

RFSW1

Description

RFSW1 a SPDT absorptive RF switch, it is designed for use in Test Equipment and other high performance wireless applications. This broadband general purpose switch maintains excellent RF performance and linearity from 10 MHz through 6 GHz.



Features

- Wide Band : 10 MHz to 6000 MHz
- High Power Handling : 36 dBm (26 dBm into terminated port)
- Input IP3: +65 dBm
- Low Insertion Loss : 1.5 dB @ 3 GHz
- High Isolation : 45 dB @ 3 GHz
- 50 Ohm I/O's

Applications

- Cellular/3G & LTE/WiMAX/4G
- LO Driver Applications
- Microwave Radio
- Test & Measurement Equipment

Electrical Specifications

Parameter	Min.	Typ.	Max.	Units
Frequency Range	10		6000	MHz
Insertion Loss	1	1.5	2	dB
Isolation		45		dB
RFC Return Loss	-35	-15	-13	dB
Active Port Return Loss	-30	-15	-13	dB
Terminated Port Return Loss	-32	-15	-14	dB
RF Input Power Handling (Active)			36	dBm
RF Input Power Handling (Terminated)			26	dBm
Input IP2 @ 2 GHz		120		dBm
Input IP3 @ 2 GHz		65		dBm

Max. Ratings

DC Voltage at input or output	50 Volt
RF input power	40 dBm
Operating Temperature	-40°C to 85°C

Exceeding any of the limits of this section may lead to permanent damage to the device. Furthermore, extended operation at these maximum ratings may reduce the life of this device.

