

SD-083301-S32

SAW Duplexer for 833.0/ 878.0MHz
Revision 0: April 2014



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

SAWNICS Inc.

□ 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		
Input Power Tx Band	dBm	30dBm > 50000 Hours, CW tone(Ta= +50°C)		
Input Impedance (Antenna)	Ω	50		
Output TX Impedance	Ω	50		
Output RX Impedance	Ω	50		
Package type		S32		
Length x Width	mm ²	3.8 x 3.8		
Height	mm	-	-	1.45

Electrical Specification

Tx(833.0MHz) → Ant		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	817.0 ~ 849.0	dB	-	2.9	3.5
Amplitude Ripple	817.0 ~ 849.0	dB _{p-p}	-	1.9	2.5
VSWR	817.0 ~ 849.0	-	-	2.0	2.3
Amplitude Ripple	D.C ~ 698.0	dB	20	30	-
	698.0 ~ 787.0	dB	20	23	-
	855.5 ~ 862.0	dB	10	22	-
	862.0 ~ 894.0	dB	32	35	-
	1400.0 ~ 2155.0	dB	20	25	-
	2451.0 ~ 2547.0	dB	7	12	-



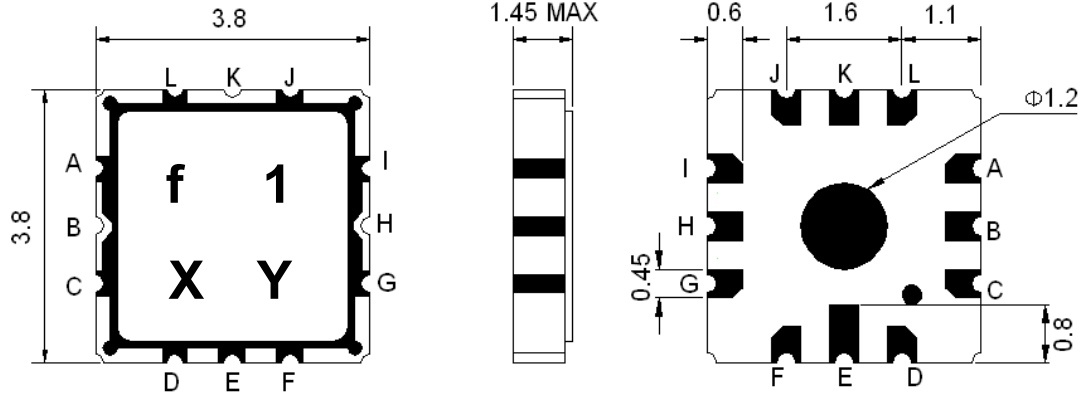
Ant → Rx(878.0MHz)		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	862.0 ~ 894.0	dB	-	2.5	3.5
Amplitude Ripple	862.0 ~ 894.0	dB _{p-p}	-	1.0	2.0
VSWR	862.0 ~ 894.0	-	-	1.8	2.3
Absolute Attenuation	D.C ~ 698.0	dB	20	25	-
	698.0 ~ 787.0	dB	20	25	-
	817.0 ~ 849.0	dB	35	40	-
	849.0 ~ 855.5	dB	5	15	-
	1400.0 ~ 2155.0	dB	35	41	-
	2586.0 ~ 2682.0	dB	30	35	-

Rx → Tx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	862.0 ~ 894.0	dB	30	34	-
	817.0 ~ 849.0	dB	35	40	-
	849.0 ~ 862.0	dB	35	39	-

Notes : (1) With Matching Network .

