



*Total Solution Provider in Saw Device*

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# SD-0847T2-C45

Band 20, SAW Duplexer(Rx Single Port)  
Revision 1: May 2014



- Electrical Characteristics
  - Package Dimensions
  - Testing Environment
  - Frequency Characteristics
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**SAWNICS Inc.**

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460 Cheonheung-ri, Seonggeo-eup, Cheonan-si, Chungcheongnam-do, 330-836 / Korea.  
Tel: +82 41 550 9372 / Fax: +82 41 550 9399 / [www.sawnics.com](http://www.sawnics.com)

## □ Electrical Characteristics

### Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-20	-	+85
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	0		
Input Power at Tx Port	dBm	29dBm, Ta=+50°C, 50kh, CW		
Antenna Impedance(single ended) <sup>(1)</sup>	Ω	50 // 12nH(Q=∞)		
Tx Impedance(single ended)	Ω	50		
Rx Impedance(single ended)	Ω	50		
Package type		C45		
Length x Width	mm <sup>2</sup>	2.0 x 1.6		
Height	mm	0.5		

### Electrical Specification

Tx to Ant		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	832.0 ~ 862.0	dB	-	2.6	3.5
Ripple	832.0 ~ 862.0	dB <sub>p-p</sub>	-	1.6	2.5
VSWR of Ant Port	832.0 ~ 862.0	-	-	2.0	2.5
VSWR of Tx Port	832.0 ~ 862.0	-	-	2.1	2.5
Absolute Attenuation	791.0 ~ 821.0	dB	40	49	-
	1574.0 ~ 1577.0	dB	40	45	-
	1805.0 ~ 1880.0	dB	30	49	-
	2110.0 ~ 2170.0	dB	30	54	-
	2620.0 ~ 2690.0	dB	30	47	-

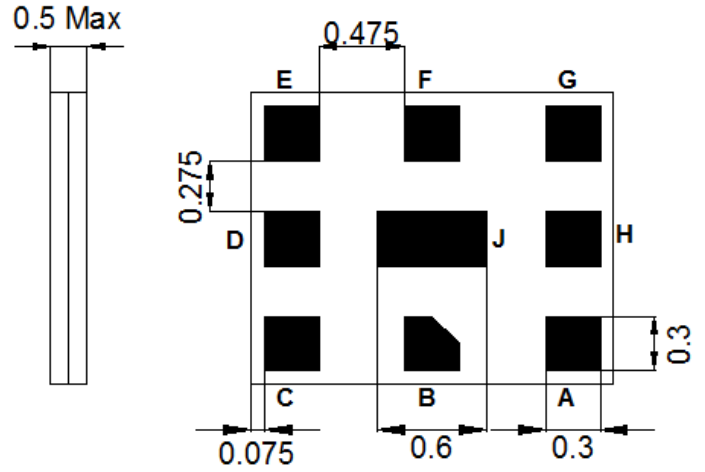
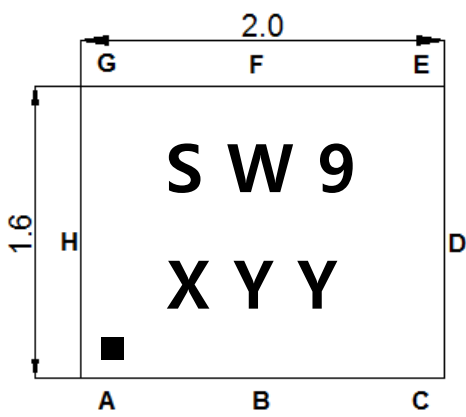


Ant to Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	791.0 ~ 821.0	dB	-	2.3	3.8
Ripple	791.0 ~ 821.0	dB <sub>p-p</sub>	-	1.2	3.0
VSWR of Ant Port	791.0 ~ 821.0	-	-	2.0	2.4
VSWR of Rx Port	791.0 ~ 821.0	-	-	1.9	2.3
Absolute Attenuation	832.0 ~ 862.0	dB	40	50	-

Tx to Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	832.0 ~ 862.0	dB	40	51	-
	791.0 ~ 821.0	dB	40	49	-

