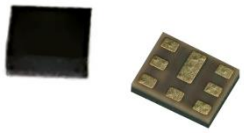
Data Sheet for SAW Components



Band1+3+7

Triple Rx Filter

Product ID: LBC2655B24

Date: Dec. 27, 2022

Revision: 1.0 Preliminary

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 Band1+3+7 Triple Rx Filter

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

Ant to Band3 Rx					Min.	Typ.	Max.	Unit
Insertion Loss								
	1805	-	1880	MHz	-	2.2	3.1	dB
	1805	-	1880	MHz	-	2.2	2.6	dB*1
	1805	-	1880	MHz	-	2.2	2.9	dB*2
Pass Band Ripple								
	1805	-	1880	MHz	-	0.8	2.0	dB*3
	1805	-	1880	MHz	-	0.8	1.8	dB*1,3
VSWR Ant								
	1805	-	1880	MHz	-	1.6	2.2	-
VSWR Band3Rx								
	1805	-	1880	MHz	-	1.7	2.2	-
Absolute Attenuation								
	10		1710	MHz	40	44	-	dB
	1710	-	1785	MHz	35	44	-	dB
	1920	-	1980	MHz	35	37	-	dB
	2015	-	2075	MHz	35	39	-	dB
	2300	-	2500	MHz	40	45	-	dB
	2500	-	2570	MHz	40	52	-	dB
	2570		6000	MHz	35	43	-	dB

*1: +25 to 27 °C

*2: -10 to +85 °C

*3: Any 20 MHz in band

Electrical Specifications Band1+3+7 Triple Rx Filter

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

Ant to Band1 Rx					Min.	Typ.	Max.	Unit
Insertion Loss								
	2110	-	2170	MHz	-	1.8	2.7	dB
	2110	-	2170	MHz	-	1.8	2.4	dB*1
	2110	-	2170	MHz	-	1.8	2.6	dB*2
Pass Band Ripple								
	2110	-	2170	MHz	-	0.5	1.5	dB*3
	2110	-	2170	MHz	-	0.5	1.4	dB*1,3
VSWR Ant								
	2110	-	2170	MHz	-	1.5	2.1	-
VSWR Band1Rx								
	2110	-	2170	MHz	-	1.6	2.1	-
Absolute Attenuation								
	10	-	1920	MHz	39	43	-	dB
	1710	-	1785	MHz	40	44	-	dB
	1920	-	1980	MHz	45	49	-	dB
	2015	-	2075	MHz	20	38	-	dB
	2300	-	2690	MHz	35	45	-	dB
	2500	-	2570	MHz	42	48	-	dB
	2690		6000	MHz	33	40	-	dB

*1: +25 to 27 °C

*2: -10 to +85 °C

*3: Any 20 MHz in band

Electrical Specifications Band1+3+7 Triple Rx Filter

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

Ant to Band7 Rx					Min.	Typ.	Max.	Unit
Insertion Loss								
	2620	-	2690	MHz	-	2.5	3.2	dB
	2620	-	2690	MHz	-	2.5	3.0	dB*1
	2620	-	2690	MHz	-	2.5	3.2	dB*2
Pass Band Ripple								
	2620	-	2690	MHz	-	0.3	1.6	dB*3
	2620	-	2690	MHz	-	0.3	1.4	dB*1,3
VSWR Ant								
	2620	-	2690	MHz	-	1.4	2.1	-
VSWR Band7Rx								
	2620	-	2690	MHz	-	1.6	2.1	-
Absolute Attenuation								
	10	-	2500	MHz	35	40	-	dB
	1710	-	1785	MHz	37	41	-	dB
	1920	-	1980	MHz	37	41	-	dB
	2300	-	2500	MHz	40	46	-	dB
	2500	-	2570	MHz	40	44	-	dB
	2775		6000	MHz	33	37	-	dB

*1: +25 to 27 °C

*2: -10 to +85 °C

*3: Any 20 MHz in band

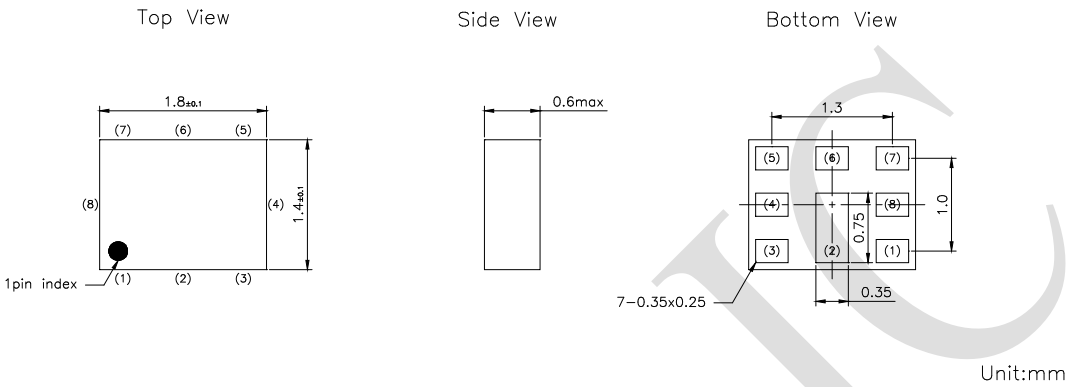
Maximum Ratings

Item	Rating	Condition / Remark
Storage Temperature	-40 to +85 °C	
DC Voltage	5 V	+25 °C
Input power	+15 dBm	LTE, +55 °C, 5000h

Recommended Operating Conditions

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

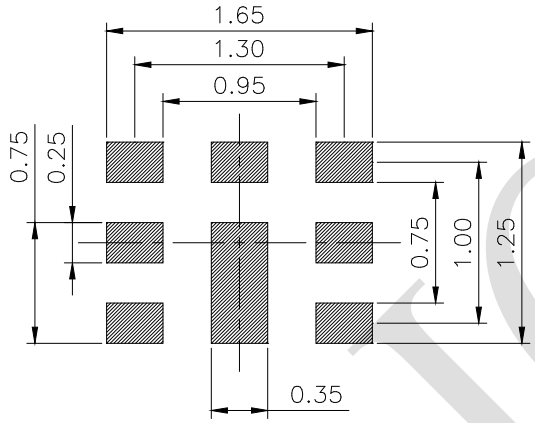
Package Information



Unit:mm

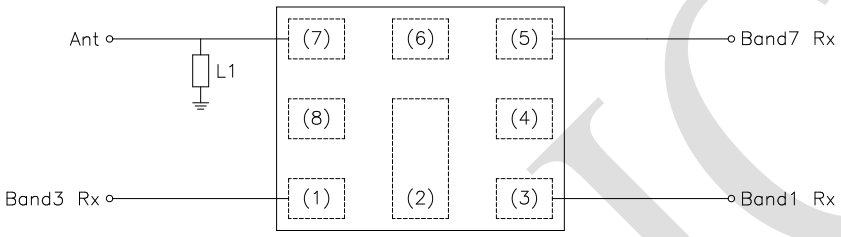
Pin Configuration					
1	:	Band3 Rx	Others	:	GND
3	:	Band1 Rx			
5	:	Band7 Rx			
7	:	Ant			

Land Pattern



Unit:mm

Application Circuit

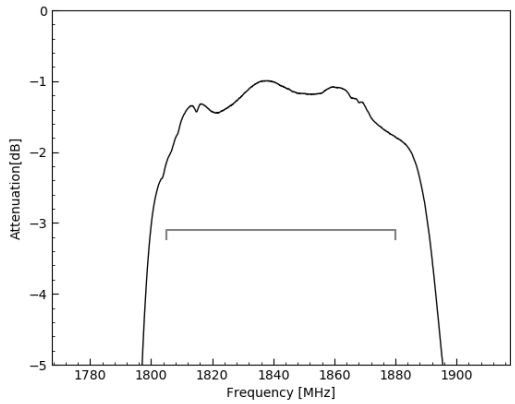


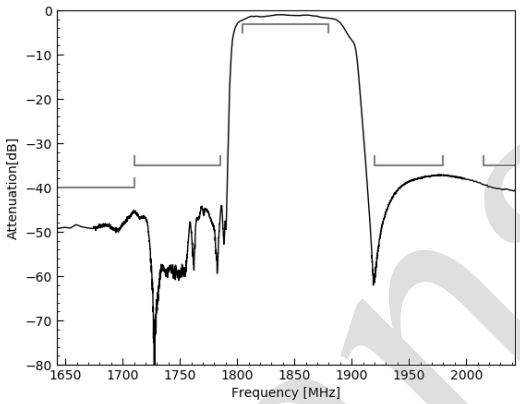
Port	Terminating Z	Matching Component
Ant	50 Ω	L1 : 2.7nH (Ideal inductor)
Band3 Rx	50 Ω	
Band1 Rx	50 Ω	
Band7 Rx	50 Ω	

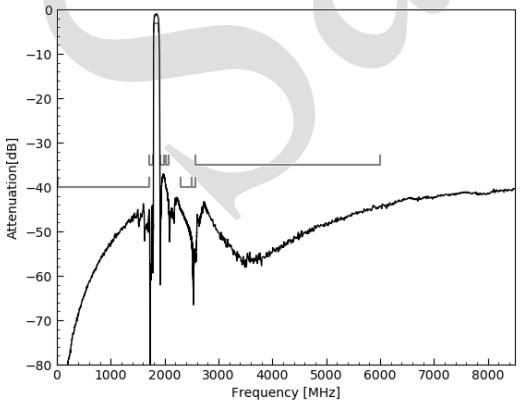
For ESD protection, external shunt inductor at all ports is recommended.

