

Datasheet of SAW Duplexer
1612 Band13+Band14 Unbalanced
NS07 Band Care

KYOCERA Part No. : SD16-0782T8UUA1

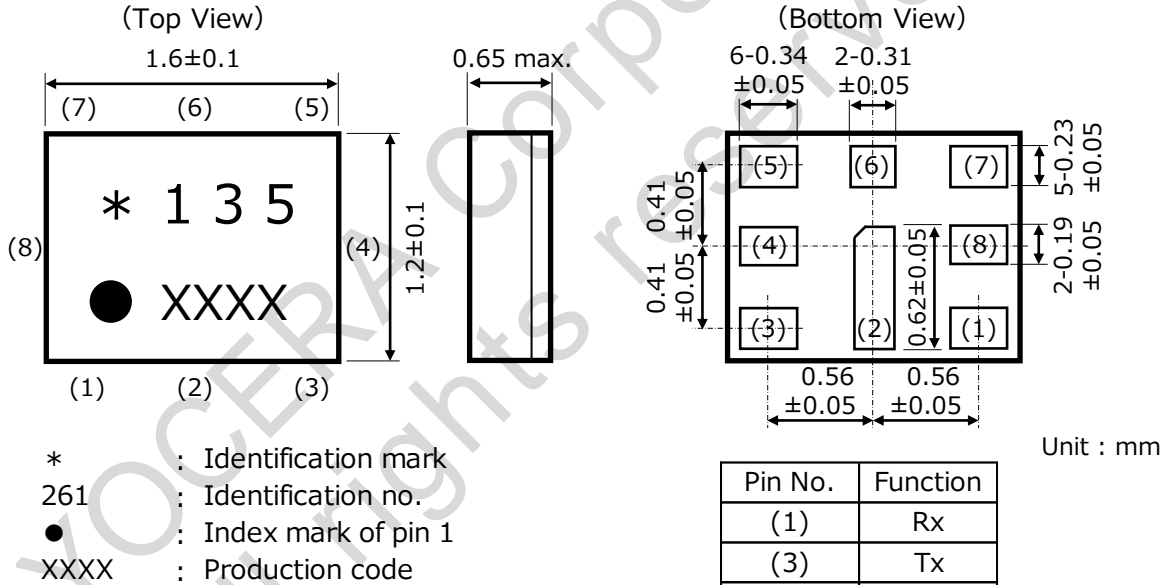
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Rating

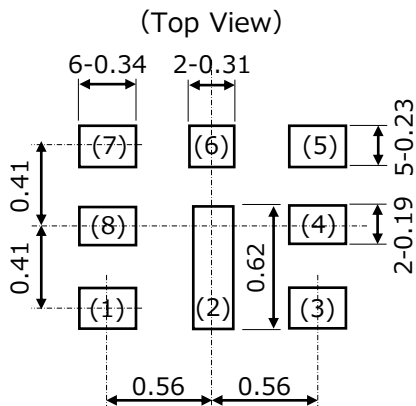
Table 1

Items		Rating	Unit	Note
Operating Temperature Range		-20 to +90	deg.C	
Storage Temperature Range		-30 to +90	deg.C	
Max Input Power	Band13 Tx @777.5 - 786.5MHz	+31	dBm	5,000Hours,DFT-s-OFDM-QPSK,Ta=50deg.C
		+29.5	dBm	5,000Hours,CP-OFDM-QPSK,Ta=50deg.C
	Band14 Tx @788 - 798MHz	+31	dBm	5,000Hours,DFT-s-OFDM-QPSK,Ta=50deg.C
		+29.5	dBm	5,000Hours,CP-OFDM-QPSK,Ta=50deg.C
ESD Level	Machine Model	50	Volt	Complied to JESD22-A115
Tx Port Nominal Impedance		50	ohm	Unbalance
Ant. Port Nominal Impedance		50+11nH //2.1pF	ohm	Unbalance
Rx Port Nominal Impedance		50+7.5nH	ohm	Unbalance

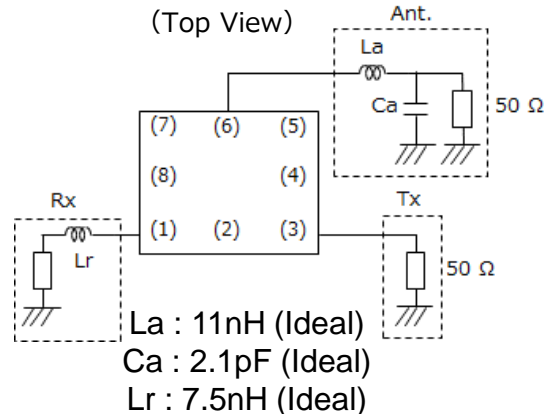
Dimensions



Recommendable Land Pattern



Measurement Circuit



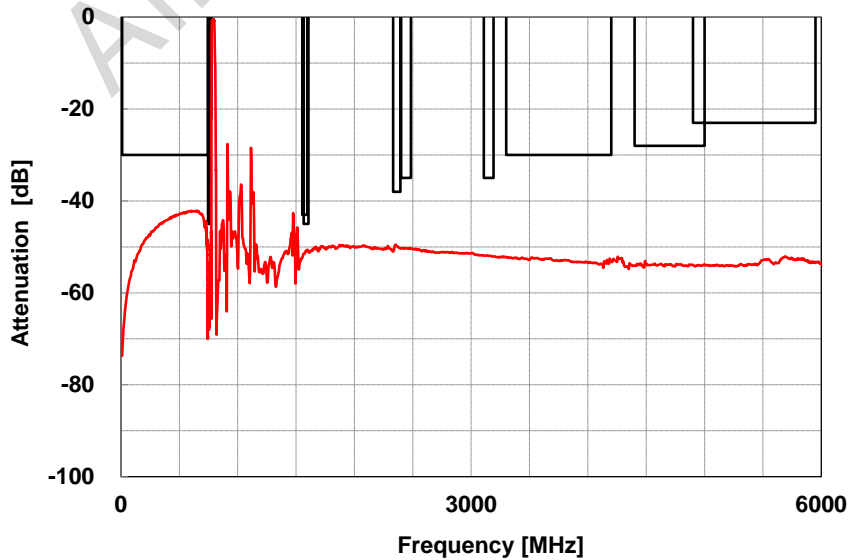
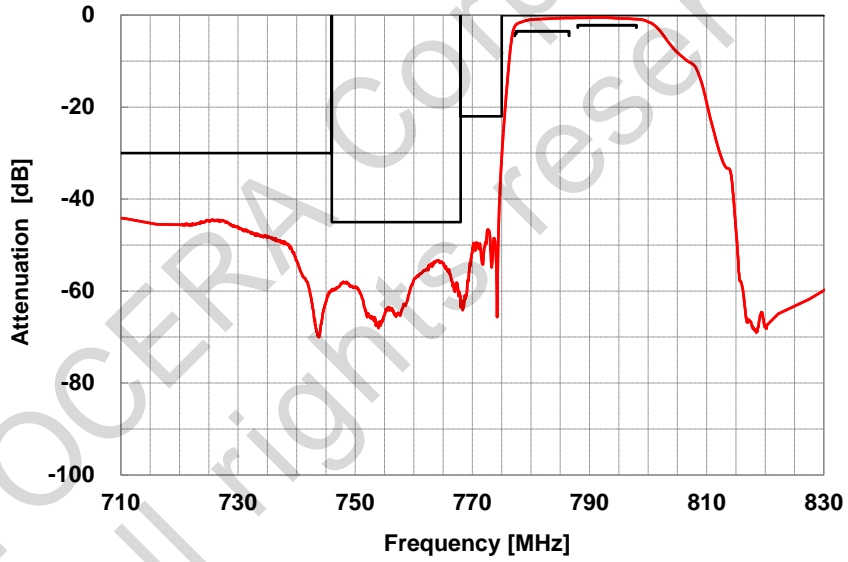
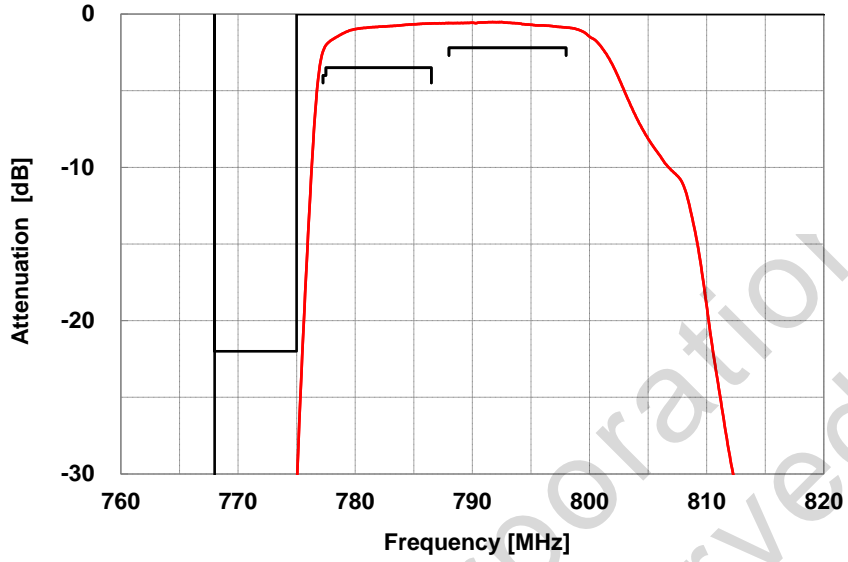
Electrical Characteristics

ITEMS		Frequency [MHz]	Unit	Specification			Notes	
				min.	typ.	max.		
Tx to Ant	Insertion Loss	777.5 - 786.5	dB	-	2.0	3.5	B13 TX	
		788 - 798	dB	-	0.9	2.2	B14 TX	
		777.25 - 786.5	dB	-	2.4	4.0	B13 / 14 TX @+25deg.C	
	VSWR	Tx	777.5 - 798	-	-	1.5	2.1	B13 / 14 TX
		Ant	777.5 - 798	-	-	1.5	2.1	B13 / 14 TX
	Attenuation		10 - 746	dB	30	42	-	
			746 - 768	dB	45	54	-	B13 / 14 RX
			768 - 775	dB	22	30	-	NS07 Relative to IL(dBint*)
			1554 - 1596	dB	43	51	-	2F TX
			1565 - 1607	dB	45	51	-	GNSS
			2331 - 2394	dB	38	50	-	3F TX
			2400 - 2484	dB	35	51	-	ISM
			3108 - 3192	dB	35	52	-	4F TX
		3300 - 4200	dB	30	53	-	n77	
Ant to Rx	Insertion Loss	746 - 756	dB	-	1.2	1.8	B13 RX	
		758 - 768	dB	-	1.3	2.2	B14 RX	
	VSWR	Ant	746 - 768	-	-	1.7	2.2	B13 / 14 RX
		Rx	746 - 768	-	-	1.6	2.1	B13 / 14 RX
	Attenuation		777 - 798	dB	30	58	-	B13 / 14 TX
			2400 - 2500	dB	40	59	-	ISM 2.4G
			3300 - 4200	dB	35	69	-	n77
		4400 - 5000	dB	30	68	-	n79	
Tx to Rx	Isolation	746 - 768	dB	54	57	-	RX	
		777 - 798	dB	55	58	-	TX	

*dBint : Integrated to LTE Modulation (4.5MHz)

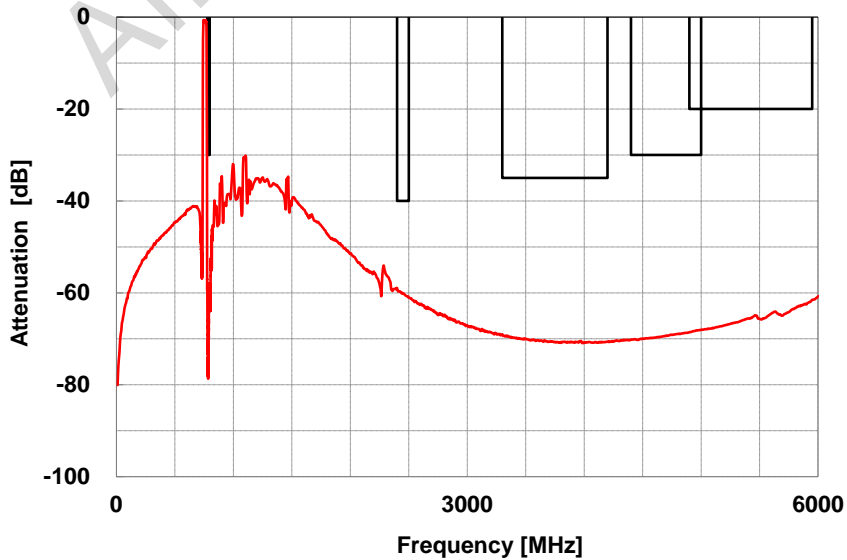
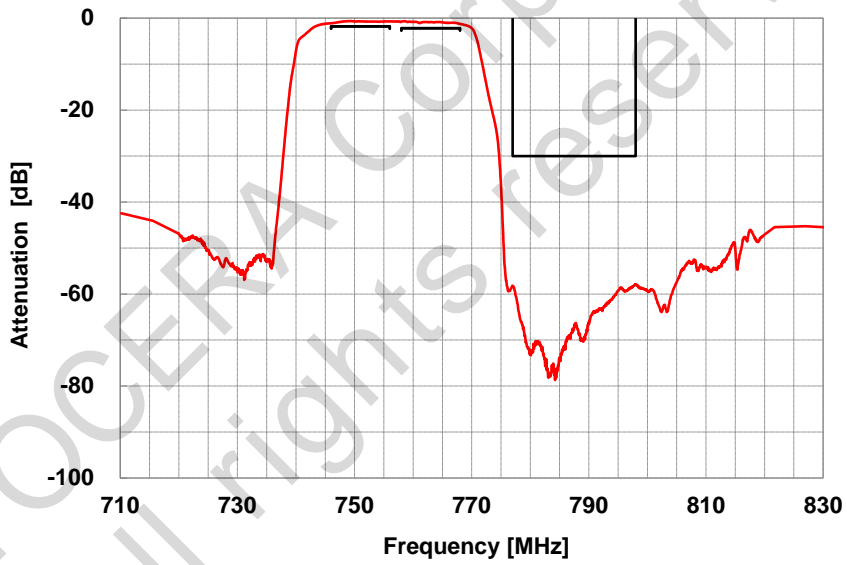
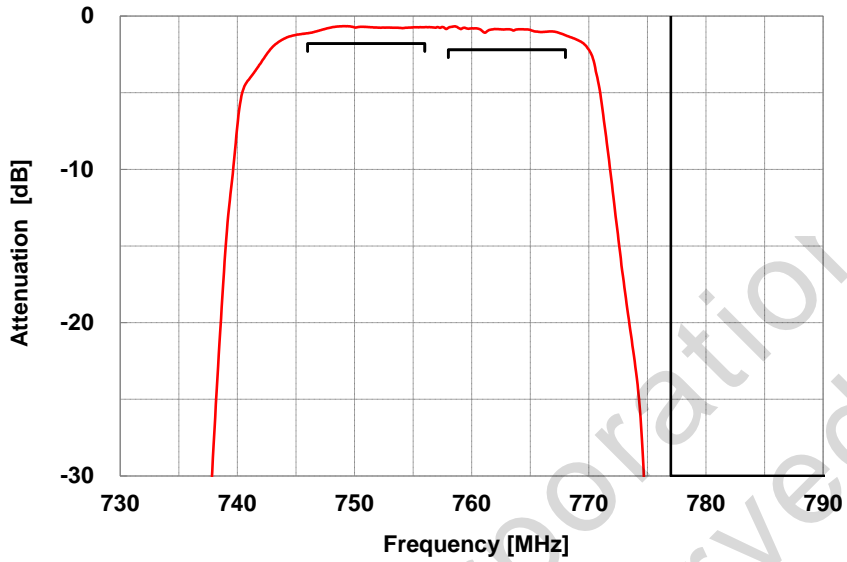
Electrical Characteristics

