

SAW Duplexer 782.0 / 751.0MHz
Part No: MP05780

Model: TF0090A
Rev. No: 1

A. MAXIMUM RATING:

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

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	-

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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 Φ(S ₃₁)-Φ(S ₄₁)+180°C	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	-

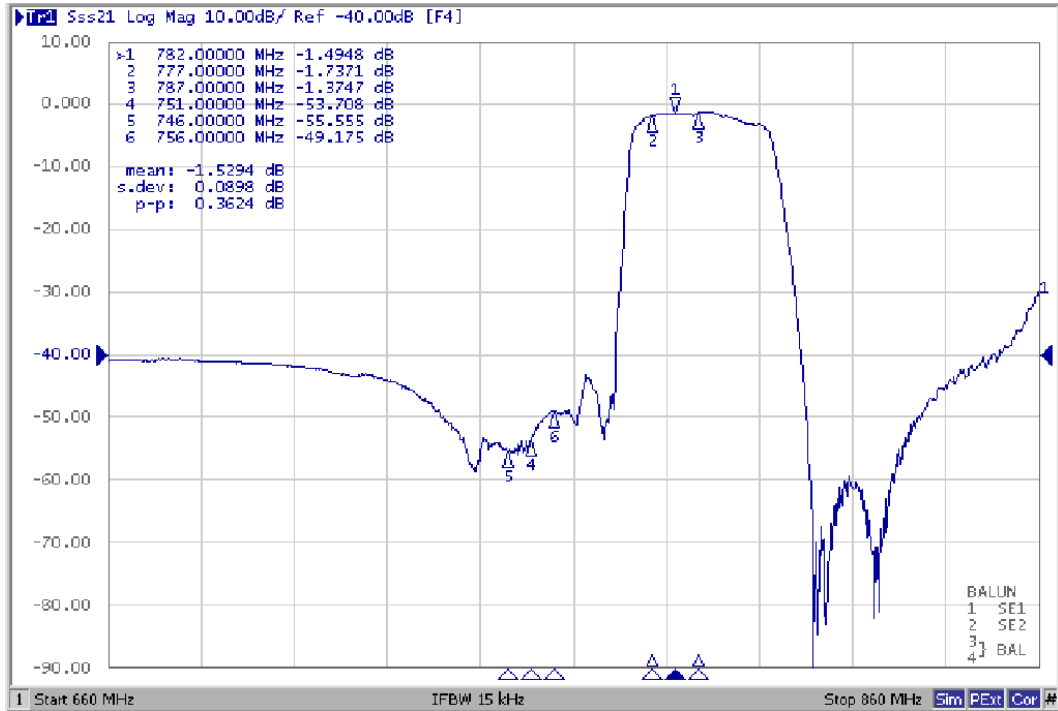
Notes: With Matching Network.

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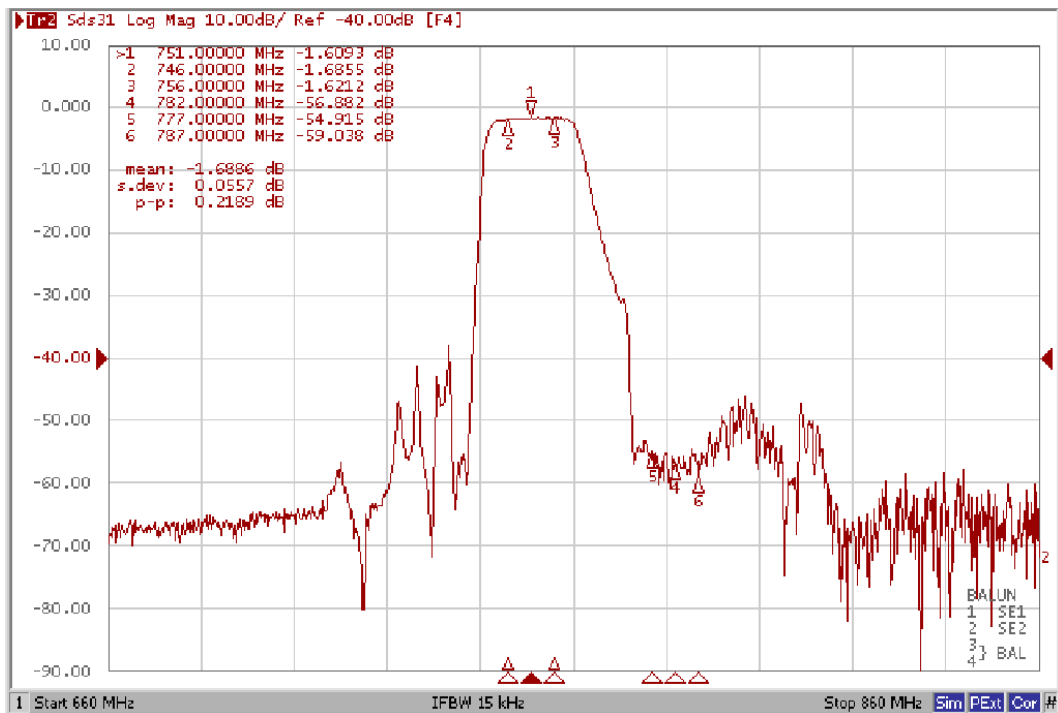
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C. FREQUENCY CHARACTERISTICS:

Tx to Ant



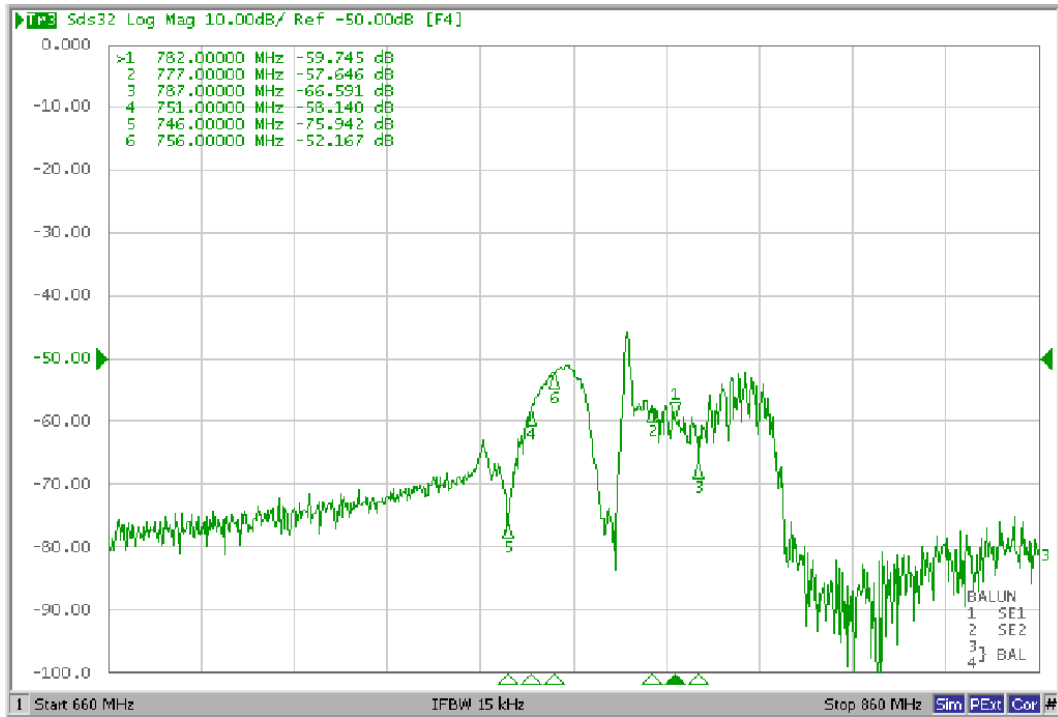
Ant to Rx



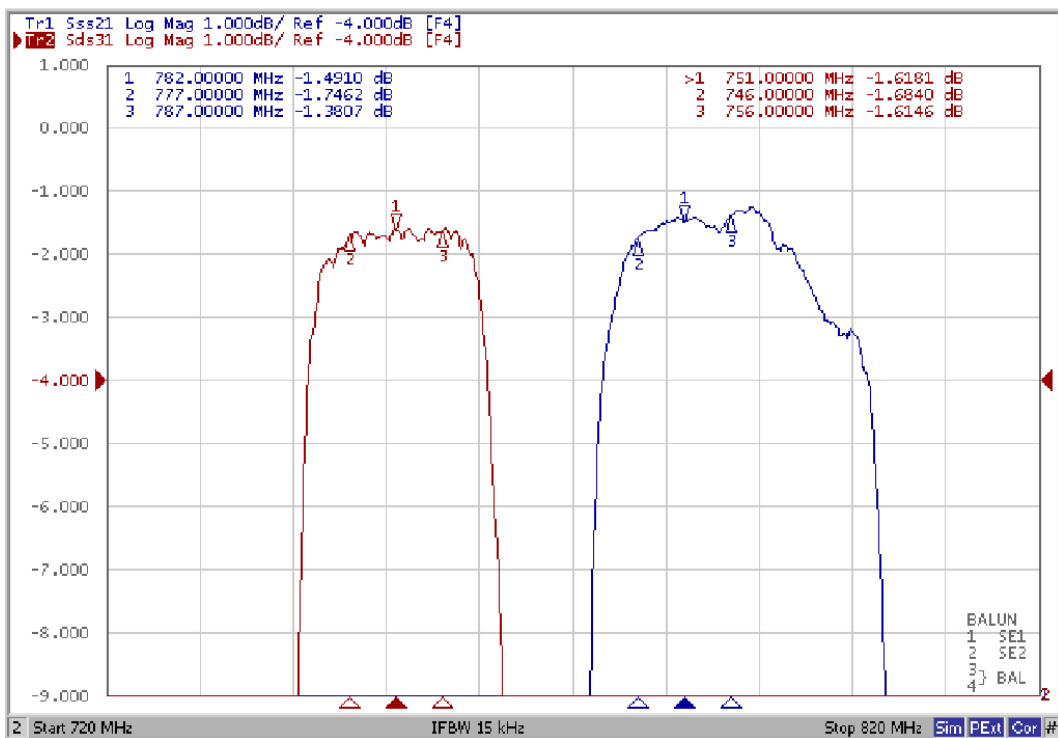
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Isolation