**Notes :** (1) With Matching Network .

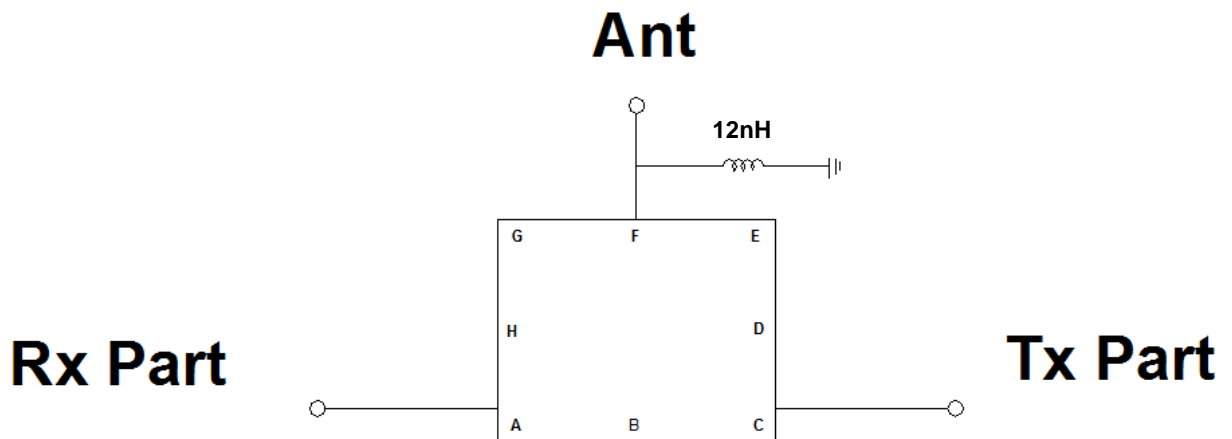
**□ Package Dimensions**



Marking Descriptions	
S	SAWNICS
W9	Series Number
X	Date Code(Year+Month)
YY	Lot No

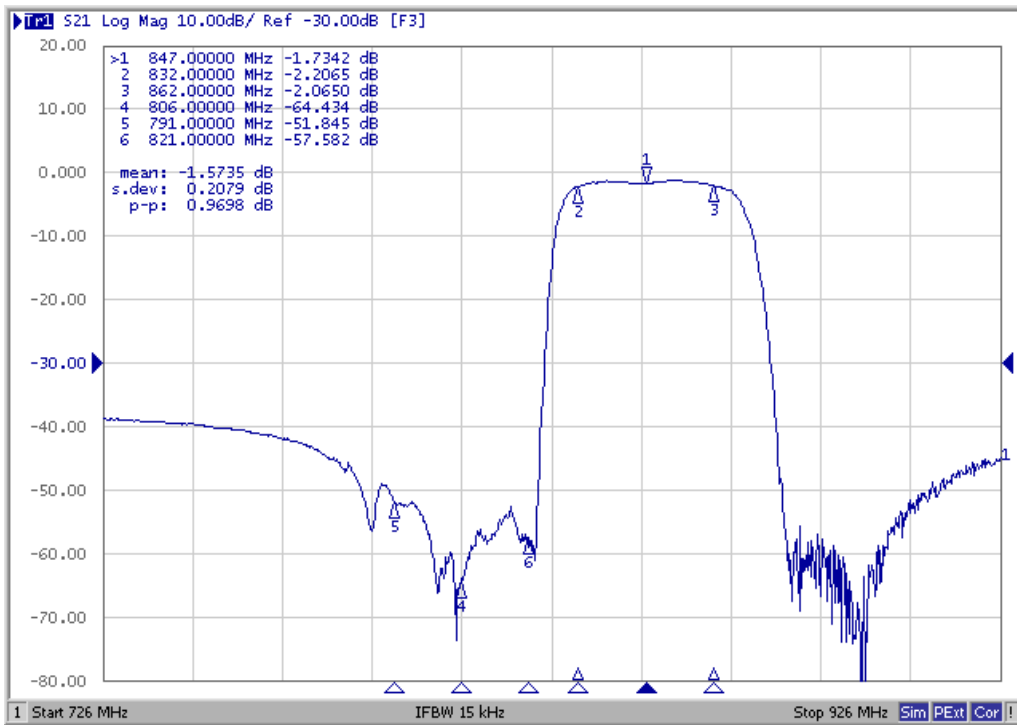
Pin Description	
B,D,E,G,H,J	Ground
F	Ant
C	Tx (847.0MHz)
A	Rx (806.0MHz)

