

RFS Series

50 – 1500MHz 4W SPDT RF Switch

Features

- Frequency Range: 50 - 1500MHz
- Insertion Loss: 1dB
- Isolation: 50dB
- Maximum Input P_{in} : +36dBm
- Switching Time: 1.5 μ s
- DC Power: 5V/<1mA
- SMA Connector

Picture



Description

RFS-2 is a 4W Single Pole Double Throw (SPDT) RF Switch operates in frequency range from 50MHz to 1500MHz.

Electrical Specifications @ +25 °C, 50 Ω System, DC Supply = +5V

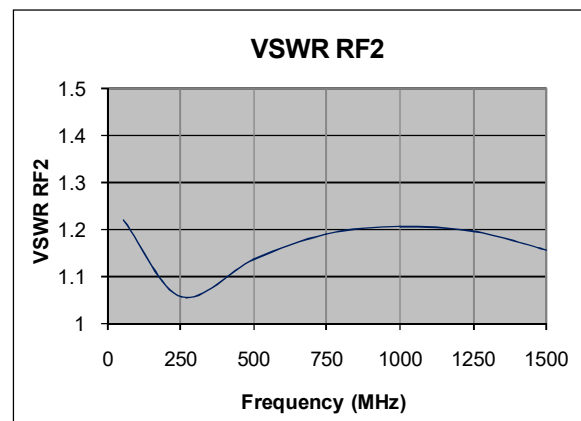
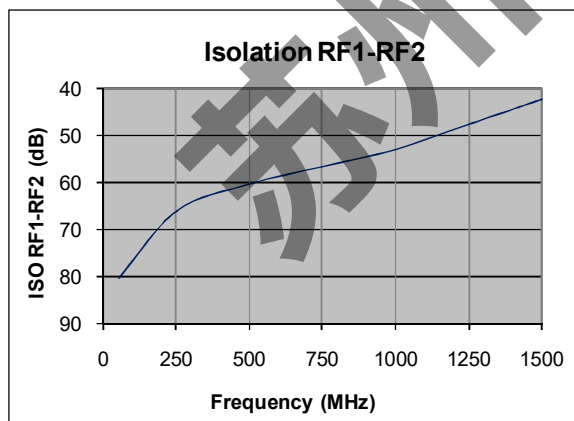
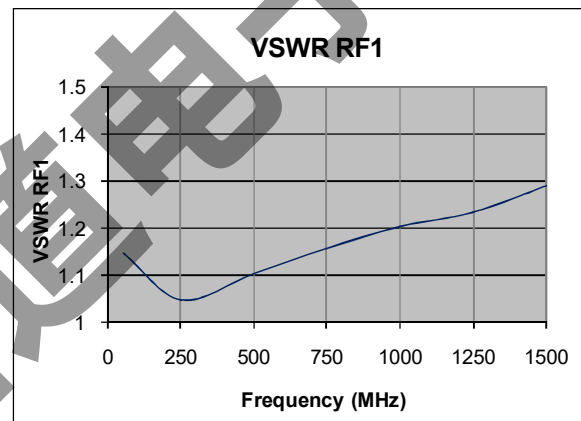
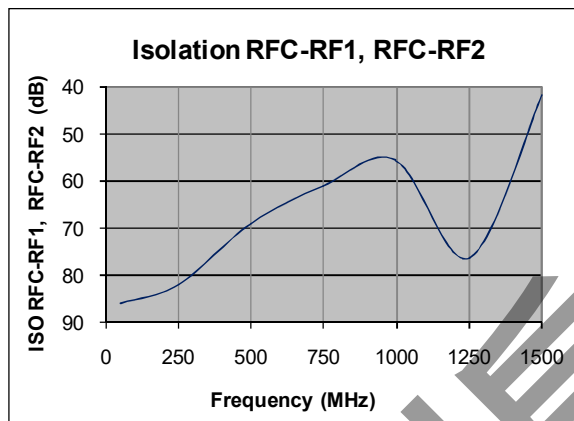
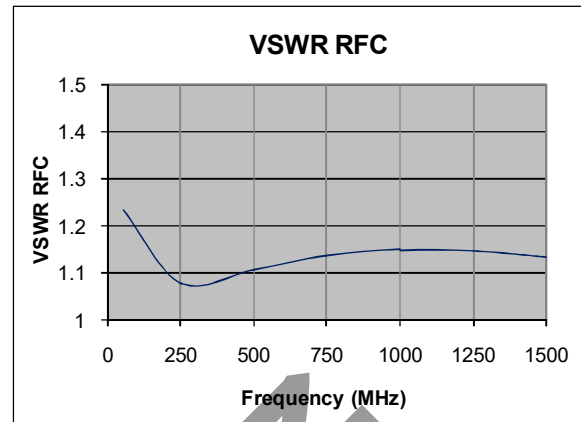
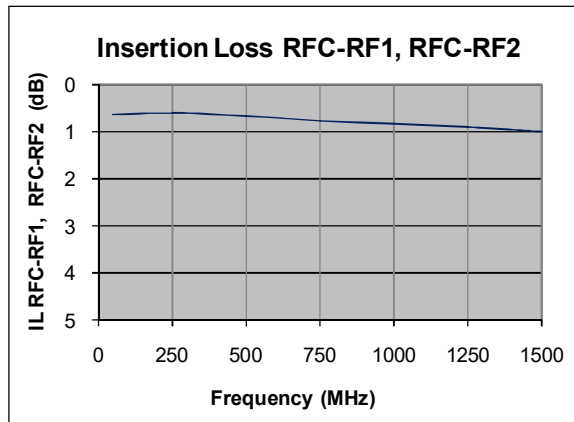
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	50		1500
Insertion Loss (RFC to RF1, RF2)	50MHz		0.7	0.9
	750MHz		0.8	1.0
	1500MHz		1.2	1.4
Isolation (RFC to RF1, RF2)	50MHz	80	85	
	750MHz	58	61	
	1500MHz	33	36	
Isolation (RF1 to RF2)	50MHz	75	80	
	750MHz	53	56	
	1500MHz	33	36	
VSWR (50 – 1500MHz)			1.2:1	1.5:1
Maximum Input P_{in}	dBm	+36		
Switching Time	μ s		1.5	2
Control Voltage V_{sw} (HCMOS)	V	0		5
DC Power Supply	V	4.5	5	5.5
Supply Current	mA			1



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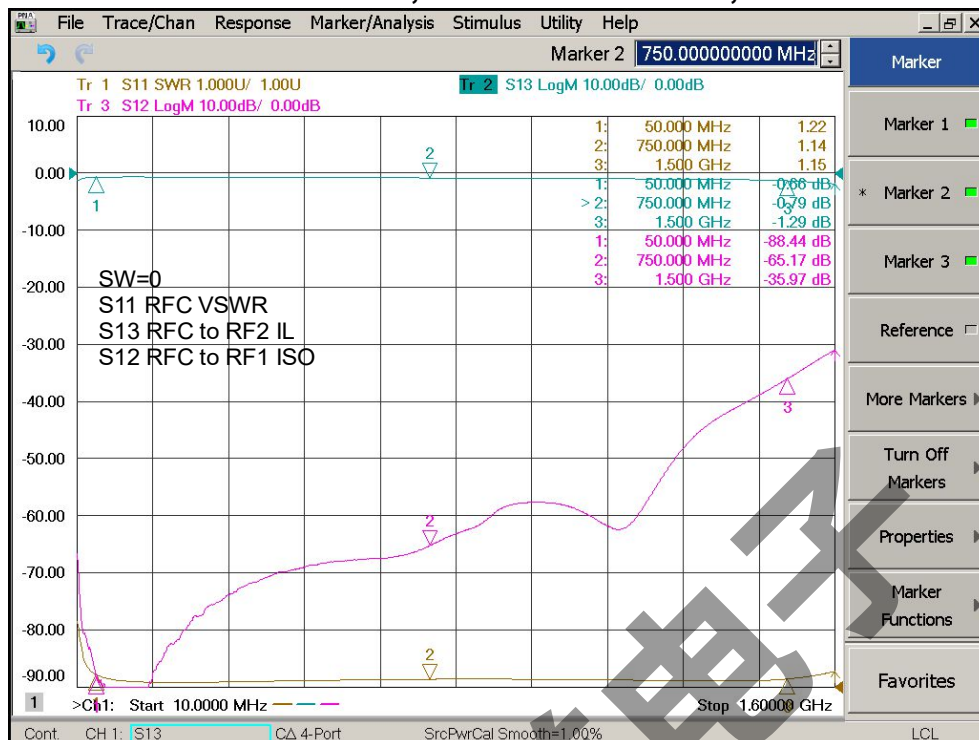
Typical Performance at 25°C



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Low Loss Path RFC-RF2, Isolation RFC-RF1, SW=0



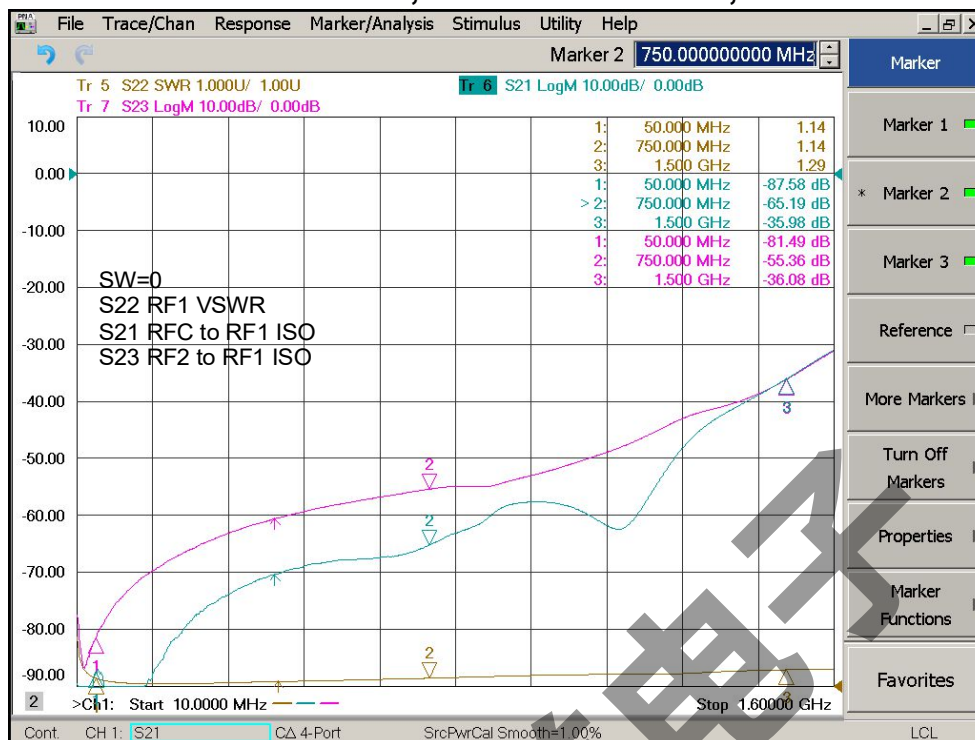
Low Loss Path RFC-RF2, Isolation RFC-RF1, SW=0



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Low Loss Path RFC-RF2, Isolation RFC-RF1, SW=0



