SD1775FPB

SAW DUPLEXER For 1775.0MHz / 1867.5MHz
Revision 0: May ,2011

RoHS compliance
Pb free

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

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❒ Electrical Characteristics

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-30	-	+80
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	0		
Maximum Input Power	dBm	28dBm > 50,000 Hours, CW tone(Ta= +50°C)		
Input Impedance	Ω	50		
Output Impedance	Ω	50		
Package type & size		PB		
Length x Width	mm²	-	3.8 x 3.8	-
Height	mm	-	-	1.45

Electrical Specification

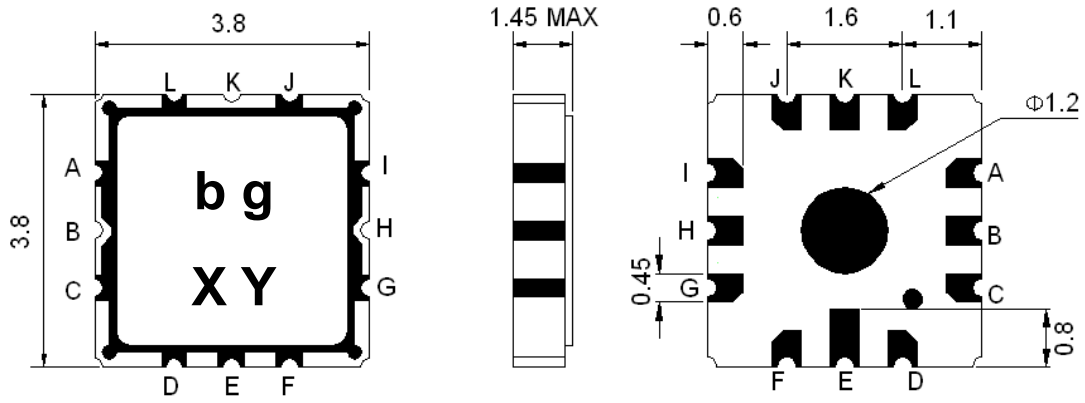
Tx → Ant		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	1770.0 ~ 1780.0	dB	-	2.1	3.2
Amplitude Ripple	1770.0 ~ 1780.0	dB_{p-p}	-	0.3	1.0
VSWR	1770.0 ~ 1780.0	-	-	1.3	2.0
Absolute Attenuation	1860.0 ~ 1875.0	dB	45	51	-

Ant → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	1860.0 ~ 1875.0	dB	-	2.5	3.5
Amplitude Ripple	1860.0 ~ 1875.0	dB_{p-p}	-	0.4	1.0
VSWR	1860.0 ~ 1875.0	-	-	1.5	2.0
Absolute Attenuation	1770.0 ~ 1780.0	dB	40	46	-

Rx → Tx		Specifications			
Parameters Description	**Condition [MHz]**	**Unit**	**Minimum**	**Typical**	**Maximum**
Isolation	1770.0 ~ 1780.0	dB	40	51	-
	1860.0 ~ 1875.0	dB	45	54	-

Notes : (1) With Matching Network .

