

MSDP8777D25

Band 8 SAW Duplexer



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Saw Duplexer

For 890-915MHz / 935-960MHz

MSDP8777D25

2.0 x 2.5mm

All Use For RF & Microwave

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May. 09, 2023

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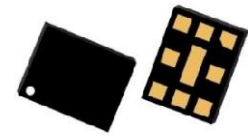
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Applications

- 1, LTE Small Cell & Base Station
- 2, Smart Phone
- 3, Poser Amplifier System



Features

- 1, Package size 2.5 x2.0 mm
- 2, Low insertion loss
- 3, B8 SAW Duplexer
- 4, RoHS compatible/MSL3

Description

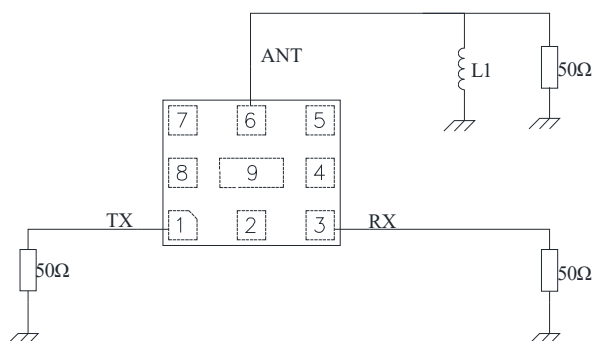
MSDP8777D25 is a single-ended, high reliability duplexer used for Band 8, which is designed with SAW technology. The product can provide low insertion loss and high isolation. The MSDP8777D25 uses advanced module packing techniques to achieve the industry standard 2.5 x2.0mm package. All components are 100% RF tested.

Maximum Ratings

Characteristic	Ratings	Units
Maximum DC Voltage	5	V
Input Power @ TRX Port (in BW)	29	dBm
ESD Voltage (HB)	200	V
Operating Temperature Range	-40~85	°C
Storage Temperature Range	-40~85	°C
Moisture Sensitivity Levels	3	MSL

Pin Configuration

TOP VIEW



Pin No.	Label
1	Tx
3	Rx
6	Ant
2/4/5/7/8/9	GND

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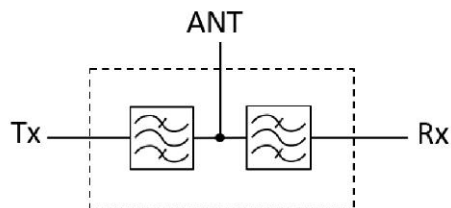
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Functional Block Diagram



Electrical Specifications

RX -> ANT				
Item	Minimum	Typical	Maximum	Units
Insertion Loss				
890 ~ 915MHz		1.5	2.5	dB
Ripple Deviation				
890 ~ 915MHz		0.6	1.8	dB
Absolute Attenuation				
10~840MHz	30	35		dB
840~867MHz	32	39		dB
936~960MHz	40	45		dB
1710~2170MHz	40	45		dB
2401~2483MHz	30	35		dB
2620~2690MHz	30	35		dB
3300~4200MHz	25	30		dB
5000~5800MHz	25	30		dB
VSWR				
VSWR RX		1.5	2	
VSWR ANT		1.5	2	

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ANT -> TX				
Item	Minimum	Typical	Maximum	Units
Insertion Loss				
935 ~ 960MHz		2	2.5	dB
Ripple Deviation				
935 ~ 960MHz		0.8	1.8	dB
Absolute Attenuation				
10~840MHz	30	35		dB
840~867MHz	32	39		dB
890~915MHz	45	50		dB
1710~2170MHz	40	45		dB
2401~2483MHz	30	35		dB
2620~2690MHz	30	35		dB
3300~4200MHz	25	30		dB
5000~5800MHz	25	30		dB
VSWR				
VSWR TX		1.5	2	
VSWR ANT		1.5	2	

Isolation

RX -> TX				
Item	Minimum	Typical	Maximum	Units
Isolation				
890~915MHz	40	45		dB
935 ~ 960MHz	45	50		dB

All the above data are based on specified demo board and tested in 25° environment.

