

SD7780AP3

SAW Duplexer

Revision 0: Dec, 2006



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

SAWNICS Inc.



□ Electrical Characteristics

Maximum Ratings

ITEM	UNIT	MIN.	TYP.	MAX.
Operation Temperature Range	°C	-30	-	+85
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	0		
Tx Band Input Power Level(792.5 – 806 MHz)	dBm	30dBm > 50000 hrs, CW tone(Ta= +50°C)		
Input Power Max – Other than Tx band	dBm	10		
ANT, Rx, Tx terminating Impedance	Ω	50		
PKG Type		P3		
Length x Width	mm ²	3.8 x 3.8		
Height	mm	1.35		

Electrical Specification

Tx → Ant		SPECIFICATIONS			
ITEM	CONDITION [MHz]	UNIT	MIN.	TYP.	MAX.
Insertion Loss	792.5 ~ 806.0	dB	-	2.2	2.5
Ripple	792.5 ~ 806.0	dB	-	0.8	1.5
Return Loss	792.5 ~ 806.0	dB	9.0	11	-
Absolute Attenuation	0.1 ~ 400.0	dB	45	50	-
	762.5 ~ 776.0	dB	45	52	-
	1570.0 ~ 1580.0	dB	30	37	-
	1585.0 ~ 1612.0	dB	30	35	-
	2377.5 ~ 2418.0	dB	40	43	-
Ant → Rx		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Insertion Loss	762.5 ~ 776.0	dB	-	2.2	3.2
Ripple	762.5 ~ 776.0	dB	-	1.1	1.9
Return Loss	762.5 ~ 776.0	dB	8.5	9.5	-
Absolute Attenuation	0.1 ~ 200.0	dB	35	40	-
	792.5 ~ 806.0	dB	43	46	-
	1570.0 ~ 1580.0	dB	10	14	-
	1585.0 ~ 1612.0	dB	10	13	-
	2377.5 ~ 2418.0	dB	25	29	-

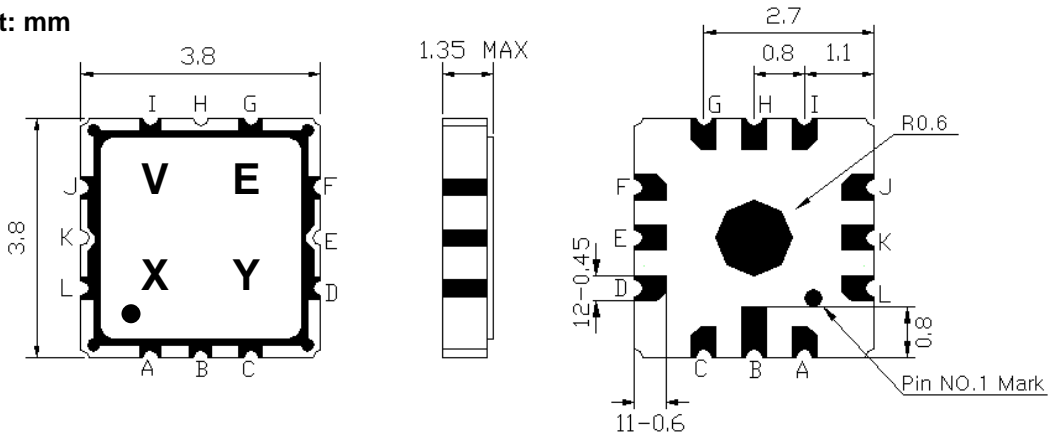


Tx → Rx		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Isolation	762.5 ~ 776.0	dB	46	52	-
	792.5 ~ 806.0	dB	50	53	-

※Note : Excluding losses due to PCB.