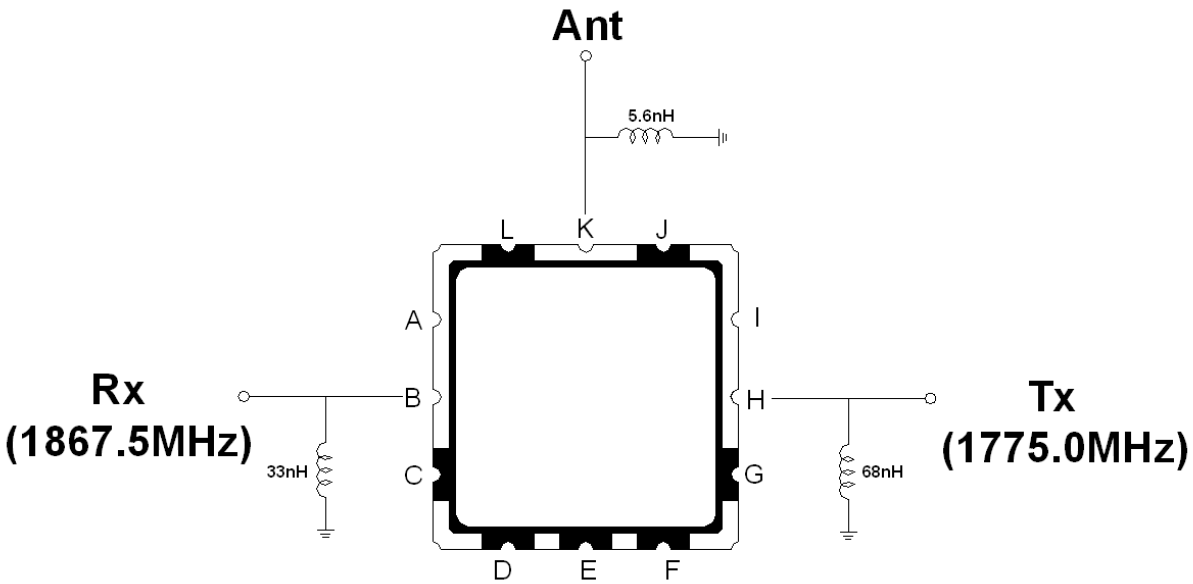
❒ Package Dimensions



Marking Descriptions	
b	Wireless Application
g	Series Number
X	Date Code(Year)
Y	Date Code(Month)

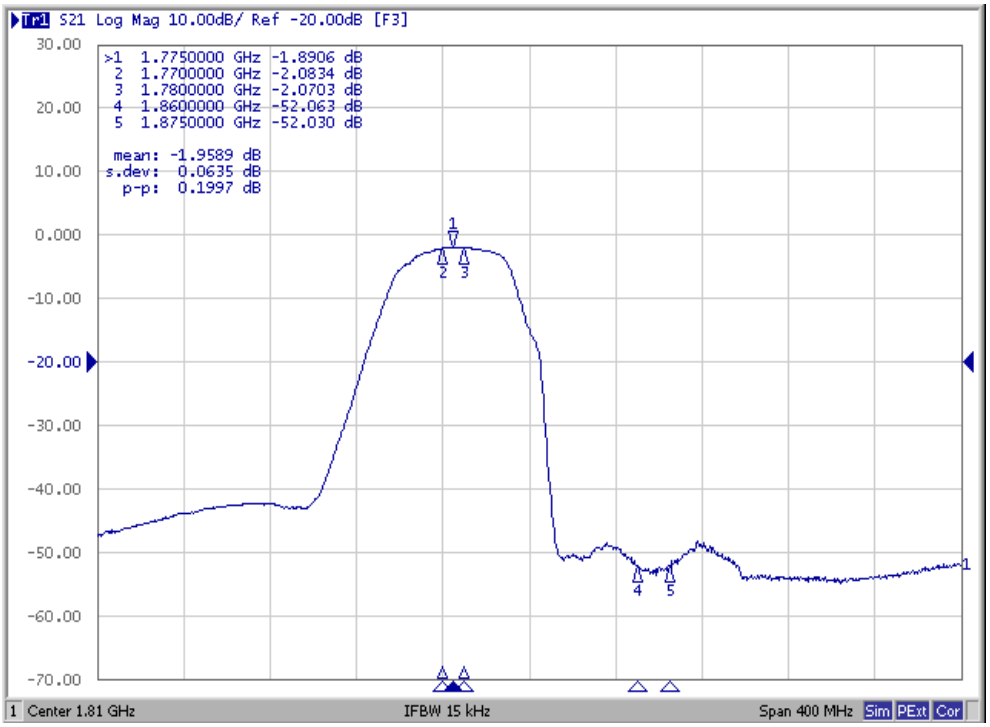
Pin Description	
A, C, D, E, F, G, I, J, L	Ground
K	Ant
B	Rx (1867.5MHz)
H	Tx (1775.0 MHz)

