

**KYOCERA SAW Duplexer**  
**- B2 Balanced-Rx Duplexer -**  
**Type Name : SD18-1880R8UBA1**

Dec., 25, 2025

KYOCERA Corporation

Corporate Electronic Components Group

Electronic Devices Division

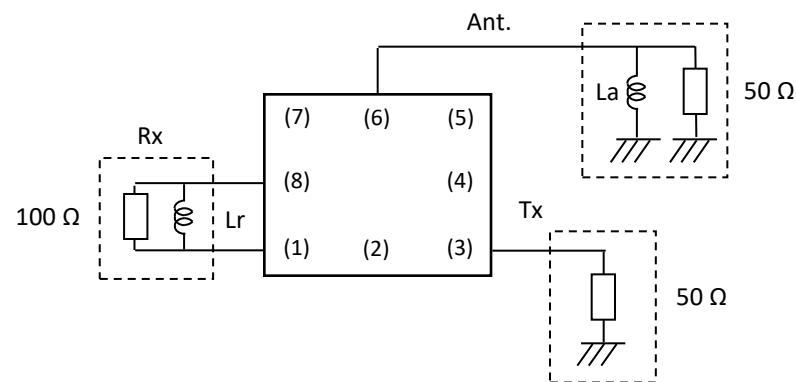
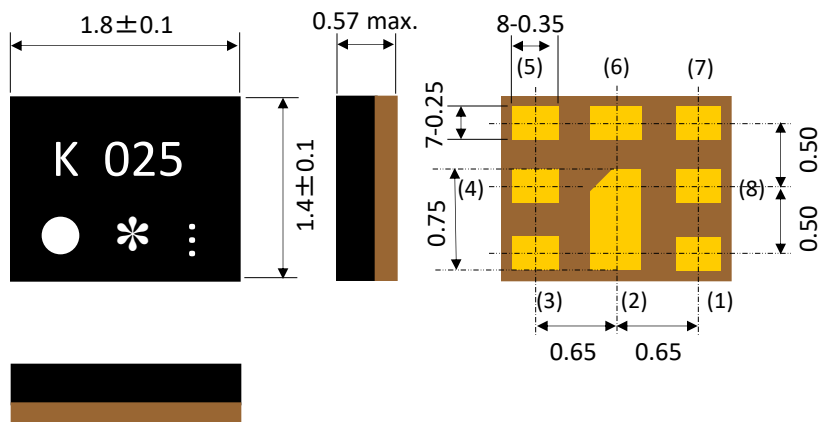
# Dimensions & Test Circuit of SAW Duplexer

## ■ Dimensions

## ■ Test Circuit

(Top View)

(Bottom View)



- Unit : mm  
 K : KYOCERA logo  
 025 : Identification no.  
 ● : Index mark of pin 1  
 \* : Monthly code  
 ⋮ : Index mark of ten days  
 ( ∴ 1-10, ∴ 11-20, ∴ 21-31)

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

La : 3.9nH (Ideal)

Lr : 22nH (Ideal)

Port extension (Time) : 98ps

Port extension (Loss) : 0.18dB

# Characteristic table

[ Tx to Ant ]

Items		Frequency Range [ MHz ]		KYOCERA 1814 size SD18-1880R8UBA1 Oct., 16, 2014			Unit	Notes		
				Specifications						
				min.	typ.	max.				
Tx to Ant	Nominal Frequency	-			1880		MHz			
	Integrated Loss	1852.4	to	1907.6	-	(*)1.6	(*)2.4	dBint		
		1851.25	to	1908.75	-	(*)1.7	(*)2.5	dBint		
	Ripple (any 5MHz)	1850.48	to	1909.52	-	0.4	1.8	dB		
	VSWR	Tx	1850.48	to	1909.52	-	1.6	2.1	-	
		Ant	1850.48	to	1909.52	-	1.7	2.1	-	
	Absolute Attenuation	10	to	728	38	51	-	dB		
		728	to	764	44	50	-	dB	700MHz Rx band	
		869	to	894	40	47	-	dB	US-cell Rx band	
		1565.42	to	1573.374	40	50	-	dB	Wideband GPS, lower	
		1573.374	to	1577.466	45	50	-	dB	Regular GPS	
		1577.466	to	1585.42	45	49	-	dB	Wideband GPS, upper	
		1597.5515	to	1605.886	45	49	-	dB	GLONASS	
		1605.886	to	1680	30	42	-	dB		
		1932.4	to	1987.6	(*)48	(*)53	-	dBint		
		1931.25	to	1988.75	(*)44	(*)53	-	dBint		
2010		to	2025	30	47	-	dB			
2110		to	2155	40	44	-	dB	AWS Rx band		
2400		to	2500	30	38	-	dB	ISM		
3690	to	3830	25	30	-	dB	2fo			
5150	to	5350	20	27	-	dB				
5540	to	5860	18	26	-	dB	3fo			

# Characteristic table

[ Ant to Rx ]

Items		Frequency Range [ MHz ]		KYOCERA 1814 size SD18-1880R8UBA1 Oct., 16, 2014			Unit	Notes	
				Specifications					
				min.	typ.	max.			
Ant to Rx	Nominal Frequency	-		1960			MHz		
	Integrated Loss	1932.4	to	1987.6	-	(*)2.5	(*)3.4	dBint	
		1931.25	to	1988.75	-	(*)2.7	(*)3.5	dBint	
	Ripple (any 5MHz)	1930.48	to	1989.52	-	0.5	2.5	dB	
	Amplitude Imbalance	1930.48	to	1989.52	-2.0	-0.4/1.4	+2.0	dB	
	Phase Imbalance	1930.48	to	1989.52	-15	-6.0/1.0	+15	deg	
	VSWR	Rx	1930.48	to	1989.52	-	1.4	2.0	-
		Ant	1930.48	to	1989.52	-	1.4	2.0	-
	Absolute Attenuation	1	to	1850	30	57	-	dB	
		1765	to	1835	35	57	-	dB	
		1852.4	to	1907.6	(*)48	(*)56	-	dBint	
		1851.25	to	1908.75	(*)47	(*)56	-	dBint	
		2005	to	2050	3	11	-	dB	
2050		to	2075	25	60	-	dB		
2400		to	2484	30	55	-	dB		
2810		to	2910	30	55	-	dB		
3775	to	3905	30	56	-	dB			
	5625	to	5815	30	71	-	dB		

