

SD1921AP8

WCDMA SAW Duplexer
Revision 0: MAY, 2007



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

□ Electrical Characteristics

Maximum Ratings

ITEM	UNIT	MIN.	TYP.	MAX.
Operation Temperature Range	°C	-30	-	+80
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	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		
Package type	P8			
Length x Width	mm ²	3.8 x 3.8		
Height	mm	1.35		

Electrical Specification

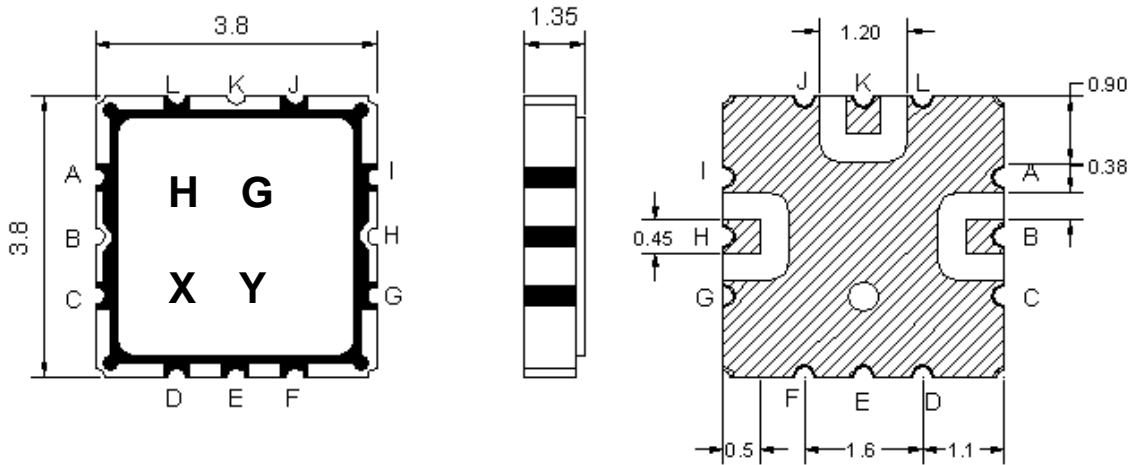
Rx_1950MHz		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Insertion Loss	1940 ~ 1960	dB	-	1.9	2.7
Ripple	1940 ~ 1960	dB _{p-p}	-	0.4	1.0
Return Loss	1940 ~ 1960	dB	10	12	-
Absolute Attenuation	D.C ~ 900	dB	55	64	-
	1570 ~ 1580	dB	35	41	-
	2070	dB	50	53	-
	2130 ~ 2150	dB	45	50	-
	2300 ~ 2500	dB	25	33	-
Tx_2140MHz		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Insertion Loss	2130 ~ 2150	dB	-	2.2	3.0
Ripple	2130 ~ 2150	dB _{p-p}	-	0.6	1.0
Return Loss	2130 ~ 2150	dB	10	16	-
Absolute Attenuation	D.C ~ 900	dB	45	55	-
	1570 ~ 1580	dB	35	45	-
	1940 ~ 1960	dB	48	52	-
	2070	dB	20	36	-
	2300 ~ 2500	dB	40	49	-



Rx → Tx		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Isolation	1940 ~ 1960	dB	47	54	-
	2130 ~ 2150	dB	43	46	-

Notes : Excluding Losses due to PCB.