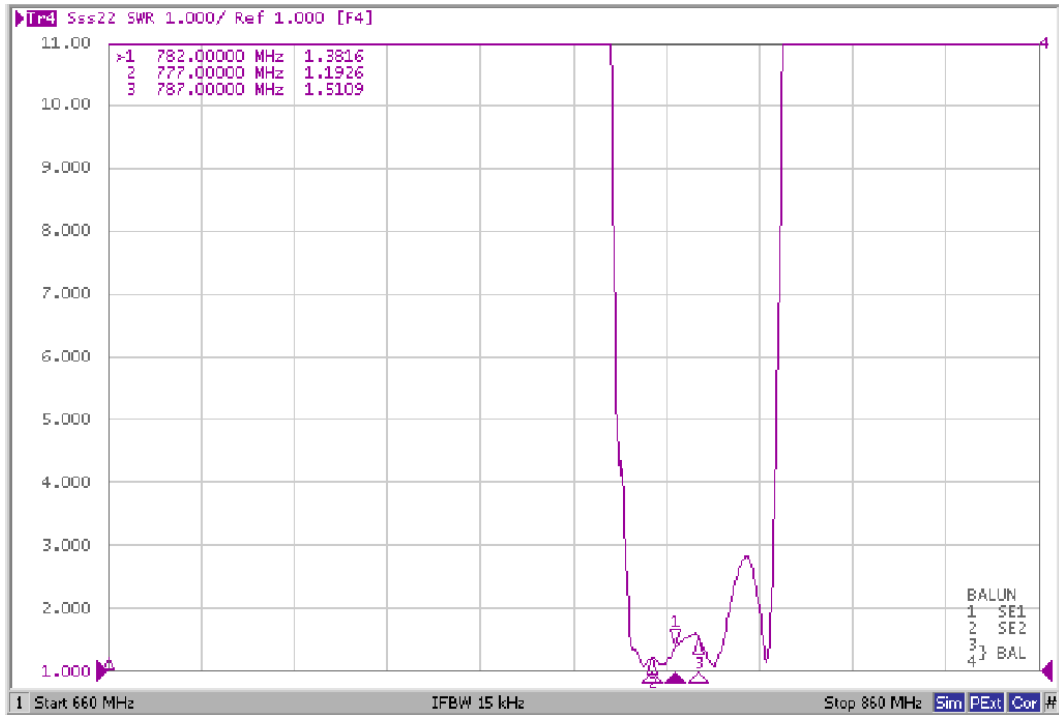
Ripple



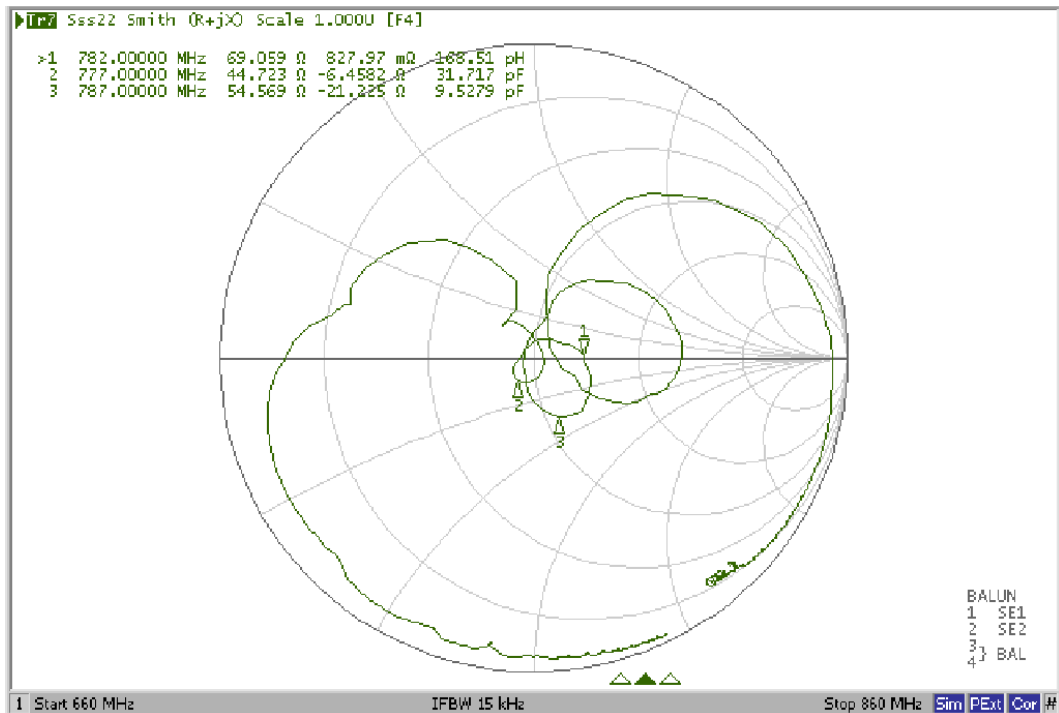
SAW Duplexer 782.0 / 751.0MHz
