

Data Sheet for

SAW Components

Band 39 + 41

Rx Dual Filter



Product ID: LBB2595D08

Date: Dec. 9, 2022

Revision: 1.0

Features

- ◆ Package Size : 1.5 x 1.1 x 0.5max mm
- ◆ Single-Ended Input and Output
- ◆ Terminating Impedance : 50 Ω
- ◆ Moisture Sensitivity Level 3
- ◆ ESD Sensitive Device

Electrical Specifications Band 39 + 41 Rx Dual Filter

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

Ant to B39Rx	Min.	Typ.	Max.	Unit
Insertion Loss				
1880 - 1920 MHz	-	1.3	2.0	dB
1880 - 1920 MHz	-	1.3	1.9	dB ^{*1}
Pass Band Ripple				
1880 - 1920 MHz	-	0.4	1.5	dB
1880 - 1920 MHz	-	0.4	1.5	dB ^{*1}
VSWR Ant				
1880 - 1920 MHz	-	1.3	2.0	-
1880 - 1920 MHz	-	1.3	2.0	^{*1}
VSWR Rx				
1880 - 1920 MHz	-	1.3	2.0	-
1880 - 1920 MHz	-	1.3	1.9	^{*1}
Absolute Attenuation				
10 - 960 MHz	35	42	-	dB
1166.22 - 1254 MHz	30	38	-	dB
1559.052 - 1605.89 MHz	30	35	-	dB
1710 - 1785 MHz	30	37	-	dB
2010 - 2025 MHz	30	37	-	dB
2300 - 2400 MHz	30	34	-	dB
2400 - 2483 MHz	30	37	-	dB
2496 - 2690 MHz	30	36	-	dB
3300 - 4200 MHz	30	33	-	dB
4400 - 5000 MHz	25	29	-	dB
5150 - 5850 MHz	23	26	-	dB

*1: 25°C

Electrical Specifications Band 39 + 41 Rx Dual Filter

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

Ant to B41Rx	Min.	Typ.	Max.	Unit
Insertion Loss				
2496 - 2690 MHz	-	2.7	3.4	dB
2496 - 2500 MHz	-	2.7	3.4	dB
2500 - 2515 MHz	-	2.7	3.2	dB
2535 - 2655 MHz	-	2.3	3.2	dB
2515 - 2675 MHz	-	2.5	3.2	dB
2675 - 2690 MHz	-	2.1	3.4	dB
2496 - 2690 MHz	-	2.7	3.2	dB ^{*1}
2496 - 2500 MHz	-	2.7	3.2	dB ^{*1}
2500 - 2515 MHz	-	2.7	3.0	dB ^{*1}
2535 - 2655 MHz	-	2.3	2.8	dB ^{*1}
2515 - 2675 MHz	-	2.5	2.8	dB ^{*1}
2675 - 2690 MHz	-	2.1	3.2	dB ^{*1}
Pass Band Ripple				
2496 - 2690 MHz	-	0.3	1.8	dB ^{*2}
2496 - 2690 MHz	-	0.3	1.6	dB ^{*1*2}
2515 - 2675 MHz	-	0.4	1.4	dB ^{*3}
2515 - 2675 MHz	-	0.4	1.0	dB ^{*1*3}
VSWR Ant				
2496 - 2690 MHz	-	1.6	2.2	dB
2496 - 2690 MHz	-	1.6	2.2	dB ^{*1}
2515 - 2675 MHz	-	1.5	2.2	dB
2515 - 2675 MHz	-	1.5	2.2	dB ^{*1}
VSWR Rx				
2496 - 2690 MHz	-	1.7	2.0	dB
2496 - 2690 MHz	-	1.7	2.0	dB ^{*1}
2515 - 2675 MHz	-	1.7	2.0	dB
2515 - 2675 MHz	-	1.7	2.0	dB ^{*1}
Group Delay				
2515 - 2675 MHz	-	6	-	ns ^{*1}
2496 - 2690 MHz	-	10	-	ns ^{*1}