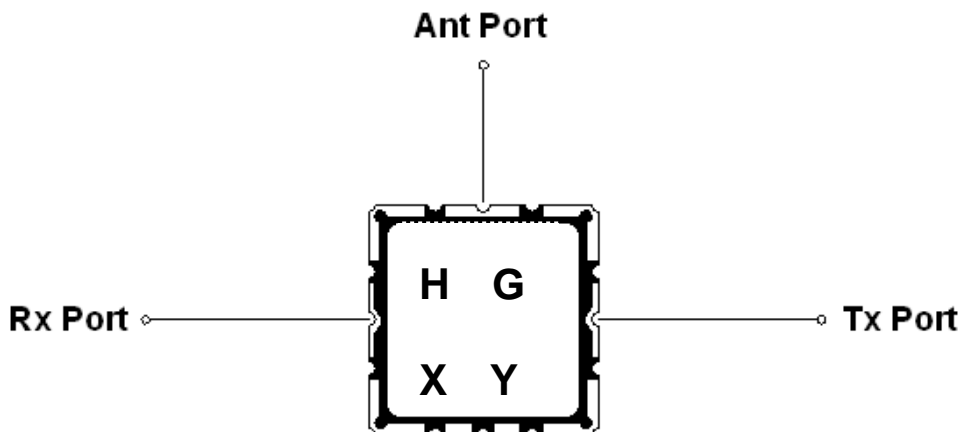
□ Package Dimensions



Marking Descriptions	
H	Application(WCDMA)
G	Series(SD1921AP8)
X	Date Code(Year)
Y	Date Code(Month)

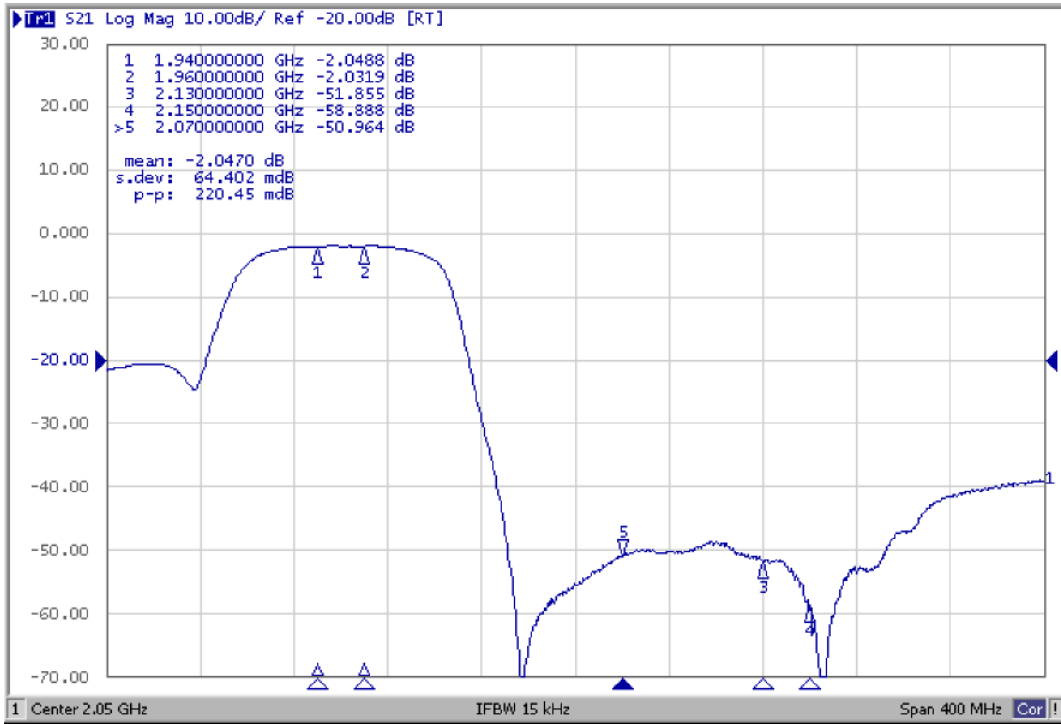
Pin Description	
A, C, D, E, F, G, I, J, L	GND
B	Rx Port(1950MHz)
K	Ant Port
H	TxPort(2140MHz)

