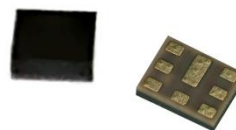


Data Sheet for SAW Components

Band28B

Duplexer



Product ID: LBD0788G2W

Date: Aug. 29, 2023

Revision: 0.1

Features

- ◆ Package Size: 1.6 x 1.2 x 0.6max mm
- ◆ Single-Ended Input and Output
- ◆ Terminating Impedance: 50 Ω
- ◆ Moisture Sensitivity Level 3
- ◆ ESD Sensitive Device

Electrical Specifications Band28B Duplexer

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

Tx to Ant					Min.	Typ.	Max.	Unit
Insertion Loss								
	718	-	748	MHz	-	1.6	2.5	dB
Pass Band Ripple								
	718	-	748	MHz	-	0.7	2.0	dB
VSWR Tx								
	718	-	748	MHz	-	1.6	2.0	-
VSWR Ant								
	718	-	748	MHz	-	1.5	2.0	-
Absolute Attenuation								
	410	-	700	MHz	24	29	-	dB
	470	-	694	MHz	27	30	-	dB
	700	-	710	MHz	4	27	-	dB
	773	-	803	MHz	40	50	-	dB
	1559.05	-	1605.89	MHz	22	26	-	dB
	2154	-	2244	MHz	18	22	-	dB
	3400	-	3800	MHz	8	12	-	dB
	4900	-	5900	MHz	8	14	-	dB

Electrical Specifications Band28B Duplexer

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

Ant to Rx					Min.	Typ.	Max.	Unit
Insertion Loss								
	733	-	803	MHz	-	1.7	2.5	dB
Pass Band Ripple								
	733	-	803	MHz	-	1.5	2.0	dB
VSWR Rx								
	733	-	803	MHz	-	1.5	2.0	-
VSWR Ant								
	733	-	803	MHz		1.5	2.0	-
Absolute Attenuation								
	10	-	718	MHz	40	43	-	dB
	718.24	-	747.76	MHz	50	53	-	dB
	1710	-	1785	MHz	40	52	-	dB
	1850	-	1920	MHz	40	54	-	dB
	1920	-	2400	MHz	40	54	-	dB
	2400	-	2500	MHz	40	52	-	dB
	2484	-	2775	MHz	40	46	-	dB
	2775	-	2880	MHz	40	58	-	dB
	2880	-	6000	MHz	30	48	-	dB

Electrical Specifications Band28B Duplexer

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

Tx to Rx					Min.	Typ.	Max.	Unit
Isolation								
	718	-	748	MHz	47	54	-	dB
	773	-	803	MHz	47	50	-	dB

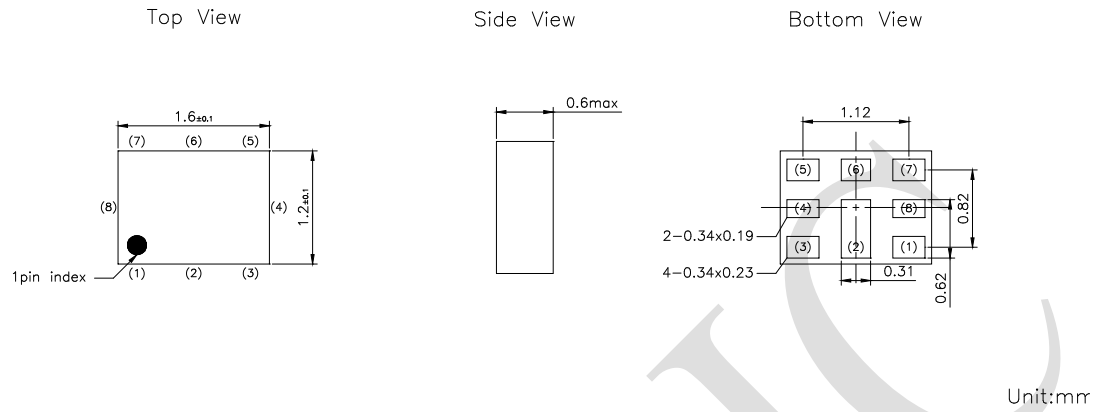
Maximum Ratings

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

Recommended Operating Conditions

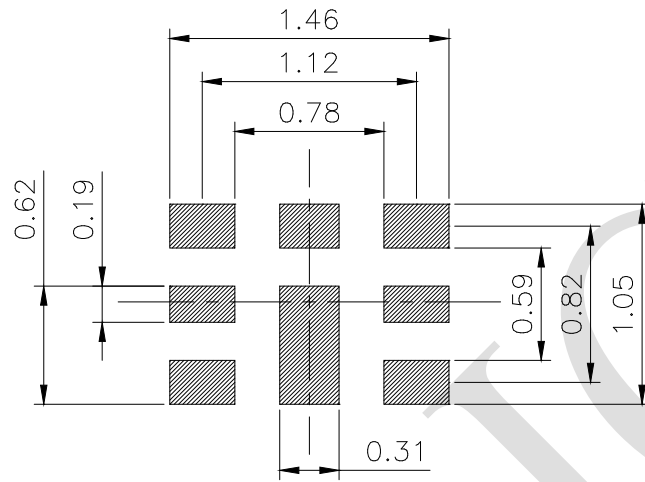
Item	Rating	Condition / Remark
Operating Temperature, T _{CASE}	-30 to +85 °C	

Package Information



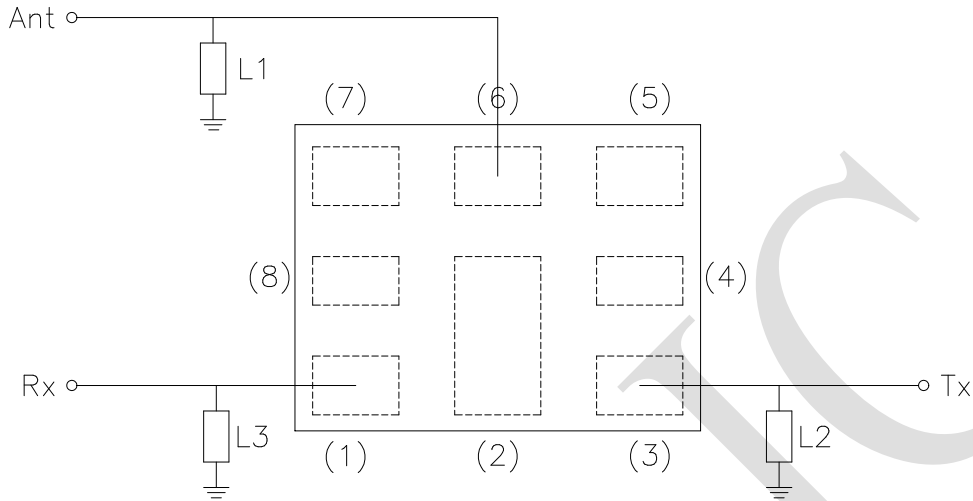
Pin Configuration	
1	: Rx
3	: Tx
6	: Ant
Other	: GND

Land Pattern



Unit:mm

Application Circuit



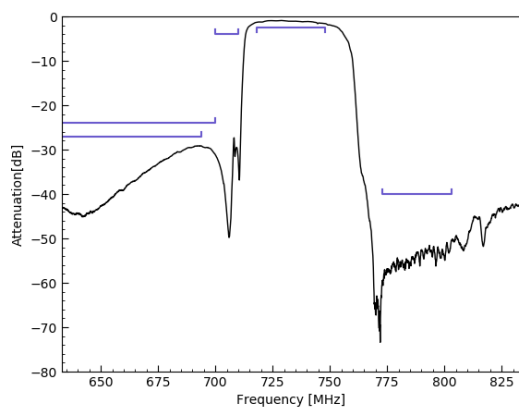
Port	Terminating Z	Matching Component
Ant	50 Ω	L1 : 7.5 nH (Ideal inductor)
Tx	50 Ω	L2 : 8.5 nH (Ideal inductor)
Rx	50 Ω	L3: 30 nH (Ideal inductor)

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

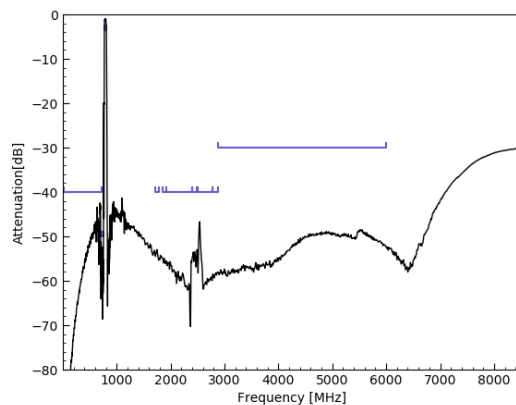
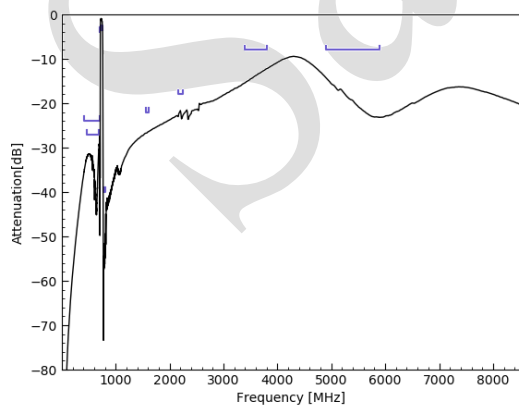
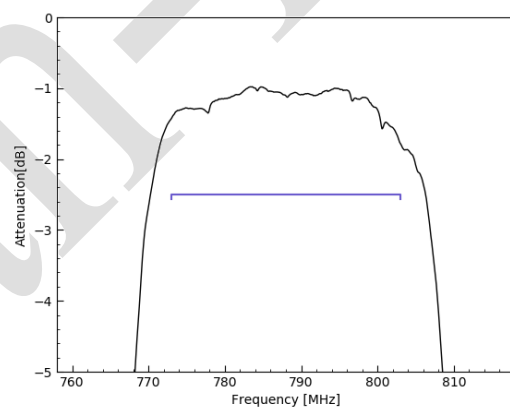
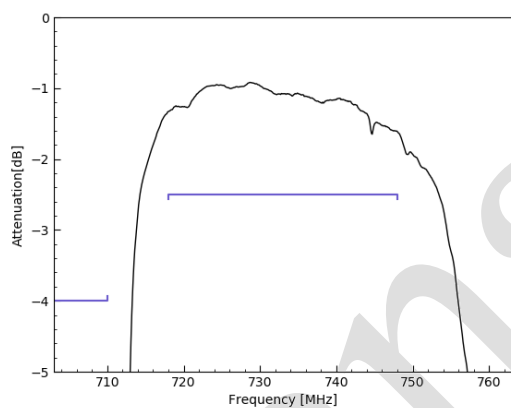
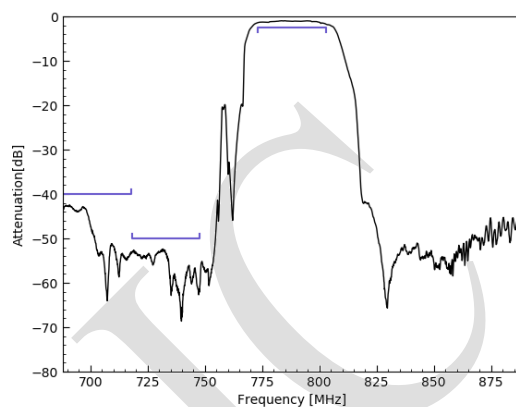
Electrical Characteristics

Band28B Duplexer

Tx to Ant



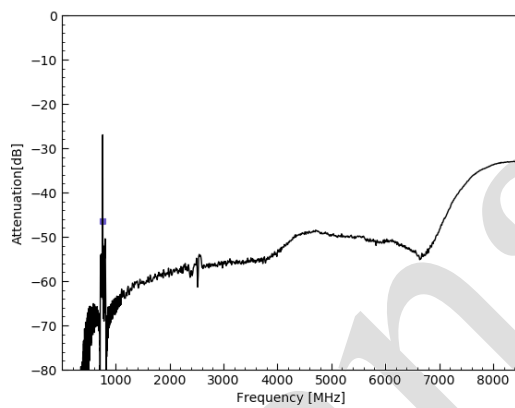
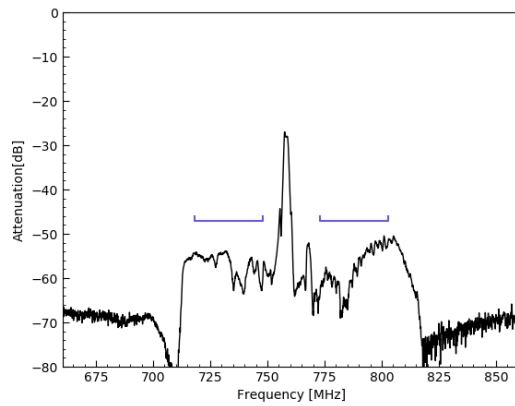
Ant to Rx



Electrical Characteristics

Band28B Duplexer

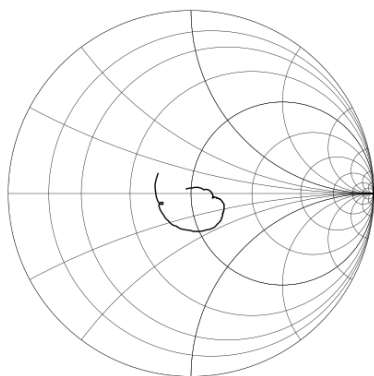
Tx to Rx



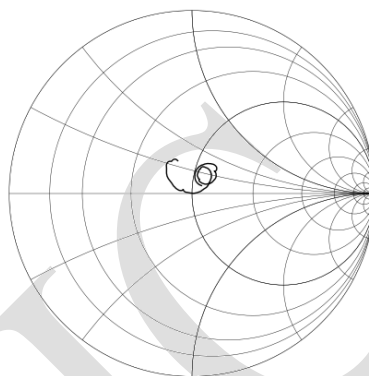
Electrical Characteristics

Band28B Duplexer

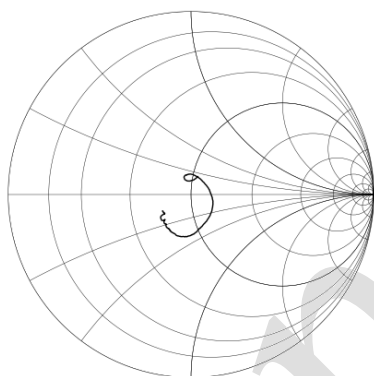
Ant Impedance (Tx band)



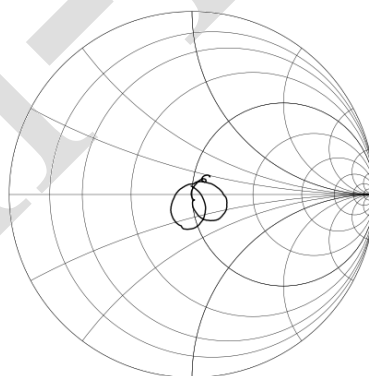
Ant Impedance (Rx band)



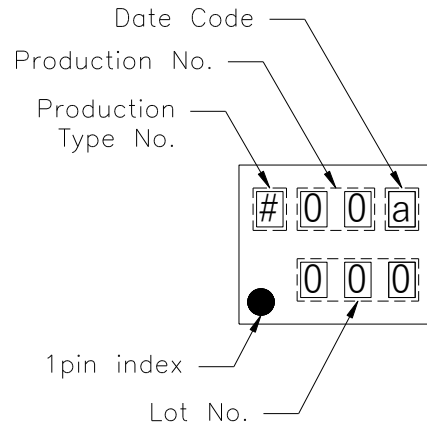
Tx Impedance



Rx Impedance



Marking Information



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

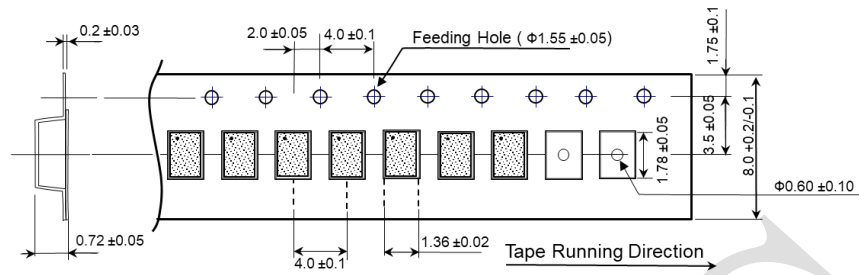
Product No. : 2W

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

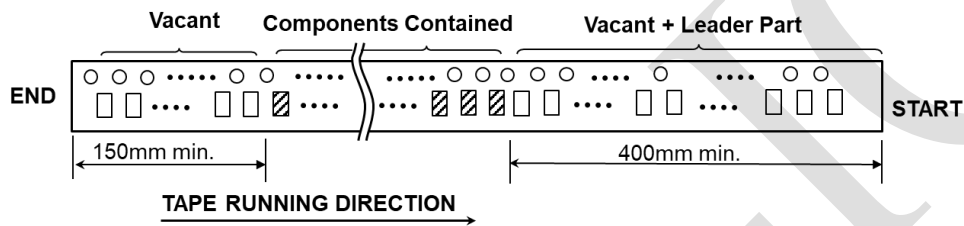
Product date code :

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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
2026	a	b	c	d	e	f	g	h	j	k	l	m

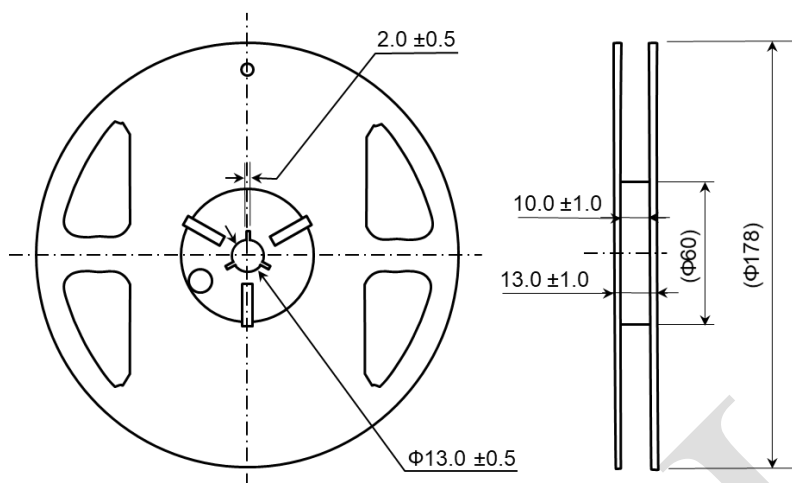
Tape Information



UNIT: mm

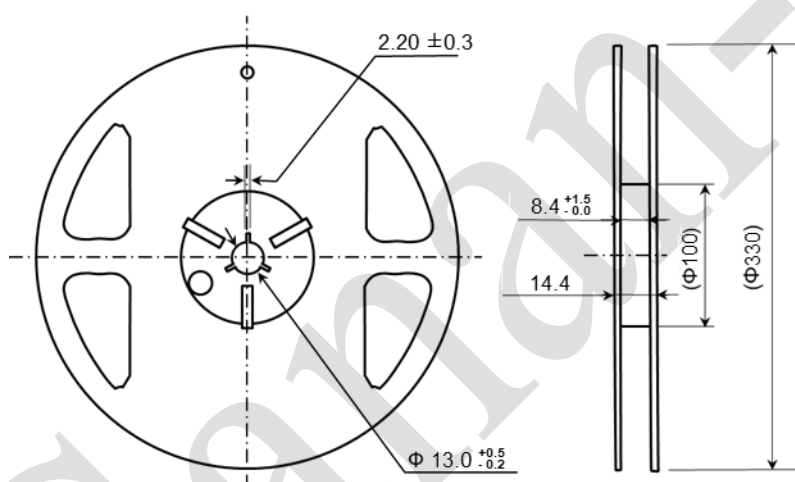


Reel Information



$\Phi 178$ Reel Dimension

UNIT: mm



$\Phi 330$ Reel Dimension

UNIT: mm

Ordering Code

Part Number	Description
LBD0788G2W-SA	Bulk (few pieces)
LBD0788G2W-MB	Tape & Reel 3,000 pcs/reel
LBD0788G2W-MC	Tape & Reel 10,000 pcs/reel
LBD0788G2W-SZ	EVB

Revision History

Revision	Date	Description
0.1	Aug. 29, 2023	● Initial release (preliminary)

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