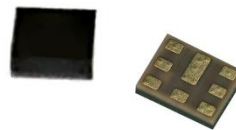


Data Sheet for SAW Components

Band5

Duplexer



Product ID: LBD0882G4F

Date: Jun. 9, 2023

Revision: 0.1 Preliminary

Features

- ◆ Package Size: 1.6 x 1.2 x 0.55max mm
- ◆ Single-Ended Input and Output
- ◆ Terminating Impedance: 50 Ω
- ◆ Moisture Sensitivity Level 3
- ◆ ESD Sensitive Device

Electrical Specifications

Band5 Duplexer

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

Tx to Ant					Min.	Typ.	Max.	Unit
Insertion Loss								
	824	–	849	MHz	–	1.4	1.8	dB
824		–	849	MHz	–	1.4	1.7*1	dB
Pass Band Ripple								
	824	–	849	MHz	–	0.5	1.2	dB
	824	–	849	MHz	–	0.5	1.0*1	dB
VSWR Tx								
	824	–	849	MHz	–	1.6	2.0	–
824		–	849	MHz	–	1.6	2.0*1	–
VSWR Ant								
	824	–	849	MHz	–	1.6	2.0	–
	824	–	849	MHz	–	1.6	2.0*1	–
Absolute Attenuation								
	10	–	420	MHz	35	44	–	dB
	420	–	494	MHz	35	40	–	dB
	494	–	701	MHz	27	35	–	dB
	699	–	716	MHz	27	35	–	dB
	701	–	728	MHz	27	35	–	dB
	704	–	716	MHz	27	35	–	dB
	728	–	764	MHz	27	35	–	dB
	764	–	804	MHz	28	38	–	dB
	860	–	869	MHz	2	4	–	dB
	869	–	894	MHz	45	55	–	dB
	1559	–	1563	MHz	30	48	–	dB
	1565.42	–	1573.37	MHz	30	48	–	dB
	1573.37	–	1577.47	MHz	30	48	–	dB
	1577.47	–	1585.42	MHz	30	48	–	dB
	1597.55	–	1605.89	MHz	30	47	–	dB
	1638	–	1708	MHz	28	44	–	dB
	1710	–	1785	MHz	28	42	–	dB
	1844.9	–	1879.9	MHz	25	40	–	dB
	1884.5	–	1919.6	MHz	25	39	–	dB
	1920	–	1980	MHz	25	38	–	dB
	2110	–	2170	MHz	25	36	–	dB
	2400	–	2494	MHz	22	34	–	dB
	2472	–	2547	MHz	22	24	–	dB
	3286	–	3406	MHz	15	31	–	dB
	4110	–	4255	MHz	15	17	–	dB
	4900	–	5950	MHz	10	14	–	dB
	6582	–	6802	MHz	8	11	–	dB

7406		-	7651	MHz	8	12	-	dB
*1: 23~27 °C								

Electrical Specifications

Band5 Duplexer

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

Ant to Rx					Min.	Typ.	Max.	Unit
Insertion Loss								
	869	–	894	MHz	–	1.7	2.3	dB
869		–	894	MHz	–	1.7	2.1*1	dB
Pass Band Ripple								
869		–	894	MHz	–	0.5	1.2	dB
	869	–	894	MHz	–	0.5	1.0*1	dB
VSWR Rx								
	869	–	894	MHz	–	1.8	2.0	–
869		–	894	MHz	–	1.8	2.0*1	–
VSWR Ant								
	869	–	894	MHz		1.6	2.0	–
	869	–	894	MHz		1.6	2.0*1	–
Absolute Attenuation								
	10	–	447	MHz	50	62	–	dB
			45	MHz	50	100	–	dB
	447	–	824	MHz	43	58	–	dB
	779	–	804	MHz	44	64	–	dB
	824	–	849	MHz	45	61	–	dB
	849	–	854	MHz	33	55	–	dB
	909	–	979	MHz	10	13	–	dB
	1693	–	1743	MHz	45	58	–	dB
	1710	–	1785	MHz	45	58	–	dB
	1788	–	1788	MHz	45	59	–	dB
	1850	–	1920	MHz	40	56	–	dB
	1920	–	1980	MHz	40	56	–	dB
	1980	–	2400	MHz	40	54	–	dB
	2305	–	2315	MHz	33	54	–	dB
	2400	–	2500	MHz	30	54	–	dB
	2467	–	2494	MHz	30	54	–	dB
	2517	–	2592	MHz	30	52	–	dB
	2607	–	2682	MHz	30	54	–	dB
	3476	–	3576	MHz	32	47	–	dB
	4345	–	4470	MHz	30	34	–	dB
	4900	–	5950	MHz	25	36	–	dB
	5214	–	5364	MHz	25	36	–	dB
	6083	–	6258	MHz	25	35	–	dB
	6952	–	7152	MHz	20	32	–	dB
	7821	–	8046	MHz	20	29	–	dB

