



Total Solution Provider in Saw Device

SD1921AP7

WCDMA SAW Duplexer
Revision 0: MAY, 2007



- Electrical Characteristics
 - Package Dimensions
 - Testing Environment
 - Frequency 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
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		P7		
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	14	-
Absolute Attenuation	D.C ~ 900	dB	50	58	-
	1570 ~ 1580	dB	35	46	-
	2070	dB	45	53	-
	2130 ~ 2150	dB	45	50	-
	2300 ~ 2500	dB	20	29	-
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	14	-
Absolute Attenuation	D.C ~ 900	dB	50	58	-
	1570 ~ 1580	dB	35	46	-
	1940 ~ 1960	dB	45	49	-
	2070	dB	20	27	-
	2300 ~ 2500	dB	35	45	-

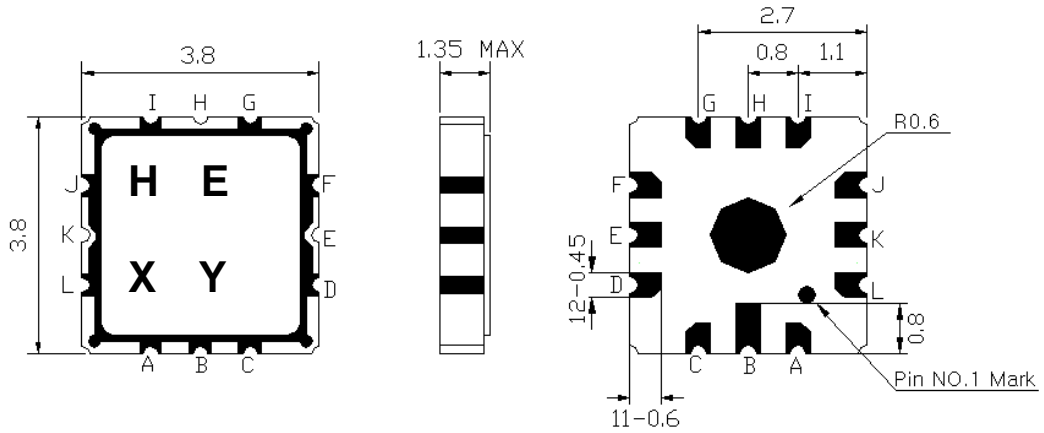


Rx → Tx		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Isolation	1940 ~ 1960	dB	47	54	-
	2130 ~ 2150	dB	43	46	-

Notes : Excluding Losses due to PCB.

□ Package Dimensions

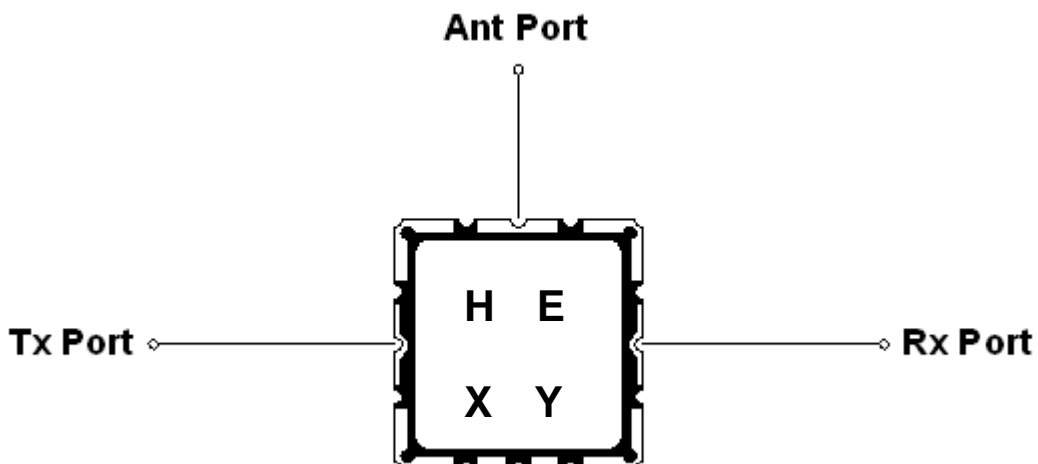
Unit: mm



Marking Descriptions	
H	Application(WCDMA)
E	Series(SD1921AP7)
X	Date Code(Year)
Y	Date Code(Month)