□ Package Dimensions

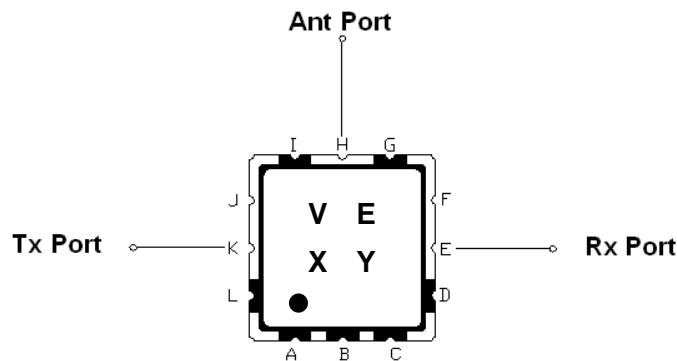
Unit: mm



Marking Descriptions	
V	Application(Wireless
E	Series(SD7780AP3)
X	Date Code(Year)
Y	Date Code(Month)

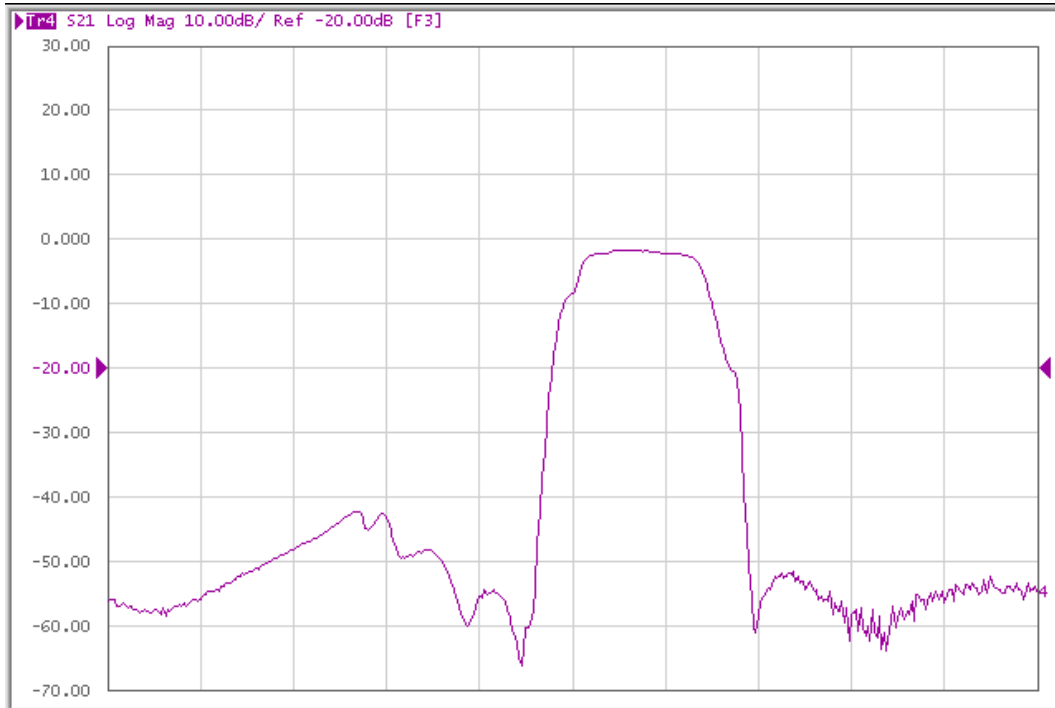
Pin Description	
A, B, C, D, F, G, I, J, L	GND
E	Rx Port(770MHz)
H	Ant Port
K	TxPort(800MHz)
● Index	Pin NO.1 Mark

