

SAW Duplexer 1880.0 / 1960.0MHz

Model: TF0103A

Part No: MP06407

Rev. No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

Operating Temperature: -30°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

1. Terminating impedance (Tx Port): 50Ω (Single-ended)
2. Terminating impedance (Rx Port): 100+2.2nH×2Ω (Balanced)
3. Terminating impedance (Ant Port): 50//4.3nH Ω (Single-ended)

Tx to ANT

Parameters Description		Unit	Min.	Typ.	Max.	Remarks
Insertion Loss	1850.48~1909.52MHz	dB(*1)	-	2.0	3.0	-20 to +85°C
	1850.6~1909.4MHz		-	2.0	3.0	
Amplitude Ripple		dB	-	1.0	2.0	
VSWR	ANT	-	-	1.5	2.0	
	Tx			1.7	2.0	
Input Power		dBm	+29dBm, Ta = +50°C			
Attenuation:						
1570~1580MHz		dB	40	43	-	
1930.48~1989.52MHz		dB	44	54	-	-20 to +85°C
1930.6~1989.4MHz		dB	42	54	-	
3700~3820MHz		dB	22	33	-	
5550~5730MHz		dB	20	27	-	

(*1) Specification of insertion loss excludes loss that comes from the test board (approximately 0.15dB).

SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP06407

Model: TF0103A
Rev. No: 1

ANT to Rx

Parameters Description		Unit	Min.	Typ.	Max.	Remarks
Insertion Loss	1930.48~1989.52MHz	dB(*1)	-	3.1	3.5	-20 to +85°C
	1930.6~1989.4MHz		-	3.1	3.5	
Amplitude Ripple	1930.48~1989.52MHz	dB	-	1.6	2.2	
Phase Balance	1930.48~1989.52MHz	deg	-12	-4/+3	+12	
Amplitude Balance	1930.48~1989.52MHz	dB	-1.4	-0.4/+0.4	+1.4	
VSWR	ANT	1930.48~1989.52MHz	-	-	1.6	2.0
	Rx		-	-	1.7	2.0
Attenuation:						
1850.48~1909.52MHz		dB	46	53	-	-20 to +85°C
1850.6~1909.4MHz		dB	46	53	-	

(*1) Specification of insertion loss excludes loss that comes from the test board (approximately 0.15dB)

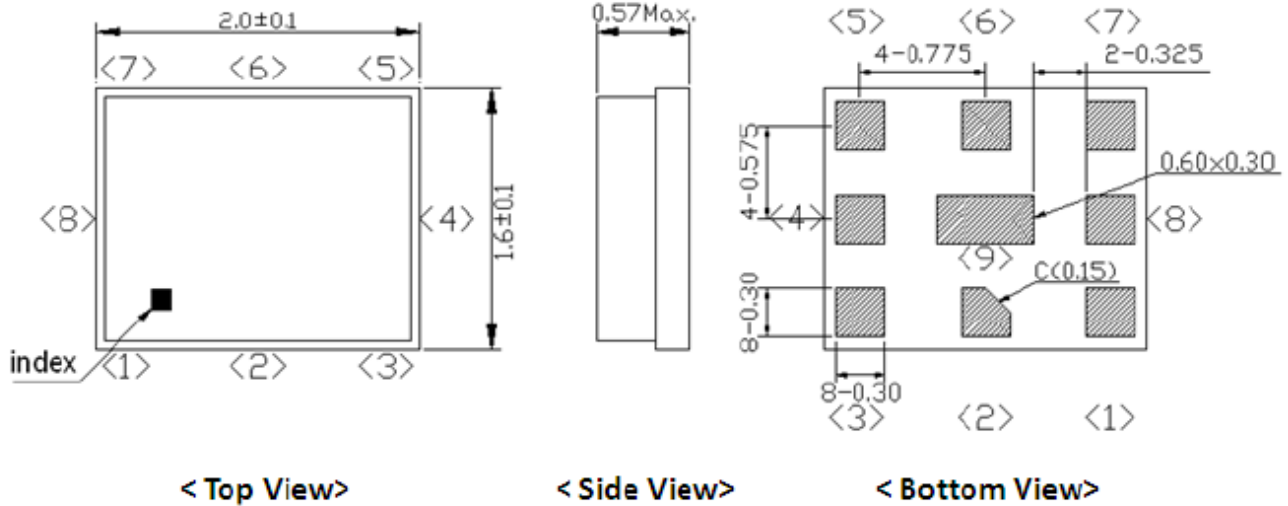
Tx to Rx

Isolation	1850.48~1909.52MHz	dB	53	57	-	-20 to +85°
	1850.6~1909.4MHz	dB	53	57	-	
	1930.48~1989.52MHz	dB	49	53	-	-20 to +85°C
	1930.6~1989.4MHz	dB	47	53	-	

SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP06407

Model: TF0103A
Rev. No: 1

C. OUTLINE DRAWING:



Unit: mm

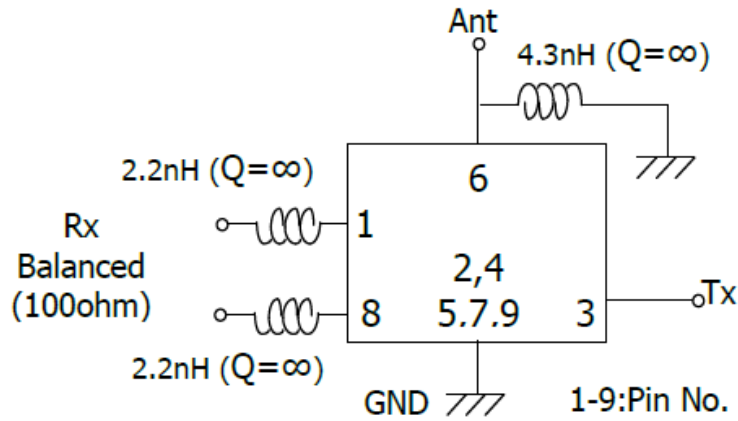
Pin Configuration

Pin No.	Pin name	Description
1	Rx	Receiver Pin (balanced)
2	GND	Ground Pin
3	Tx	Transmitter Pin
4	GND	Ground Pin
5	GND	Ground Pin
6	ANT	Antenna Pin
7	GND	Ground Pin
8	Rx	Receiver Pin (balanced)
9	GND	Ground Pin