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

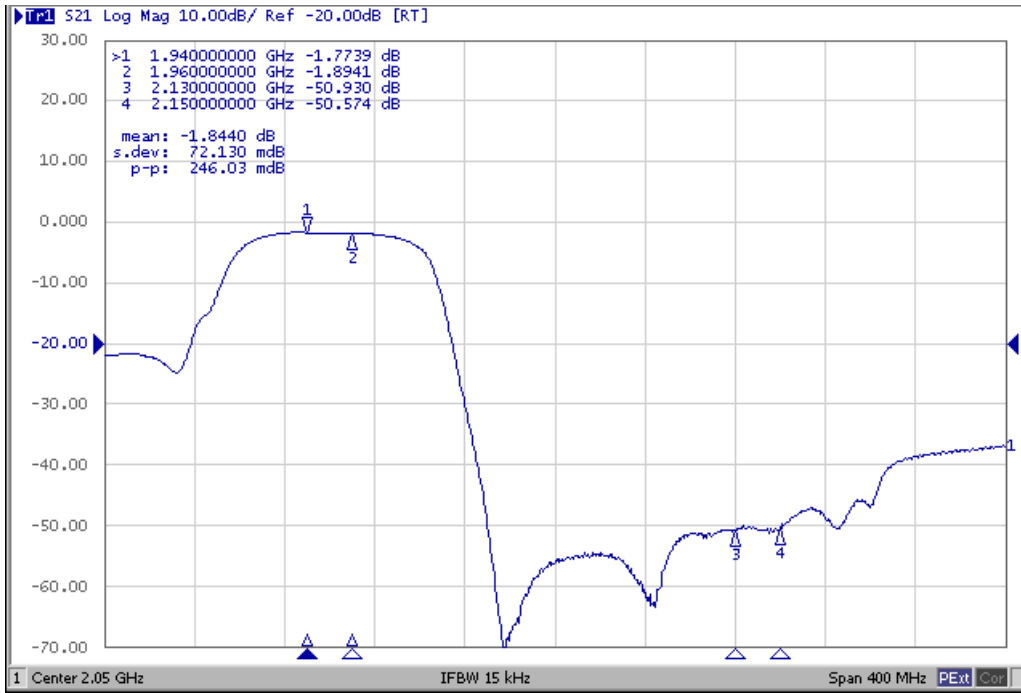
□ Testing Environment



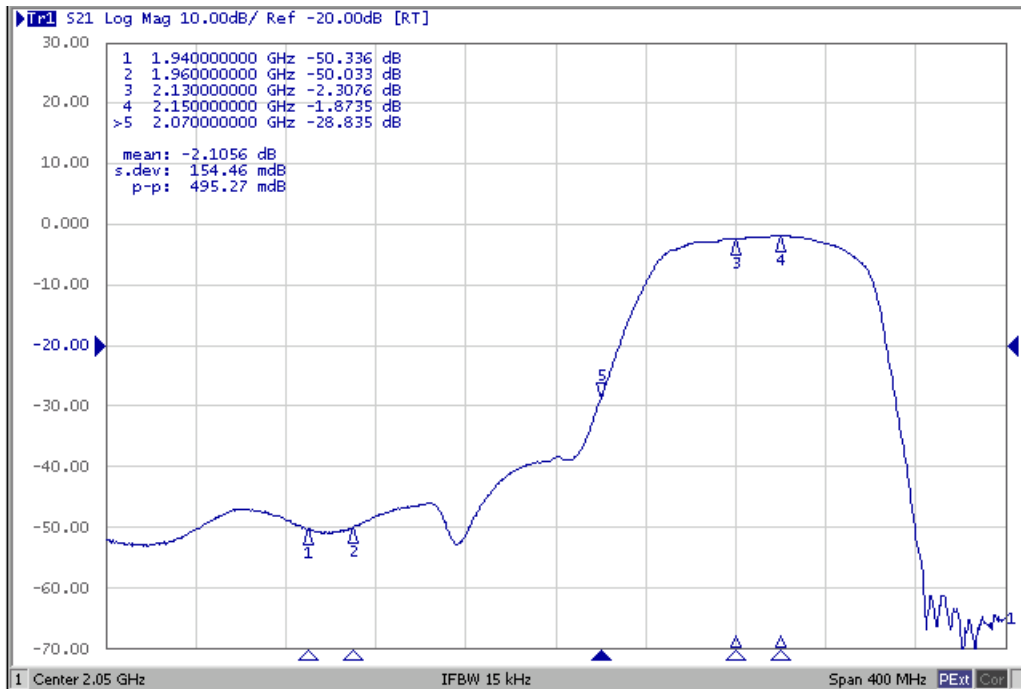


□ Frequency Characteristics

Rx Characteristic