**□ Testing Environment**

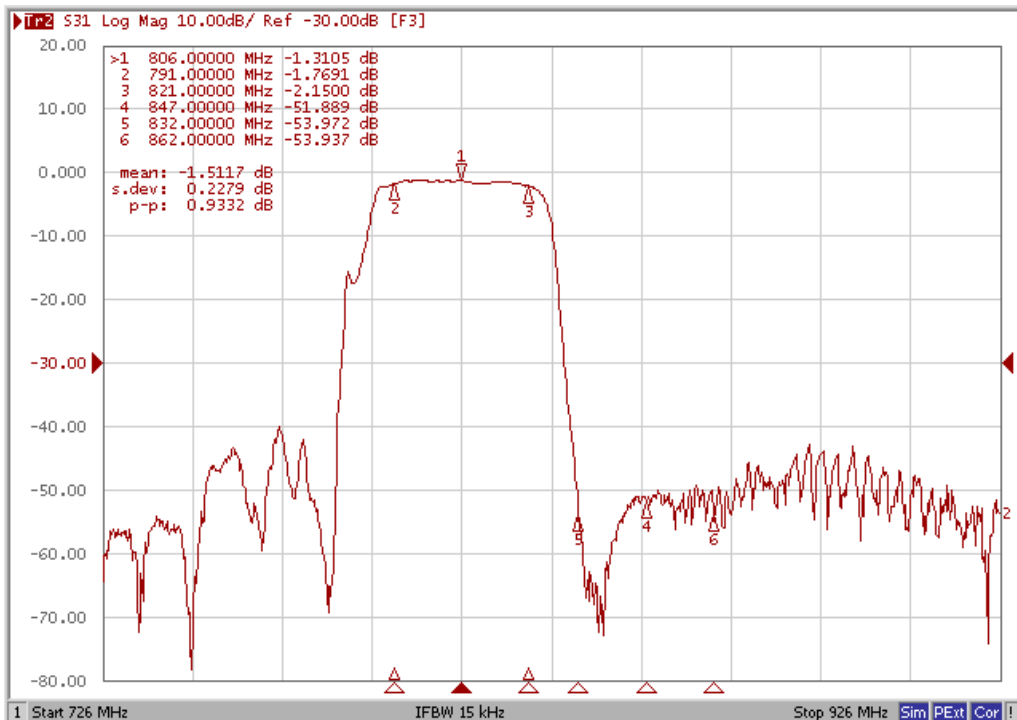


**□ Frequency Characteristics**