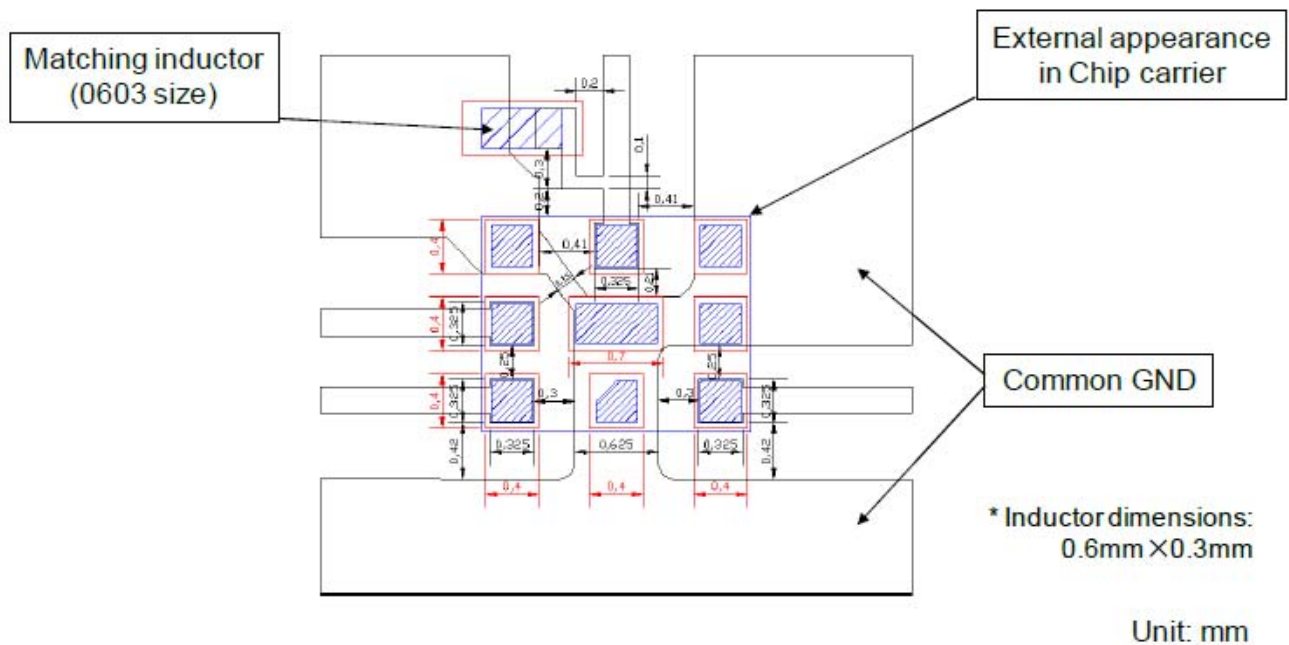
SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP06407