Typical Characteristics

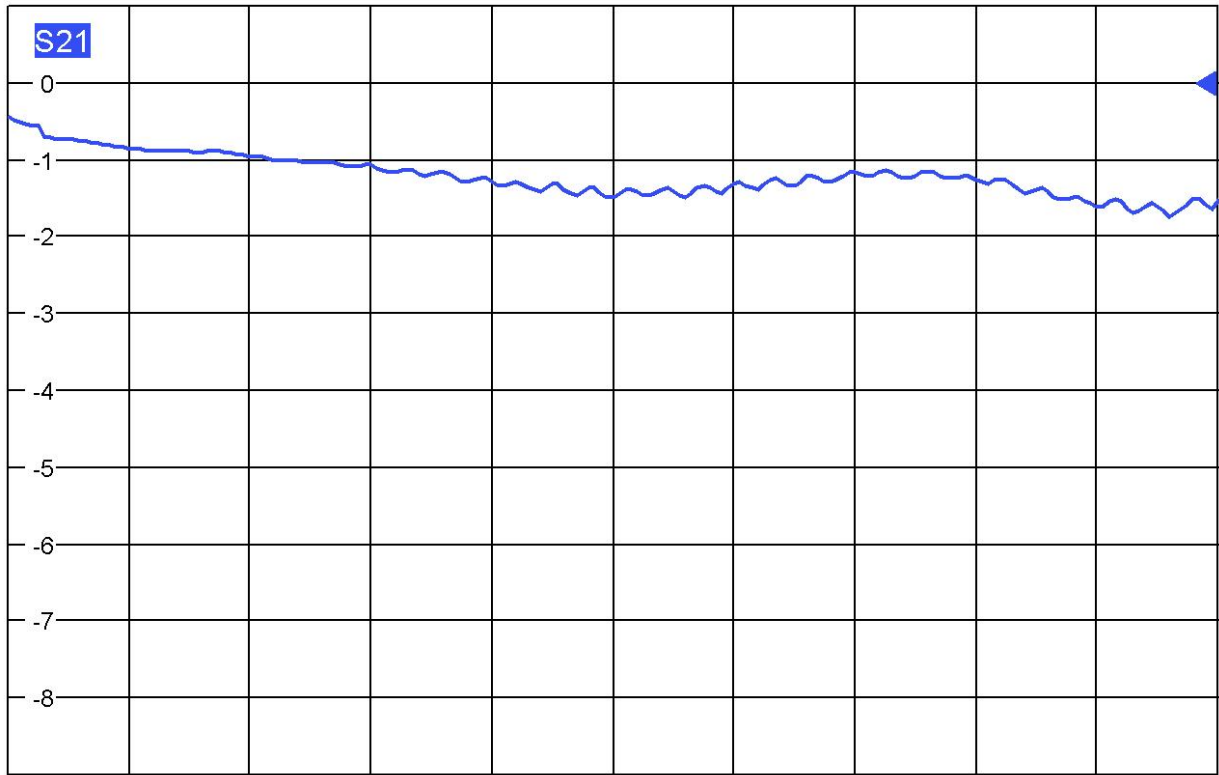


Figure 1, Insertion Loss vs Frequency

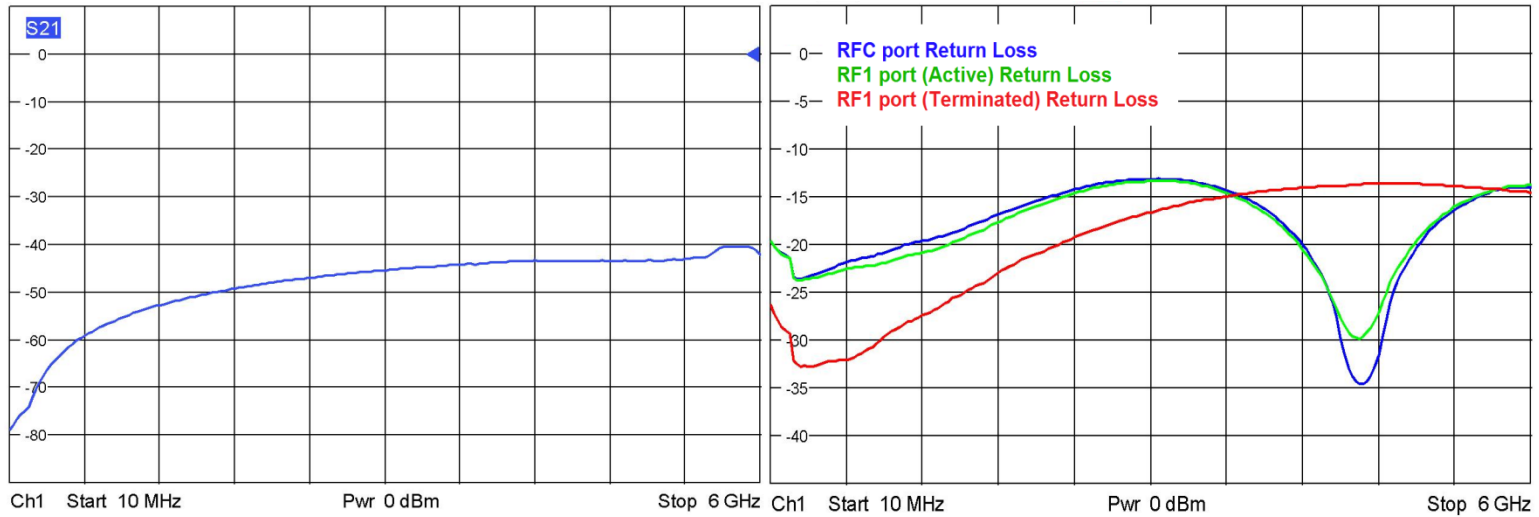


Figure 2, Isolation vs Frequency

Figure 3, Return Loss vs Frequency

MATLAB Code Example

```
sys=serial('COM113','BaudRate',1000000,'DataBits',8,  
'Parity','none','FlowControl','none','Timeout',1);  
  
fopen(sys); % open COM port  
  
RFSW1_address = 70;  
  
ION_ON(sys,RFSW1_address); % turn module ON  
  
RFSW(sys,RFSW1_address,1); % Select Port 1  
  
fclose(sys); % close COM port
```