Absolute Attenuation							
600	-	960	MHz	40	52	-	dB
1166.22	-	1186.68	MHz	35	45	-	dB
1421	-	1559	MHz	30	35	-	dB
1559.05	-	1605.89	MHz	30	34	-	dB
1710	-	1785	MHz	25	30	-	dB
1850	-	1915	MHz	25	30	-	dB
1920	-	1980	MHz	25	30	-	dB
2402	-	2447	MHz	27	34	-	dB _{INT} ^{*4}
2432	-	2452	MHz	27	38	-	dB _{INT} ^{*4}
2437	-	2457	MHz	27	38	-	dB _{INT} ^{*4}
2442	-	2462	MHz	25	36	-	dB _{INT} ^{*4}
2447	-	2467	MHz	25	35	-	dB _{INT} ^{*4}
2452	-	2472	MHz	11	34	-	dB _{INT} ^{*4}
2457	-	2477	MHz	6	27	-	dB _{INT} ^{*4}
2462	-	2482	MHz	4	14	-	dB _{INT} ^{*4}
2402	-	2447	MHz	27	34	-	dB _{INT} ^{*1*4}
2432	-	2452	MHz	27	38	-	dB _{INT} ^{*1*4}
2437	-	2457	MHz	27	38	-	dB _{INT} ^{*1*4}
2442	-	2462	MHz	25	36	-	dB _{INT} ^{*1*4}
2447	-	2467	MHz	25	35	-	dB _{INT} ^{*1*4}
2452	-	2472	MHz	11	34	-	dB _{INT} ^{*1*4}
2457	-	2477	MHz	8	27	-	dB _{INT} ^{*1*4}
2462	-	2482	MHz	4	14	-	dB _{INT} ^{*1*4}
3300	-	3600	MHz	24	31	-	dB
3600	-	3800	MHz	24	32	-	dB
3800	-	4200	MHz	25	36	-	dB
4400	-	5000	MHz	30	42	-	dB
4992	-	5380	MHz	30	41	-	dB
5150	-	5850	MHz	30	38	-	dB
7488	-	8070	MHz	25	32	-	dB

*1: 25°C, *2: @20MHz, *3: @100MHz,

*4: Integrated over the center 19 MHz CH BW and converting to dB value

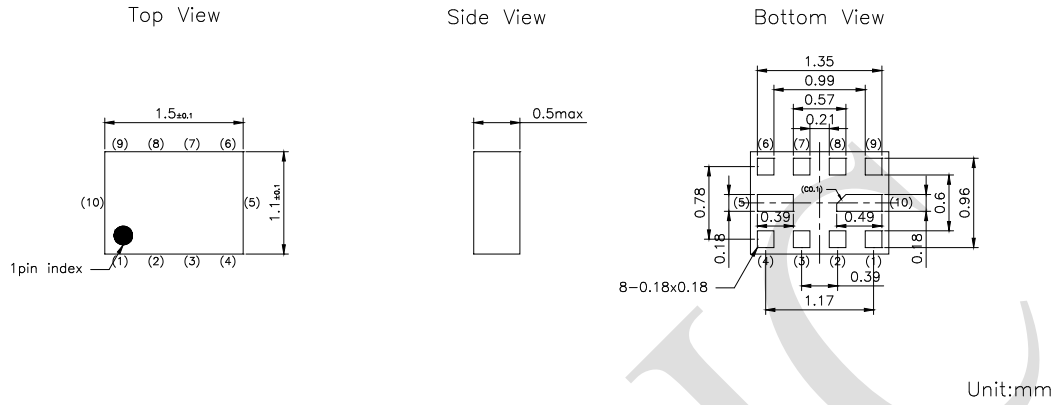
Maximum Ratings

Item	Rating	Condition / Remark
Storage Temperature	-40 to +85 °C	
DC Voltage	5 V	+25 °C
Input power	+15 dBm	LTE , +55 °C , 2000 h

Recommended Operating Conditions

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

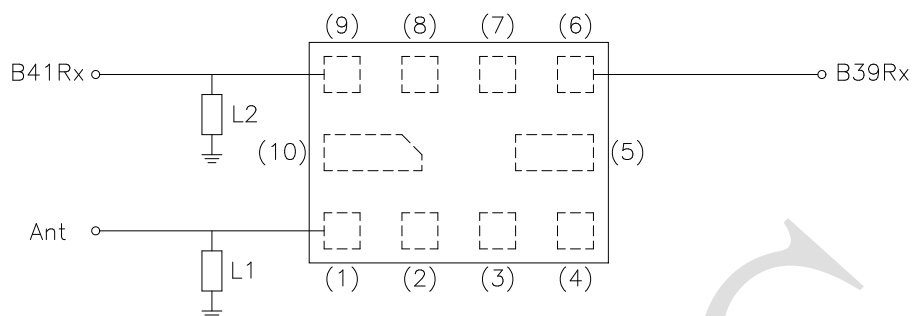
Package Information



Pin Configuration

1	:	Ant
6	:	B39Rx
9	:	B41Rx
Other	:	GND

Application Circuit



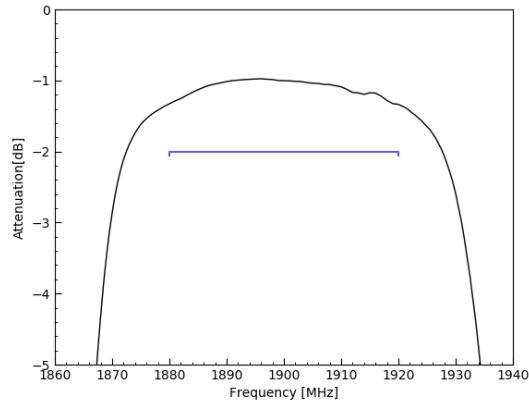
Port	Terminating Z	Matching Component
Ant	50 Ω	L1 : 2.3nH (Ideal inductor)
B41Rx	50 Ω	L2 : 2.3nH (Ideal inductor)
B39Rx	50 Ω	

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

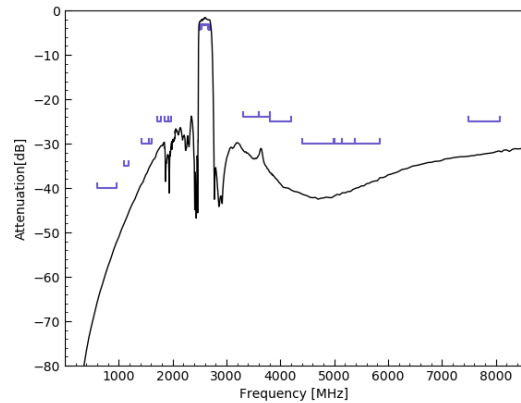
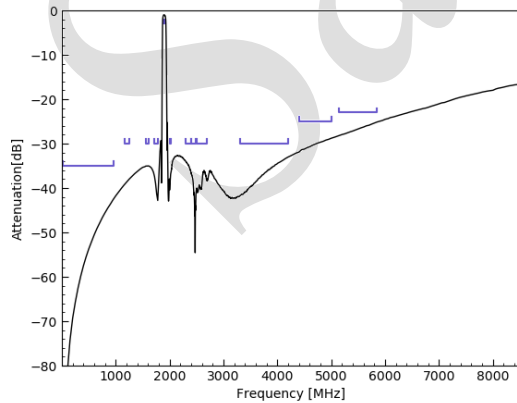
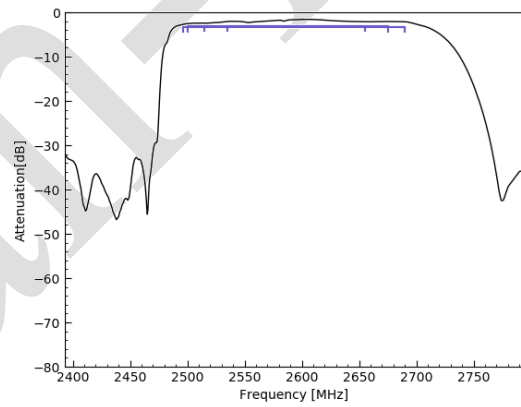
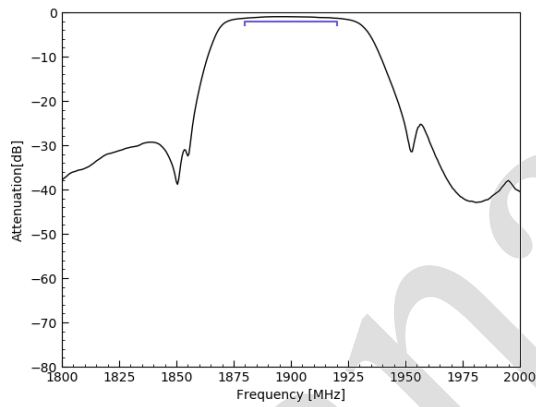
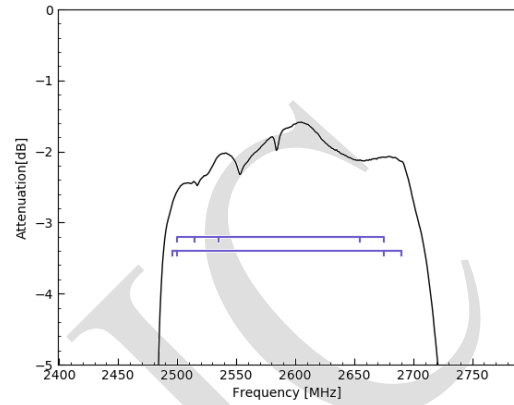
Electrical Characteristics