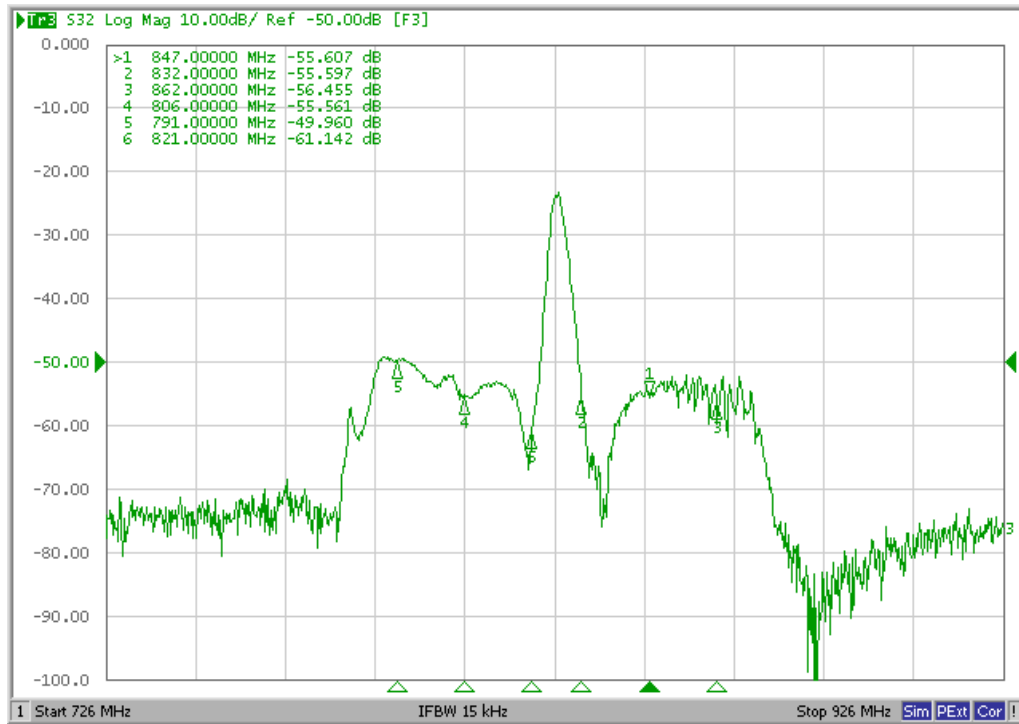
**Tx to Ant**



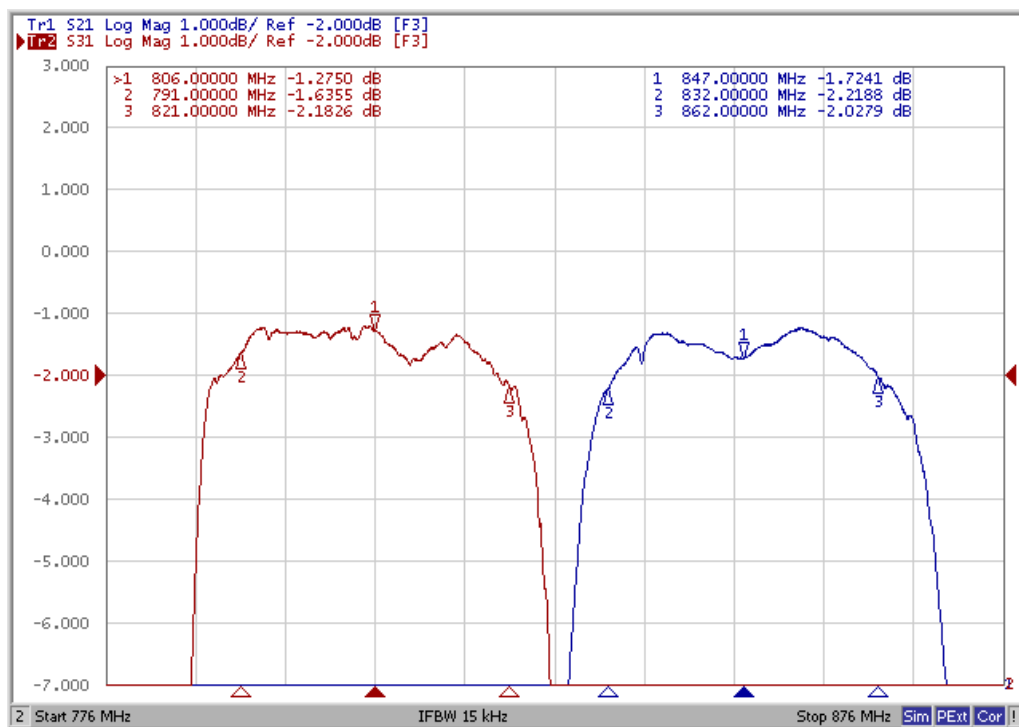
**Ant to Rx**



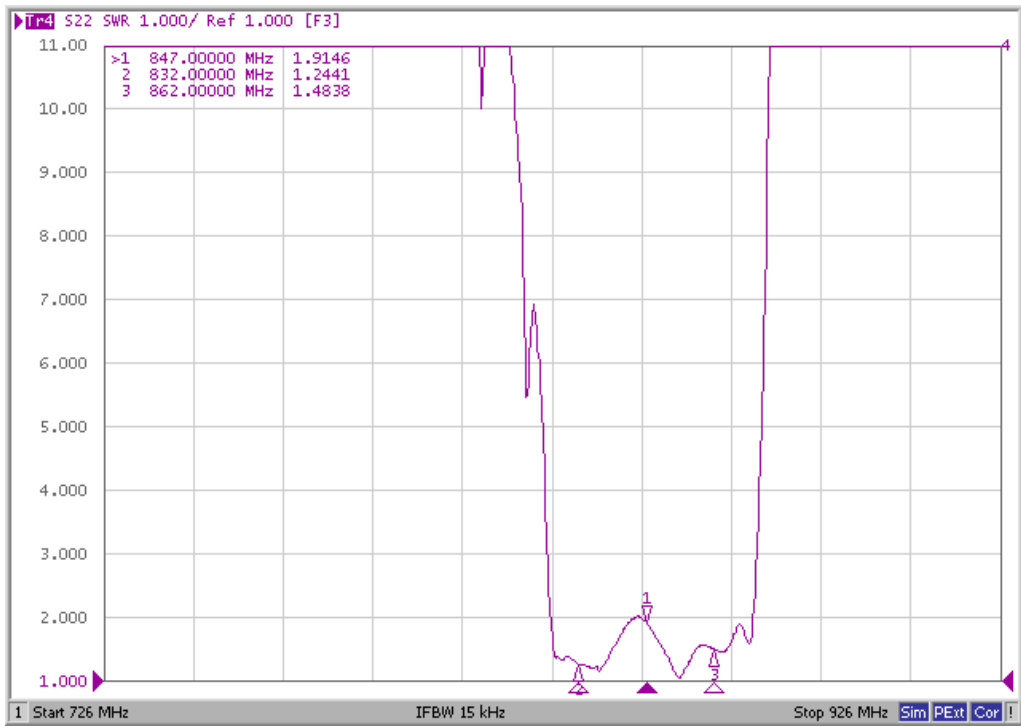
