

# Datasheet of SAW Quadplexer 2520 Band1,3 Unbalanced

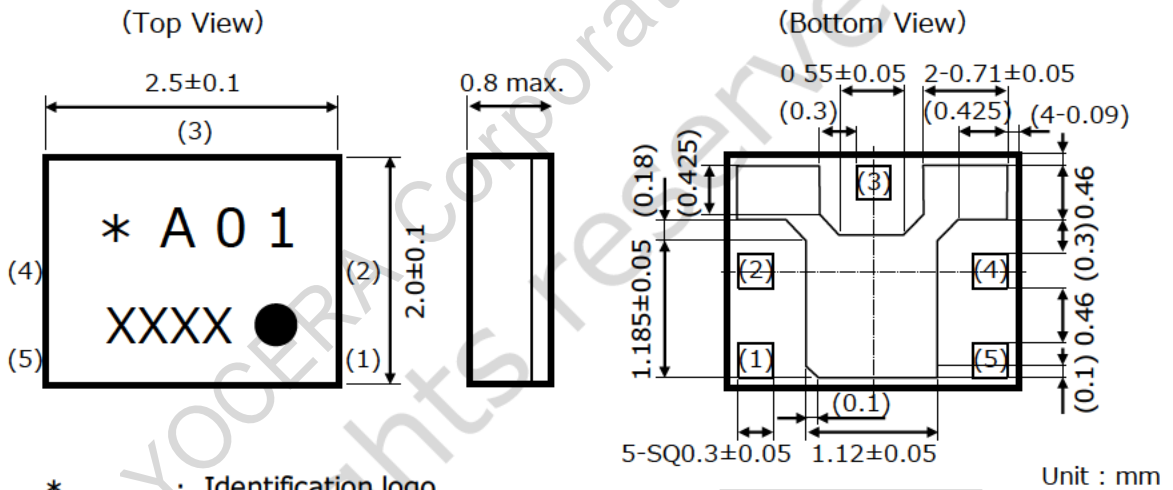
KYOCERA Part No. : SQ25 1950D6SUA1

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## Rating

Items	Rating	Unit	Note
Operating Temperature Range	-20 to +85	deg.C	
Storage Temperature Range	-40 to +85	deg.C	
Max Input Power (Tx port)	+29	dBm	5,000hours, Ta=50deg.C, CW
Tx Port	Band1	50//3.9nH	ohm Unbalance
Nominal Impedance	Band3	50//2.7nH,0.5pF	ohm Unbalance
Ant. Port Nominal Impedance		50	ohm Unbalance
Rx Port	Band1	50//3.9nH	ohm Unbalance
Nominal Impedance	Band3	50//6.2nH	ohm Unbalance

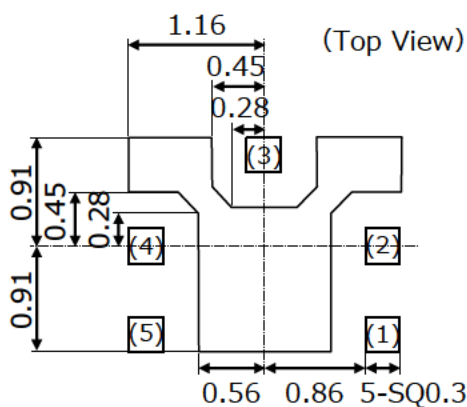
## Dimensions



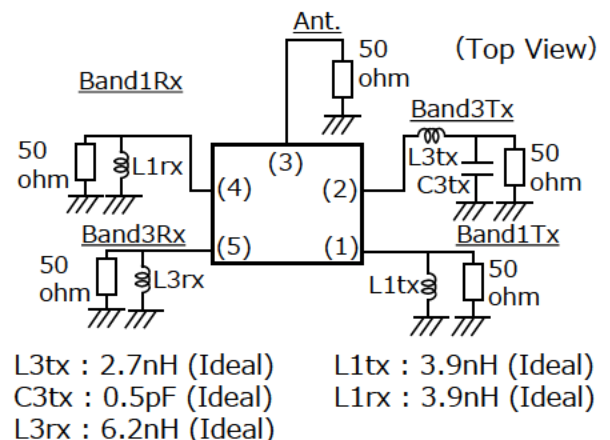
- \* : Identification logo
- A01 : Identification no.
- : Index mark of pin 1
- XXXX : Production code

Pin No.	Function
(1)	Band1 Tx
(2)	Band3 Tx
(3)	Ant.
(4)	Band1 Rx
(5)	Band3 Rx
Others	GND