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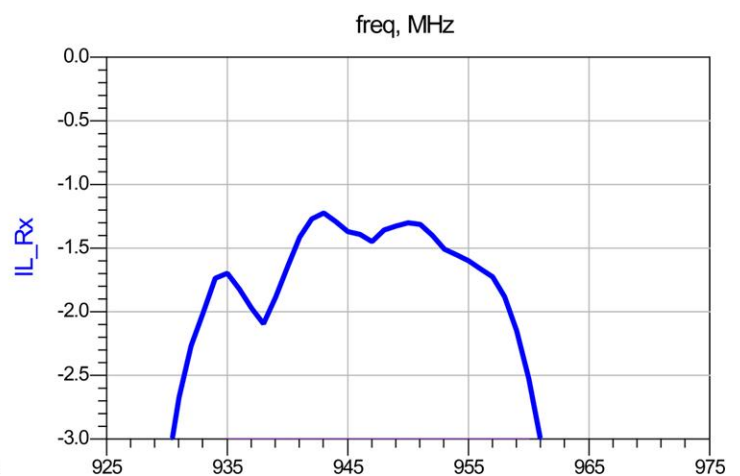
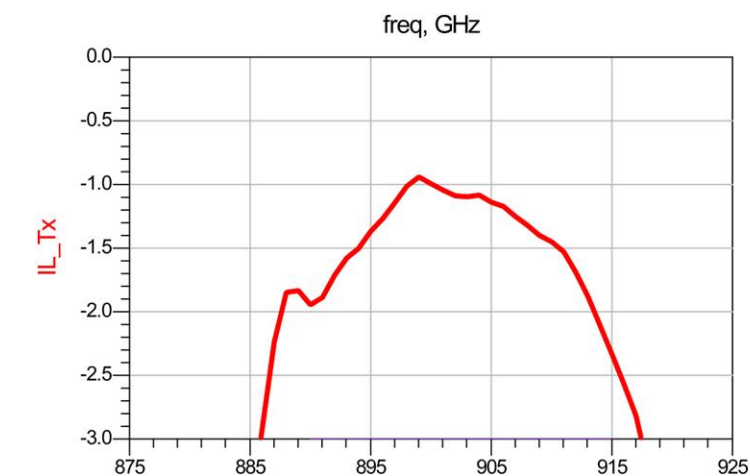
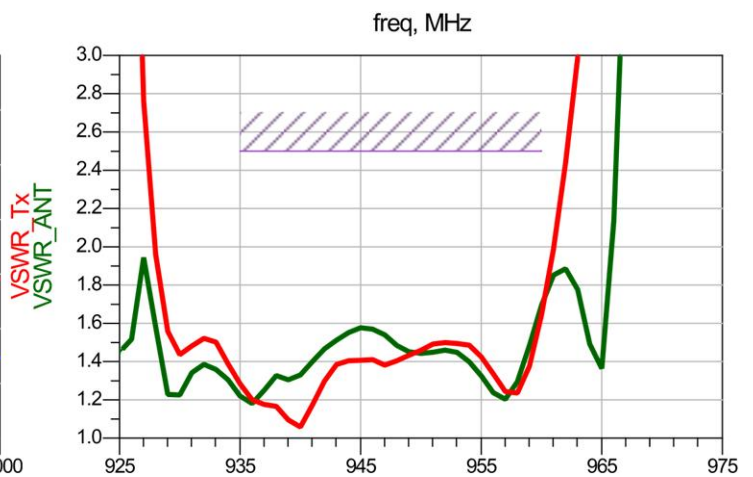
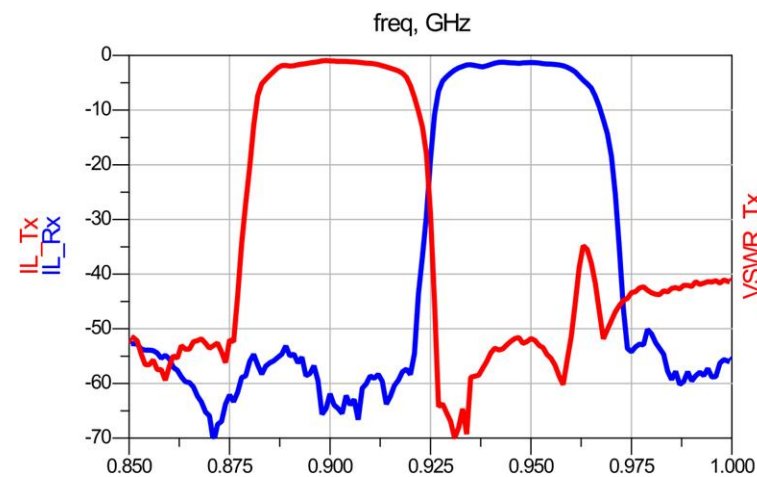
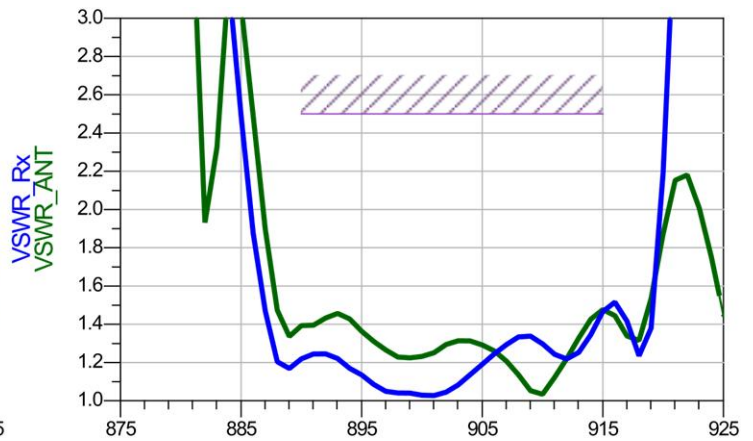
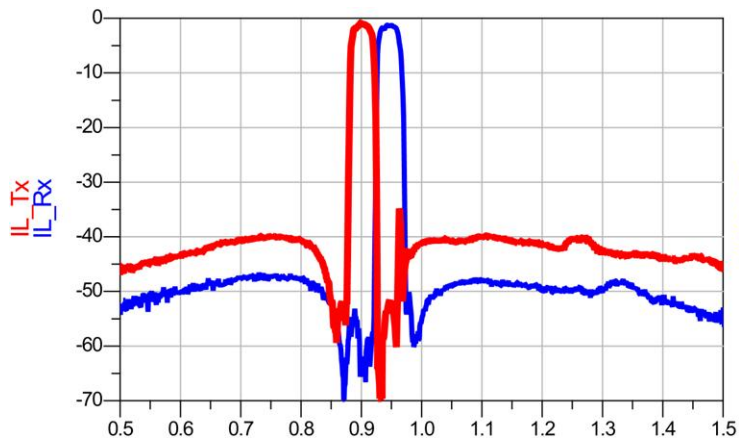
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Typical Performance (Temp = +25 °C, 50 Ω system)



