SAW DUPLEXER
RSD-836.500-881.500-1612-TR

Application

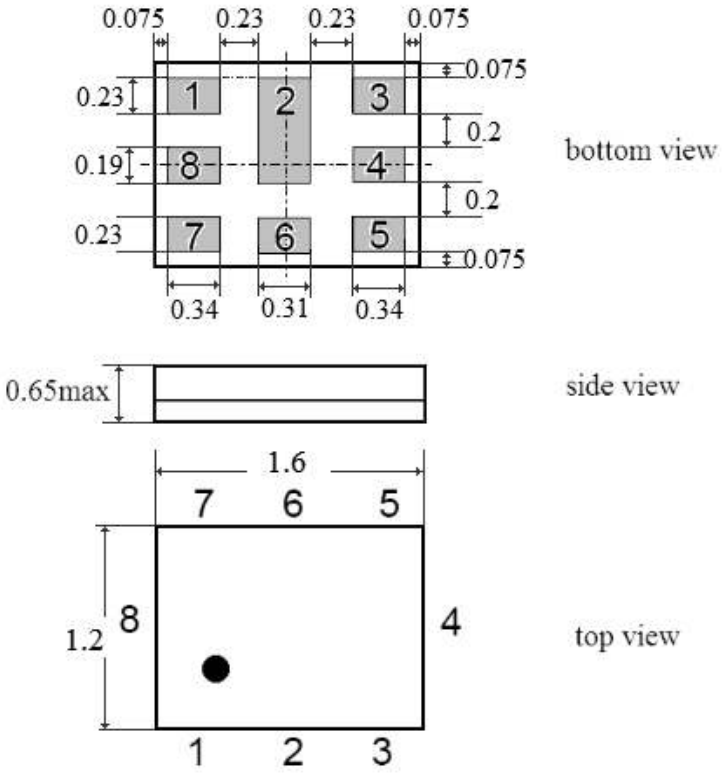
- Low loss Saw Duplexer for mobile telephone LTE and WCDMA Band V systems.
- Low insertion attenuation and low passband ripple.
- Usable passband 25 MHz
- High isolation between Tx and Rx.

Electrical Specifications

Parameters				Value	Unit
Tx to ANT	Insertion Loss, typ/max		824 ~ 849 MHz	1.4 / 1.8	dB
			826.5 ~ 846.5 MHz	1.3 / 1.7	dB
	Amplitude Ripple		824 ~ 849 MHz	0.5 / 1.3	dB
	VSWR, typ/max	ANT	824 ~ 849 MHz	1.6 / 2.0	-
		Tx		1.6 / 2.0	-
	Input Power (+50˚C, 5000h, CW)		824 ~ 849 MHz	+30	dBm
	Attenuation, min/typ		10 ~ 420 MHz	35 / 44	dB
			420 ~ 494 MHz	35 / 40	dB
			494 ~ 764 MHz	27 / 32	dB
			764 ~ 804 MHz	28 / 30	dB
			860 ~ 869 MHz	3 / 6.5	dB
			869 ~ 894 MHz	45 / 54	dB
			1559 ~ 1606 MHz	30 / 34	dB
			1710 ~ 1785 MHz	28 / 32	dB
			1920 ~ 1980 MHz	25 / 29	dB
			2110 ~ 2170 MHz	25 / 28	dB
			2400 ~ 2500 MHz	22 / 25	dB
			4900 ~ 5950 MHz	10 / 13	dB
ANT to Rx	Insertion Loss, typ/max		869 ~ 894 MHz	1.7 / 2.2	dB
			871.5 ~ 891.5 MHz	1.6 / 1.9	dB
	Amplitude Ripple		869 ~ 894 MHz	0.5 / 1.2	dB
	VSWR, typ/max	ANT	869 ~ 894 MHz	1.6 / 2.0	-
		Rx		1.6 / 2.0	-
	Attenuation, min/typ		10 ~ 447 MHz	50 / 58	dB
			447 ~ 824 MHz	43 / 52	dB
			824 ~ 849 MHz	45 / 55	dB
			909 ~ 979 MHz	12 / 22	dB
			1710 ~ 1785 MHz	45 / 62	dB
			1850 ~ 1920 MHz	40 / 61	dB
			1920 ~ 2400 MHz	40 / 55	dB
			2400 ~ 2500 MHz	30 / 54	dB
			4900 ~ 5950 MHz	25 / 37	dB

