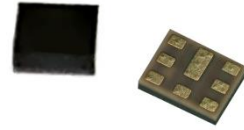


Data Sheet for SAW Components



Band7

Duplexer

Product ID: LBD2655B12

Date: Apr. 22, 2022

Revision: 1.1

Features

- ◆ Package Size : 1.8 x 1.4 x 0.6max mm
- ◆ Single-Ended Input and Output
- ◆ Terminating Impedance : 50 Ω
- ◆ Moisture Sensitivity Level 3
- ◆ ESD Sensitive Device

Electrical Specifications Band7 Duplexer

Temperature Range for -30 to +85 °C

Specification :

Tx to Ant				Min.	Typ.	Max.	Unit
Insertion Loss							
	2500.25	-	2569.75 MHz	-	2.0	2.7	dB
Pass Band Ripple							
	2500.25	-	2569.75 MHz	-	0.6	2.0	dB
VSWR Tx							
	2500.25	-	2569.75 MHz	-	1.6	2.0	-
VSWR Ant							
	2500.25	-	2569.75 MHz	-	1.2	2.0	-
Absolute Attenuation							
	10	-	718 MHz	53	57	-	dB
	832	-	862 MHz	49	52	-	dB
	1226	-	1250 MHz	40	43	-	dB
	1559	-	1563 MHz	35	38	-	dB
	1565.42	-	1573.37 MHz	35	38	-	dB
	1573.37	-	1577.47 MHz	35	38	-	dB
	1577.47	-	1585.42 MHz	35	38	-	dB
	1597.55	-	1605.89 MHz	35	38	-	dB
	1605.89	-	1680 MHz	34	37	-	dB
	1710	-	1785 MHz	33	36	-	dB
	1805	-	1880 MHz	33	35	-	dB
	1900	-	1920 MHz	32	35	-	dB
	2010	-	2025 MHz	32	35	-	dB
	2110	-	2170 MHz	33	36	-	dB
	2401	-	2468 MHz	40	43	-	dB _{INT} ^{*1}
	2451	-	2473 MHz	25	43	-	dB _{INT} ^{*1}
	2456	-	2478 MHz	12	39	-	dB _{INT} ^{*1}
	2461	-	2483 MHz	7	18	-	dB _{INT} ^{*1}
	2590	-	2595 MHz	2	4	-	dB
	2595	-	2620 MHz	2.4	6	-	dB
	2620	-	2690 MHz	45	57	-	dB
	5000	-	5140 MHz	25	39	-	dB

5100	-	5280	MHz	20	39		dB
7500	-	7710	MHz	5	10	-	dB

*1: Integrated $|S_{21}|$ over the center 18 MHz CH BW and converting to dB value

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Electrical Specifications Band7 Duplexer

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

Ant to Rx				Min.	Typ.	Max.	Unit
Insertion Loss							
	2620.25	-	2689.75 MHz	-	2.3	3.0	dB
Pass Band Ripple							
	2620.25	-	2689.75 MHz	-	0.8	2.0	dB
VSWR Rx							
	2620.25	-	2689.75 MHz	-	1.4	2.0	-
VSWR Ant							
	2620.25	-	2689.75 MHz	-	1.3	2.0	-
Absolute Attenuation							
	1	-	2500 MHz	36	38	-	dB
			45 MHz	50	132	-	dB
	718	-	748 MHz	40	58	-	dB
	814	-	849 MHz	40	54	-	dB
	832	-	862 MHz	40	53	-	dB
	880	-	915 MHz	40	52	-	dB
	1710	-	1785 MHz	36	39	-	dB
	2402	-	2470 MHz	45	50	-	dB
	2500	-	2570 MHz	47	56	-	dB
	2570	-	2600 MHz	2.5	10	-	dB
	4900	-	5950 MHz	40	52	-	dB
	7620	-	7830 MHz	30	39	-	dB
	7860	-	8070 MHz	30	37	-	dB

Electrical Specifications Band7 Duplexer

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

Tx to Rx	Min.	Typ.	Max.	Unit
Isolation				
2500.25 - 2569.75 MHz	55	58	-	dB
2620.25 - 2689.75 MHz	54	57	-	dB