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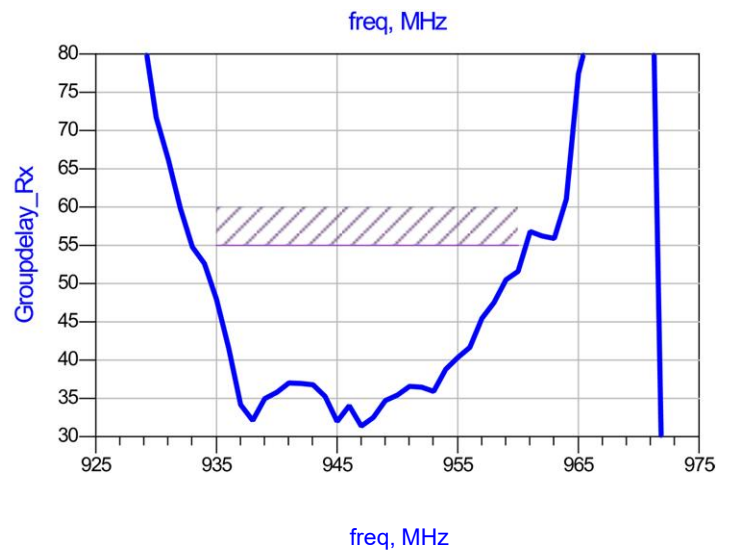
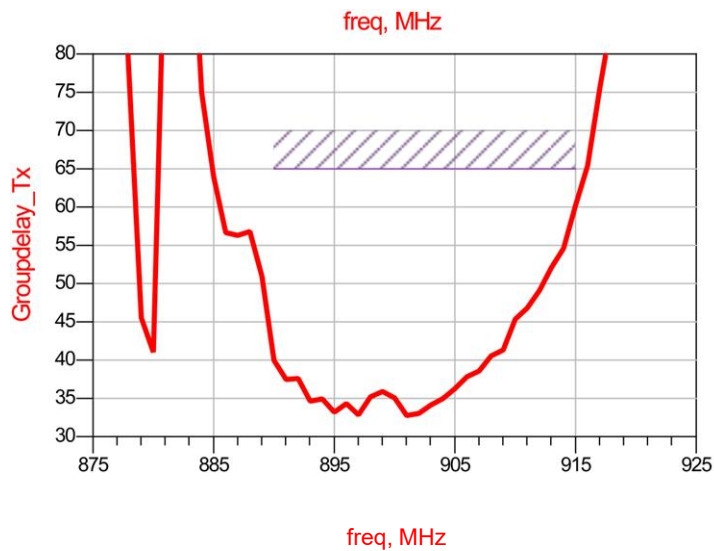
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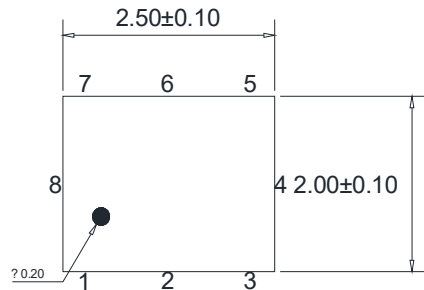


