

Datasheet of SAW Device

SAW Duplexer

for Band28A / Unbalanced / LR /1814

Murata PN: SAYEY718MBC0F0A



- > LTE-A
 - > LIE-A
- High Isolation
- For Envelope Tracking



Note : Murata SAW Component is applicable for Cellular /Cordless phone (Terminal) relevant market only. Please also read caution at the end of this document.

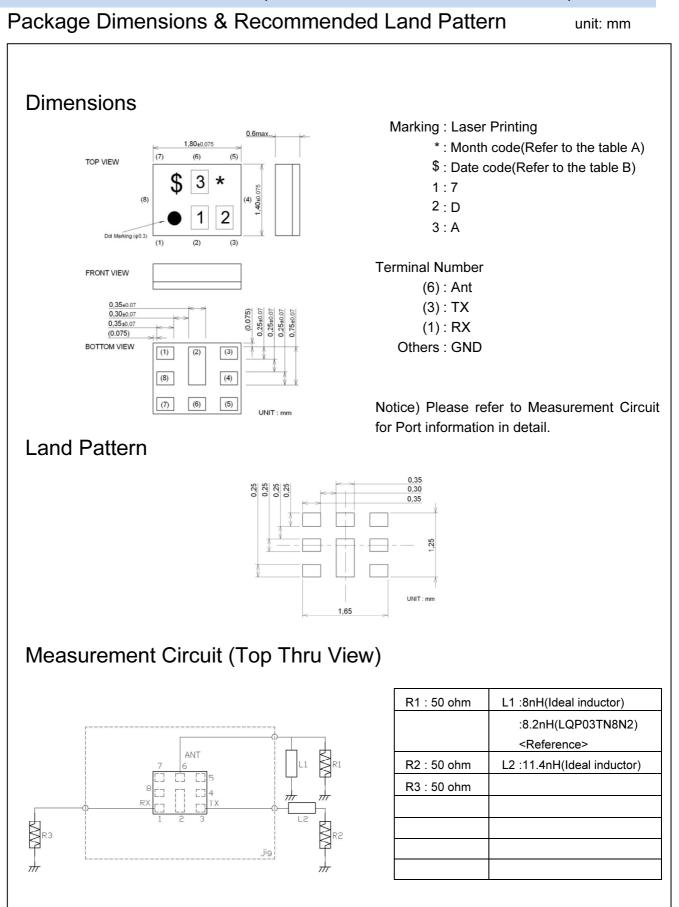
Revision								
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General Information

- Operating temperature	: -20 to +85 deg.C
- Storage temperature	: -40 to +85 deg.C
- Input Power	: +30 dBm 5000 h +50 deg.C
- D.C. Volatage between the terminals	: 3V (25+/-2 deg.C)
- Minimum Resistance between the terminals	: 10M ohm
- RoHS compliance	: Yes
- ESD (ElectroStatic Discharge) sensitive devi	ce







Electrical Characteristic < TX→ANT. >

T	$X \rightarrow ANT.$				Cha (-201	racteri: to +85 d	stics eg.C)	Unit	Note		
							max.				
Center Frequency						718		MHz			
Insertion Loss	703.25	to	732.75			2.2	2.8	dB			
		to	730.5	MHz		1.9	2.3	dB _{INT}	Any 4.5MHz		
Ripple Deviation		to	733.	MHz		0.7	1.7	dB	Any 5MHz		
/SWR	703.	to	733.	MHz		1.8	2.0		ТХ		
		to	733.	MHz		1.5	2.0		ANT.		
Absolute Attenuation		to	670.	MHz	30	34		dB			
		to	694.	MHz	30	36		dB	DTV rejection		
		to	695.	MHz	25	36		dB	DTV rejection		
		to	698.	MHz	5.0	11.0		dB	DTV rejection		
		to	698.	MHz	8.0	11.0		dB	+23 to +27deg.C, DTV		
		to	698.	MHz	7.0	11.0		dB	-15 to +70deg.C		
		to	788.	MHz	43	48		dB	RX		
		to	803.	MHz	20	25		dB			
		to	894.	MHz	30	36		dB			
		to	1250.	MHz	35	39		dB	GPS L2		
		to	1466.	MHz	33	37		dB	2f		
	1559.	to	1563.	MHz	33	37		dB	Compass		
	1565.42		1573.37	MHz	33	37		dB	Wideband GPS lower side		
	1573.37	to	1577.47	MHz	33	37		dB	Regular GPS		
	1577.47	to	1585.42	MHz	33	37		dB	Wideband GPS upper side		
	1597.55		1605.89	MHz	33	38		dB	GLONASS		
		to	1880.	MHz	30	39		dB	DCS		
		to	1995.	MHz	30	40		dB	B2 / B25		
		to	2025.	MHz	30	41		dB	B34		
		to	2199.	MHz	28	35		dB	3f		
		to	2484.	MHz	23	30		dB	ISM 2.4		
		to	2620.	MHz	19	26		dB	B38		
		to	2932.	MHz	15	19		dB	4f		
	4900.	to	5950.	MHz	20	32		dB	ISM 5G		
	1										

