



TAI-SAW TECHNOLOGY CO., LTD.

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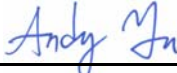
Product Specifications Approval Sheet


Product Name: Duplexer 782/751MHz 10MHz BW SMD 2.0x1.6 mm

TST Parts No.: TF0090A

Customer Part No.: _____

Customer signature required
Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: _____ Andy Yu 

Approved by: _____ Bob Chau 

Date: _____ 2013, 11, 25

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes



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SAW Duplexer 782/751MHz 10MHz BW SMD 2.0×1.6 mm

MODEL NO.: TF0090A

REV. No.: 1.0

A. MAXIMUM RATING:

1. Maximum Input Power: 29 dBm
2. DC voltage: 0 V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C

RoHS Compliant
Lead-free soldering

B. ELECTRICAL CHARACTERISTICS:

Tx to Ant		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	777.0 ~ 787.0	dB	-	1.5	2.0
Ripple	777.0 ~ 787.0	dB _{p-p}	-	0.4	1.0
VSWR of Ant Port	777.0 ~ 787.0	-	-	1.5	2.0
VSWR of Tx Port	777.0 ~ 787.0	-	-	1.5	2.0
Attenuation	746.0 ~ 756.0	dB	45	50	-
	758.0 ~ 768.0	dB	40	45	-
	808.0 ~ 818.0	dB	35	40	-
	869.0 ~ 894.0	dB	25	30	-
	1554.0 ~ 1574.0	dB	50	55	-

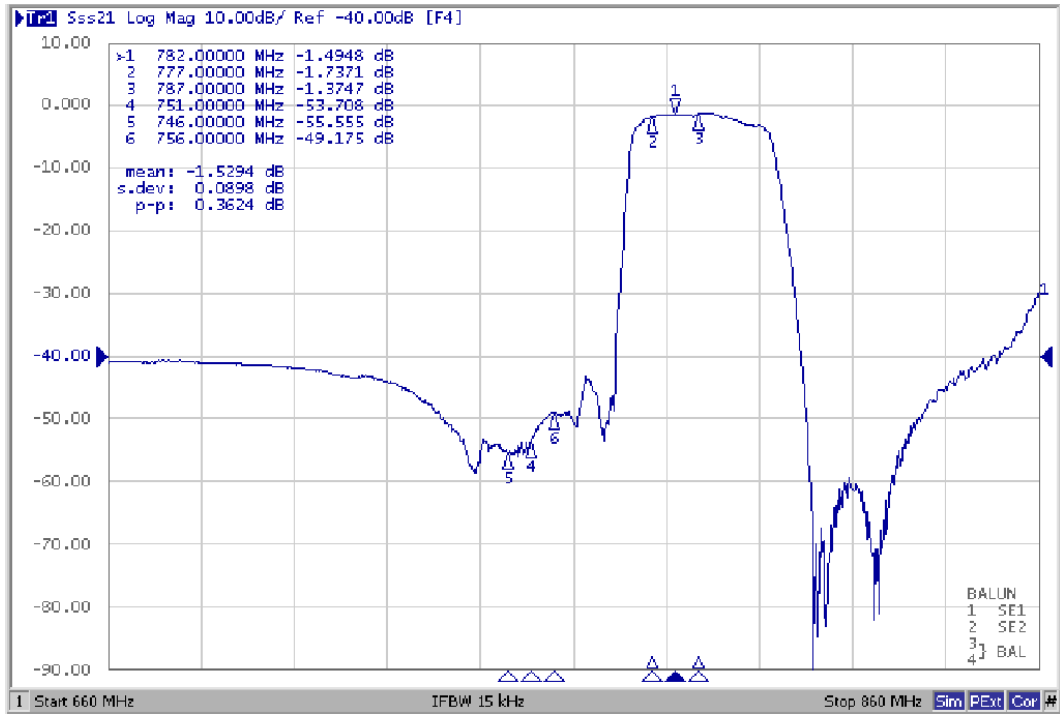
Ant to Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	746.0 ~ 756.0	dB	-	1.7	2.2
Ripple	746.0 ~ 756.0	dB _{p-p}	-	0.2	0.9
VSWR of Ant Port	746.0 ~ 756.0	-	-	1.4	2.0
VSWR of Rx Port	746.0 ~ 756.0	-	-	1.4	2.0
Attenuation	777.0 ~ 787.0	dB	50	55	-
	808.0 ~ 818.0	dB	42	47	-
	1400.0 ~ 3000.0	dB	47	50	-
	3000.0 ~ 4000.0	dB	46	49	-
	4000.0 ~ 6000.0	dB	45	48	-
Amplitude balance(S ₃₁ /S ₄₁)	746.0 ~ 756.0	dB	-1.0	-0.2/+0.2	+1.0
Phase balance $\Phi(S_{31})-\Phi(S_{41})+180^\circ$	746.0 ~ 756.0	deg	-10	-3/+1	+10

Tx to Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation in Tx Band	777.0 ~ 787.0	dB	57	59	-
Isolation in Rx Band	746.0 ~ 756.0	dB	49	52	-