Band 39 + 41 Rx Dual Filter

Ant to B39Rx



Ant to B41Rx

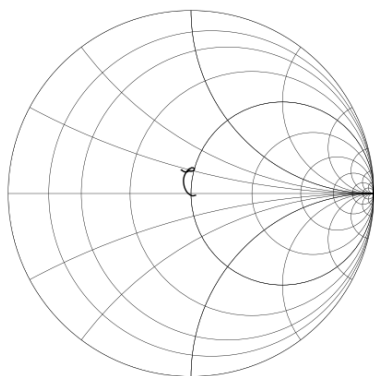


Electrical Characteristics

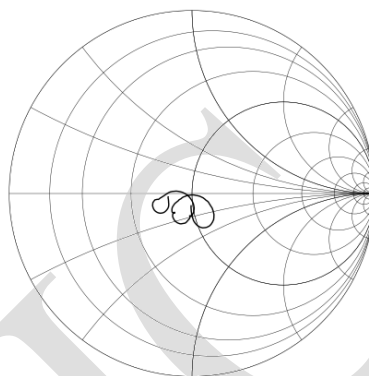
Band 39 + 41 Rx Dual Filter

Ant Impedance (B39Rx band)

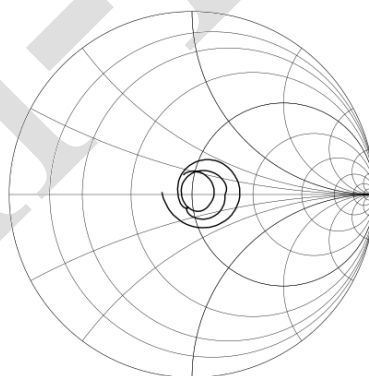
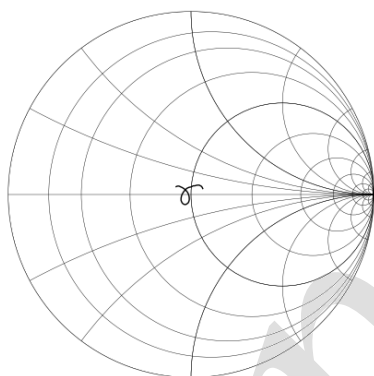
Ant Impedance (B41Rx band)



