

# SD1921BP8

WCDMA SAW Duplexer  
Revision 0: AUG, 2007



- Electrical Characteristics
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-

## □ Electrical Characteristics

### Maximum Ratings

ITEM	UNIT	MIN.	TYP.	MAX.
Operation Temperature Range	°C	-20	-	+75
Storage Temperature Range	°C	-40	-	+85
<b>Maximum DC Voltage</b>	V	0		
Input Power	dBm	28dBm>50000 Hours, CW tone(Ta= +50°C)		
Input Power Max – Other than LowFreq. band	dBm	10		
Ant. LowFreq ,HighFreq. Terminating Impedance	Ω	50 Ohm		
<b>Package type</b>	P8			
<b>Length x Width</b>	mm <sup>2</sup>	3.8 x 3.8		
<b>Height</b>	mm	1.35		

### Electrical Specification

Rx_1970MHz		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Insertion Loss	1960 ~ 1980	dB	-	2.4	3.0
Ripple	1960 ~ 1980	dB <sub>p-p</sub>	-	0.4	1.0
Return Loss	1960 ~ 1980	dB	10	14	-
Absolute Attenuation	D.C ~ 900	dB	50	60	-
	1570 ~ 1580	dB	30	42	-
	2090	dB	45	50	-
	2150 ~ 2170	dB	45	50	-
	2300 ~ 2500	dB	20	30	-
Tx_2160MHz		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Insertion Loss	2150 ~ 2170	dB	-	2.6	3.0
Ripple	2150 ~ 2170	dB <sub>p-p</sub>	-	0.3	1.0
Return Loss	2150 ~ 2170	dB	10	16	-
Absolute Attenuation	D.C ~ 900	dB	55	67	-
	1570 ~ 1580	dB	35	45	-
	1960 ~ 1980	dB	45	49	-
	2090	dB	20	29	-
	2300 ~ 2500	dB	40	50	-



SD1921BP8

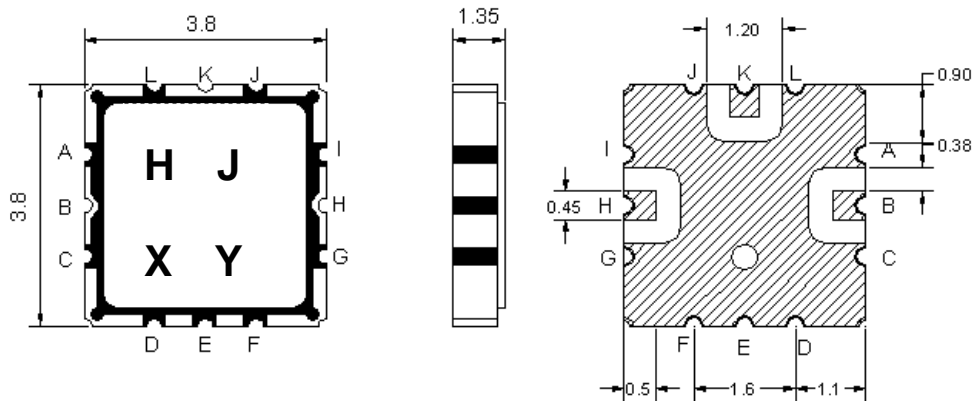
SAW Duplexer for WCDMA

Rx → Tx		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Isolation	1960 ~ 1980	dB	45	54	-
	2150 ~ 2170	dB	40	46	-

**Notes :** Including PCB Losses

**□ Package Dimensions**

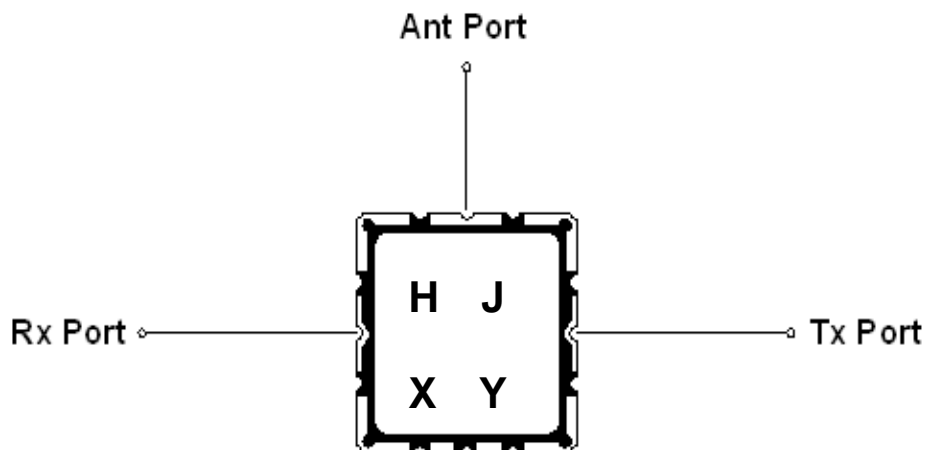
Unit: mm



Marking Descriptions	
H	Application(WCDMA)
J	Series(SD1921BP8)
X	Date Code(Year)
Y	Date Code(Month)