□ Package Dimensions

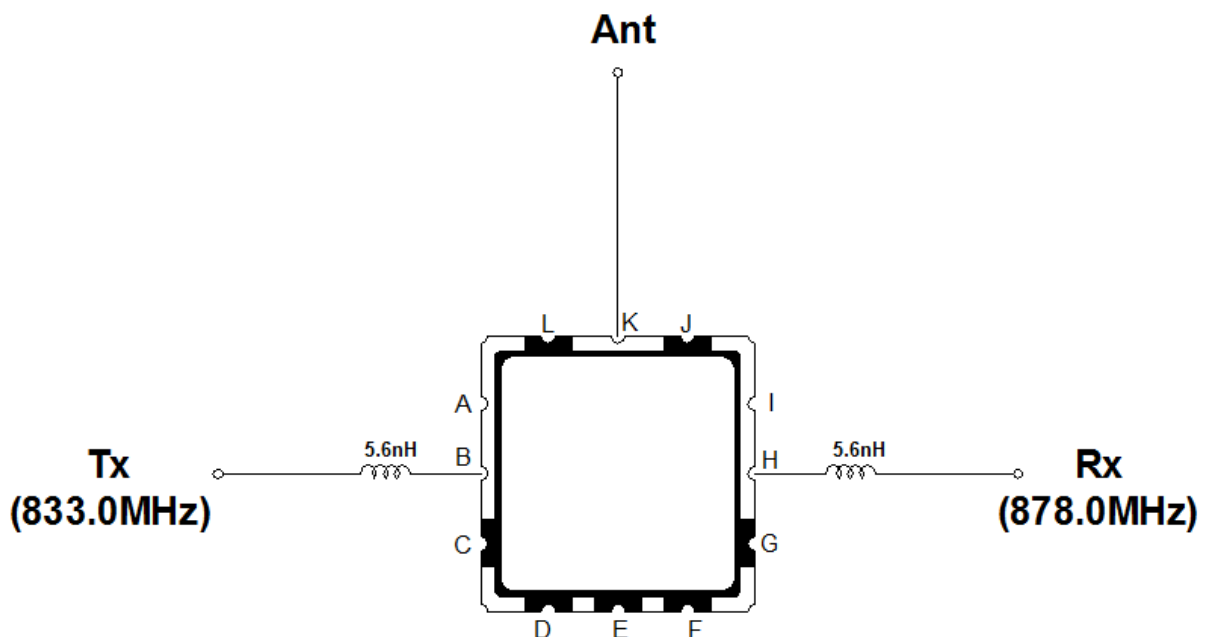
Unit: mm



Marking Descriptions	
f	Application
1	Series Number
X	Date Code(Year)
Y	Date Code(Month)

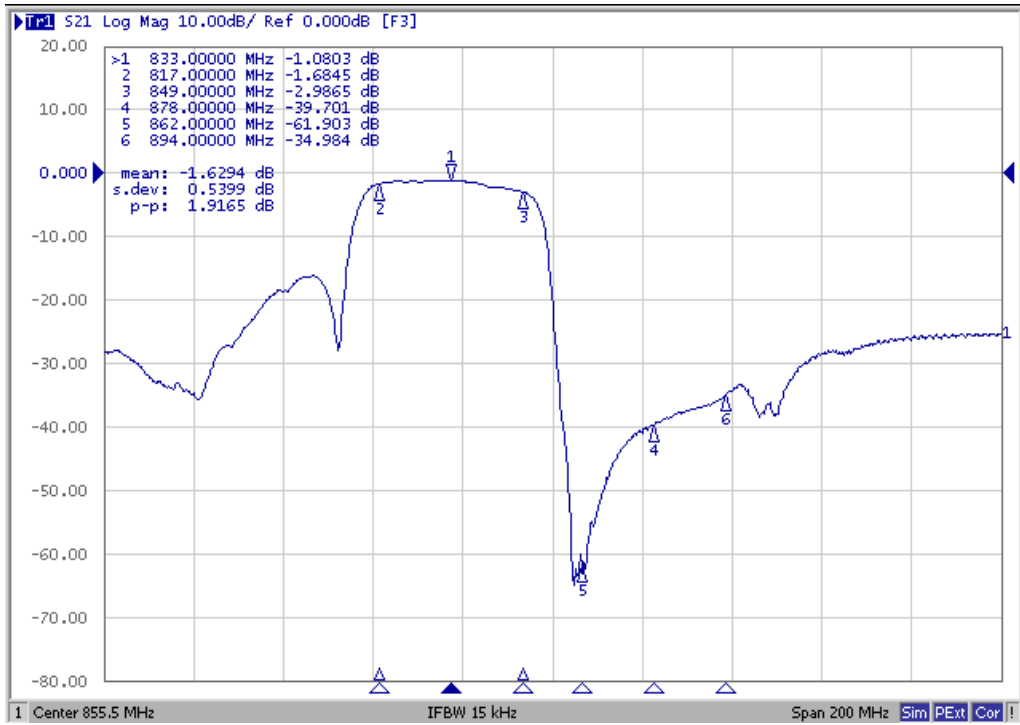
Pin Description	
A, C, D, E, F, G, I, J, L	Ground
H	Rx Port (878.0 MHz)
K	Antenna
B	Tx Port (833.0MHz)

□ Testing Environment

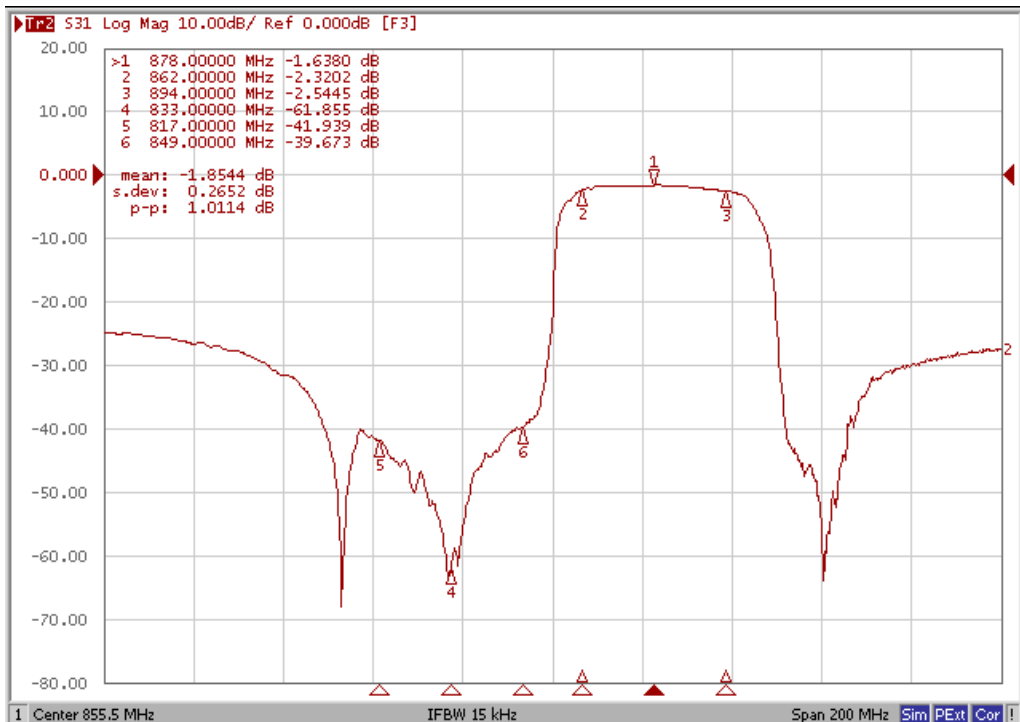


□ Frequency Characteristics

Tx Characteristic

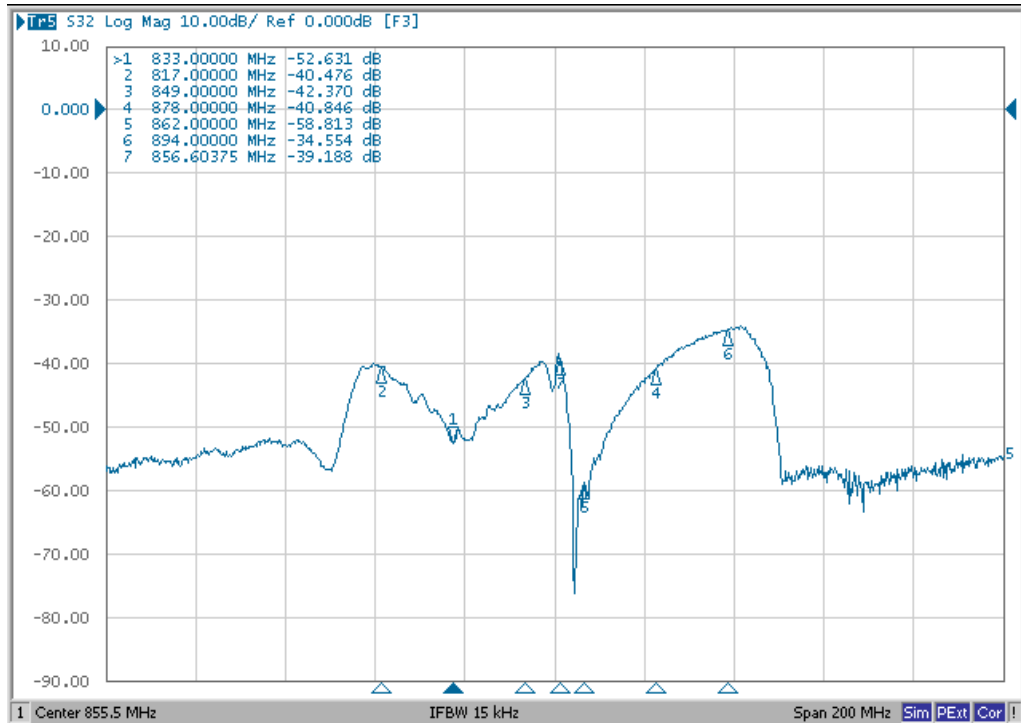