Tx to Rx	**Isolation, min/typ**	**824 ~ 849 MHz**	55 / 58	dB
		826.5 ~ 846.5 MHz	55 / 58	dB
		869 ~ 894 MHz	52 / 57	dB
		871.5 ~ 891.5 MHz	52 / 58	dB
		1574 ~ 1577 MHz	50 / 60	dB
		1638 ~ 1708 MHz	50 / 60	dB
		2462 ~ 2557 MHz	45 / 60	dB
DC Voltage VDC			3	V
ESD Voltage ESD (MM)			50	V
Sensitive Discharge Device ESD (HBM)			175	V
Operating Temperature Range			-30 ~ +85	˚C
Storage Temperature Range			-40 ~ +85	˚C
MSL			2	-

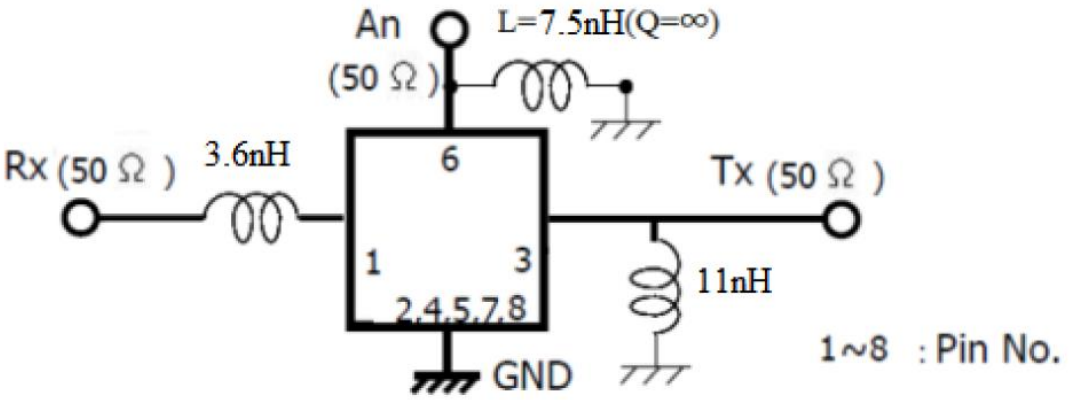
Dimension



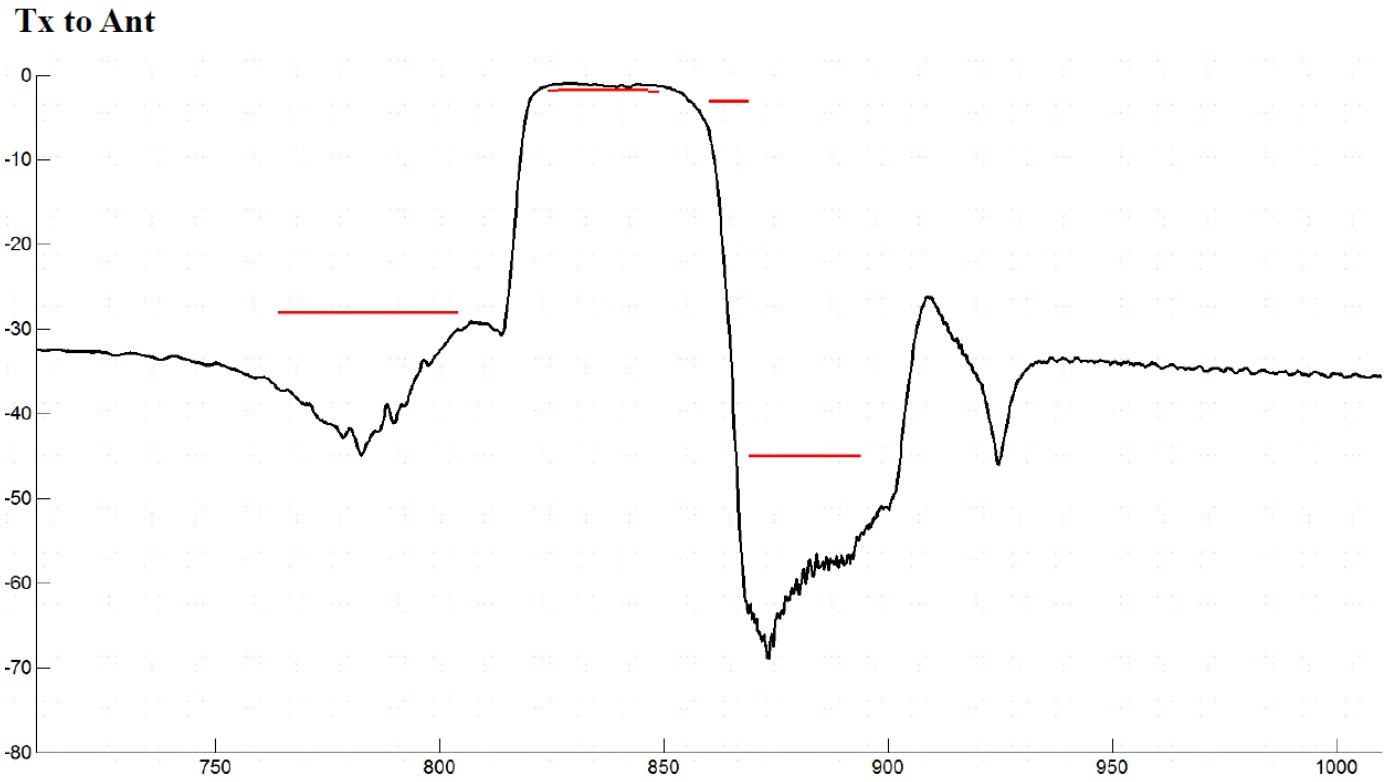
Unit: mm

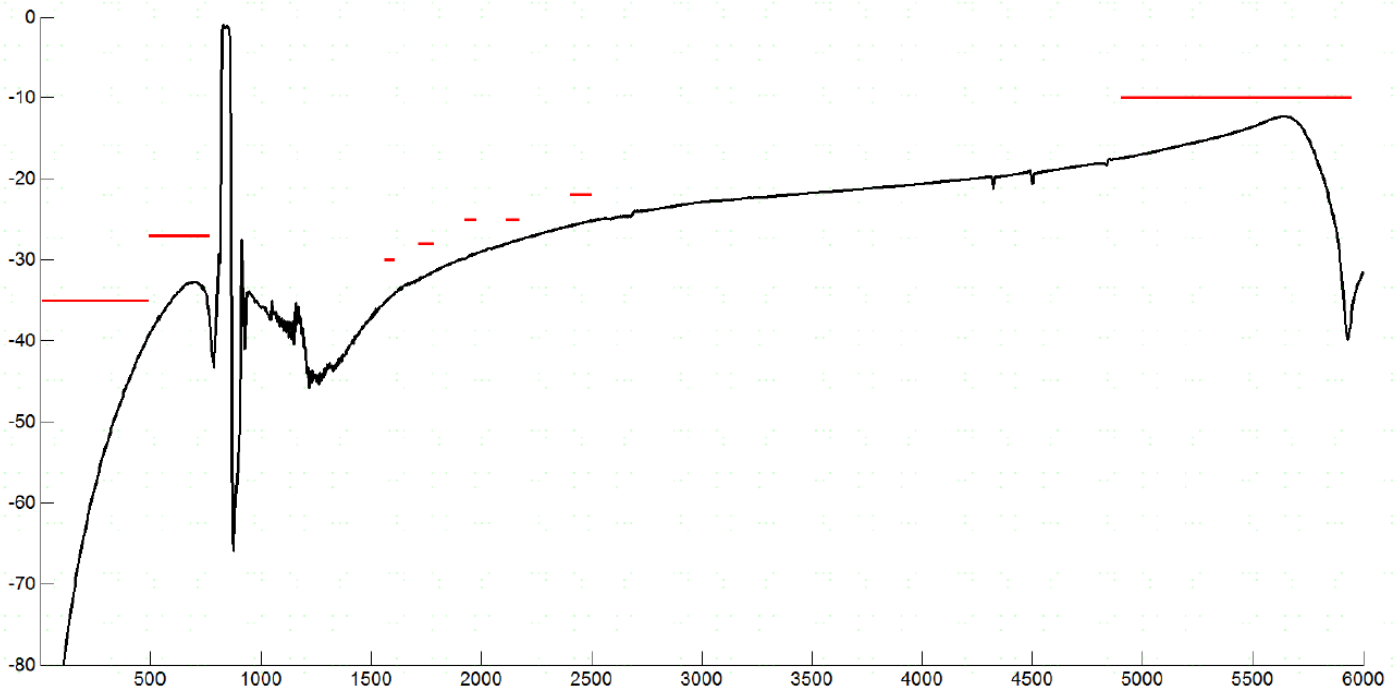
PIN	SYMBOL	FUNCTION
1	Rx	Rx Output
2,4,5,7,8	GND	Ground
3	Tx	Tx Input
6	ANT	Antenna

Test Circuit

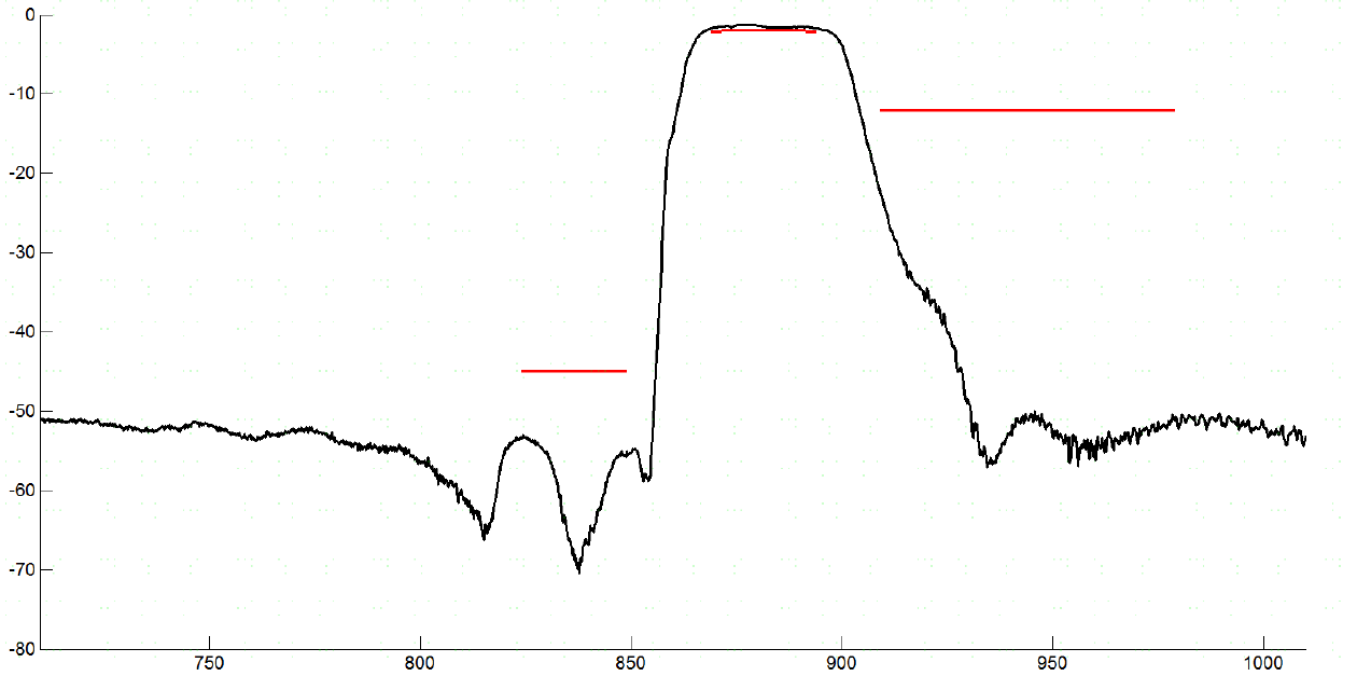


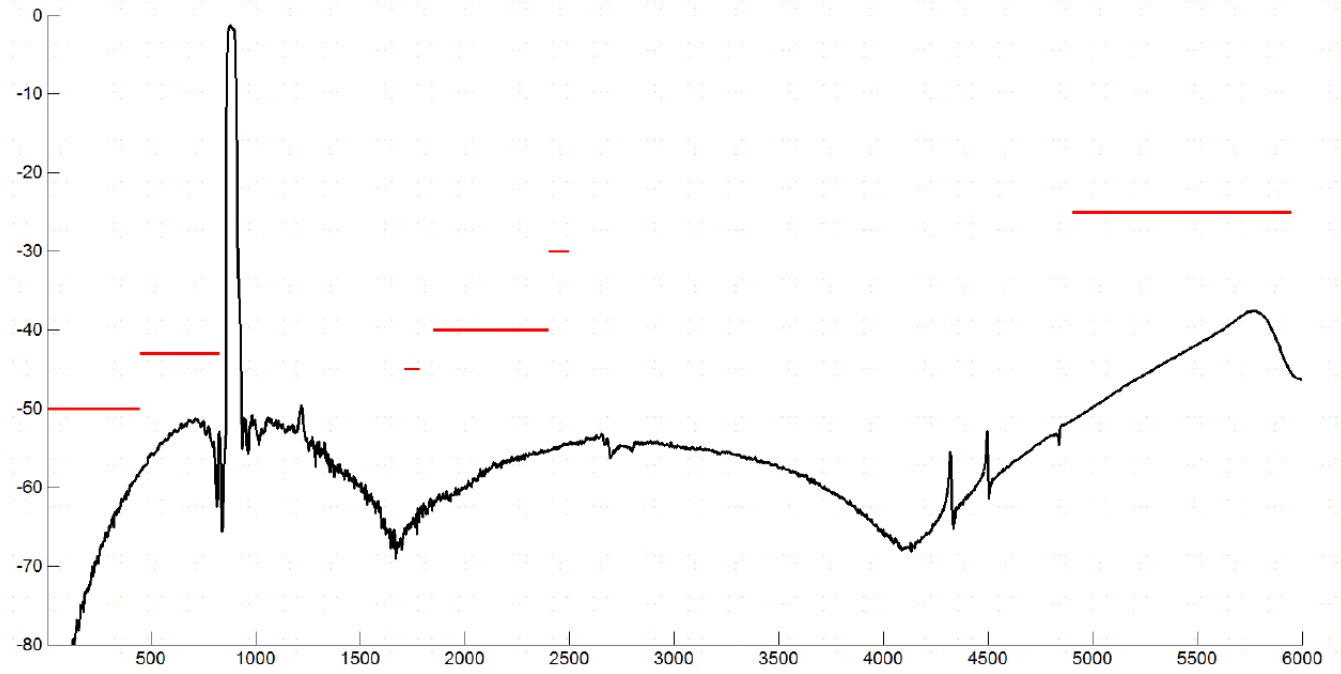
Frequency Characteristics



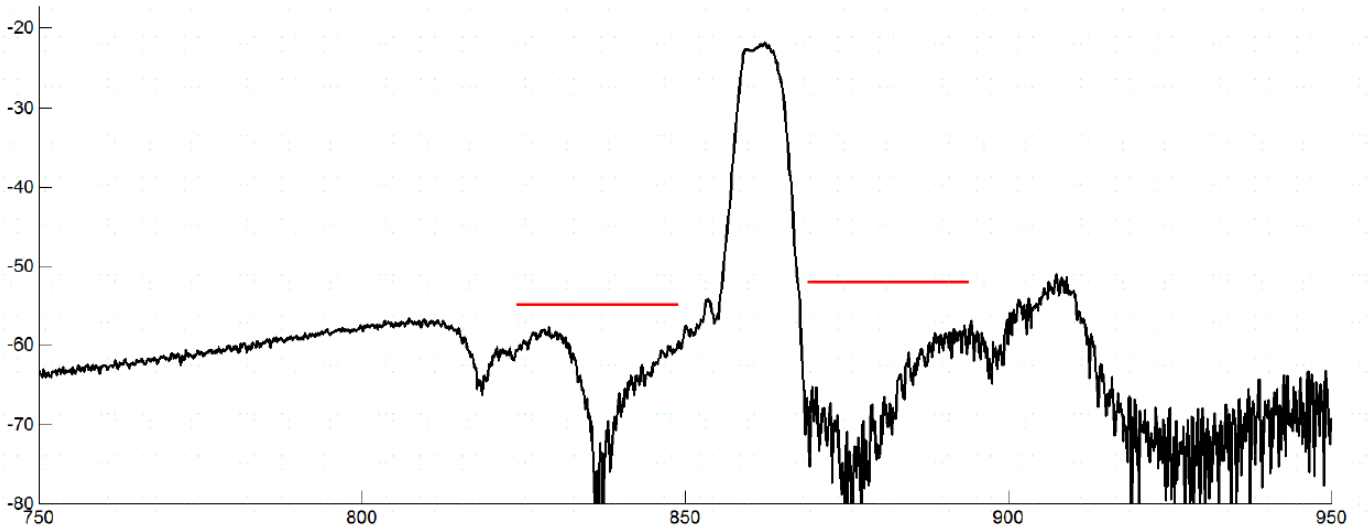

0
-10
-20
-30
-40
-50
-60
-70
-80
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000

Ant to Rx


0
-10
-20
-30
-40
-50
-60
-70
-80
750
800
850
900
950
1000



Tx to Rx Isolation



APPROVAL

DRAWN BY	AR, August 10, 2020
APPROVED BY	CP, August 10, 2020
REVISION	A, Initial Release

RoHS Compliant