[Tx to Ant]



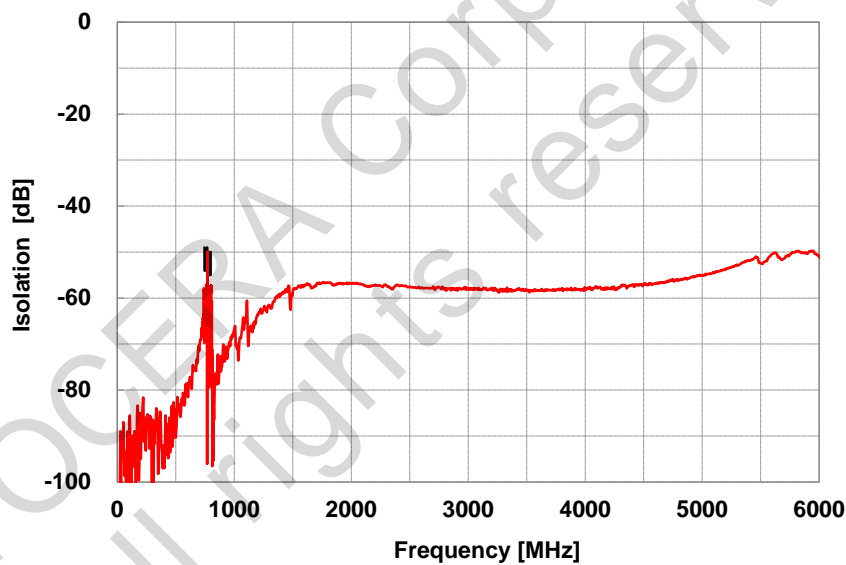
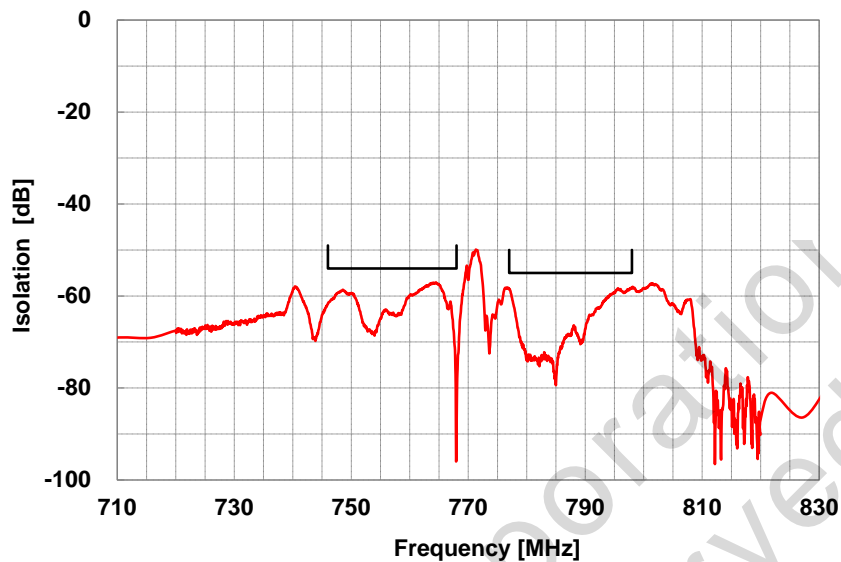
Electrical Characteristics

[Ant to Rx]

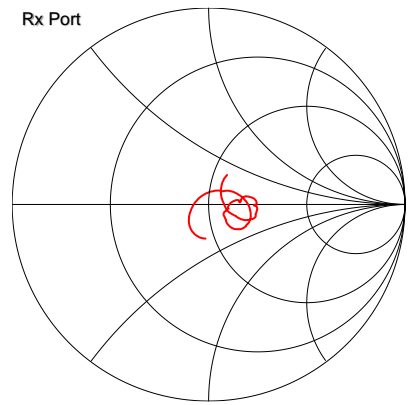
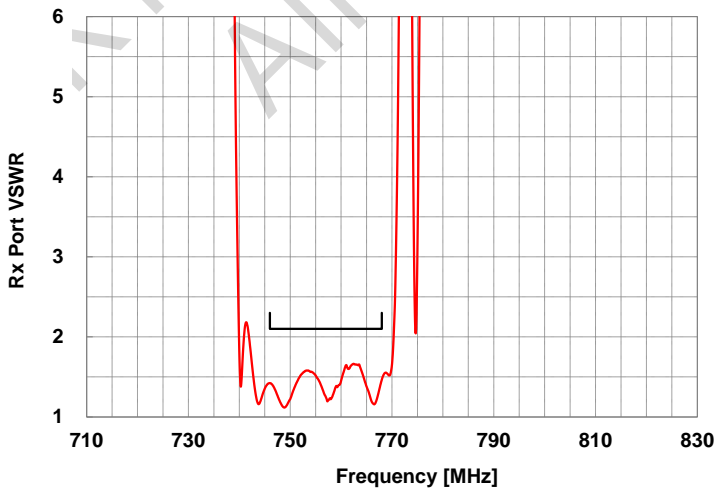
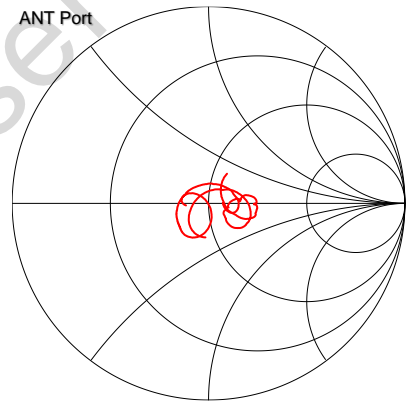
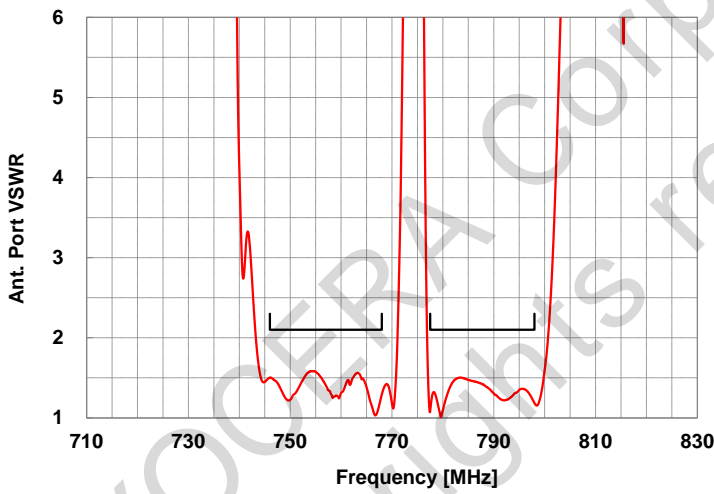
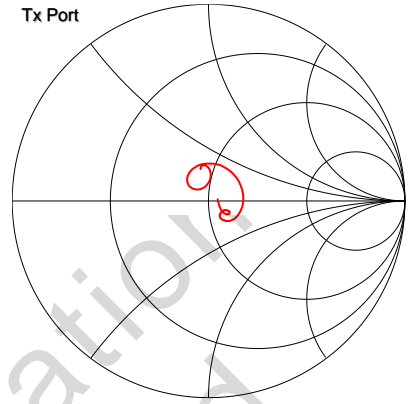
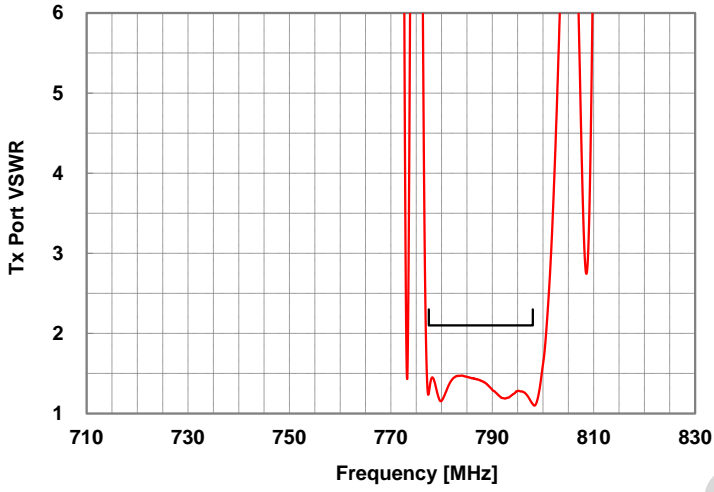


