

MSDP8798C25

SAW Duplexer



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Saw Duplexer

For 824-849MHz / 869-894MHz

MSDP8798C25

2.0 x 2.5mm

All Use For RF & Microwave

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May. 09, 2023

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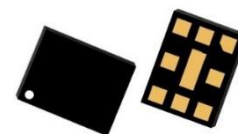
SAW Duplexer



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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, SAW Duplexer
- 4, RoHS compatible/MSL3

Description

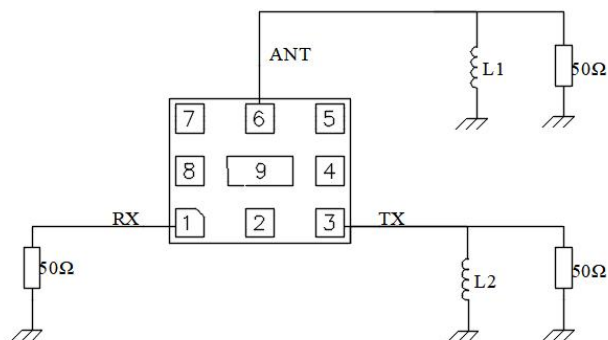
MSDP8798C25 is a single-ended, high reliability duplexer, which is designed with SAW technology. The product can provide low insertion loss and high isolation. The MSDP8798C25 uses advanced module packing techniques to achieve the industry standard 2.5 x2.0mm package. All components are 100% RF tested.

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	Rx
3	Tx
6	Ant
2/4/5/7/8/9	GND

Suggestion values: L1=6.2nH L2=22nH

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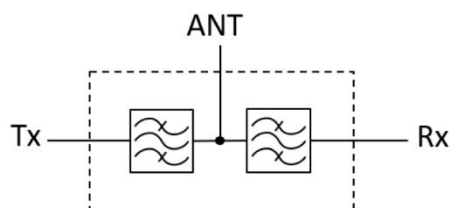
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Functional Block Diagram



Electrical Specifications

TX -> ANT				
Item	Minimum	Typical	Maximum	Units
Insertion Loss				
824 ~ 849MHz		1.5	2.5	dB
Ripple Deviation				
824 ~ 849MHz			2.2	dB
Absolute Attenuation				
2110.25~2169.75MHz	20	22		dB
1805~1880MHz	20	24		dB
2400~2500MHz	20	21		dB
VSWR				
VSWR TX		1.8	2	
VSWR ANT		1.8	2	

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ANT -> RX				
Item	Minimum	Typical	Maximum	Units
Insertion Loss				
869 ~ 894MHz			2.5	dB
Ripple Deviation				
869 ~ 894MHz			2.2	dB
Absolute Attenuation				
1920.25-1979.75 MHz	23	27		dB
1710-1785 MHz	23	26		dB
2400-2500 MHz	20	23		dB
VSWR				
VSWR RX		1.8	2	
VSWR ANT		1.8	2	

Isolation

RX -> TX				
Item	Minimum	Typical	Maximum	Units
Isolation				
824-849MHz	28	35		dB
869-894MHz	35	42		dB