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VSWR (Tx Port)



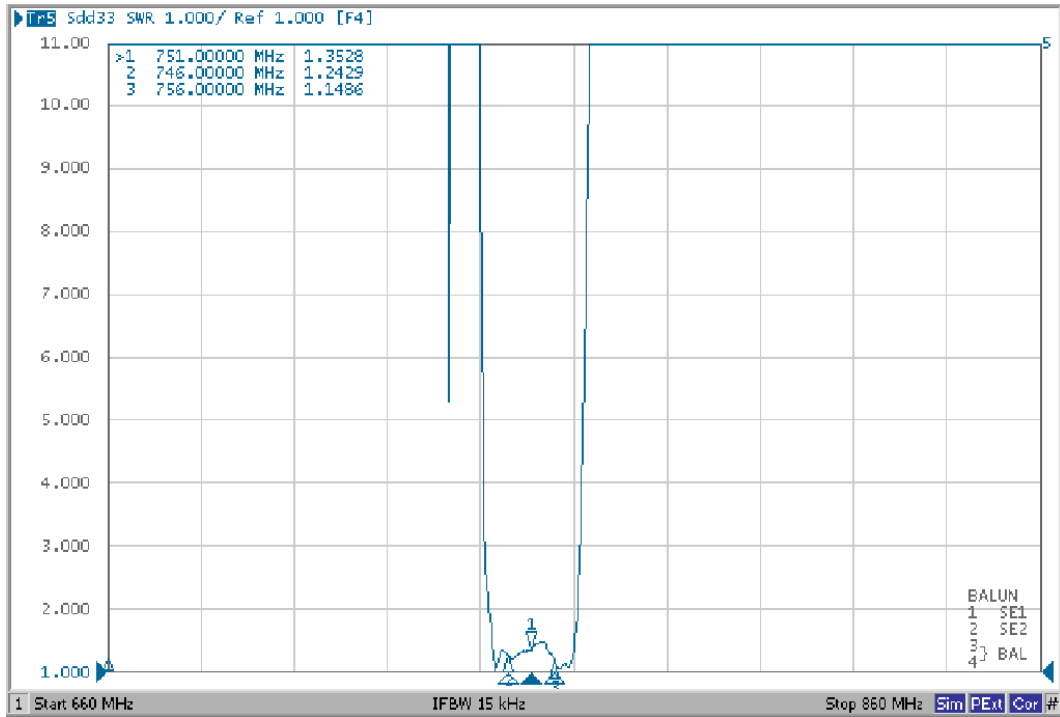
Smith Chart (Tx Port)