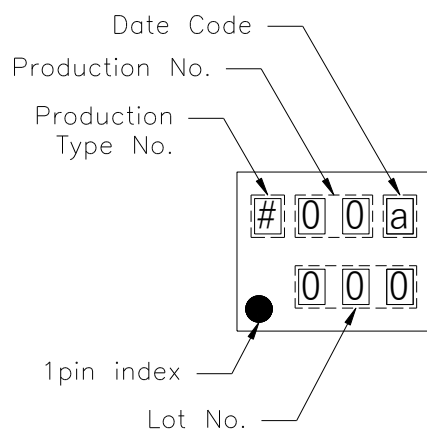
B39Rx Impedance



B41Rx Impedance



Marking Information



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

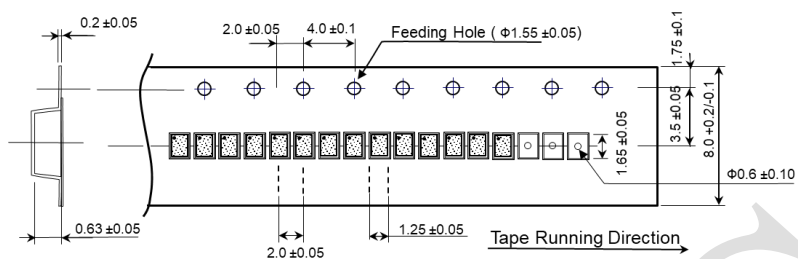
Product No. : 08

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

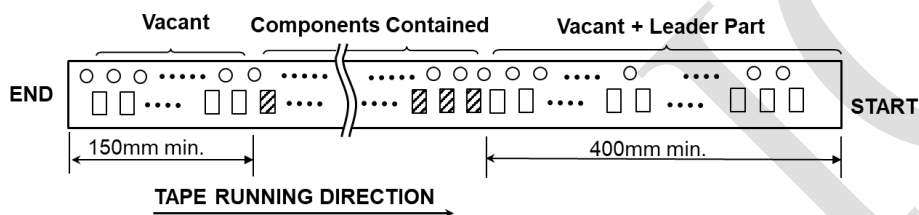
Product date code :

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

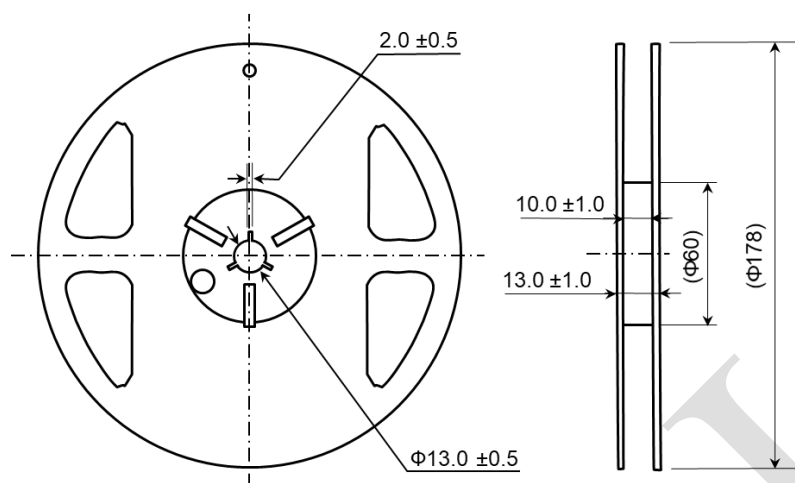
Tape Information



UNIT: mm

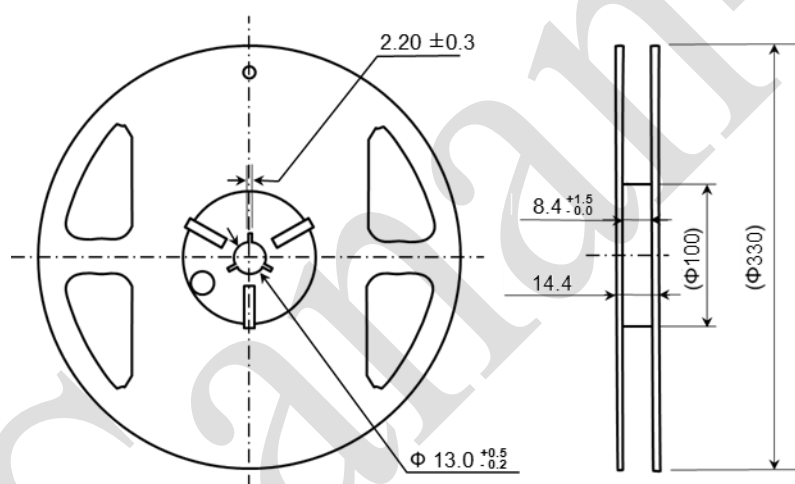


Reel Information



$\Phi 178$ Reel Dimension

UNIT: mm



$\Phi 330$ Reel Dimension

UNIT: mm

Ordering Code

Part Number	Description
LBB2595D08-SA	Bulk (few pieces)
LBB2595D08-MB	Tape & Reel 3,000 pcs/reel
LBB2595D08-MC	Tape & Reel 10,000 pcs/reel
LBB2595D08-SZ	EVB

Revision History

Revision	Date	Description
1.0	Dec. 9, 2022	● Initial release

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