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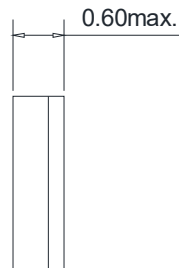


Outline Drawing

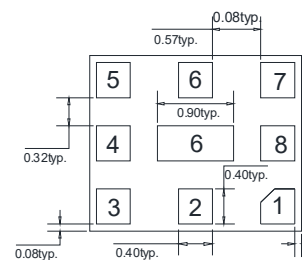
Top View



Side View



Bottom View



Recommended Reflow Profile

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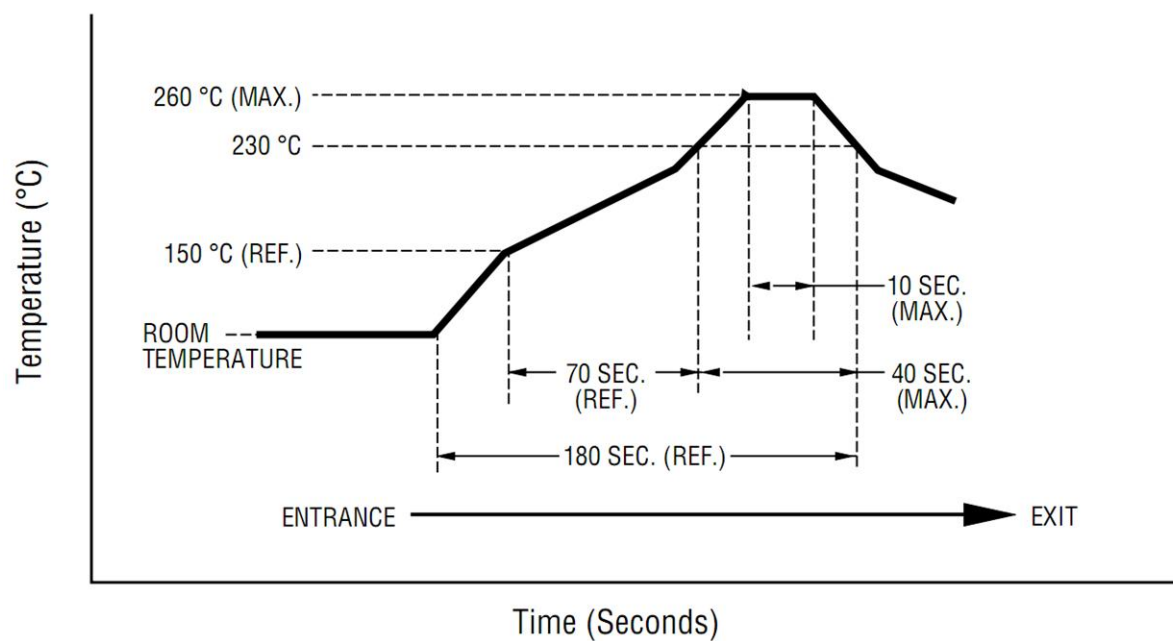
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Packaging and Ordering Information

Device	Package	Reel	Shipping
MSDP8777D25	2.5*2.0	7"	4000/Reel

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Revision	Description	Date
Rev1	Preliminary	2023/9/29

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