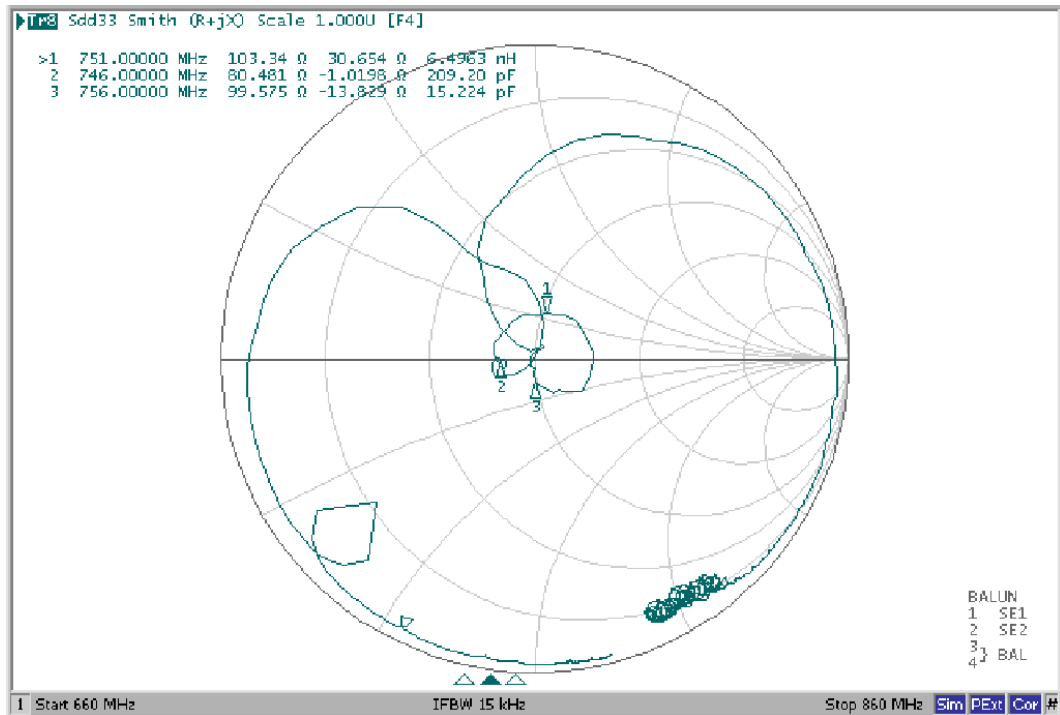
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VSWR (Rx Port)



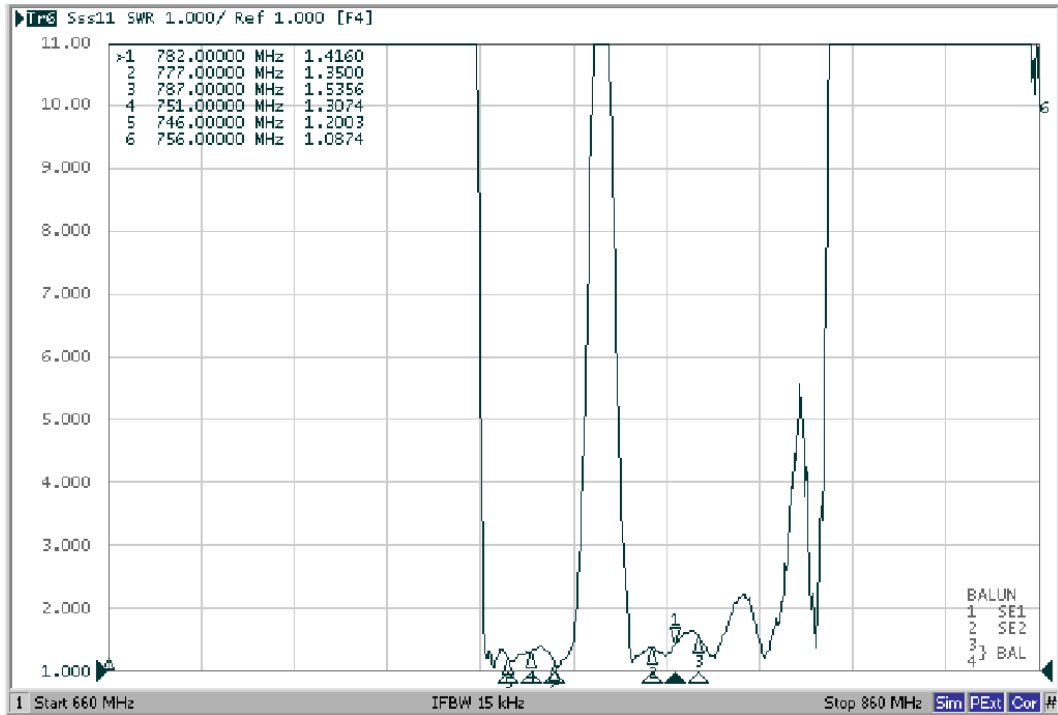
Smith Chart (Rx Port)



