



*Total Solution Provider in Saw Device*

---

# SD1775CPB

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



- 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](http://www.sawnics.com)



### 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	mm <sup>2</sup>	-	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	-	1.7	3.0
Amplitude Ripple	1770.0 ~ 1780.0	dB <sub>p-p</sub>	-	0.2	1.0
VSWR	1770.0 ~ 1780.0	-	-	1.4	2.0
Absolute Attenuation	1860.0 ~ 1875.0	dB	40	48	-

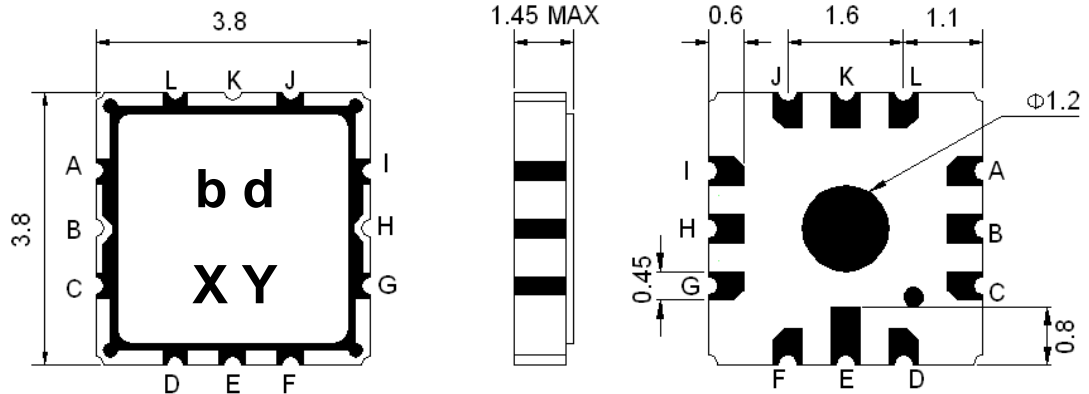
Ant → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	1860.0 ~ 1875.0	dB	-	2.0	3.2
Amplitude Ripple	1860.0 ~ 1875.0	dB <sub>p-p</sub>	-	0.4	1.0
VSWR	1860.0 ~ 1875.0	-	-	1.3	2.0
Absolute Attenuation	1770.0 ~ 1780.0	dB	40	45	-



Rx → Tx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	1770.0 ~ 1780.0	dB	40	48	-
	1860.0 ~ 1875.0	dB	40	51	-

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

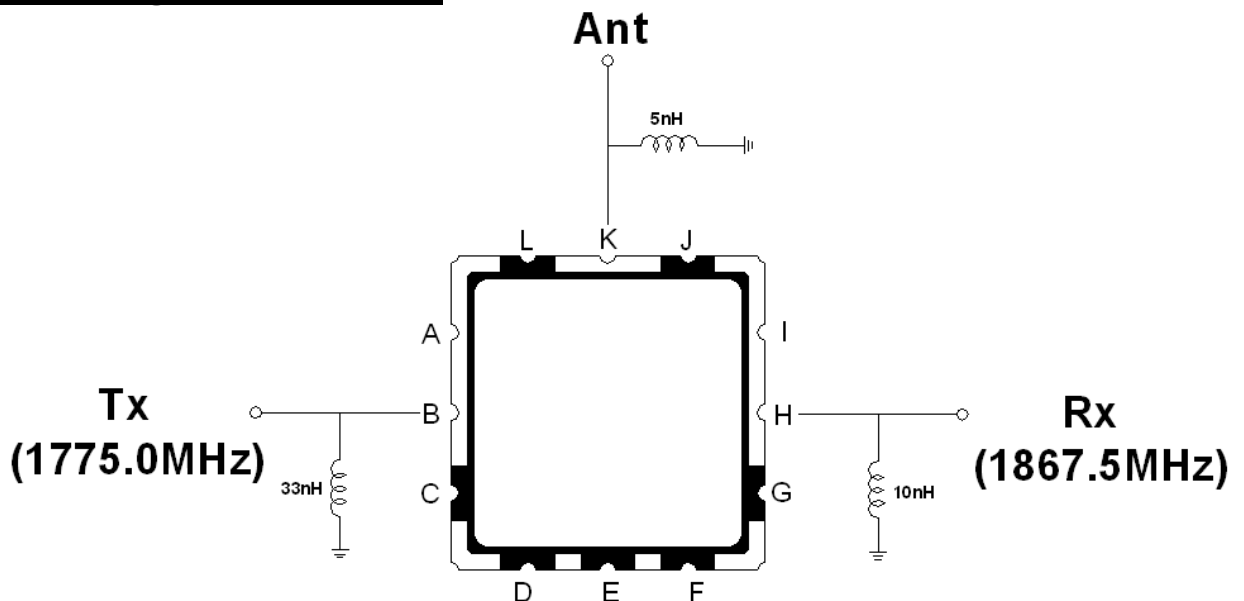
**Package Dimensions**



Marking Descriptions	
b	Wireless Application
d	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	Tx (1775.0 MHz)
H	Rx (1867.5MHz)