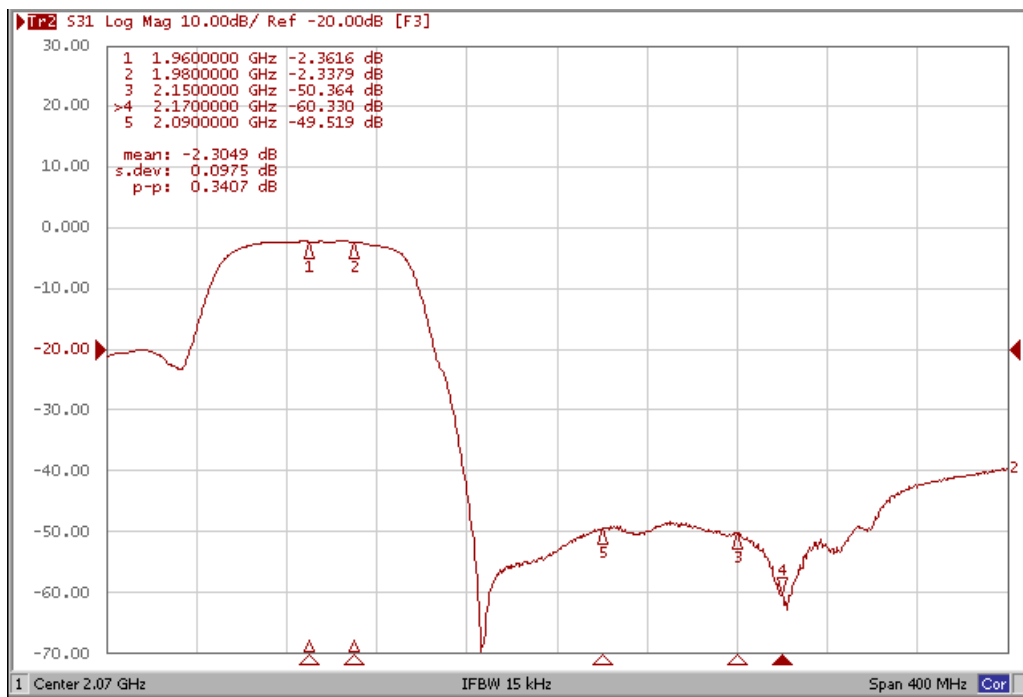
Pin Description	
A, C, D, E, F, G, I, J, L	GND
B	Rx Port(1970MHz)
K	Ant Port
H	Tx Port(2160MHz)