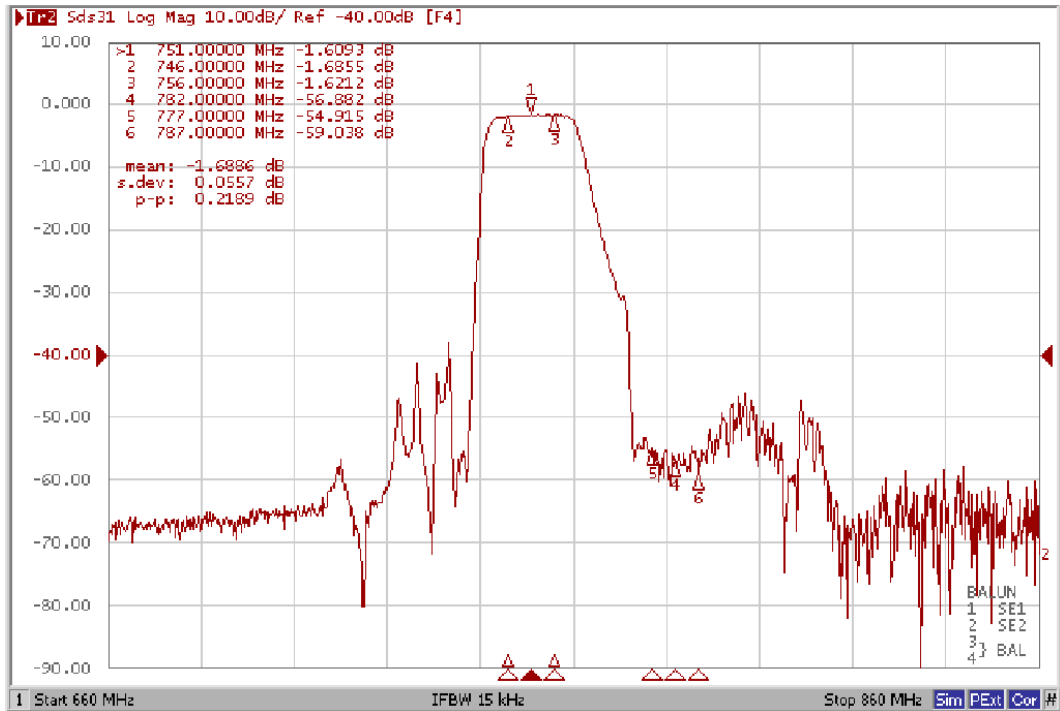
Notes : (1) With Matching Network .