Electrical Specifications

Band5 Duplexer

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

Tx to Rx				Min.	Typ.	Max.	Unit	
Isolation								
	824	–	849	MHz	55	59	–	dB
	869	–	894	MHz	52	57	–	dB
	1574	–	1577	MHz	50	64	–	dB
	1683	–	1708	MHz	50	62	–	dB
	2462	–	2557	MHz	45	56	–	dB

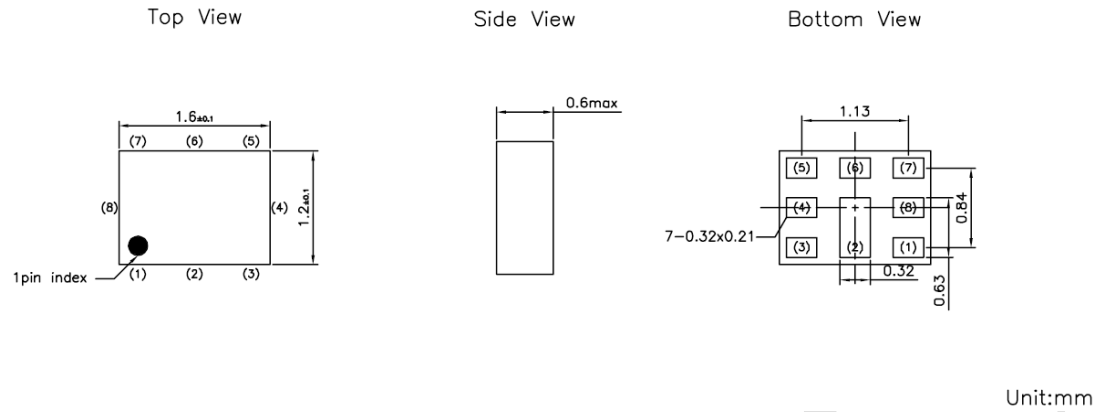
Maximum Ratings

Item	Rating	Condition / Remark
Storage Temperature	-40 to +85 ° C	
DC Voltage	5 V	+25 ° C
Input power	+29 dBm	LTE , +55 ° C , 5000 h

Recommended Operating Conditions

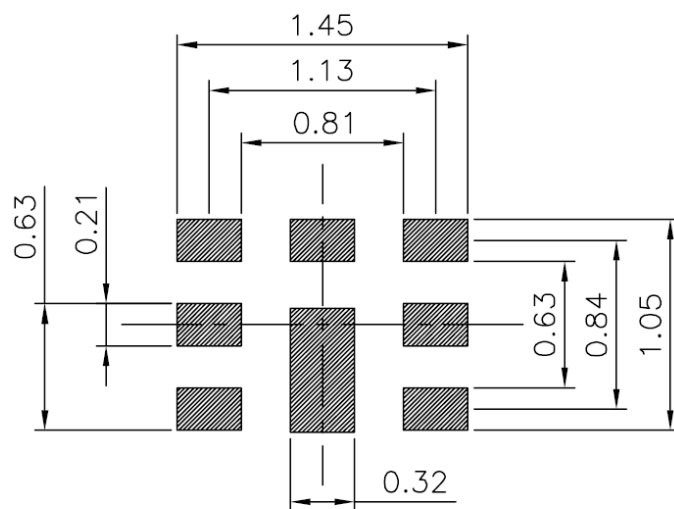
Item	Rating	Condition / Remark
Operating Temperature, T _{CASE}	-30 to +85 ° C	

Package Information



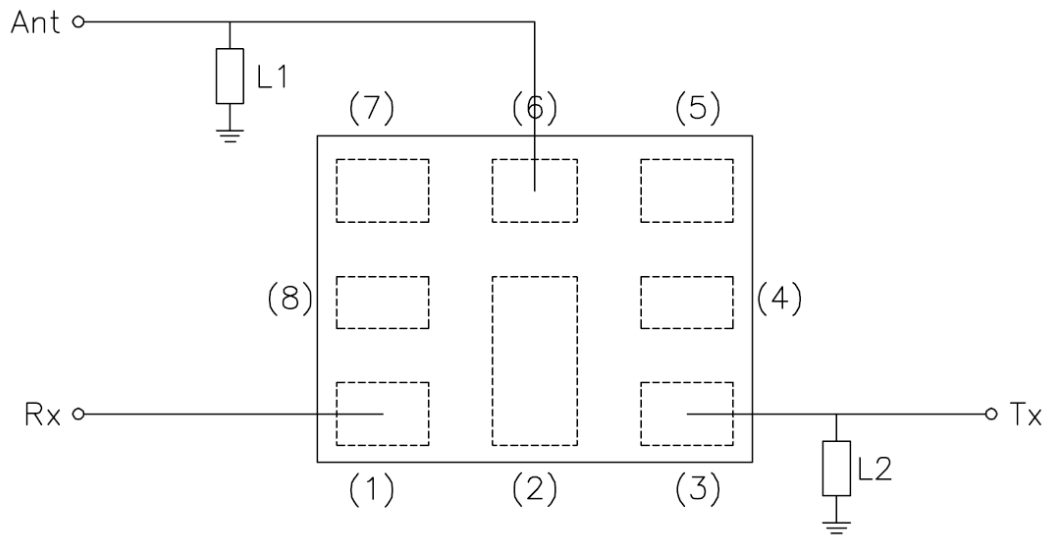
Pin Configuration		
1	:	Rx
3	:	Tx
6	:	Ant
Other	:	GND

Land Pattern



Unit:mm

Application Circuit



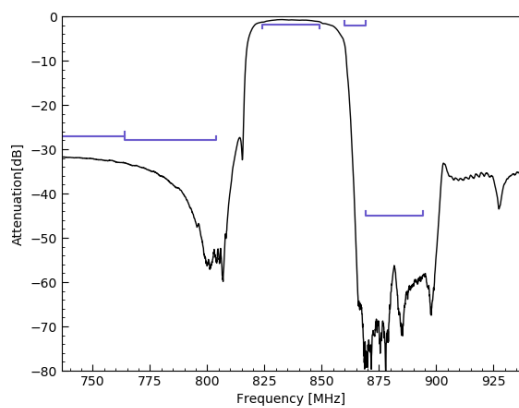
Port	Terminating Z	Matching Component
Ant	50 Ω	L1 : 10 nH (Ideal inductor)
Tx	50 Ω	L2 : 15 nH (Ideal inductor)

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

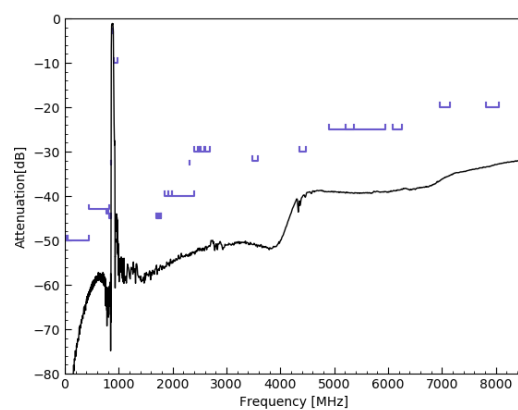
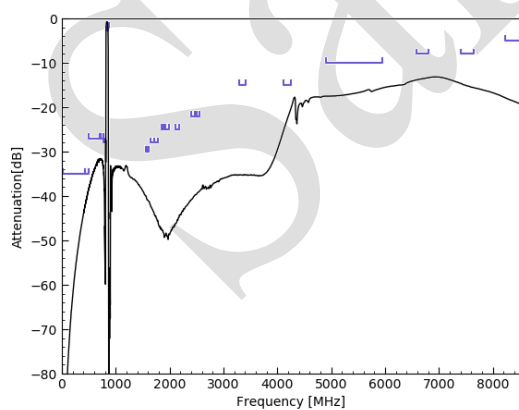
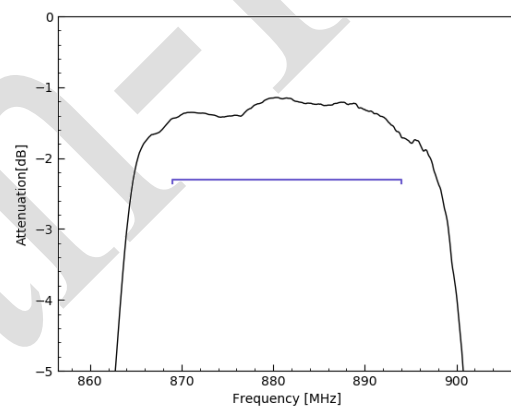
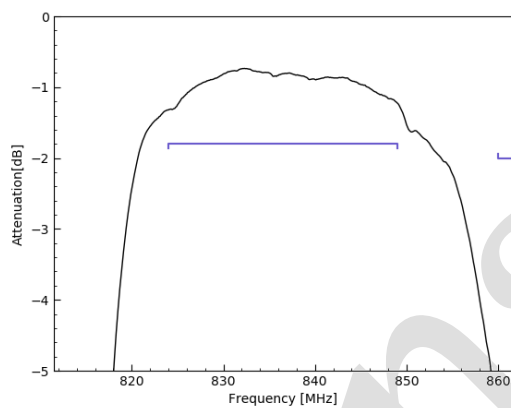
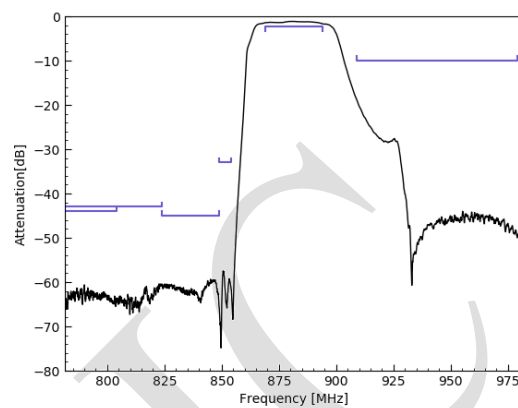
Electrical Characteristics

Band5 Duplexer

Tx to Ant



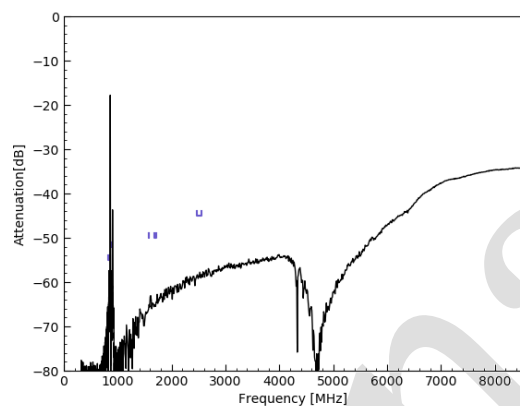
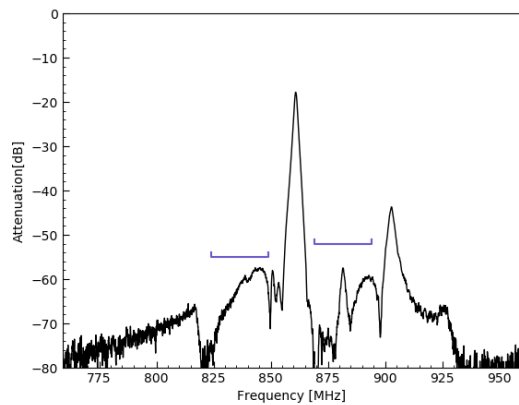
Ant to Rx



Electrical Characteristics

Band5 Duplexer

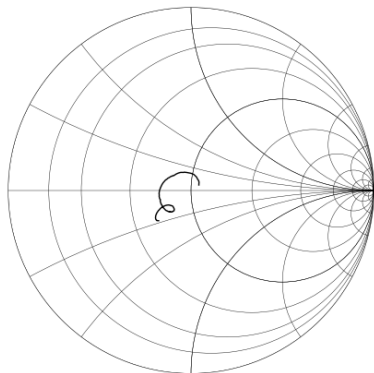
Tx to Rx



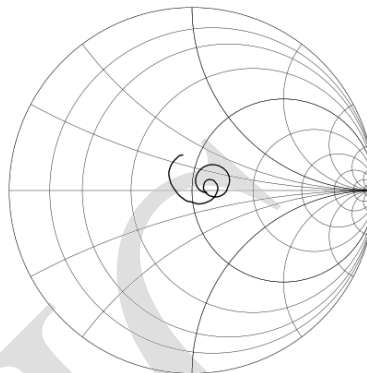
Electrical Characteristics

Band5 Duplexer

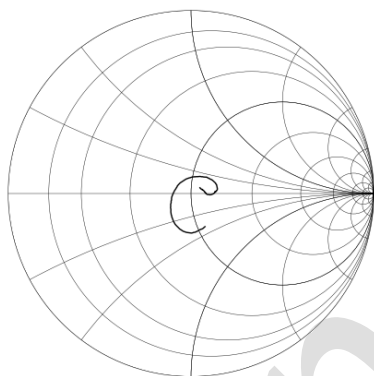
Ant Impedance (Tx band)



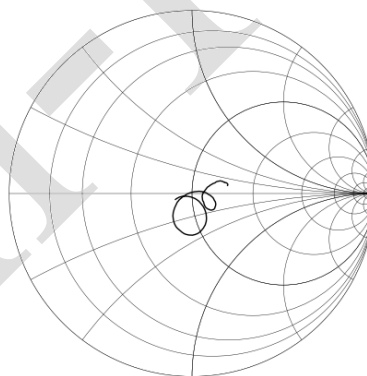
Ant Impedance (Rx band)