Electrical Characteristics

[Tx to Rx]

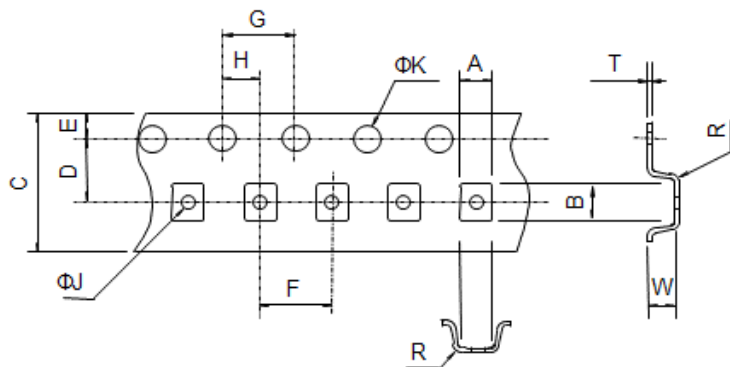


Electrical Characteristics



Tape & Reel Specification

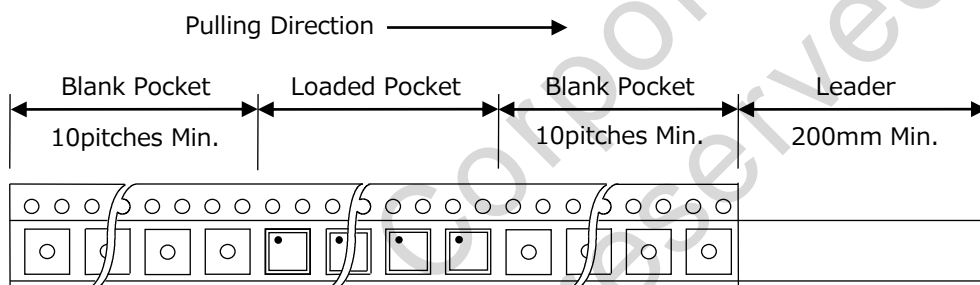
[Tape]



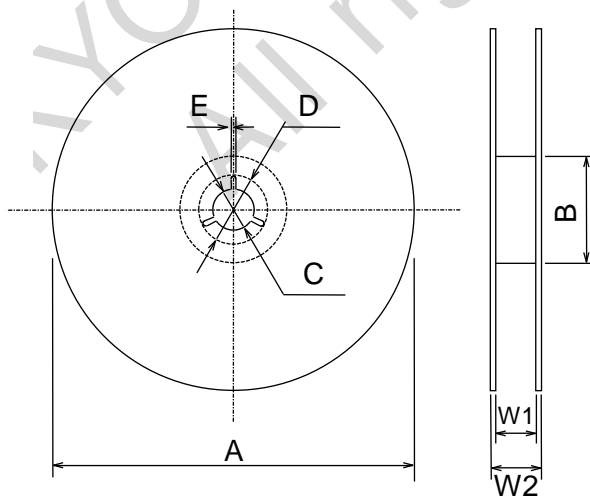
Unit : mm

Part	Dimension
A	1.35±0.05
B	1.75±0.05
C	8.0±0.1
D	3.5±0.05
E	1.75±0.1
F	4.0±0.1
G	4.0±0.1
H	2.0±0.05
ΦJ	0.5±0.1
ΦK	1.5+0.1/-0
R	0.2 Max
W	0.7±0.05
T	0.2±0.05

* W Dimension is depth of pockets.



[Reel]



Unit : mm

Part	Dimensions
A	330 ± 2
B	100 ± 1
C	13 ± 0.2
D	21 ± 0.8
E	2 ± 0.5
W1	9.5 ± 1.0
W2	13.5 ± 1.0

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