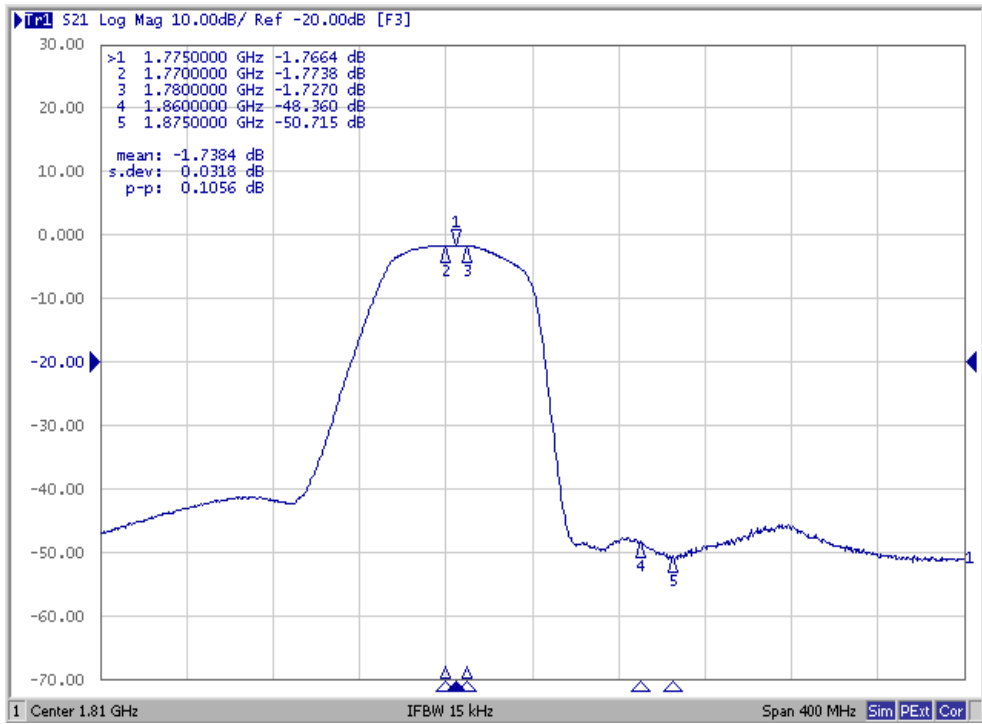
**Testing Environment**



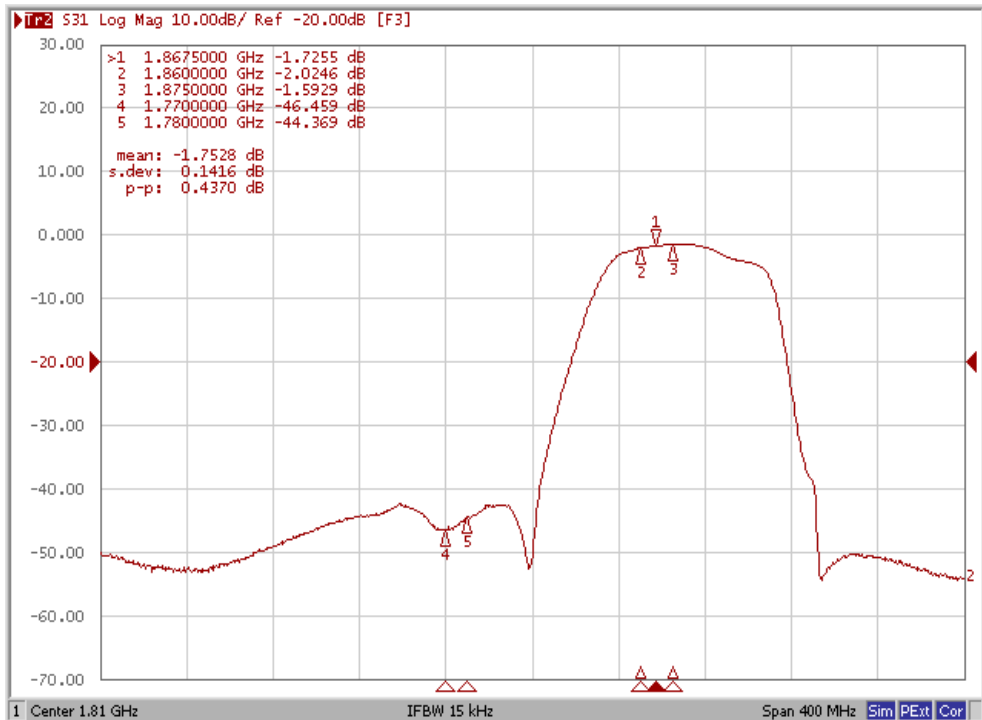


**Frequency Characteristics**

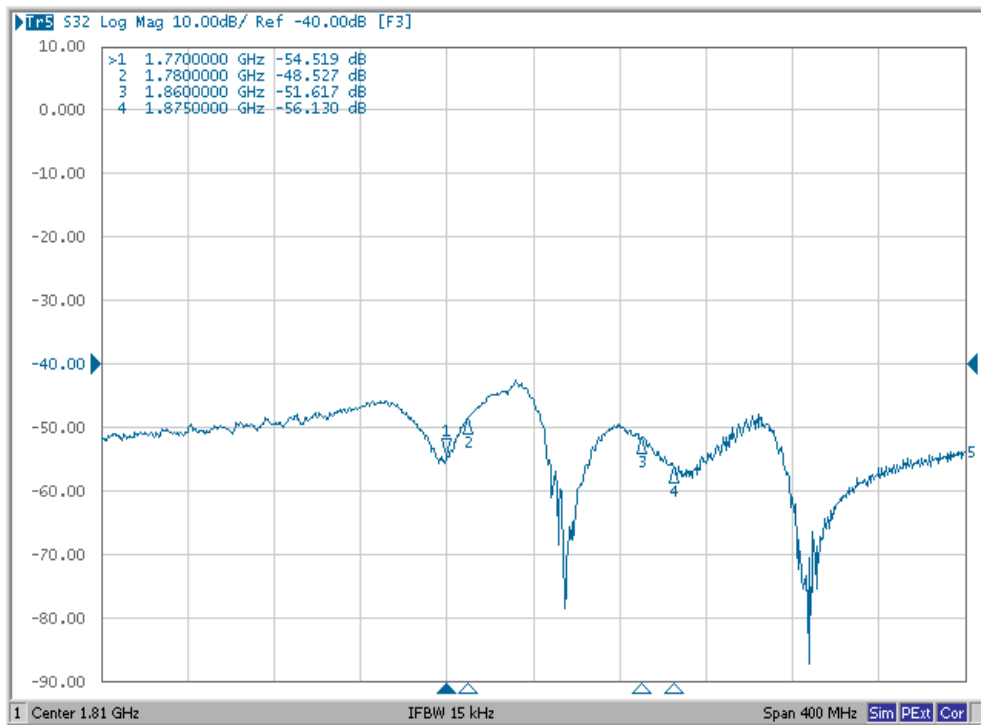
