

Datasheet of SAW Quadplexer

2520 Band25,66 Unbalanced

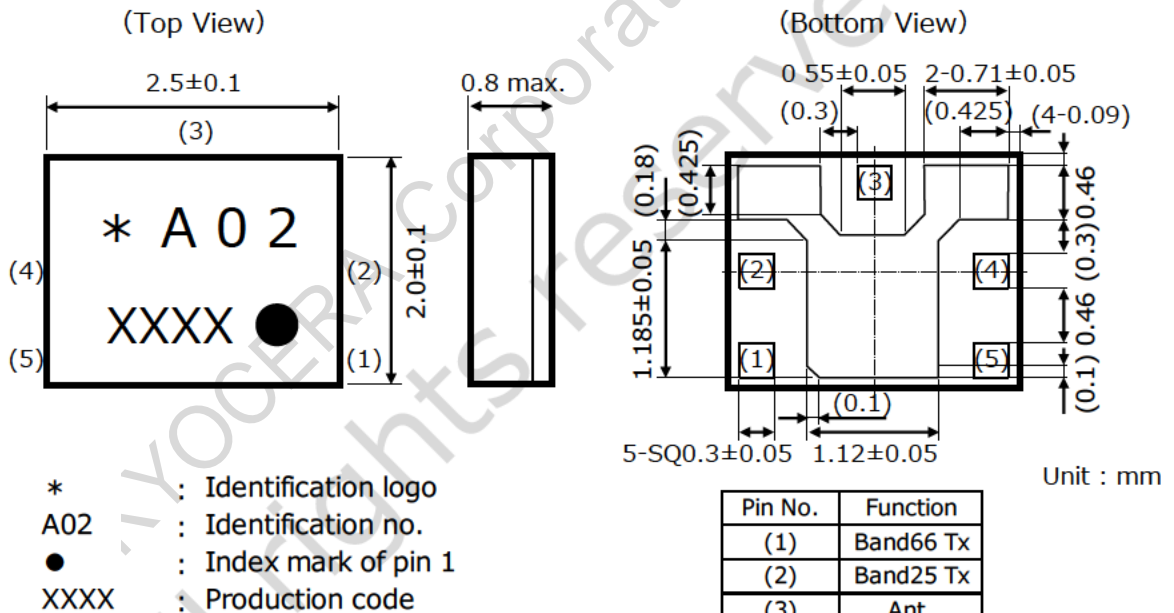
KYOCERA Part No. : SQ25-1745K6SUA1

KYOCERA Corporation
All rights reserved

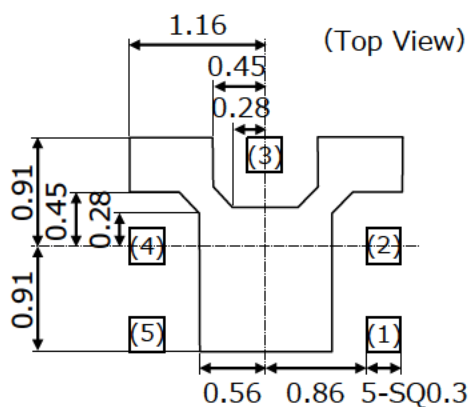
Rating

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)		+30	dBm	5,000hours, Ta=50deg.C, CW
Tx Port	Band25	50	ohm	Unbalance
Nominal Impedance	Band66	50//4.9nH,0.8pF	ohm	Unbalance
Ant. Port Nominal Impedance		50	ohm	Unbalance
Rx Port	Band25	50	ohm	Unbalance
Nominal Impedance	Band66	50//1.8nH	ohm	Unbalance

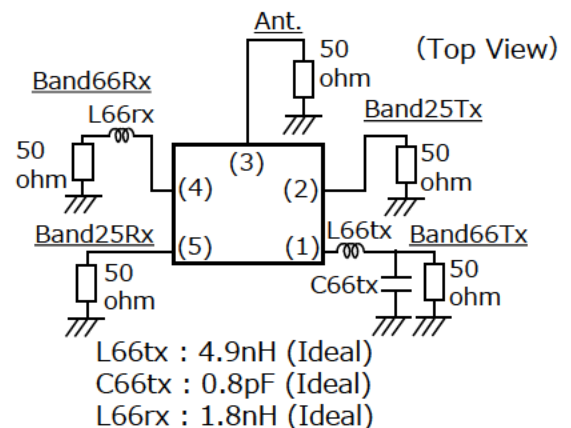
Dimensions



Recommendable Land Pattern



Measurement Circuit



Electrical Characteristics

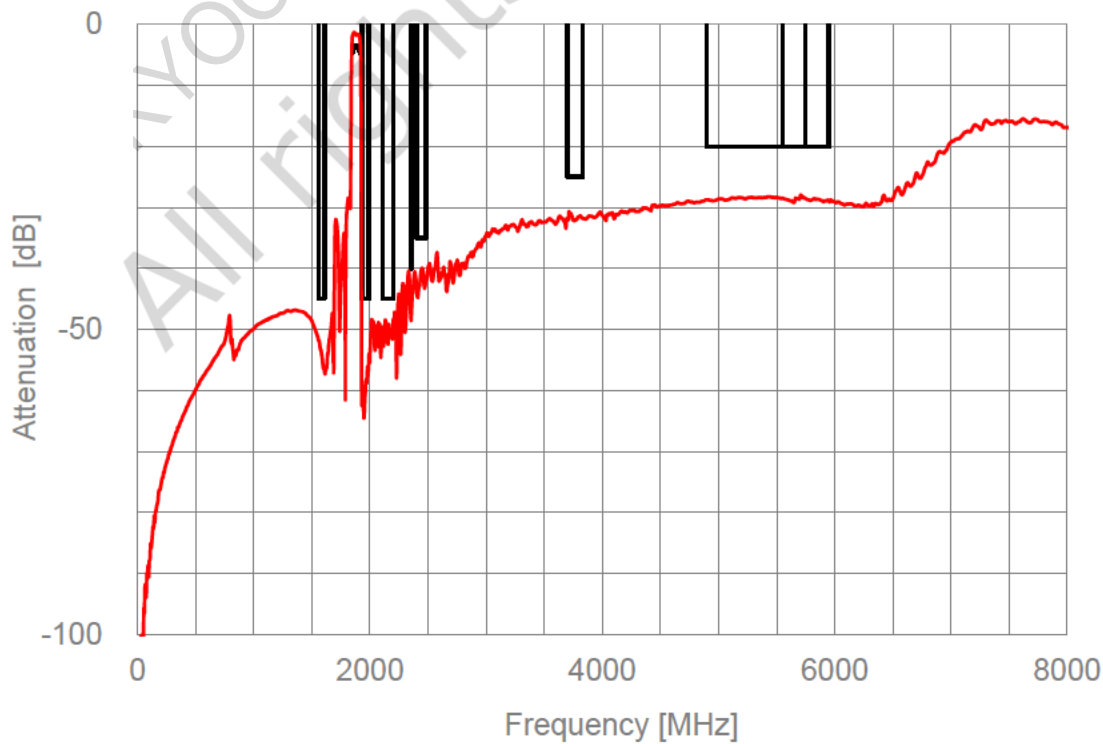
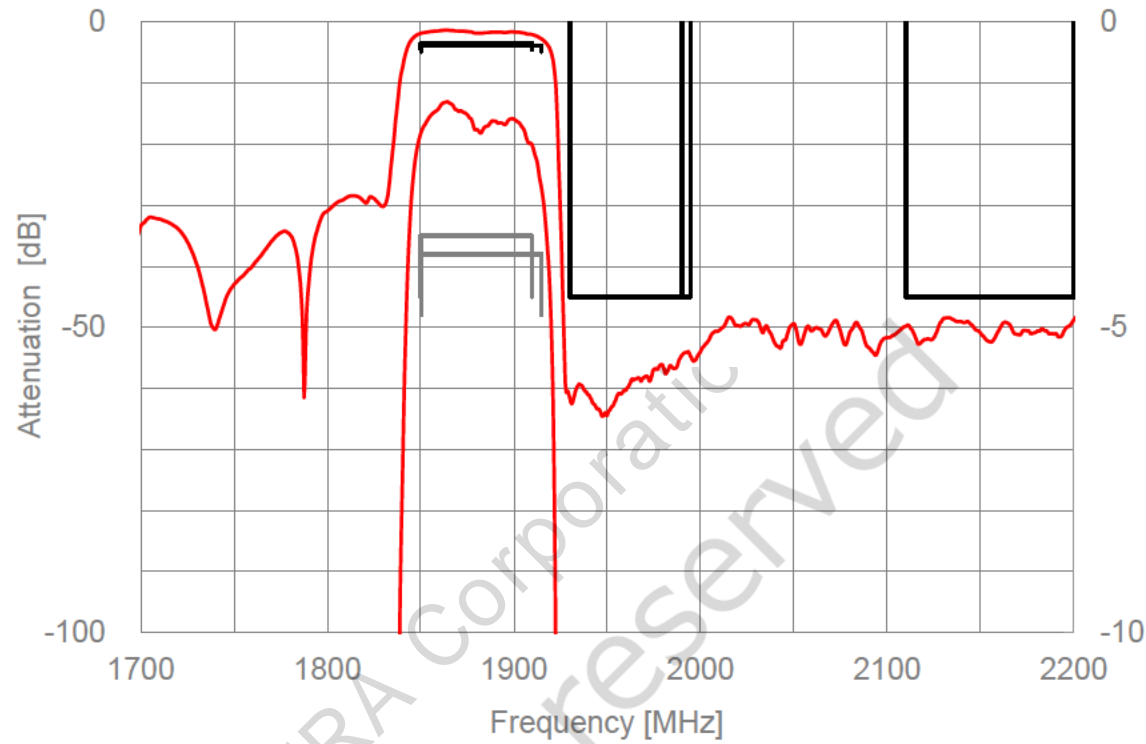
Items		Frequency (MHz)	Characteristics			Unit	Notes
			Min.	Typ.	Max.		
Band25 TX to ANT	Insertion Loss	1850.15 - 1909.85	-	2.0	3.5	dB	B2
		1850.25 - 1914.75	-	2.6	3.8	dB	B25
	Ripple(any 20MHz)	1850.15 - 1909.85	-	0.7	2.0	dB	B2
		1850.25 - 1914.75	-	1.3	2.1	dB	B25
	VSWR	Tx	1850.15 - 1909.85	-	1.5	2.0	B2
			1850.25 - 1914.75	-	1.5	2.0	B25
		Ant	1850.15 - 1909.85	-	1.5	2.0	B2
			1850.25 - 1914.75	-	1.5	2.0	B25
	Attenaution	1930 - 1990	45	55	-	dB	B2 RX
		1930.25 - 1994.75	45	54	-	dB	B25 RX
		1559 - 1608	45	52	-	dB	GNSS
		2110 - 2200	45	48	-	dB	B66 RX
		2350 - 2360	40	46	-	d	B 0 RX
		2400 - 2485	35	40	-	dB	Bluetooth
		3700 - 3830	25	31	-	dB	2H
		4900 - 5950	20	28	-	dB	5G
Band25 ANT to Rx	Insertion Loss	1930.15 - 1989.85	-	2.8	3.5	dB	B2
		1930.25 - 1994.75	-	2.8	3.5	dB	B25
	Ripple(any 20MHz)	1930.15 - 1989.85	-	0.9	2.0	dB	B2
		1930.25 - 1994.75	-	0.9	2.0	dB	B25
	VSWR	Rx	1930.15 - 1989.85	1.9	2.5		B2
			1930.25 - 1994.75	-	2.0	2.5	B25
		Ant	1930.15 - 1989.85	1.7	2.5		B2
			1930.25 - 1994.75	-	1.7	2.5	B25
	Attenaution	1850 - 1910	45	57	-	dB	B2 TX
		1850.25 - 1914.75	45	57	-	dB	B25 TX
		1710 - 1780	50	57	-	dB	B66 TX
		2305 - 2315	45	55	-	dB	B30 Tx
		2400 - 2500	45	50	-	dB	Bluetooth
		3860.5 - 3989.5	25	54	-	dB	2H
		4900 - 5950	25	46	-	dB	5G
Band25 TX to Rx	Isolation	1850.15 - 1909.85	55	61	-	dB	B2 TX
		1850.25 - 1911.75	55	61	-	dB	B25 TX
		1911.75 - 1914.75	50	60	-	dB	B25 TX
		1930.15 - 1989.85	50	61	-	dB	B2 RX
		1930.25 - 1933.25	50	64	-	dB	B25 RX
		1933.25 - 1994.75	55	61	-	dB	B25 RX

Electrical Characteristics

Items		Frequency (MHz)	Characteristics			Unit	Notes
			Min.	Typ.	Max.		
Band66 TX to ANT	Insertion Loss	1710.15 - 1779.85	-	2.2	3.3	dB	
	Ripple(any 20MHz)	1710.15 - 1779.85	-	0.9	2.0	dB	
	VSWR	Tx	1710.15 - 1779.85	-	1.4	2.0	
		Ant	1710.15 - 1779.85	-	1.3	2.0	
	Attenaution	2110 - 2200	50	55	-	dB	B66 RX
		1559 - 1608	45	49	-	dB	GNDD
		1930 - 1990	50	53	-	dB	B2 RX
		1930 - 1995	50	53	-	dB	B25 RX
		2350 - 2360	35	47	-	dB	B30 RX
		2400 - 2485	35	39	-	dB	Bluetooth
		3420 - 3560	25	31	-	dB	2H
		4900 - 5950	20	24	-	dB	5G
		5130 - 5340	20	26	-	dB	
Band66 ANT to Rx	Insertion Loss	2110.15 - 2199.85	-	2.4	3.1	dB	
	Ripple(any 20MHz)	2110.15 - 2199.85	-	0.7	2.0	dB	
	VSWR	Rx	2110.15 - 2199.85	-	1.6	2.5	
		Ant	2110.15 - 2199.85	-	1.6	2.5	
	Attenaution	1710 - 1780	50	54	-	dB	B66 TX
		1850 - 1910	45	51	-	dB	B2 TX
		1850 - 1915	45	51	-	dB	B25 TX
		2305 - 2315	35	43	-	dB	B30 TX
		2400 - 2500	28	32	-	dB	Bluetooth
		4220 - 4400	25	30	-	dB	2H
		4900 - 5950	25	33	-	dB	5G
Band66 TX to Rx	Isolation	2110.15 - 2199.85	53	59	-	dB	RX
		1710.15 - 1779.85	55	60	-	dB	TX
Band25Tx to Band66Rx	Cross Isolation	2110.15 - 2199.85	52	59	-	dB	B66 RX
		1850.15 - 1909.85	55	58	-	dB	B2 TX
		1850.25 - 1914.75	55	58	-	dB	B25 TX
Band66Tx to Band25Rx	Cross Isolation	1930.15 - 1989.85	52	55	-	dB	B2 RX
		1930.25 - 1994.75	52	55	-	dB	B25 RX
		1710.15 - 1779.85	55	58	-	dB	B66 TX

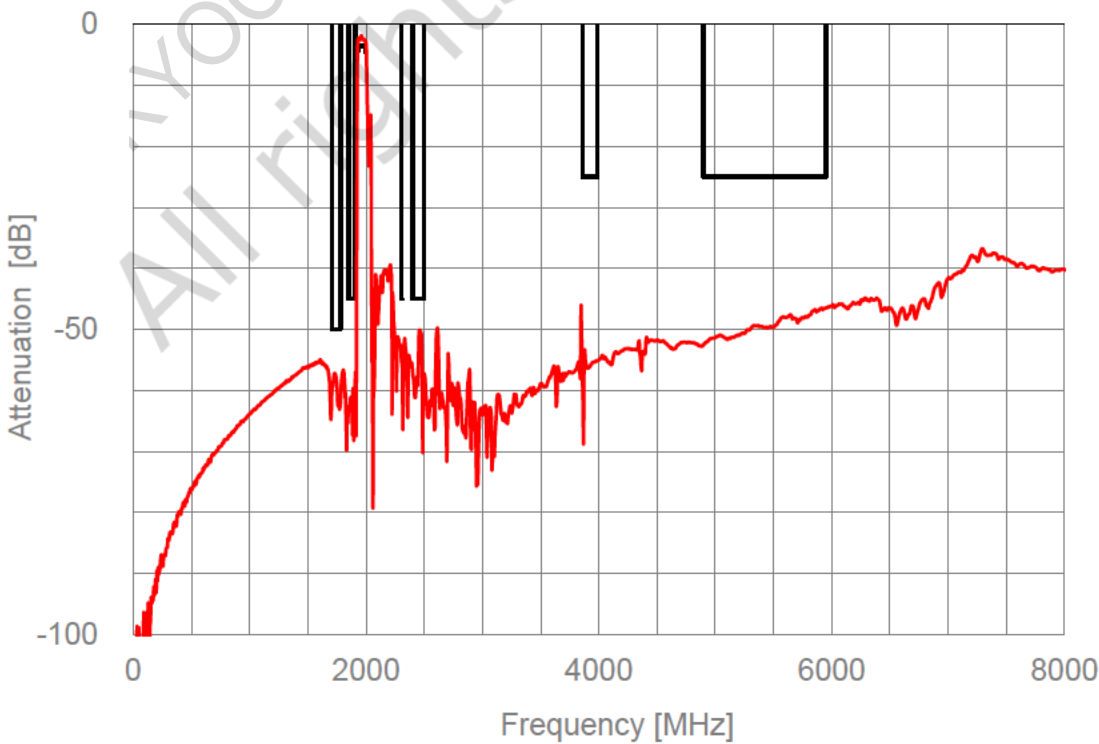
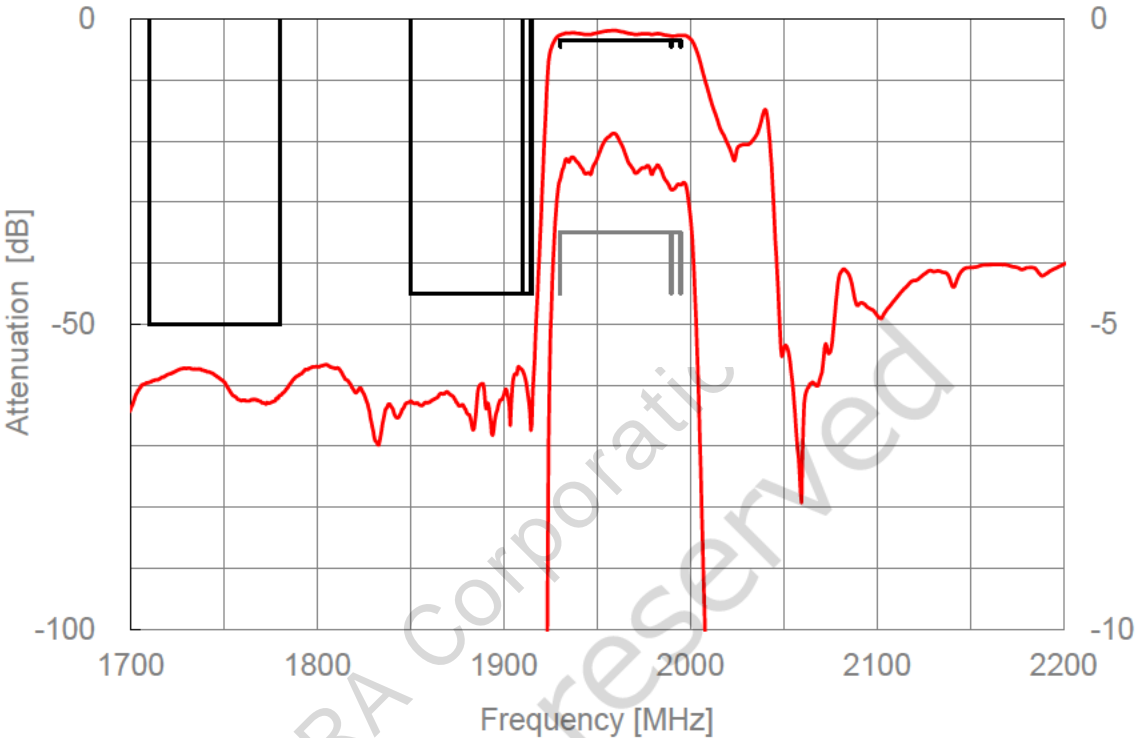
Electrical Characteristics

[Band25 Tx to Ant]



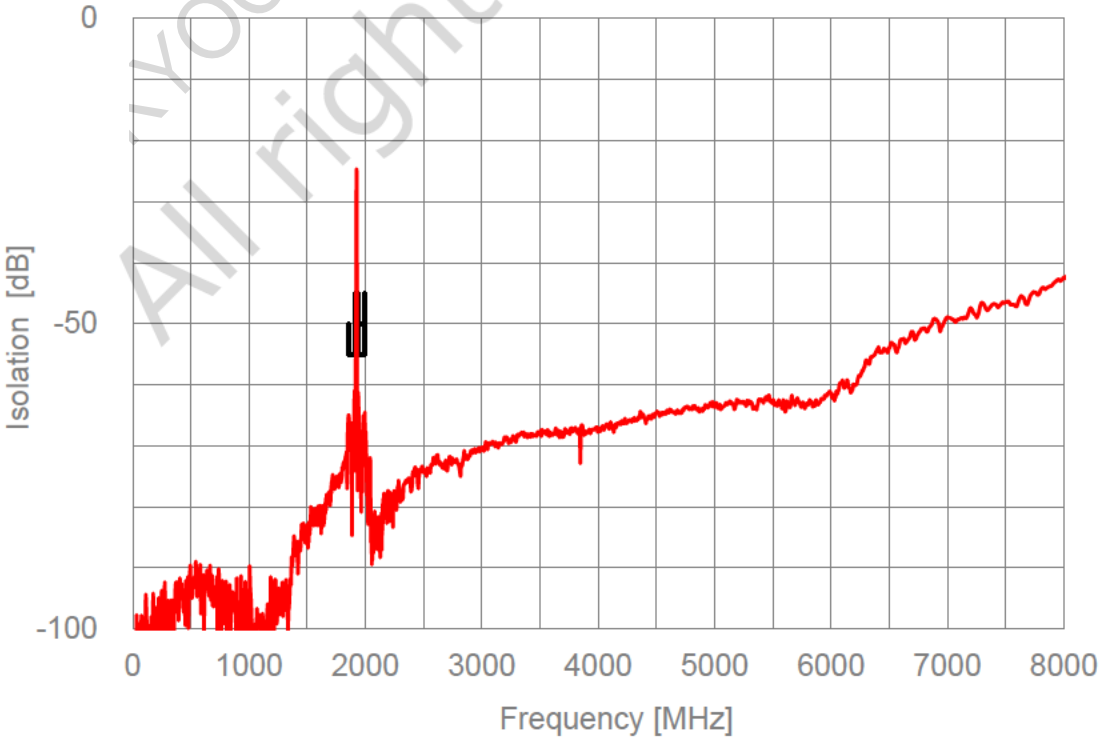
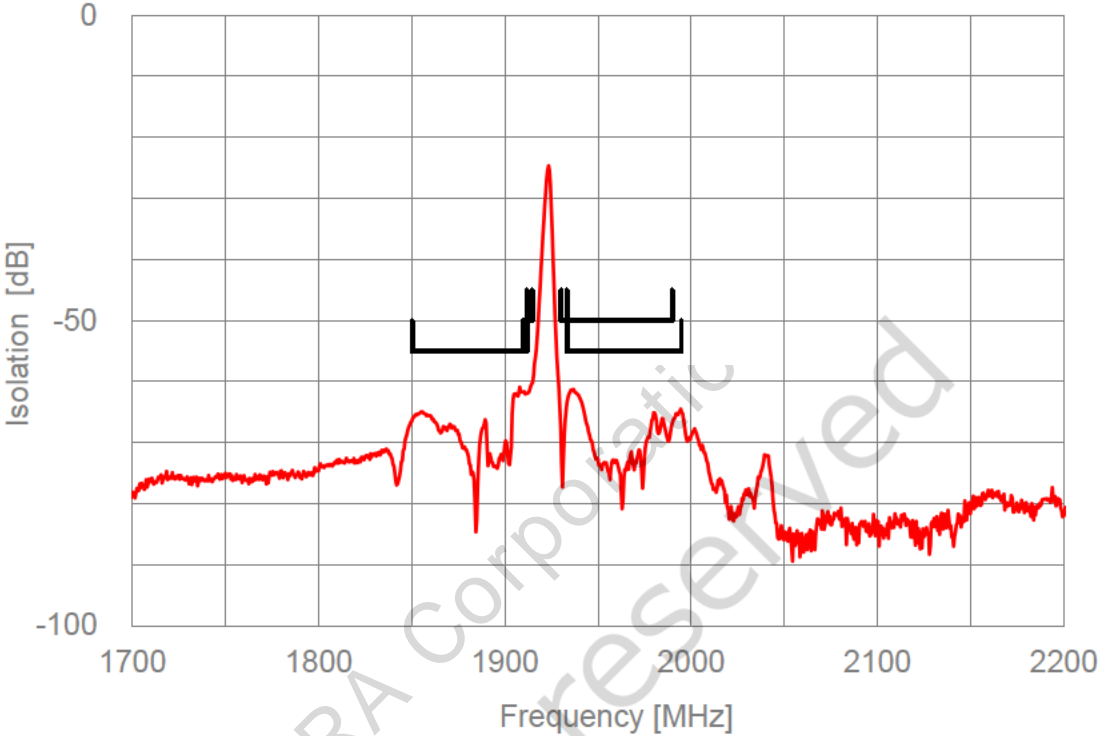
Electrical Characteristics

[Band25 Ant to Rx]



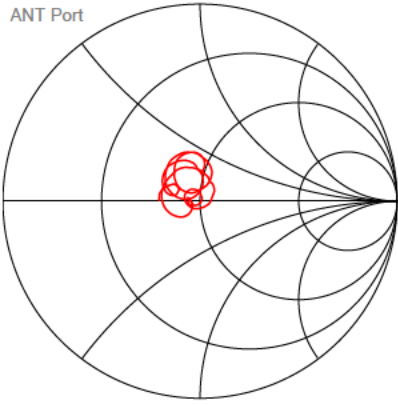
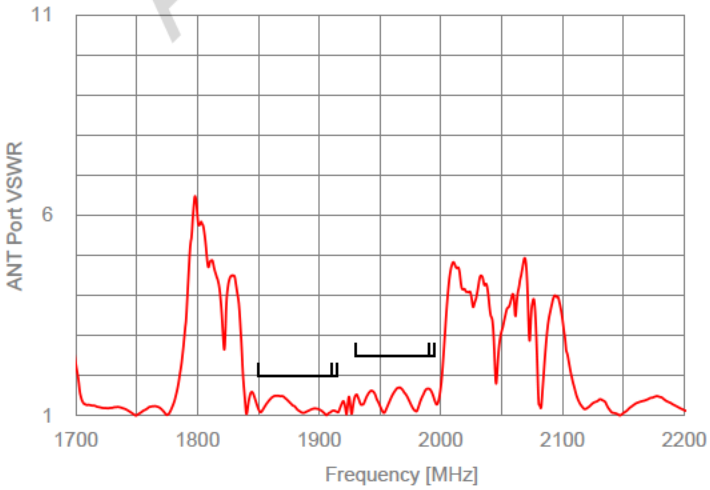
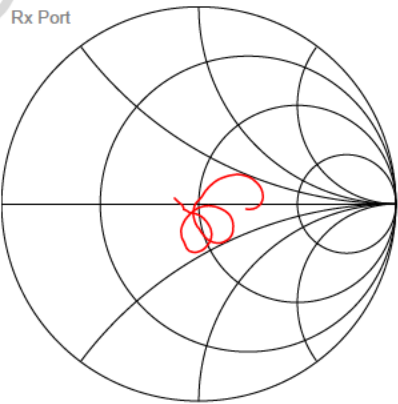
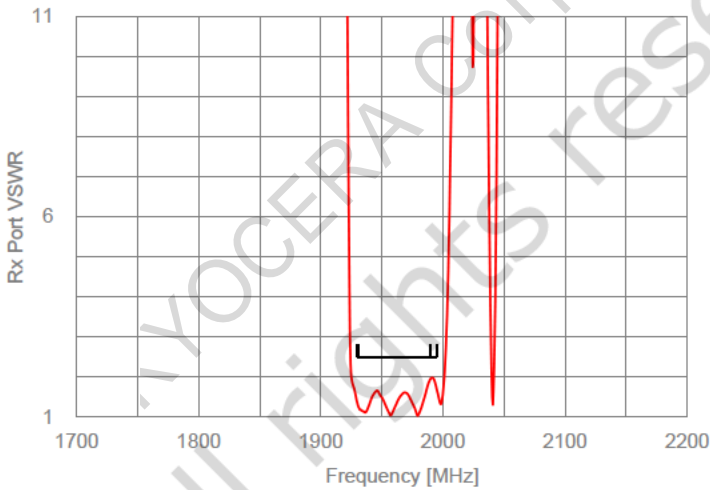
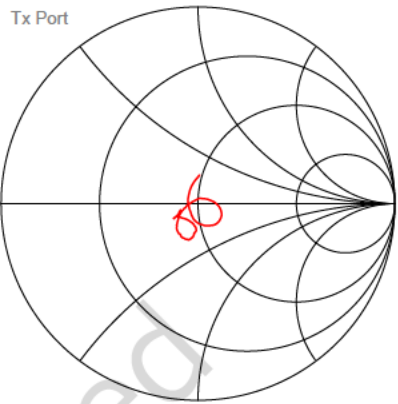
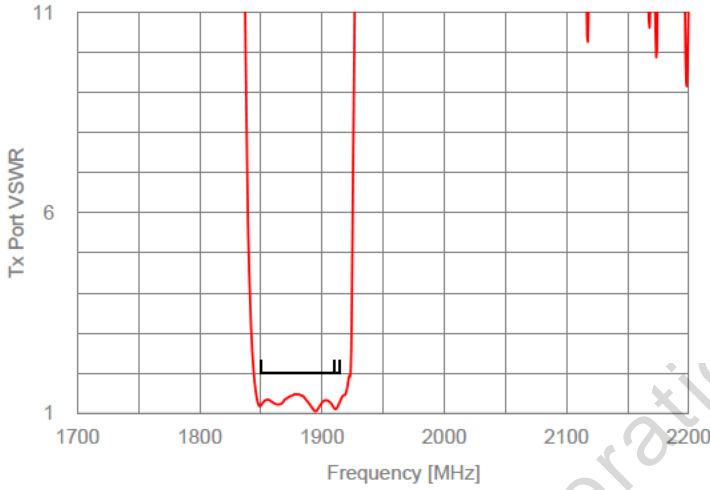
Electrical Characteristics

[Band25 Tx to Rx]



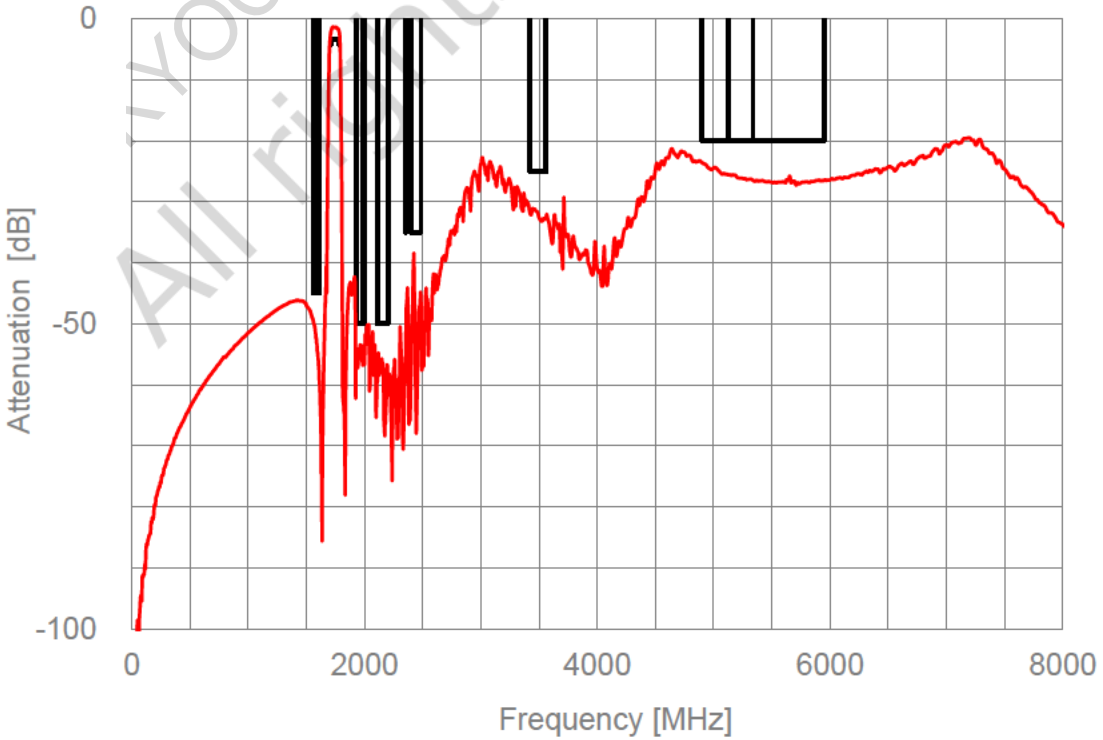
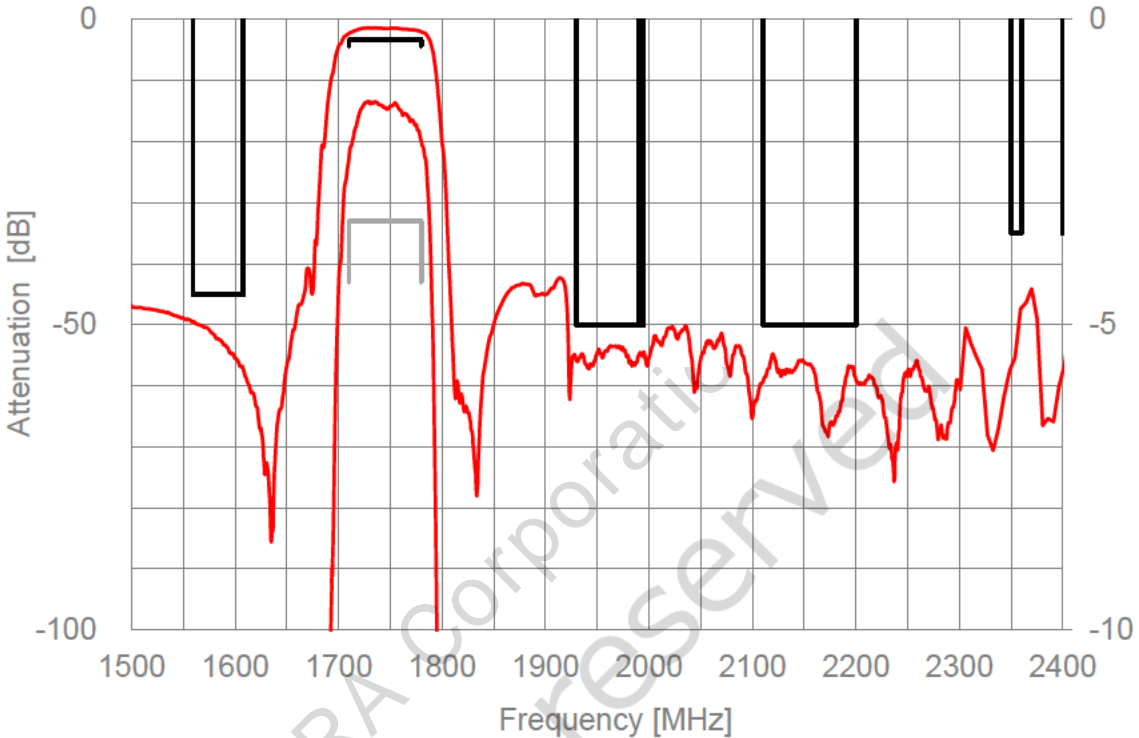
Electrical Characteristics

[Band25]



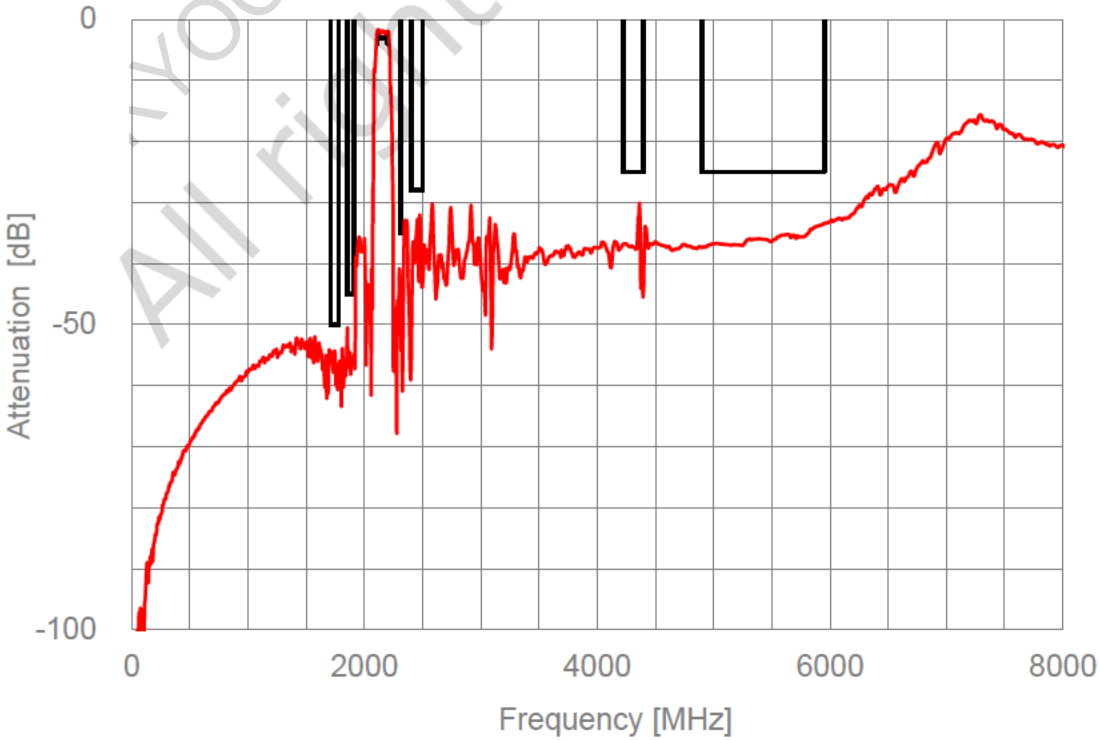
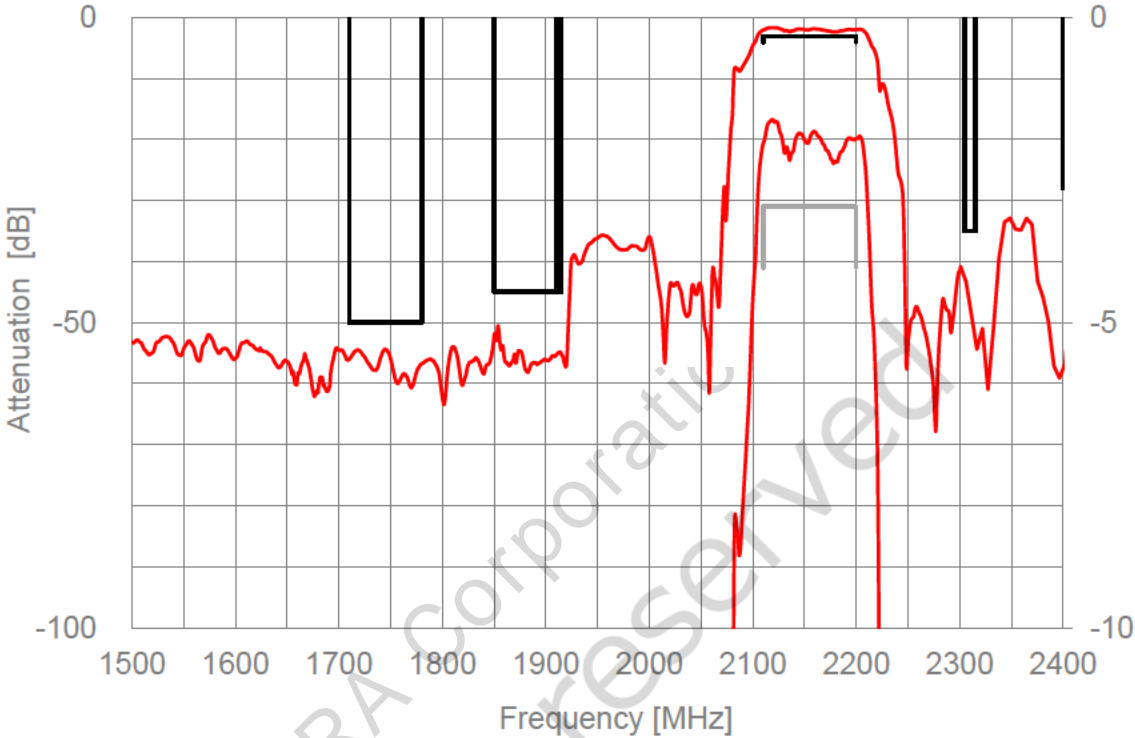
Electrical Characteristics

[Band66 Tx to Ant]



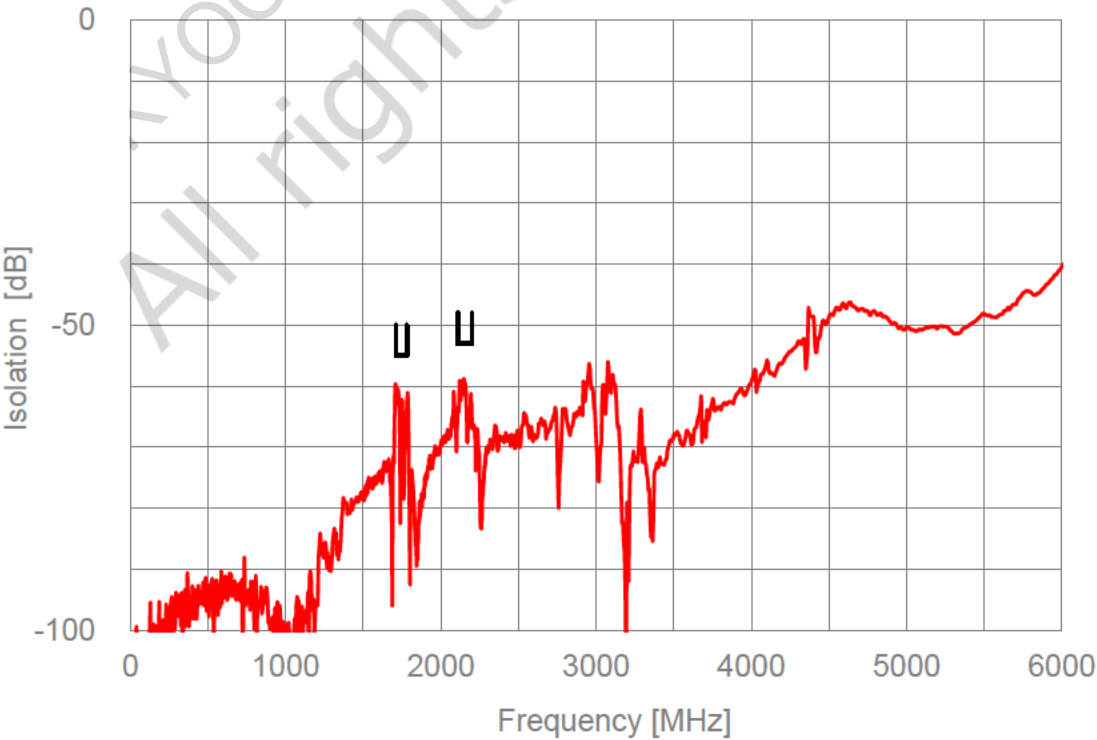
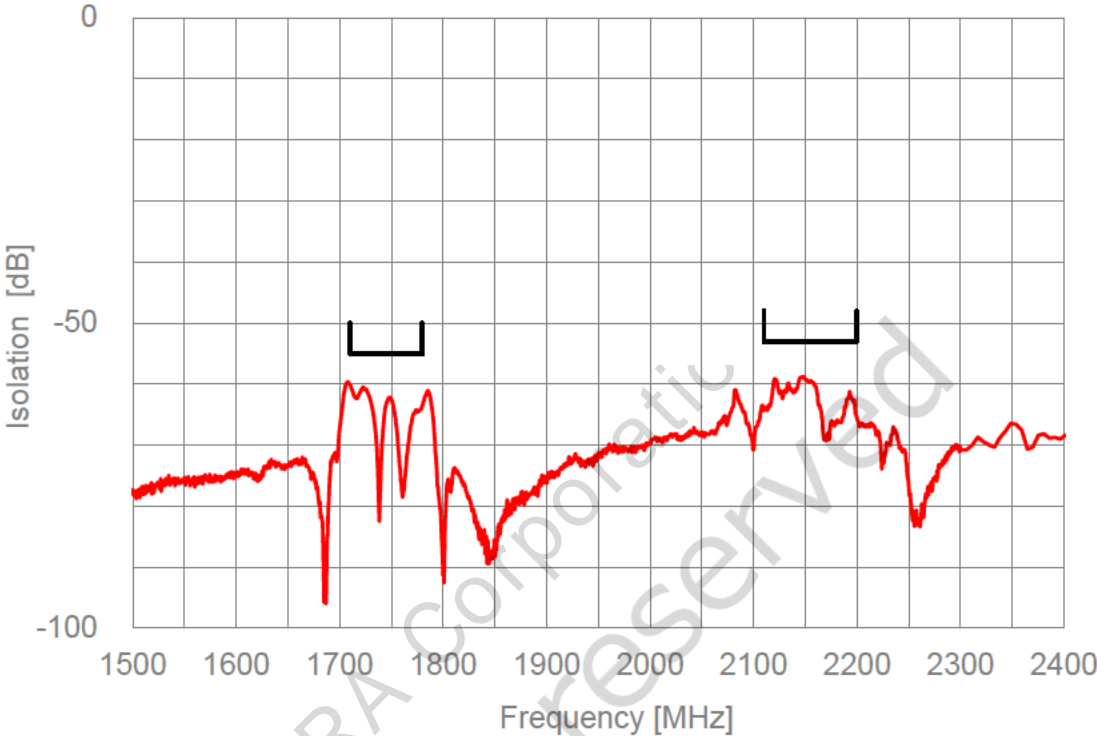
Electrical Characteristics

[Band66 Ant to Rx]



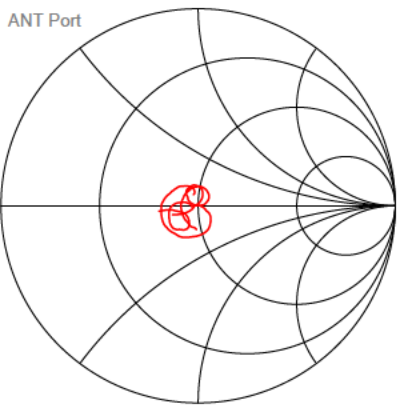
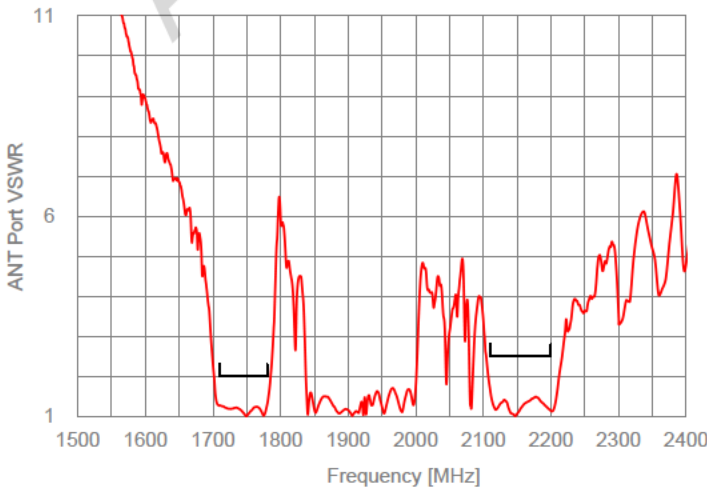
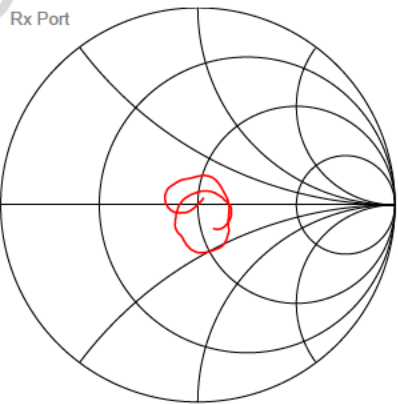
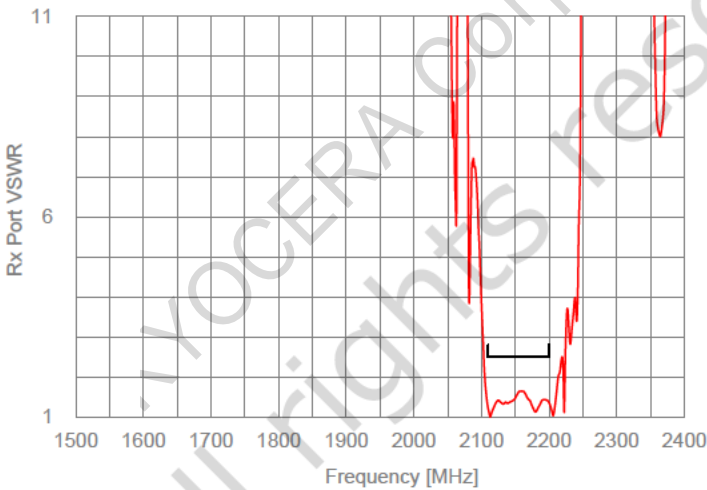
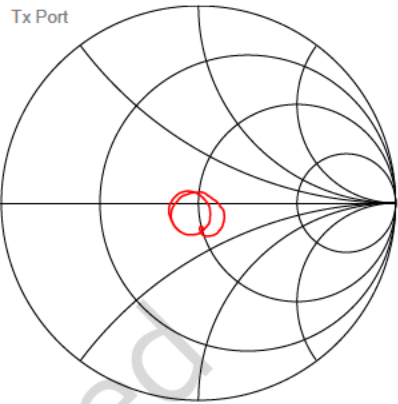
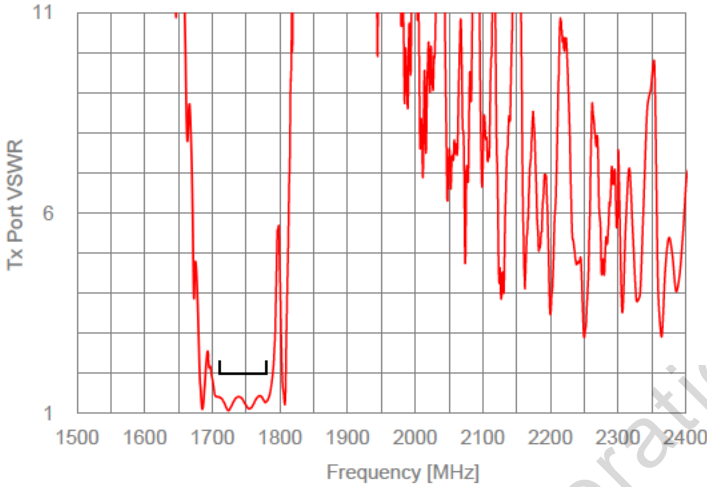
Electrical Characteristics

[Band66 Tx to Rx]

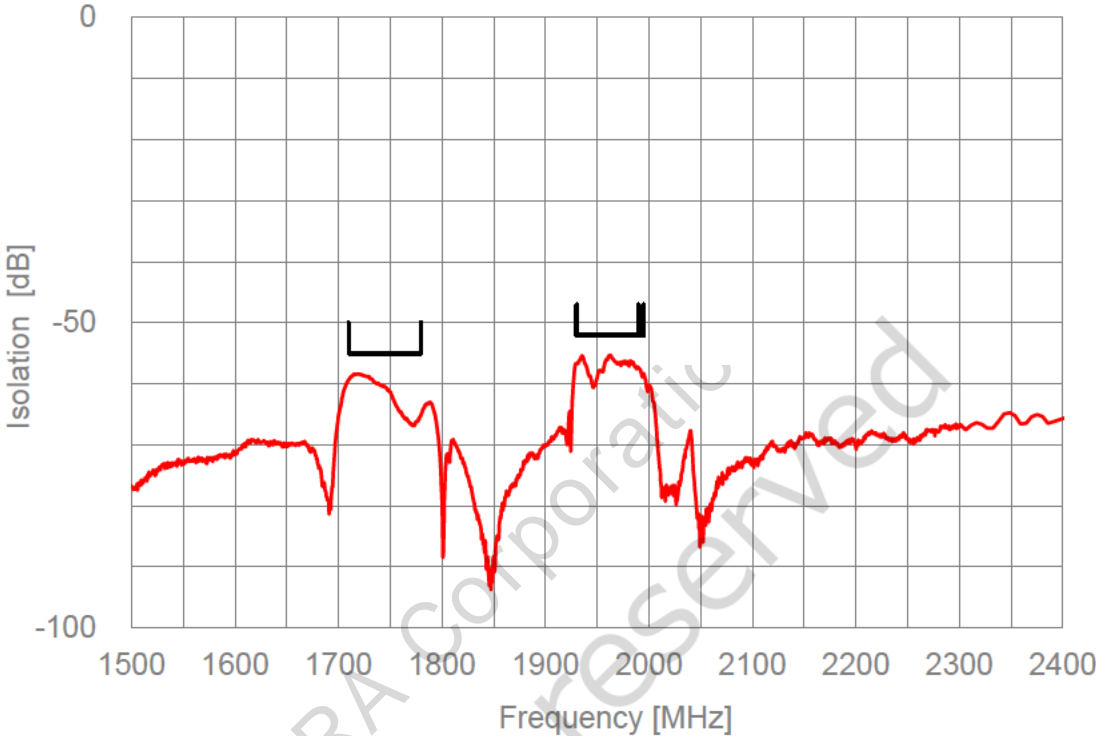


Electrical Characteristics

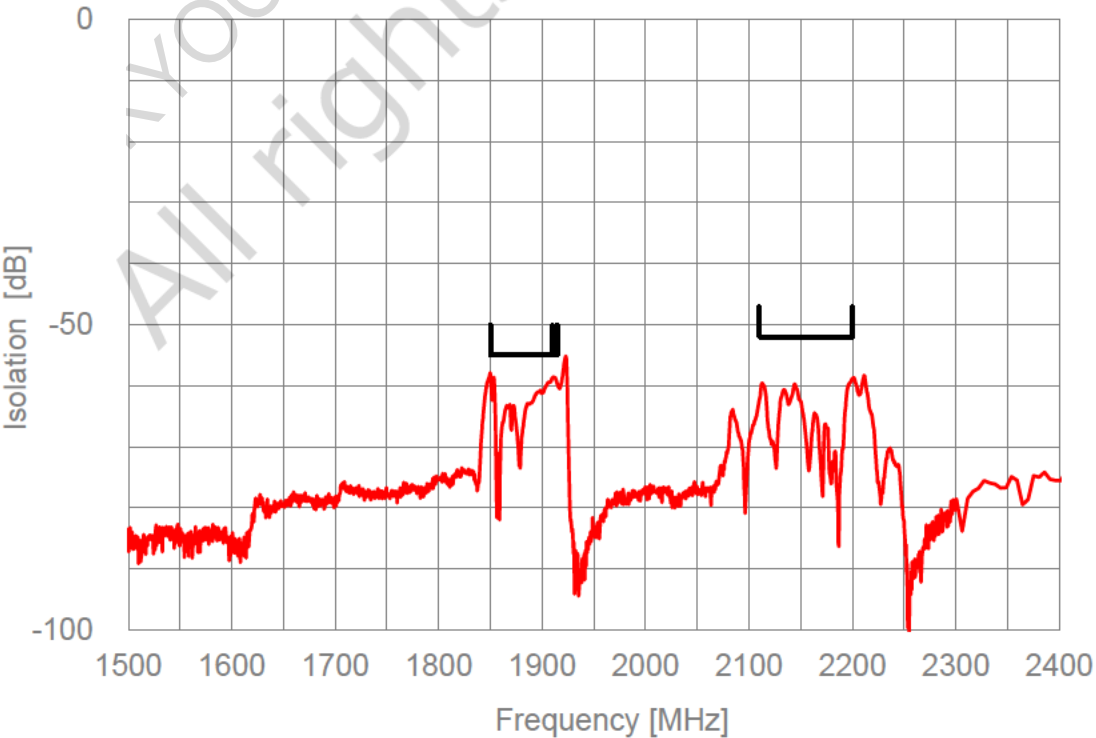
[Band66]



Electrical Characteristics
[Band66 Tx to Band25 Rx]

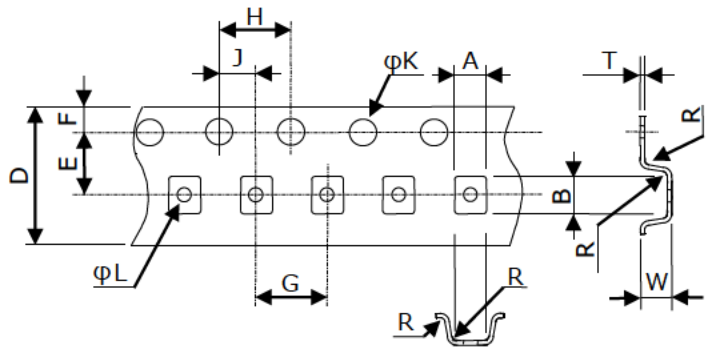


[Band25 Tx to Band66 Rx]



Tape & Reel Specification

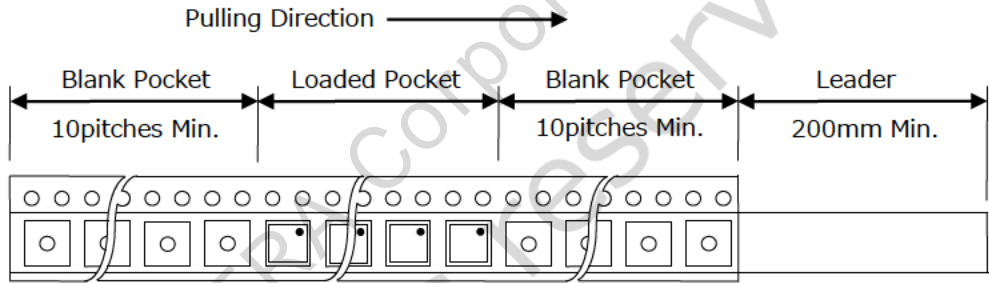
[Tape]



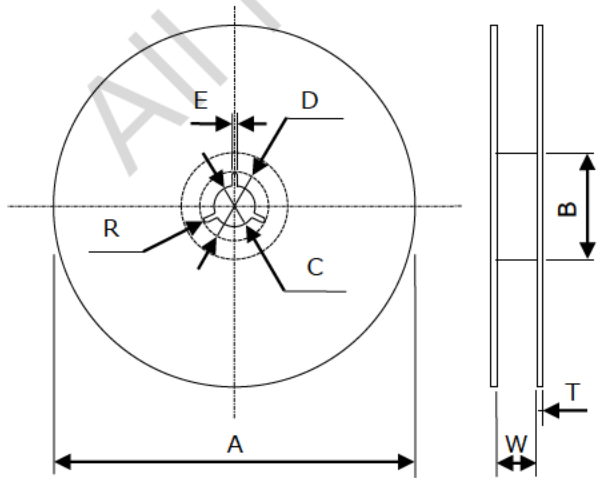
Unit : mm

Part	Dimension
A	2.3±0.1
B	2.8±0.1
D	8.0±0.1
E	3.50±0.05
F	1.75±0.10
G	4.0±0.1
H	4.0±0.1
J	2.00±0.05
K	1.5±0.1
L	1.0±0.1
R	0.3 Max
W	0.9±0.1
T	0.20±0.05

W : Dimension is depth of pockets.



[Reel]



Unit : mm

Part	Dimension
A	178 ± 2
B	60 ± 2
C	13.0 ± 0.2
D	21.0 ± 0.8
E	2.0 ± 0.5
R	1
W	9.5 ± 1.0
T	2.0 ± 0.2

Notice

1. Characteristics described in this datasheet are for references specifications shall be based on written documents agreed by each party.
2. Contents in this datasheet are subject to change without notice. It is recommended to confirm the latest information at the time of usage. Also, this datasheet is revised once a year. We may not be able to accept requests based on old datasheets.
3. Products in this datasheet are intended to be used in general electronic equipment such as office equipment, audio and visual equipment, communication equipment, measurement instrument and home appliances. It is absolutely recommended to consult with our sales representatives in advance upon planning to use our products in applications which require extremely high quality and reliability such as aircraft and aerospace equipment, traffic systems, safety systems, power plant and medical equipment including life maintenance systems.
4. Even though we strive for improvements of quality and reliability of products, it is requested to design with enough safety margin in equipment or systems in order not to threaten human lives directly or damage human bodies or properties by an accidental result of products.
5. It is requested to design based on guaranteed specifications for such as maximum ratings, operating voltage and operating temperature. It is not the scope of our guarantee for unsatisfactory results due to misuse or inadequate usage of products in the datasheet.
6. Operation summaries and circuit examples in this datasheet are intended to explain typical operation and usage of the product. It is recommended to perform circuit and assembly design considering surrounding conditions upon using products in this datasheet.
7. Technical information described in this datasheet is meant to explain typical operations and applications of products, and it is not intended to guarantee or license intellectual properties or other industrial rights of the third party or Kyocera.
8. Trademarks, logos and brand names used in this datasheet are owned by Kyocera or the corresponding third party.
9. Certain products in this datasheet are subject to the Foreign Exchange and Foreign Trade Control Act of Japan, and require the license from Japanese Government upon exporting the restricted products and technical information under the law. Besides, it is requested not to use products and technical information in the datasheet for the development and/or manufacture of weapons of mass destruction or other conventional weapons, nor to provide them to any third party with the possibility of having such purposes.
10. It is prohibited to reprint and reproduce a part or whole of this datasheet without permission.