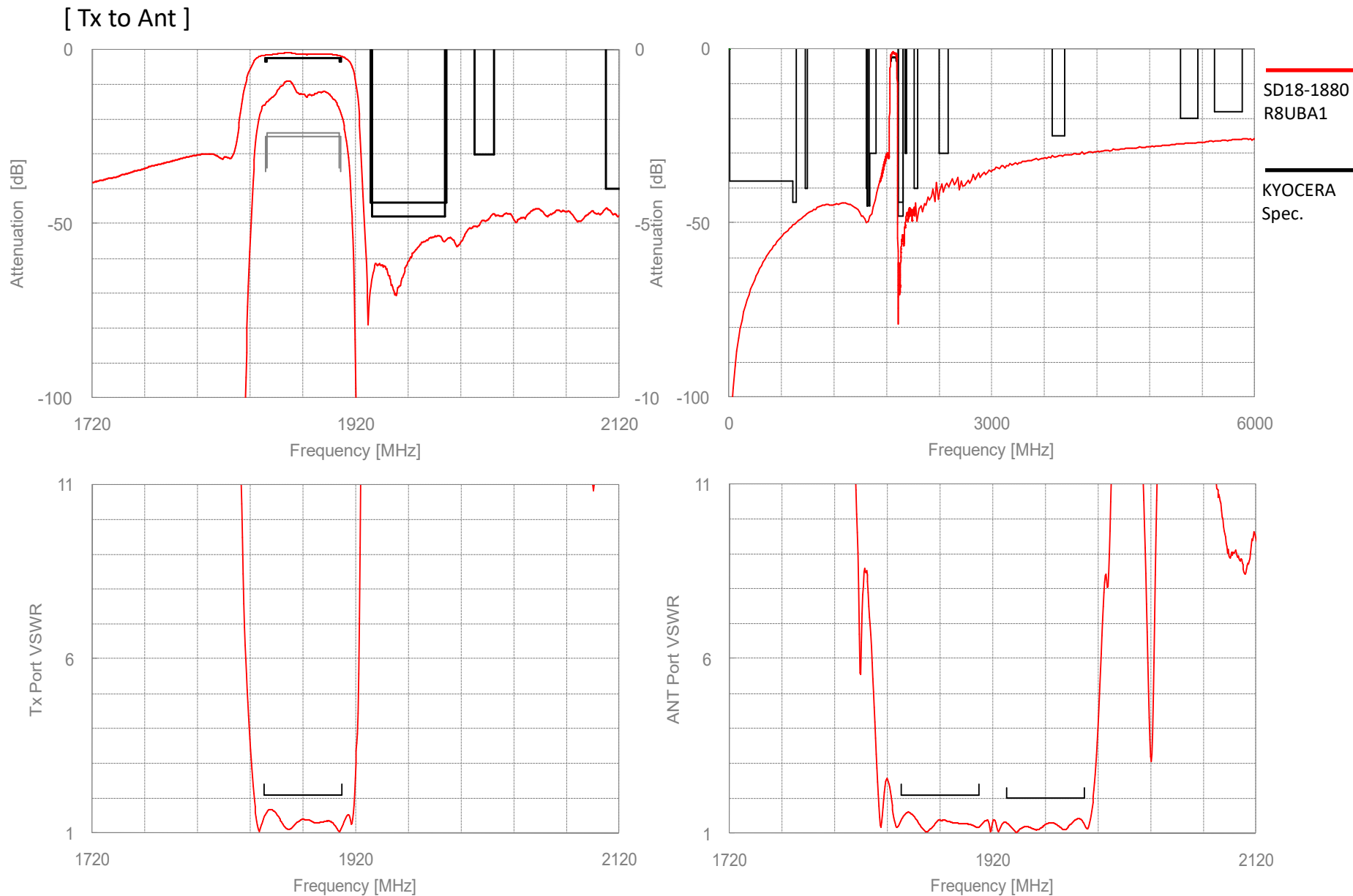
# Characteristic table

[ Tx to Rx ]

Items	Frequency Range [ MHz ]	KYOCERA 1814 size SD18-1880R8UBA1 Oct., 16, 2014			Unit	Notes	
		Specifications					
		min.	typ.	max.			
Tx to Rx	Differential Mode	1574 to 1577	40	64	-	dB	GPS band
		1852.4 to 1907.6	(*)53	(*)56	-	dBint	
		1851.25 to 1908.75	(*)53	(*)56	-	dBint	
		1932.4 to 1987.6	(*)50	(*)60	-	dBint	
		1931.25 to 1988.75	(*)50	(*)60	-	dBint	
		3700 to 3820	20	56	-	dB	Tx second harmonic
	Common Mode	5550 to 5850	20	54	-	dB	Tx third harmonic
		1852.4 to 1907.6	(*)46	(*)50	-	dBint	
	1851.25 to 1908.75	(*)46	(*)50	-	dBint		
Input power		+29			dBm	5,000Hours, Ta=50deg.C, CW	
Impedance	Tx port (Unbalance)		50			ohm	
	Ant port ( Unbalance)		50//3.9nH			ohm	
	Rx port ( Balance)		100//22nH			ohm	
Package size		1.8x1.4, T=0.57max.			mm		
Operating temperature range	UMTS		-30 to +85			deg.C	
	CDMA 1X						