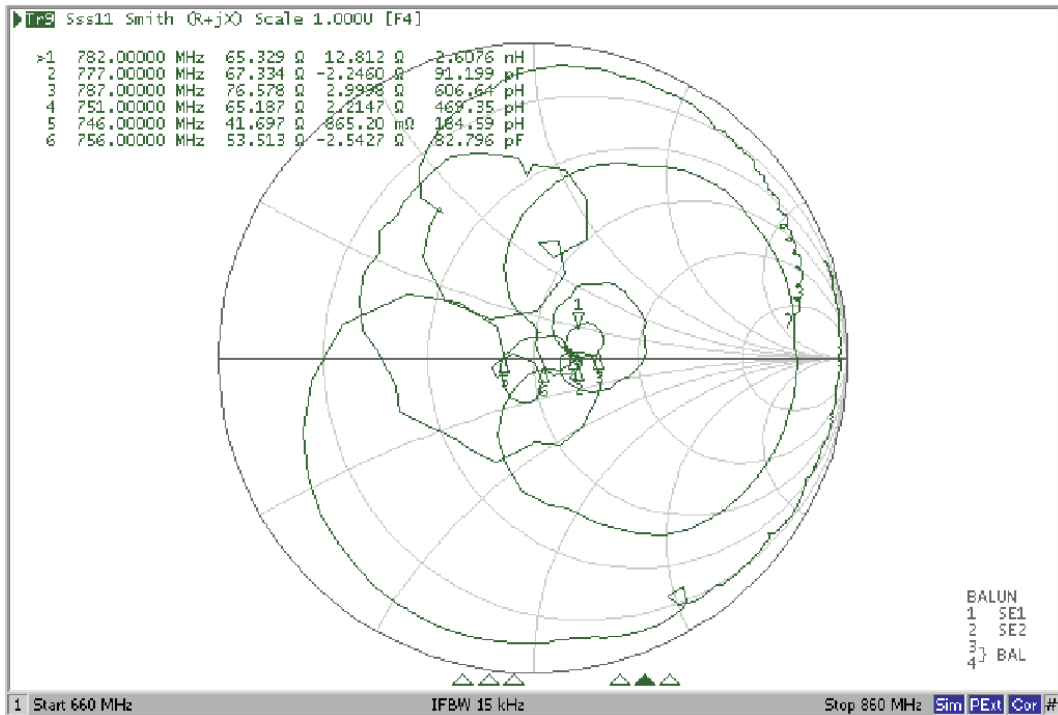
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VSWR (ANT Port)



Smith Chart (ANT Port)

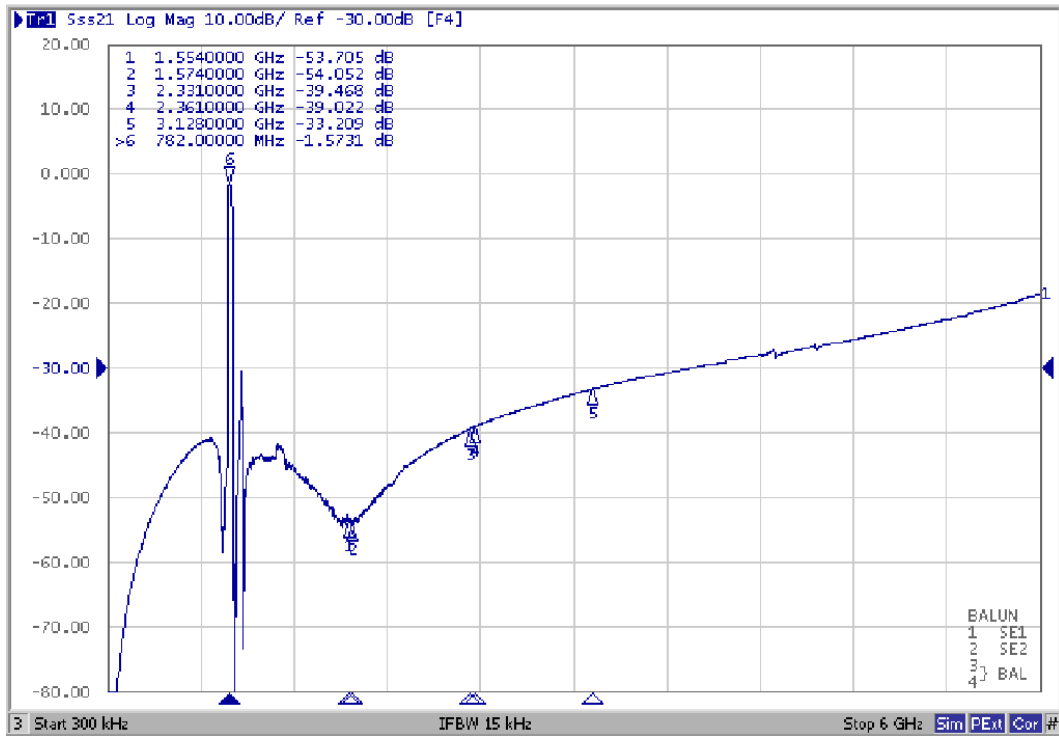


SAW Duplexer 782.0 / 751.0MHz
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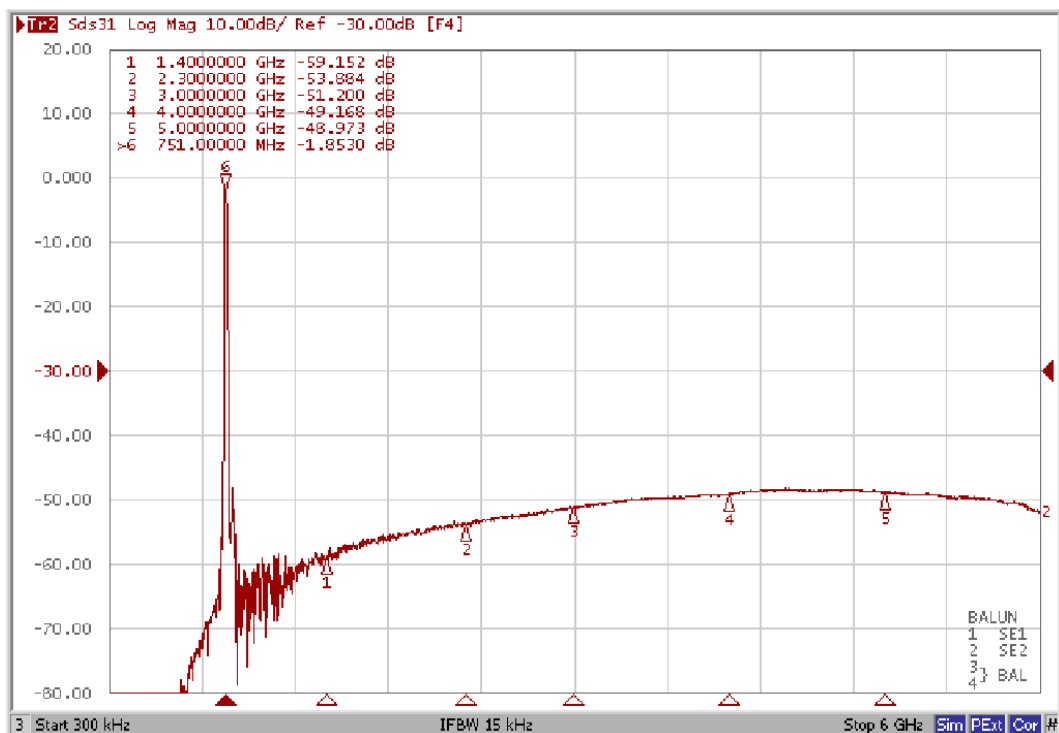
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Wide Span