Electrical Characteristics Band1+3+7 Triple Rx Filter

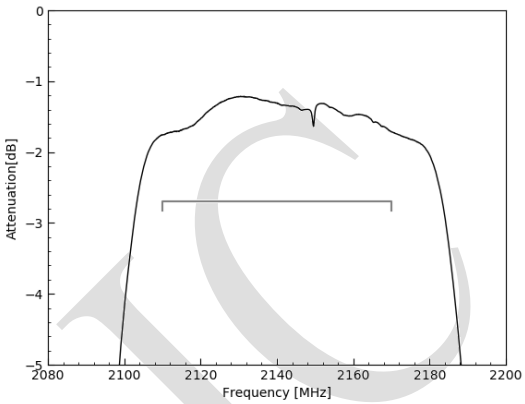
Ant to Band3 Rx

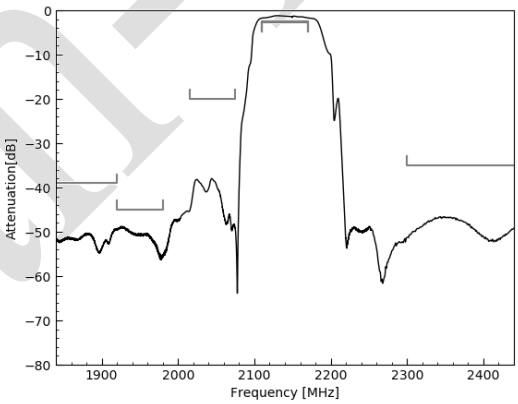


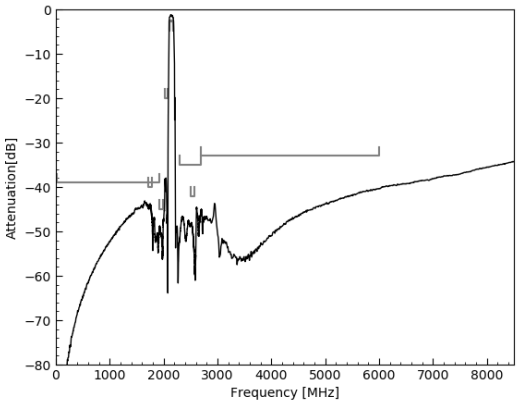




Ant to Band1 Rx

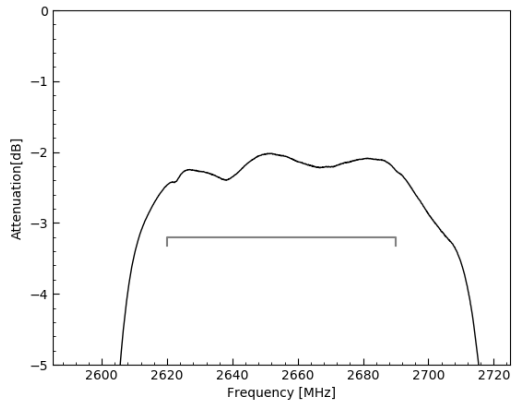


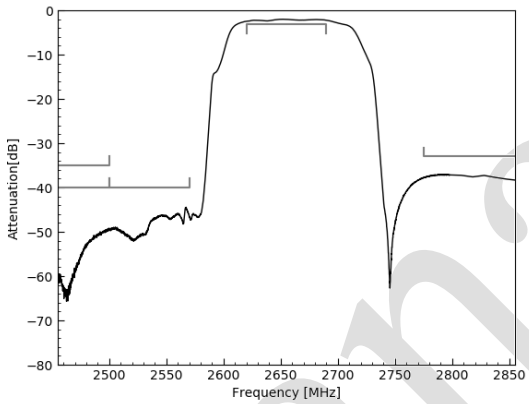


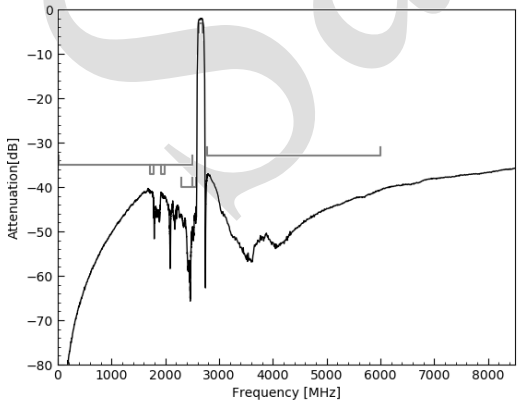


Electrical Characteristics Band1+3+7 Triple Rx Filter

Ant to Band7 Rx

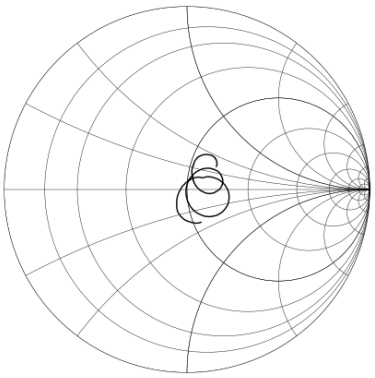




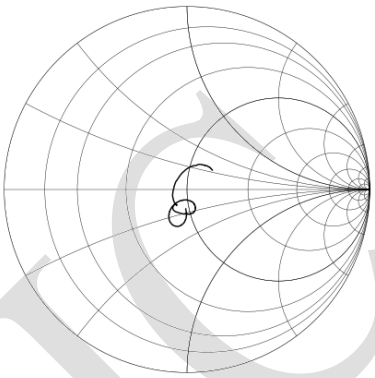


Electrical Characteristics Band1+3+7 Triple Rx Filter

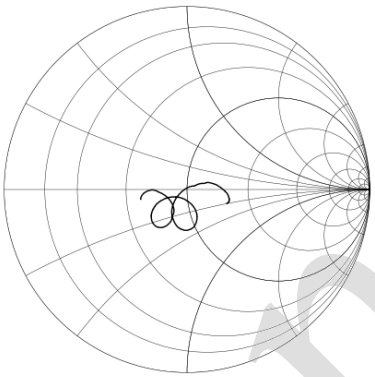
Ant Impedance (Band3 Rx)



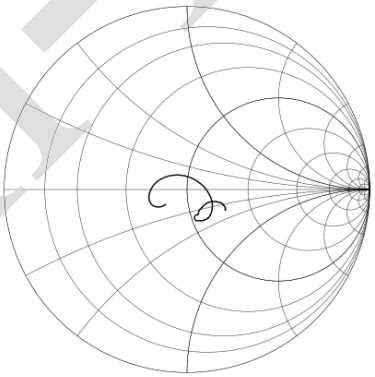
Ant Impedance (Band1 Rx)



Band3 Rx Impedance

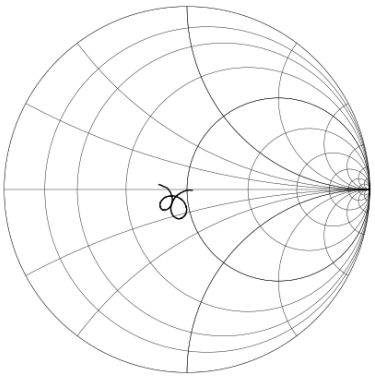


Band1 Rx Impedance

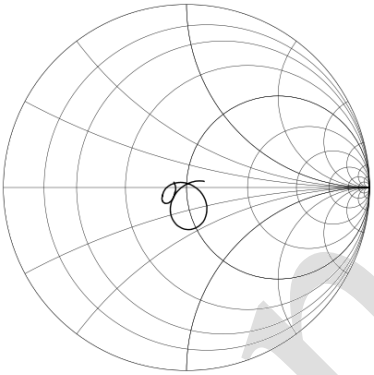


Electrical Characteristics Band1+3+7 Triple Rx Filter

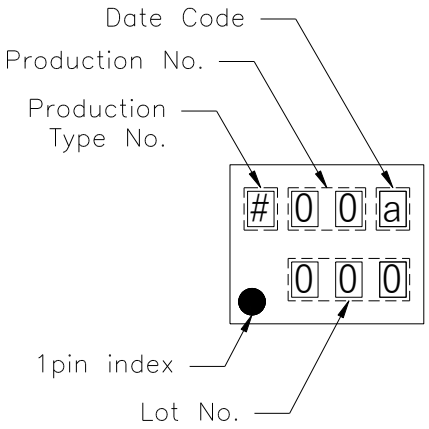
Ant Impedance (Band7 Rx)



