Document No. : SXC10993-02

KYOCERA SAW Duplexer

- 1814 Band7 Unbalanced-Rx -

Type Name : SD18-2535R8UUC1

Apr, 22, 2024

KYOCERA Corporation

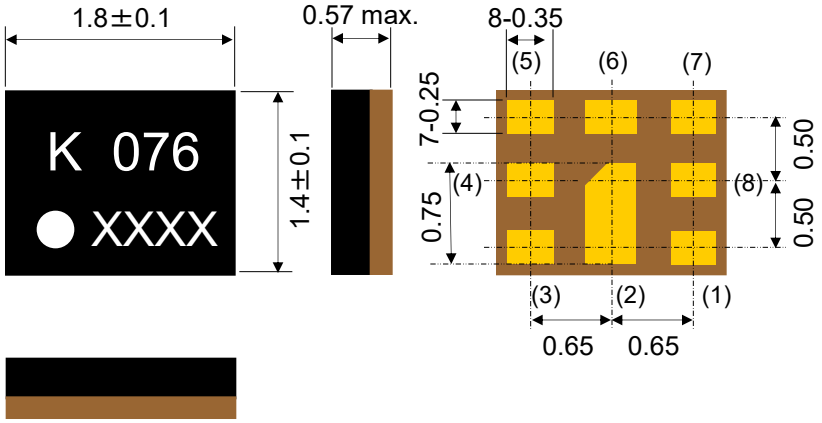
Corporate Electronic Components Group

Electronic Devices Division

Dimensions & Test Circuit of SAW Duplexer

Dimensions

(Top View) (Bottom View)

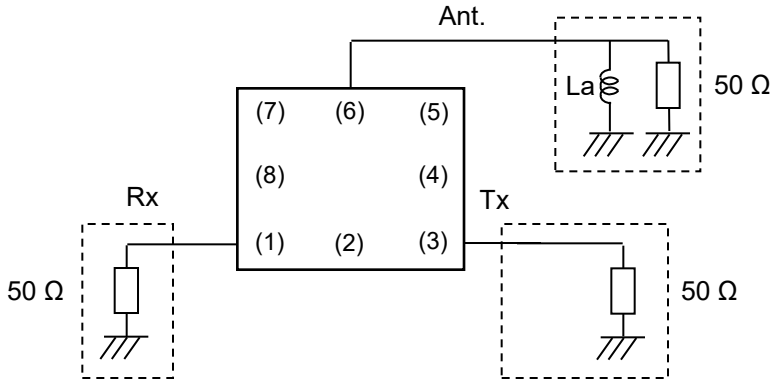


Unit : mm
K : KYOCERA logo
076 : Prat no.
● : Index mark of pin 1
XXXX : Production code

Pin allocation

No.	Function
1	Rx
2	GND
3	Tx
4	GND
5	GND
6	Ant
7	GND
8	GND

Test Circuit



La : 2.7nH (Ideal)

Port extension (Time) : 98ps
Port extension (Loss) : 0.22dB

Rating

Items	Rating	Unit	Note
Operating Temperature Range	-20 to +85	deg.C	
Storage Temperature Range	-40 to +90	deg.C	
Max Input Power (Tx port)	+31	dBm	5,000hours, Ta=50deg.C, CW
Tx Port Nominal Impedance	50	ohm	Unbalance
Ant. Port Nominal Impedance	50//2.7nH	ohm	Unbalance
Rx Port Nominal Impedance	50	ohm	Unbalance

Characteristics table

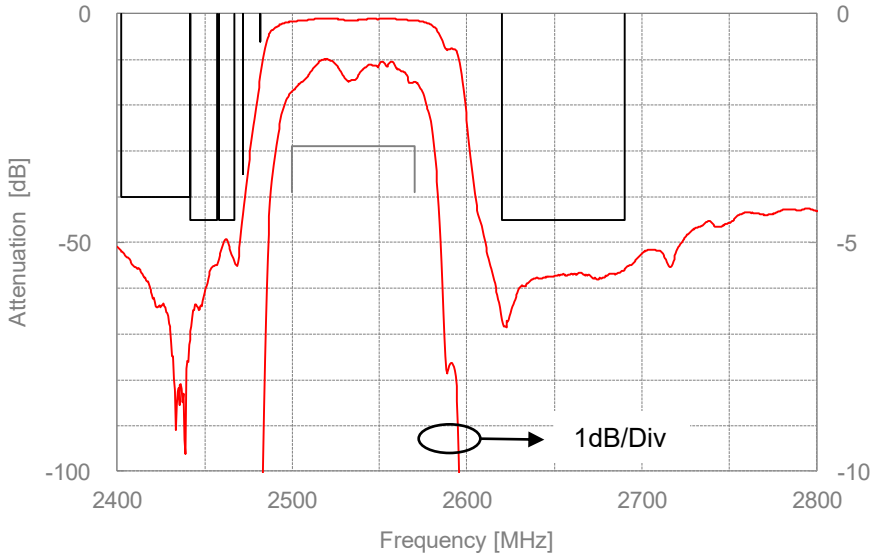
Items			Specification				Unit	Notes
			Frequency (MHz)	Min.	Typ.	Max.		
Tx to Ant	Insertion Loss		2500 - 2570	-	1.7	2.9	dB	
	Ripple		2500 - 2570	-	0.7	2.0	dB	
	VSWR	Tx	2500 - 2570	-	1.5	2.2	-	
		Ant	2500 - 2570	-	1.4	2.0	-	
	Attenuation		925 - 960	30	54	-	dB	GSM900 Rx
			880 - 915	32	55	-	dB	GSM900 Tx
			1559 - 1563	35	45	-	dB	Compass
			1565.42 - 1573.37	35	45	-	dB	Wideband GPS Lower
			1573.37 - 1577.47	35	45	-	dB	GPS main
			1577.47 - 1585.42	35	45	-	dB	Wideband GPS Upper
			1597.55 - 1605.89	35	45	-	dB	GLONASS
			1805 - 1830	28	42	-	dB	DCS1800 Rx
			1710 - 1785	30	43	-	dB	DCS1800 Tx
			2401 - 2468	45	54	-	dBint[*1)]	WLAN CH1-10
			2451 - 2473	40	53	-	dBint[*1)]	WLAN CH11
			2456 - 2478	27	45	-	dBint[*1)]	WLAN CH12
			2461 - 2483	14	30	-	dBint[*1)]	WLAN CH13
			2401 - 2468	45	54	-	dBint[*1)]	WLAN CH1-10, +23 to 27deg.C
			2451 - 2473	45	53	-	dBint[*1)]	WLAN CH11, +23 to 27deg.C
			2456 - 2478	40	45	-	dBint[*1)]	WLAN CH12, +23 to 27deg.C
			2461 - 2483	23	30	-	dBint[*1)]	WLAN CH13, +23 to 27deg.C
			2402 - 2442	40	51	-	dB	ISM
			2442 - 2457	45	55	-	dB	ISM
			2458 - 2467	45	49	-	dB	ISM
			2472	35	40	-	dB	ISM
			2482	6	11	-	dB	ISM
			2620 - 2690	45	56	-	dB	Rx
			4992 - 5140	30	57	-	dB	2f
			7488 - 7710	25	49	-	dB	3f

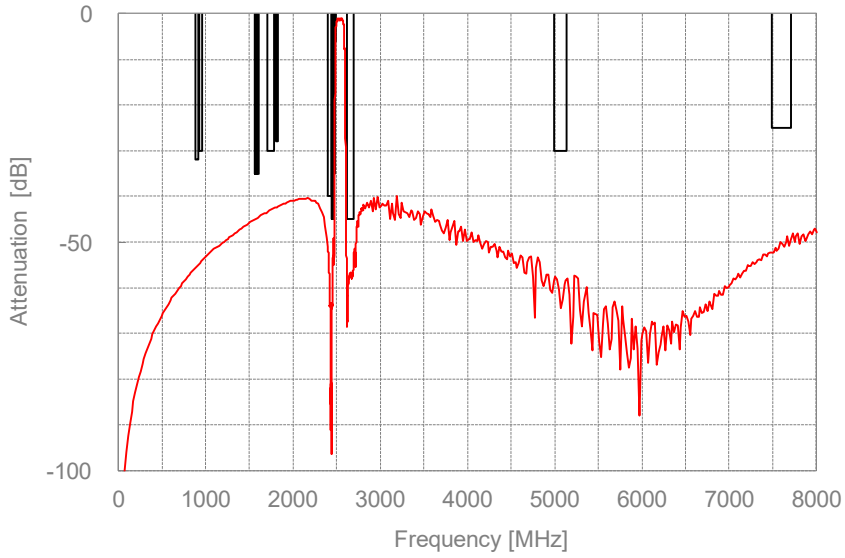
Characteristics table

Items			Specification					Unit	Notes
			Frequency (MHz)			Min.	Typ.	Max.	
Ant to Rx	Insertion Loss		2620	-	2690	-	1.8	2.8	dB	
	Ripple		2620	-	2690	-	0.7	1.5	dB	
	VSWR	Rx	2620	-	2690	-	1.6	2.0	-	
		Ant	2620	-	2690	-	1.6	2.0	-	
	Attenuation		880	-	915	37	56	-	dB	GSM900 Tx
			1710	-	1785	35	43	-	dB	DCS1800 Tx
			2402	-	2482	41	45	-	dB	ISM
			2500	-	2570	45	56	-	dB	Tx
			2775	-	6000	35	42	-	dB	
			4900	-	5300	47	58	-	dB	ISM 5G
			5300	-	5950	40	60	-	dB	ISM 5G
Tx to Rx	Isolation		2500	-	2570	53	56	-	dB	
			2620	-	2690	54	59	-	dB	

Typical Curve Data

[Tx to Ant]





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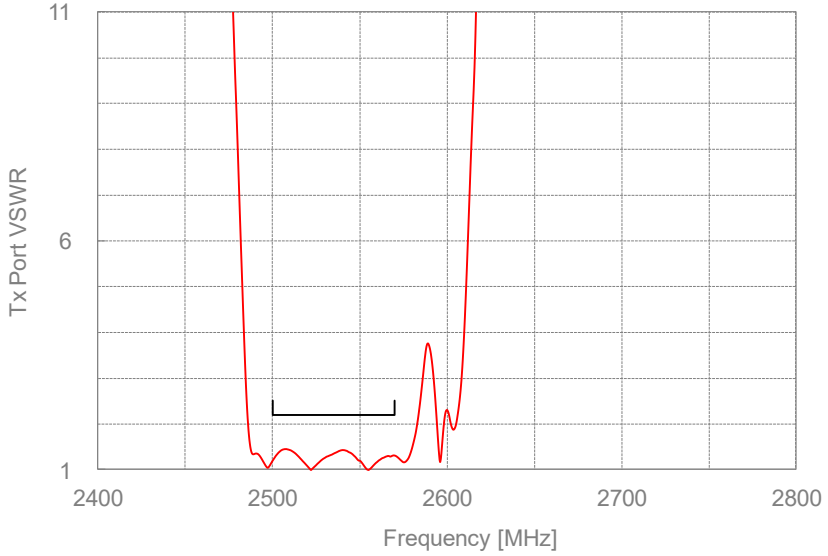
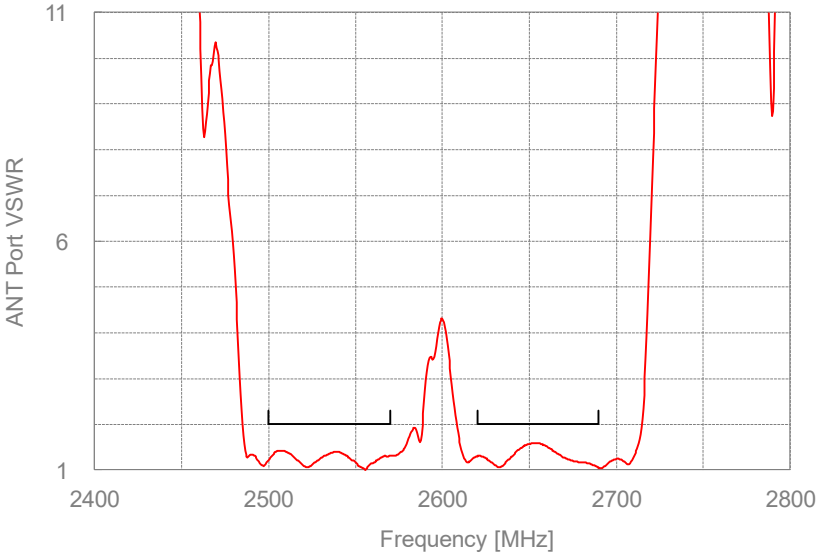
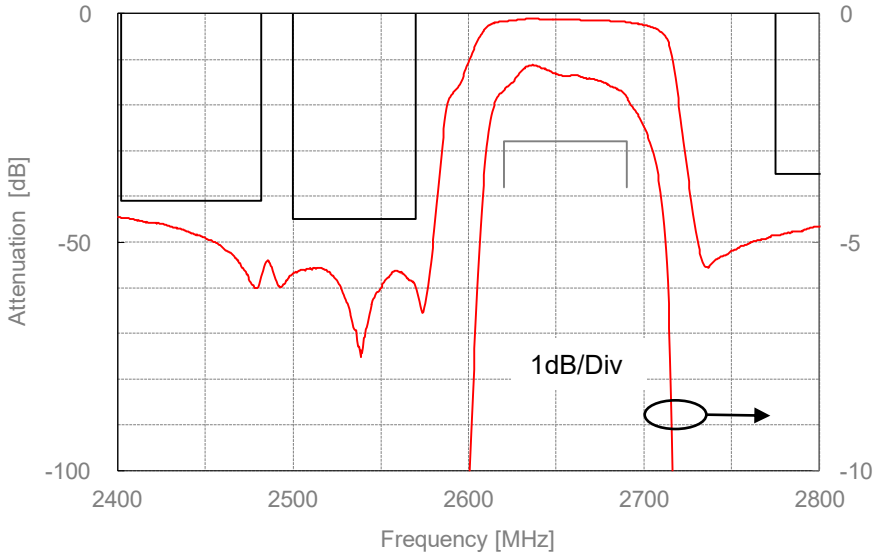
Spec.

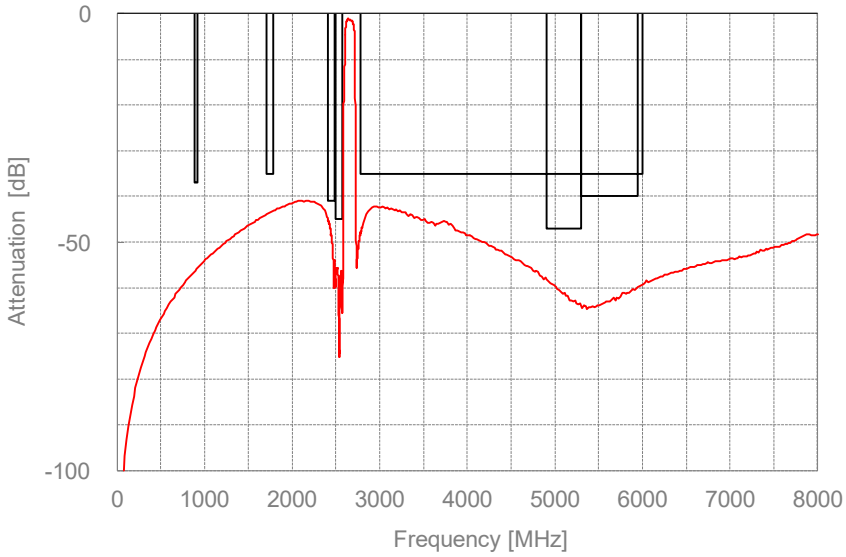




Typical Curve Data

[Ant to Rx]





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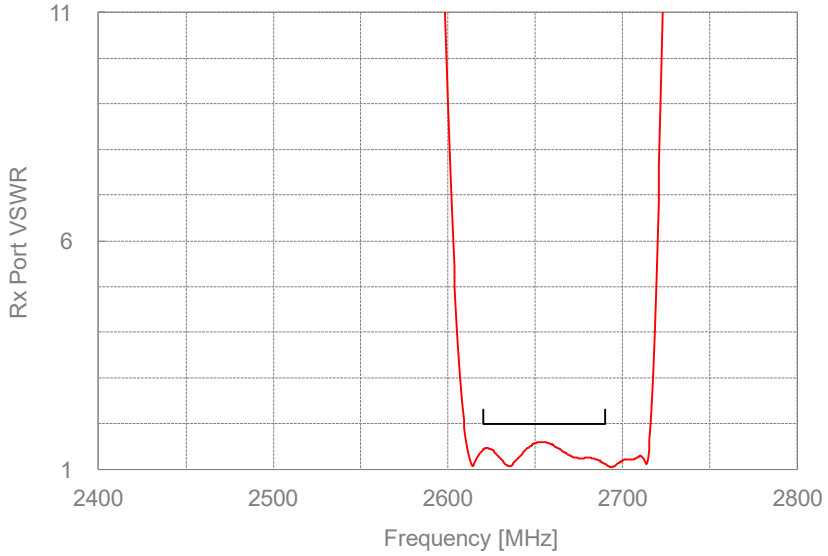
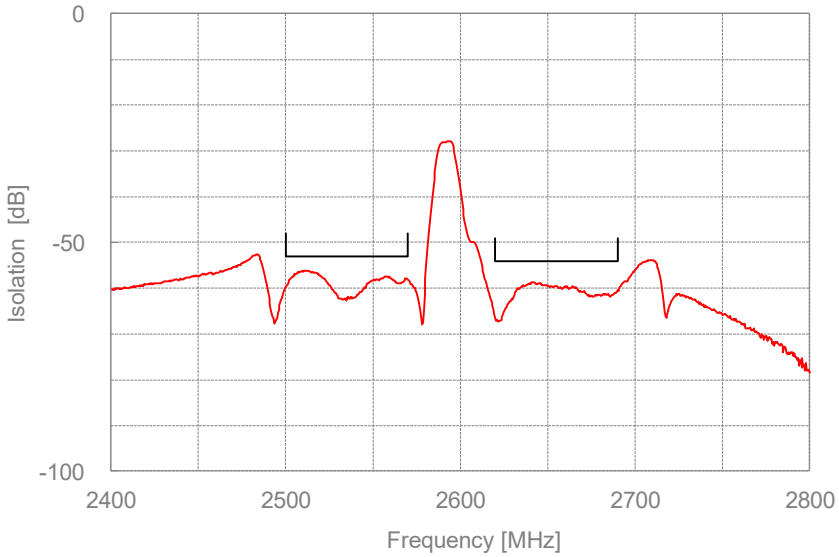
Spec.



Typical Curve Data

[Tx to Rx]



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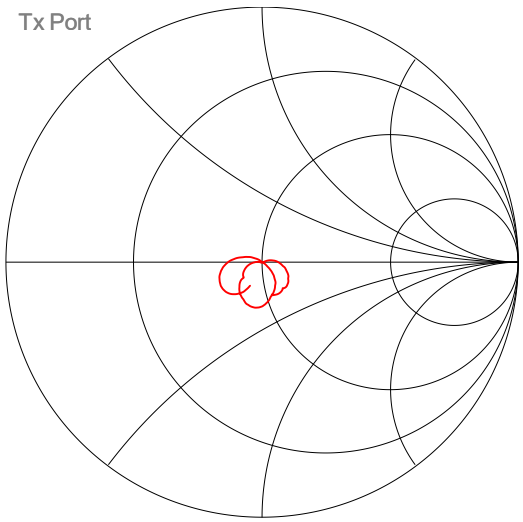
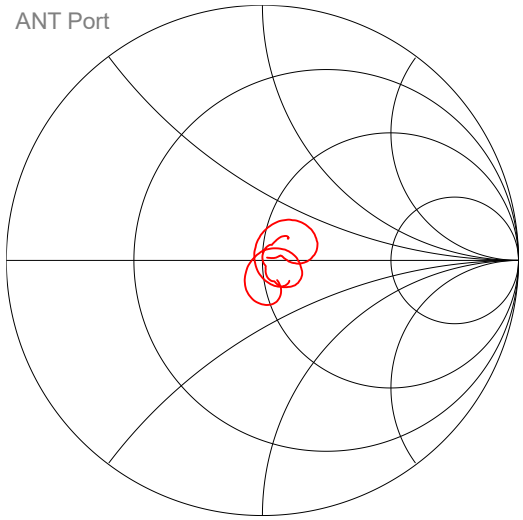
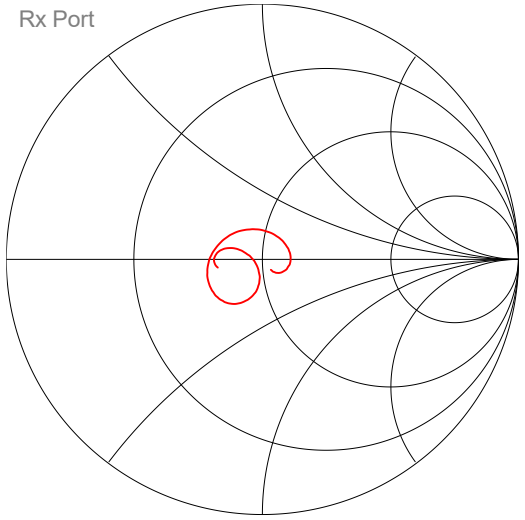
Spec.

[Port impedance]







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