**Tx to Ant**



**Ant to Rx**

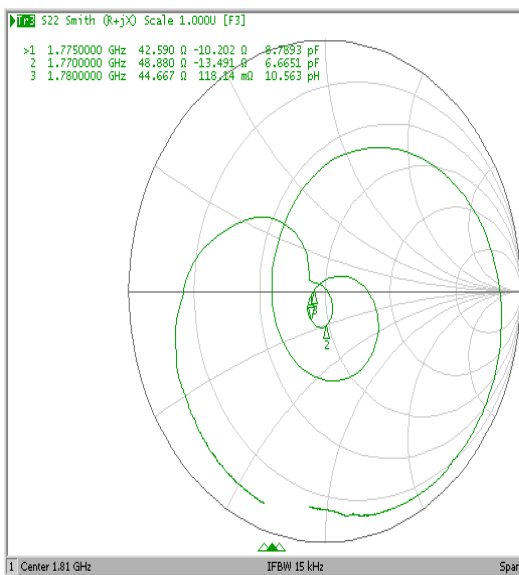


### Isolation

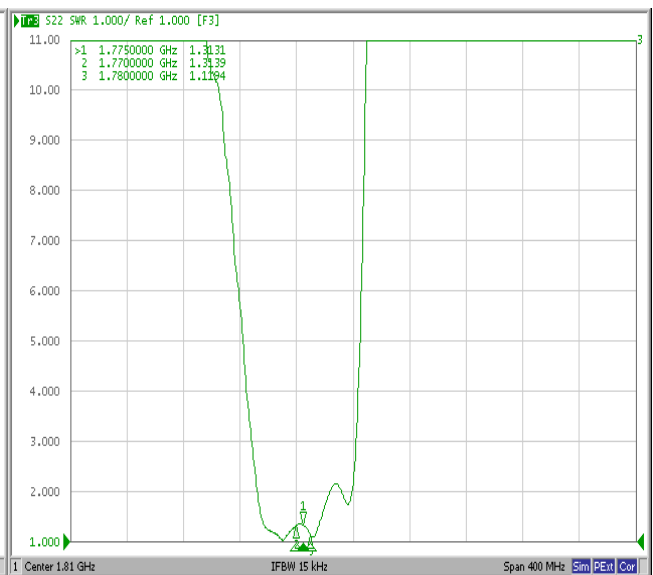


### Tx Part

#### Smith Chart



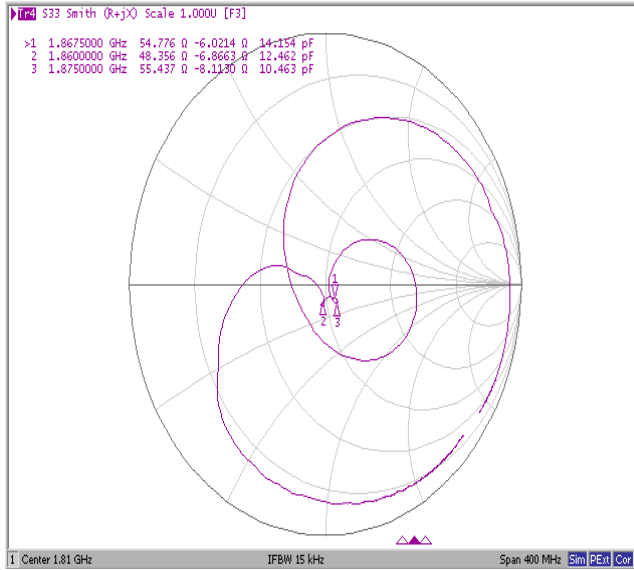
