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FAR-814

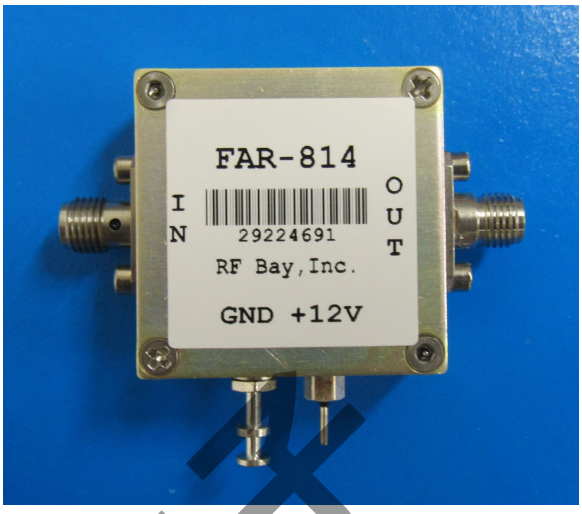
FAR Series 6.5-12.25GHz Input Frequency Doubler

Features

- Input Frequency: 6.5-12.25GHz
- Output Frequency: 13-24.5GHz
- Conversion Gain: 12dB
- F_0 Isolation: 20dB
- Input Drive Level: +3dBm
- DC Power: 12V/95mA
- SMA Input RF Connector
- K-2.92mm Output RF Connector

Performance @ F_{in} =9.5GHz, P_{in}=+3dBm

Picture



Description

FAR-814 is an active frequency doubler operates with input frequency range from 6.5 to 12.25GHz and output frequency range from 13 to 24.5GHz.

Electrical Specifications @ +25 °C, Z_{in} = Z_{out} = 50 Ω, DC Voltage = +12V

Parameter	Unit	Min.	Typ.	Max.
Input Frequency Range	GHz	6.5		12.25
Output Frequency Range	GHz	13		24.5
Conversion Gain P_{in}=+3dBm	dB	8	12	
Input Power Drive Range	dBm	0	+3	+6
Output Power F_{in}=9.5GHz/F_{out}=19GHz	dBm	+10	+14	
F_0 Isolation * F_{in}=9.5GHz/F_{out}=9.5GHz	dB	20	25	
3 F_0 Isolation * F_{in}=9.5GHz/F_{out}=28.5GHz	dB	20	25	
SSB Phase Noise @ 100KHz Offset	dBc/Hz		-136	
Input VSWR S11 F_{in}=9.5GHz Output VSWR S22 F_{out}=19GHz			2.0:1 1.6:1	2.5:1 2.0:1
DC Power Input	V	9	12	15
Operating Current	mA		95	110

* Isolation with respect to desired frequency output power level at 19GHz

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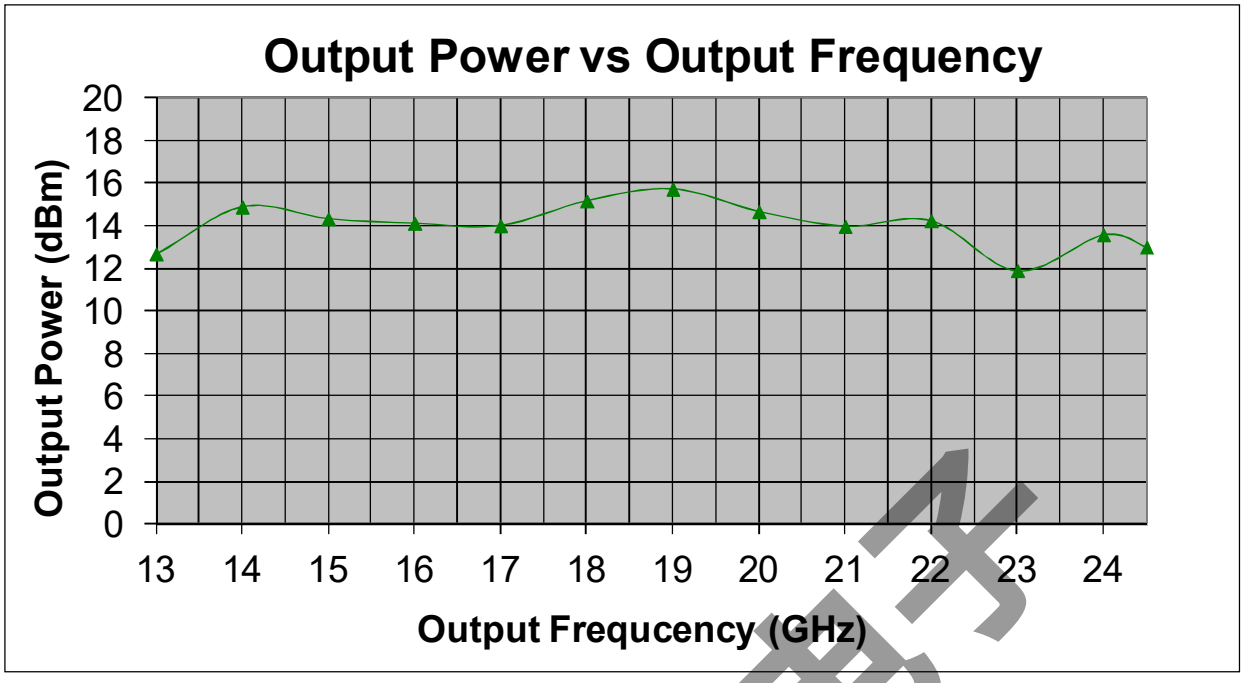