❒ Testing Environment

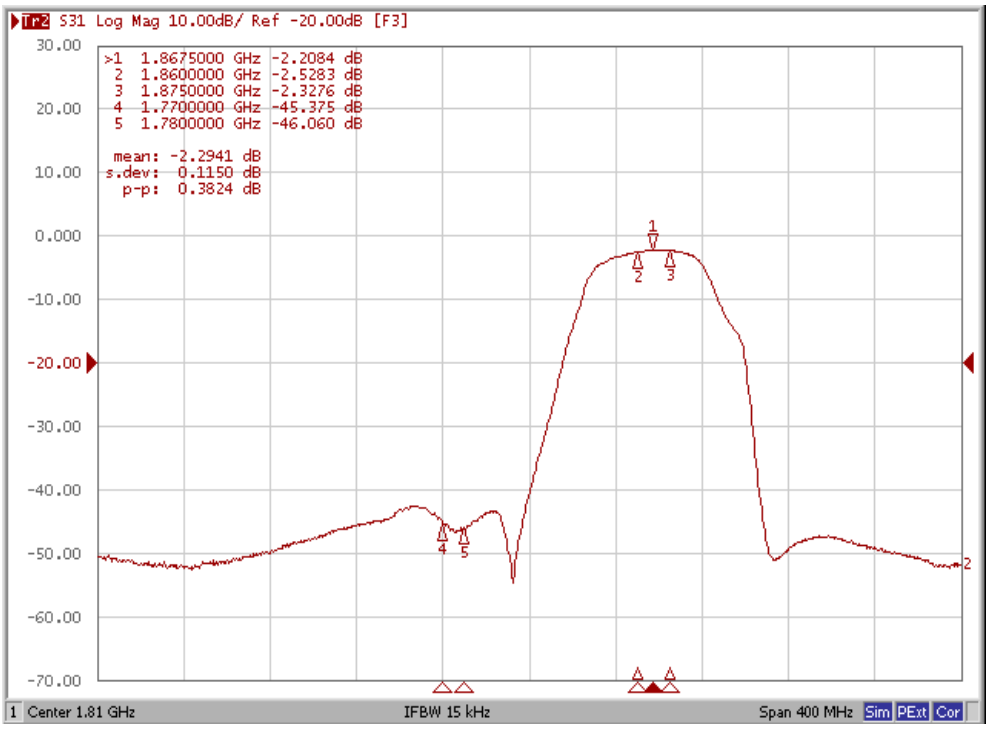


❒ Frequency Characteristics

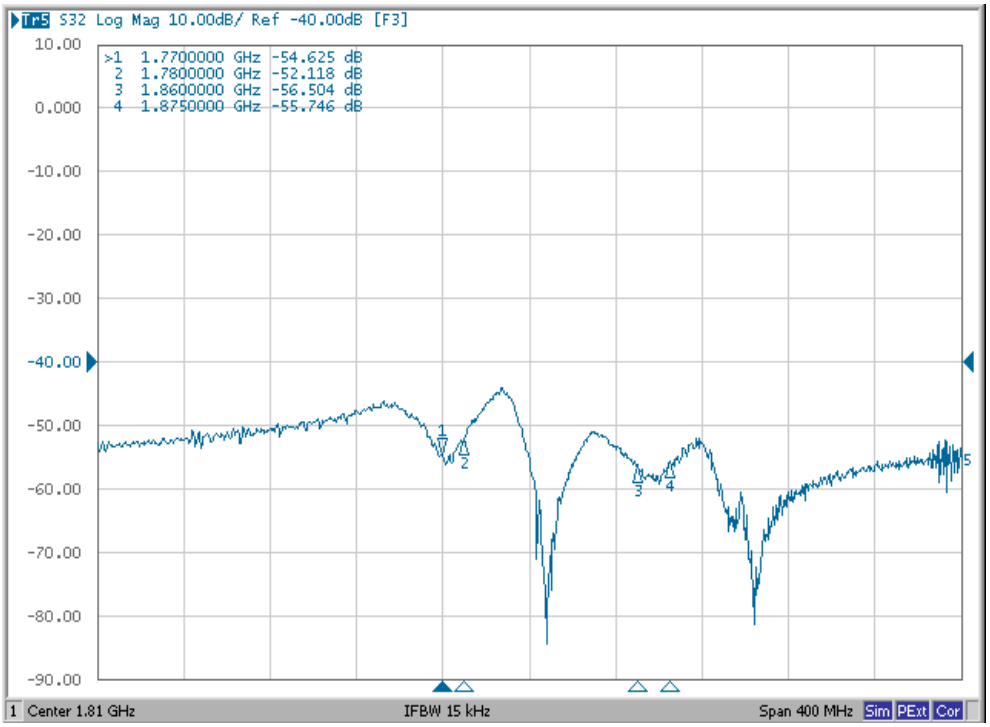
Tx to Ant



Ant to Rx