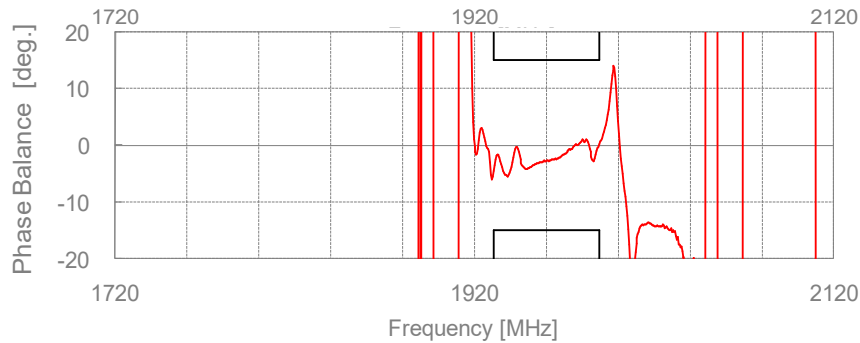
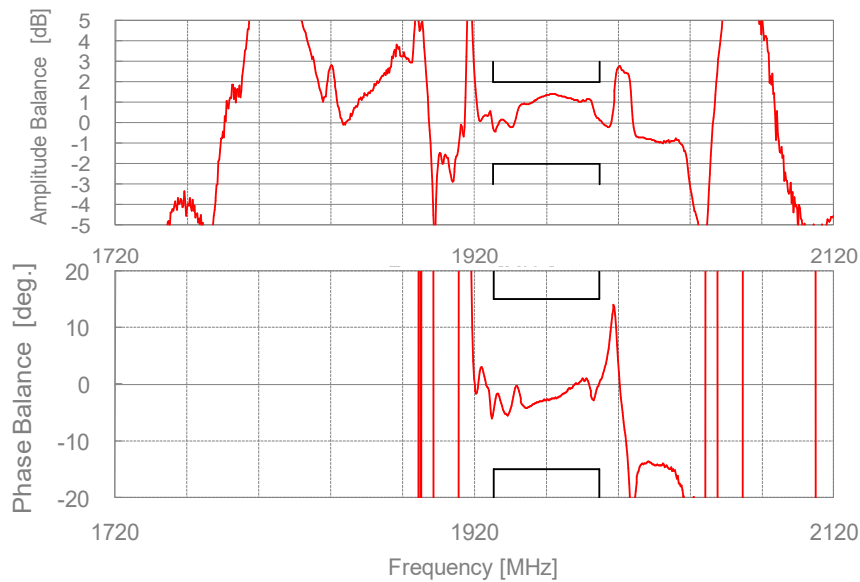
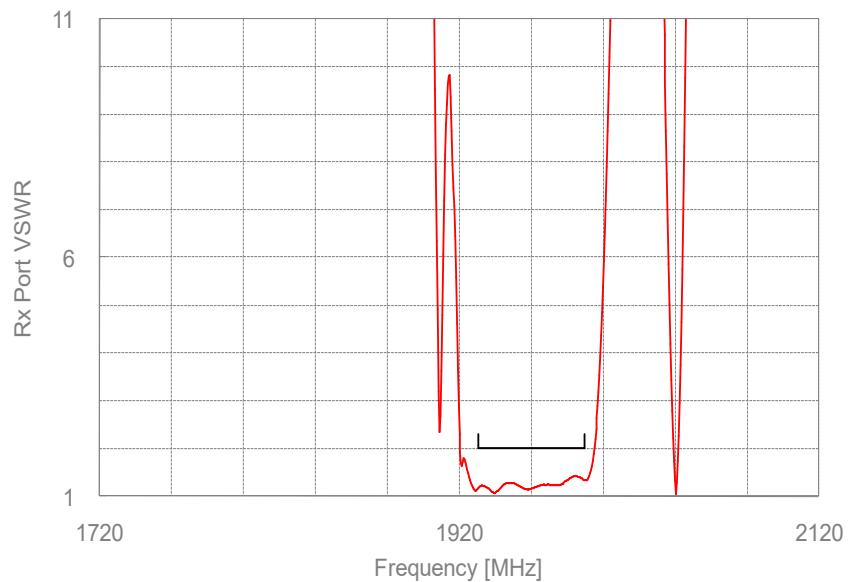
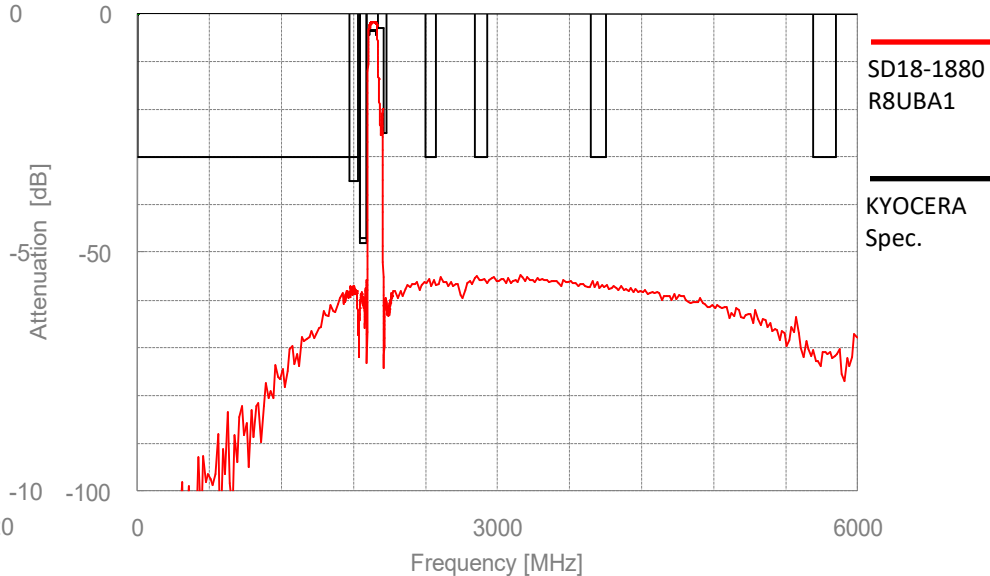
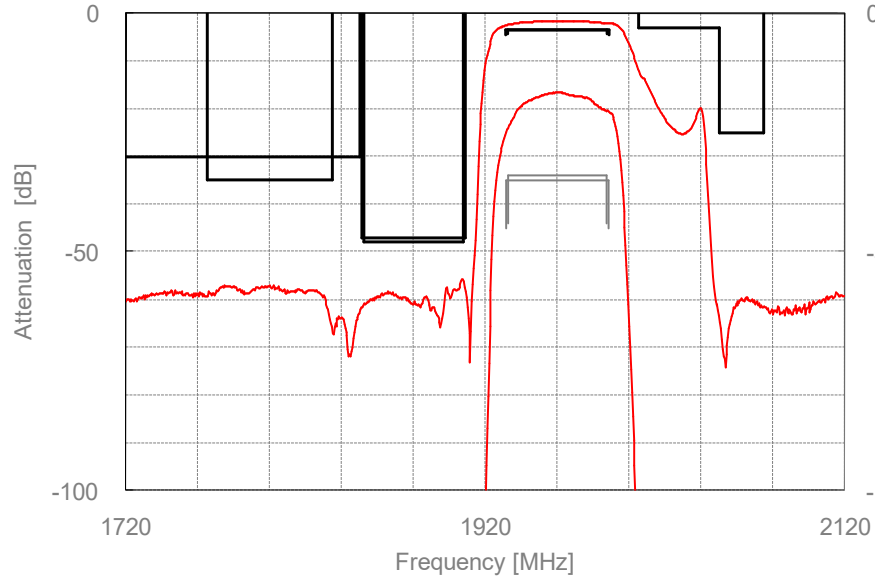
(\*) Integrated over +/-1.92MHz around the WCDMA and +/-0.625MHz around the NCDMA channel center frequency