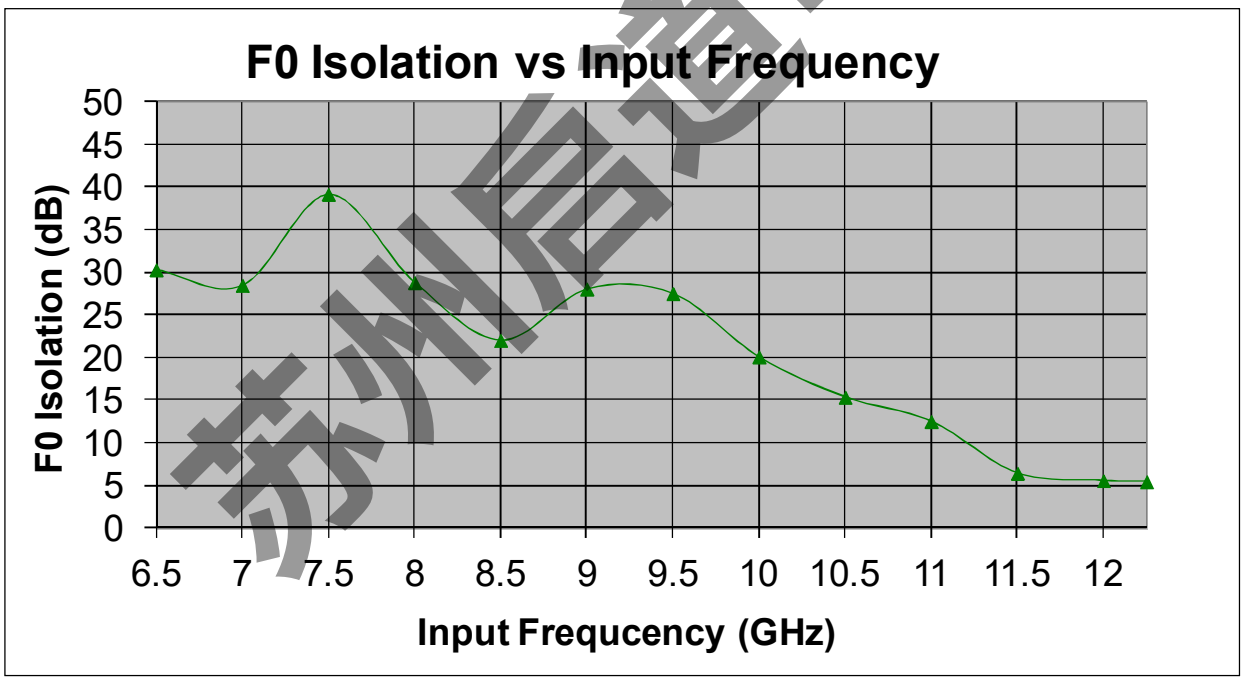

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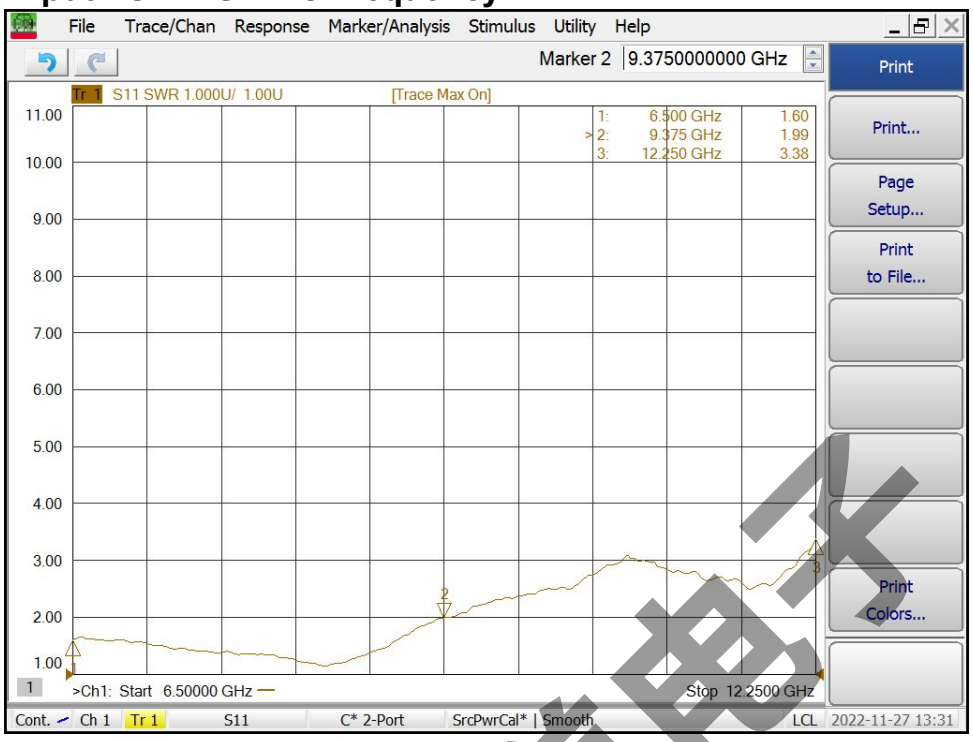
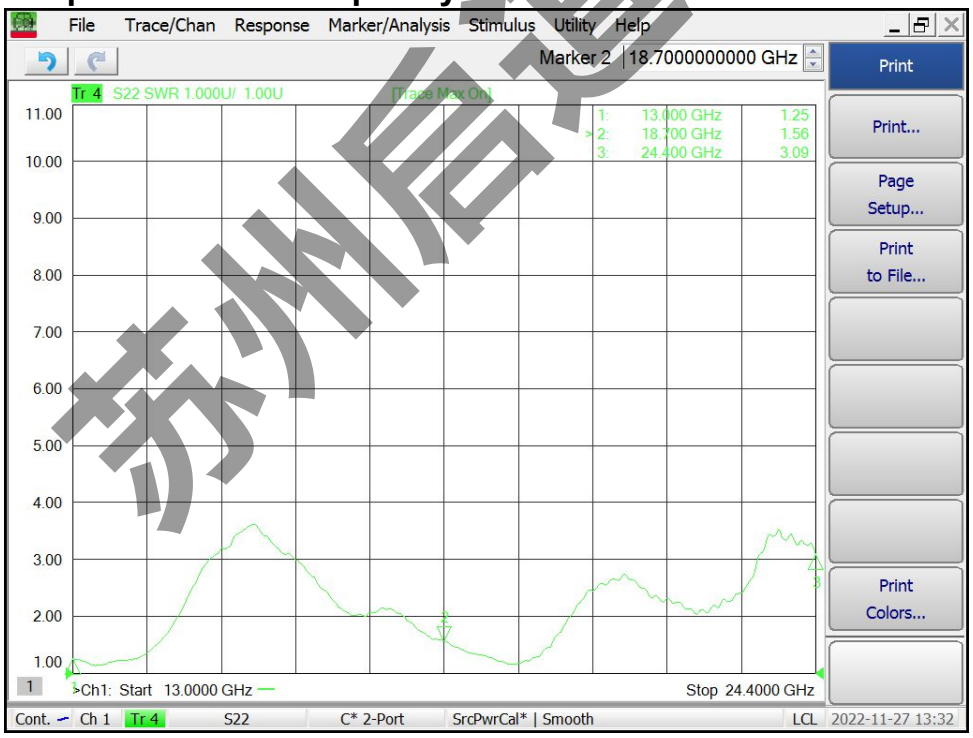
Input VSWR S11 vs Frequency



Output VSWR vs Frequency



FAR Series — 6.5-12.25GHz Input Frequency Doubler

Absolute Maximum Ratings

