



Total Solution Provider in Saw Device

SD837AP3

SAW DUPLEXER For 837.5MHz / 882.5MHz
Revision 0: August 2012



- Electrical Characteristics
 - Package Dimensions
 - Testing Environment
 - Frequency Characteristics
-

SAWNICS Inc.

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



□ Electrical Characteristics

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-10	-	+85
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	0		
Maximum Input Power	dBm	30dBm > 50,000 Hours, CW tone(Ta= +50°C)		
Input Impedance	Ω	50		
Output Tx Impedance	Ω	50		
Output Rx Impedance	Ω	50		
Package type & size	P3			
Length x Width	mm ²	-	3.8 x 3.8	-
Height	mm	-	-	1.45

Electrical Specification

Ant → Rx(837.5MHz)		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	830.0 ~ 845.0	dB	-	1.7	3.0
Amplitude Ripple	830.0 ~ 845.0	dB _{p-p}	-	0.6	1.2
VSWR	830.0 ~ 845.0	-	-	1.5	2.0
Attenuation	DC ~ 810.0	dB	30	35	-
	810.0	dB	30	48	-
	865.0	dB	30	55	-
	1660.0~1690.0	dB	40	47	-
	2490.0 ~ 2535.0	dB	30	35	-

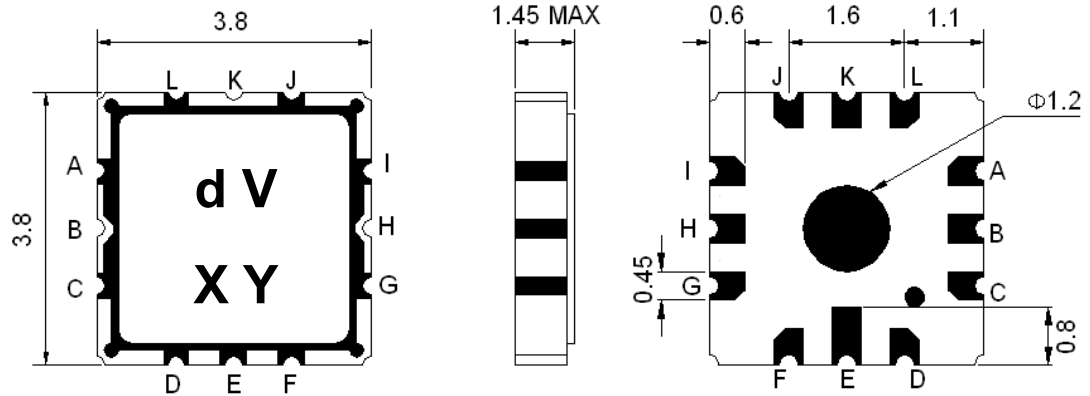


Tx(882.5MHz) → Ant		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	875.0 ~ 890.0	dB	-	1.6	3.0
Amplitude Ripple	875.0 ~ 890.0	dB _{p-p}	-	0.6	1.2
VSWR	875.0 ~ 890.0	-	-	1.6	2.0
Attenuation	DC ~ 855.0	dB	30	37	-
	855.0	dB	30	55	-
	910.0	dB	30	55	-
	1750.0 ~ 1780.0	dB	40	46	-
	2625.0 ~ 2670.0	dB	35	40	-

Rx → Tx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	830.0 ~ 845.0	dB	40	45	-
	875.0 ~ 890.0	dB	40	50	-

Notes : (1) No Matching Network .

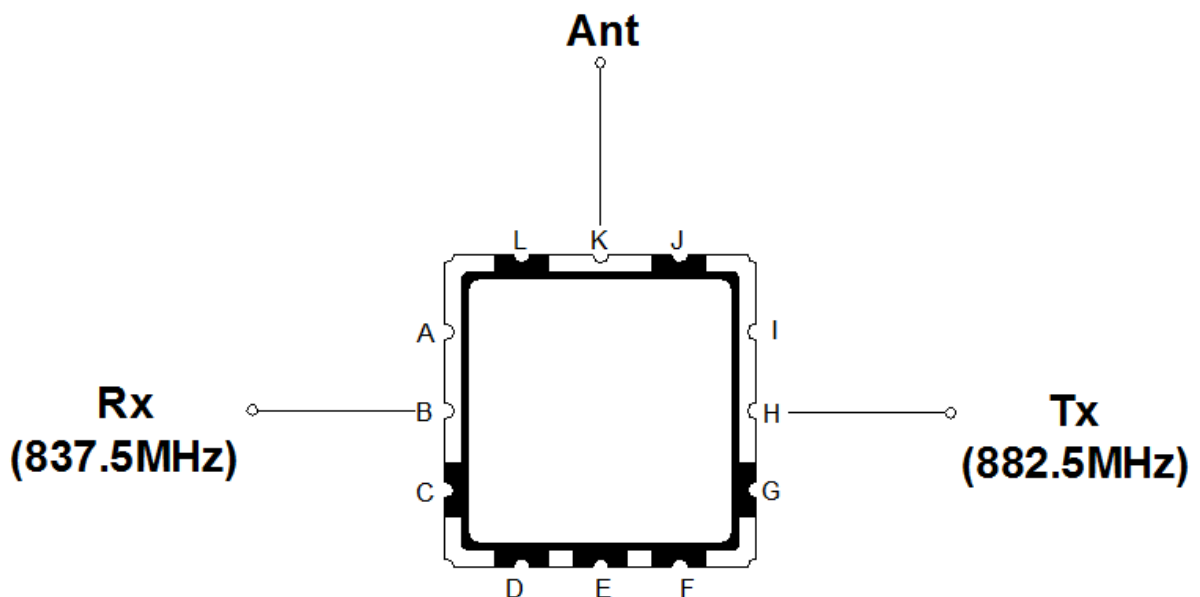
Package Dimensions



Marking Descriptions	
d	Wireless Application
V	Series Number
X	Date Code(Year)
Y	Date Code(Month)

Pin Description	
A, C, D, E, F, G, I, J, L	Ground
K	Ant
B	Rx (837.5 MHz)
H	Tx (882.5MHz)