Maximum Ratings

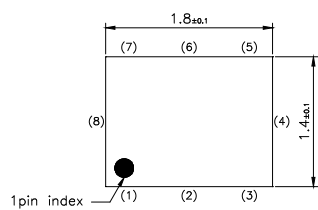
Item	Rating	Condition / Remark
Storage Temperature	-40 to +85 °C	
DC Voltage	5 V	+25 °C
Input power	+30 dBm	LTE , +55 °C , 3000 h

Recommended Operating Conditions

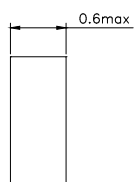
Item	Rating	Condition / Remark
Operating Temperature, T _{CASE}	-30 to +85 °C	

Package Information

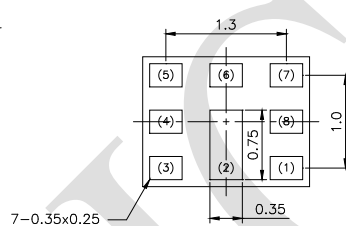
Top View



Side View



Bottom View

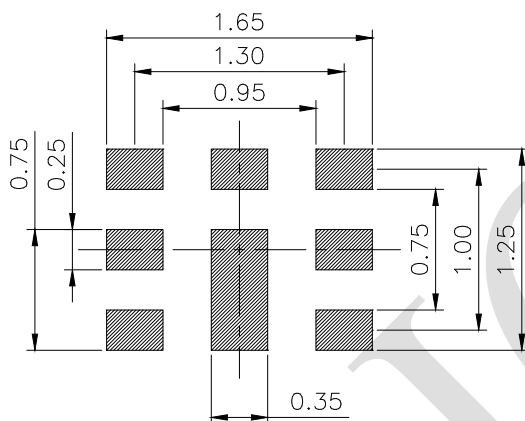


Unit:mm

Pin Configuration

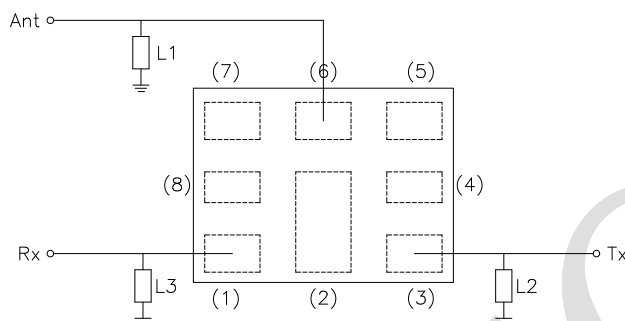
1 : Rx
3 : Tx
6 : Ant
Other : GND

Land Pattern



Unit:mm

Application Circuit



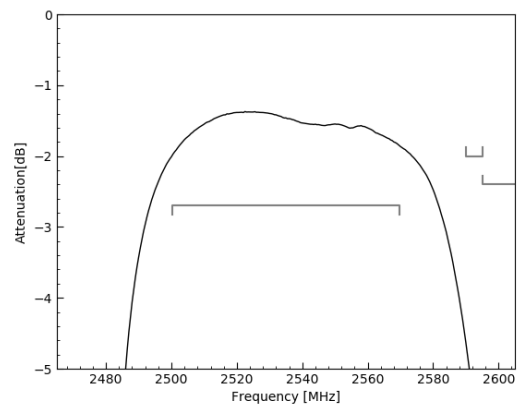
Port	Terminating Z	Matching Component
Ant	50 Ω	L1 : 2.6nH (Ideal inductor)
Tx	50 Ω	L2 : 8nH (Ideal inductor)
Rx	50 Ω	L3 : 6nH (Ideal inductor)