* Typical value at 25±2deg.C



Electrical Characteristic $\langle ANT. \rightarrow RX \rangle$

A	NT. \rightarrow RX		Cha (-201	racteri to +85 d	stics eg.C)	Unit	Note
			min.	typ.*	max.		
Center Frequency				773		MHz	
Insertion Loss	758.25 to 787.75			2.2	2.6	dB	
	760.5 to 785.5	MHz		1.9	2.4	dB _{INT}	Any 4.5MHz
Ripple Deviation	758. to 788.	MHz		0.5	1.6	dB	Any 5MHz
VSWR	758. to 788.	MHz		1.8	2.1		RX
	758. to 788.	MHz		1.7	2.0		ANT.
Absolute Attenuation	10. to 699.	MHz	40	57		dB	DTV Rejection
	45. to 65.	MHz	50	78		dB	RX- TX
	703. to 733.	MHz	50	58		dB	TX
	733. to 748.	MHz	21	38		dB	Block-B TX
	814. to 6000.	MHz	33	38		dB	OoB Rejection
	2400. to 2483.	MHz	30	52		dB	ISM2.4
	6822. to 7092.	MHz	30	42		dB	9f
	7580. to 7880.	MHz	25	33 21		dB	10f
	8338. to 8668.	MHz	13			dB	11f
	9096. to 9456.	MHz	5.0	12.0 11.0		dB	12f
	9854. to 10244.	MHz	5.0	11.0 23		dB	13f
	10612. to 11032. 11370. to 11820.	MHz	12 7.0	23		dB dB	14f 15f
	11370. to 11820. 12128. to 12750.	MHz	7.0 3.0	21.0		dB dB	16f
	12120. [0 12130.	MHz	3.0	11.0		uD	
							* Typical value at 25+2deg C

* Typical value at 25±2deg.C



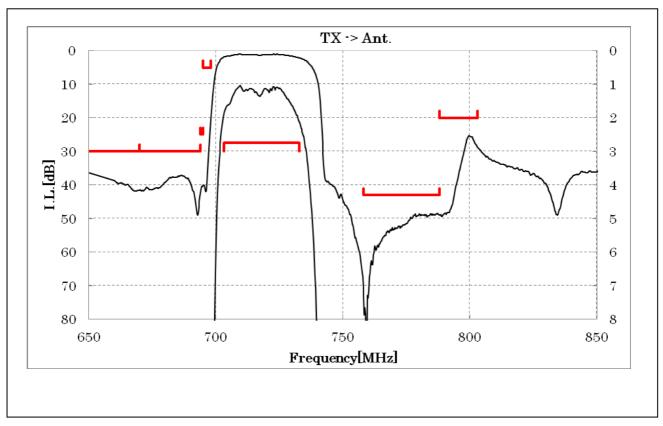
Electrical Characteristic $< TX \rightarrow RX. >$

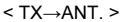
	$TX \rightarrow RX$	Characteri (-20 to +85 d	Unit	Note	
		min. typ.*	max.		
solation					
	703.25 to 732.75 MHz	58 61		dB	TX
	705.5 to 730.5 MHz	60 62		dB _{INT}	Any 4.5MHz, TX
	758.25 to 787.75 MHz			dB	RX Ame 4 FMUID DX
	760.5 to 785.5 MHz	55 60 40 63		dB _{INT} dB	Any 4.5MHz, RX
	1406. to 1466. MHz 2109. to 2199. MHz			dB dB	2f TX 3f TX
				dB	4f TX
	2812. to 2932. MHz	40 39		uD	41.1.
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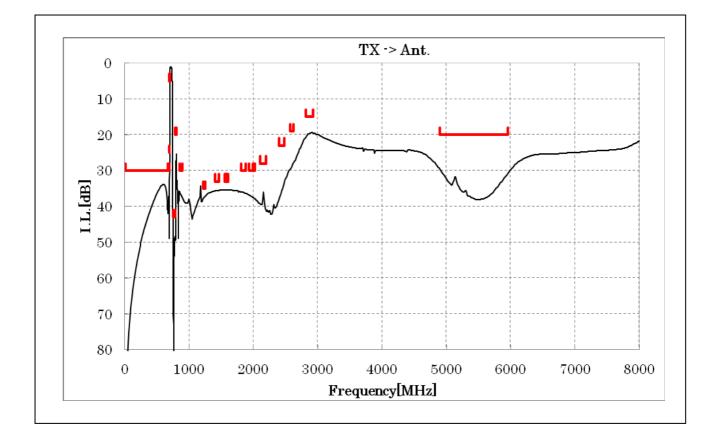
* Typical value at 25±2deg.C



Electrical Characteristic

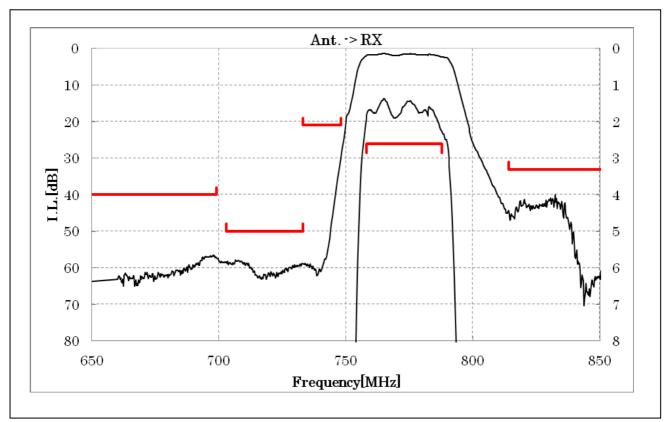


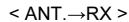


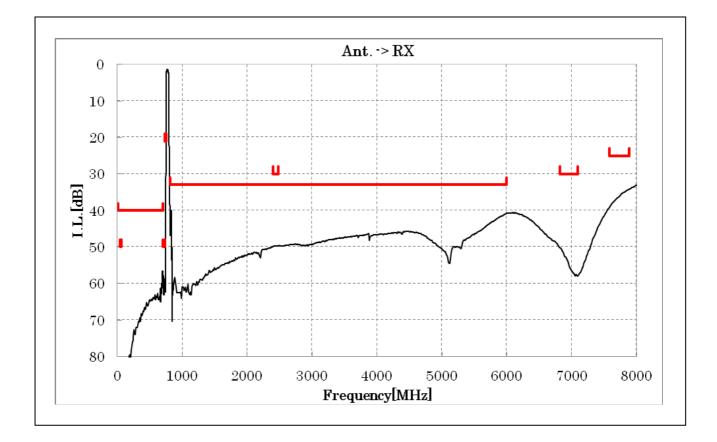




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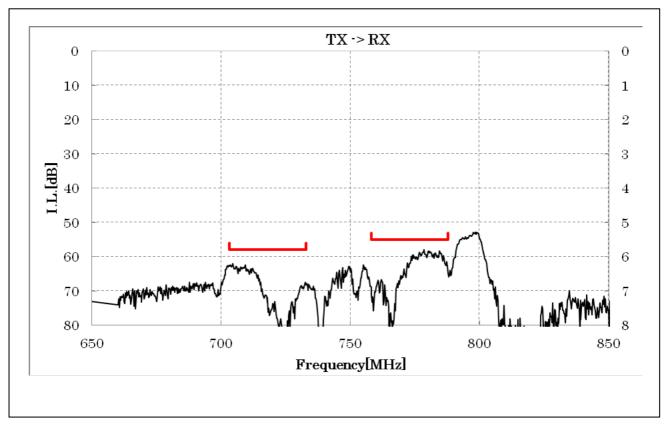