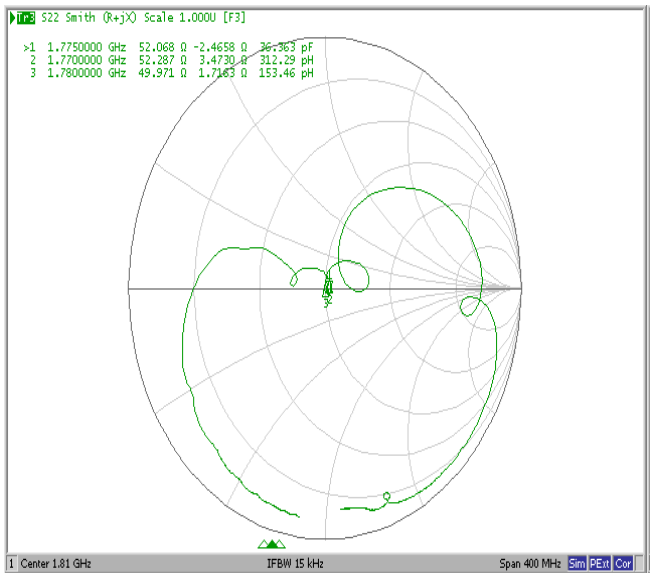


Isolation

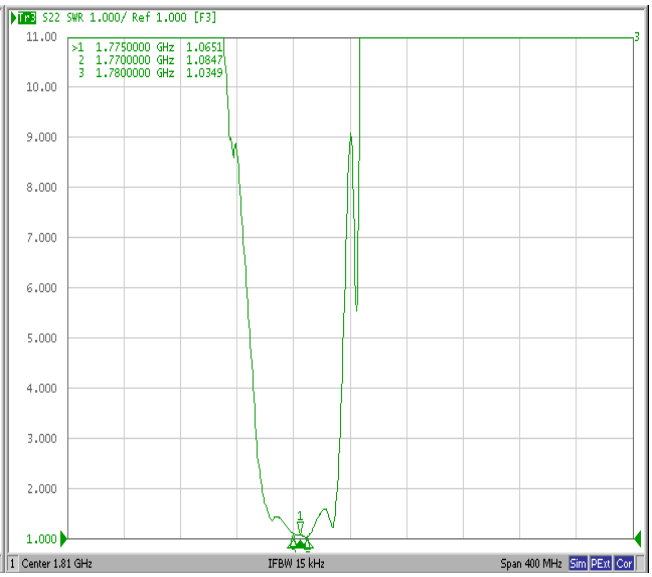


Tx Part

Smith Chart



VSWR



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