### Isolation



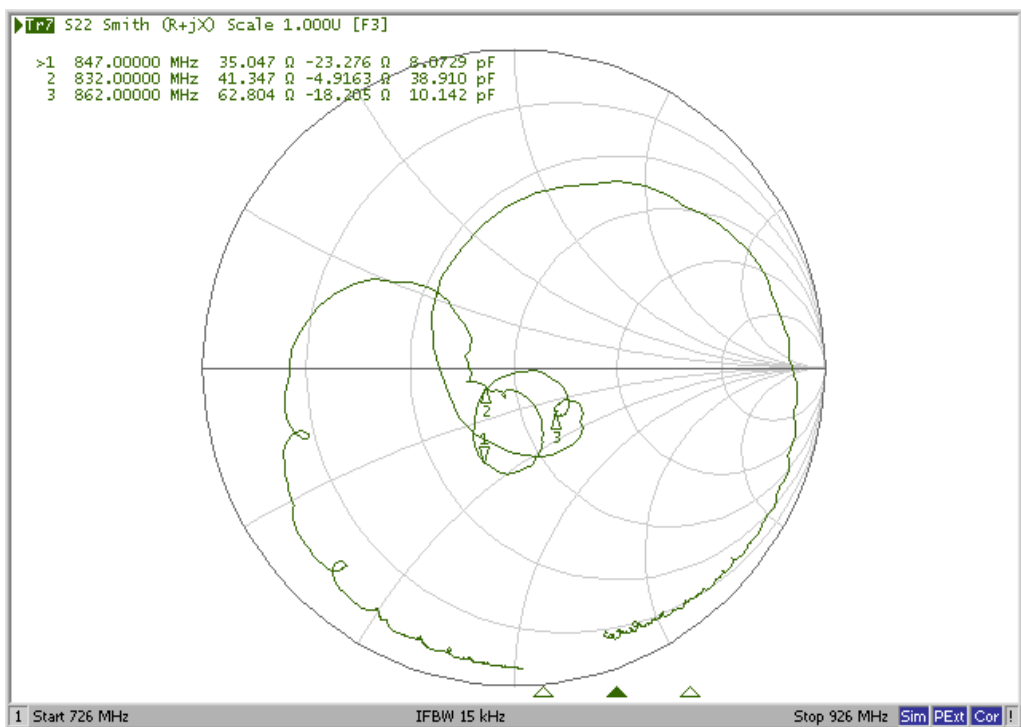
### Ripple



### VSWR (Tx Port)