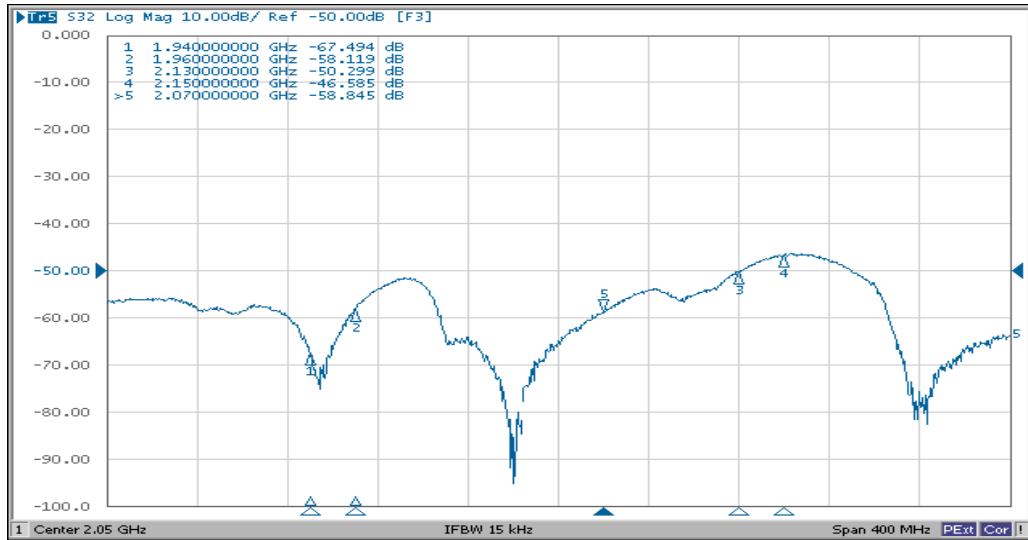


Tx Characteristic



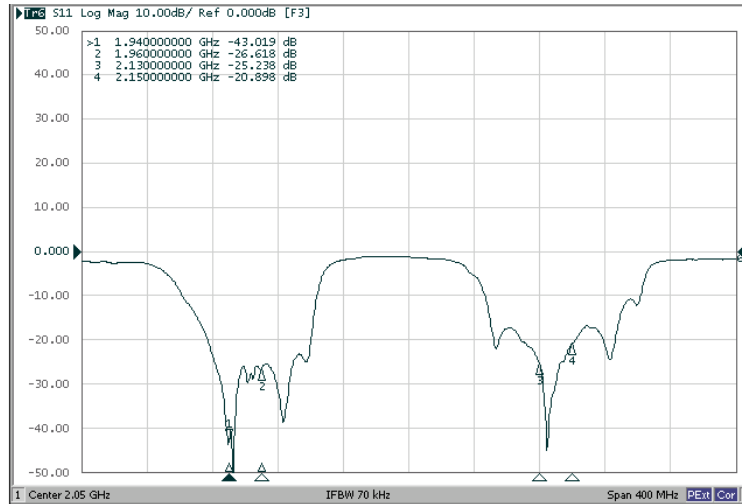


Isolation Characteristic

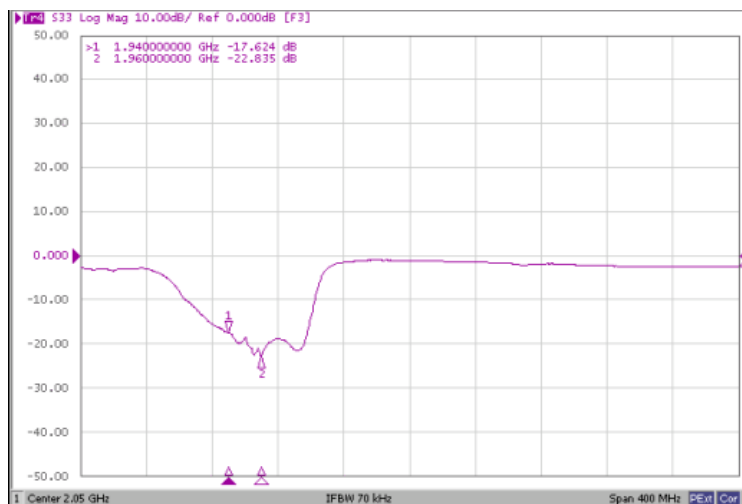


Return Loss Characteristic

