

KYOCERA SAW Duplexer
- 1612 Band13 Unbalanced-Rx –
Type Name : SD16-0782R8UUA1

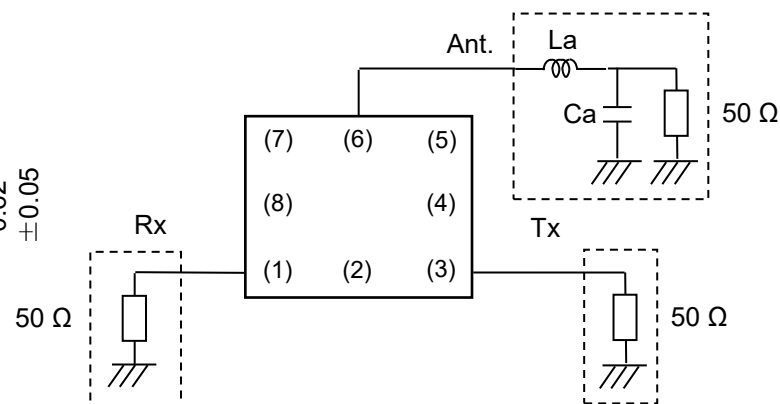
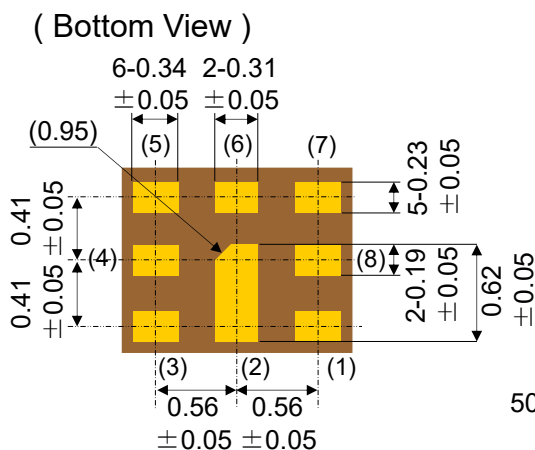
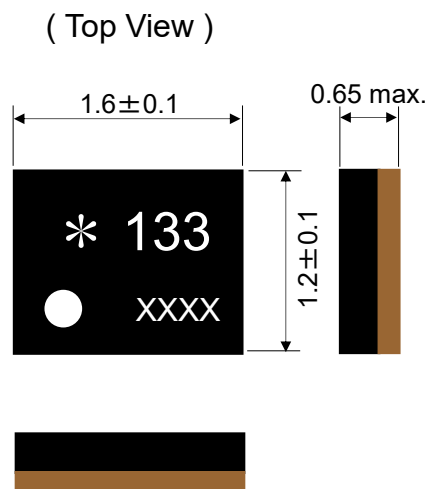
Jun.,21, 2022

KYOCERA Corporation

Corporate Electronic Components Group

RF Devices Division

■ Test Circuit



Unit : mm
* : Identification mark
133 : Identification 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

La : 10nH (Ideal)

Ca : 2.0pF(Ideal)

Port extension (Time) : 100 ps

Port extension (Loss) : 0.1 dB

Items		Rating	Unit	Note
Operating Temperature Range		-30 to +85	deg.C	
Storage Temperature Range		-40 to +85	deg.C	
Max Input Power	Tx Band	+31	dBm	5,000Hours,CW,Ta=50deg.C
		+31	dBm	5,000Hours,QPSK,LTE,Ta=50deg.C
		+31	dBm	5,000Hours,DFT-s-OFDM-QPSK,Ta=50deg.C
		+29.5	dBm	5,000Hours,CP-OFDM-QPSK,Ta=50deg.C
ESD Level	Machine Model	50	Volt	Complied to JESD22-A115
	Human Body Model	100	Volt	Complied to JESD22-A114
	Charged Device Model	100	Volt	Complied to JESD22-C101
Moisture Sensitivity Level		3		Complied to J-STD-033B.1
Tx Port Nominal Impedance		50	ohm	Unbalance
Ant. Port Nominal Impedance		50+10nH//2.0pF	ohm	Unbalance
Rx Port Nominal Impedance		50	ohm	Unbalance