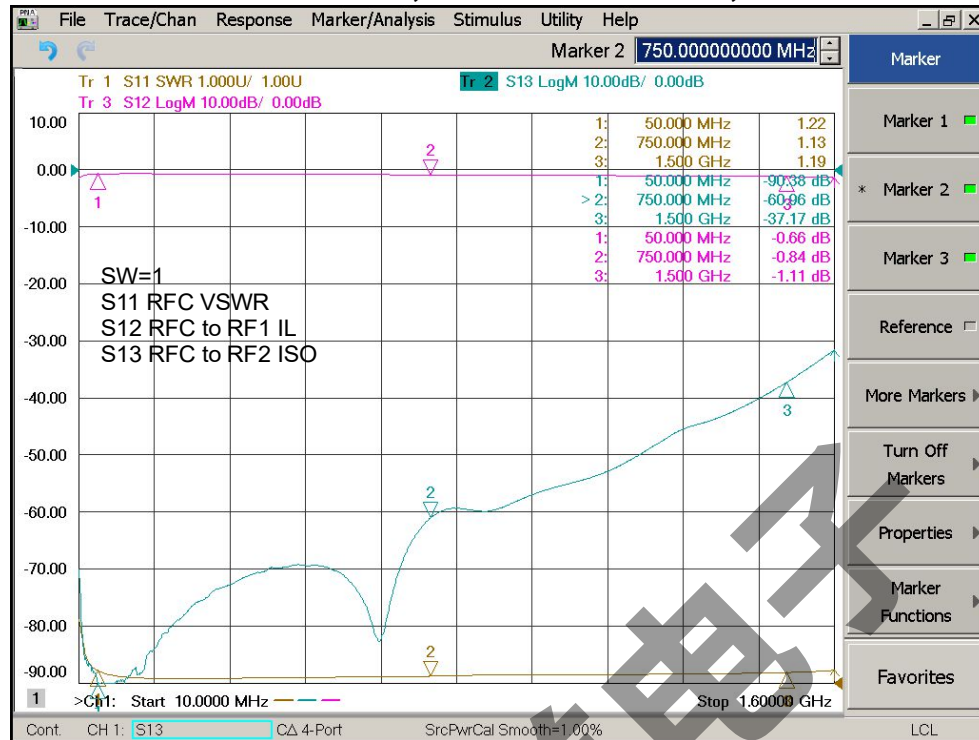
Low Loss Path RFC-RF1, Isolation RFC-RF2, SW=1



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Low Loss Path RFC-RF1, Isolation RFC-RF2, SW=1



Low Loss Path RFC-RF1, Isolation RFC-RF2, SW=1



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Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+6V
RF Input Power	+37dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Truth table

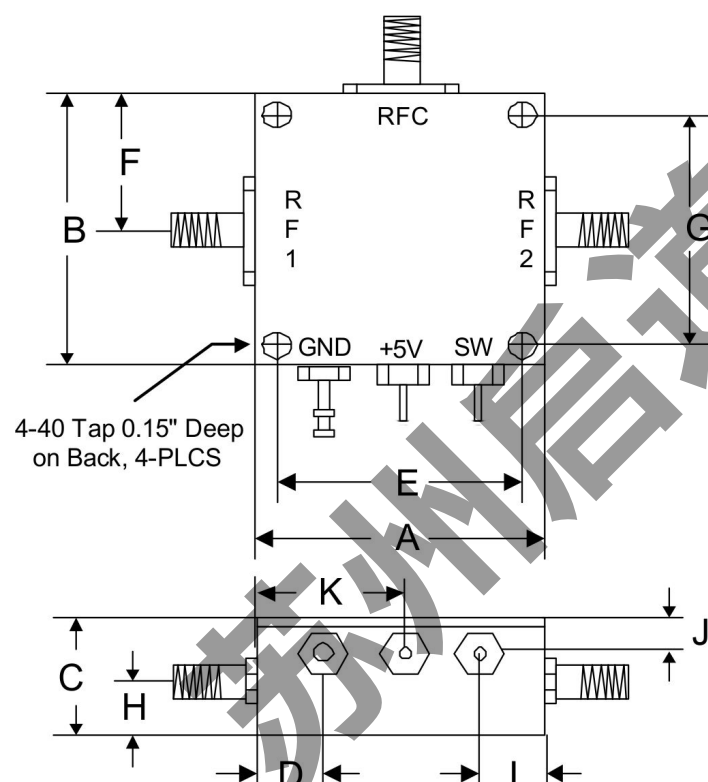
Control Input V _{sw}	Signal Path State
High (+5V)	RFC to RF1
Low (0V)	RFC to RF2

SW Port Internal Pull-Down Resistor 100K Ω

ESD Sensitive Material



Outline



	A	B	C	D	E	F	G	H	I	J	K
Inch	1.250	1.250	0.563	0.325	1.000	0.625	1.000	0.250	0.325	0.187	0.625
mm	31.75	31.75	14.29	8.26	25.40	15.88	25.40	6.35	8.26	4.75	15.88