**□ Testing Environment**

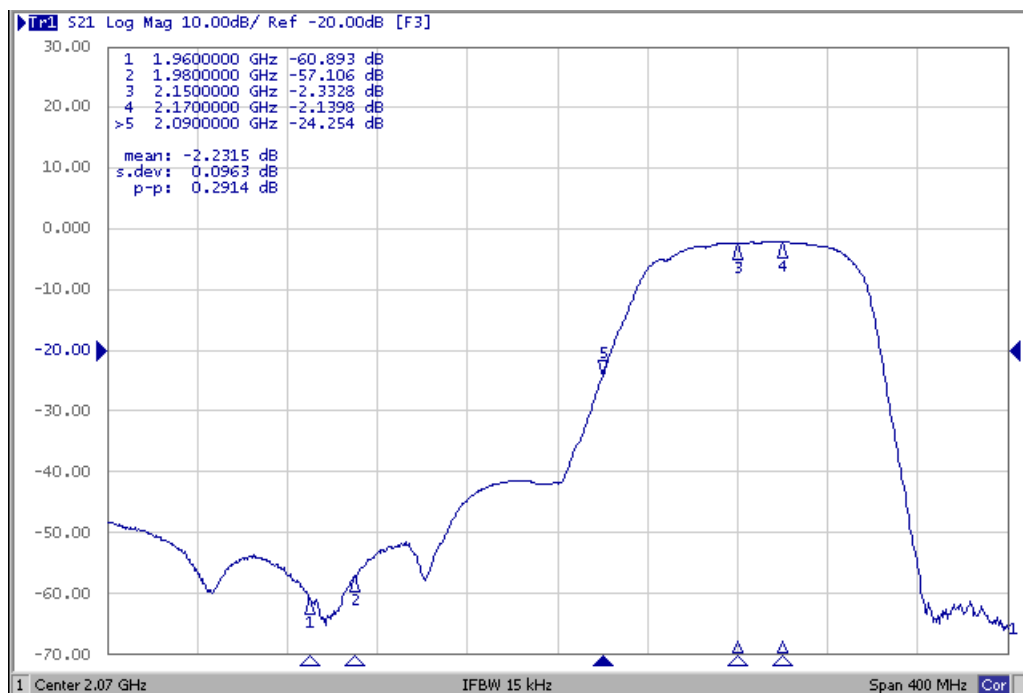


### □ Frequency Characteristics

Ant to Rx Characteristic

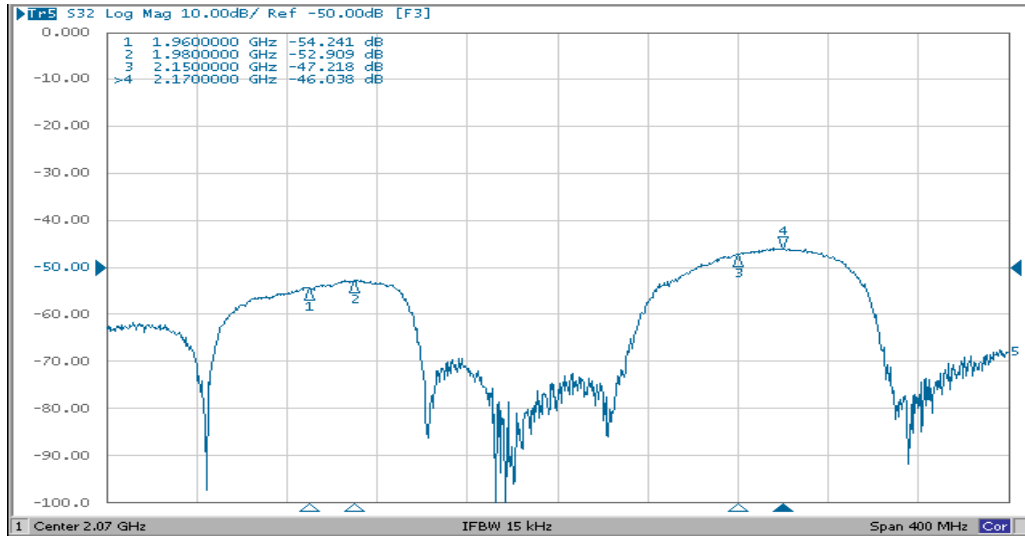


Tx to Ant Characteristic





Isolation Characteristic



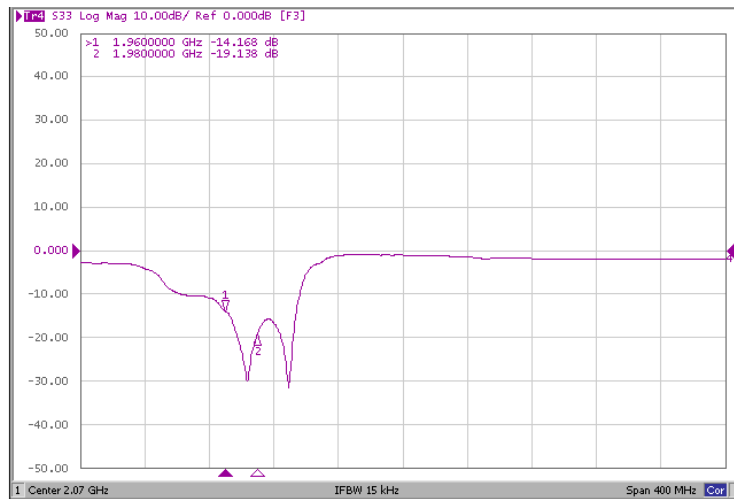