# Typical Curve Data



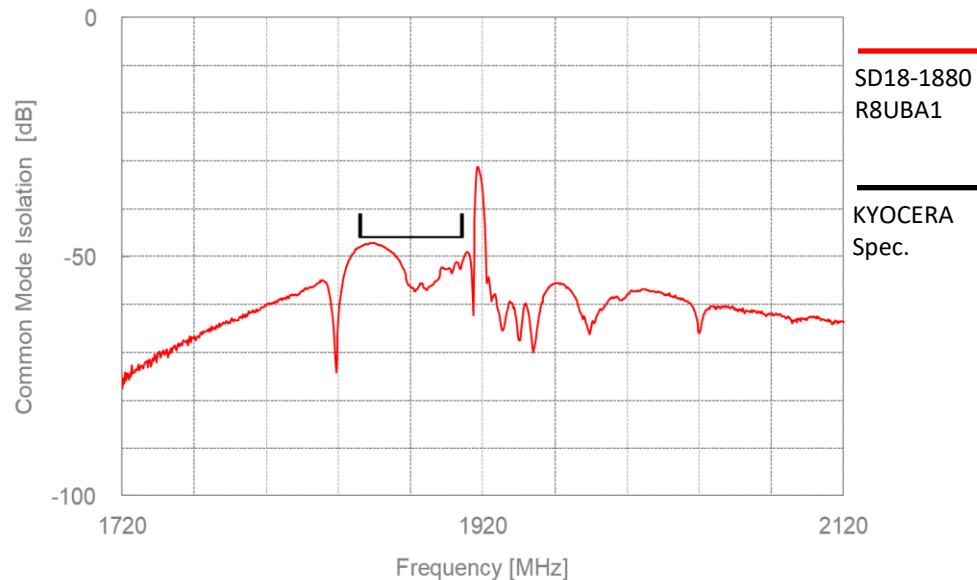
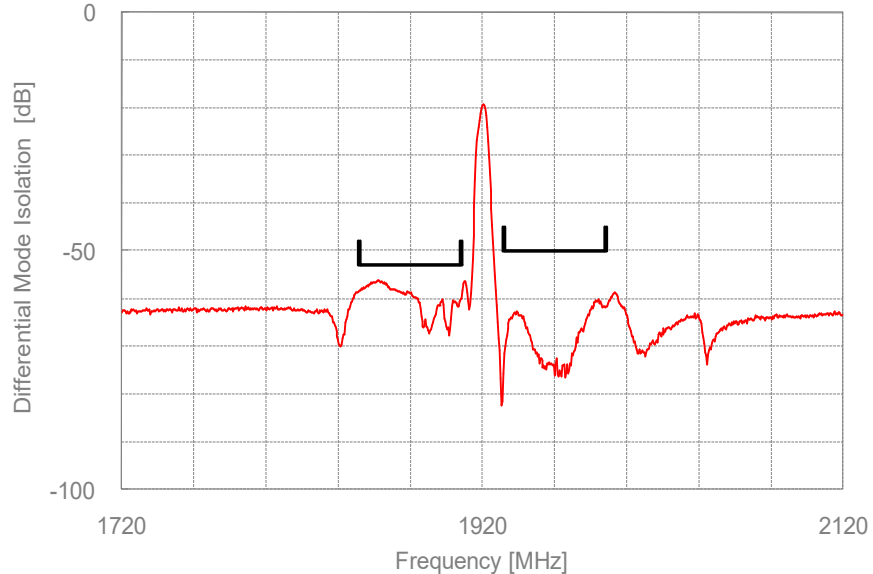
# Typical Curve Data