□ Testing Environment

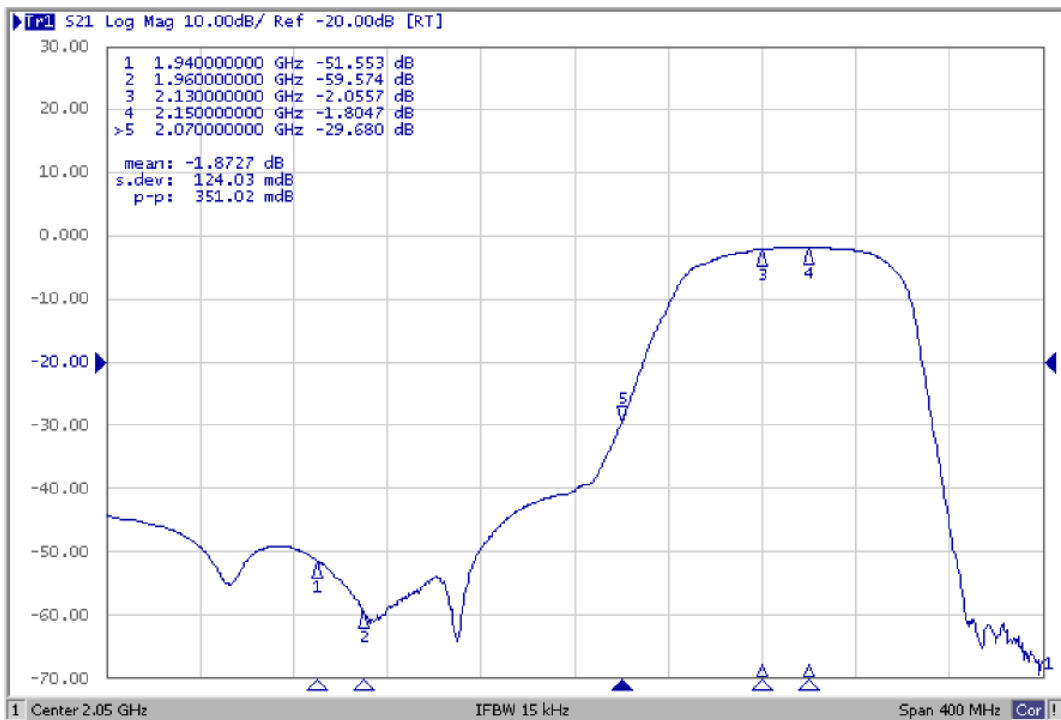


□ Frequency Characteristics

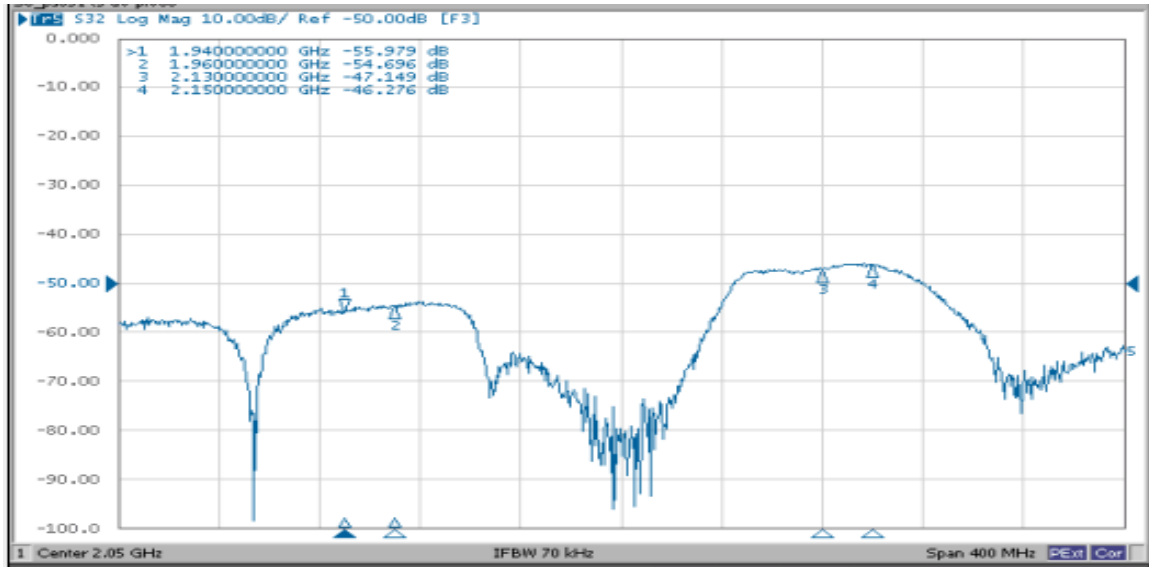
Rx Characteristic



Tx Characteristic



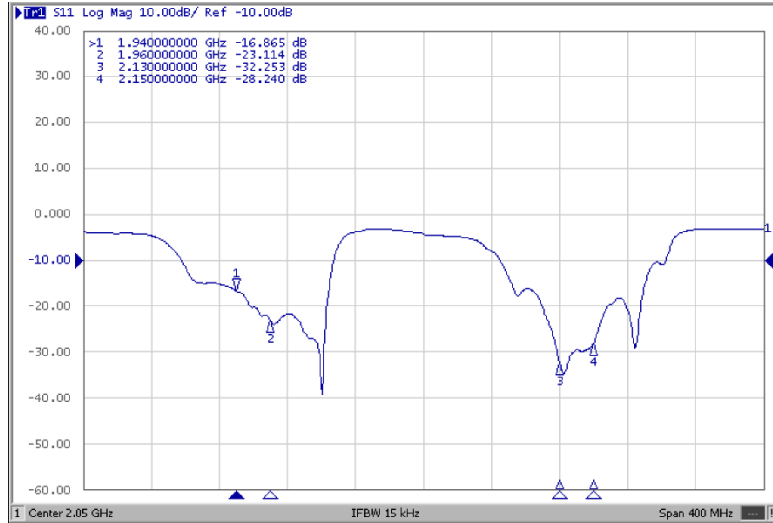
Isolation Characteristic



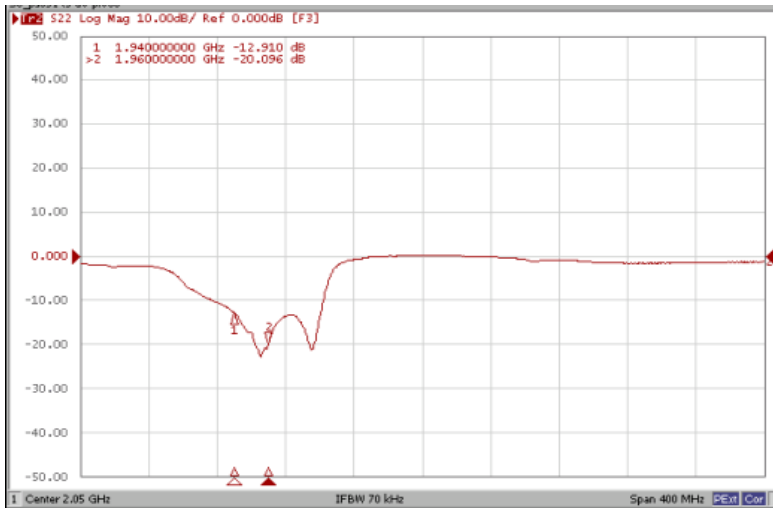


Return Loss