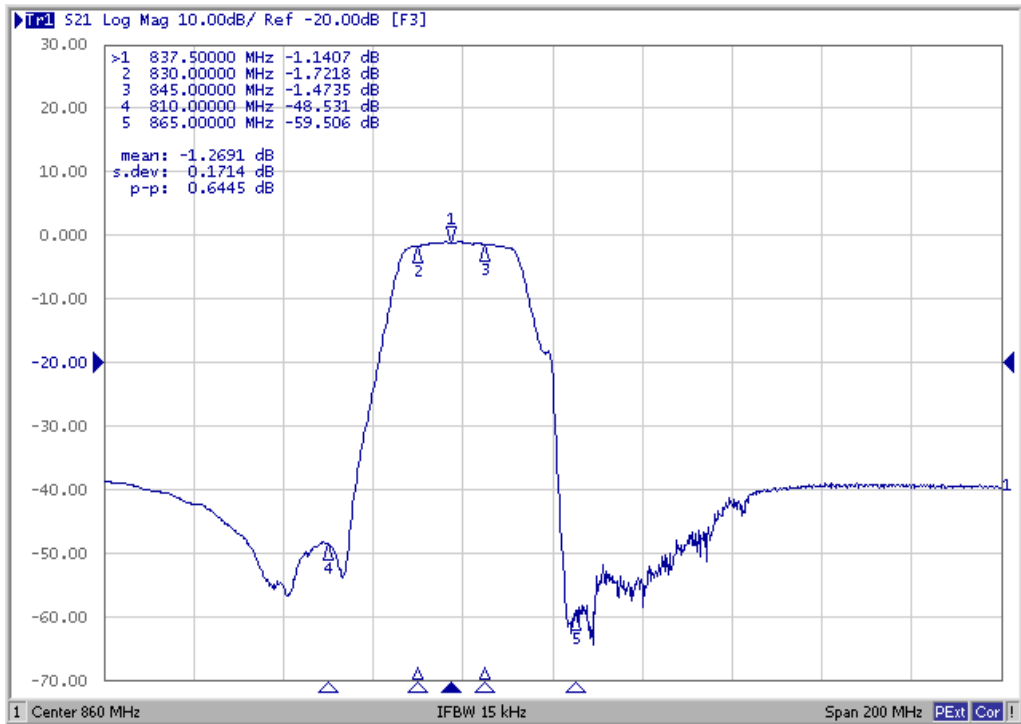
Testing Environment



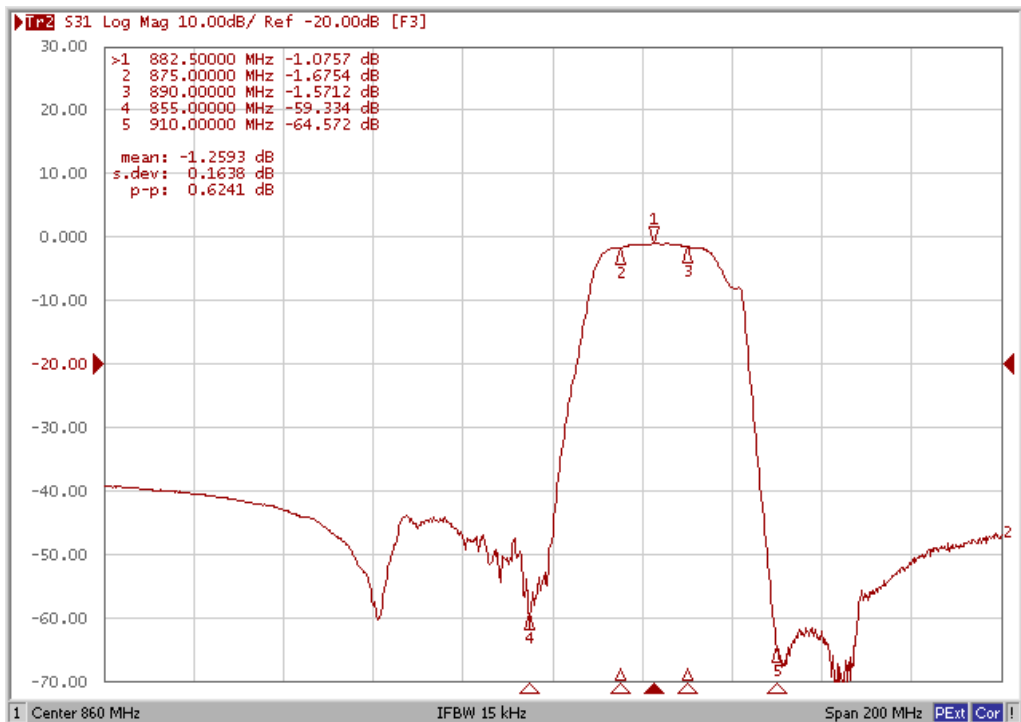


Frequency Characteristics

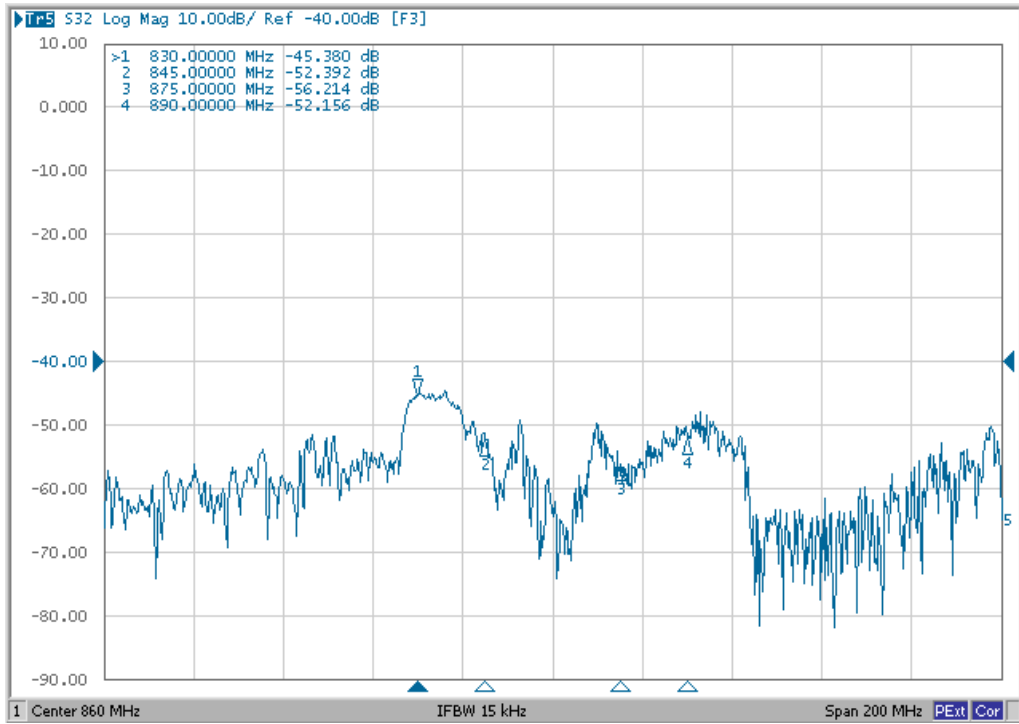
Ant to Rx