Band7 Rx Impedance



Marking Information



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

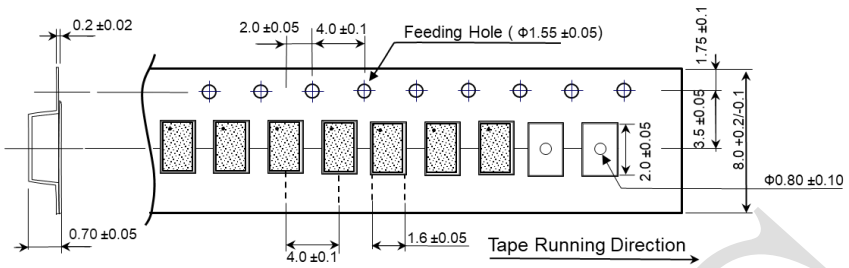
Product No. : 24

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

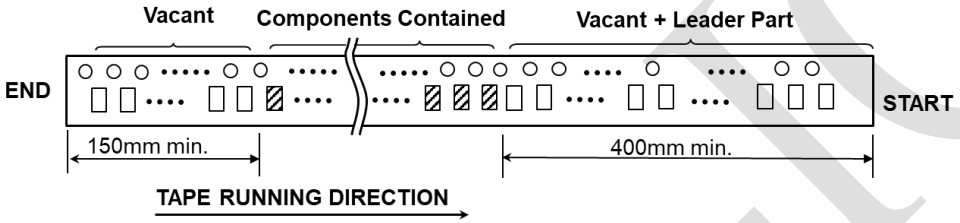
Product date code :

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

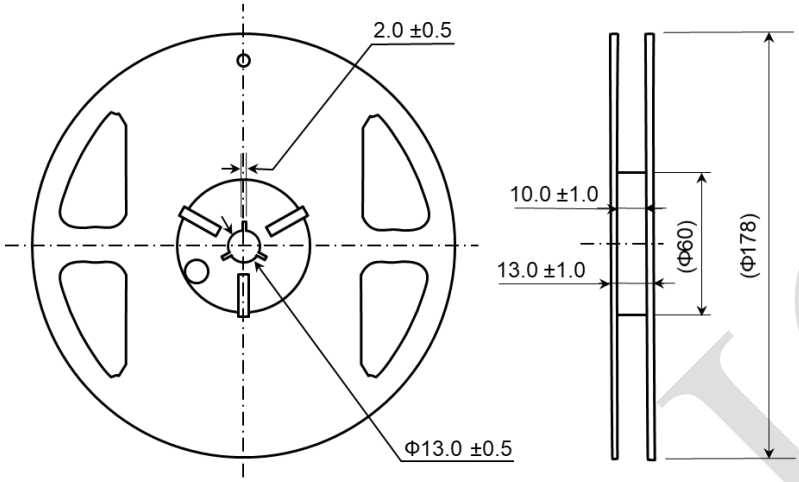
Tape Information



UNIT: mm

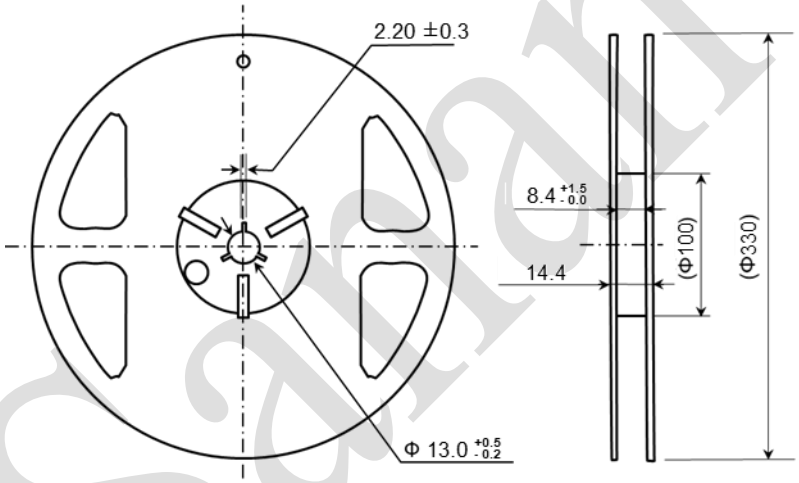


Reel Information



Φ178 Reel Dimension

UNIT: mm



Φ330 Reel Dimension

UNIT: mm

Ordering Code

Part Number	Description
LBC2655B24-SA	Bulk (few pieces)
LBC2655B24-MB	Tape & Reel 3,000 pcs/reel
LBC2655B24-MC	Tape & Reel 10,000 pcs/reel
LBC2655B24-SZ	EVB

Revision History

Revision	Date	Description
1.0	Dec. 27, 2022	● Initial release

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