## Recommendable Land Pattern



## Measurement Circuit



## Electrical Characteristics

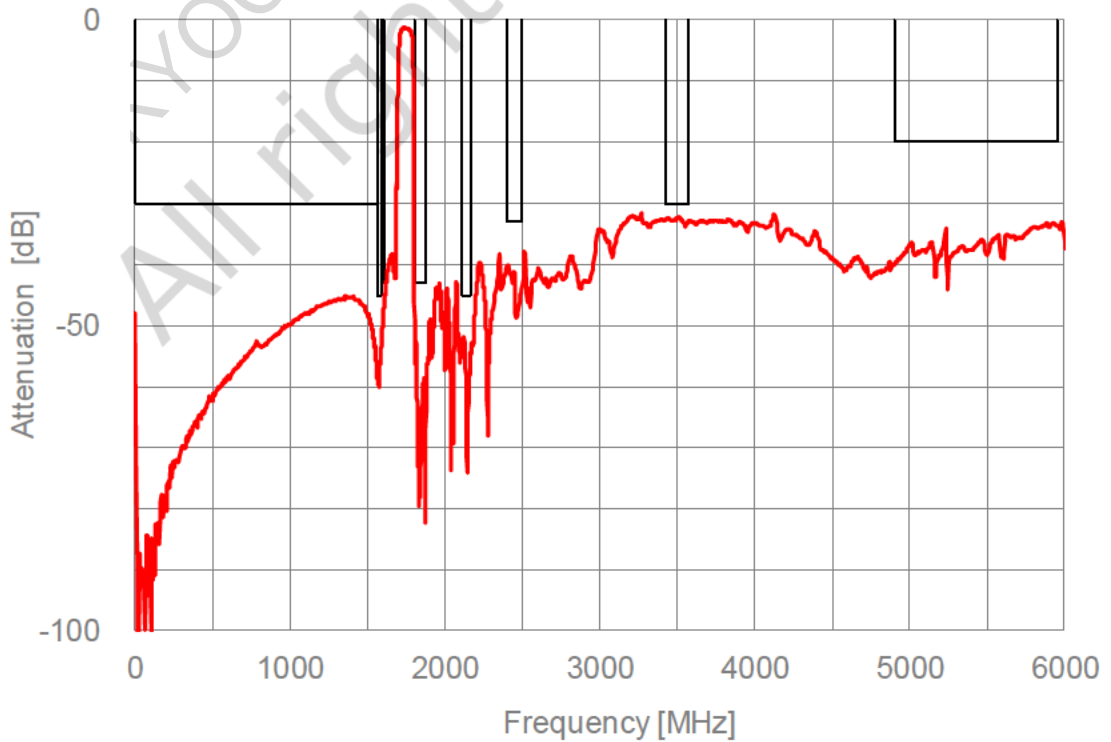
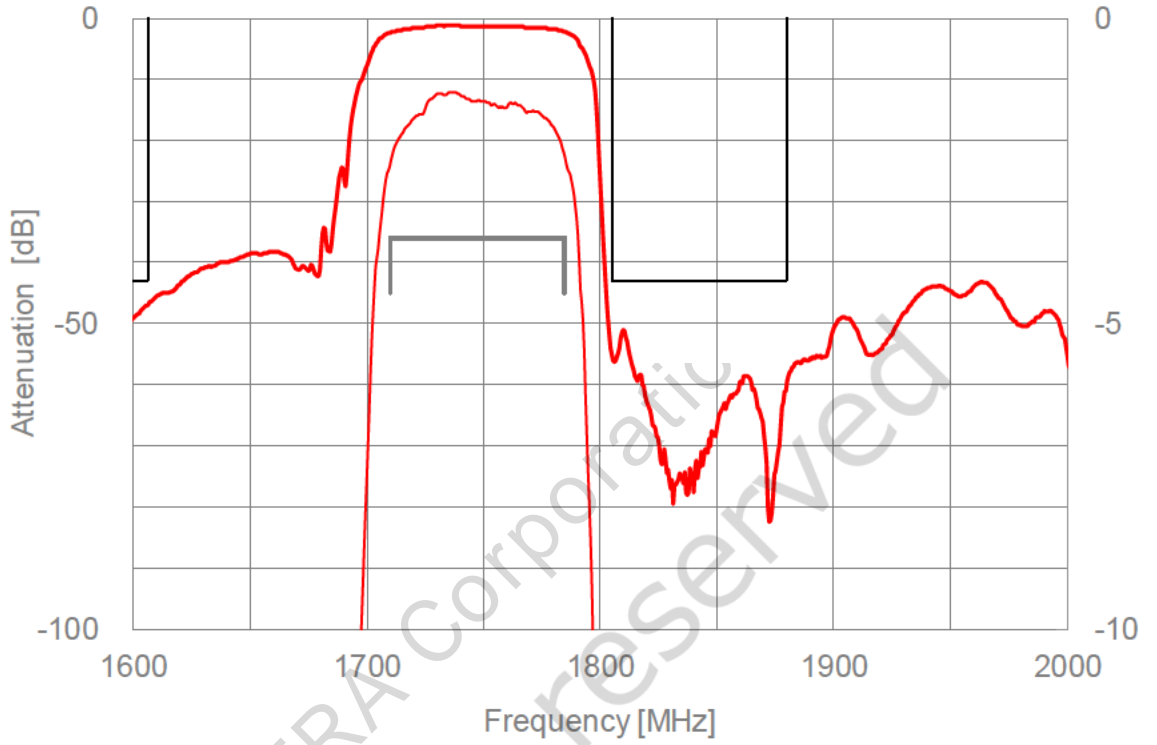
tems		Frequency (MHz)	Characteristics			Unit	Notes	
			Min.	Typ.	Max.			
Band3 TX to ANT	Insertion Loss	1710.15 - 1784.85	-	2.4	3.6	dB		
	Ripple(any 5MHz)	1710.15 - 1784.85	-	0.5	2.0	dB		
	VSWR	Tx	1710.15 - 1784.85	-	1.4	2.0	-	
		Ant	1710.15 - 1784.85	-	1.5	2.0	-	
	Attenuation	1	1565.4 - 1585.4	30	45	-	dB	
			1597.552 - 1605.886	43	47	-	dB	GPS
			1805.15 - 1879.85	43	51	-	dB	B3 Rx
			2110.25 - 2169.75	45	52	-	dB	B1 Rx
			2400 - 2500	33	40	-	dB	ISM2.4GHz
			3420 - 3570	30	32	-	dB	2f
		4900 - 5950	20	33	-	dB	ISM5GHz	
Band3 ANT to Rx	Insertion Loss	1805.15 - 1879.85	-	3.0	3.7	dB		
	Ripple(any 5MHz)	1805.15 - 1879.85	-	0.5	2.0	dB		
	VSWR	Rx	1805.15 - 1879.85	-	1.6	2.0	-	
		Ant	1805.15 - 1879.85	-	1.5	2.0	-	
	Attenuation	1	1710 - 1710	30	42	-	dB	
			1710.15 - 1784.85	45	53	-	dB	B3 Tx
			1920.25 - 1979.75	45	56	-	dB	B1 Tx
			2400 - 2500	40	48	-	dB	ISM2.4GHz
		4900 - 5950	25	39	-	dB	ISM5GHz	
Band3 Tx to Rx	Isolation	1710.15 - 1784.85	50	55	-	dB		
		1805.15 - 1879.85	50	54	-	dB		

## Electrical Characteristics

Items		Frequency (MHz)	Characteristics			Unit	Notes	
			Min.	Typ.	Max.			
Band1 TX to ANT	Insertion Loss	1920.25 - 1979.75	-	2.5	3.2	dB		
	Ripple(any 5MHz)	1920.25 - 1979.75	-	0.3	2.0	dB		
	VSWR	Tx	1920.25 - 1979.75	-	1.5	2.0	-	
		Ant	1920.25 - 1979.75	-	1.4	2.0	-	
	Attenuation	1	1565.4 - 1585.4	30	49	-	dB	
		1565.4	1585.4 - 1605.886	40	49	-	dB	GPS
		1597.552	1605.886 - 1805.15	40	49	-	dB	GLONASS
		1805.15	1805.15 - 1879.85	45	51	-	dB	B3 Rx
		2010	2010 - 2025	5	21	-	dB	
		2110.25	2110.25 - 2169.75	45	57	-	dB	B1 Rx
2400		2400 - 2500	40	49	-	dB	ISM 2.4GHz	
3840	3840 - 3960	25	30	-	dB	2f		
4900	4900 - 5950	20	28	-	dB	SM5GHz		
Band1 ANT to Rx	Insertion Loss	2110.25 - 2169.75	-	2.5	3.0	dB		
	Ripple(any 5MHz)	2110.25 - 2169.75	-	0.2	2.0	dB		
	VSWR	Rx	2110.25 - 2169.75	-	1.5	2.0	-	
		Ant	2110.25 - 2169.75	-	1.6	0	-	
	Attenuation	1	1710 - 1710	40	52	-	dB	
		1710.15	1710.15 - 1784.85	40	55	-	dB	B3 Tx
		1920.25	1920.25 - 1979.75	45	55	-	dB	B1 Tx
2400		2400 - 2500	40	51	-	dB	ISM 2.4GHz	
4900	4900 - 5950	35	47	-	dB	ISM 5GHz		
Band1 Tx to Rx	Isolation	1920.25 - 1979.75	55	57	-	dB		
		2110.25 - 2169.75	55	59	-	dB		
Band1Tx to Band3Rx	Cross-band Isolation	1805.15 - 1879.85	50	52	-	dB	B3 Rx Cross Isolation	
		1920.25 - 1979.75	50	55	-	dB	B1 Tx Cross Isolation	
Band3Tx to Band1Rx	Cross-band Isolation	1710.15 - 1784.85	52	56	-	dB	B3 Tx Cross Isolation	
		2110.25 - 2169.75	52	54	-	dB	B1 Rx Cross Isolation	

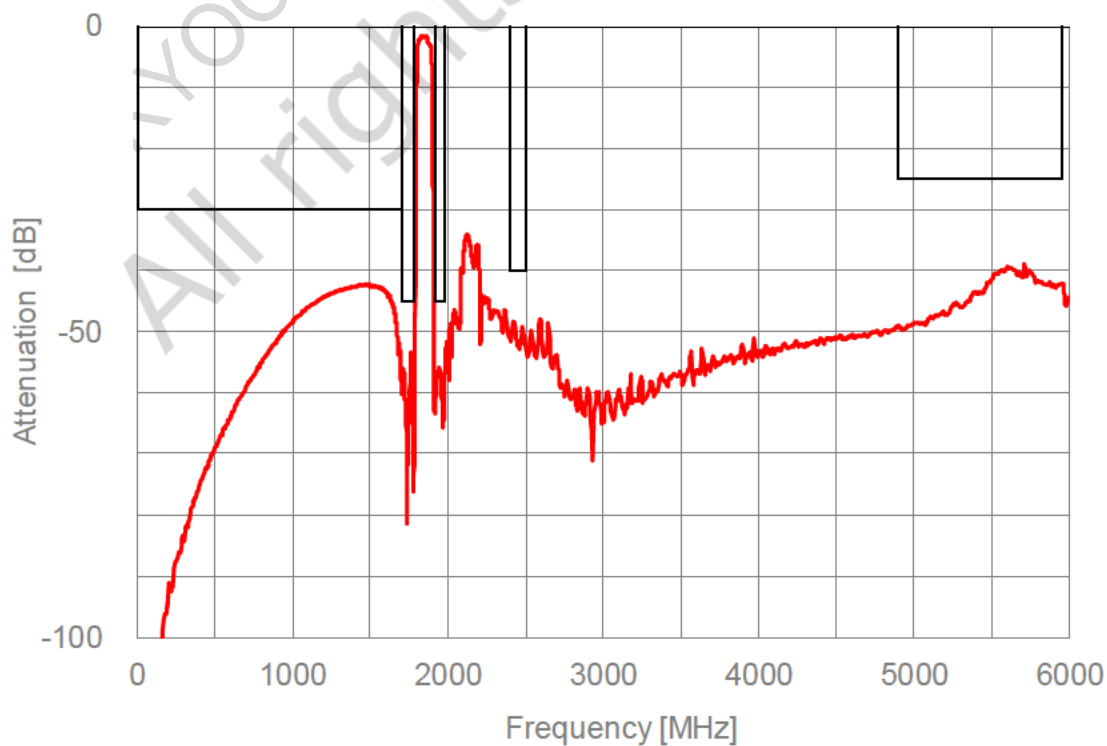
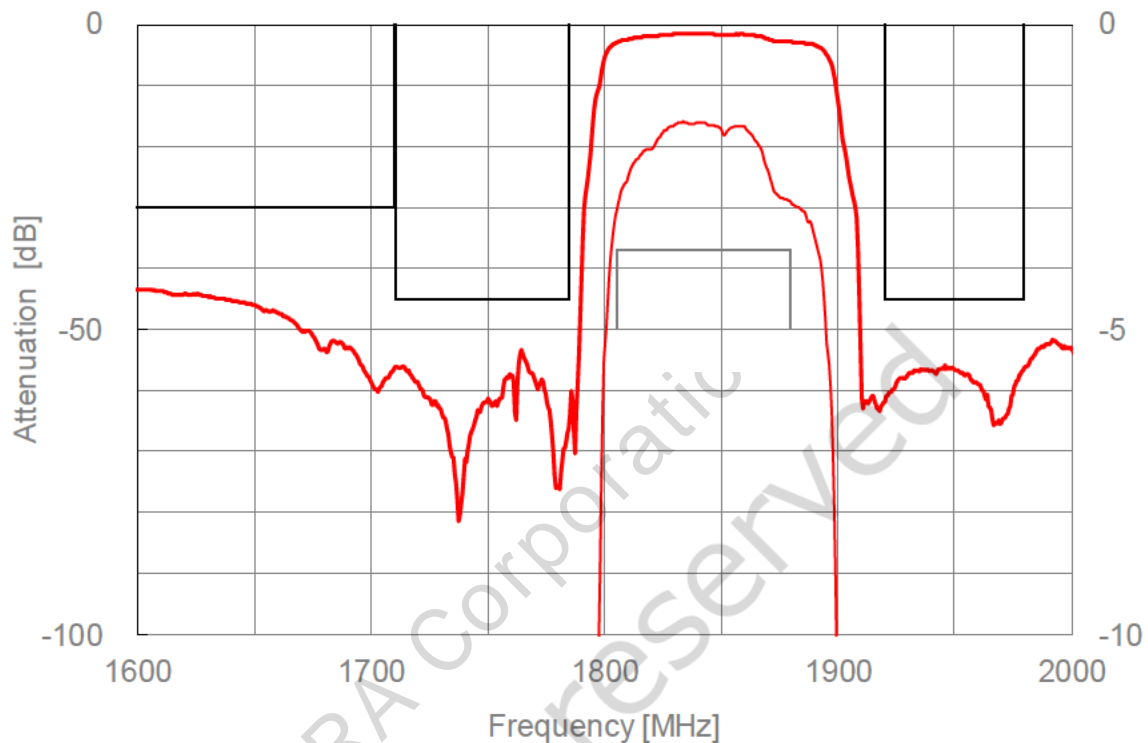
**Electrical Characteristics**

**[Band3 Tx to Ant]**



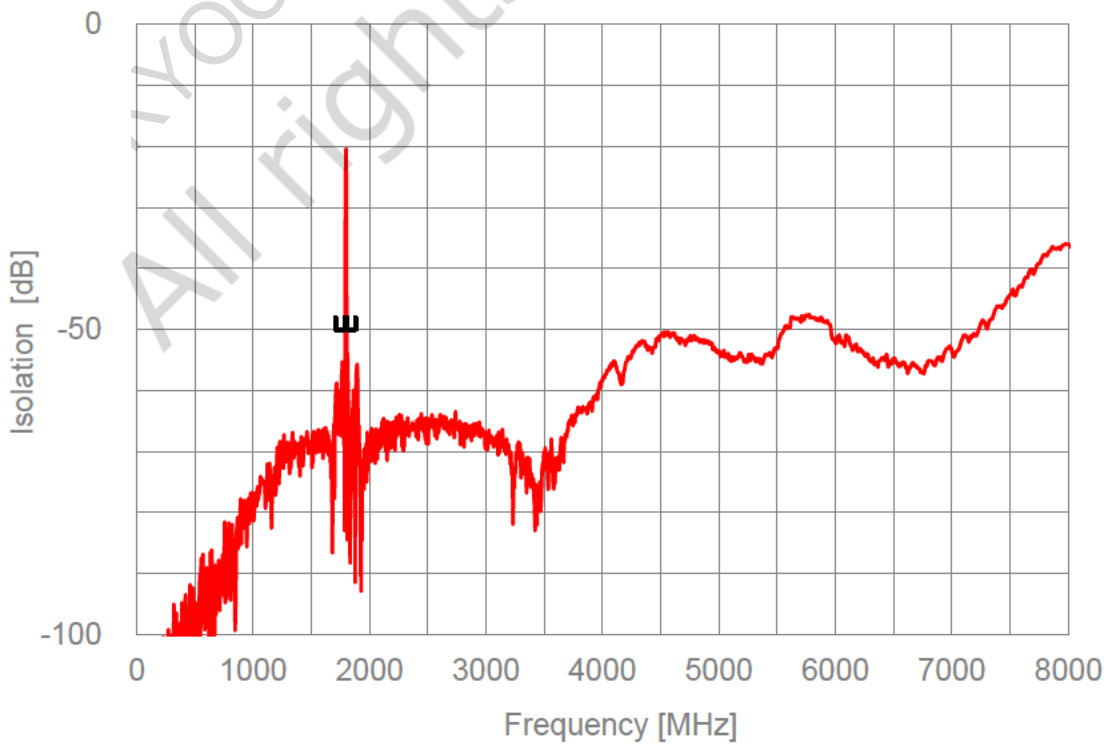
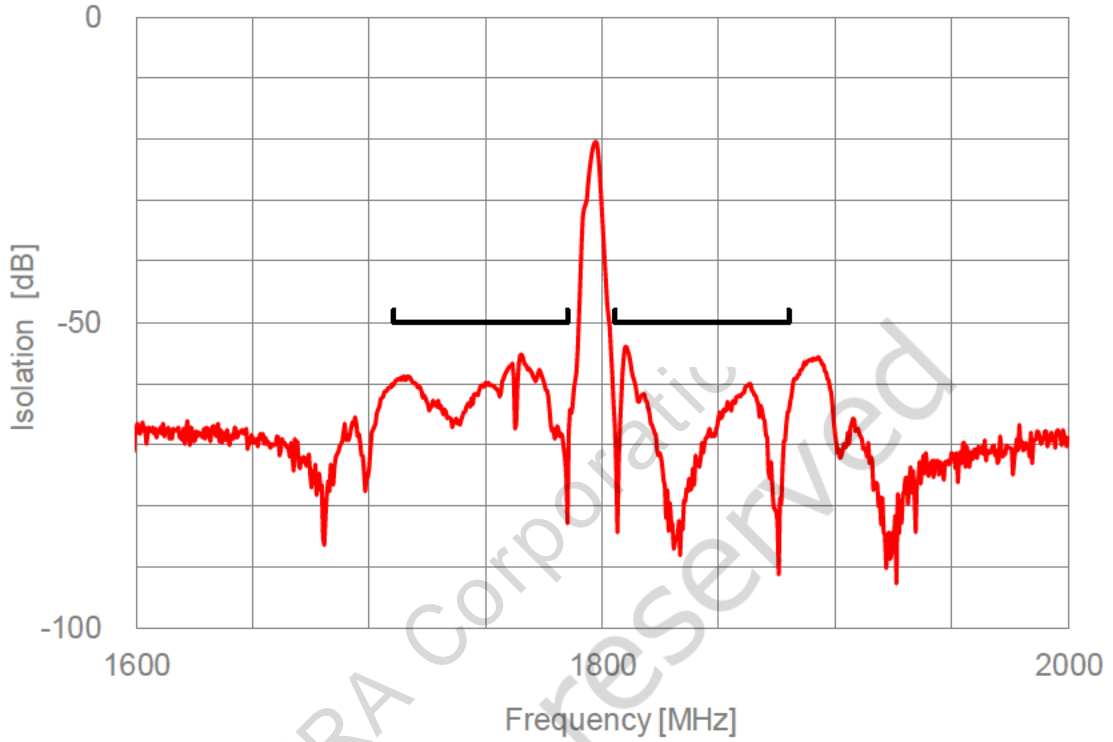
### Electrical Characteristics

#### [Band3 Ant to Rx]



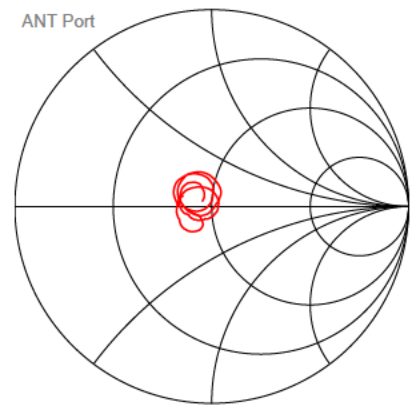
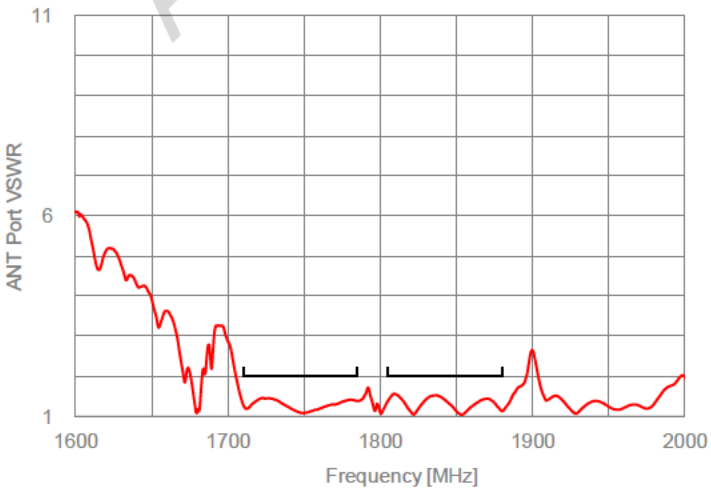
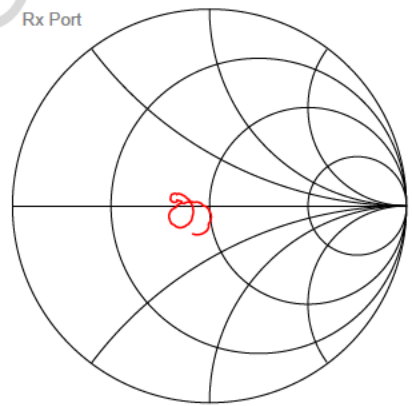
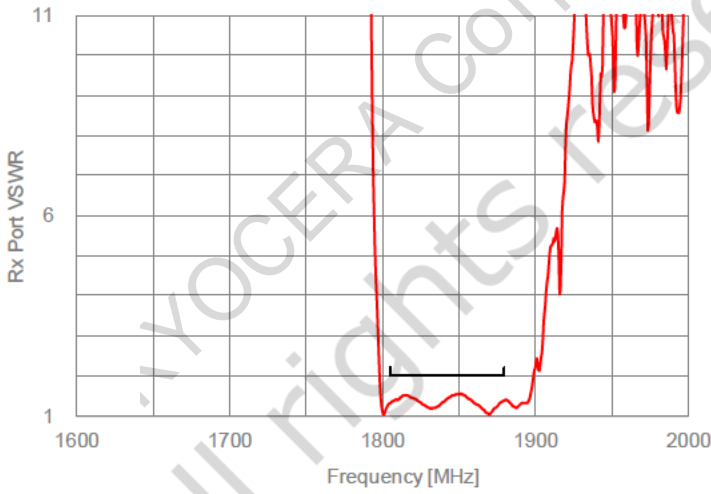
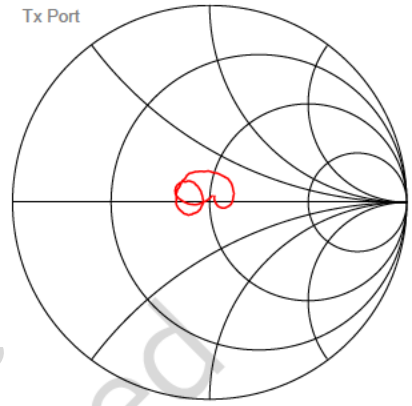
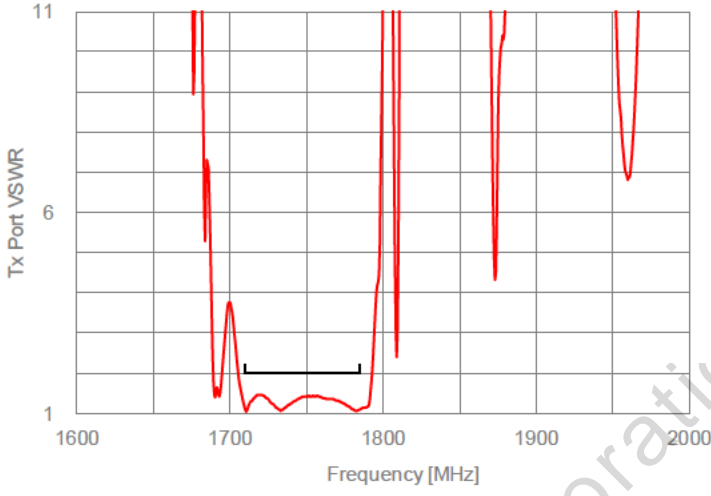
### Electrical Characteristics

[Band3 Tx to Rx]



# Electrical Characteristics

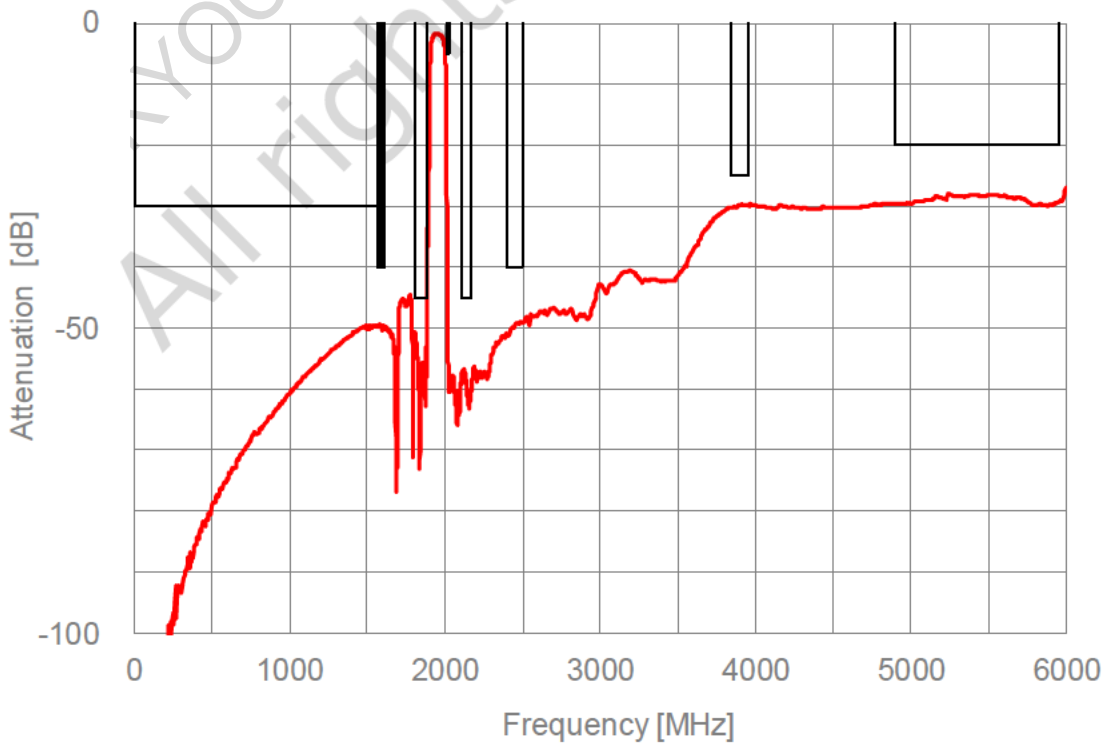
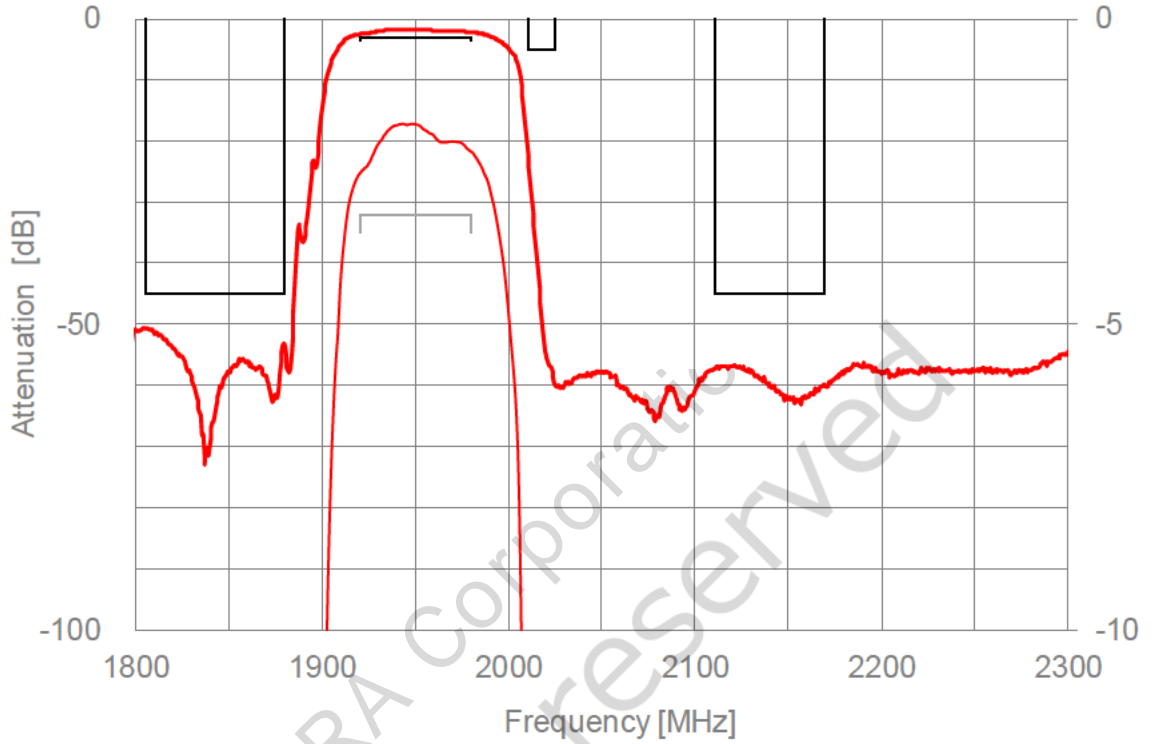
## [Band3]





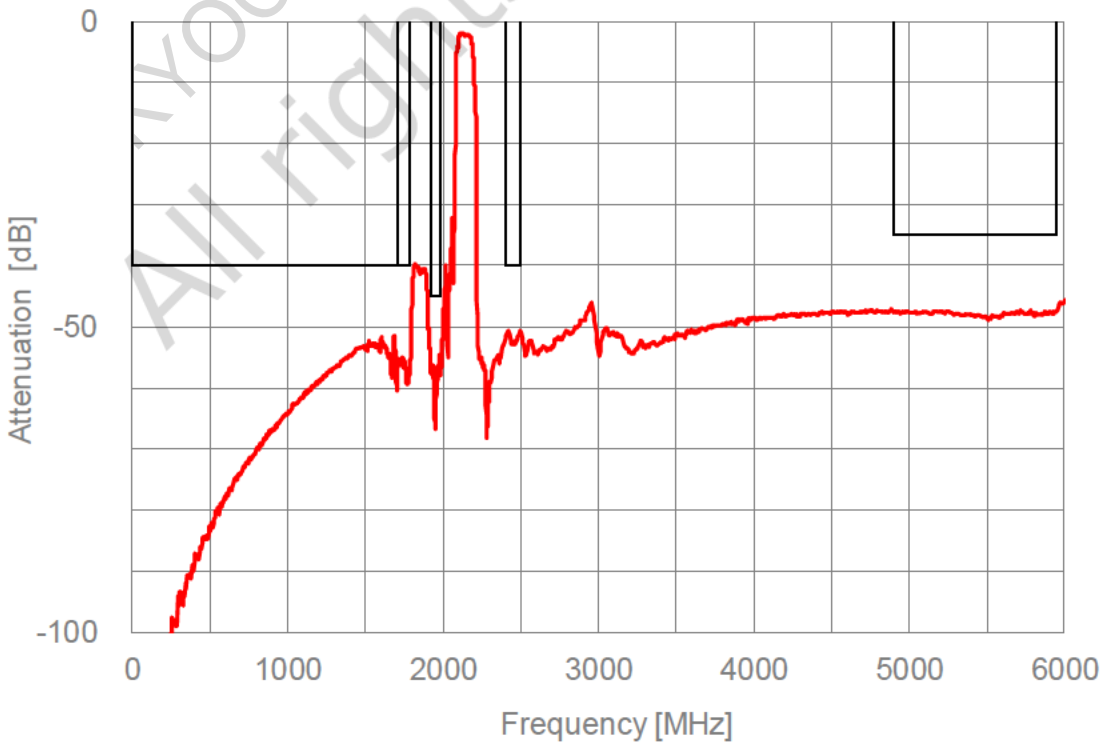
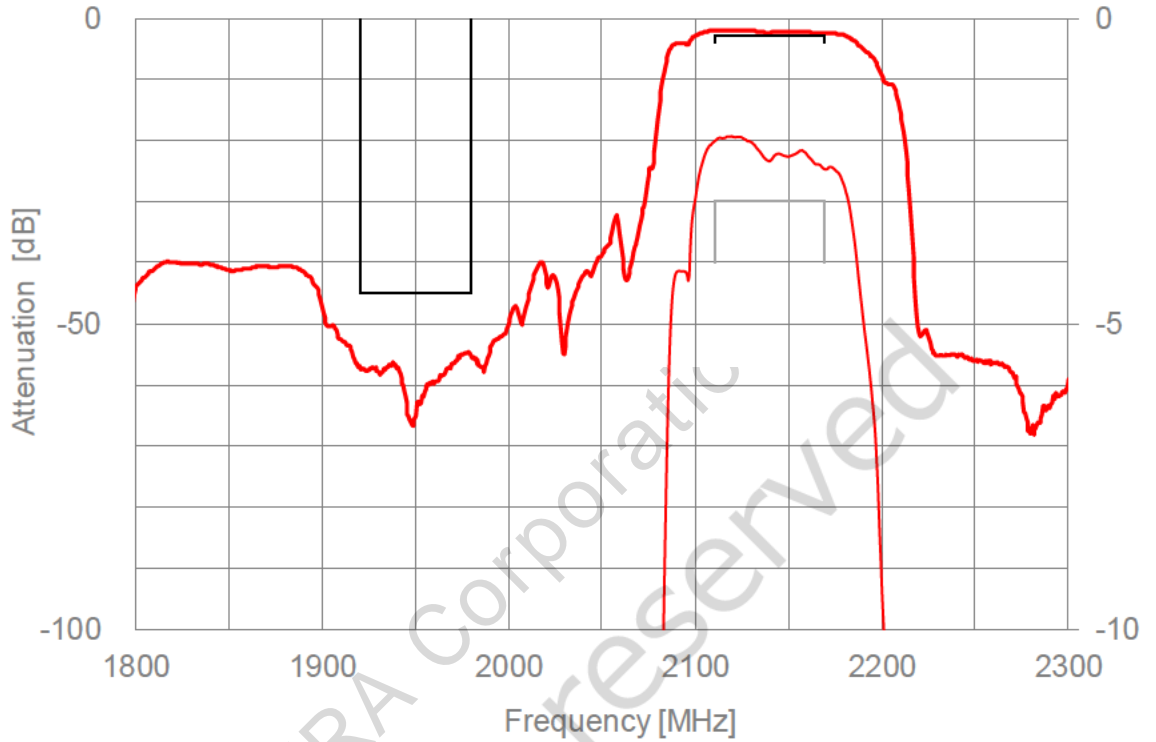
## Electrical Characteristics

### [Band1 Tx to Ant]



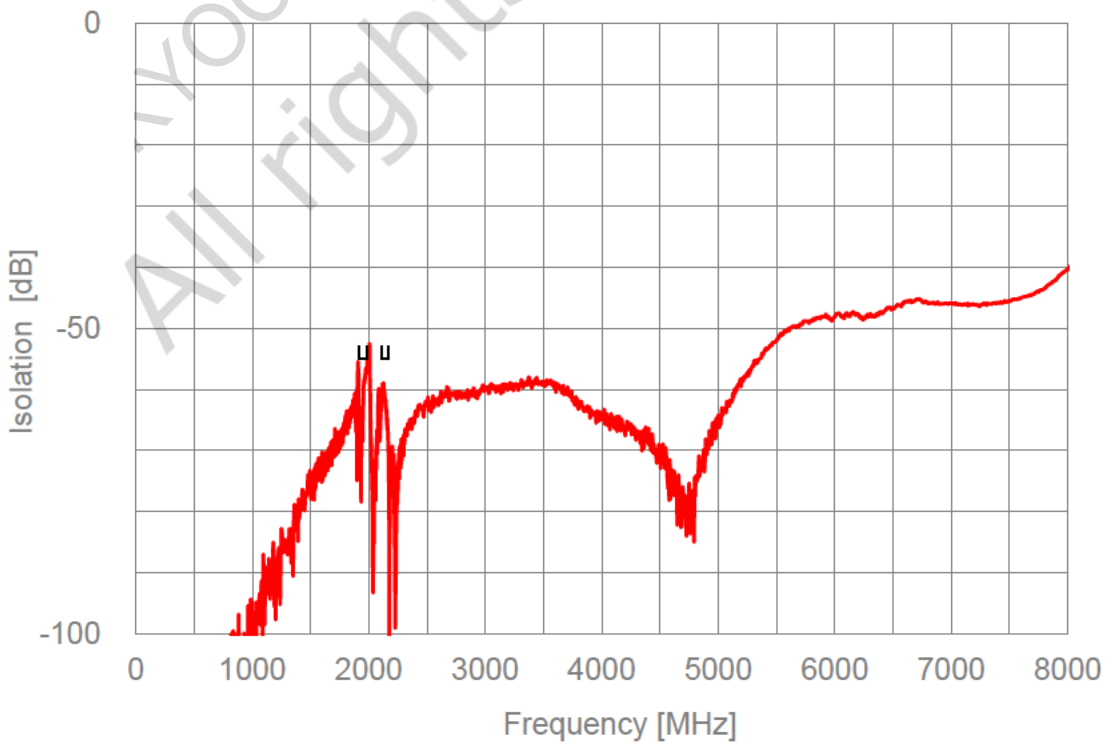
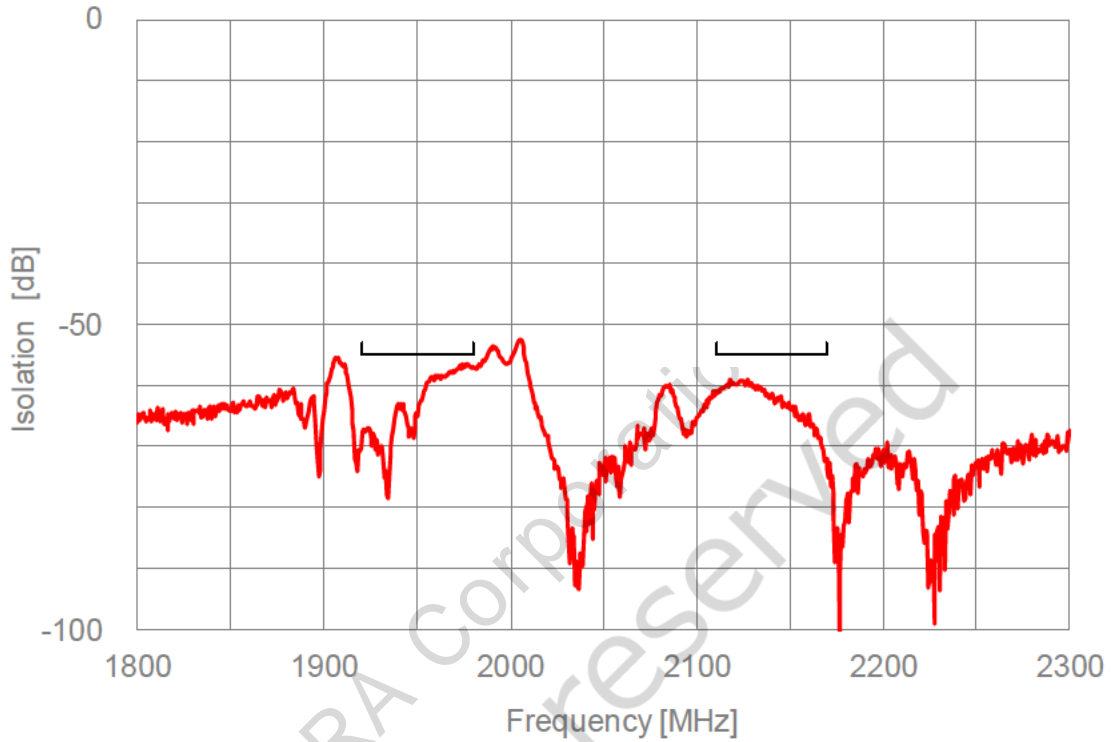
### Electrical Characteristics

[Band1 Ant to Rx]



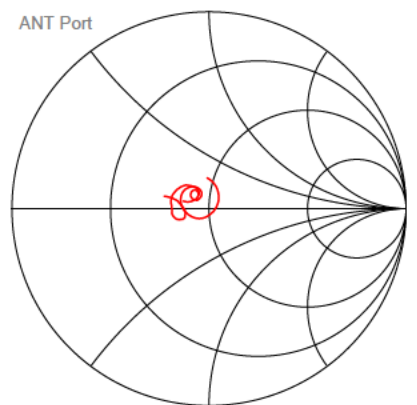
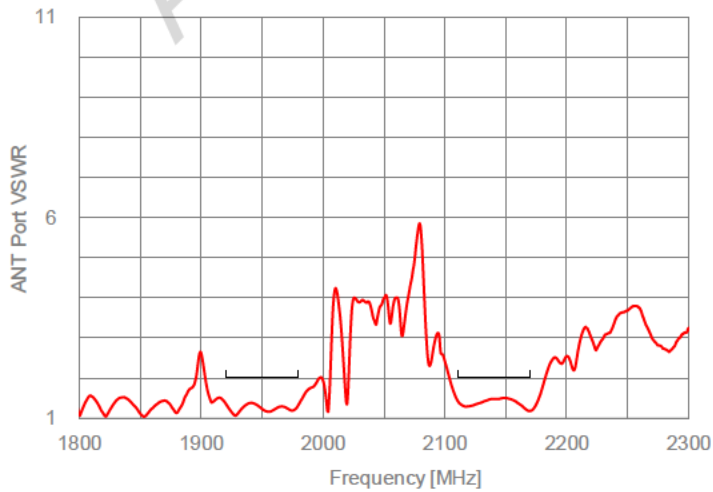
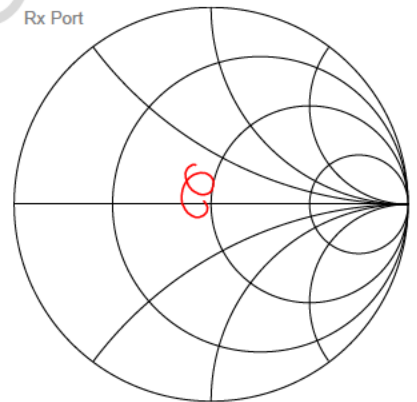
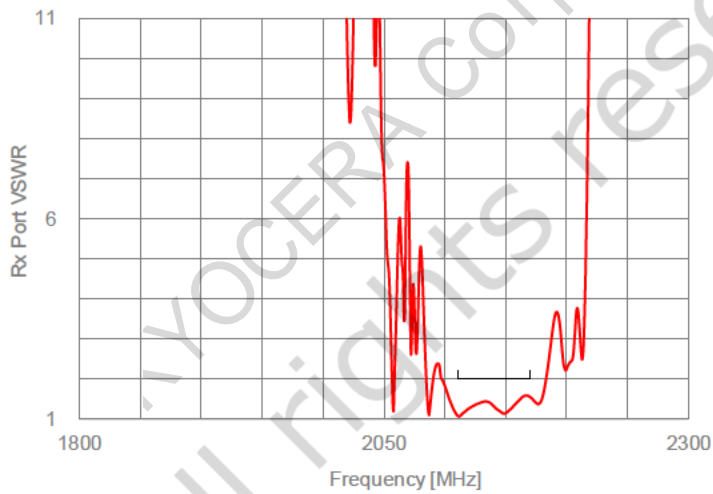
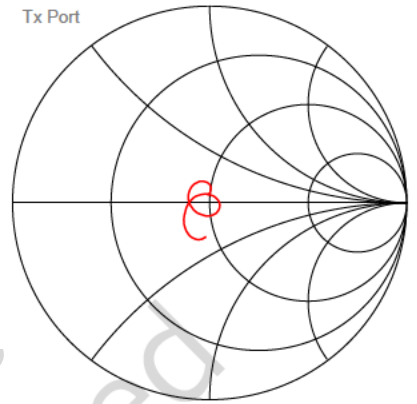
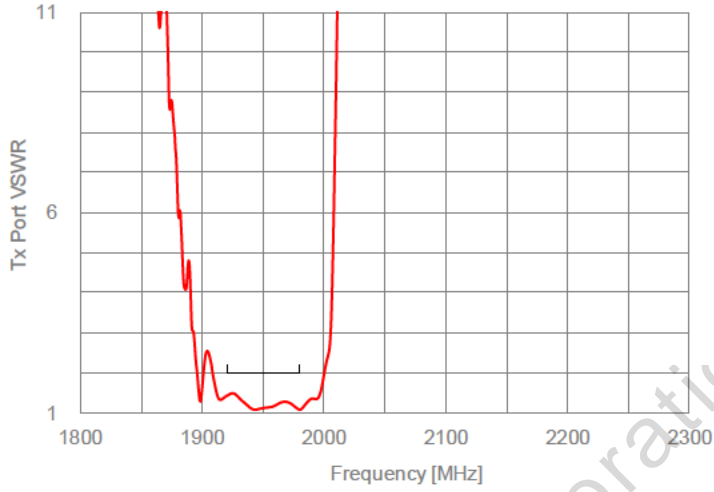
**Electrical Characteristics**

**[Band1 Tx to Rx]**



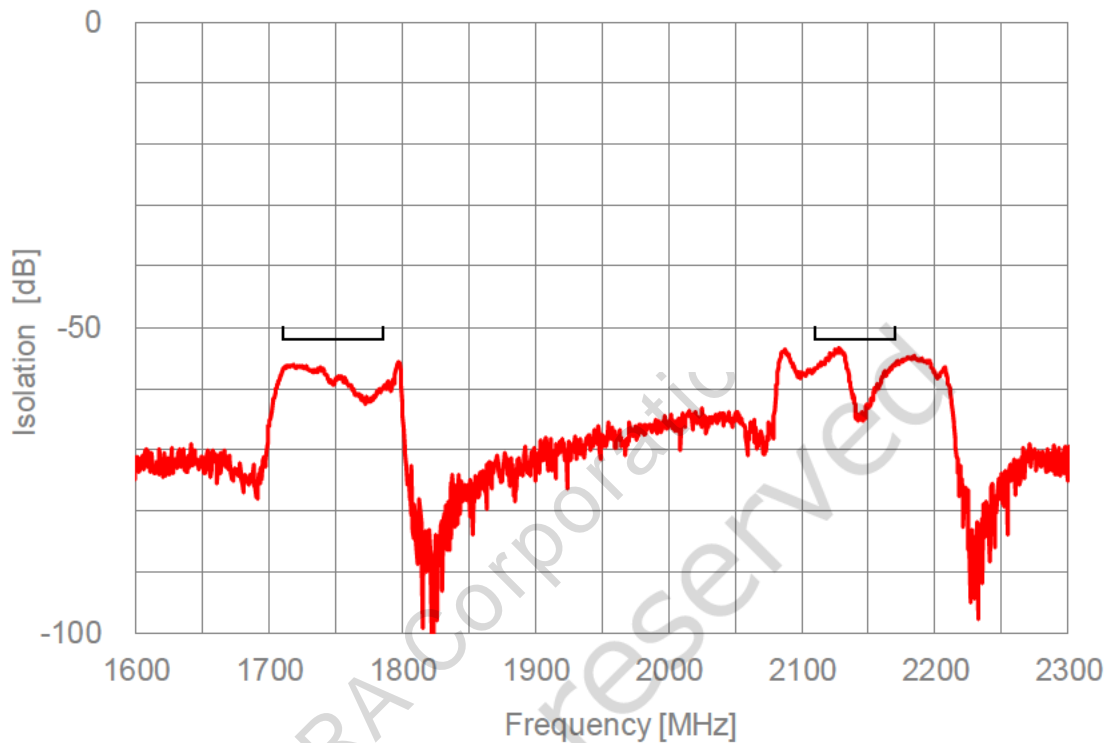
## Electrical Characteristics

### [Band1]

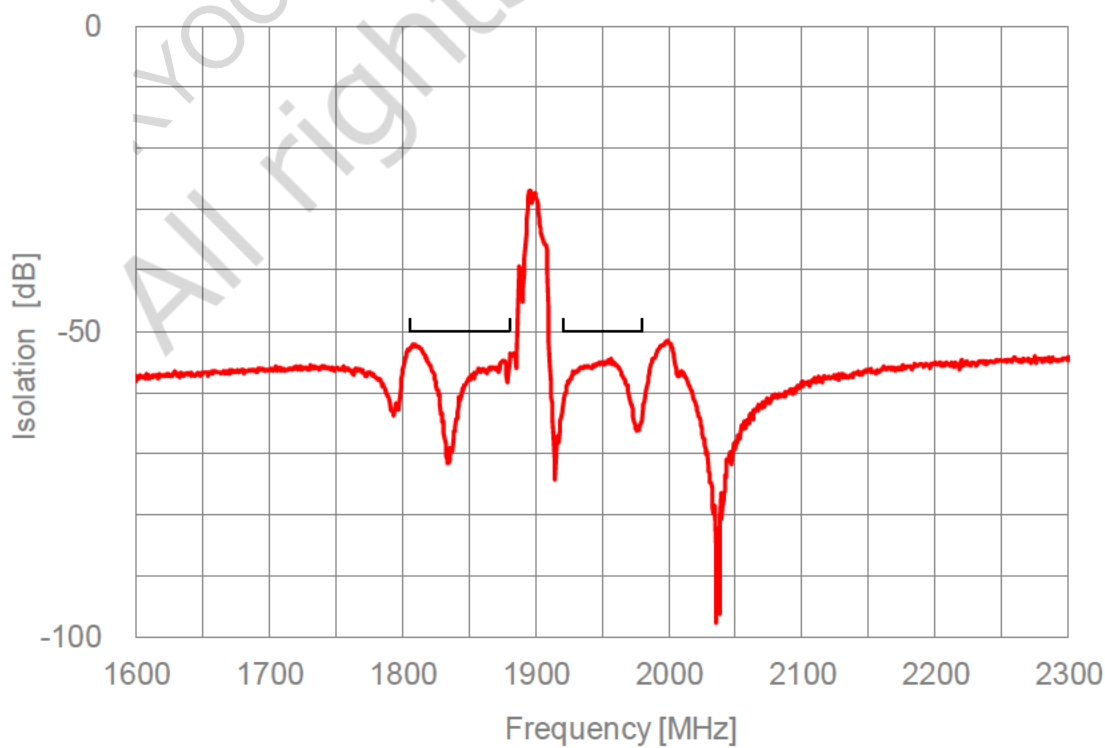


### Electrical Characteristics

#### [Band3 Tx to Band1 Rx]



#### [Band1 Tx to Band3 Rx]





## Notice

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