Tx to Ant

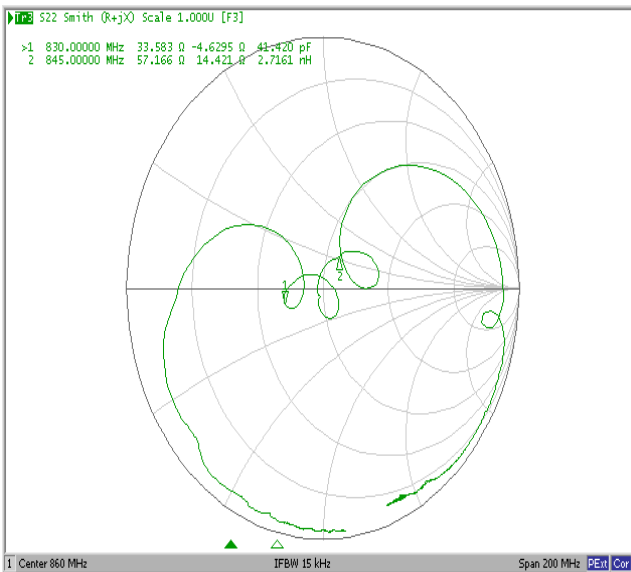


Isolation

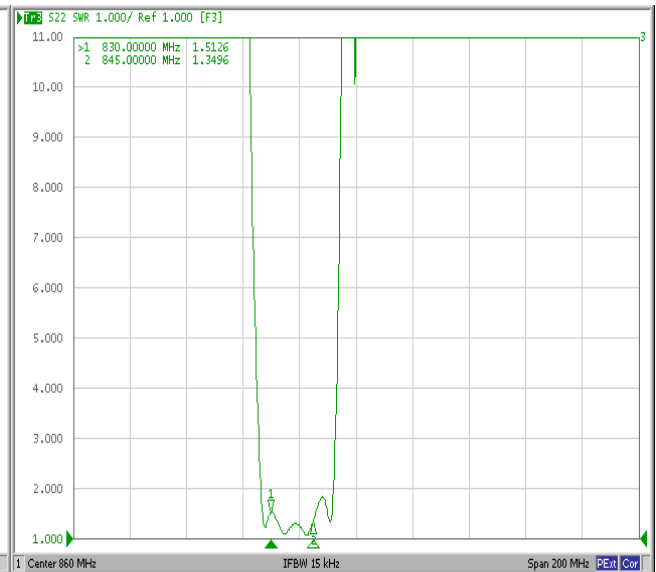


Rx Part

Smith Chart



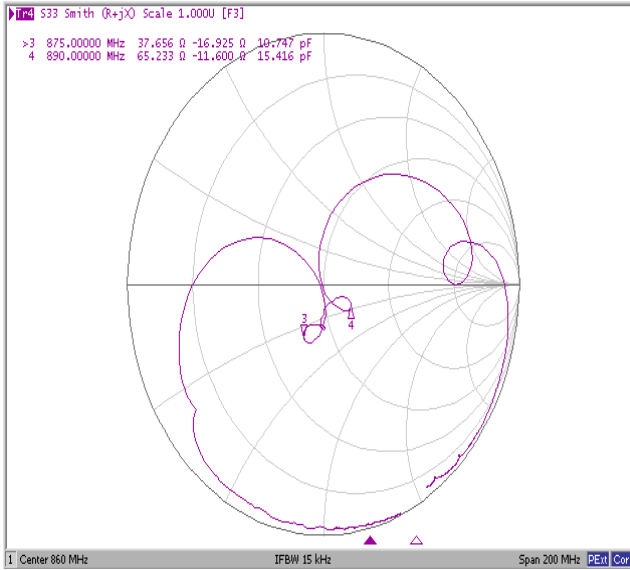
VSWR