Tx



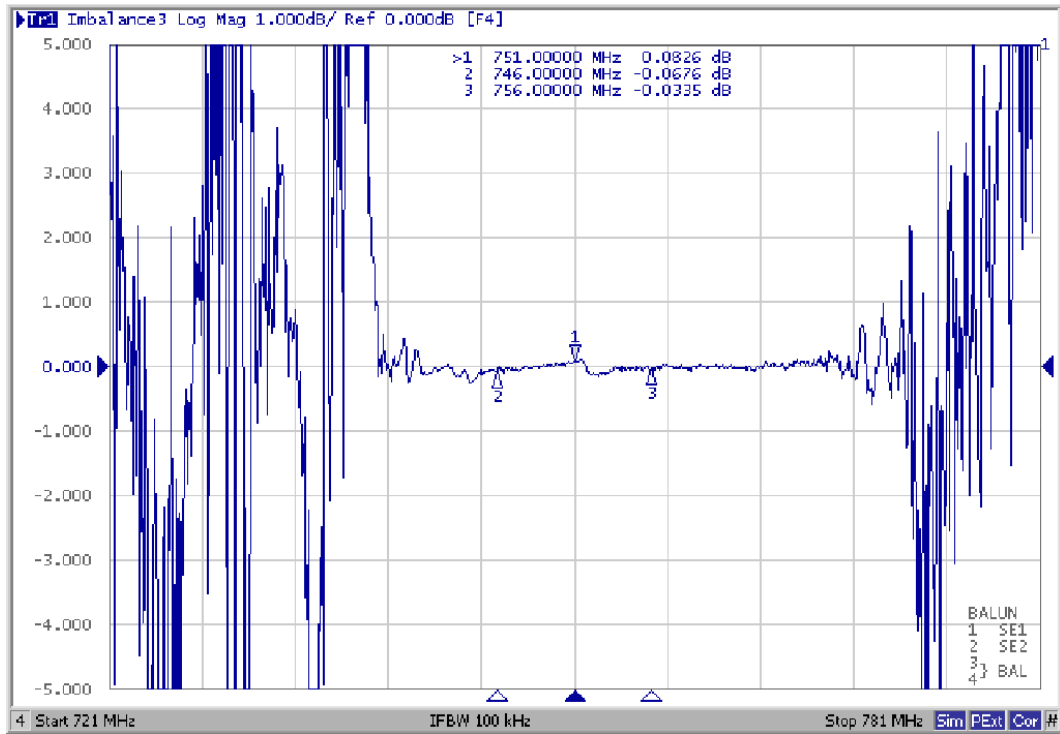
Rx



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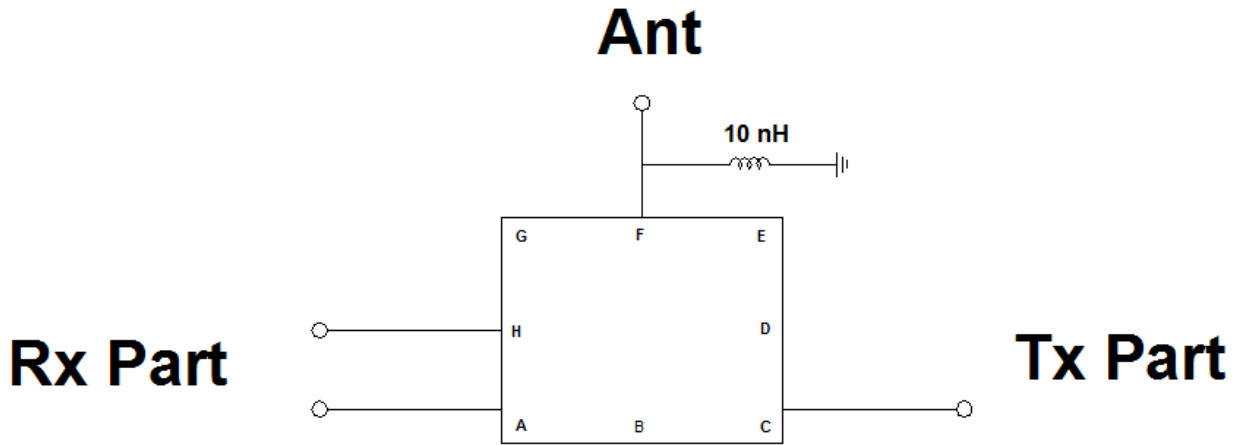
Amplitude balance of Ant to Rx+/Rx-



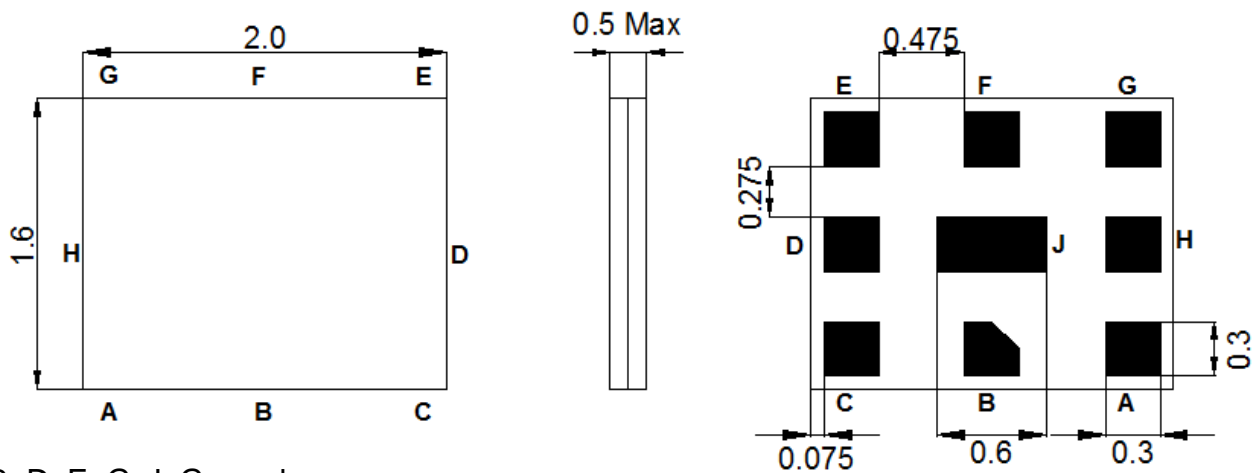
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D. MEASUREMENT CIRCUIT:



E. OUTLINE DRAWING:



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

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G. RECOMMENDED REFLOW PROFILE:

