Rev.00

RoHS Compliant

Datasheet of SAW Duplexer

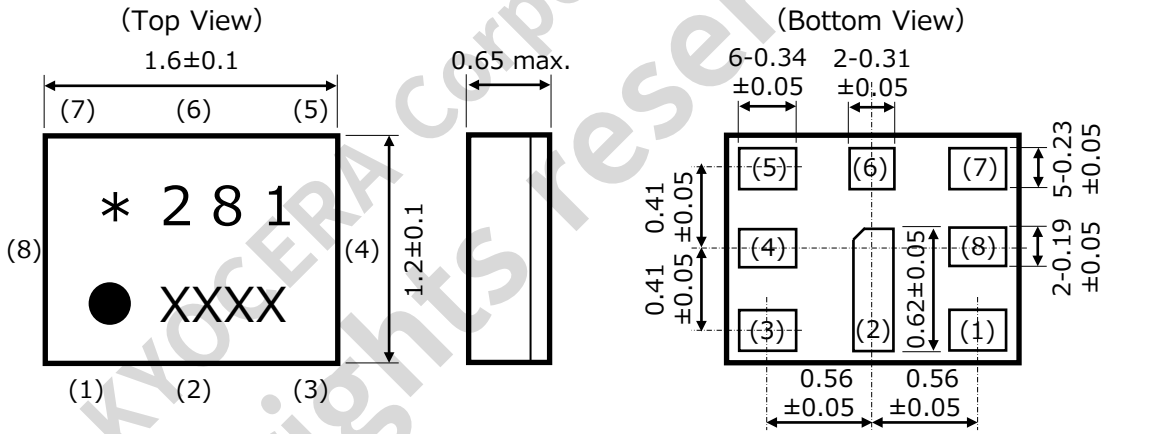
1612 Band28A Unbalanced

KYOCERA Part No. : SD16-0718R8UUA1

Rating

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
Tx Port Nominal Impedance		50+15nH(series)	ohm	Unbalance
Ant. Port Nominal Impedance		50//11nH(shunt)	ohm	Unbalance
Rx Port Nominal Impedance		50+4.2nH(series)	ohm	Unbalance

Dimensions

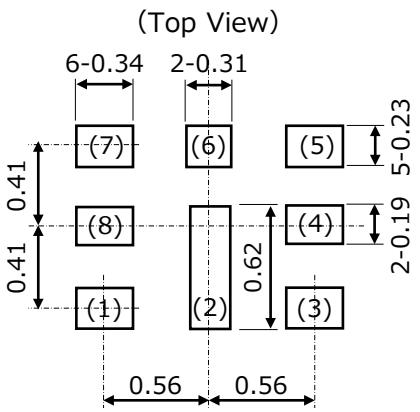


Unit : mm

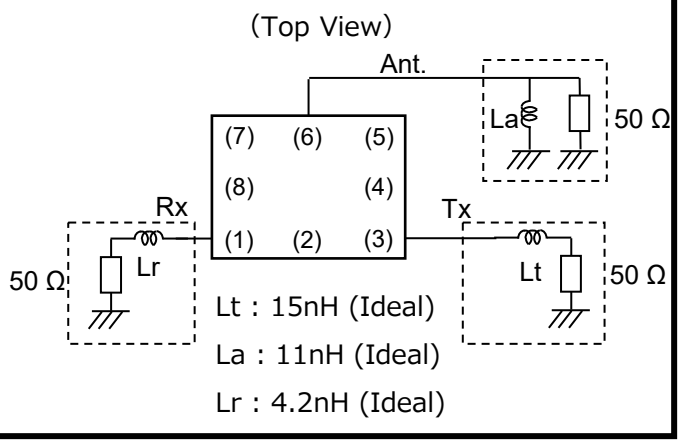
* : Identification mark
281 : Identification no.
● : Index mark of pin 1
XXXX : Production code

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

Recommendable Land Pattern



Measurement Circuit

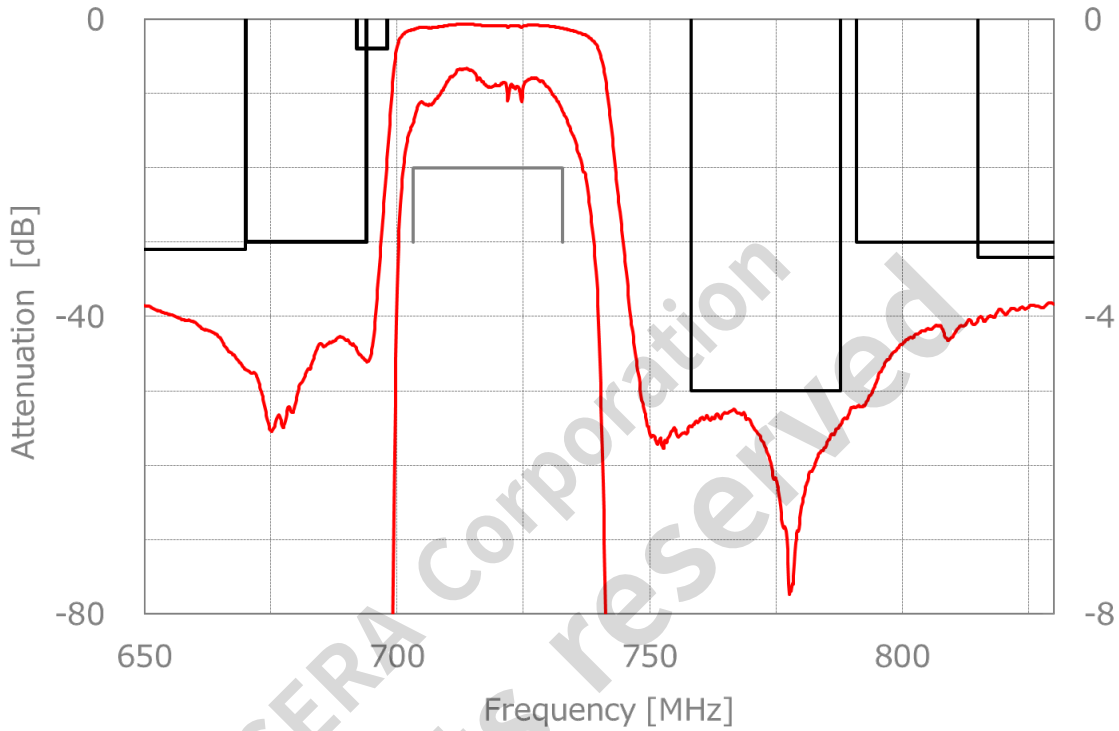


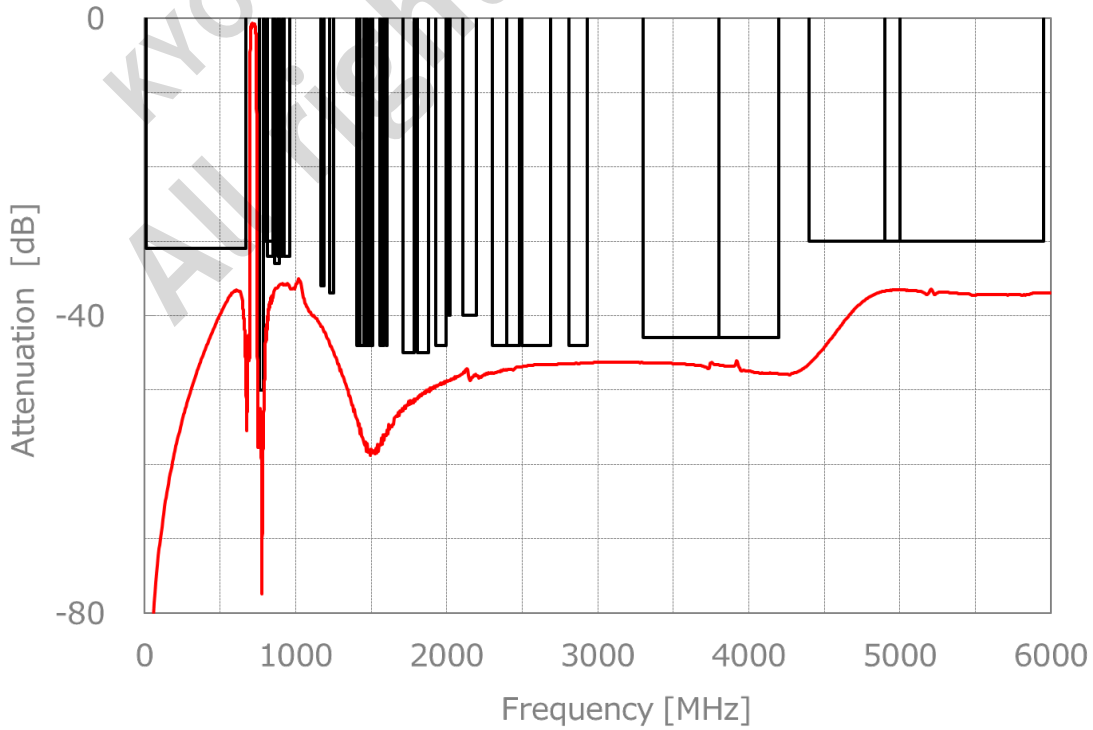
Electrical Characteristics

Items			Frequency (MHz)			Specificatioin min.	Specificatioin typ.	Specificatioin max.	Unit	Notes
TX to ANT	Insertion Loss		703.24	-	732.76	-	1.4	2.0	dB	
	Ripple		703.24	-	732.76	-	0.7	1.6	dB	
	VSWR	Tx	703	-	733	-	1.7	2.1	-	
		Ant	703	-	733	-	1.7	2.0	-	
	Attenuation		670	-	694	30	44	-	dB	Average over any 6MHz
			692	-	698	4	34	-	dB	Average over any 6MHz
			10	-	670	31	36	-	dB	
			758.24	-	787.76	50	53	-	dB	
			791	-	862	30	36	-	dB	
			815	-	849	32	37	-	dB	
			860	-	894	33	36	-	dB	
			880	-	915	32	36	-	dB	
			925	-	960	32	36	-	dB	
			1166	-	1187	36	42	-	dB	
			1226	-	1250	37	44	-	dB	
			1406	-	1466	44	55	-	dB	
			1427.9	-	1462.9	44	56	-	dB	
			1452	-	1496	44	57	-	dB	
			1475.9	-	1510.9	44	58	-	dB	
			1559	-	1563	44	57	-	dB	
			1565.42	-	1573.37	44	57	-	dB	
			1573.37	-	1577.47	44	57	-	dB	
			1577.47	-	1585.42	44	56	-	dB	
			1597.55	-	1605.89	44	56	-	dB	
			1710	-	1785	45	51	-	dB	
			1805	-	1880	45	50	-	dB	
			1930	-	1995	44	49	-	dB	
			2010	-	2025	40	49	-	dB	
			2109	-	2199	40	47	-	dB	
			2300	-	2400	44	48	-	dB	
			2400	-	2484	44	47	-	dB	
			2496	-	2690	44	47	-	dB	
			2812	-	2932	44	47	-	dB	
			3300	-	3800	43	46	-	dB	
			3300	-	4200	43	46	-	dB	
			4400	-	5000	30	36	-	dB	
			4900	-	5950	30	36	-	dB	
ANT to RX	Insertion Loss		758.24	-	787.76	-	1.5	2.0	dB	
	Ripple		758.24	-	787.76	-	0.5	1.6	dB	
	VSWR	Ant	758	-	788	-	1.6	2.0	-	
		Rx	758	-	788	-	1.6	2.0	-	
	Attenuation		10	-	699	45	50	-	dB	
			45	-	65	60	86	-	dB	
			703.24	-	732.76	50	56	-	dB	
			733.24	-	747.76	35	45	-	dB	
			814	-	2400	25	40	-	dB	
			2400	-	2483	40	48	-	dB	
			2496	-	2690	40	47	-	dB	
			3300	-	3800	38	46	-	dB	
			3300	-	4200	38	46	-	dB	
			4400	-	5000	38	45	-	dB	
			4900	-	5950	38	43	-	dB	
TX to RX	Isolation		703.24	-	732.76	56	59	-	dB	
			758	-	788	54	57	-	dBint	Integrated calculation, 4.5MHz of LTE5MHz

Electrical Characteristics

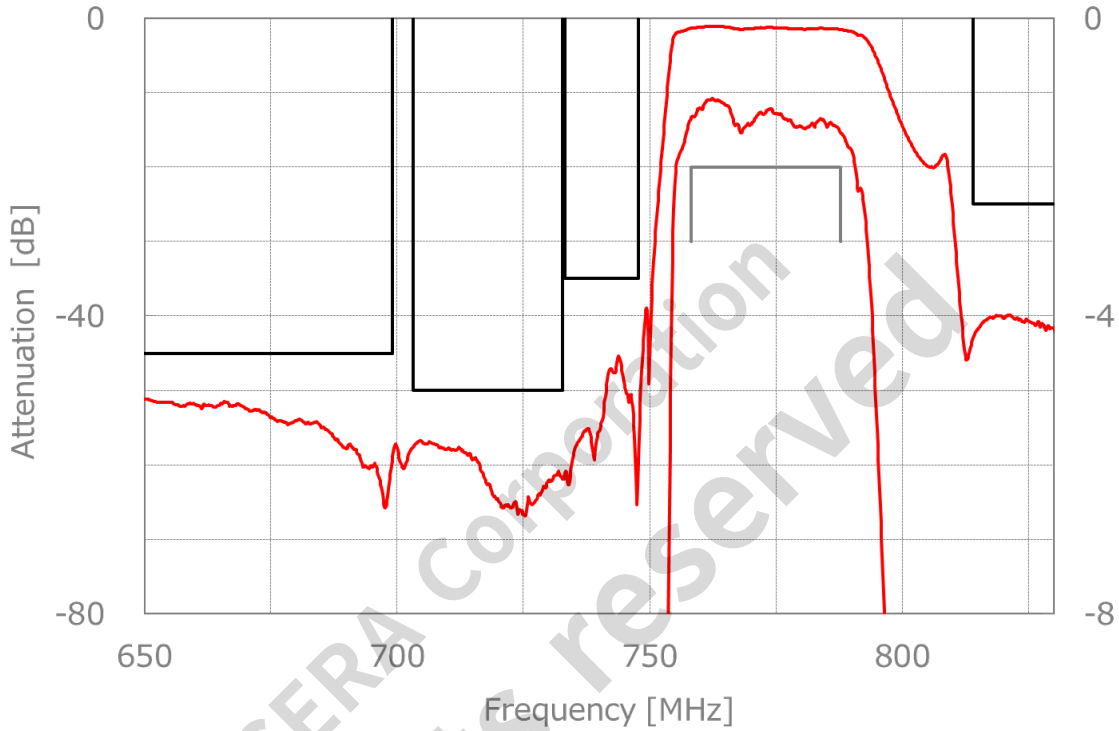
[Tx to Ant]

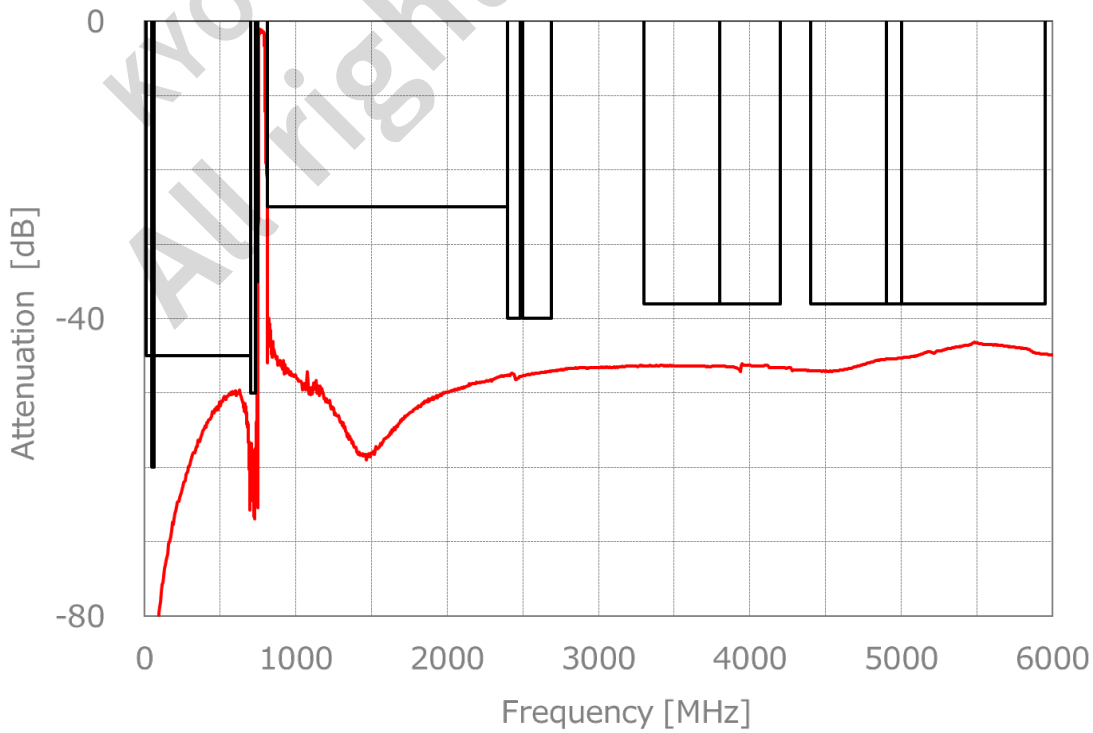




Electrical Characteristics

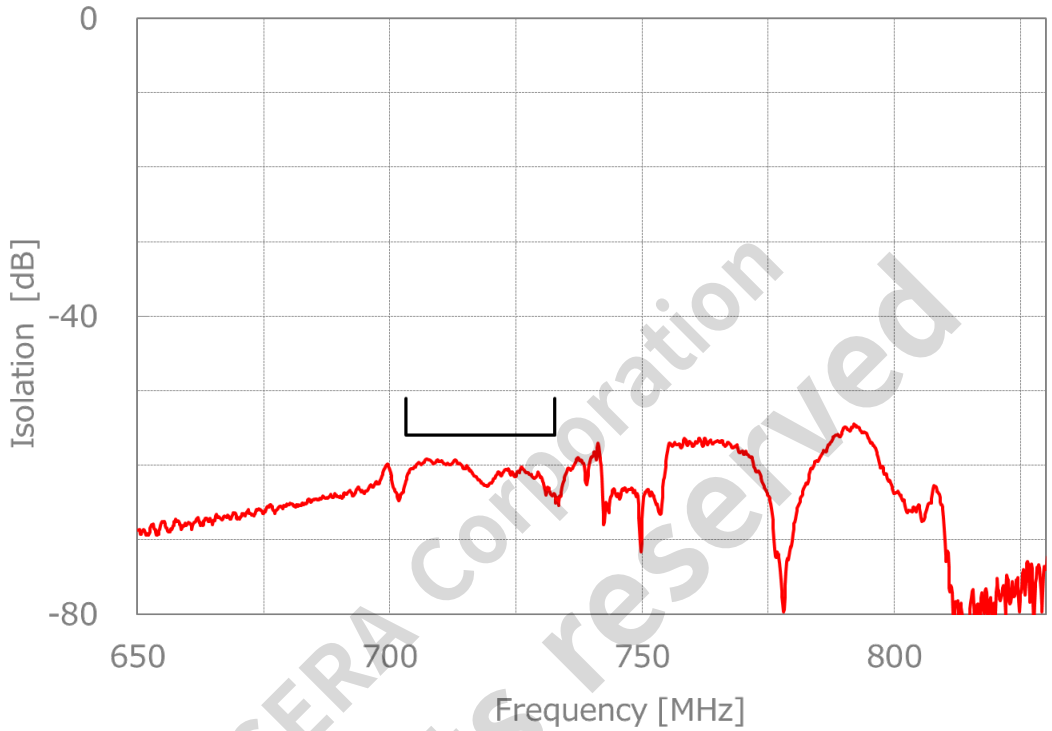
[Ant to Rx]

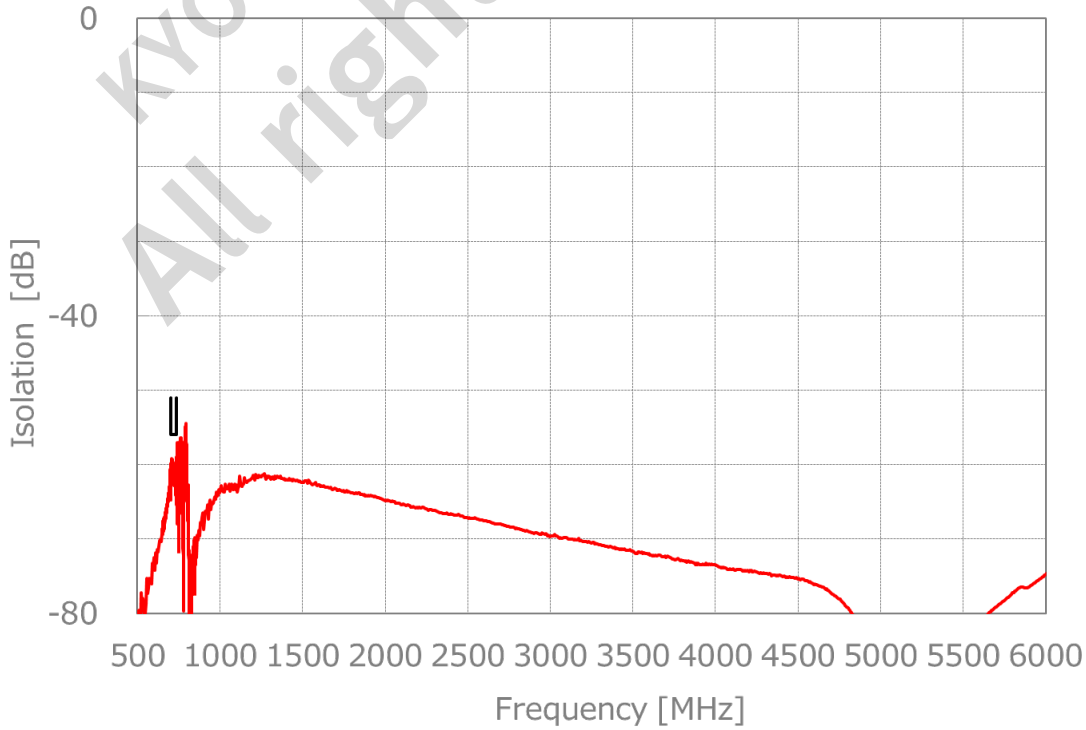




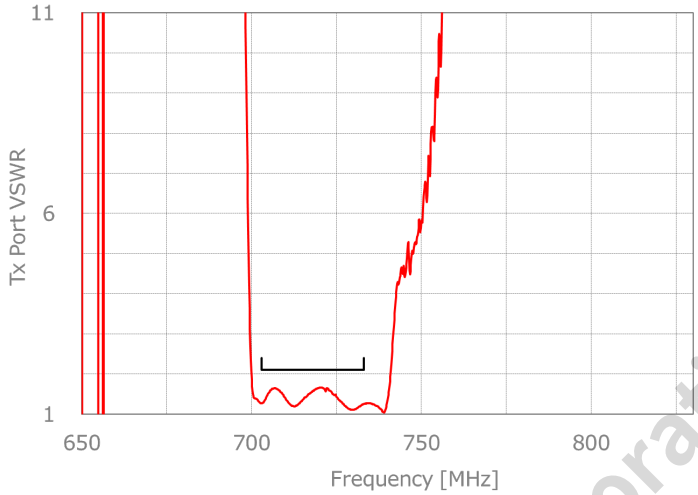
Electrical Characteristics

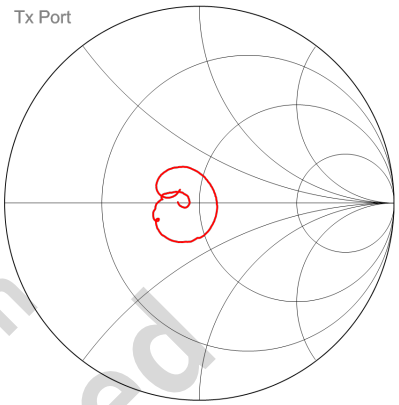
[Tx to Rx]

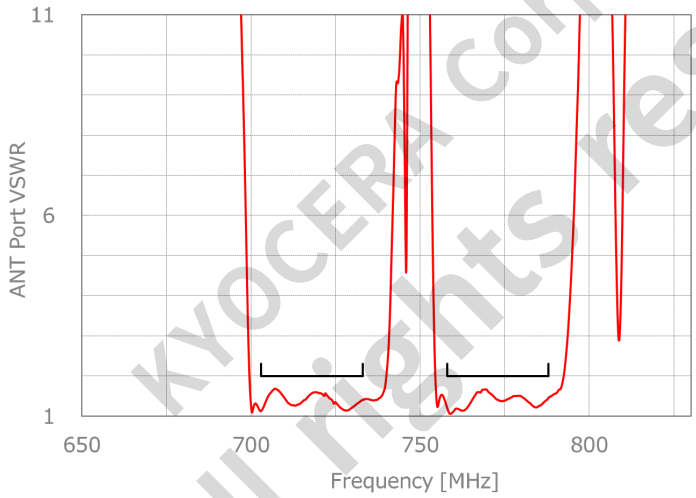


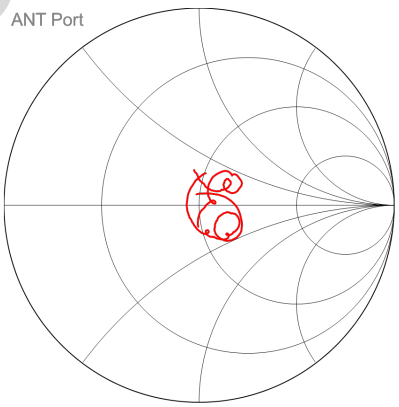


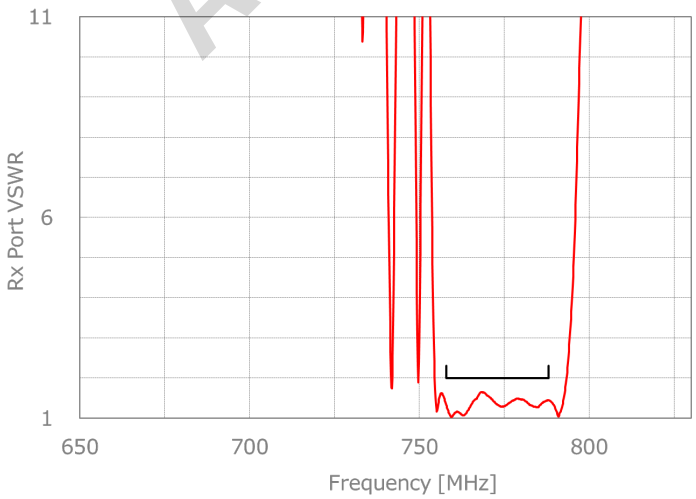
Electrical Characteristics

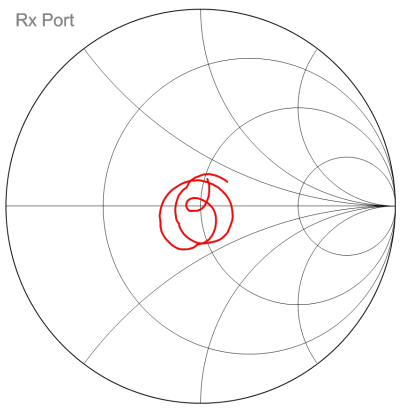






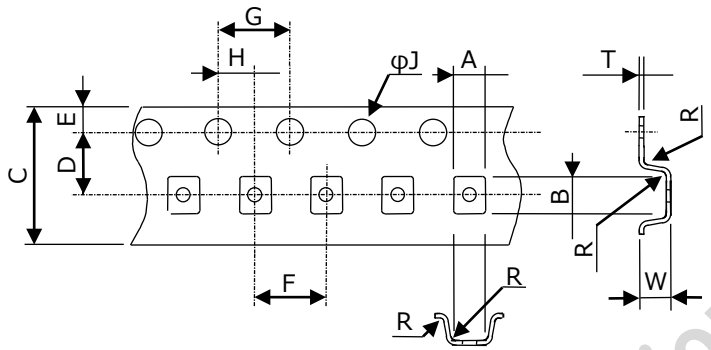






Tape & Reel Specification

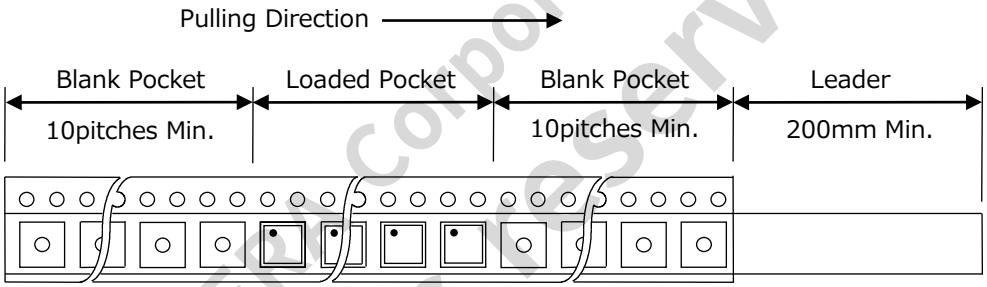
[Tape]



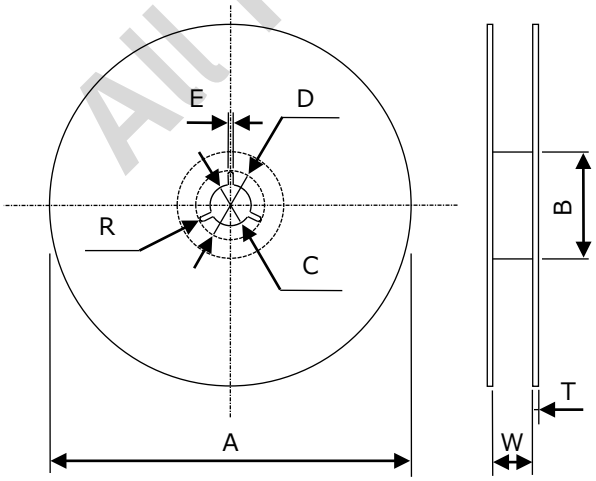
Unit : mm

Part	Dimension
A	1.35±0.10
B	1.80±0.10
C	8.0±0.2
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/-0
R	0.2 Max
W	0.8±0.2
T	0.20±0.05

W : Dimension is depth of pockets.



[Reel]



Unit : mm

Part	Dimension
A	330 ± 2
B	100 ± 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

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