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

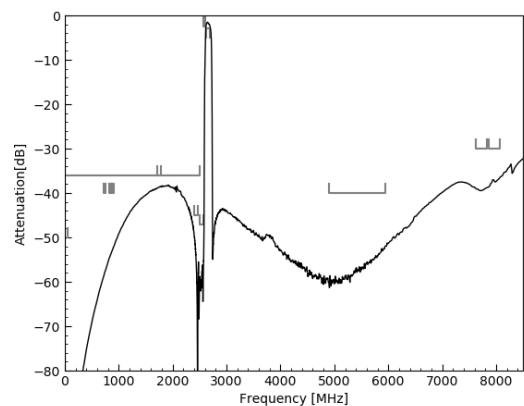
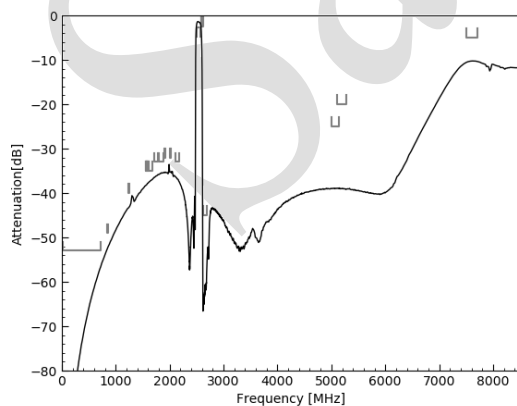
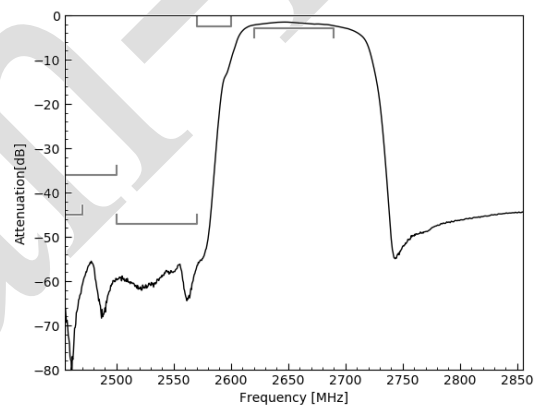
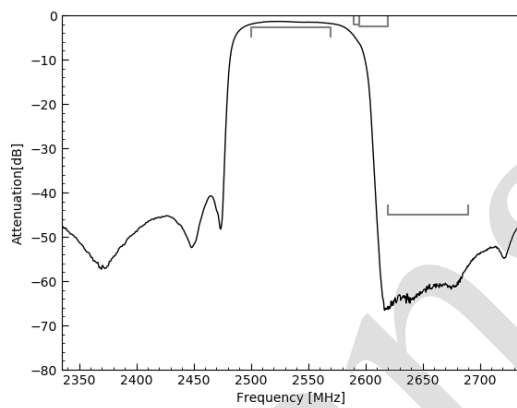
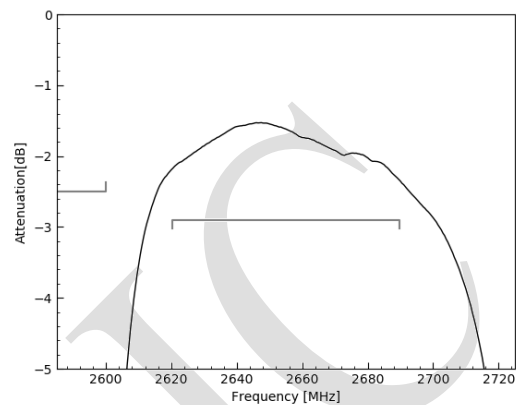
Electrical Characteristics

Band7 Duplexer

Tx to Ant



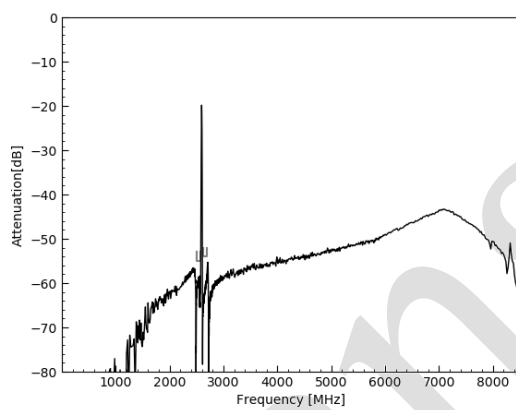
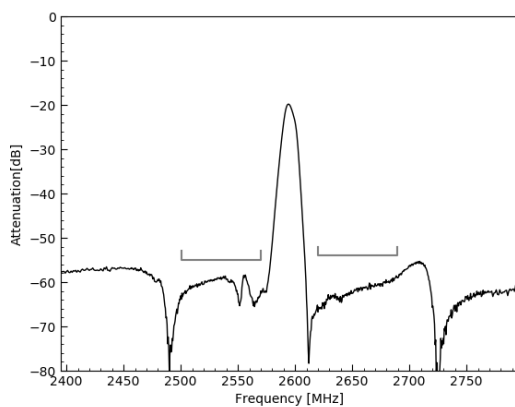
Ant to Rx



Electrical Characteristics

Band7 Duplexer

Tx to Rx

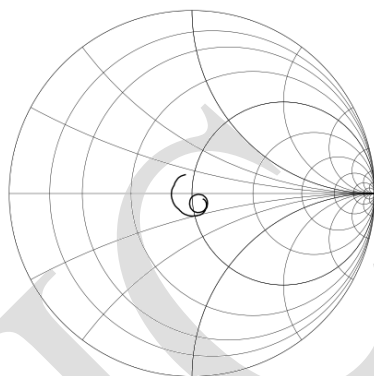
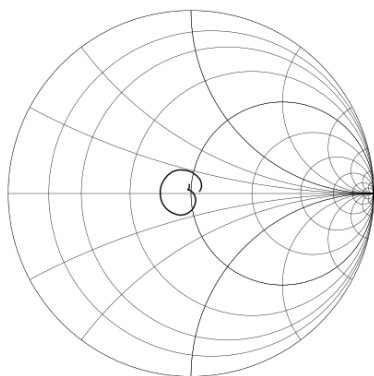


Electrical Characteristics

Band7 Duplexer

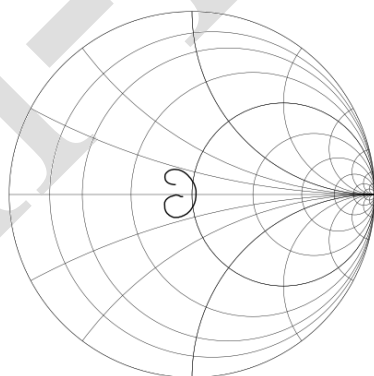
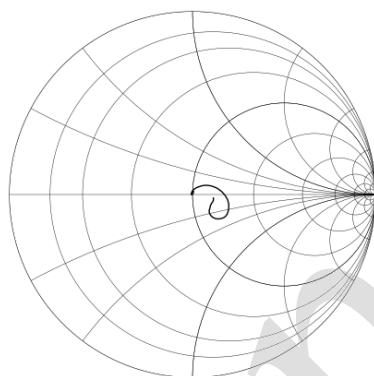
Ant Impedance (Tx band)

Ant Impedance (Rx band)

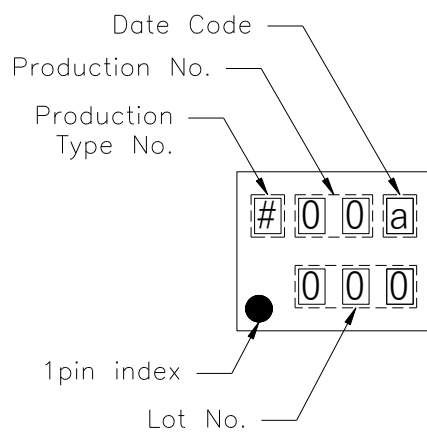


Tx Impedance

Rx Impedance



Marking Information



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

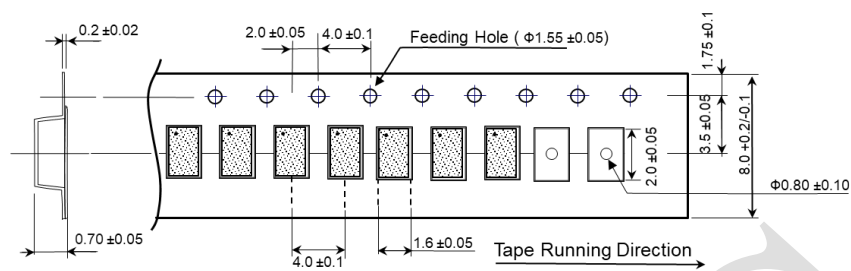
Product No. : 12

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

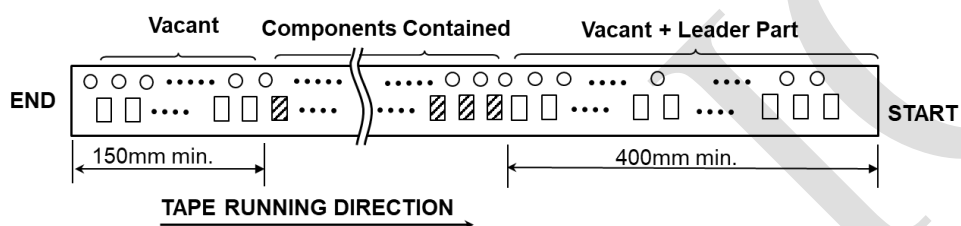
Product date code :

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

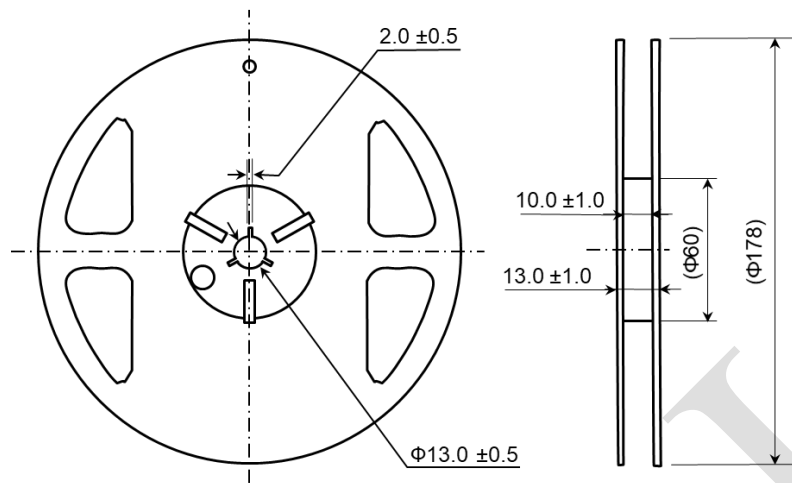
Tape Information



UNIT: mm

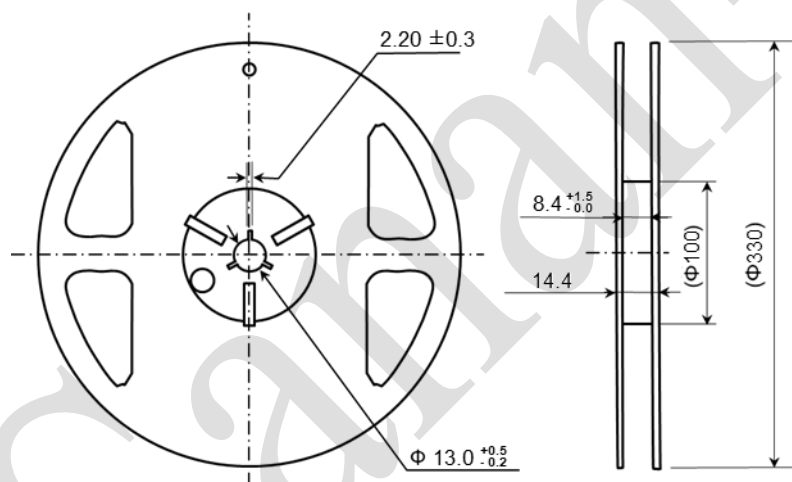


Reel Information



$\Phi 178$ Reel Dimension

UNIT: mm



$\Phi 330$ Reel Dimension

UNIT: mm

Ordering Code

Part Number	Description
LBD2655B12-SA	Bulk (few pieces)
LBD2655B12-MB	Tape & Reel 3,000 pcs/reel
LBD2655B12-MC	Tape & Reel 10,000 pcs/reel
LBD2655B12-SZ	EVB

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Revision History

Revision	Date	Description
1.0	Mar. 28, 2022	● Initial release
1.1	Apr. 22, 2022	● MP

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