Model: TF0103A
Rev. No: 1

D. MEASUREMENT CIRCUIT:



E. FOOTPRINT:

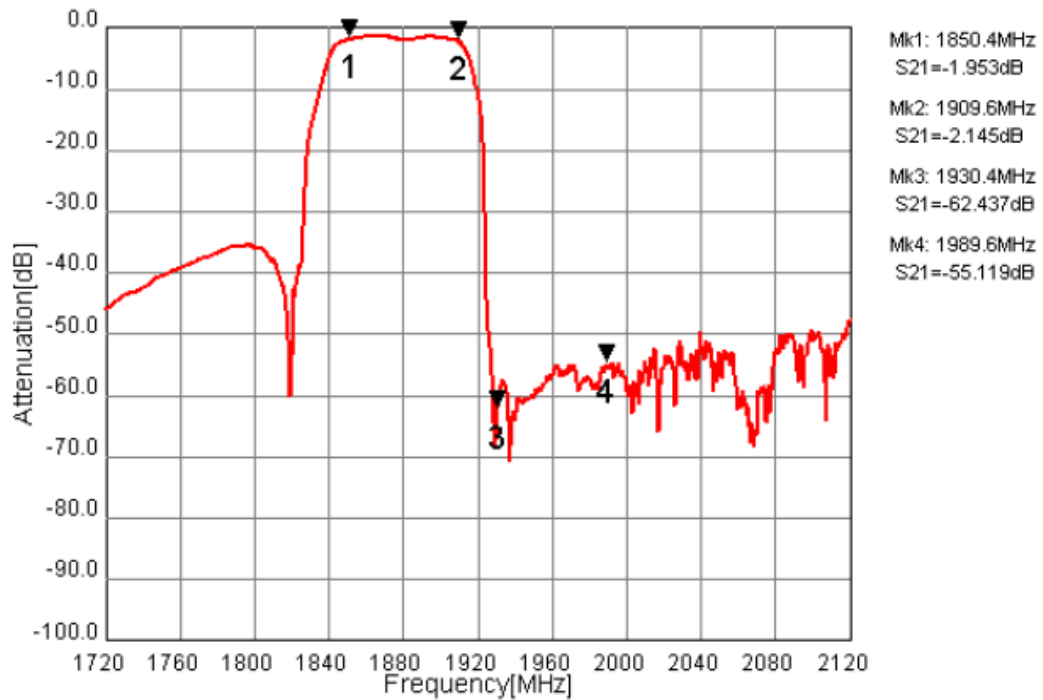


SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP06407

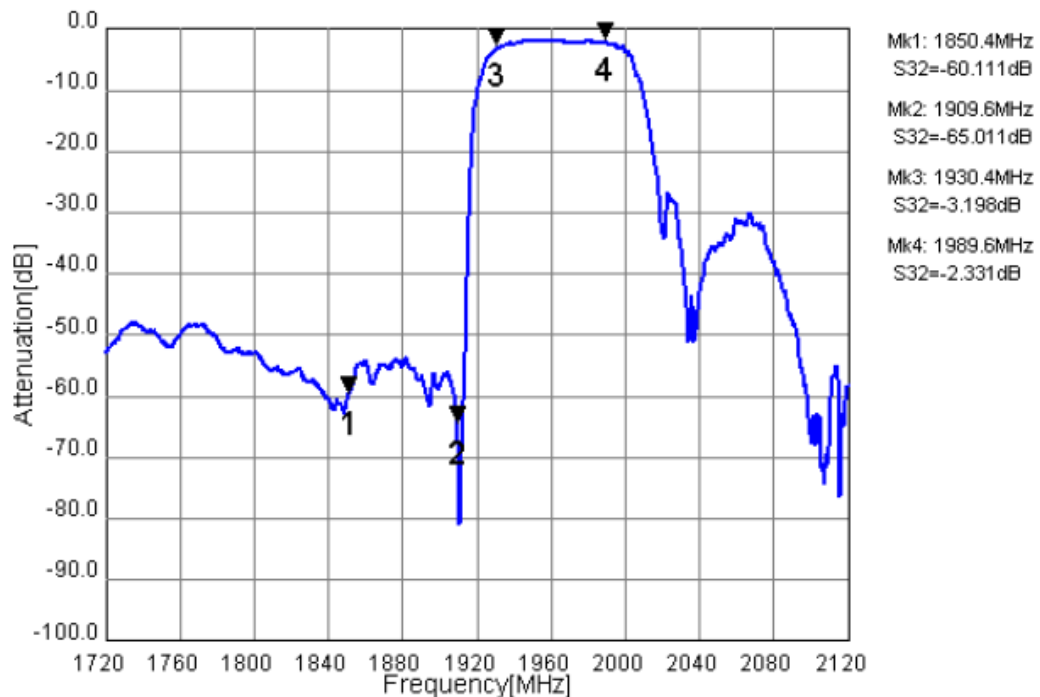
Model: TF0103A
Rev. No: 1

F. FREQUENCY CHARACTERISTICS:

Tx to Ant



Ant to Rx

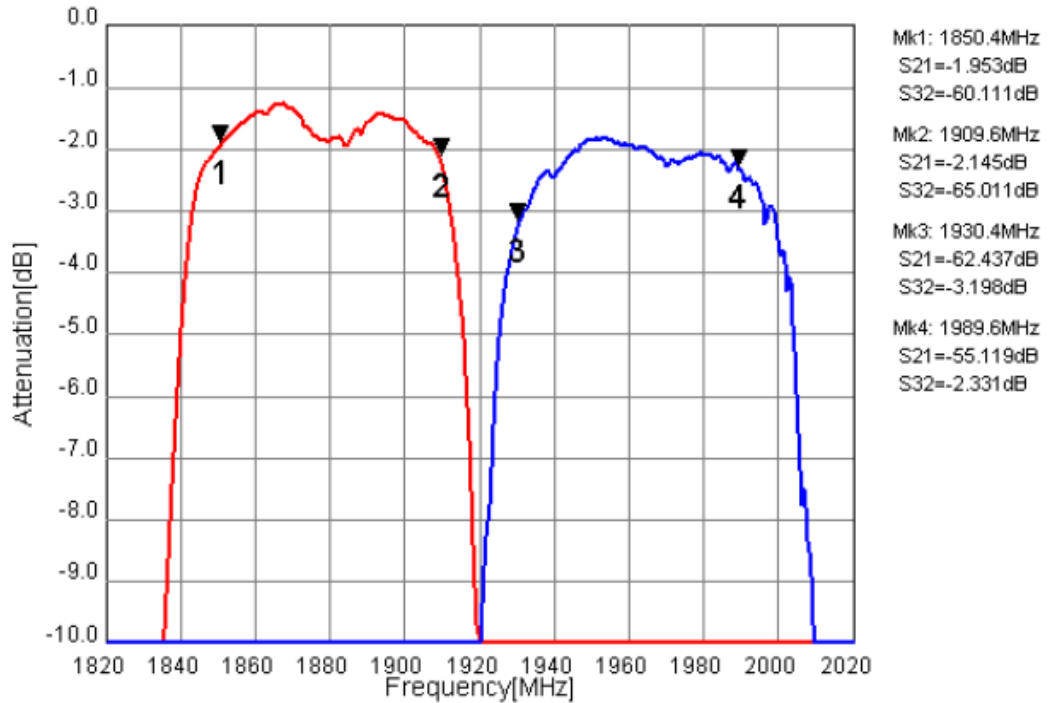


These data **include** loss that comes from the test board. (Approximately 0.15dB.)

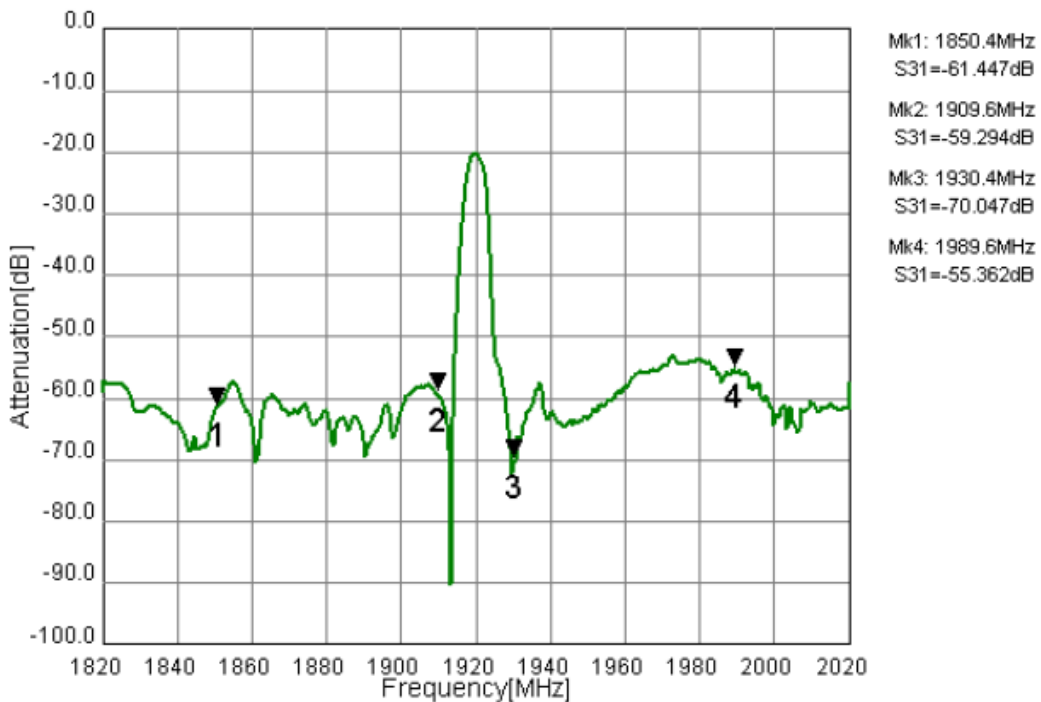
SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP06407

Model: TF0103A
Rev. No: 1

Tx to Ant, Ant to Rx



Tx to Rx Isolation

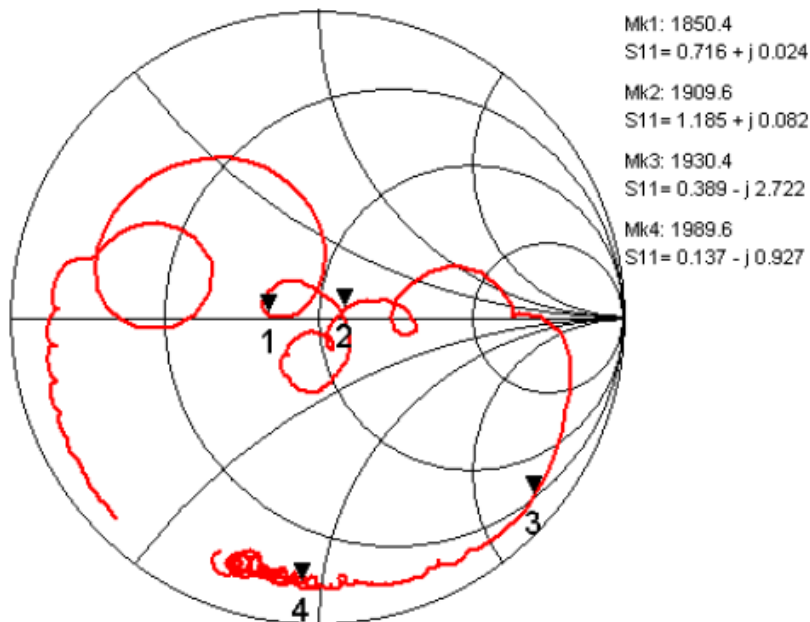
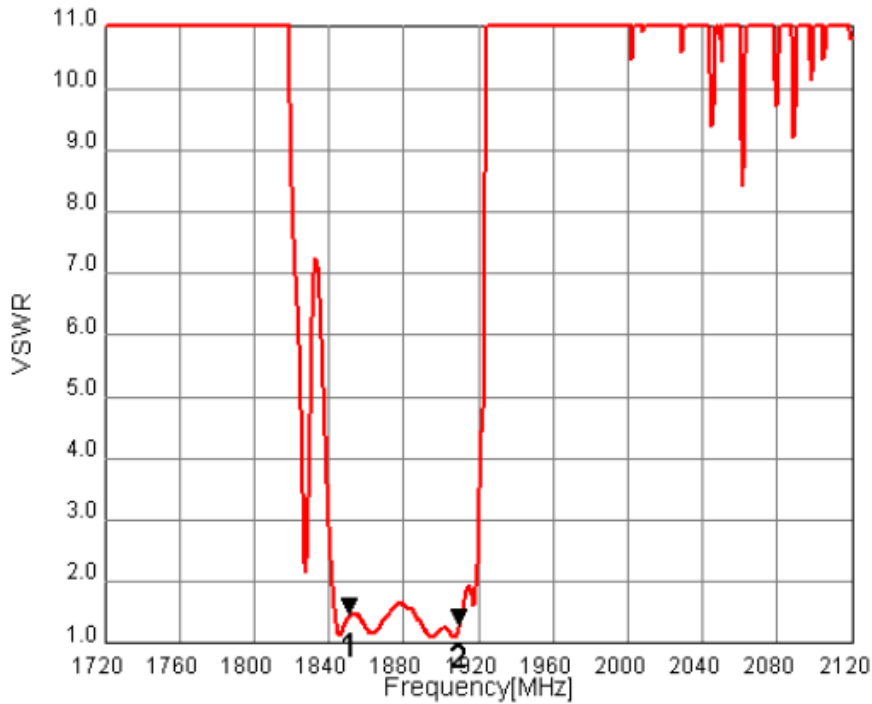


These data **include** loss that comes from the test board. (Approximately 0.15dB.)

SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP06407

Model: TF0103A
Rev. No: 1

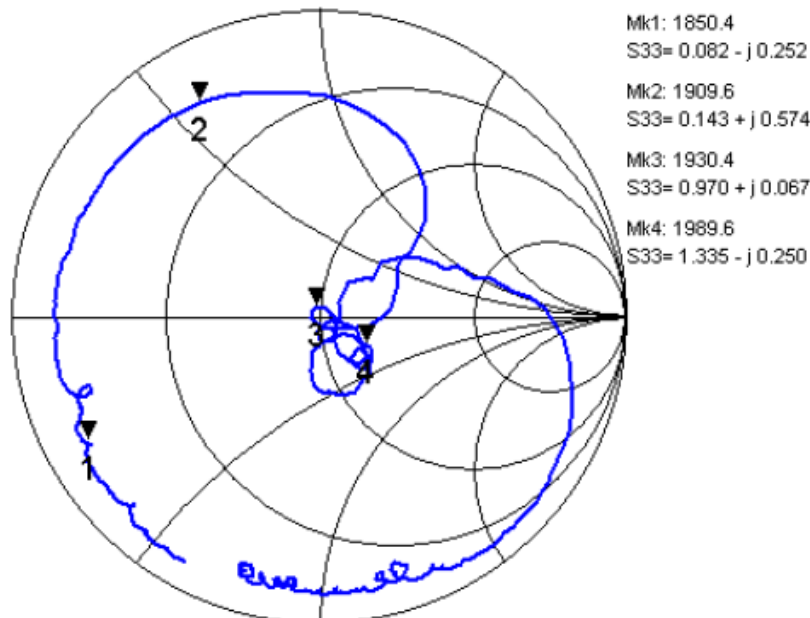
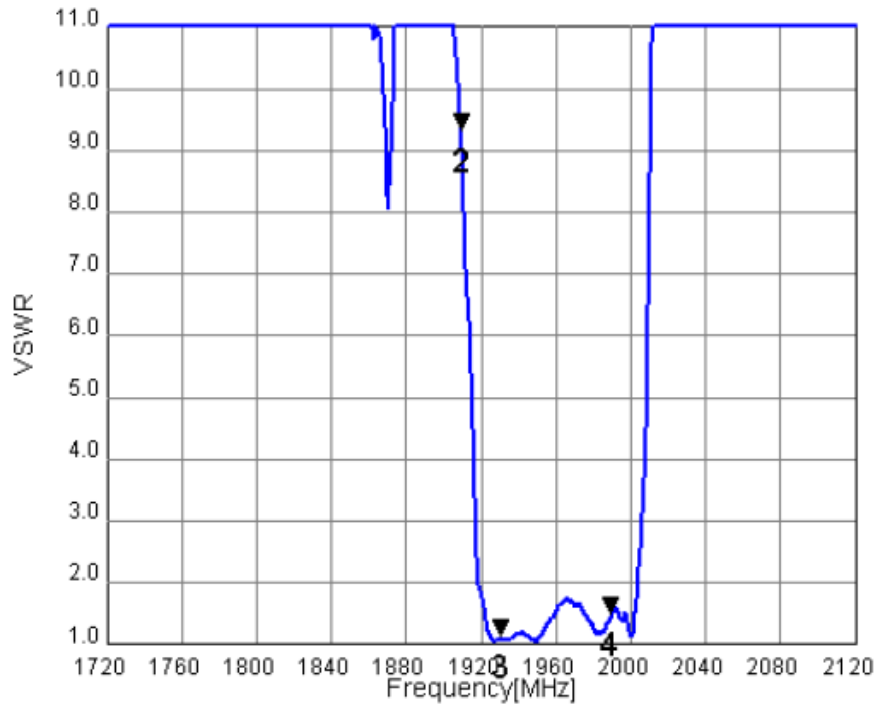
Tx Port



SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP06407

Model: TF0103A
Rev. No: 1

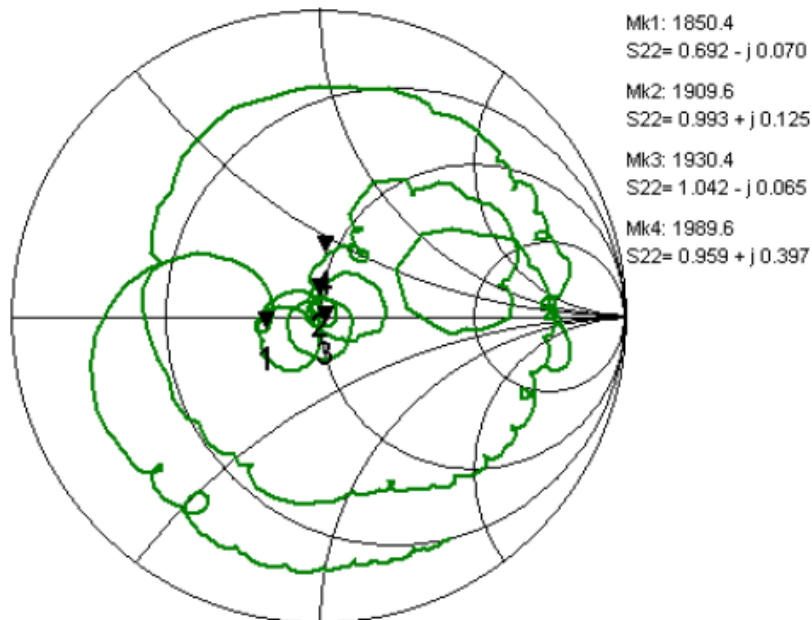
Rx Port



SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP06407

Model: TF0103A
Rev. No: 1

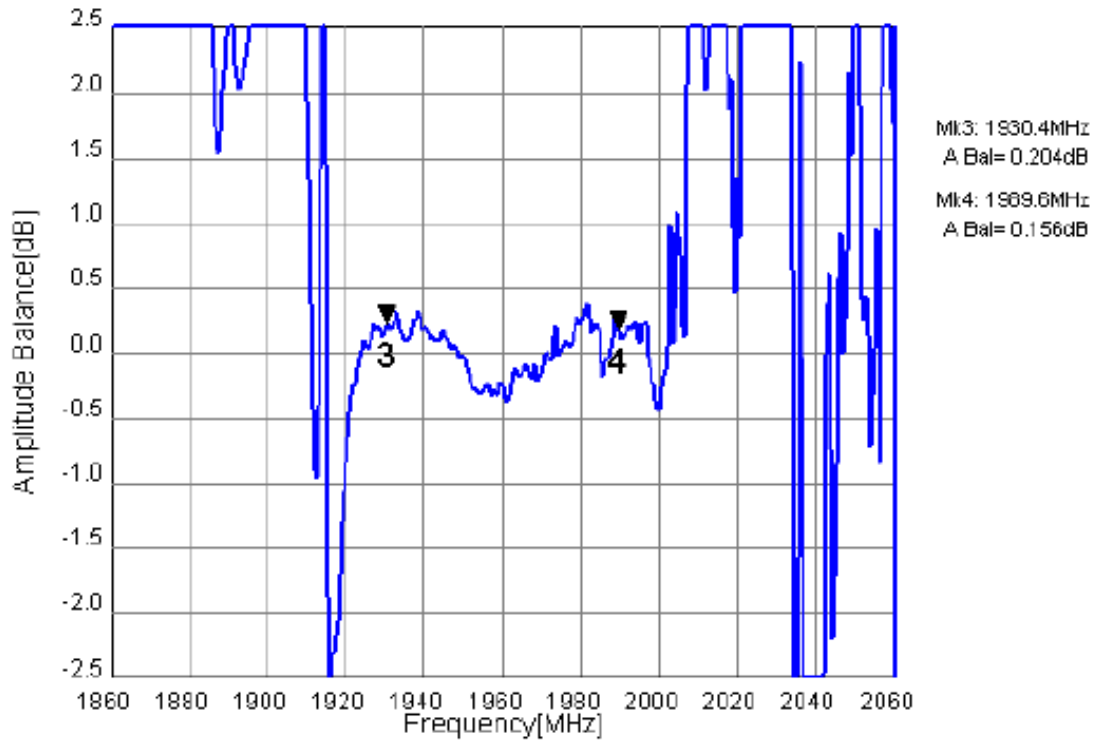
Ant Port



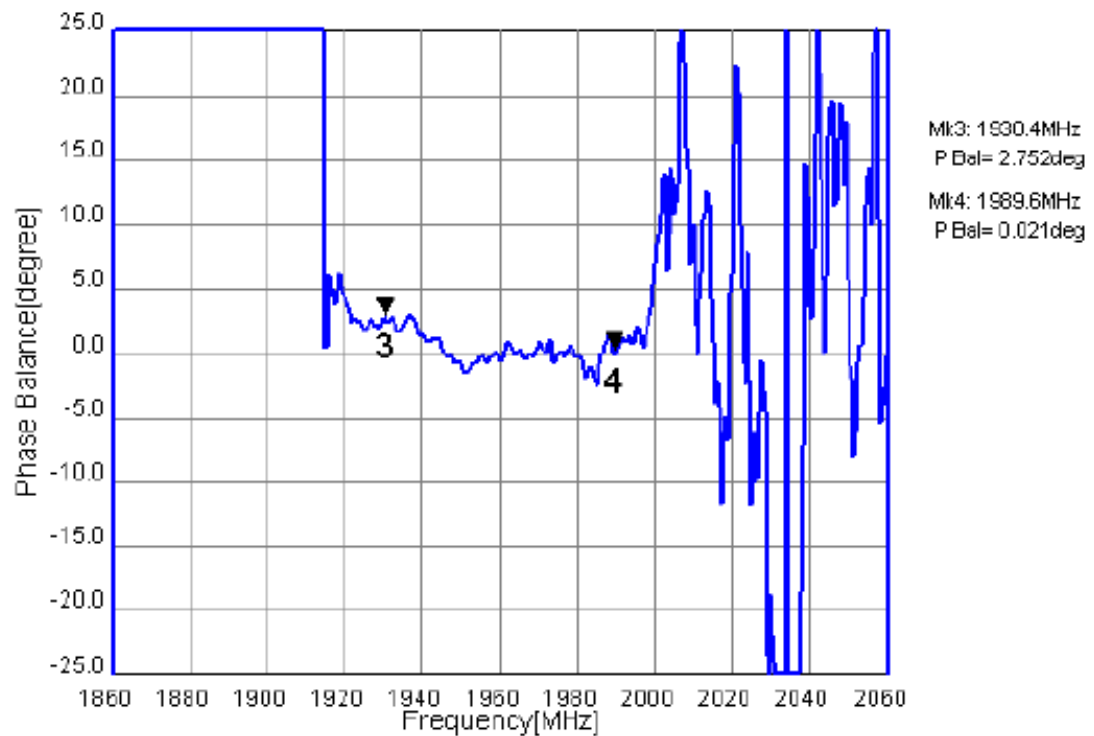
SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP06407

