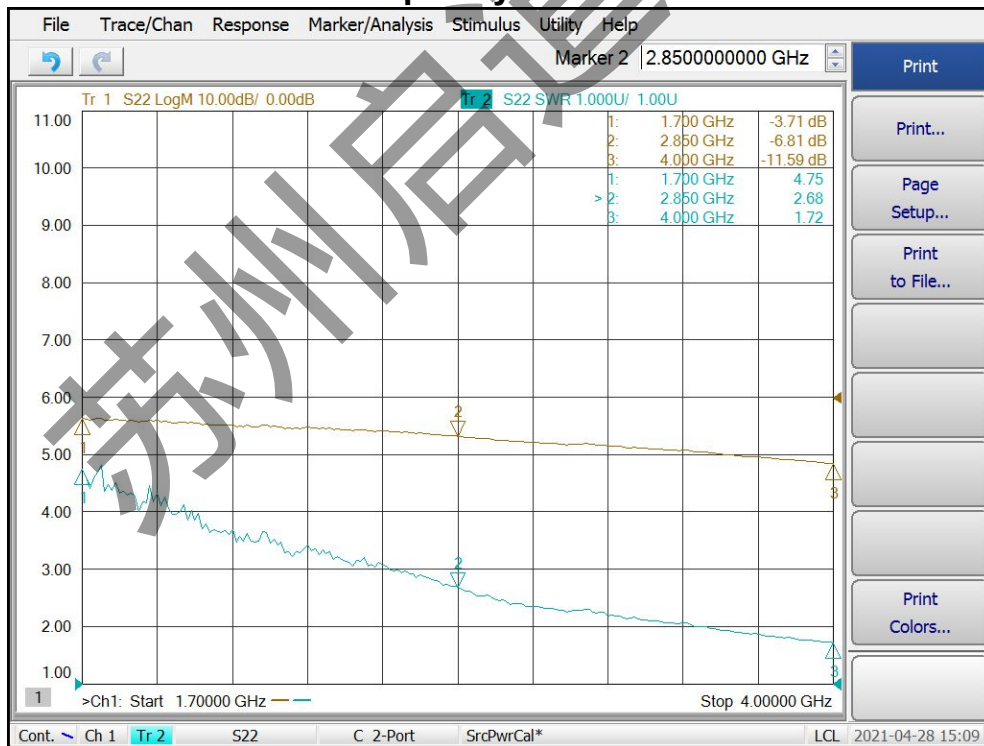
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Return Loss S11 vs Frequency



Return Loss S22 vs Frequency



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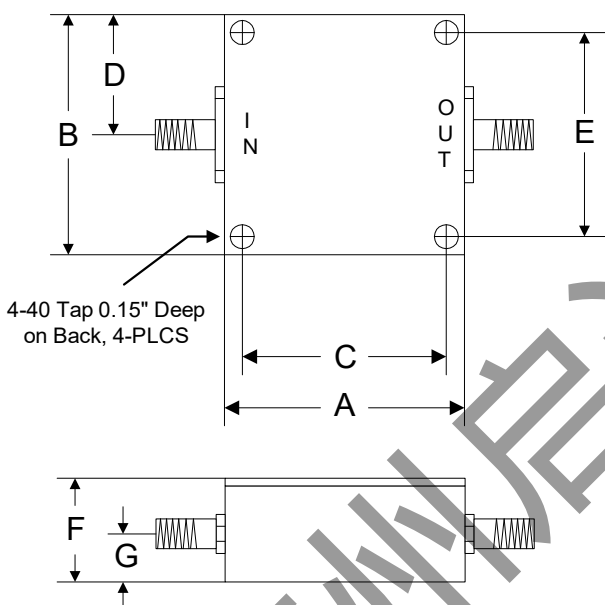
Absolute Maximum Ratings

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