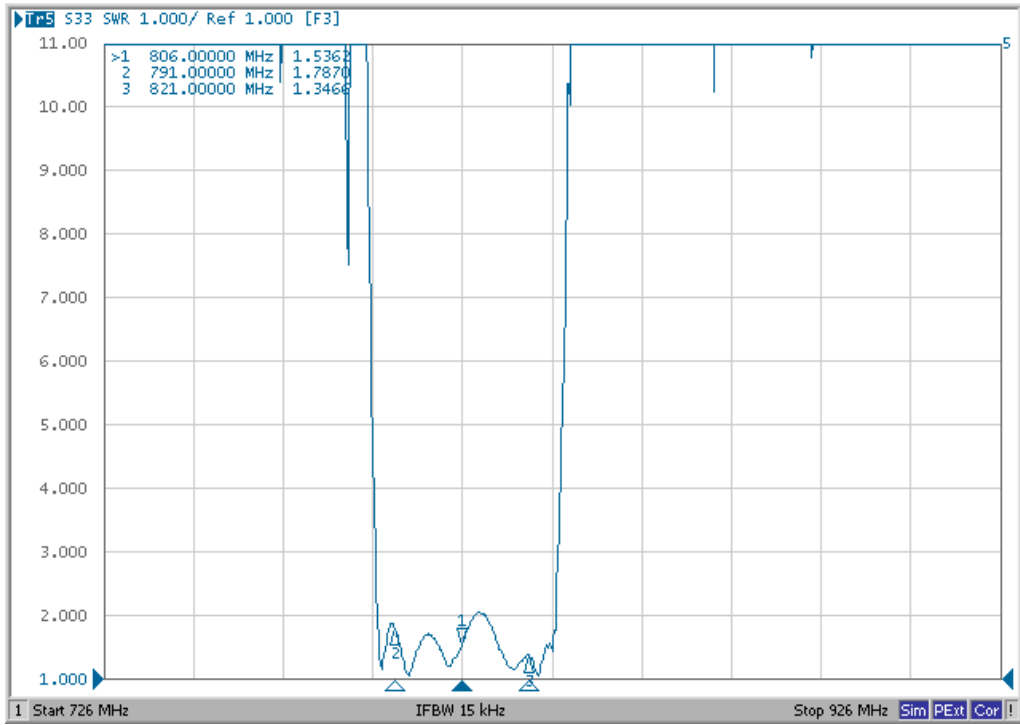


### Smith Chart (Tx Port)

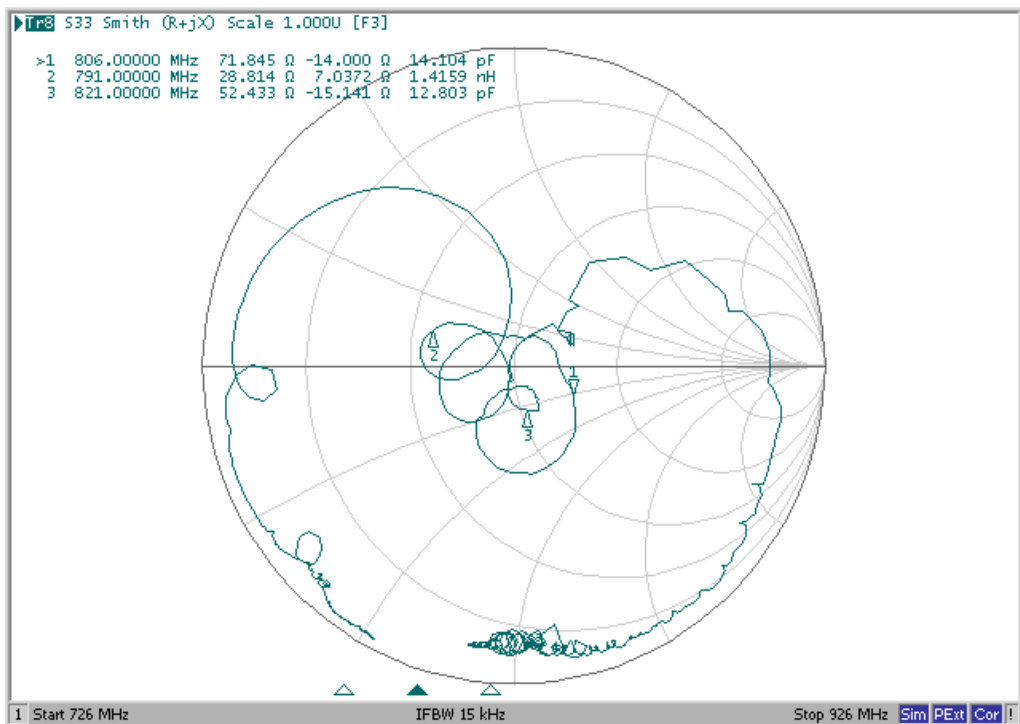




VSWR (Rx Port)