Characteristic table

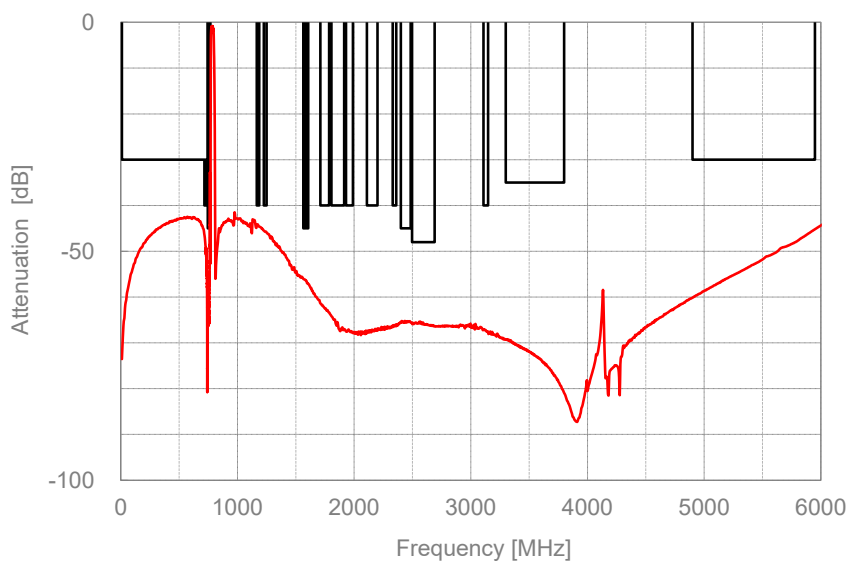
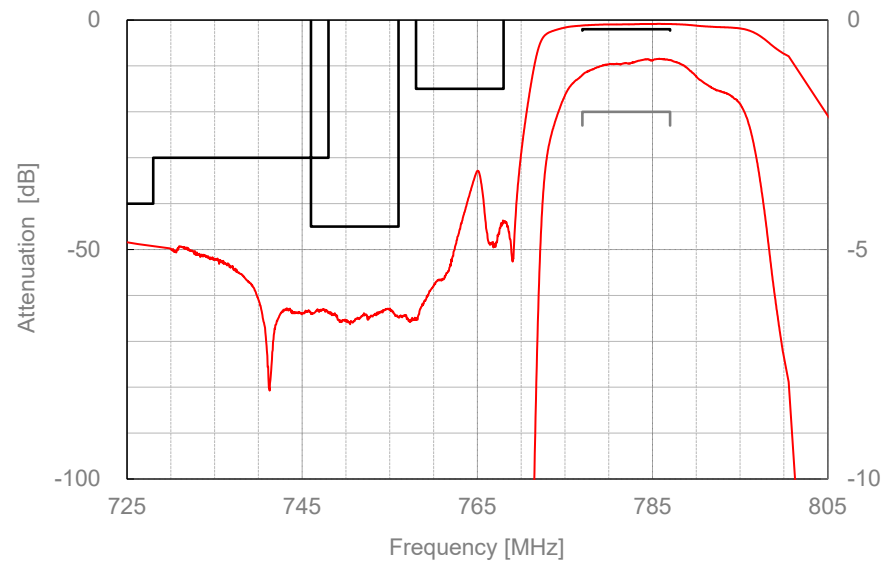
Items			Frequency (MHz)			Specifications (Rev.2) 2021.11.24			Unit	Notes
						Min.	Typ.	Max.		
Tx to Ant	Insertion Loss		777	-	787	-	1.2	2.0	dB	
	Ripple		777	-	787	-	0.4	1.5	dB	
	VSWR	Tx	777	-	787	-	1.2	2.0	-	
		Ant	777	-	787	-	1.3	2.0	-	
	Attenuation		10	-	716	30	43	-	dB	
			716	-	728	40	46	-	dB	
			728	-	748	30	49	-	dB	
			746	-	756	45	63	-	dB	
			758	-	768	15	33	-	dB	
			1166	-	1187	40	44	-	dB	
			1226	-	1250	40	46	-	dB	
			1565	-	1585	45	56	-	dB	
			1597	-	1607	45	57	-	dB	
			1710	-	1785	40	61	-	dB	
			1805	-	1880	40	64	-	dB	
			1850	-	1915	40	66	-	dB	
			1930	-	1990	40	67	-	dB	
			2110	-	2200	40	68	-	dB	
			2331	-	2361	40	67	-	dB	
			2400	-	2484	45	66	-	dB	
			2496	-	2690	48	66	-	dB	
			3108	-	3148	40	68	-	dB	
			3300	-	3800	35	71	-	dB	
			4900	-	5950	30	44	-	dB	

Characteristic table

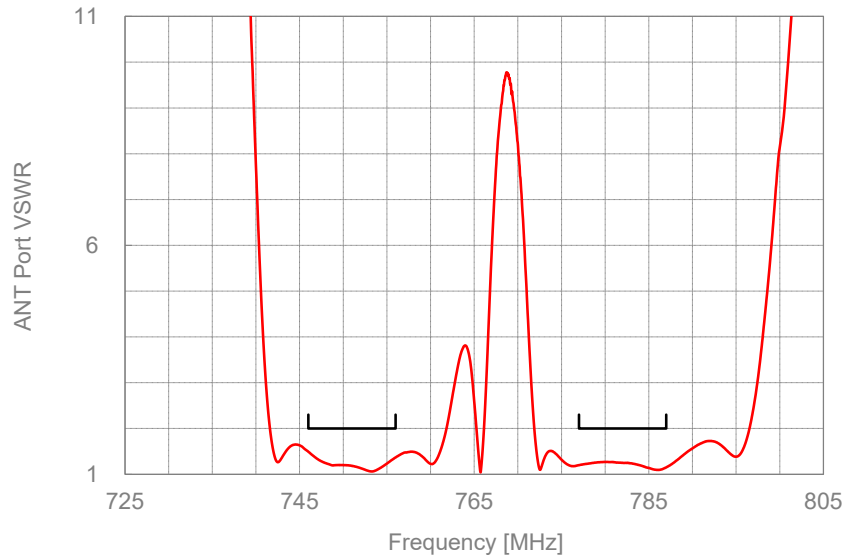
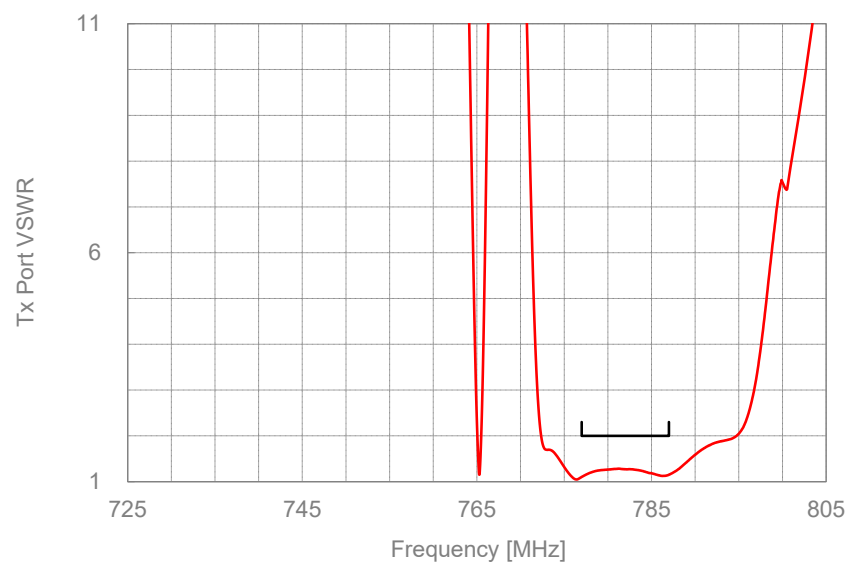
Items		Frequency (MHz)		Specifications (Rev.2) 2021.11.24			Unit	Notes
				Min.	Typ.	Max.		
Ant to Rx	Insertion Loss		746 - 756	-	1.2	1.7	dB	
	Ripple		746 - 756	-	0.7	1.1	dB	
	VSWR	Rx	746 - 756	-	1.5	2.0	-	
		Ant	746 - 756	-	1.6	2.0	-	
	Attenuation		1 - 686	35	39	-	dB	
			1 - 31	50	66	-	dB	
			686 - 728	30	40	-	dB	
			771 - 772	30	54	-	dB	
			777 - 787	50	61	-	dB	
			1523 - 1543	38	42	-	dB	
			1710 - 1780	40	46	-	dB	
			1850 - 1915	40	49	-	dB	
			2238 - 2268	40	56	-	dB	
			2400 - 2500	40	58	-	dB	
			2496 - 2690	40	60	-	dB	
			3300 - 3800	35	67	-	dB	
			4900 - 5950	38	45	-	dB	
Tx to Rx	Isolation		746 - 756	54	59	-	dB	
			777 - 787	56	61	-	dB	

Typical Curve Data

[Tx to Ant]

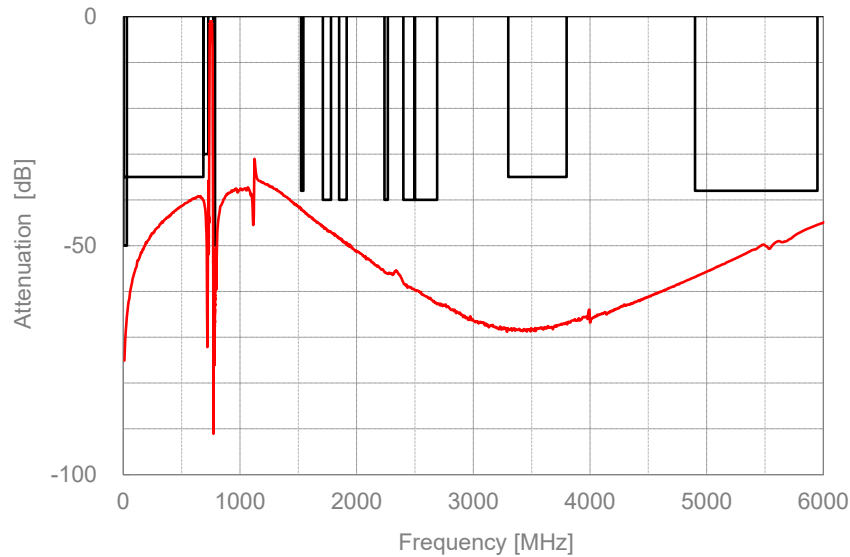
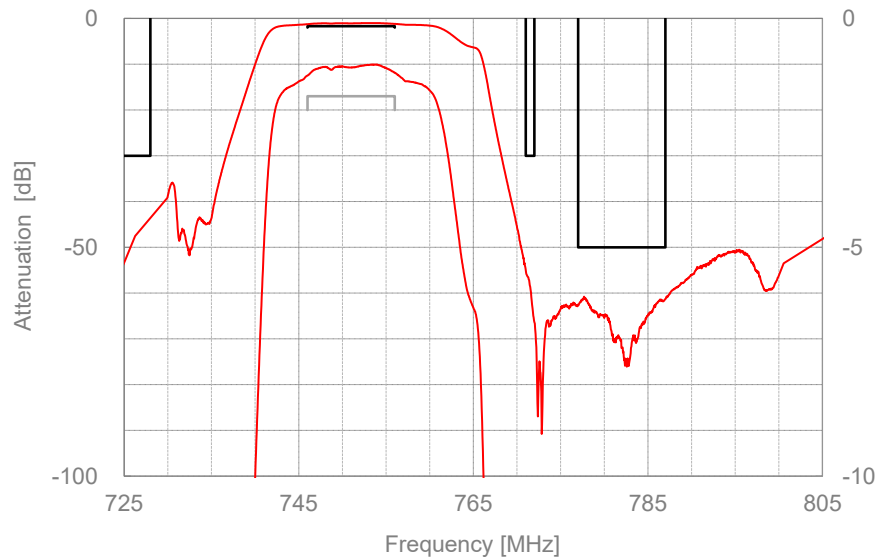