□ Testing Environment

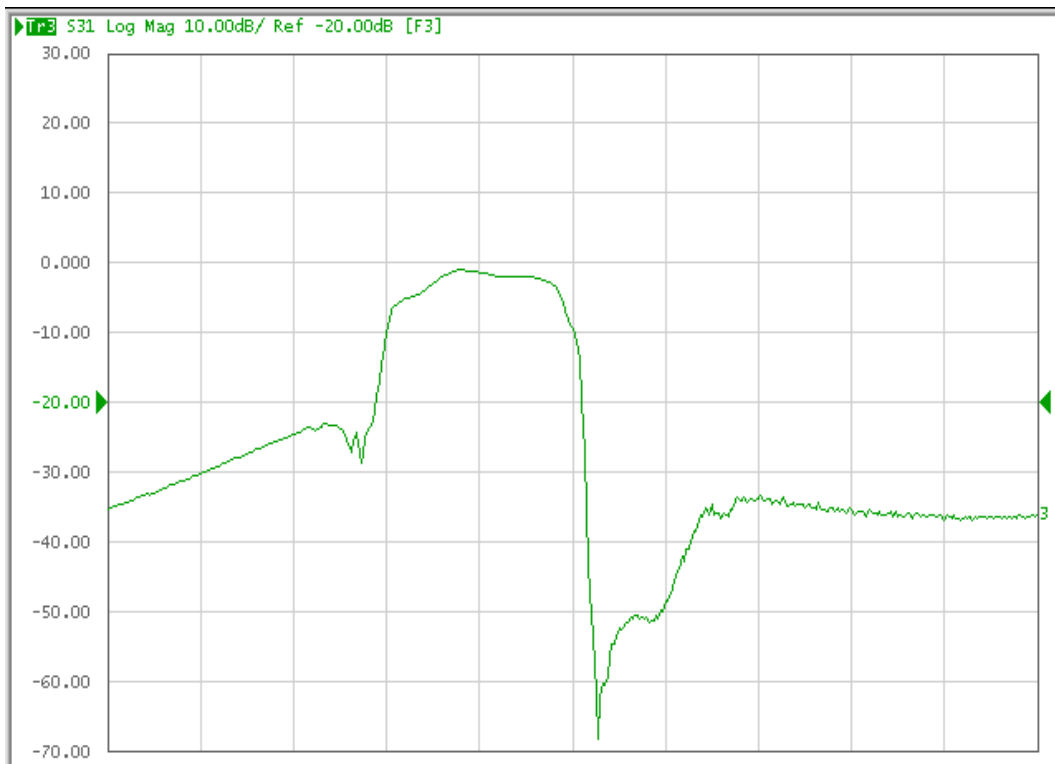


□ Frequency Characteristics

Tx Characteristic

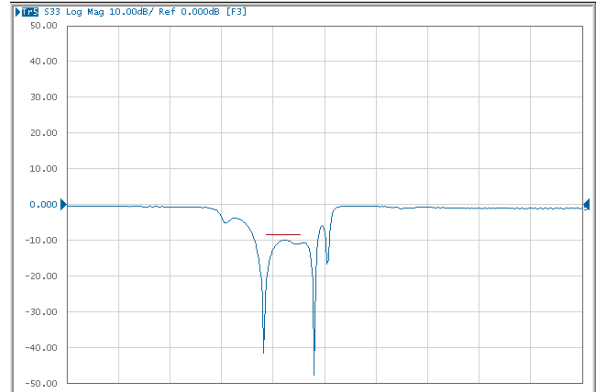


Rx Characteristic

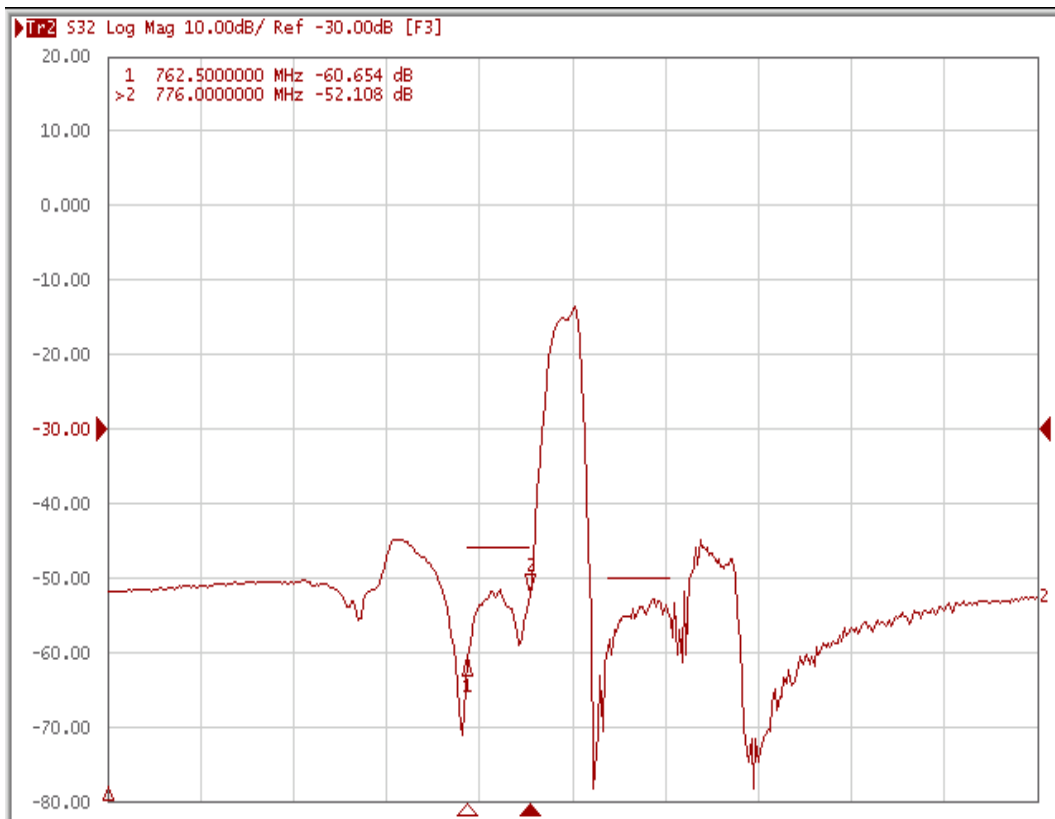