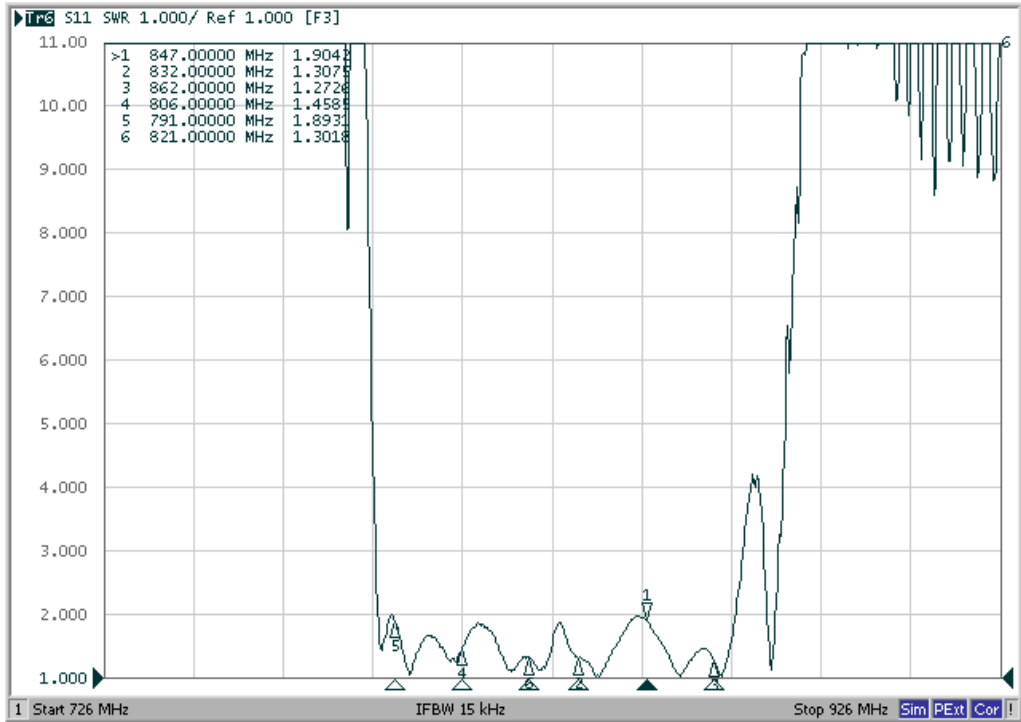


Smith Chart (Rx Port)

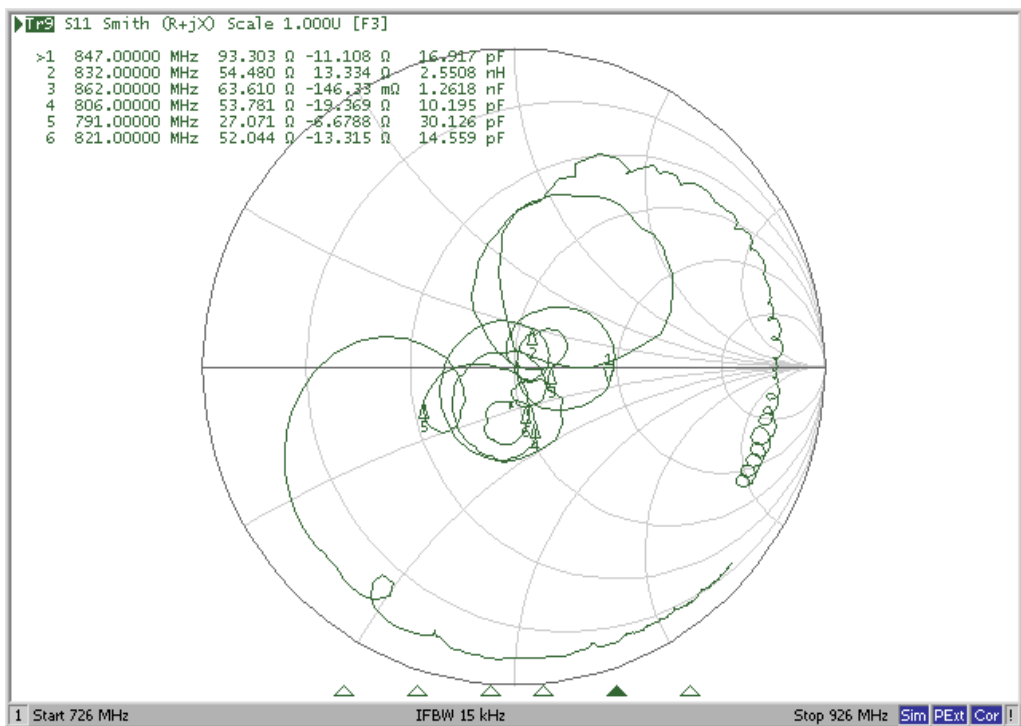




### VSWR (ANT Port)



### Smith Chart (ANT Port)





Wide Span