SD16-0782
R8UUA1
Rev2
Specification

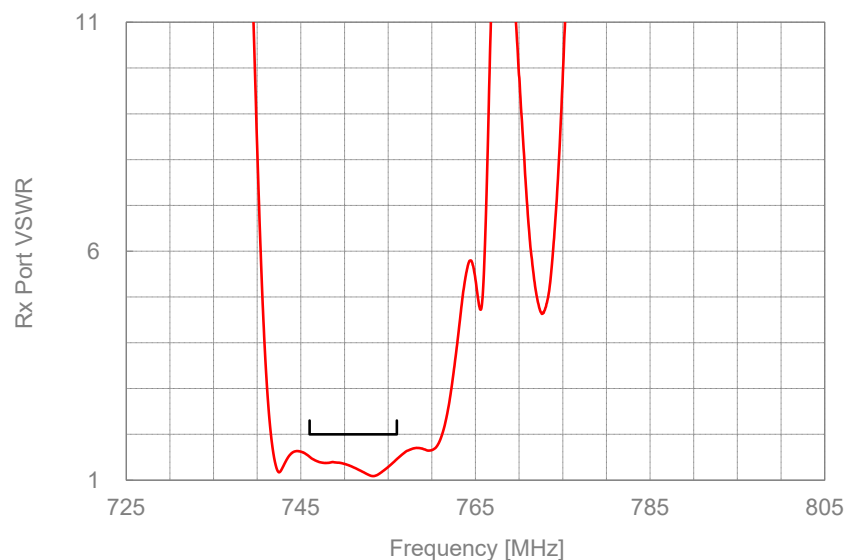


Typical Curve Data

[Ant to Rx]

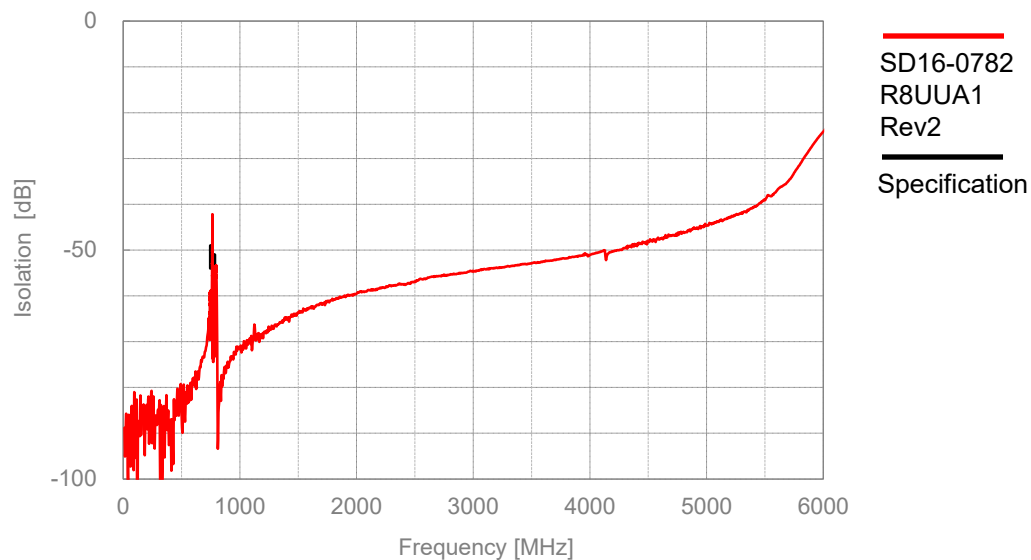
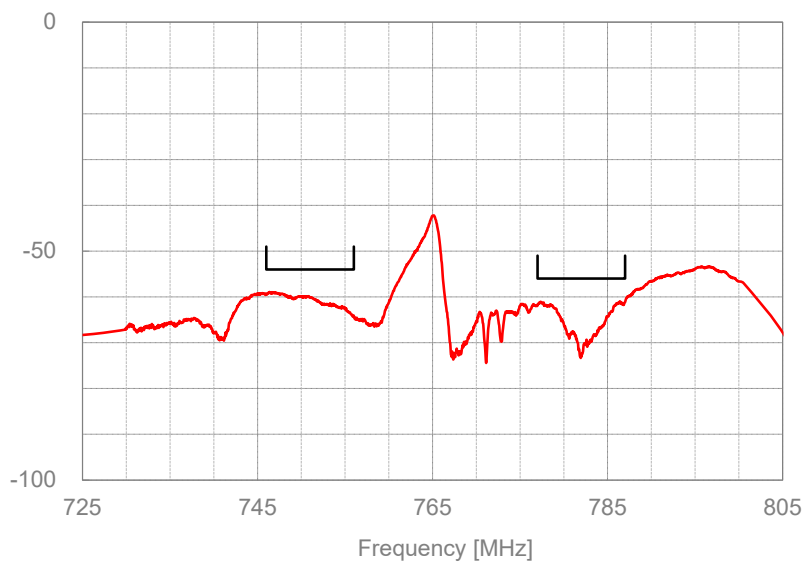


SD16-0782
R8UUA1
Rev2
Specification



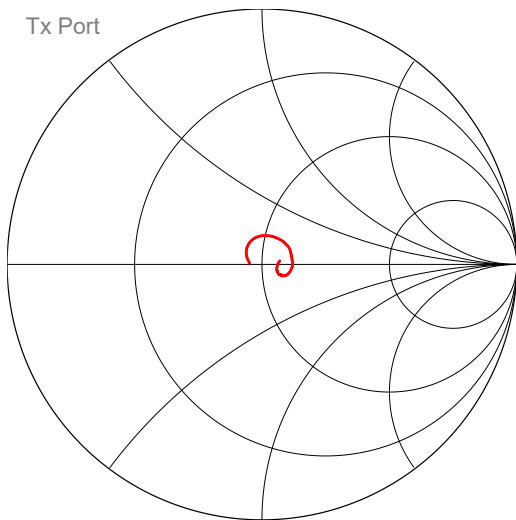
Typical Curve Data

[Tx to Rx]

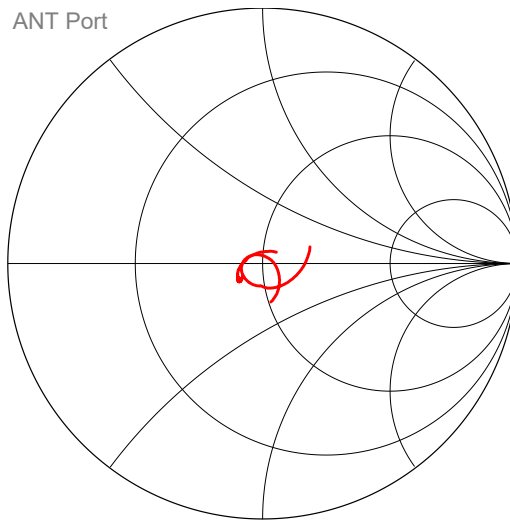


[Port impedance]

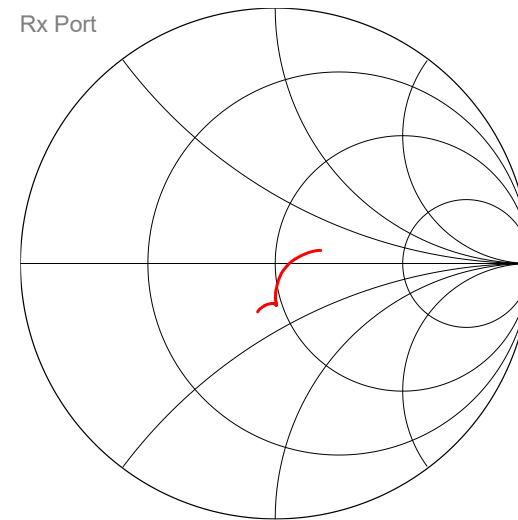
Tx Port



ANT Port



Rx Port



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