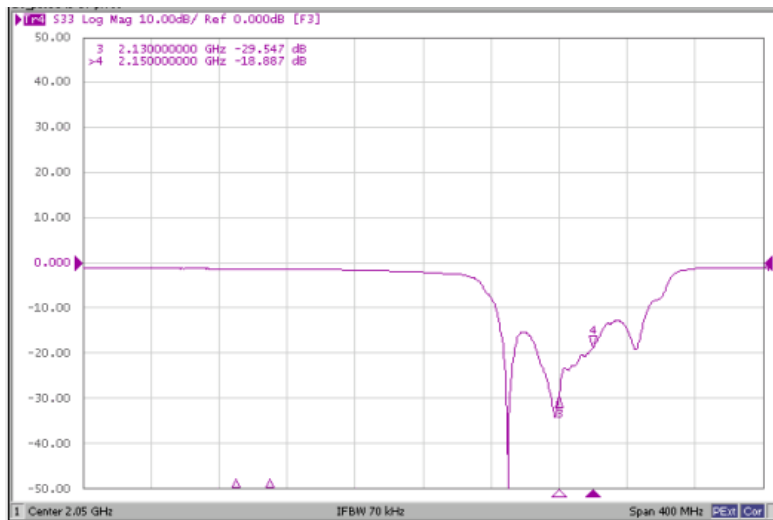
Ant



Rx

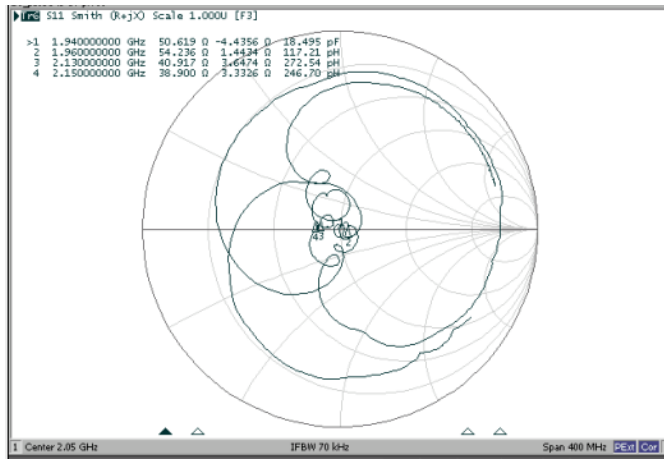


Tx

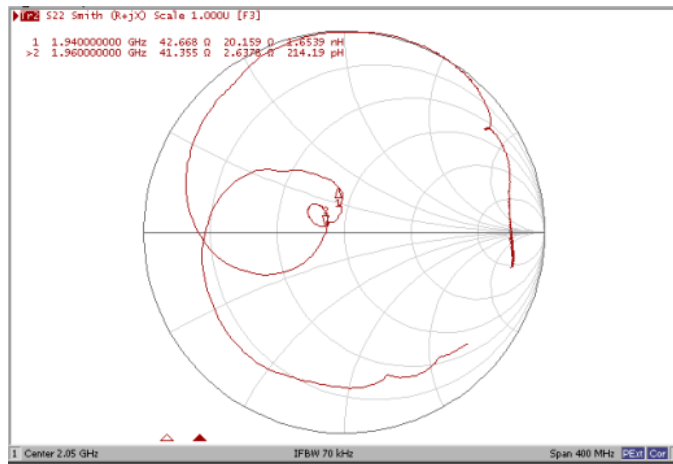


Smith Chart

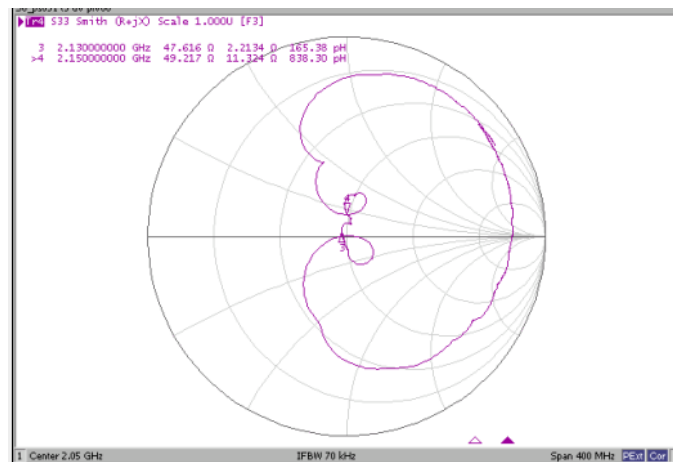