#### VSWR



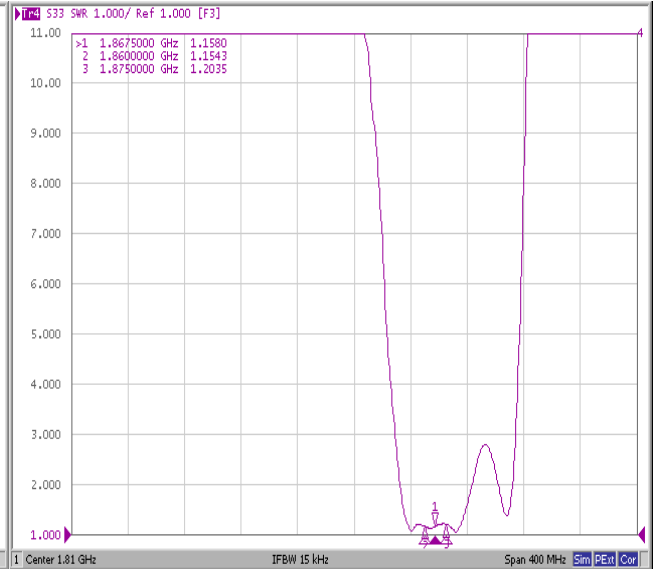


Rx Part

Smith Chart

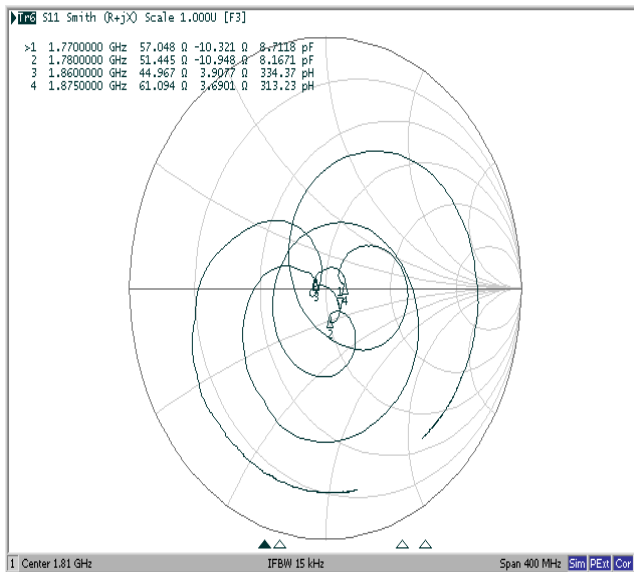


VSWR



Antenna

Smith Chart



VSWR