C. Frequency Characteristics :

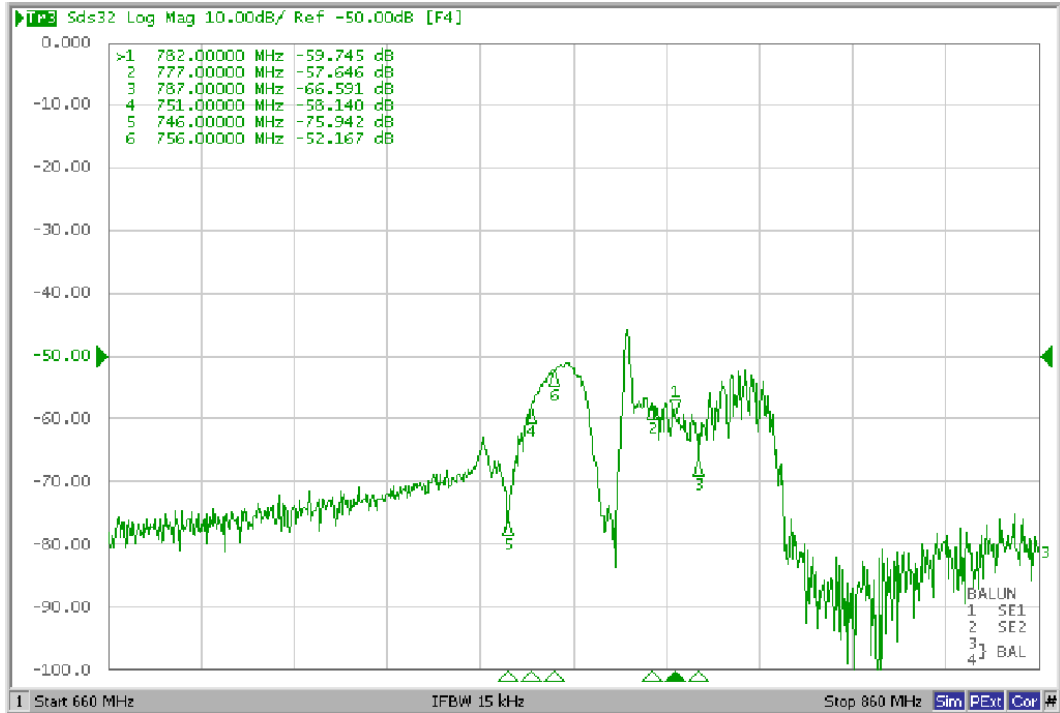
Tx to Ant



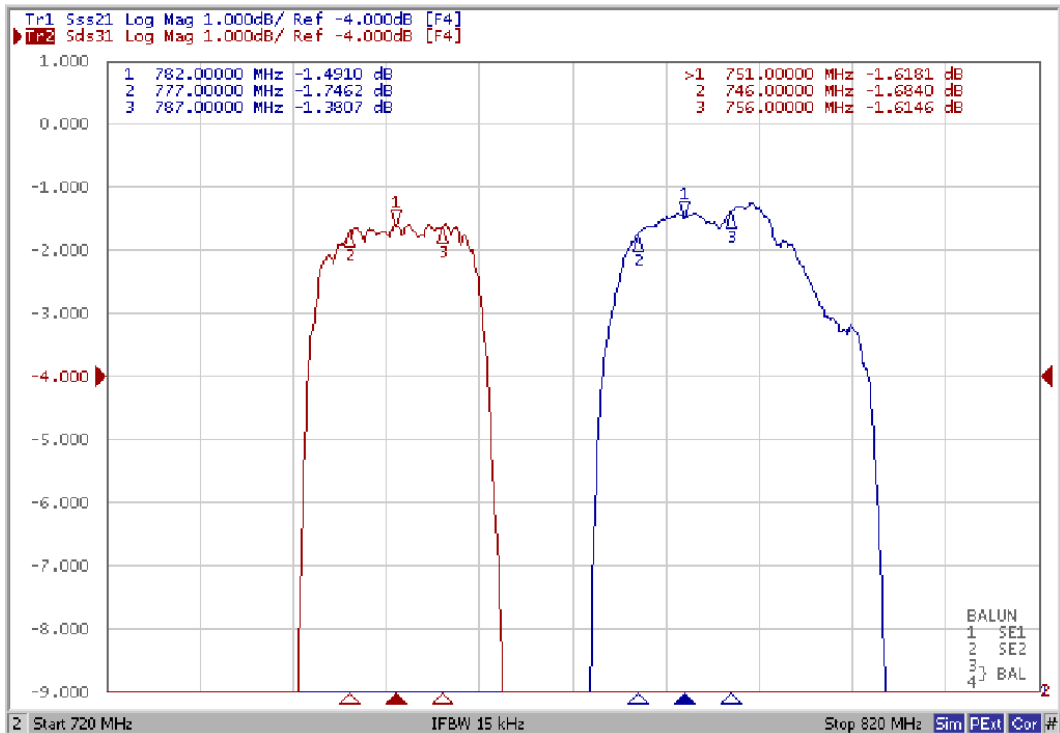
Ant to Rx



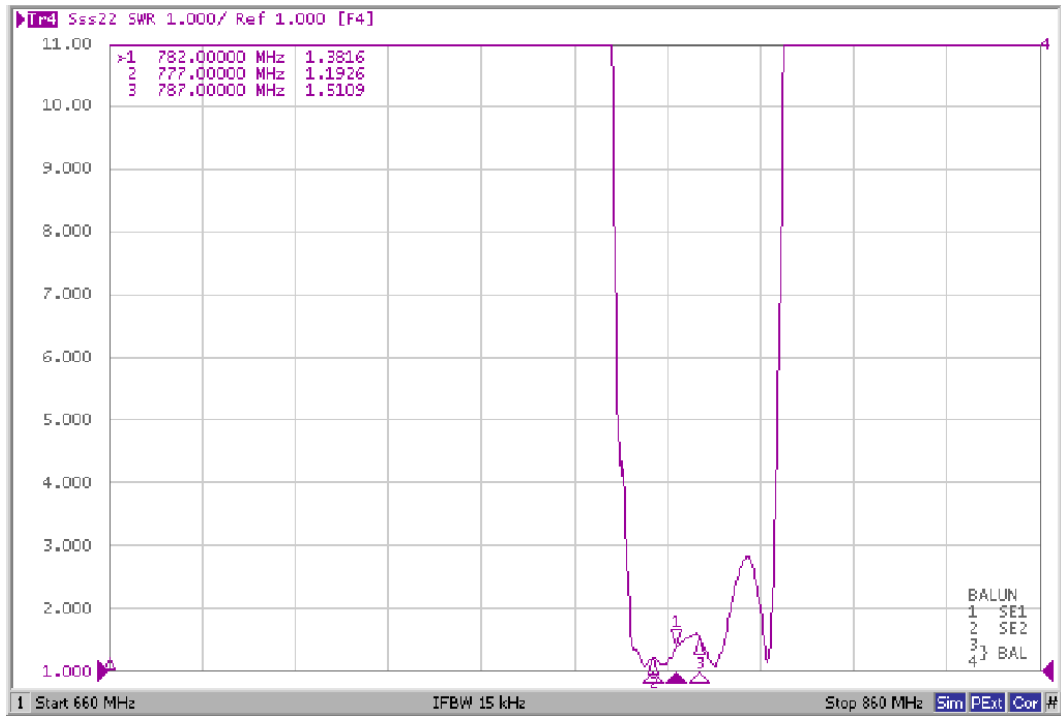