Return Loss Characteristic

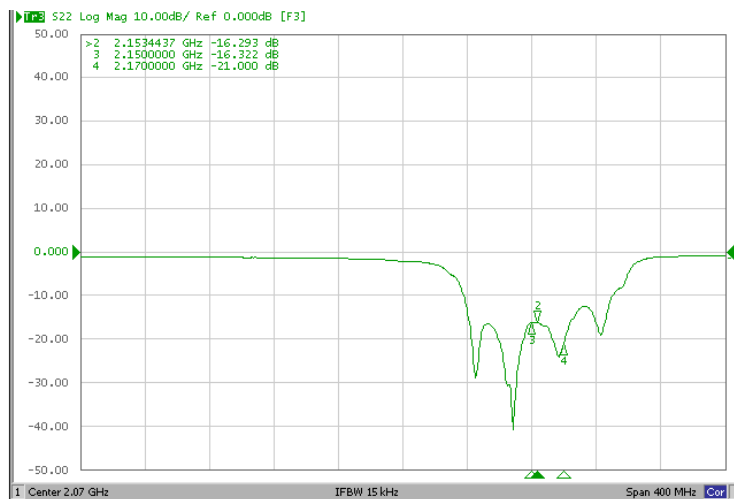
Ant



Rx

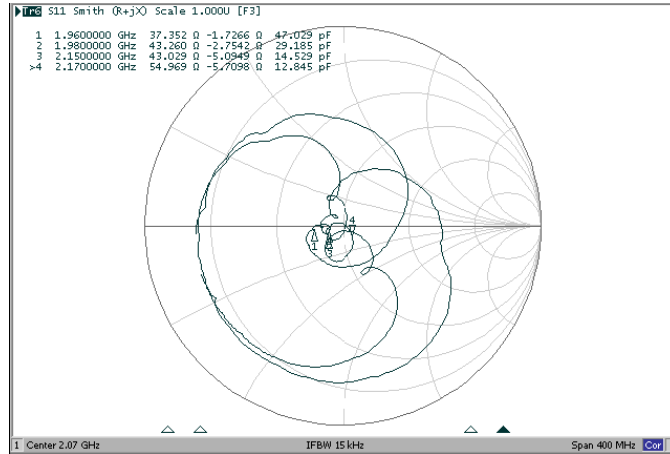


Tx

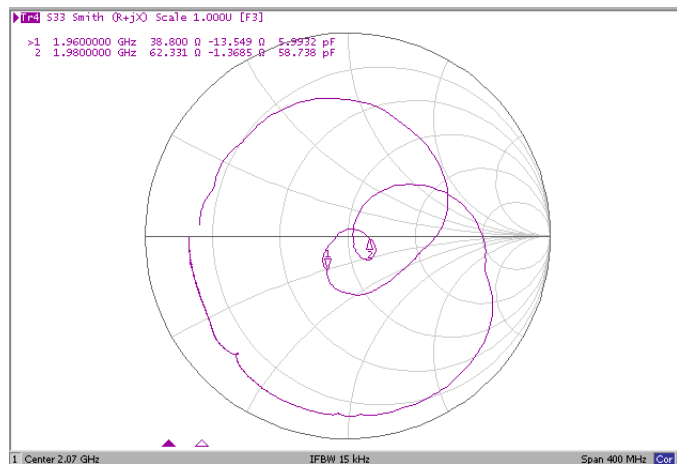


### Smith Chart Characteristic

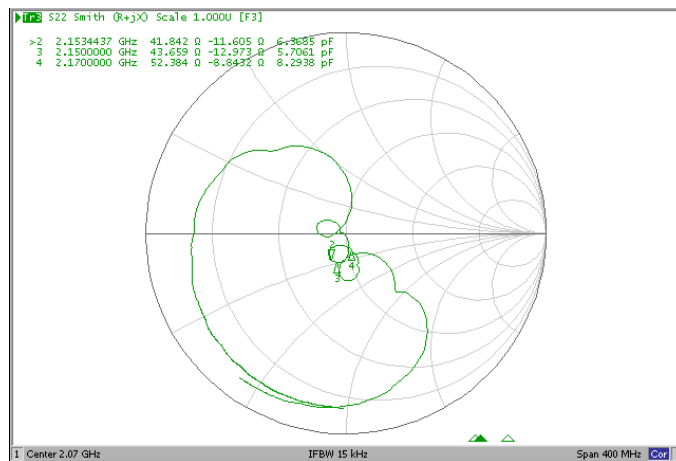
