



Total Solution Provider in Saw Device

SD902AP2

GSM SAW Duplexer

Revision 0: September, 2008



- 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

□ Electrical Characteristics

Maximum Ratings

ITEM	UNIT	MIN.	TYP.	MAX.
Operation Temperature Range	°C	-30	-	+85
Storage Temperature Range	°C	-40	-	+85
Maximum Voltage	V	0		
Maximum Input Power	W	1.2 W > 50000 Hours, CW tone(Ta= +50°C)		
Ant. Tx. Rx Terminating Impedance	Ω	50 Ω		
Package type		P2		
Length x Width	mm ²	3.8 x 3.8		
Height	mm	-	-	1.45

Electrical Specification

Tx_902.5MHz		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Insertion Loss	890 ~ 915	dB	-	1.7	2.2
Ripple	890 ~ 915	dB _{p-p}	-	0.7	1.2
VSWR	At Ant Port	-	-	1.6	2.0
	At Tx Port	-	-	1.5	2.0
Absolute Attenuation	0.3 ~ 860	dB	10	16	-
	935 ~ 960	dB	45	50	-
	1570 ~ 1580	dB	10	18	-
	1710 ~ 2170	dB	8	15	-
	2300 ~ 2500	dB	3	7	-



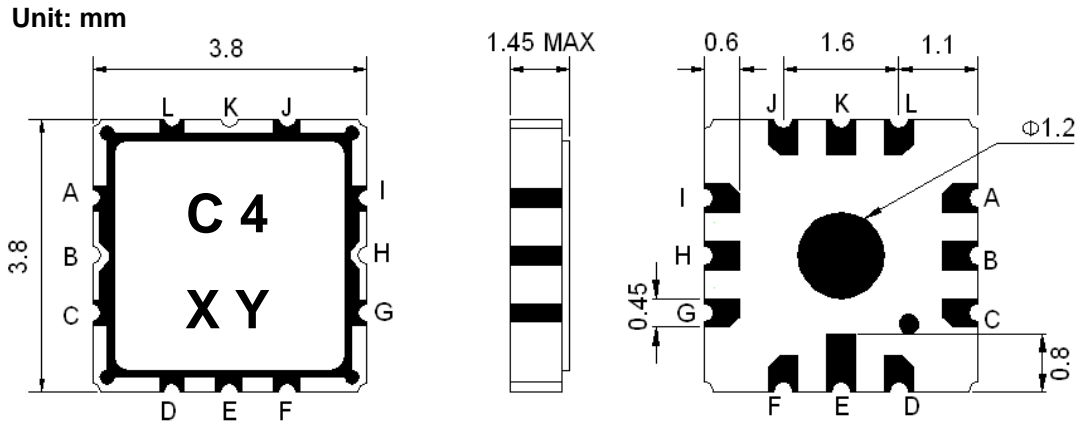
SD902AP2

SAW Duplexer for GSM

Rx_947.5MHz		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Insertion Loss	935 ~ 960	dB	-	2.3	2.8
Ripple	935 ~ 960	dB _{p-p}	-	1.0	1.5
VSWR	At Ant Port	-	-	1.7	2.0
	At Rx Port	-	-	1.6	2.0
Absolute Attenuation	0.3 ~ 860	dB	25	32	-
	890 ~ 915	dB	50	55	-
	1570 ~ 1580	dB	45	55	-
	1710 ~ 2170	dB	50	57	-
	2300 ~2500	dB	40	48	-

Rx → Tx		SPECIFICATIONS			
ITEM	CONDITION [MHz]	Unit	Min.	Typ.	Max.
Isolation	890 ~ 915	dB	50	55	-
	935 ~ 960	dB	48	53	-

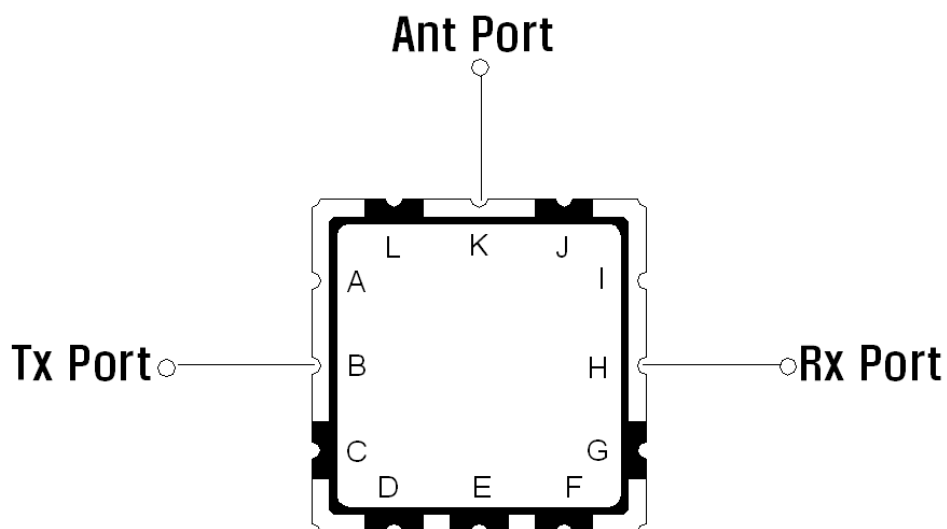
□ Package Dimensions



Marking Descriptions	
C	GSM Application
4	SAW Duplexer
X	Date Code(Year)
Y	Date Code(Month)

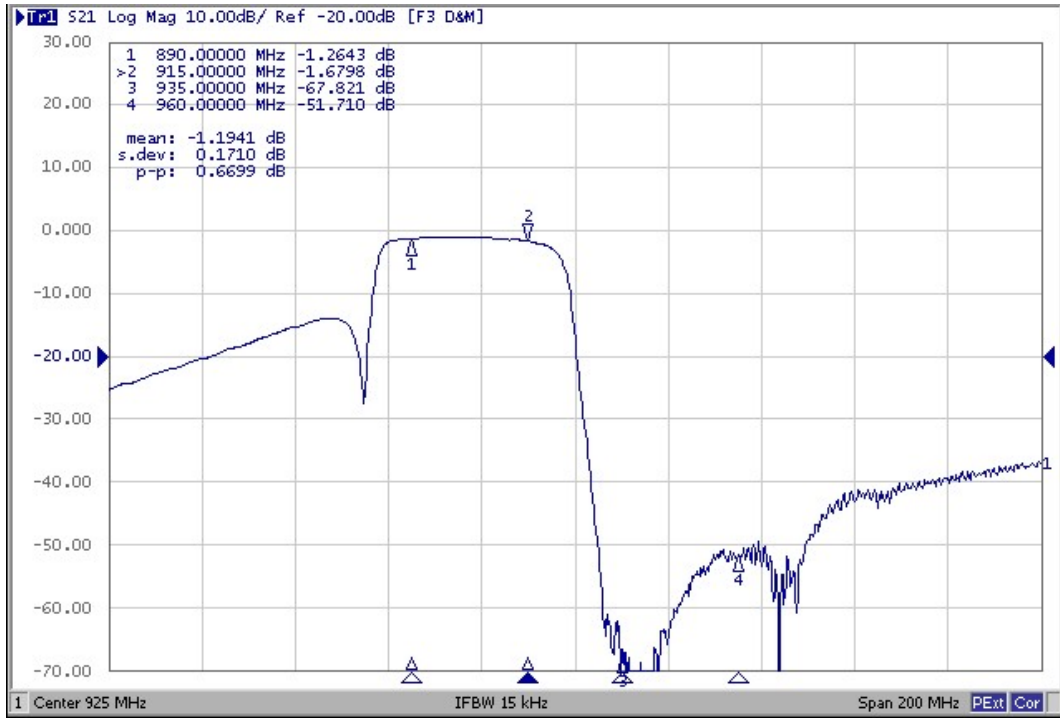
Pin Description	
A, C, D, E, F, G, I, J, L	Ground
H	Rx Port(947.5MHz)
K	Antenna
B	Tx Port (902.5MHz)

□ Testing Environment



□ Frequency Characteristics

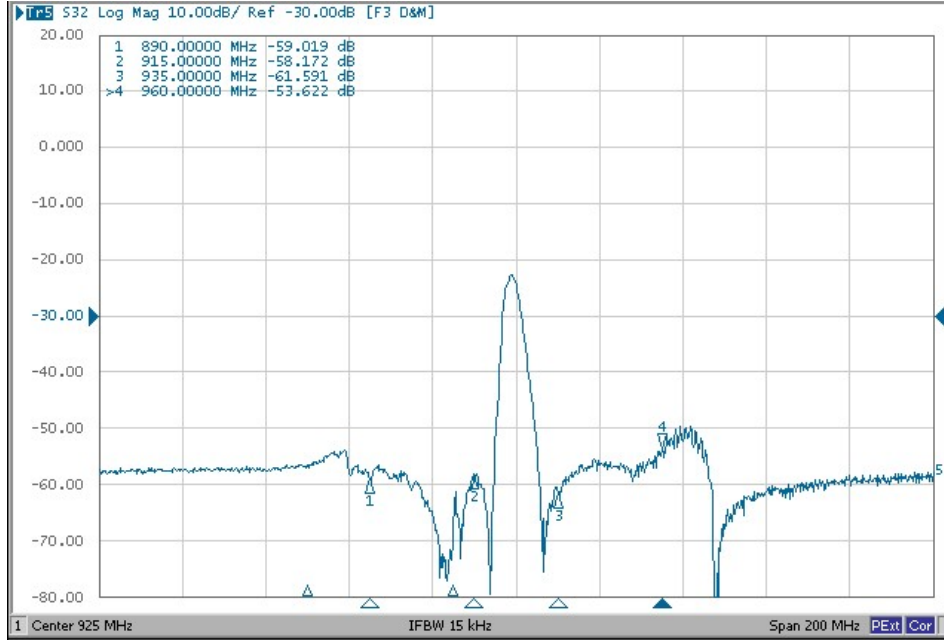
Tx Characteristic



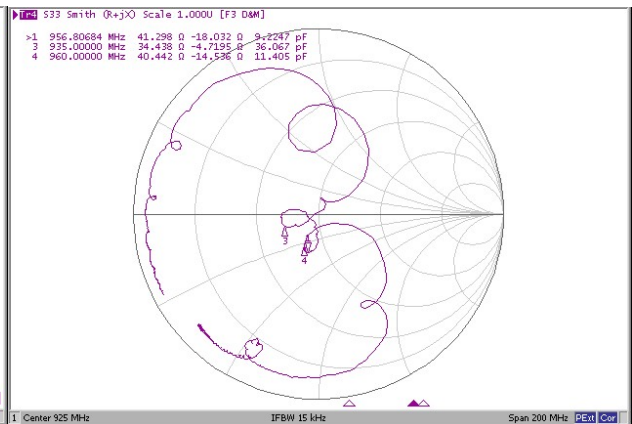
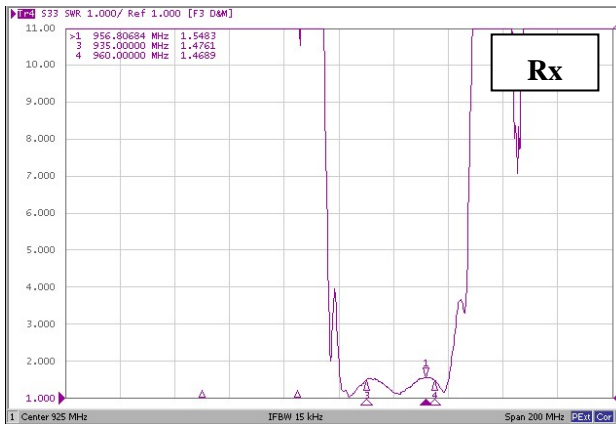
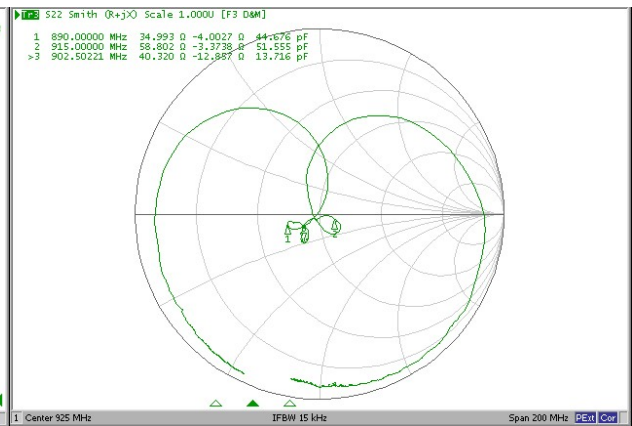
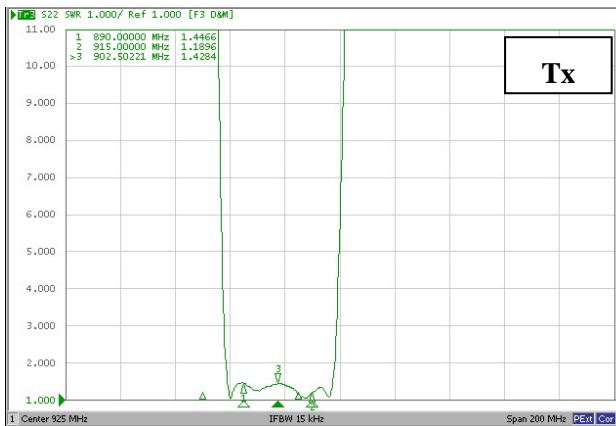
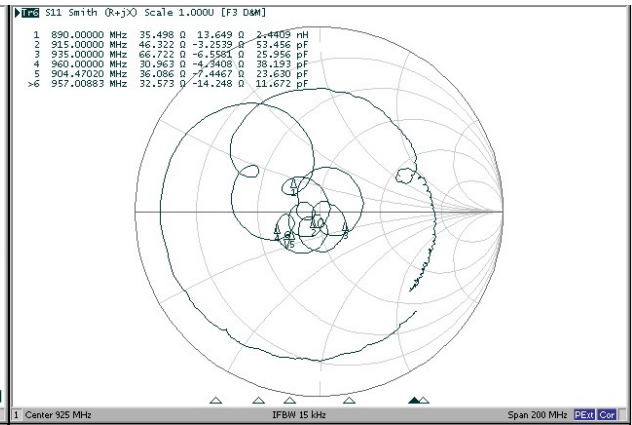
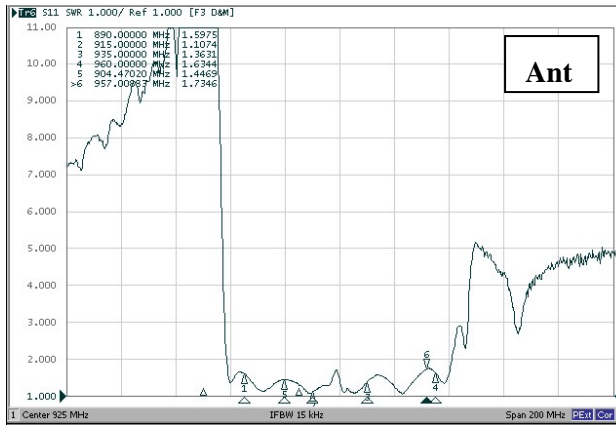
Rx Characteristic



Isolation Characteristic



VSWR & Smith Chart





Wide Span

