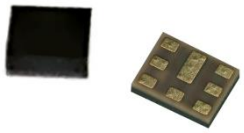
Data Sheet for SAW Components



Band28a

Duplexer

Product ID: LAD0773B1L

Date: Jan. 18, 2022

Revision: 1.0

Features

- Package Size : 1.8 x 1.4 x 0.55max mm
- Single-Ended Input and Output
- Terminating Impedance : 50 Ω
- Moisture Sensitivity Level 3
- ESD Sensitive Device
- Low Insertion Loss

Electrical Specifications Band28a Duplexer

Temperature Range for Specification : -30 to +85 °C

Tx to Ant				Min.	Typ.	Max.	Unit
Insertion Loss							
703.25	-	732.75	MHz	-	1.8	2.7	dB
Pass Band Ripple							
703	-	733	MHz	-	0.8	1.7*1	dB
VSWR Tx							
703	-	733	MHz	-	1.4	2.0	-
VSWR Ant							
703	-	733	MHz	-	1.4	2.0	-
Absolute Attenuation							
10	-	670	MHz	30	39	-	dB
670	-	694	MHz	30	39	-	dB
694	-	695	MHz	25	53	-	dB
695	-	698	MHz	4	22	-	dB
695	-	698	MHz	8	22	-	dB
758	-	788	MHz	43	54	-	dB
788	-	803	MHz	20	48	-	dB
859	-	894	MHz	30	45	-	dB
1225	-	1250	MHz	35	38	-	dB
1406	-	1466	MHz	33	36	-	dB
1565.42	-	1573.37	MHz	33	35	-	dB
1573.37	-	1577.47	MHz	33	35	-	dB
1577.47	-	1585.42	MHz	33	35	-	dB
1597.55	-	1605.89	MHz	33	35	-	dB
1805	-	1880	MHz	30	33		dB
1930	-	1995	MHz	30	33	-	dB
2010	-	2025	MHz	30	33	-	dB
2109	-	2199	MHz	24	29	-	dB
2400	-	2484	MHz	23	31	-	dB
2570	-	2620	MHz	19	29	-	dB
2812	-	2932	MHz	15	28	-	dB
4900	-	5950	MHz	20	34	-	dB

*1: Over any 5 MHz in band

Electrical Specifications Band28a Duplexer

Temperature Range for Specification : -30 to +85 °C

Ant to Rx					Min.	Typ.	Max.	Unit
Insertion Loss								
758.25	-	787.75	MHz		-	1.8	2.3	dB
Pass Band Ripple								
758	-	788	MHz		-	0.4	1.6*1	dB
VSWR Rx								
758	-	788	MHz		-	1.7	2.1	-
VSWR Ant								
758	-	788	MHz		-	1.5	2.0	-
Absolute Attenuation								
10	-	699	MHz		40	59	-	dB
45		65	MHz		50	96	-	dB
703	-	733	MHz		50	57	-	dB
733	-	748	MHz		21	38	-	dB
814	-	6000	MHz		33	40	-	dB
2400	-	2483	MHz		30	45	-	dB
6822	-	7092	MHz		26	29	-	dB
7580	-	7880	MHz		25	31	-	dB

*1: Over any 5 MHz in band

Electrical Specifications Band28a Duplexer

Temperature Range for Specification : -30 to +85 °C

Tx to Rx					Min.	Typ.	Max.	Unit
Isolation								
703.25	-	732.75	MHz		57	59	-	dB
758.25	-	787.75	MHz		52	55	-	dB