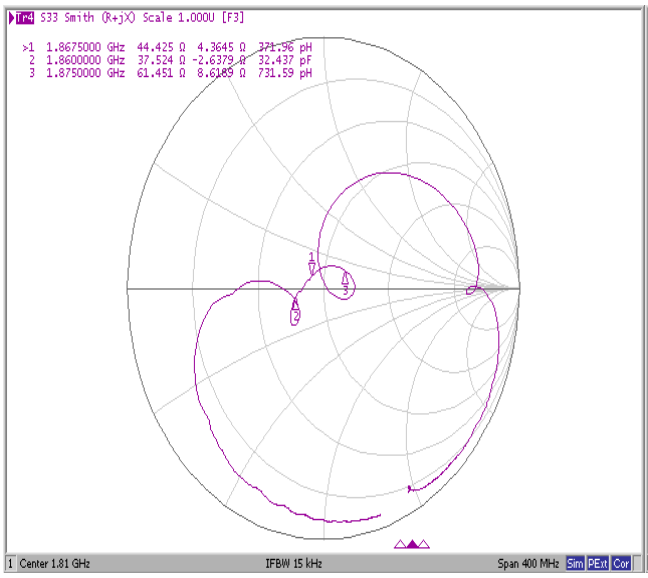
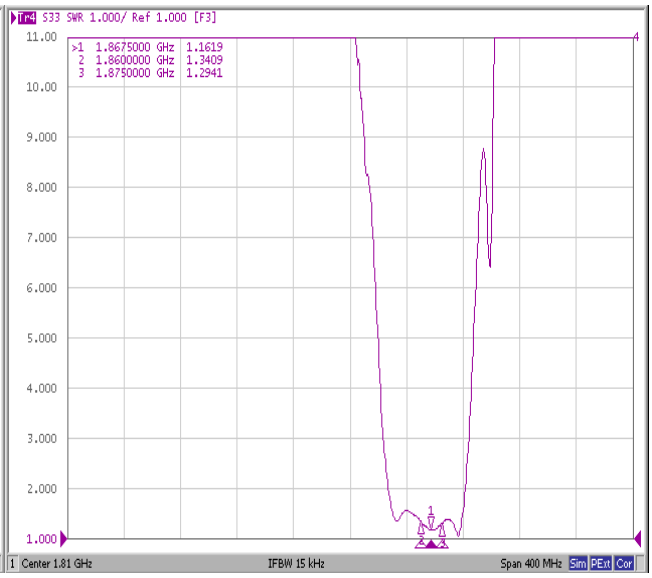
Rx Part

Smith Chart

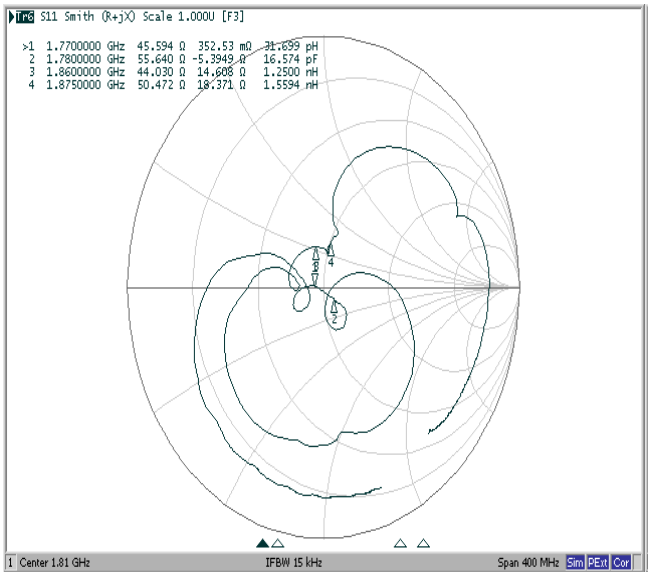


VSWR



Antenna

Smith Chart



VSWR