[ Ant to Rx ]

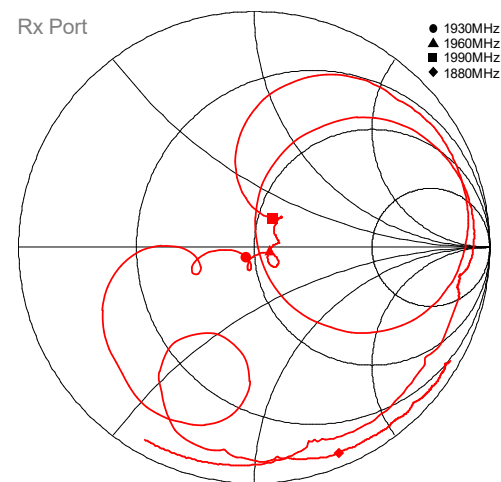
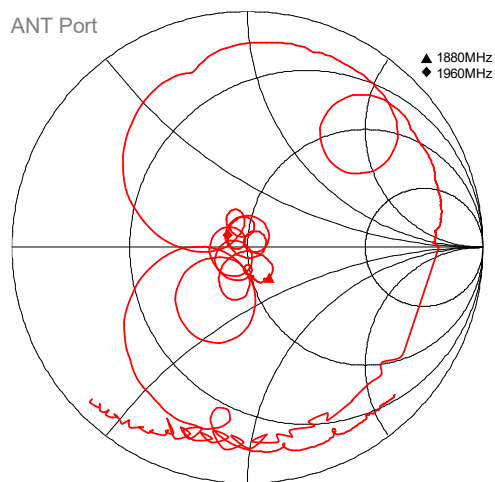
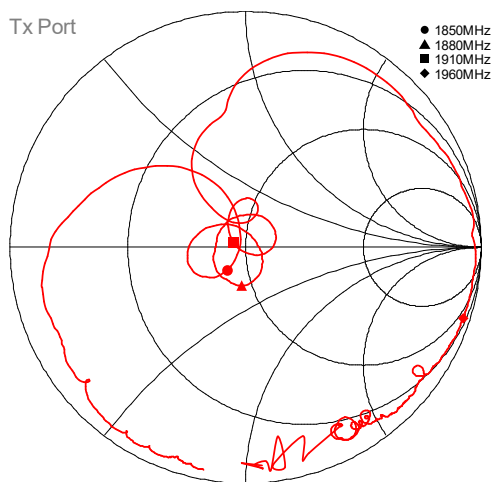


# Typical Curve Data

[ Tx to Rx ]



[ Port impedance ]



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