Isolation



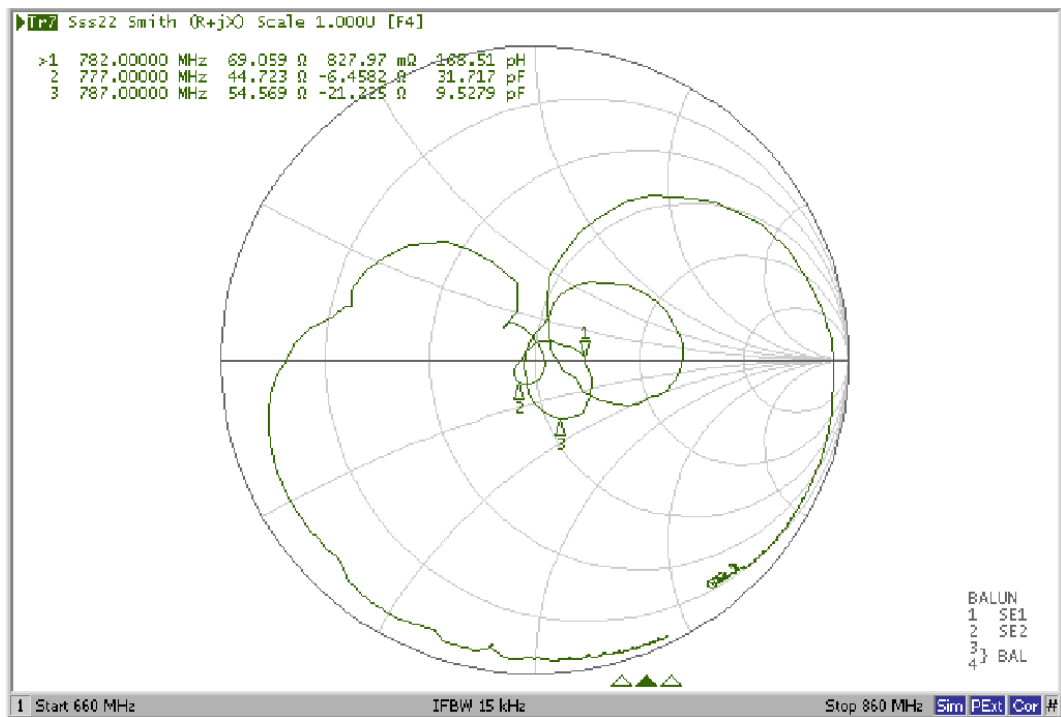
Ripple



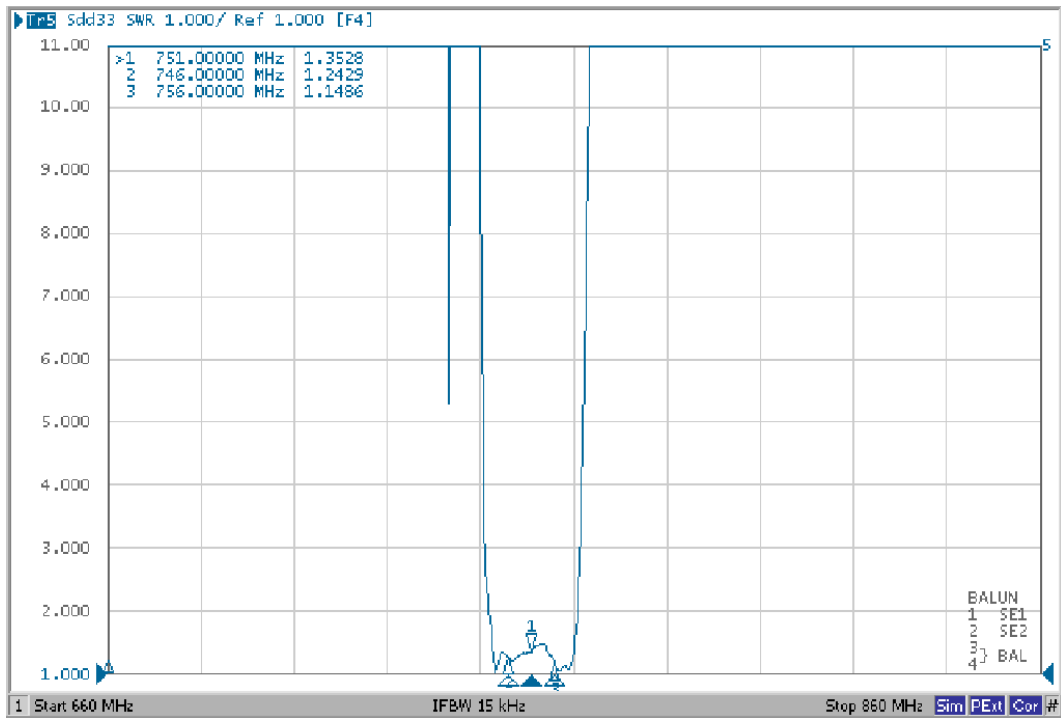
VSWR (Tx Port)



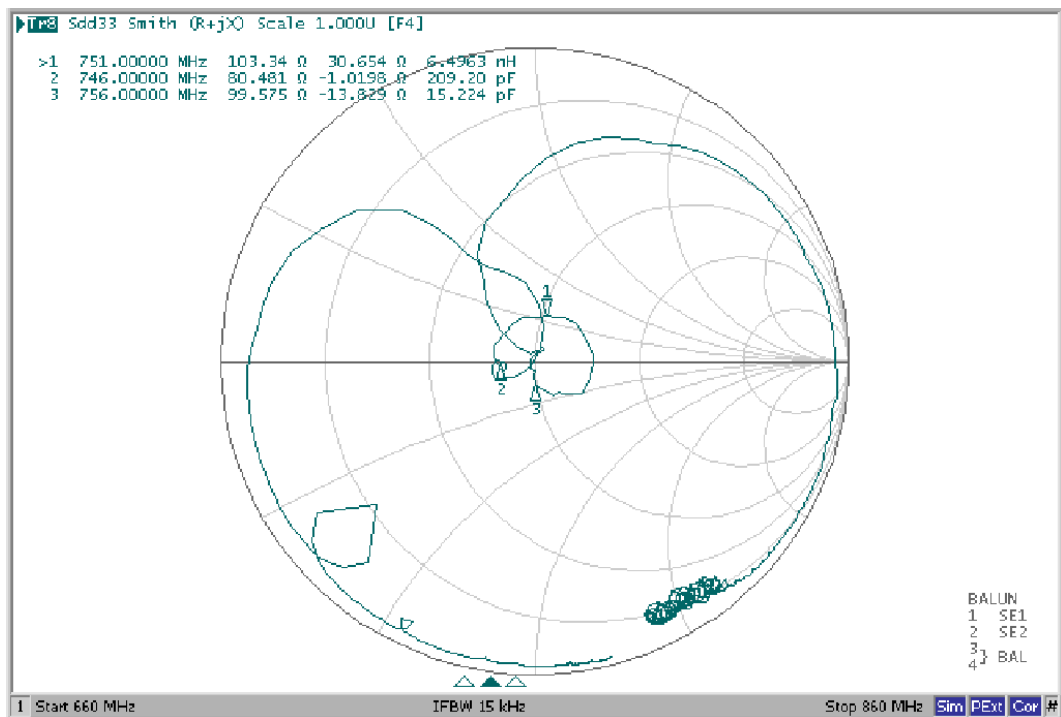
Smith Chart (Tx Port)



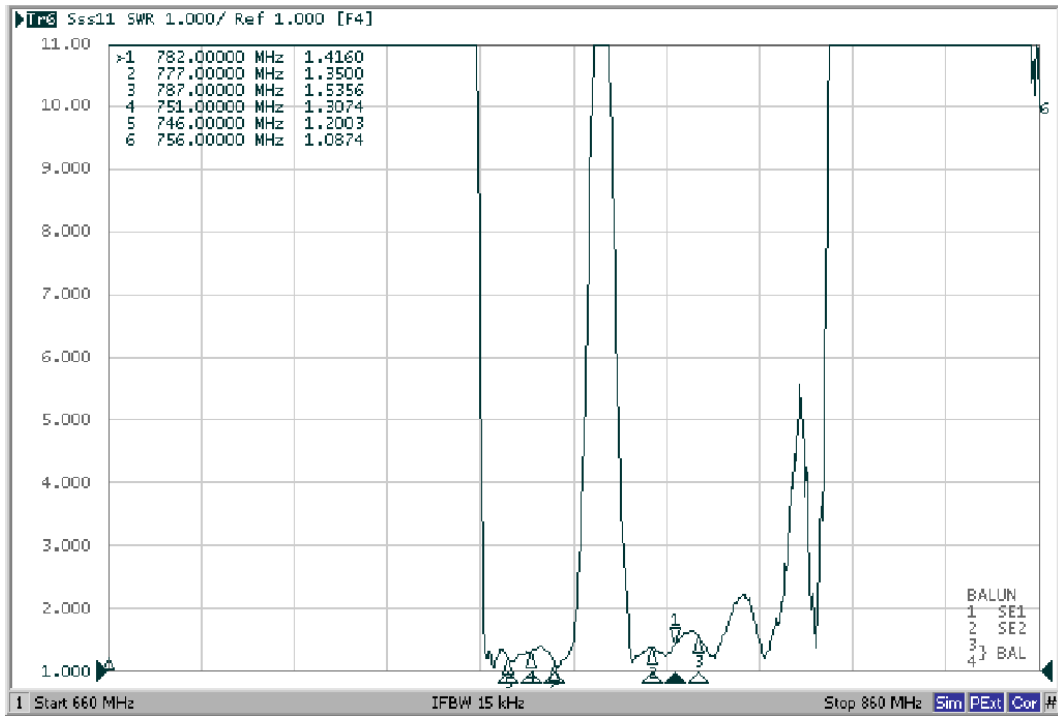
VSWR (Rx Port)



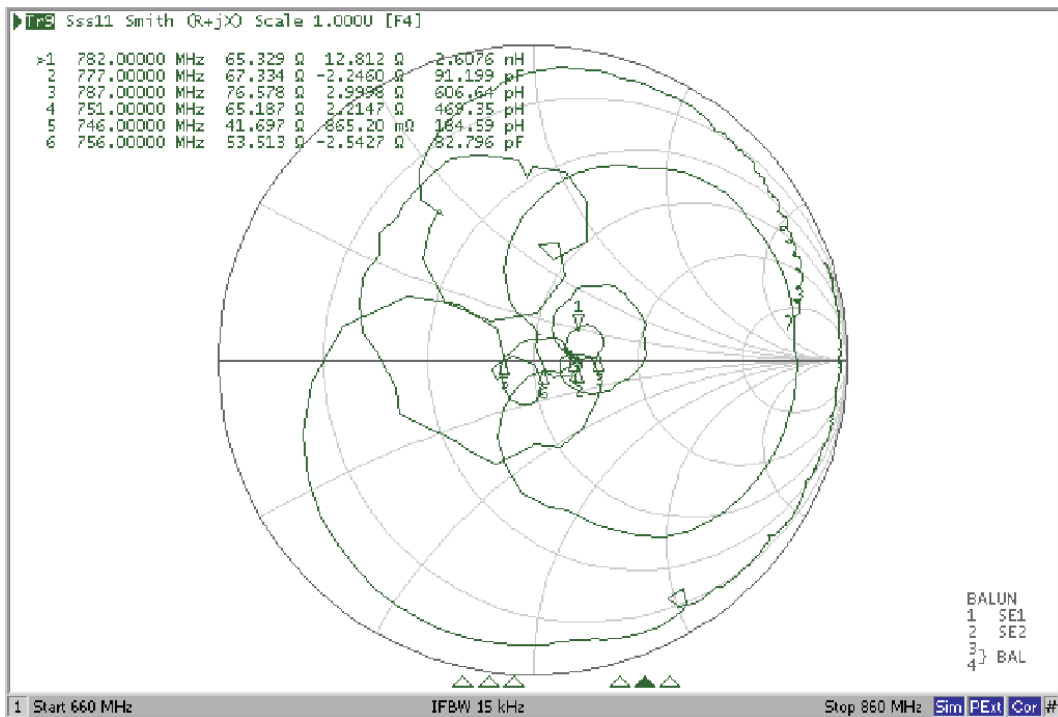
Smith Chart (Rx Port)



VSWR (ANT Port)

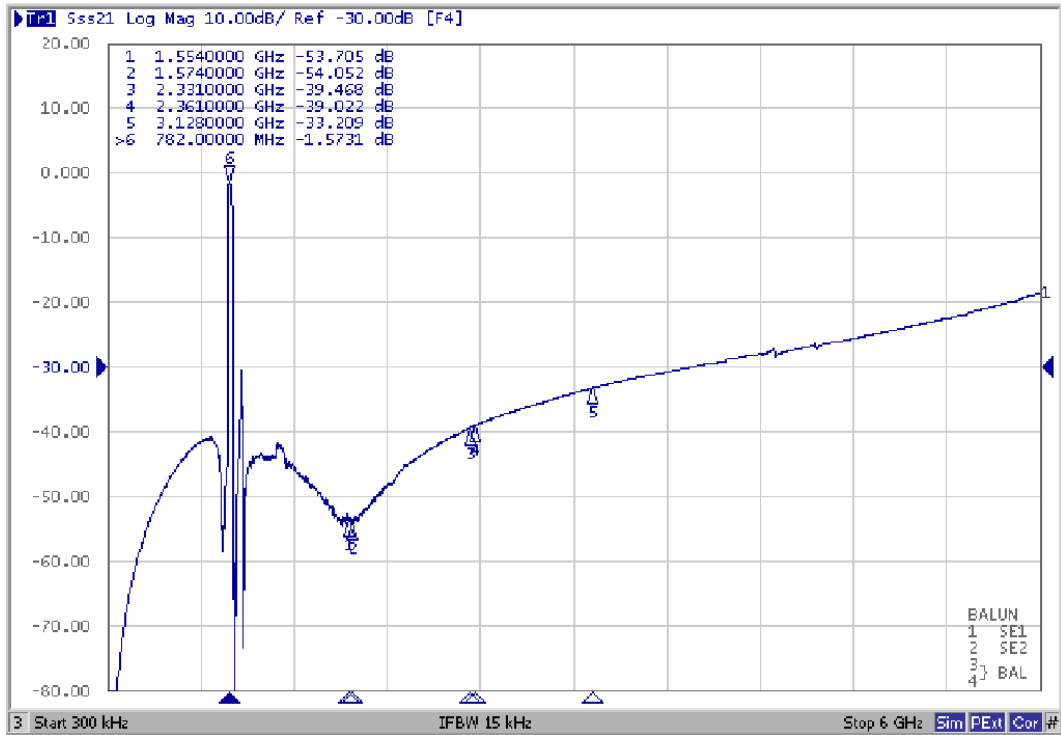


Smith Chart (ANT Port)

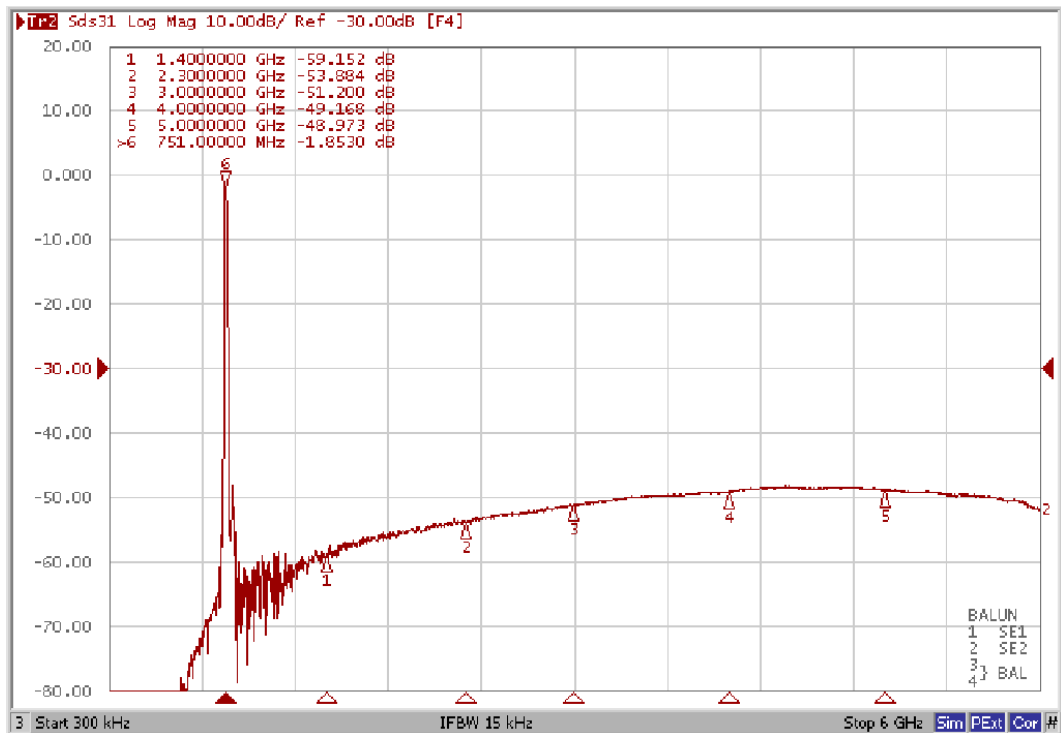


Wide Span

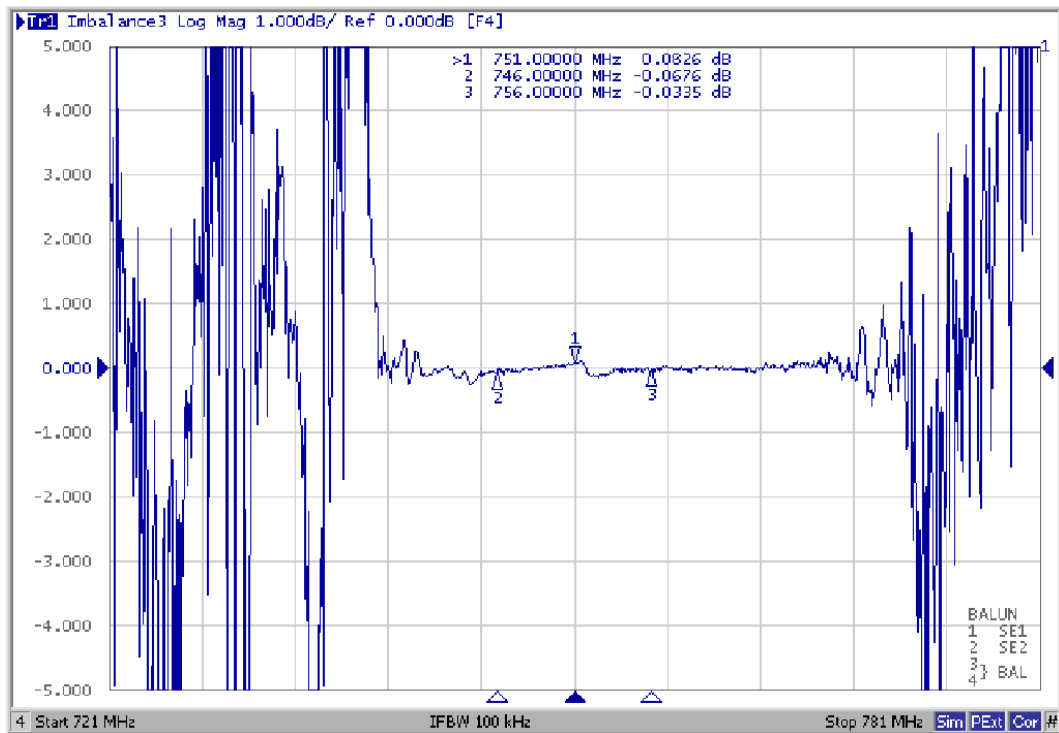
Tx



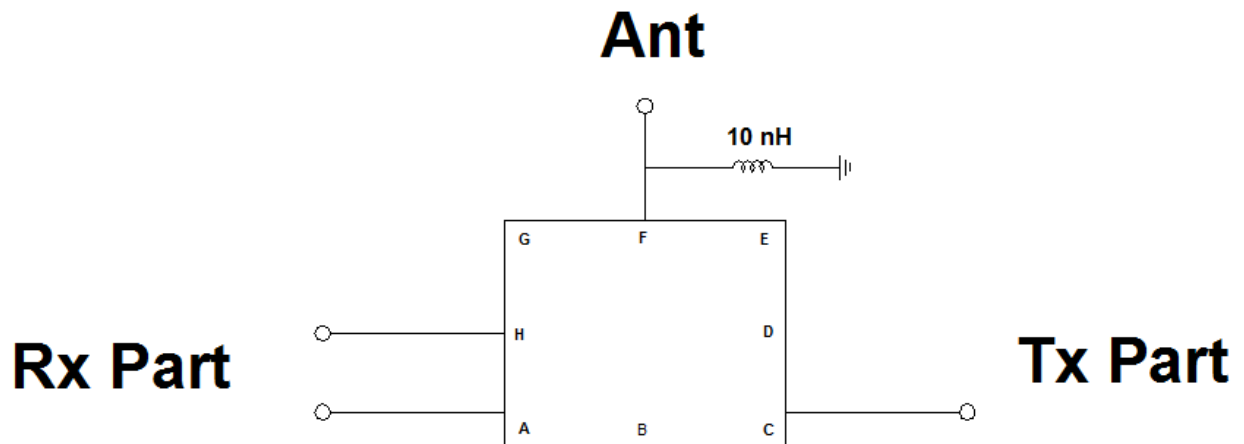
Rx



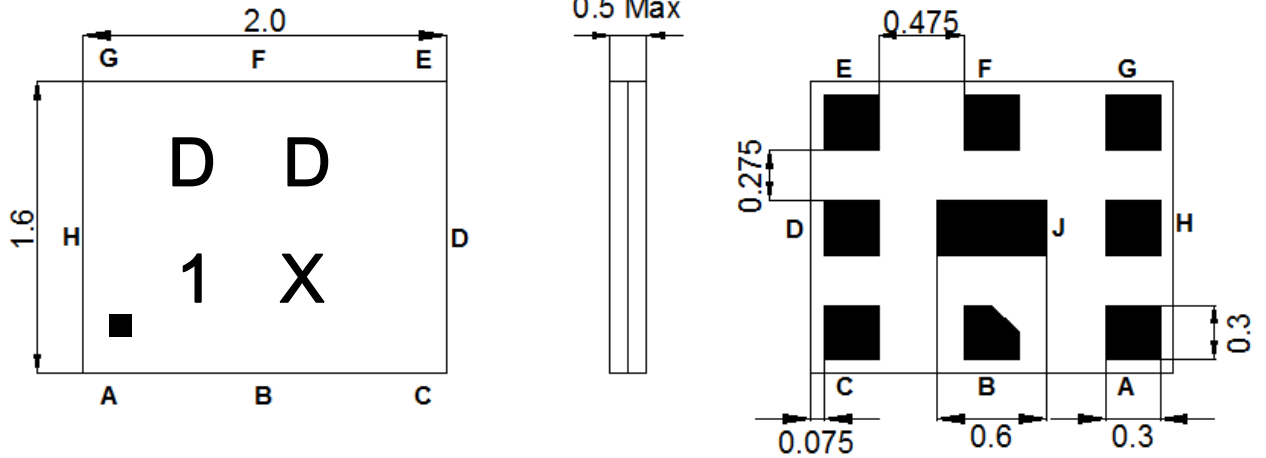
Amplitude balance of Ant to Rx+/Rx-



D. MEASUREMENT CIRCUIT:



E.OUTLINE DRAWING:



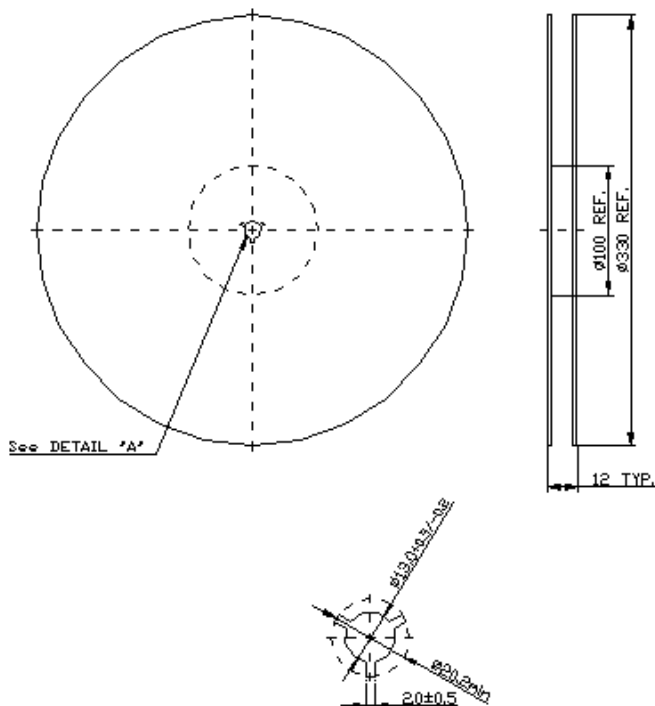
Marking Descriptions	
D	Duplexer Application
D	Band Class
1	Series Number
X	Date Code(Year+Month)

Pin Description	
B,D,E,G,J	Ground
F	Ant
C	Tx (782MHz)
A,H	Rx (751MHz)

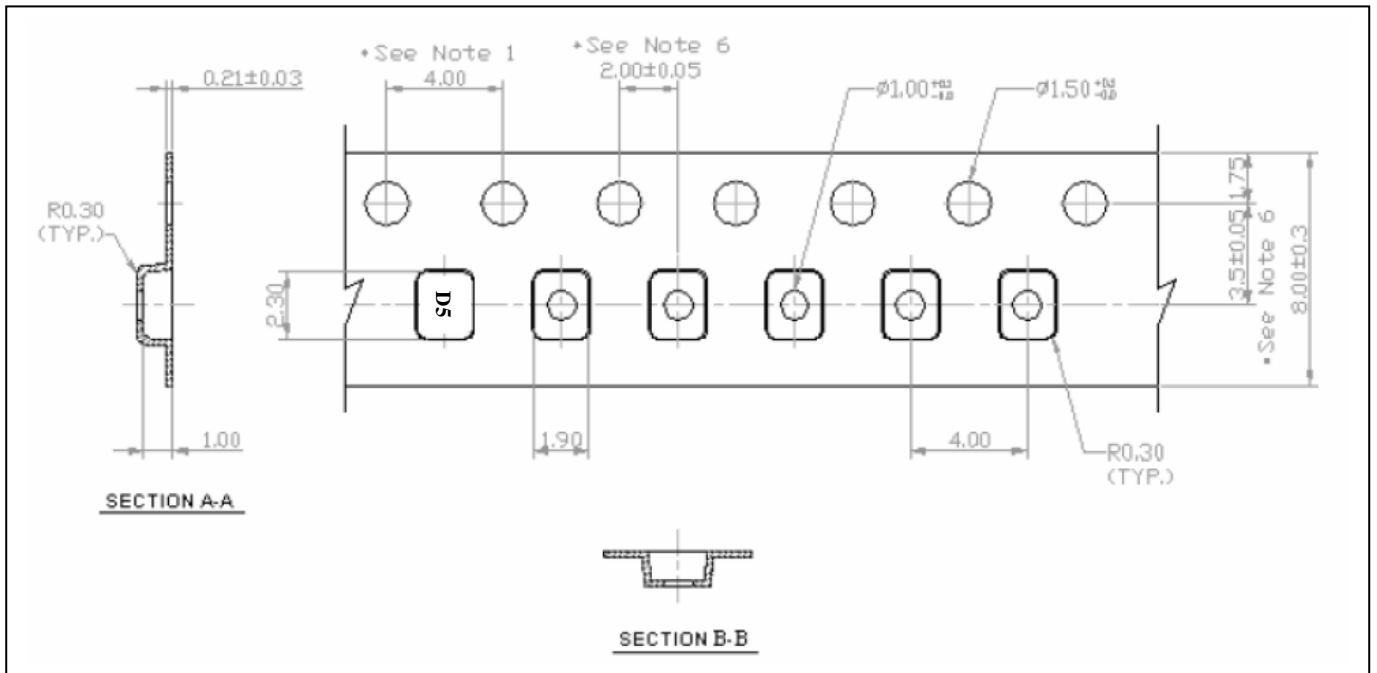
E. PACKING:

1. REEL DIMENSION

(Please refer to FR-75D10 for packing quantity)



2.TAPE DIMENSION



F. RECOMMENDED REFLOW PROFILE :