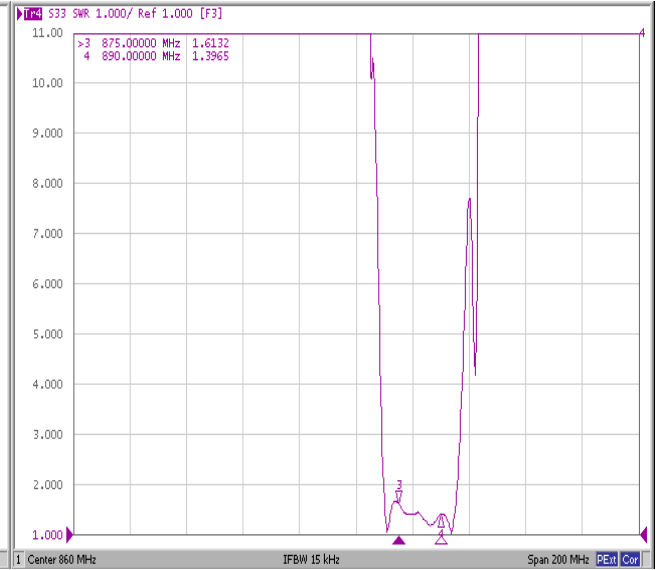


Tx Part

Smith Chart

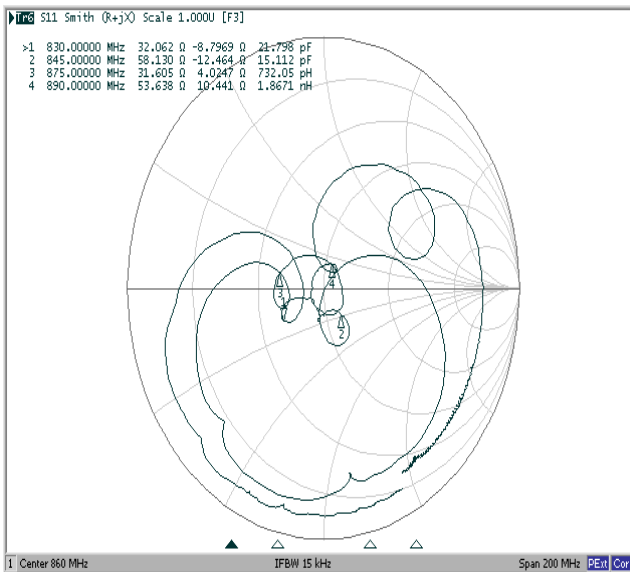


VSWR

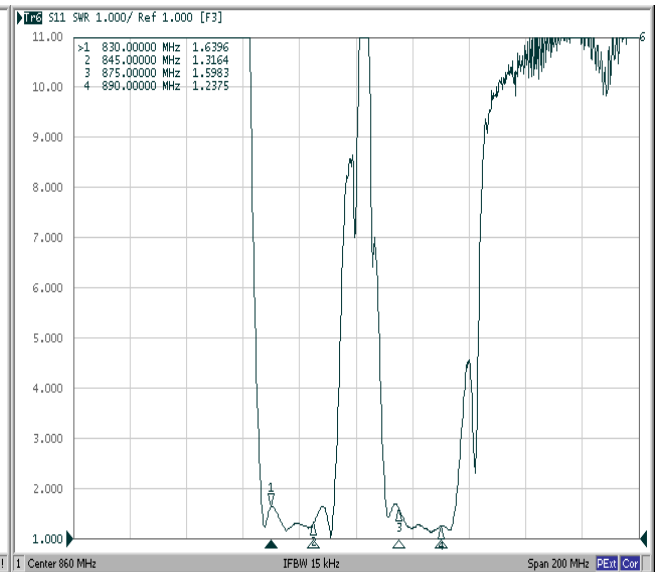


Antenna

Smith Chart



VSWR





Wide Span