Rx Characteristic



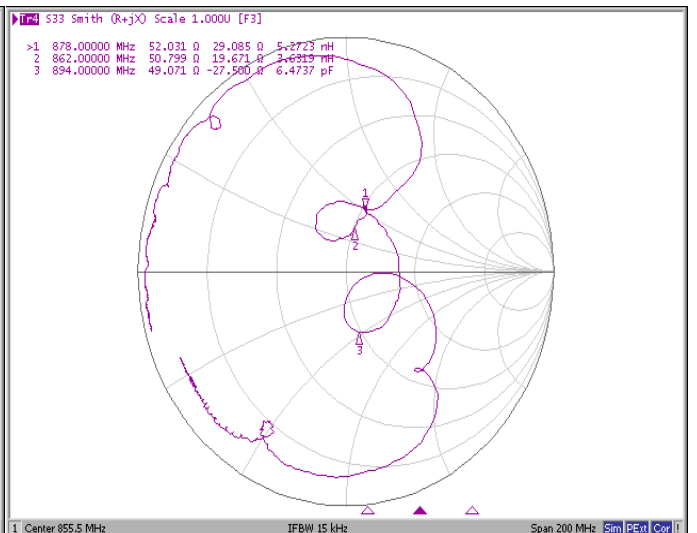
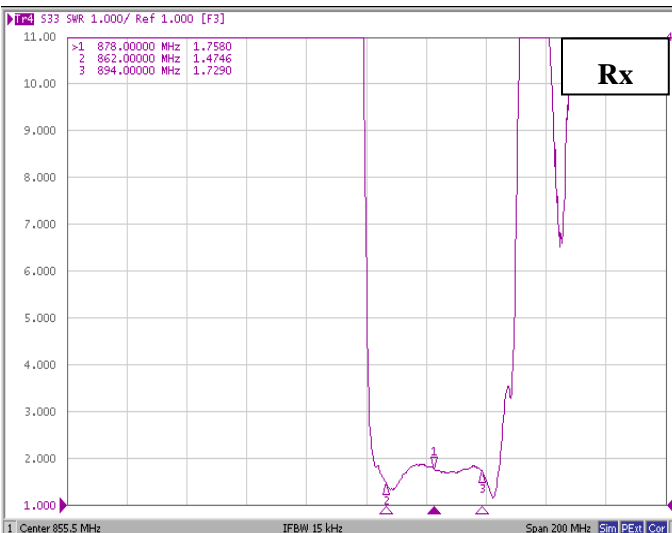
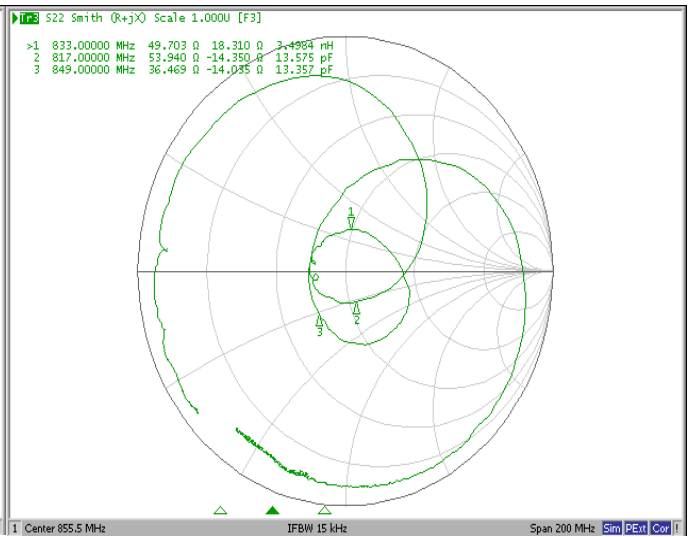
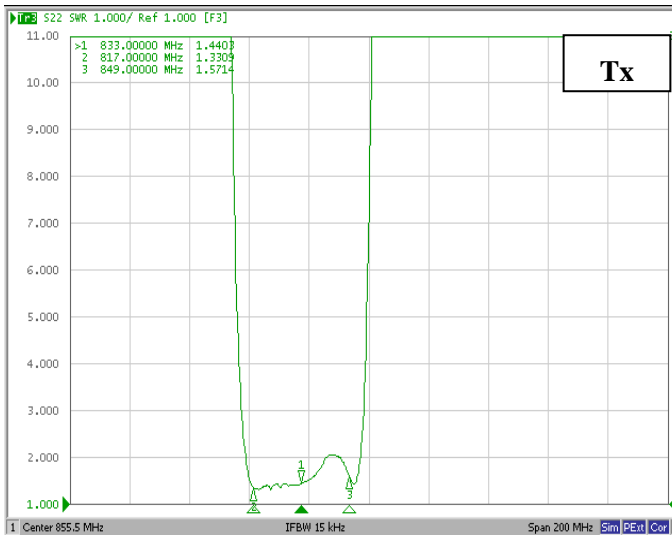
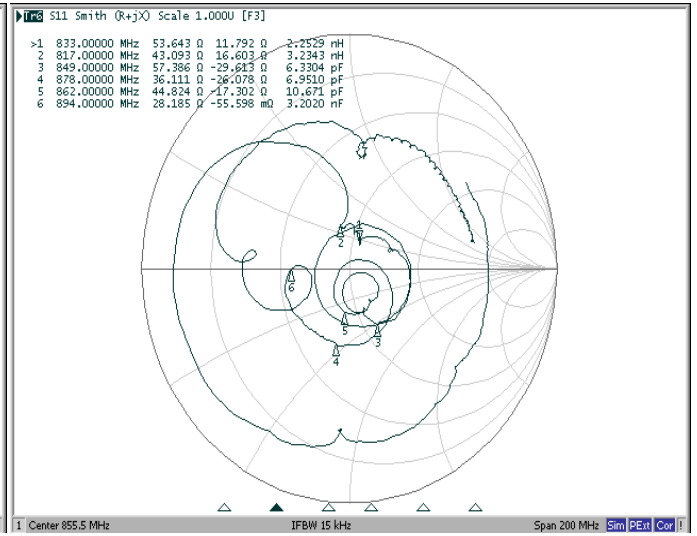
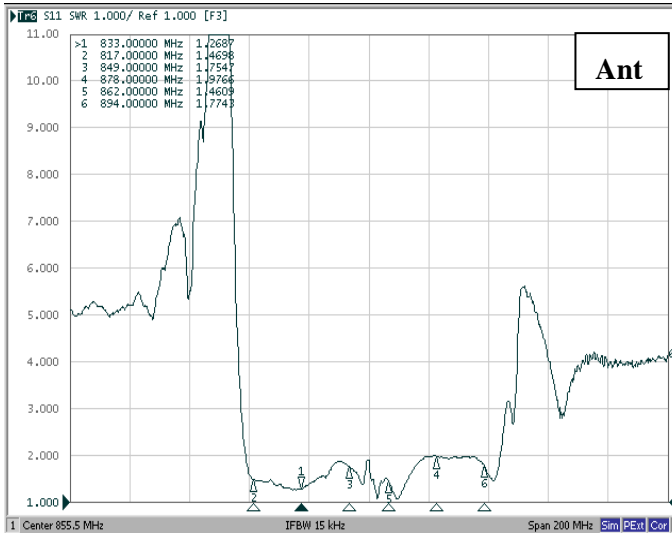


Isolation Characteristic





Return Loss & Smith Chart





Wide Span