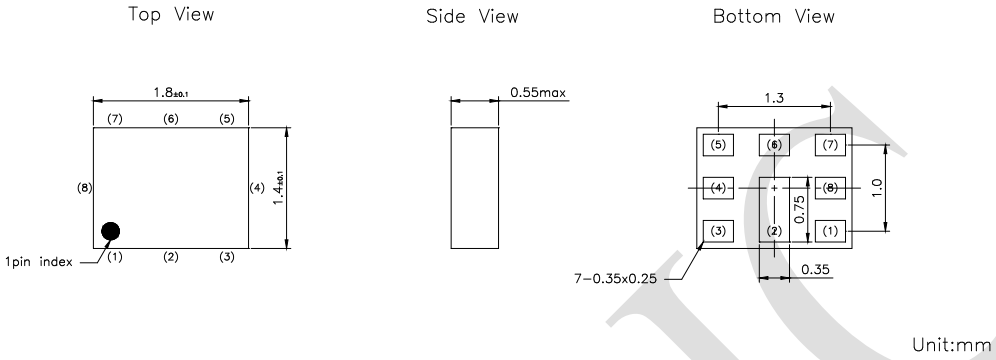
Maximum Ratings

Item	Rating	Condition / Remark
Storage Temperature	-40 to +85 °C	
DC Voltage	5 V	+25 °C
Input power	+30 dBm	LTE , +55 °C , 5000 h

Recommended Operating Conditions

Item	Rating	Condition / Remark
Operating Temperature, T_{CASE}	-30 to +85 °C	

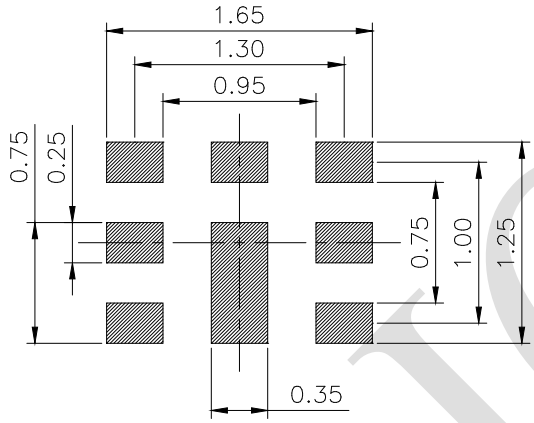
Package Information



Unit:mm

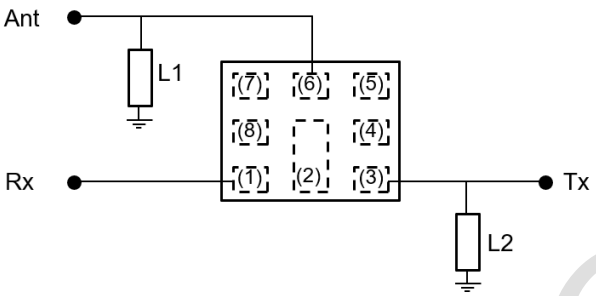
Pin Configuration		
1	:	Rx
3		Tx
6	:	Ant
Other	:	GND

Land Pattern



Unit:mm

Application Circuit

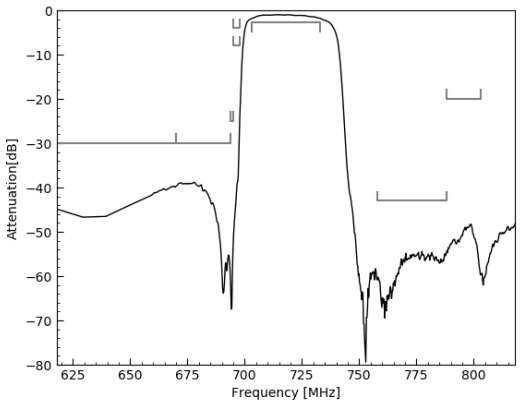


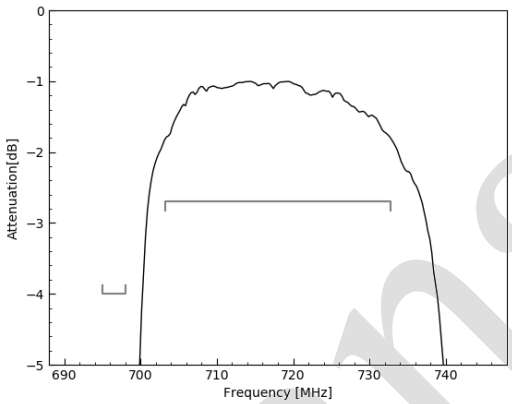
Port	Terminating Z	Matching Component
Ant	50 Ω	L1 : 7.5nH (Ideal inductor)
Tx	50 Ω	L2 : 9.1nH (Ideal inductor)
Rx	50 Ω	