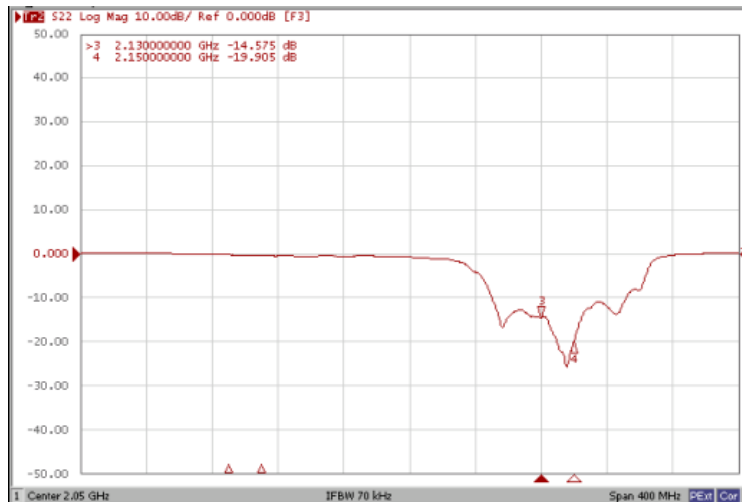
Ant



Rx

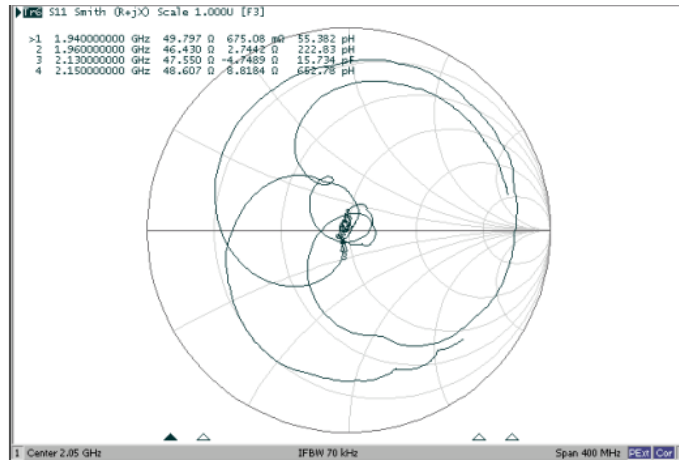


Tx

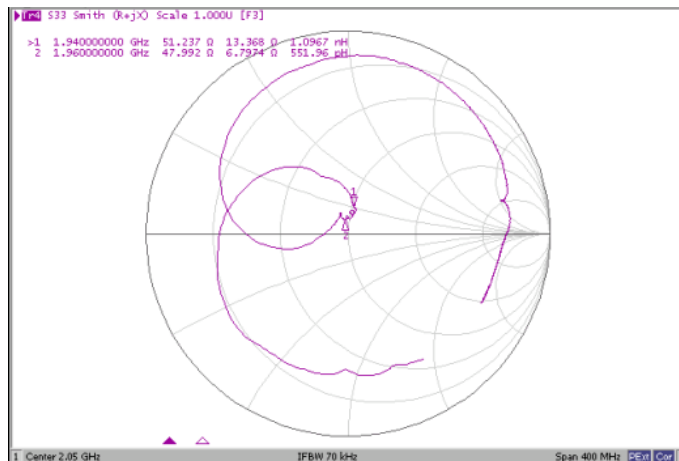


Smith Chart Characteristic

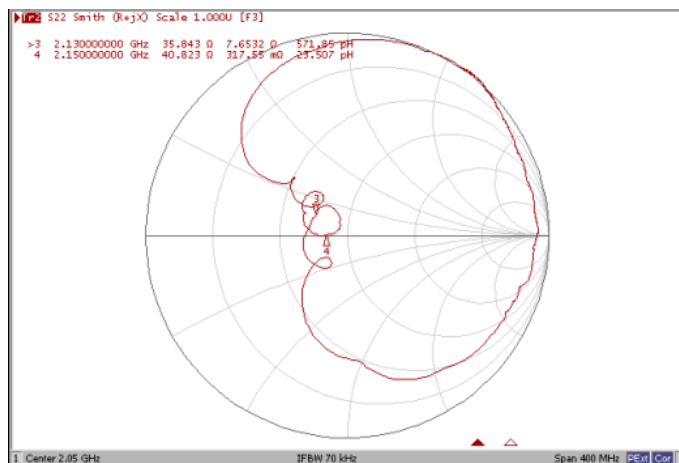