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

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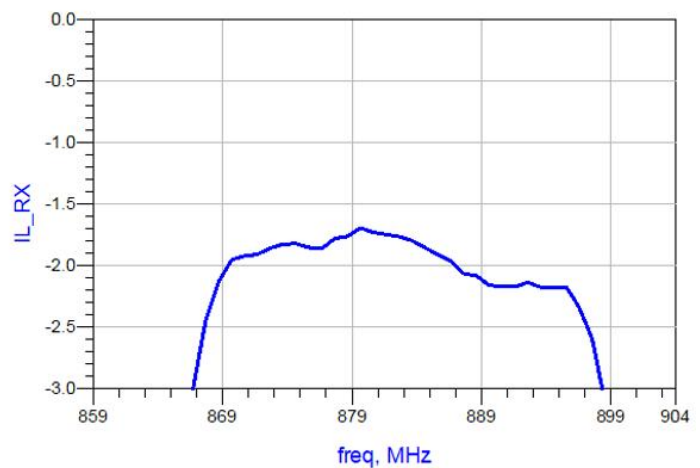
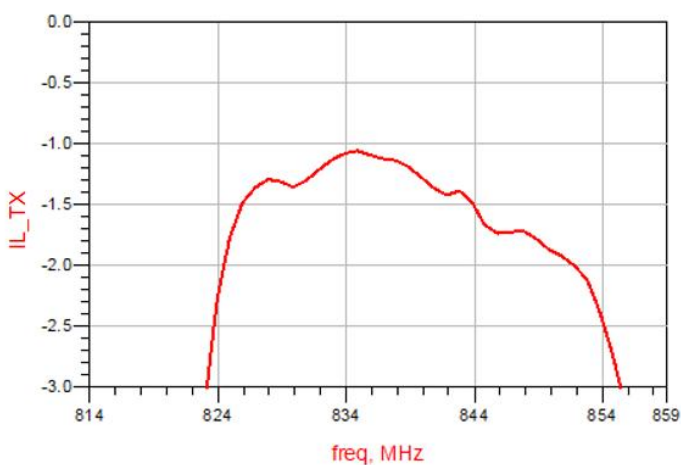
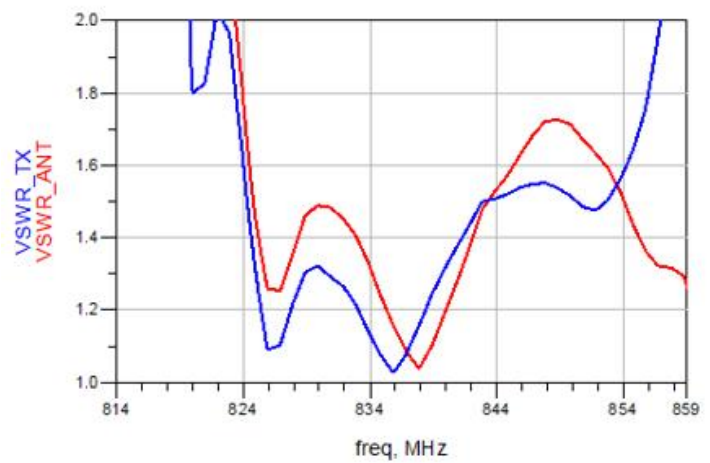
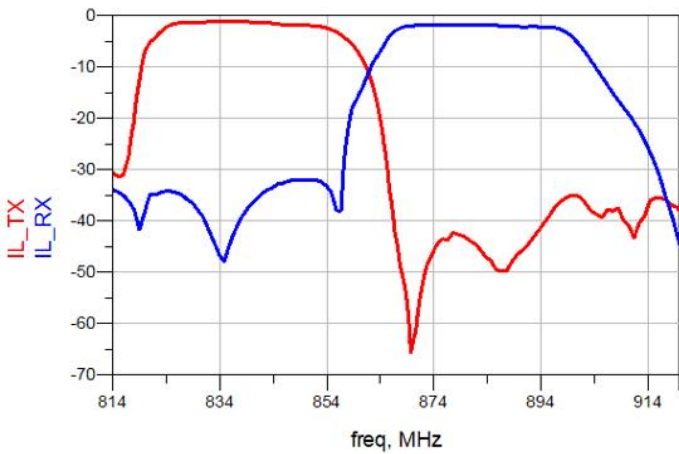
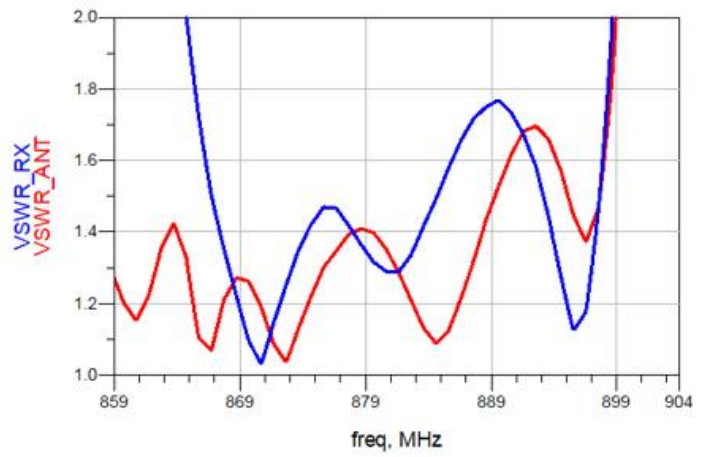
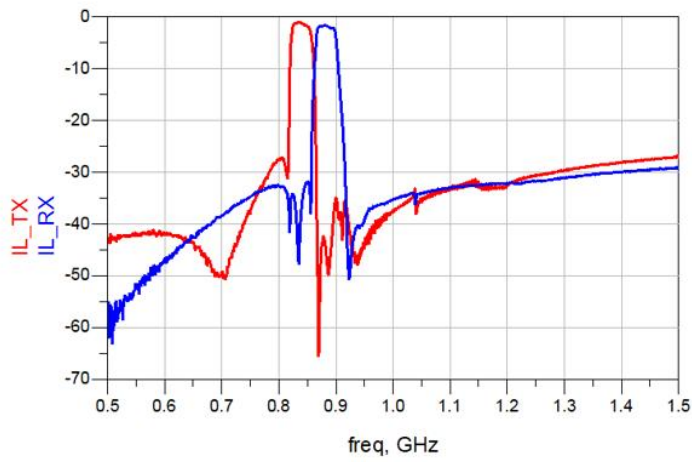
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Typical Performance (Temp = +25 °C, 50 Ω system)



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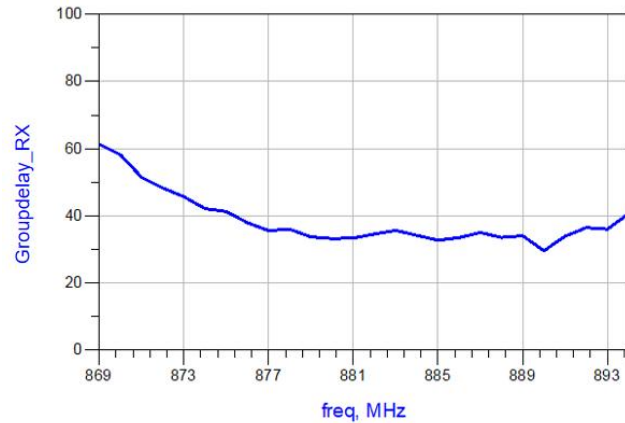
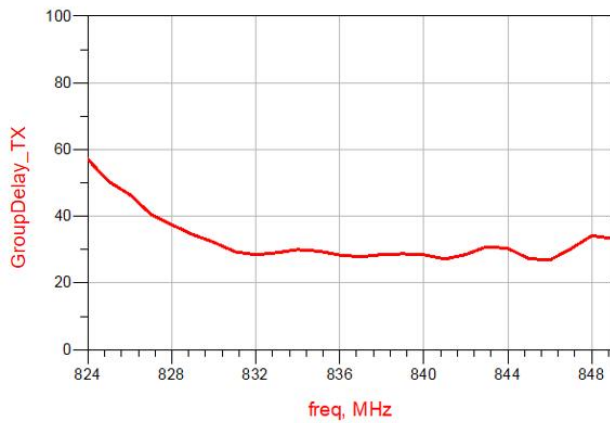
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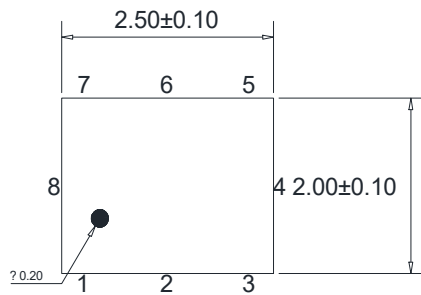


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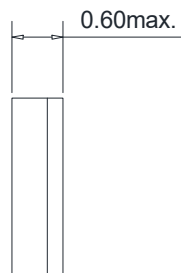


Outline Drawing

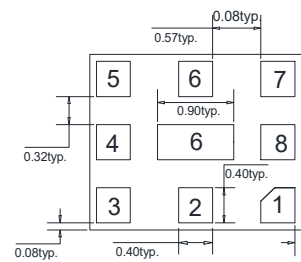
Top View



Side View



Bottom View



Recommended Reflow Profile

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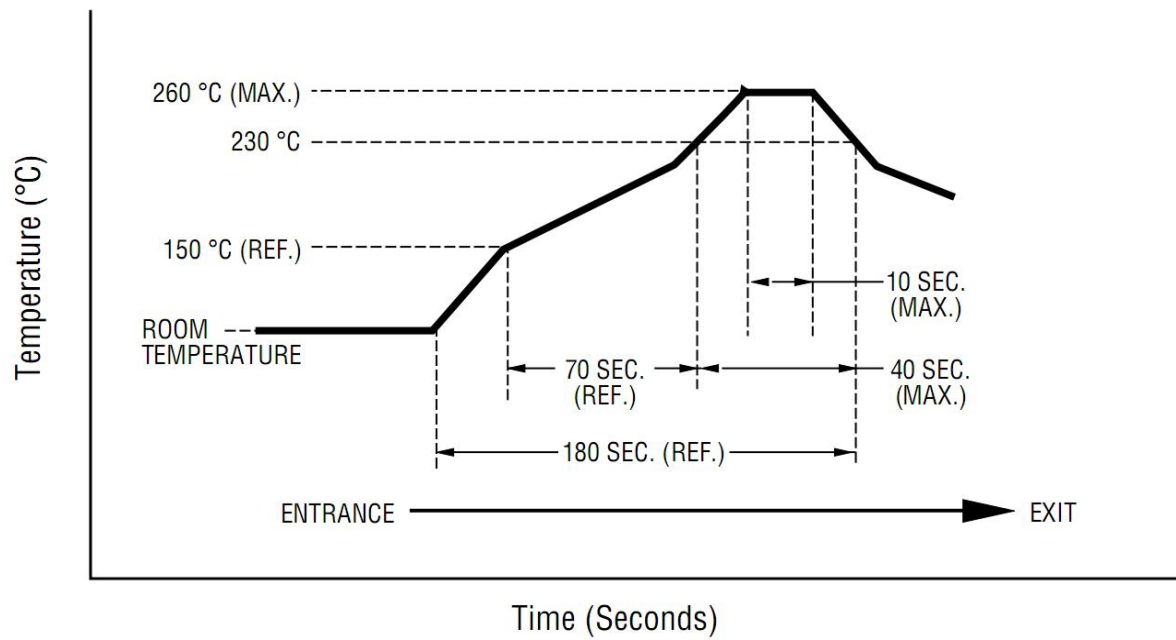
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Packaging and Ordering Information

Device	Package	Reel	Shipping
MSDP8798C25	2.5*2.0	7"	4000/Reel

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Revision	Description	Date
Rev1	Preliminary	2023/9/29