**Ant**



**Rx**



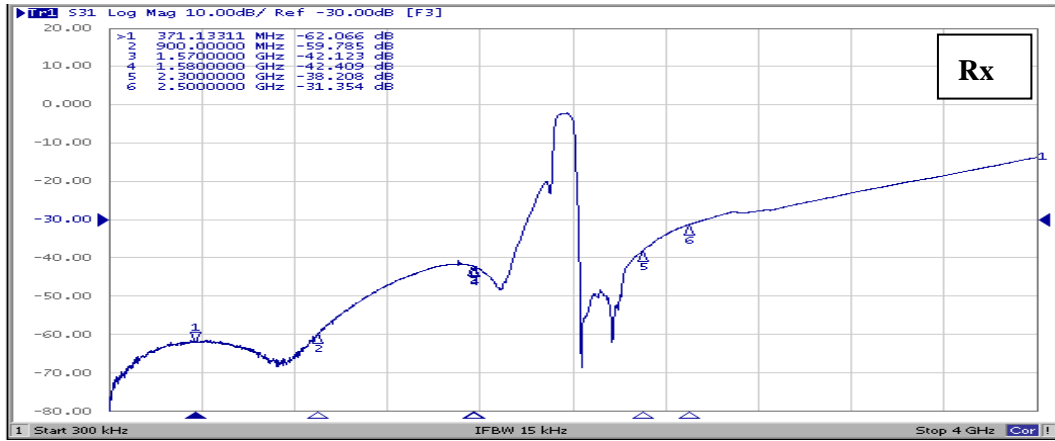
**Tx**



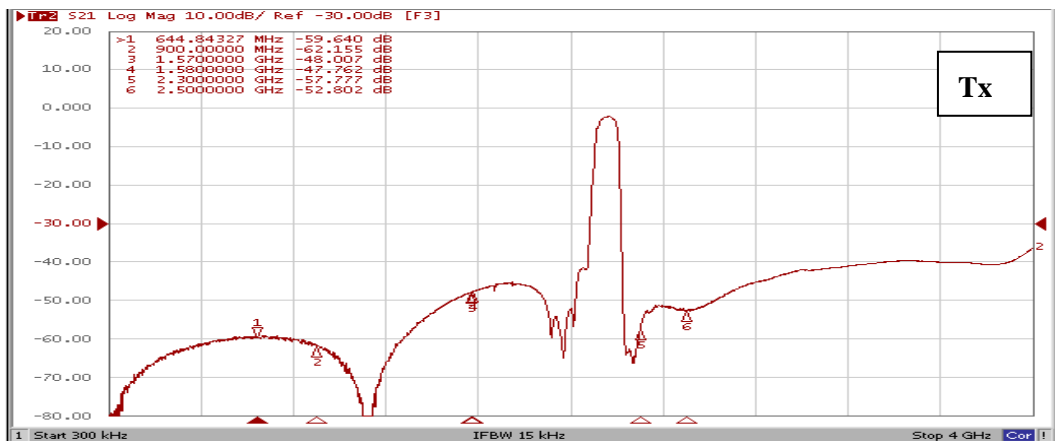




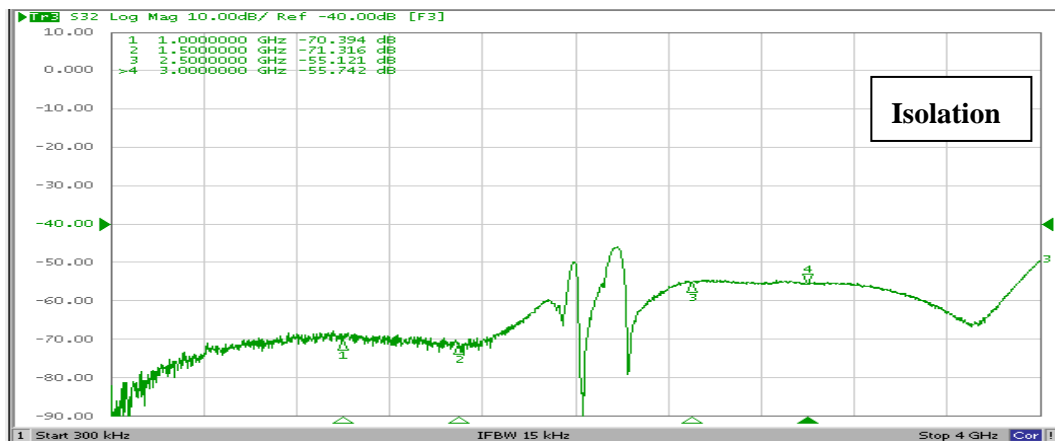
Wide Span. Characteristic



High Freq. Wide Characteristic



Isolation Wide Characteristic





Test PCB Loss