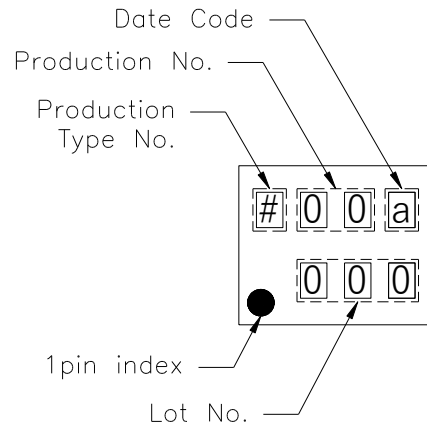
Tx Impedance



Rx Impedance



Marking Information



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

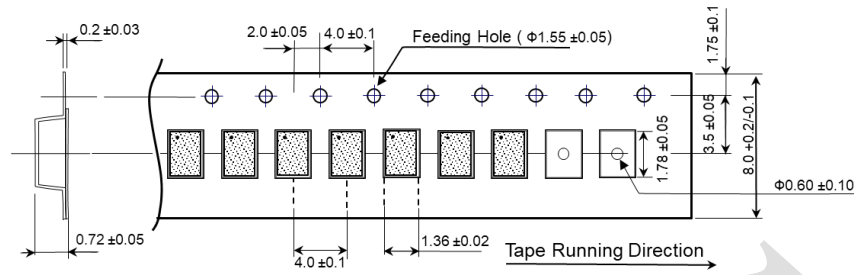
Product No. : 4F

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

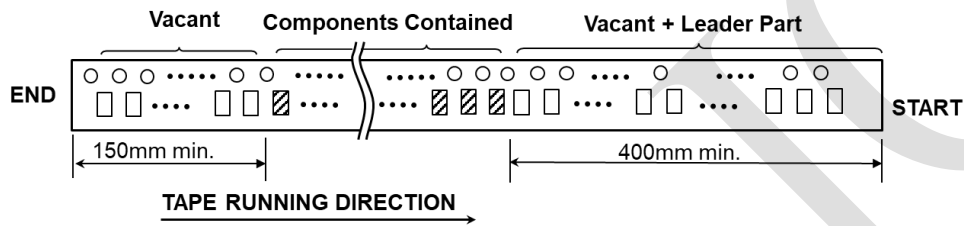
Product date code:

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

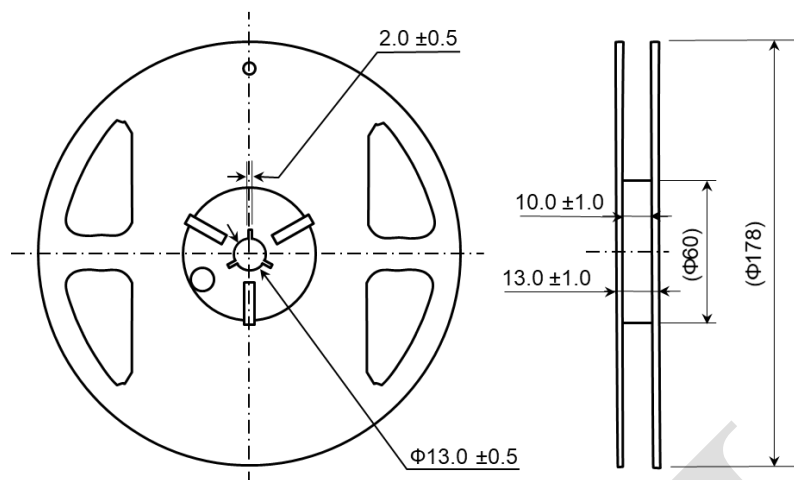
Tape Information



UNIT: mm

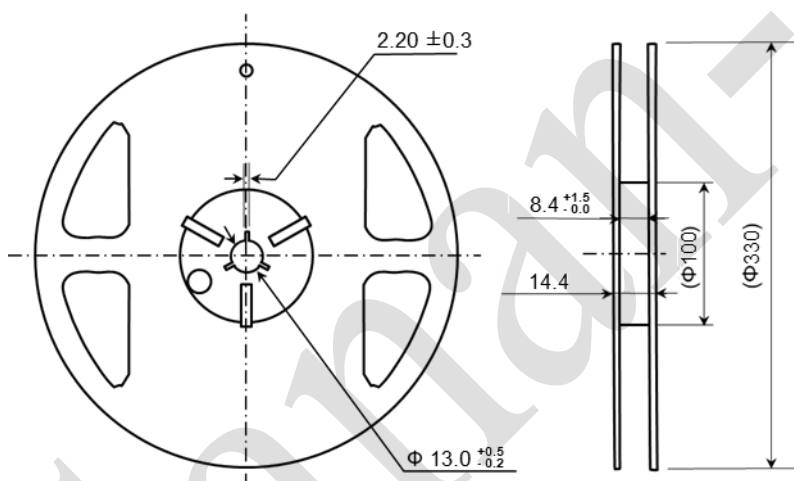


Reel Information



$\Phi 178$ Reel Dimension

UNIT: mm



$\Phi 330$ Reel Dimension

UNIT: mm

Ordering Code

Part Number	Description
LBD0882G4F-SA	Bulk (few pieces)
LBD0882G4F-MB	Tape & Reel 3,000 pcs/reel
LBD0882G4F-MC	Tape & Reel 10,000 pcs/reel
LBD0882G4F-SZ	EVB

Revision History

Revision	Date	Description
0.1	Jun. 9, 2023	● Initial release

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