Model: TF0103A
Rev. No: 1

Ant to Rx (Amplitude balance)



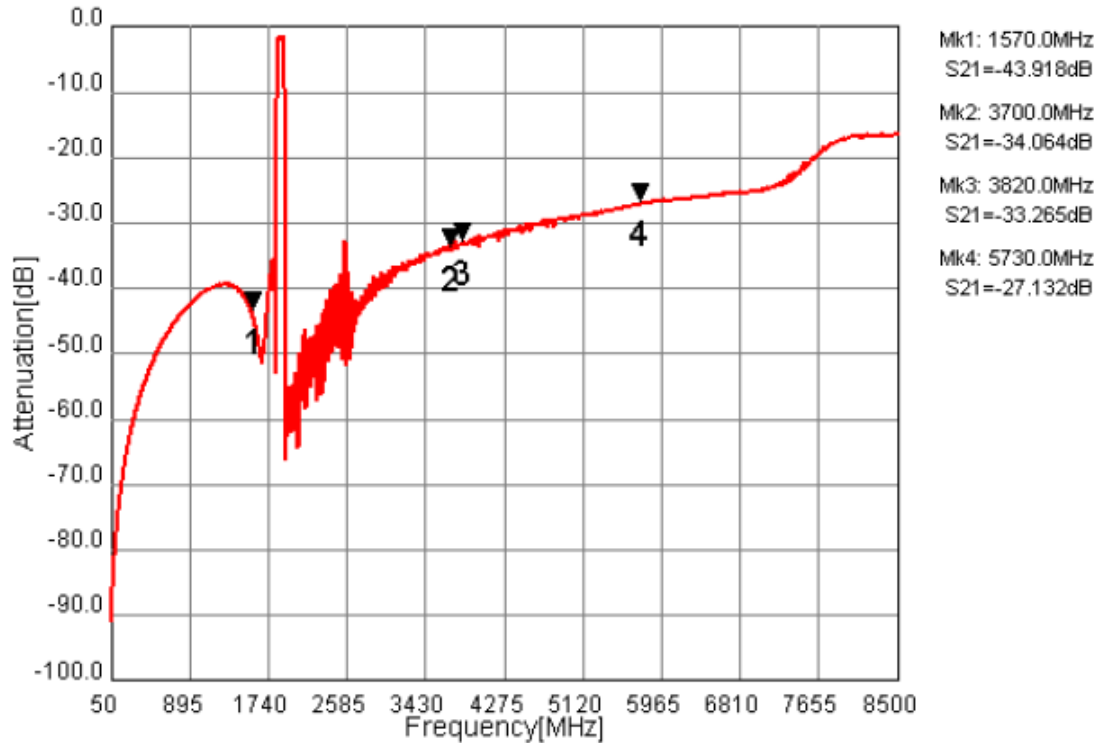
Ant to Rx (Phase balance)



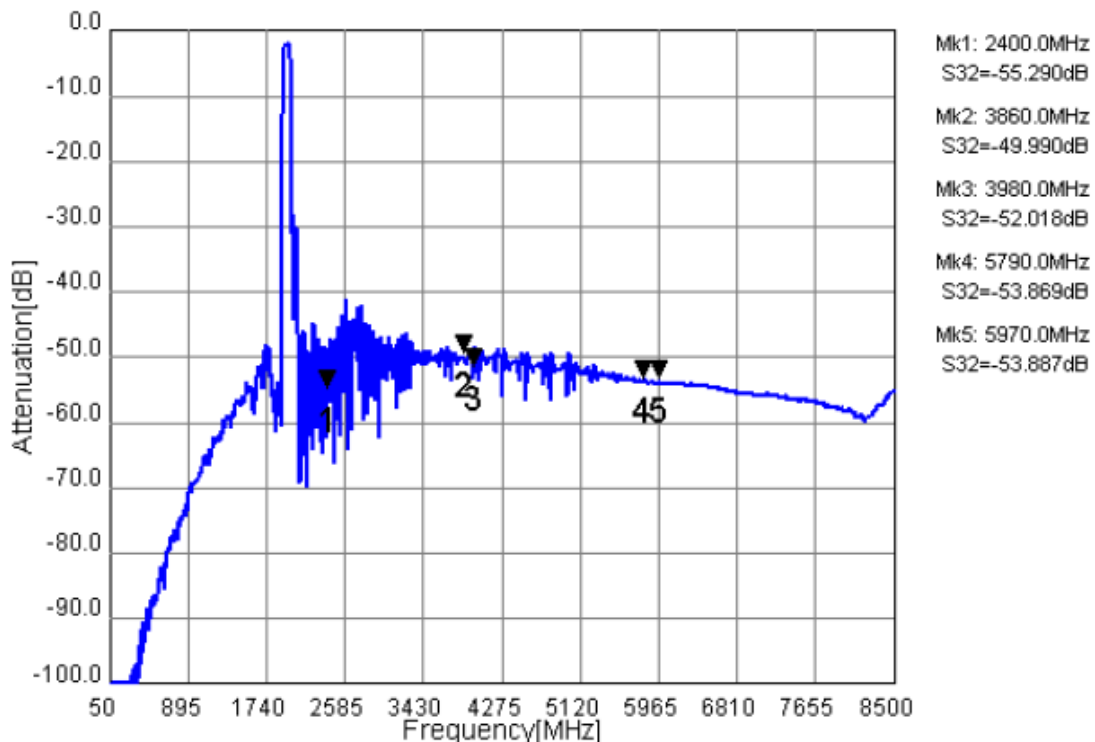
SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP06407

Model: TF0103A
Rev. No: 1

Tx to Ant (Wide span)



Ant to Rx (Wide span)

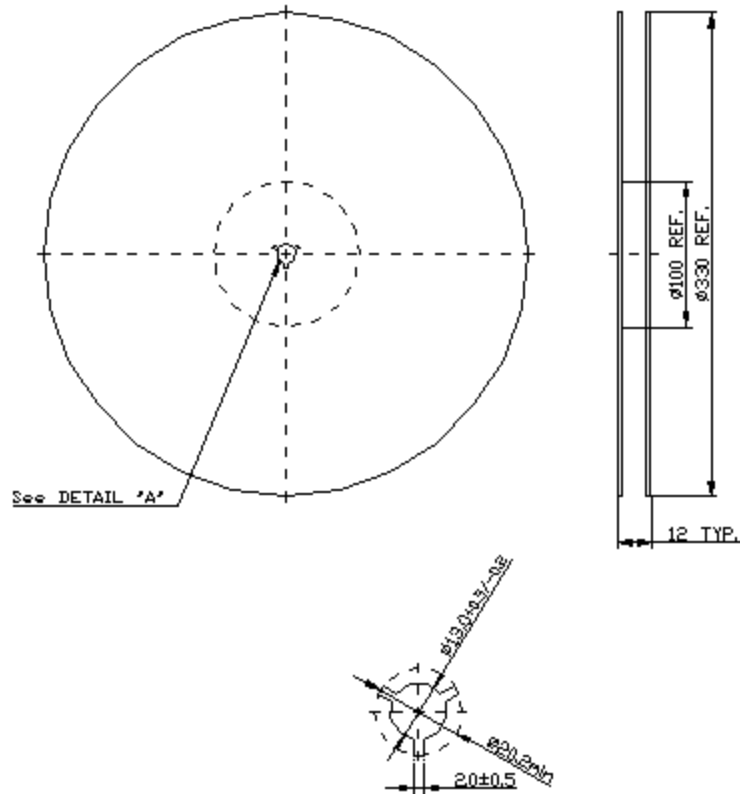


SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP06407

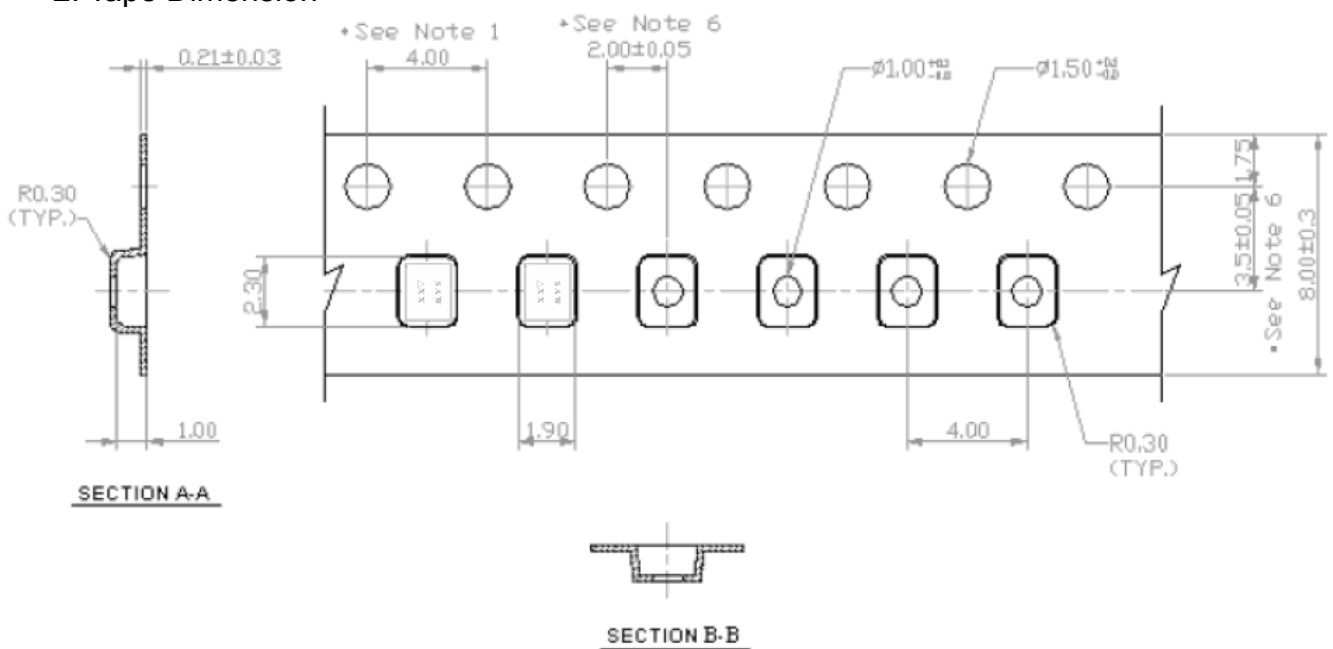
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Rev. No: 1

G. PACKING:

1. Reel Dimension (Please refer to FR-75D10 for packing quantity)



2. Tape Dimension



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H. RECOMMENDED REFLOW PROFILE:

