

SAW Duplexer 1880.0 / 1960.0MHz
Part No: MP05793

Model: TF0068A
Rev. No: 1

A. MAXIMUM RATING:

1. Maximum Input Power: 1.0W
2. DC voltage: 0V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

Tx → Ant		Specifications (+25°C)			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	1850.6 ~ 1909.4	dB	-	1.5	3.0
Passband Ripple	1850.6 ~ 1909.4	dB	-	1.0	2.0
Return Loss	1850.6 ~ 1909.4	dB	9.5	14	-
Attenuation	1930.6 ~ 1989.4	dB	43	48	-
Ant → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	1930.6 ~ 1989.4	dB	-	2.0	3.5
Passband Ripple	1930.6 ~ 1989.4	dB	-	1.1	2.6
Return Loss	1930.6 ~ 1989.4	dB	9.5	16	-
Attenuation	1850.6 ~ 1909.4	dB	50	55	-

Tx → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	1850.6 ~ 1909.4	dB	54	57	-
	1930.6 ~ 1989.4	dB	45	50	-

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Tx → Ant		Specifications (-30 ~ +85°C)			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	1850.6 ~ 1909.4	dB	-	-	3.5
Passband Ripple	1850.6 ~ 1909.4	dB	-	-	2.8
Return Loss	1850.6 ~ 1909.4	dB	9.5	-	-
Attenuation	1930.6 ~ 1989.4	dB	43	-	-
Ant → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	1930.6 ~ 1989.4	dB	-	-	3.8
Passband Ripple	1930.6 ~ 1989.4	dB	-	-	3.0
Return Loss	1930.6 ~ 1989.4	dB	9.5	-	-
Attenuation	1850.6 ~ 1909.4	dB	50	-	-

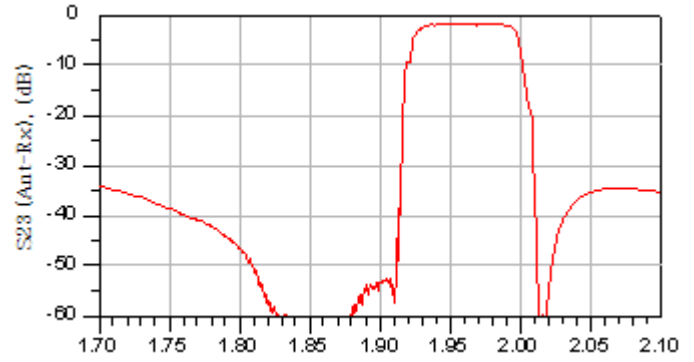
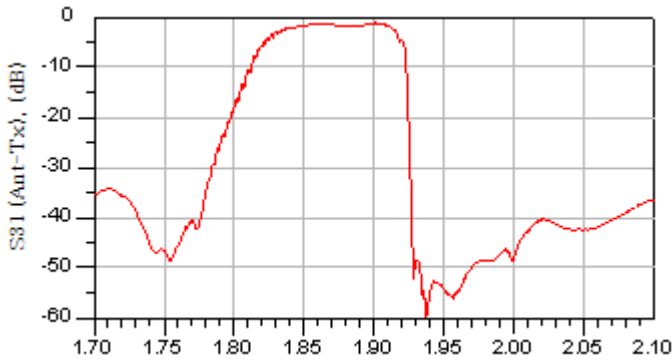
Tx → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	1850.6 ~ 1909.4	dB	54	-	-
	1930.6 ~ 1989.4	dB	45	-	-

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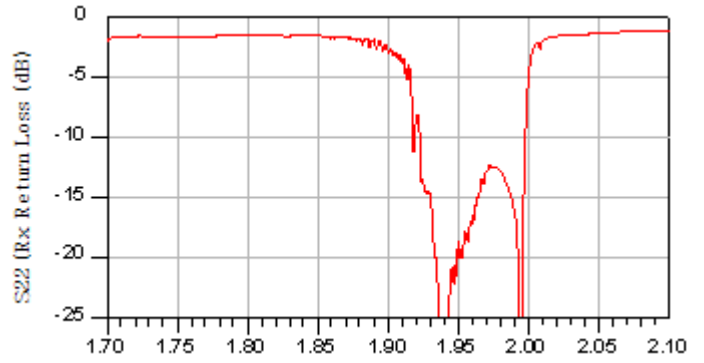
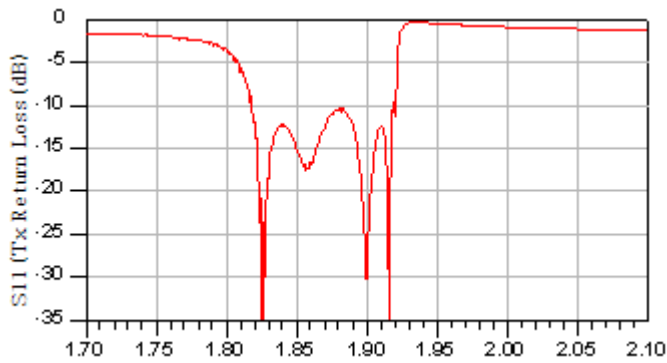
C. FREQUENCY CHARACTERISTICS:

Tx to Ant, Ant to Rx



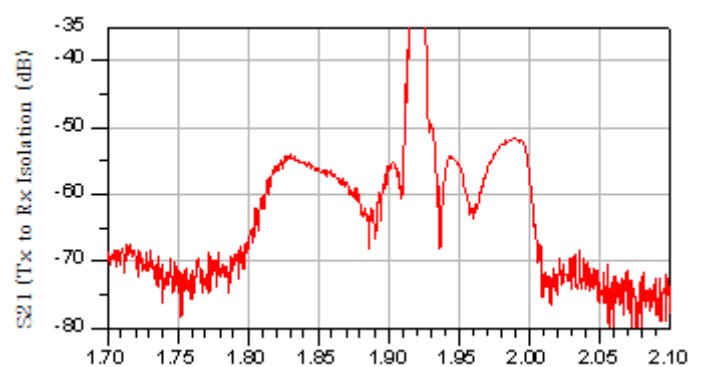
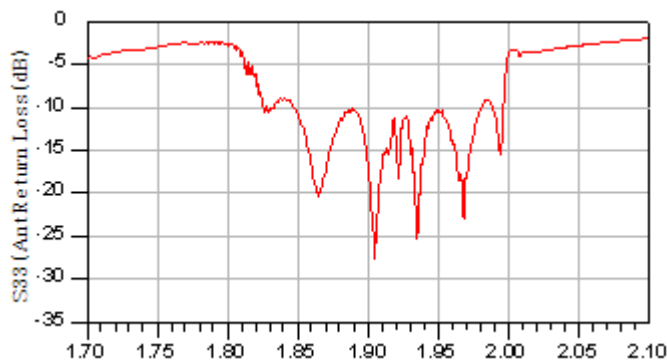
Return Loss TX

Return Loss RX



Return Loss Ant

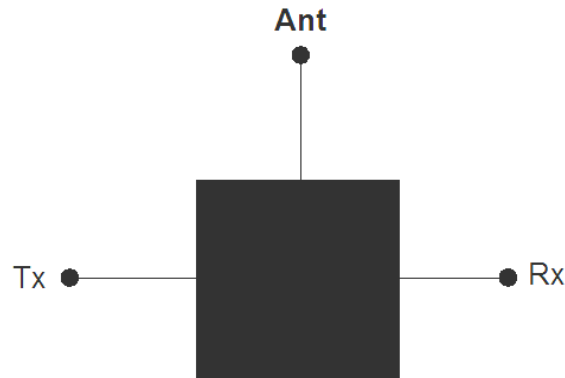
Tx to Rx Isolation



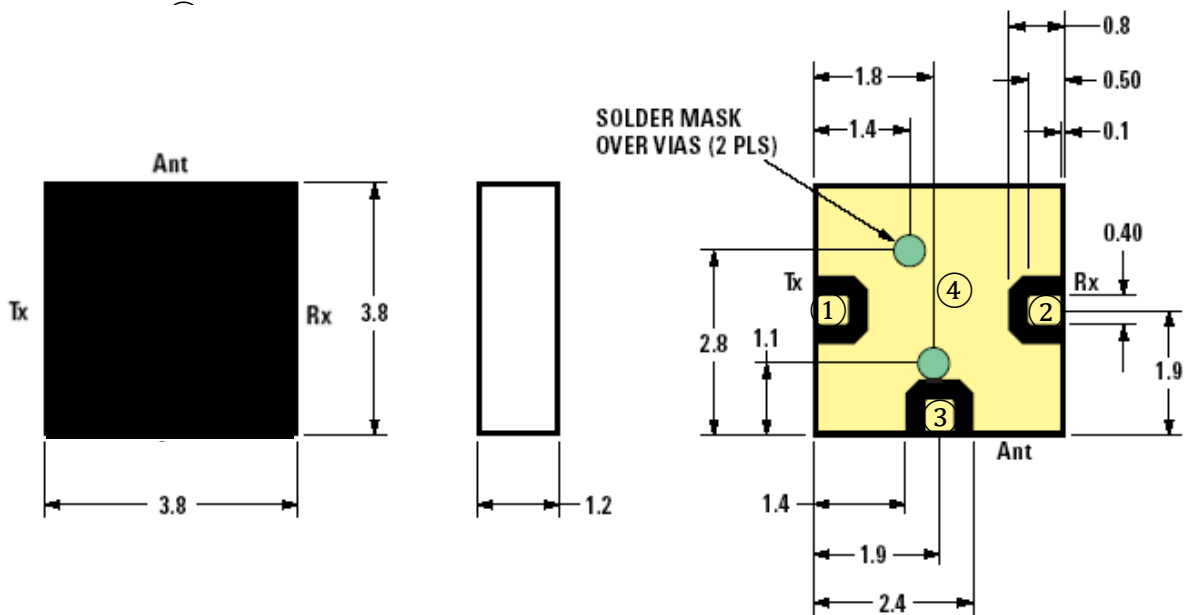
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D. MEASUREMENT CIRCUIT:



E. OUTLINE DRAWING:



- 1. Tolerance: X.X ± 0.1, X.XX ± 0.05
- 2. Package Height: 1.4mm Max
- 3. Contact areas are Gold plated

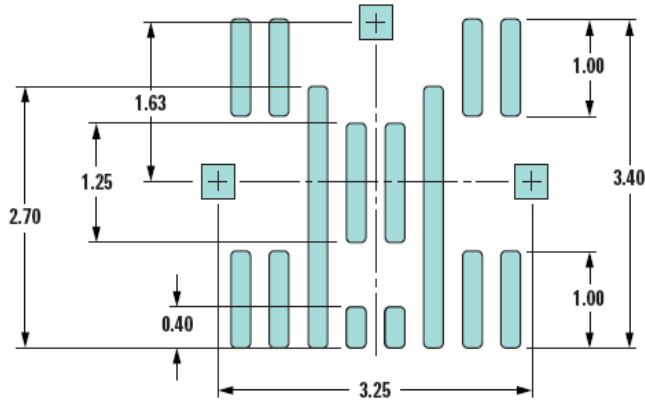
- ①, ②, ③: Exposed ports
- ④: Exposed ground plane

PIN NO.	FUNCTION
①	Tx (1880MHz)
②	Rx (1960MHz)
③	Antenna
④	GND

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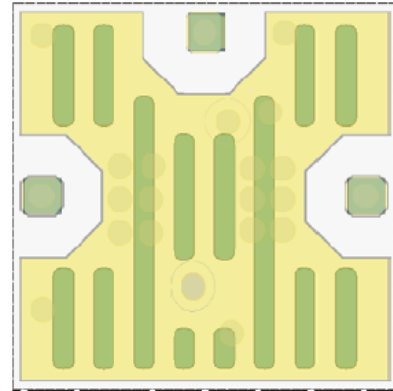
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F. PCB FOOTPRINT:



※ Notes:

- ✓ Dimensions in millimeters (mm)
- ✓ Solder stripes (14pls) are 0.20wide, pitch
- ✓ Solder pads for I/O are 0.35x0.35
- ✓ Stencil pattern is centered on duplexer



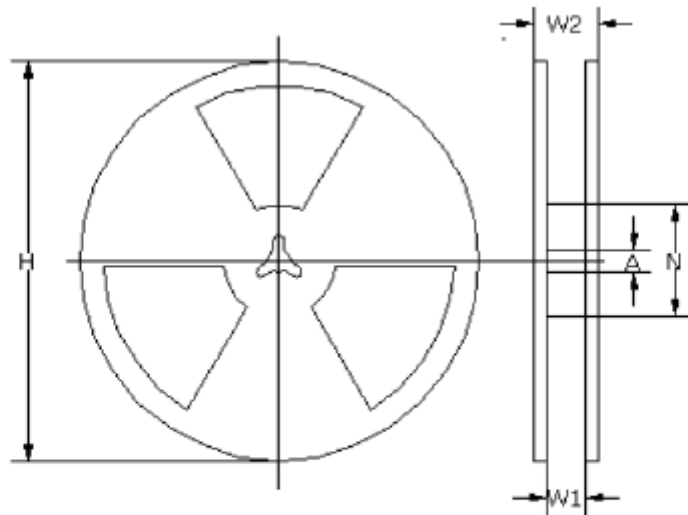
Duplexer superposed on solder stencil

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G. PACKING:

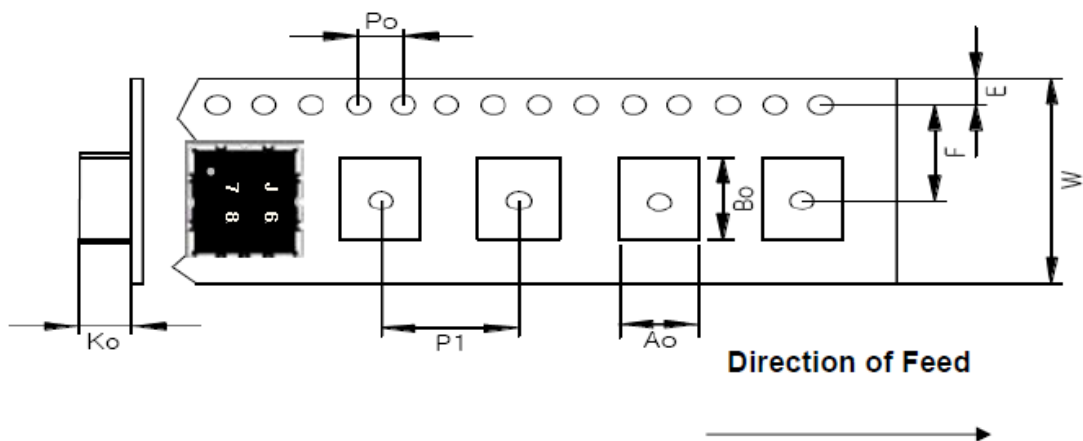
1. Reel Dimension



(Unit : mm)

A	N	H	W1	W2
$\Phi 13 \pm 0.5$	$\Phi 62 \pm 1.0$	$\Phi 330.0 \pm 1.0$	12.0 ± 1.0	16.0 ± 1.0

2. Tape Dimension



A	B	K0	W	E	F	P0	P1
3.4 ± 0.1	3.4 ± 0.1	1.4 ± 0.1	12.0 ± 0.3	1.75 ± 0.1	5.5 ± 0.1	4.0 ± 0.1	8.0 ± 0.1

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H. RECOMMENDED REFLOW PROFILE:

