

# Datasheet of SAW Duplexer 2520 Band3 for Base station

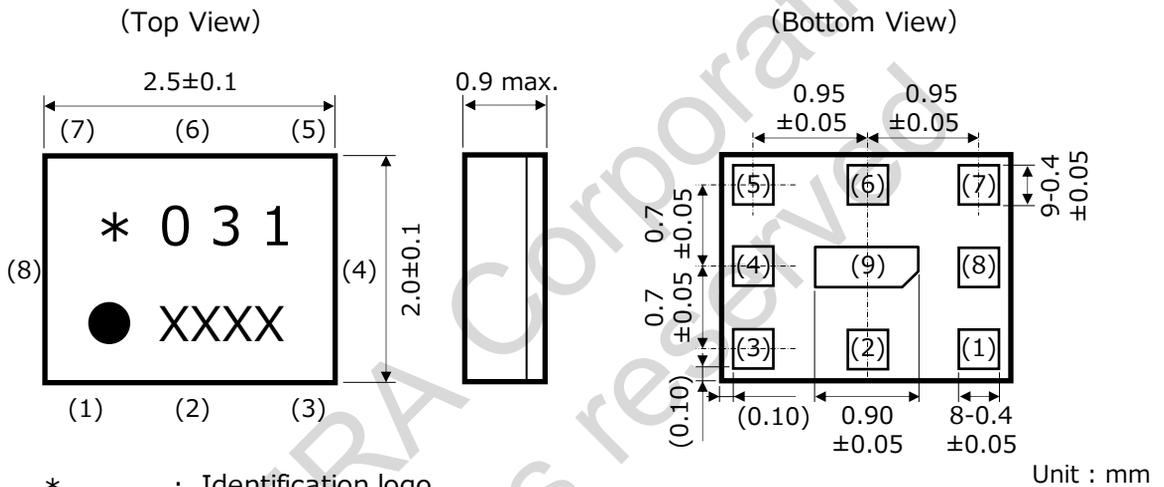
KYOCERA Part No. : SD25-1842R9UUA1

KYOCERA Corporation  
All rights reserved

### Rating

Items	Rating	Unit	Note
Operating Temperature Range	-40 to +95	deg.C	
Storage Temperature Range	-40 to +95	deg.C	
Max Input Power (Tx port)	+30	dBm	LTE 5MHz (PAR=6.95dB) 10 years @95deg.C
Tx Port Nominal Impedance	50//10nH	ohm	Unbalance
Ant. Port Nominal Impedance	50//5.1nH	ohm	Unbalance
Rx Port Nominal Impedance	50+1.5nH	ohm	Unbalance

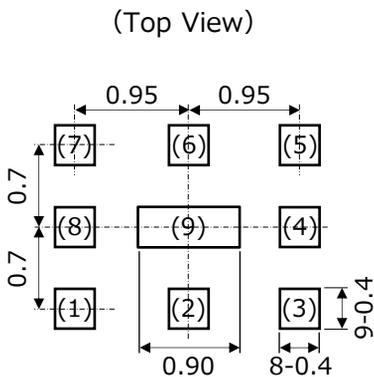
### Dimensions



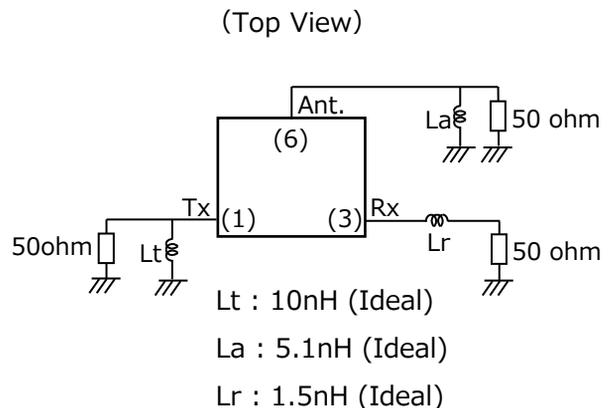
- \* : Identification logo
- 031 : Identification no.
- : Index mark of pin 1
- XXXX : Production code

Pin No.	Function
(1)	Tx
(3)	Rx
(6)	Ant.
Others	GND

### Recommendable Land Pattern



### Measurement Circuit

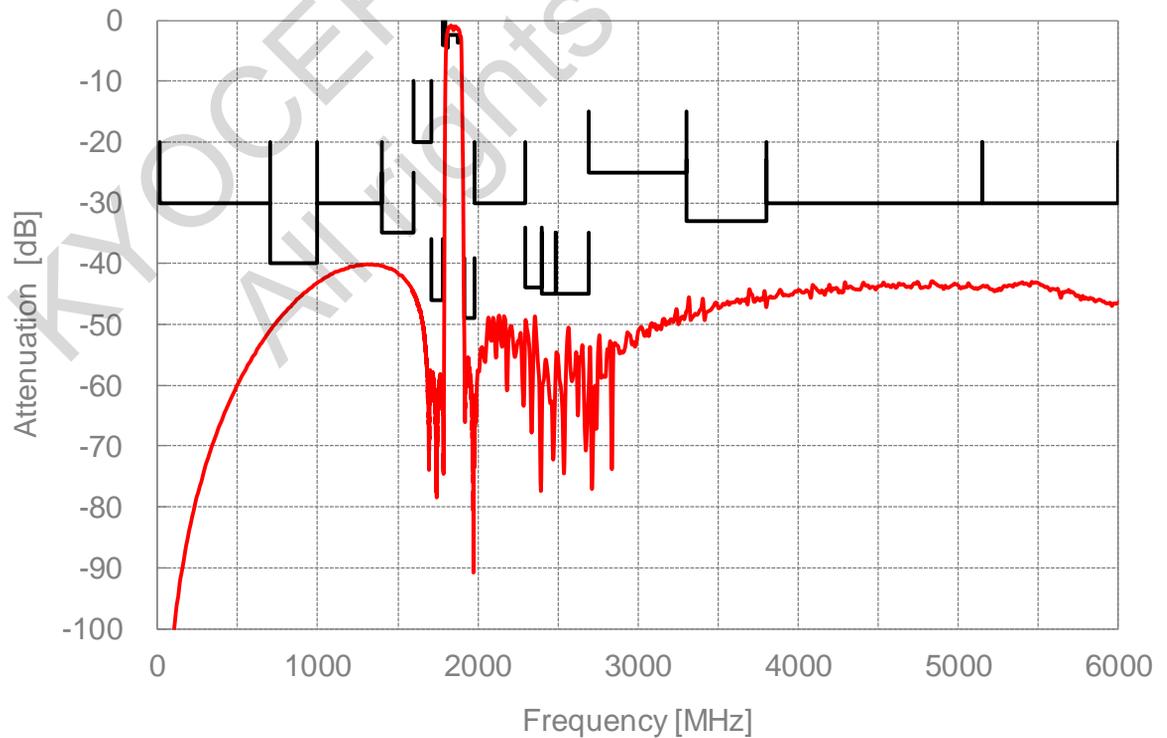
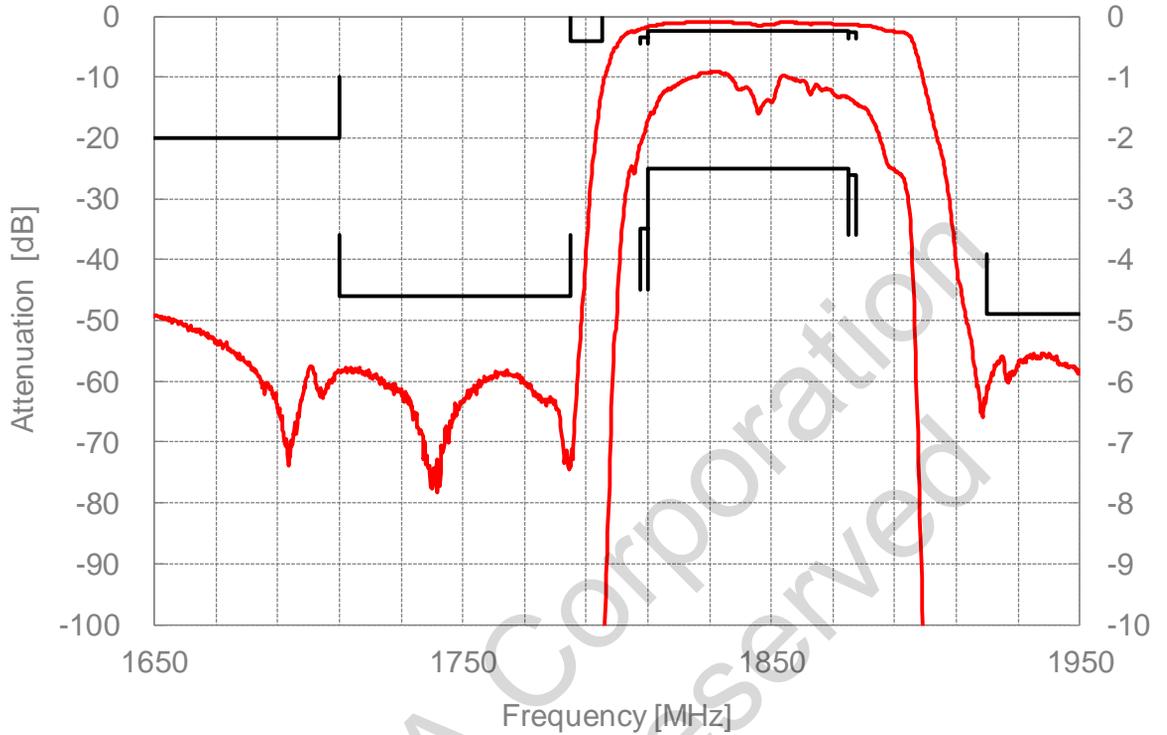


## Electrical Characteristics

ITEMS	Frequency (MHz)	Characteristics			Unit	Note	
		min.	typ.	max.			
Tx to Ant	Insertion Loss	1805 - 1810	-	2.1	3.5	dB	Average over any 5MHz
		1810 - 1875	-	1.5	2.5		
		1875 - 1880	-	1.4	2.6		
	Ripple (any5MHz)	1805 - 1880	-	0.9	2.2	dB	
	VSWR (Tx)	1805 - 1880	-	1.6	2.3	-	
	VSWR (Ant)	1805 - 1880	-	1.6	2.3	-	
	Absolute Attenuation	10 - 700	30	51	-	dB	
		700 - 1000	40	43	-	dB	
		1000 - 1400	30	40	-	dB	
		1400 - 1600	35	40	-	dB	
		1600 - 1710	20	45	-	dB	
		1710 - 1785	46	58	-	dB	
		1785 - 1795	4	12	-	dB	
		1920 - 1980	49	56	-	dB	
		1980 - 2300	30	49	-	dB	
		2300 - 2400	44	49	-	dB	
		2400 - 2484	45	55	-	dB	
		2484 - 2690	45	51	-	dB	
		2690 - 3300	25	47	-	dB	
3300 - 3800		33	44	-	dB		
3800 - 5150		30	43	-	dB		
5150 - 6000		30	43	-	dB		
Ant to Rx	Insertion Loss	1710 - 1715	-	1.3	2.2	dB	Average over any 5MHz
		1715 - 1780	-	1.4	2.6		
		1780 - 1785	-	1.9	3.6		
	Ripple (any5MHz)	1710 - 1785	-	0.8	2.0	dB	
	VSWR (Rx)	1710 - 1785	-	1.5	2.2	-	
	VSWR (Ant)	1710 - 1785	-	1.5	2.2	-	
	Absolute Attenuation	10 - 700	40	45	-	dB	
		700 - 1000	37	40	-	dB	
		1000 - 1400	25	38	-	dB	
		1400 - 1600	33	38	-	dB	
		1600 - 1690	15	25	-	dB	
		1805 - 1880	45	55	-	dB	
		1880 - 1920	35	49	-	dB	
		1920 - 1980	30	45	-	dB	
		1980 - 2110	35	39	-	dB	
2110 - 2170		31	37	-	dB		
2170 - 2690		26	29	-	dB		
2690 - 3300		15	25	-	dB		
3300 - 3800	15	22	-	dB			
3800 - 5150	15	22	-	dB			
5150 - 6000	7	13	-	dB			
Tx to Rx	Isolaion	1710 - 1785	55	59	-	dB	Average over any 5MHz
		1805 - 1880	52	59	-	dB	Average over any 5MHz

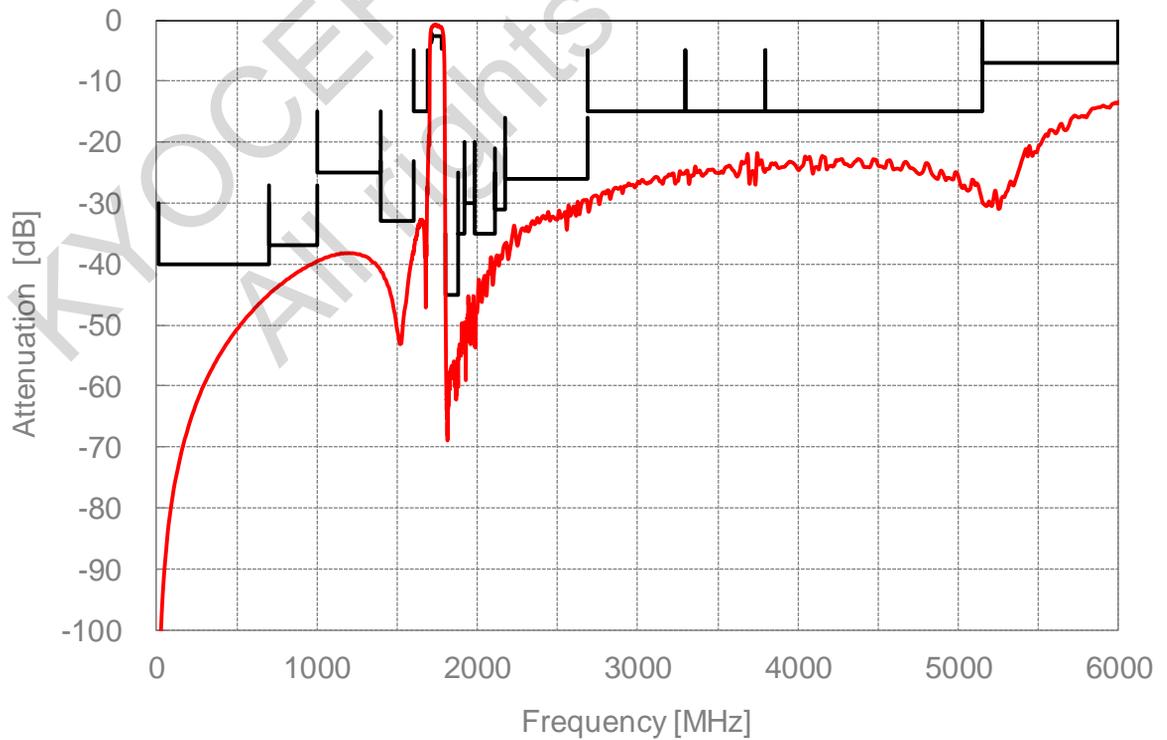
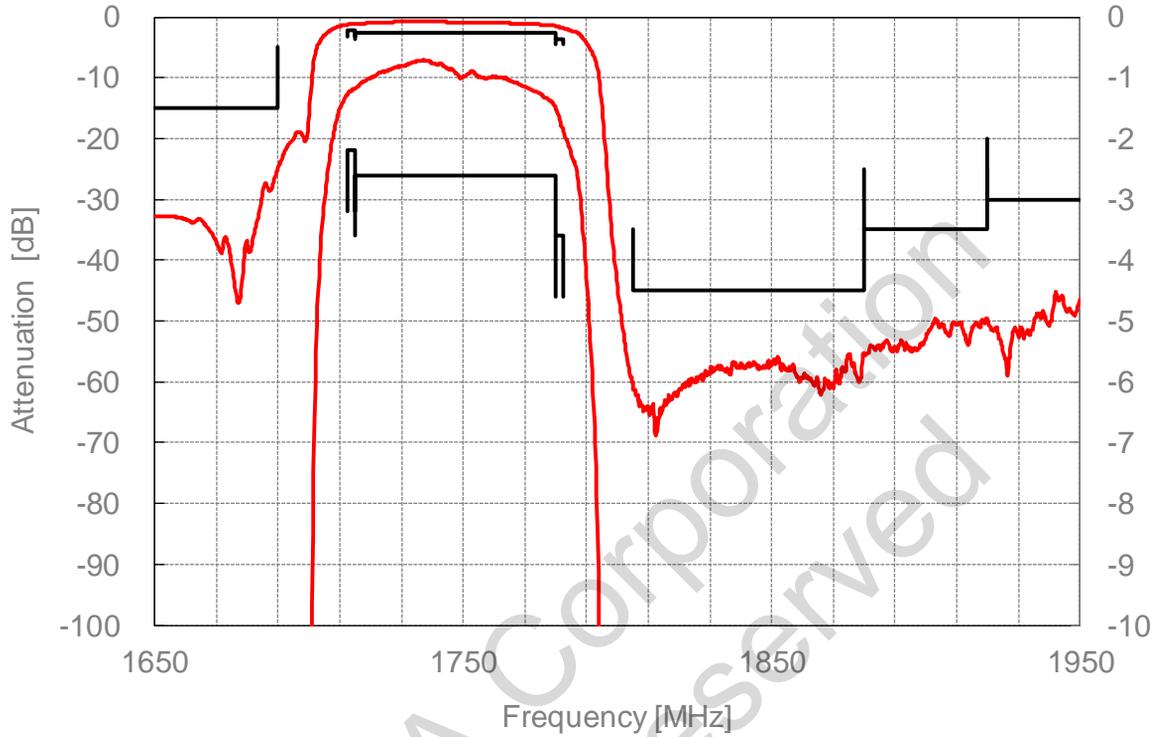
**Electrical Characteristics**

[Tx to Ant]



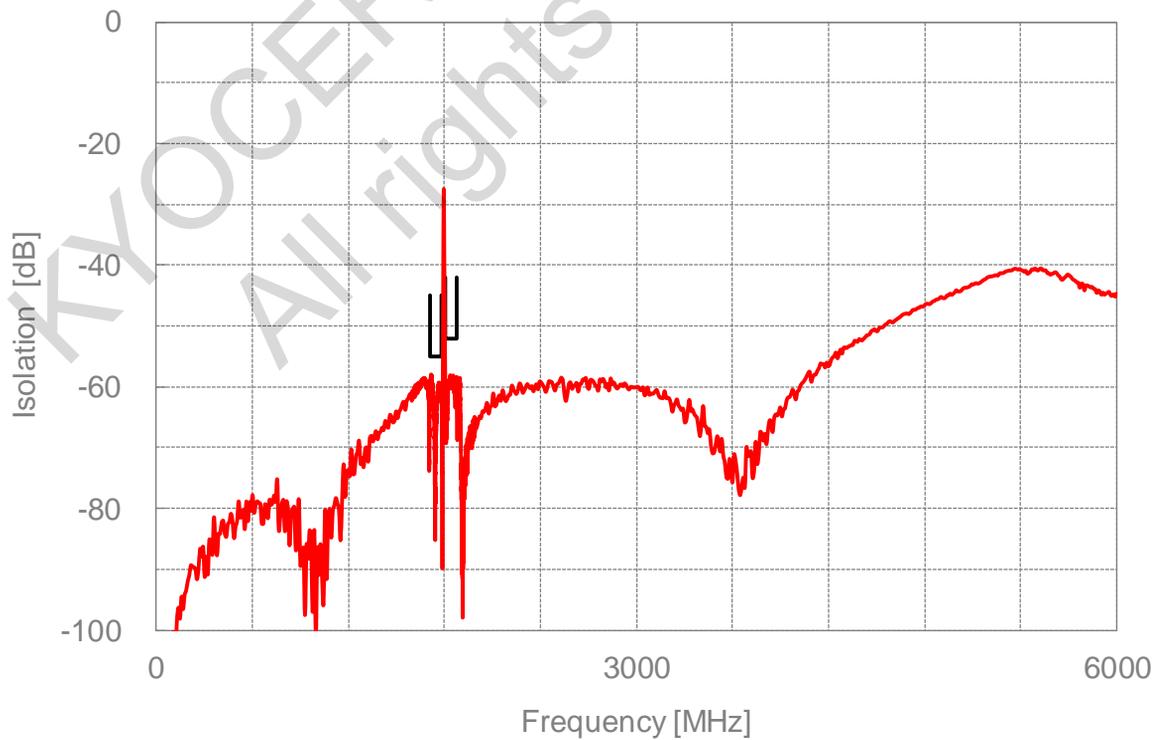
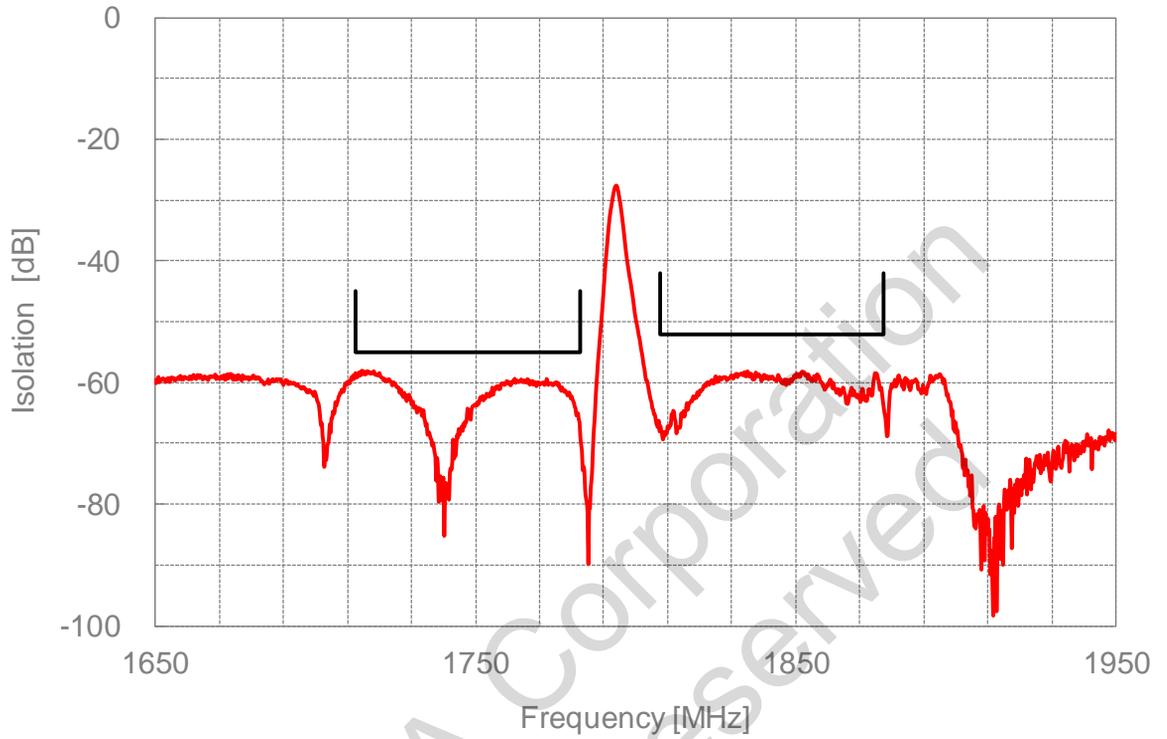
### Electrical Characteristics

[Ant to Rx]

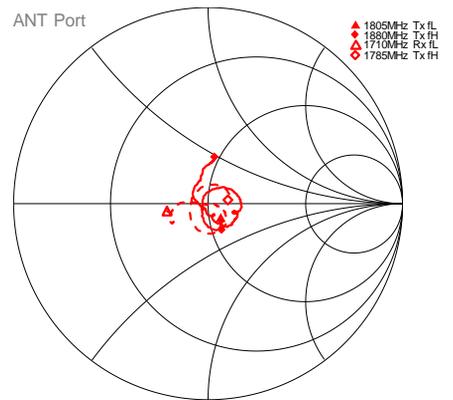
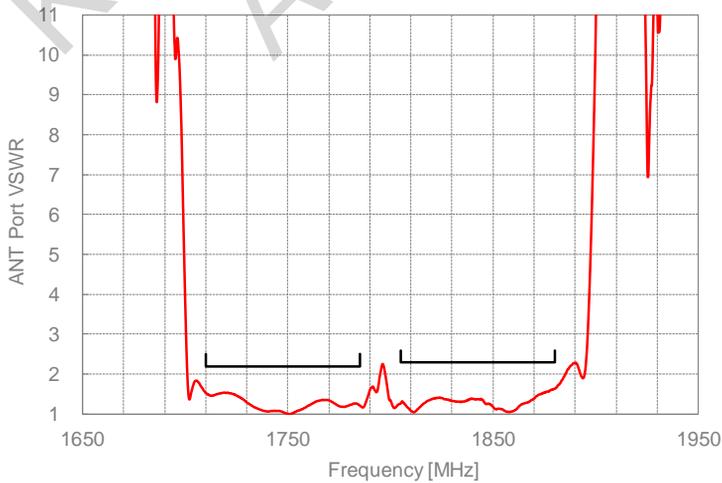
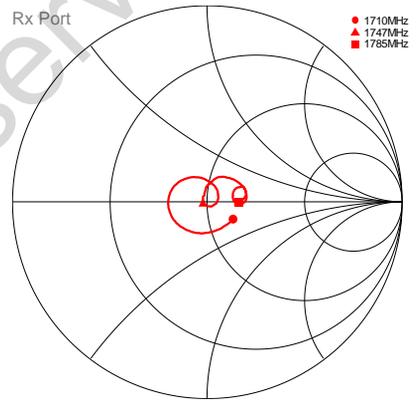
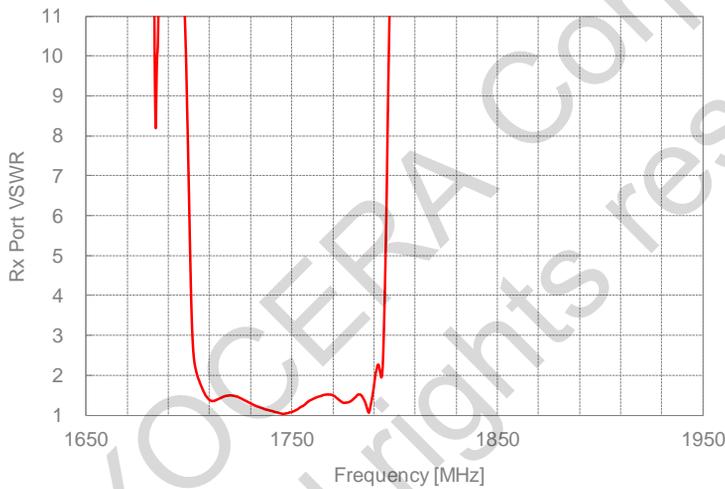
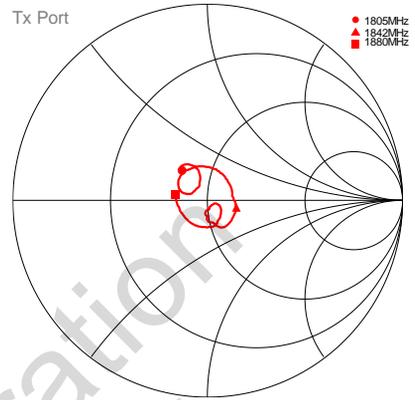
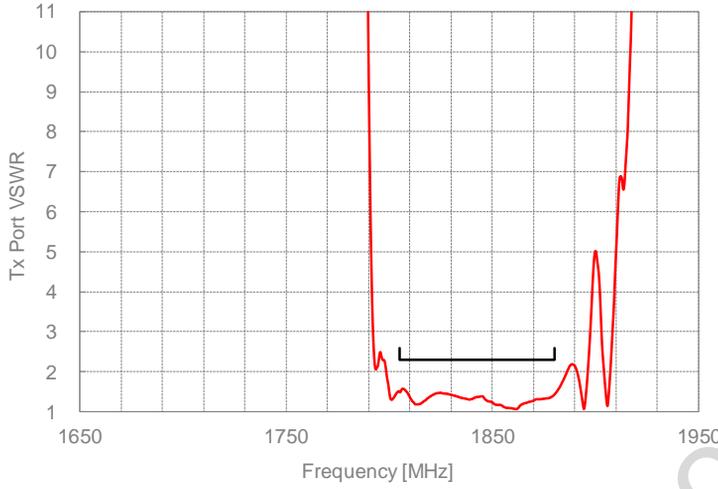


**Electrical Characteristics**

[Tx to Rx]

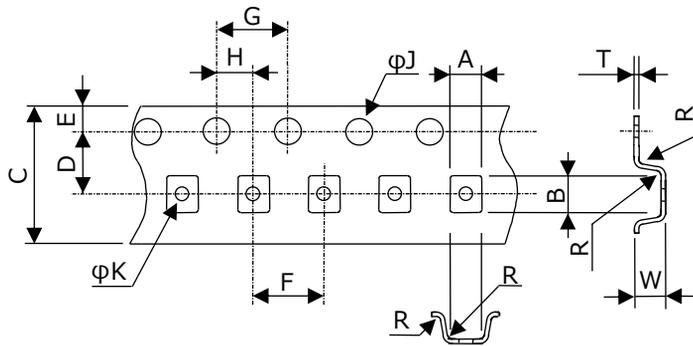


### Electrical Characteristics



### Tape & Reel Specification

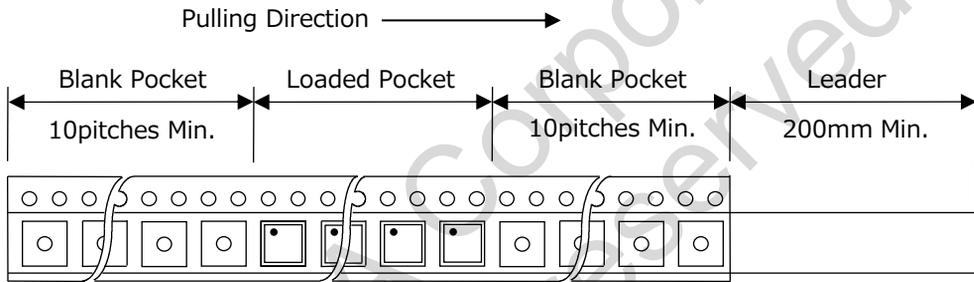
#### [Tape]



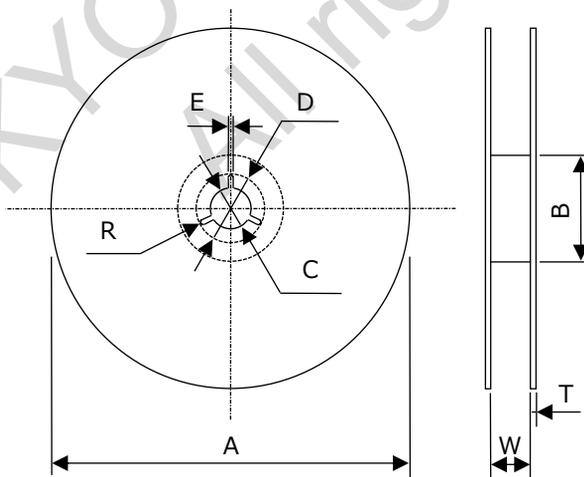
Unit : mm

Part	Dimension
A	2.3±0.1
B	2.8±0.1
C	8.0±0.1
D	3.50±0.05
E	1.75±0.10
F	4.0±0.1
G	4.0±0.1
H	2.00±0.05
φJ	1.5±0.1
φK	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.