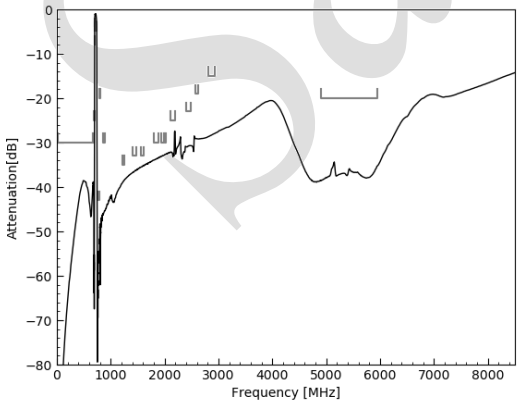
For ESD protection, external shunt inductor at all ports is recommended.

Electrical Characteristics Band28a Duplexer

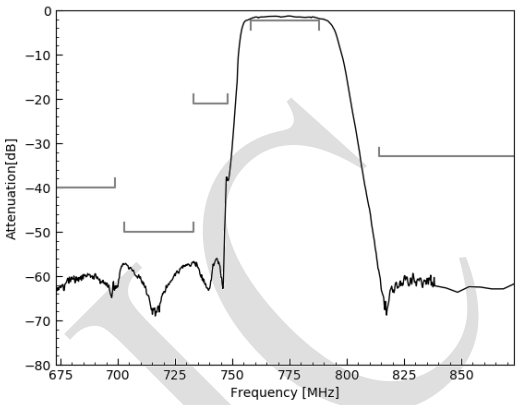
Tx to Ant

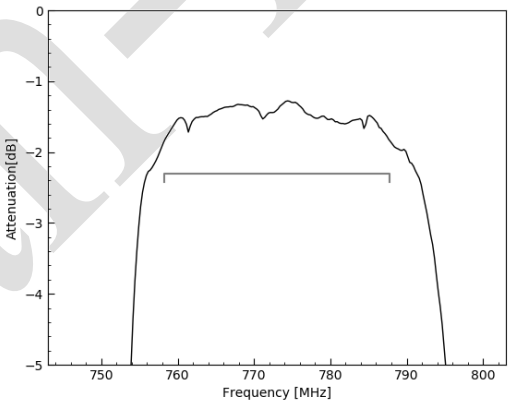


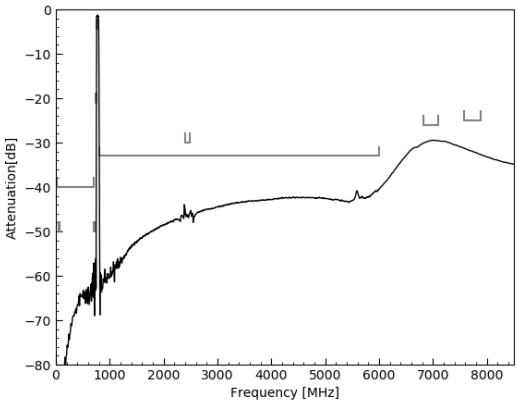




Ant to Rx

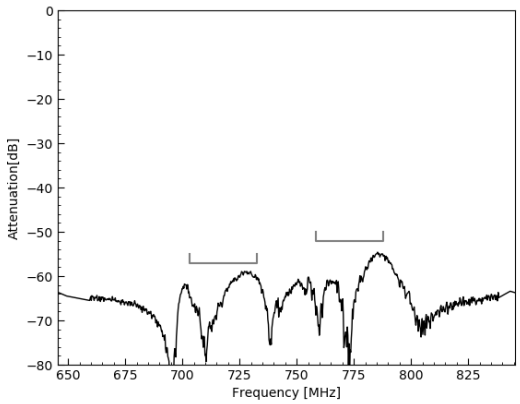


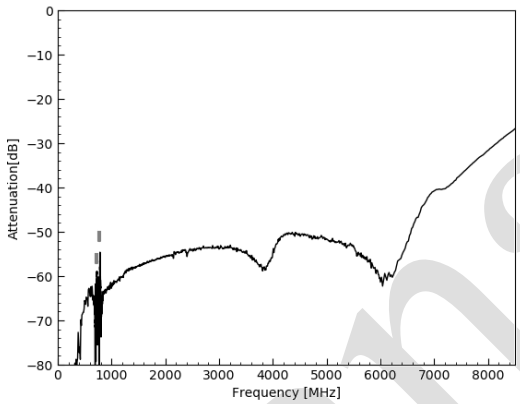




Electrical Characteristics Band28a Duplexer

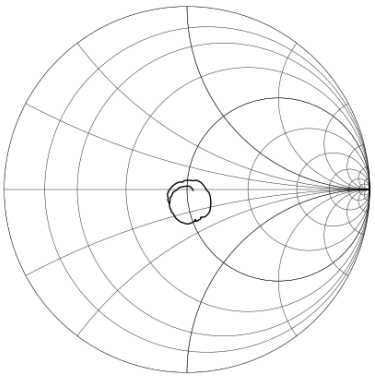
Tx to Rx



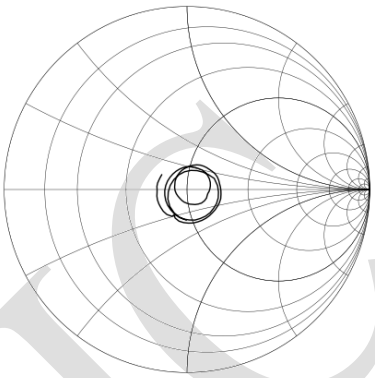


Electrical Characteristics Band28a Duplexer

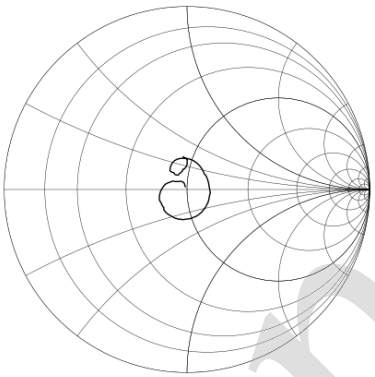
Ant Impedance (Tx band)



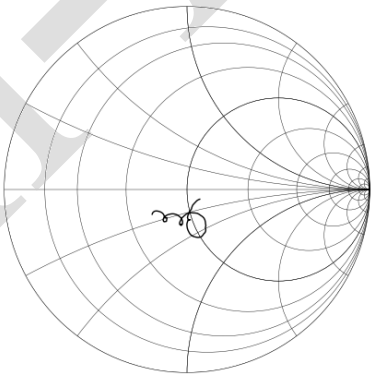
Ant Impedance (Rx band)



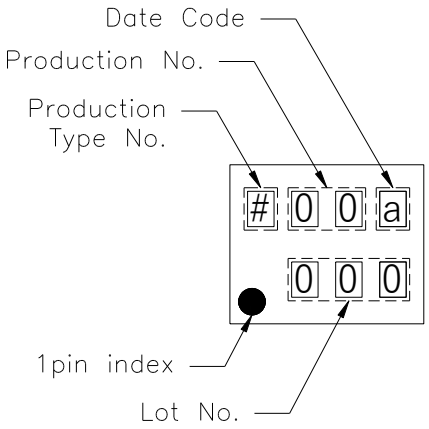
Tx Impedance



Rx Impedance



Marking Information



Production type No.（S: Sample, P: Production）

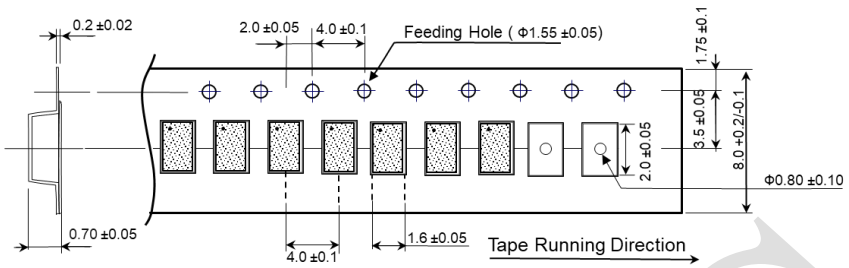
Product No. : 1L

Lot No.（Indicated by 0 ~ 9 or A to Z and a to z, except I, O, i, o and l）

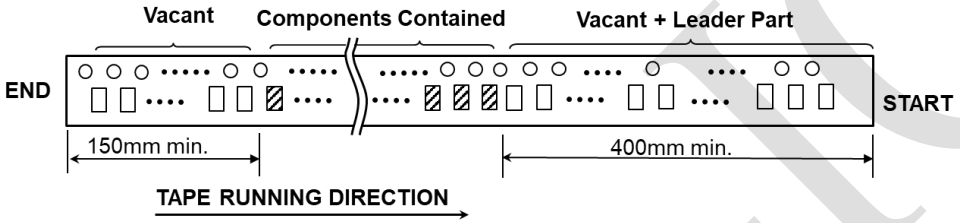
Product date code :

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	a	b	c	d	e	f	g	h	j	k	l	m
2023	n	p	q	r	s	t	u	v	w	x	y	z
2024	A	B	C	D	E	F	G	H	J	K	L	M
2025	N	P	Q	R	S	T	U	V	W	X	Y	Z

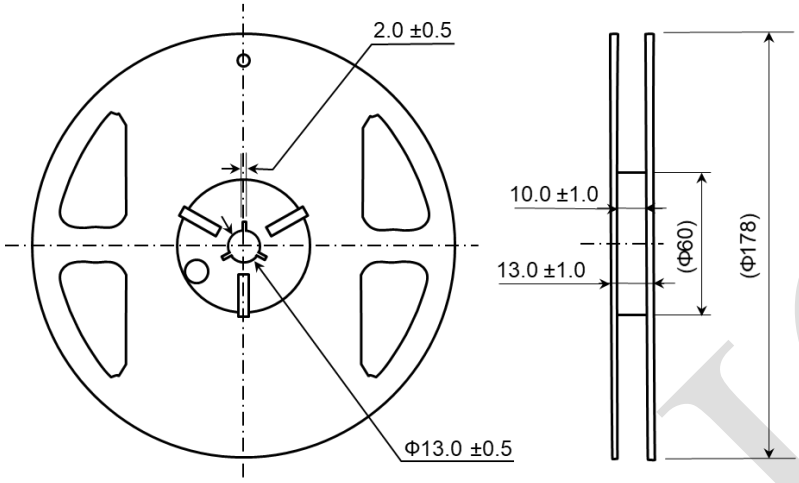
Tape Information



UNIT: mm

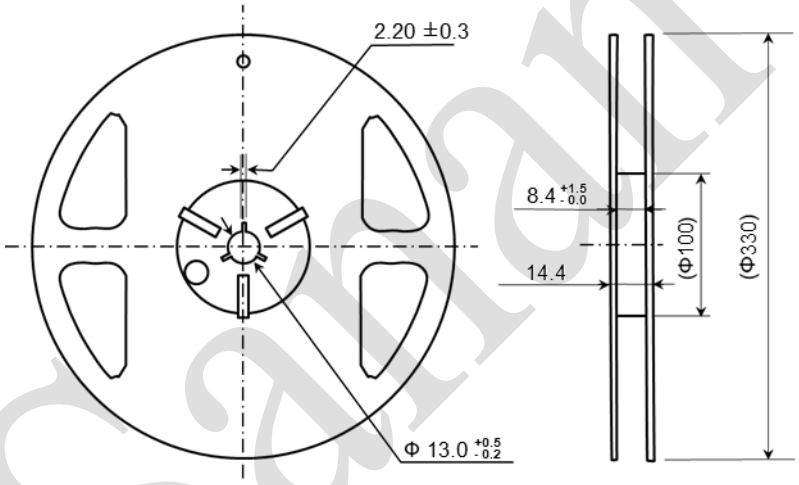


Reel Information



Φ178 Reel Dimension

UNIT: mm



Φ330 Reel Dimension

UNIT: mm

Ordering Code

Part Number	Description
LAD0773B1L-SA	Bulk (few pieces)
LAD0773B1L-MB	Tape & Reel 3,000 pcs/reel
LAD0773B1L-MC	Tape & Reel 10,000 pcs/reel
LAD0773B1L-SZ	EVB

Revision History

Revision	Date	Description
1.0	Jul. 18, 2022	● Initial release

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