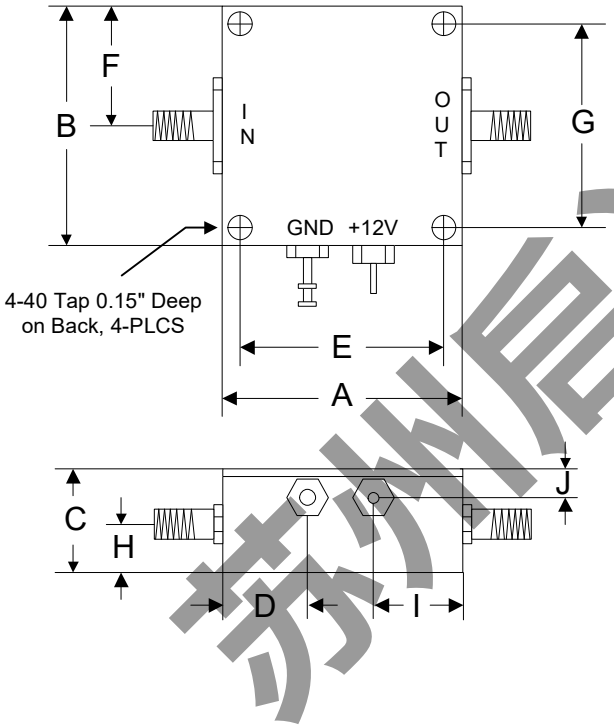
Parameter	Absolute Maximum
RF Input Power	+13dBm
DC Supply Voltage	+25V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material

RoHS (EU)/2015/863 COMPLIANT

CE

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
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76