Tx and Rx Return Loss Characteristic

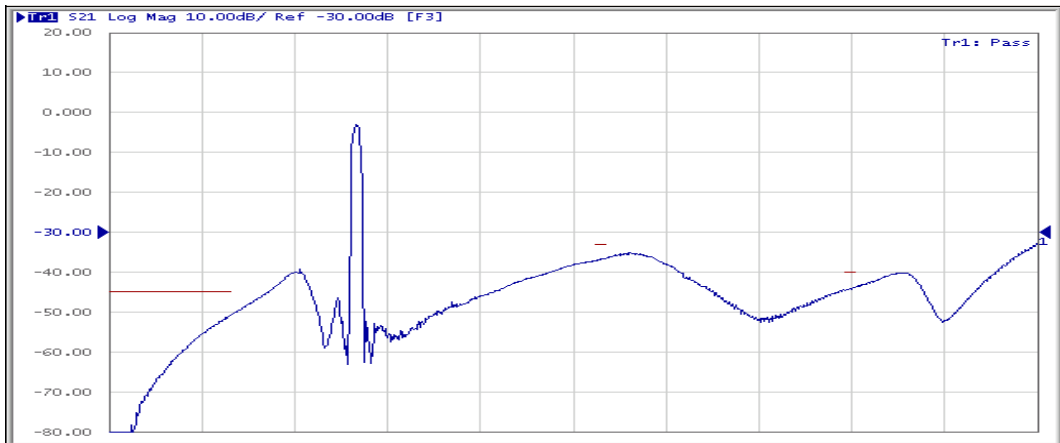


Isolation Characteristic

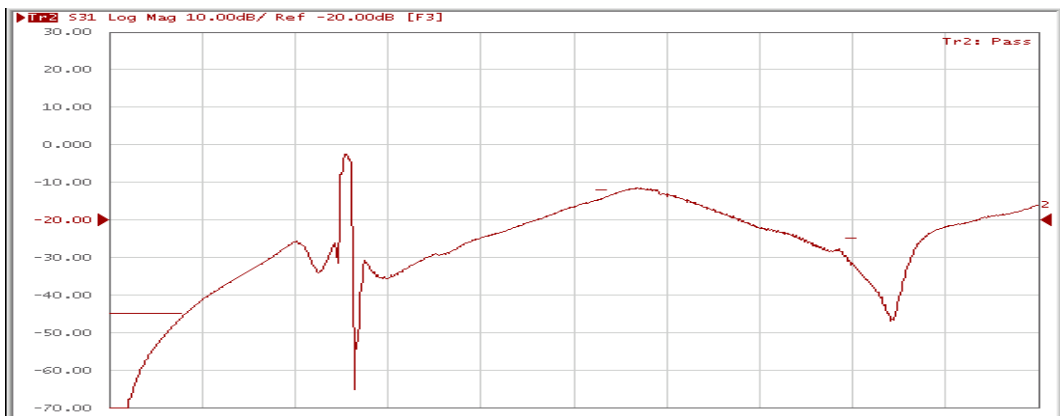




Tx Wide Characteristic



Rx Wide Characteristic



Isolation Wide Characteristic