Ant



Rx

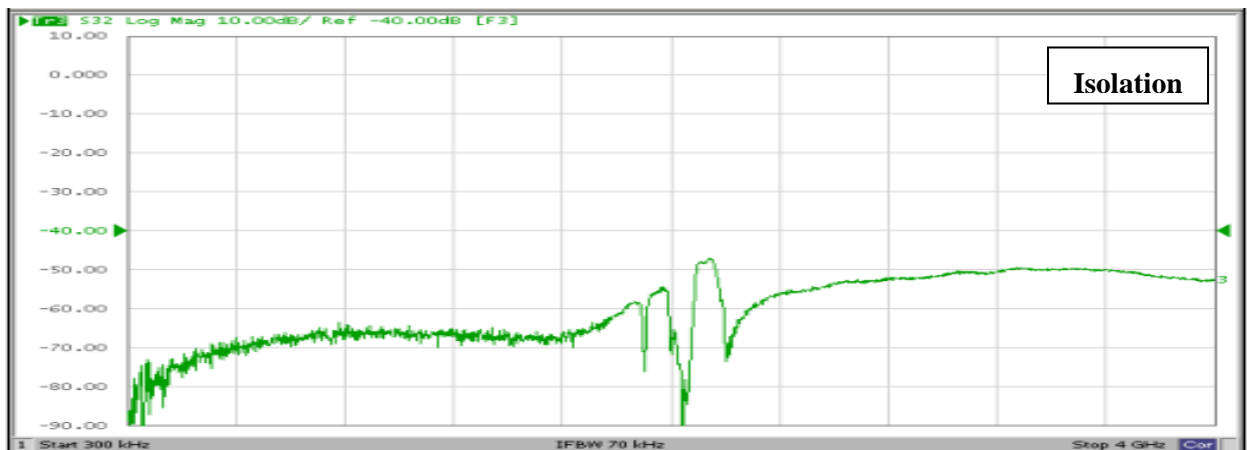
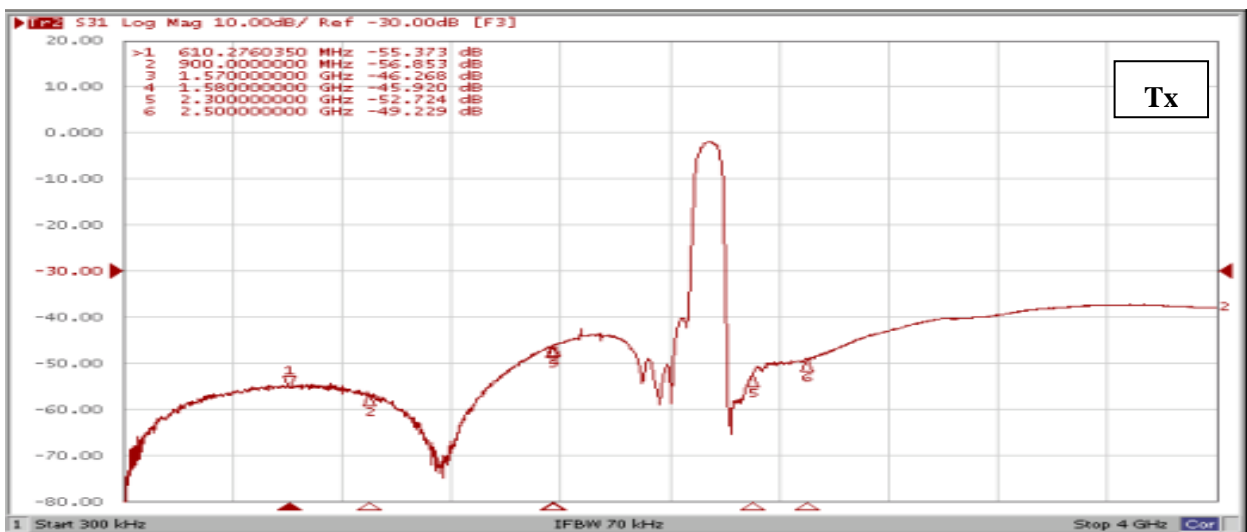


Tx





Wide Span





Test PCB Loss at 3G Band