Ant



Rx

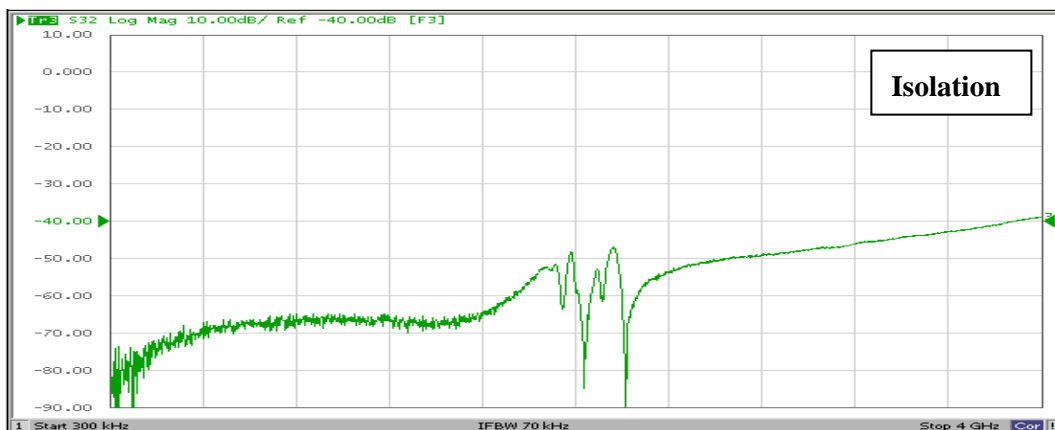
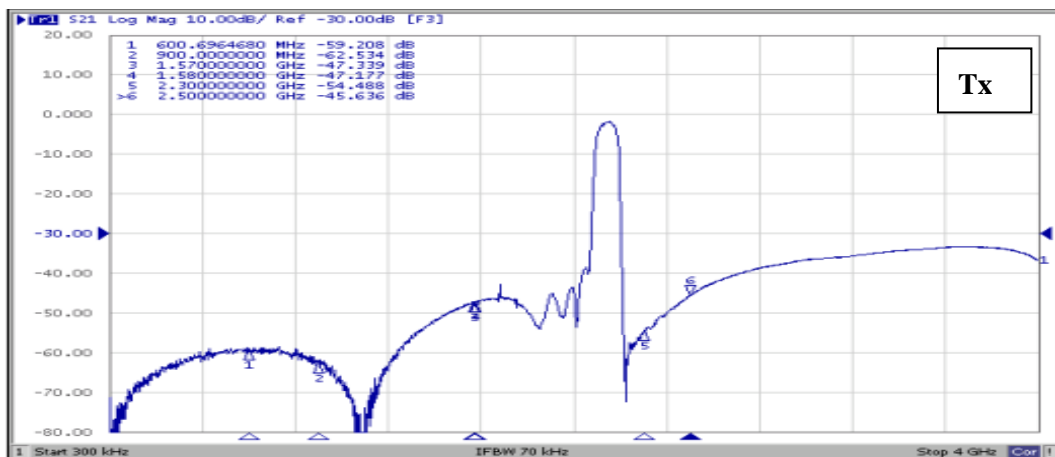
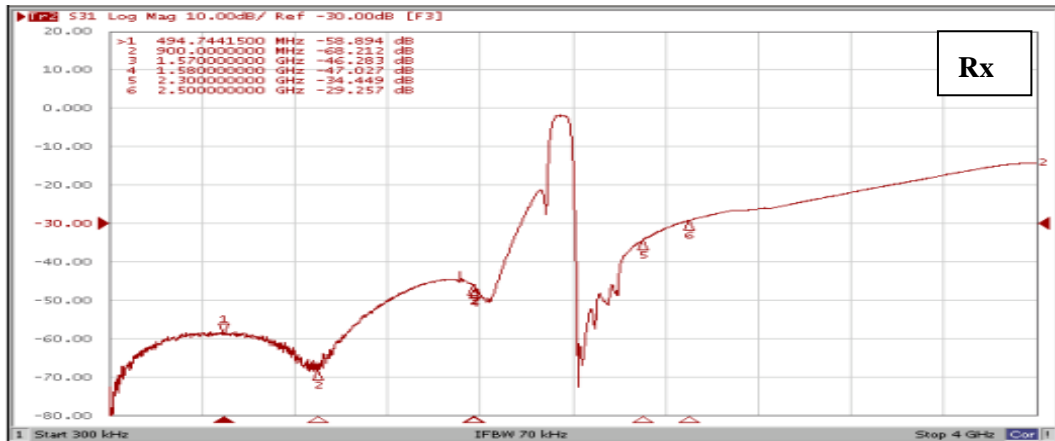


Tx





Wide Span. Characteristic





Test PCB Loss at 3G Band