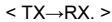


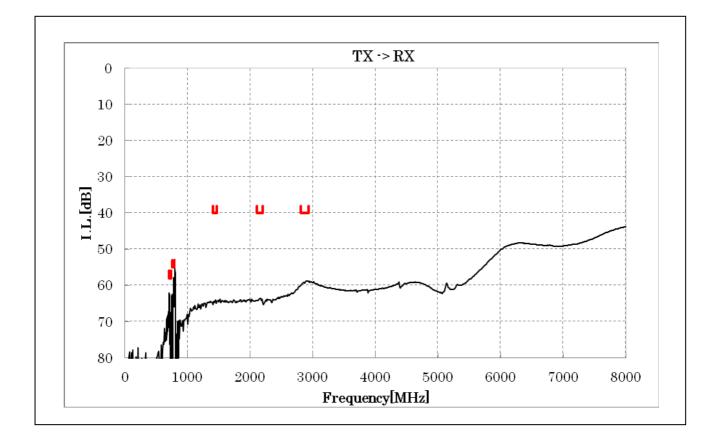




Electrical Characteristic



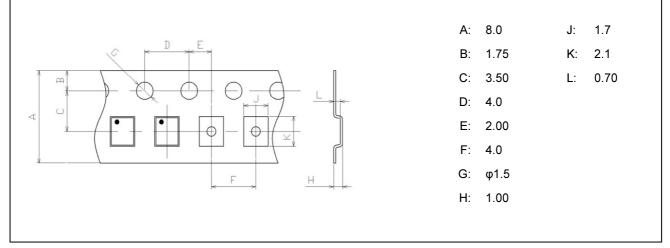




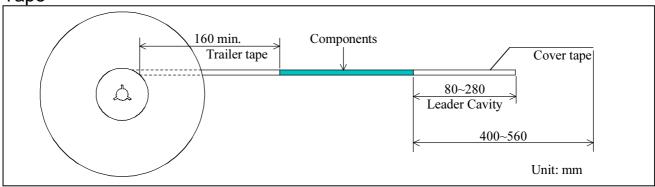


Dimensions of Tape & Reel unit: mm

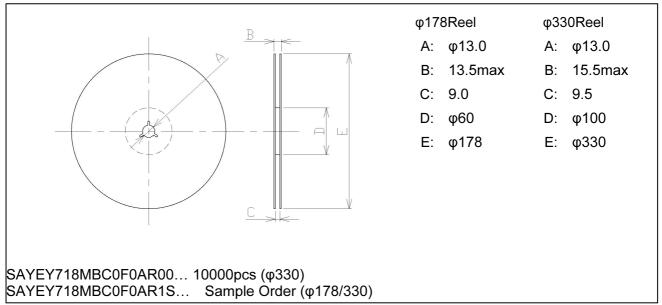
Carrier Tape



Tape



Reel





Marking Code

Table A: Month Code

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Γ	2013	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	2017 2021	Α	В	C	D	E	F	G	н	J	к	L	м
Γ	2014	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	2018 2022	Ν	Ρ	Q	R	S	Т	U	V	¥	х	Y	Z
Γ	2015	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	2019 2023	а	р	ю	d	е	f	g	h	j	r.	l	m
Γ	2016	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	2020 2024	n	p	Ŷ	r	4	t	u	U	3	¥	y	8

Table B: Date Code

date	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
code	А	В	С	D	E	F	G	Η	J	К	
date	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	
code	L	М	Ν	Р	Q	R	S	Т	U	V	
date	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
code	W	Х	Y	Z	а	b	ō	d	е	f	g

Important Notice (1/2)

PLEASE READ THIS NOTICE BEFORE USING OUR PRODUCTS.

Please make sure that your product has been evaluated and confirmed from the aspect of the fitness for the specifications of our product when our product is mounted to your product. All the items and parameters in this product specification/datasheet/catalog have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment specified in this specification. You are requested not to use our product deviating from the condition and the environment specified in this specification.

Please note that the only warranty that we provide regarding the products is its conformance to the specifications provided herein. Accordingly, we shall not be responsible for any defects in products or equipment incorporating such products, which are caused under the conditions other than those specified in this specification.

WE HEREBY DISCLAIMS ALL OTHER WARRANTIES REGARDING THE PRODUCTS, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, THAT THEY ARE DEFECT-FREE, OR AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS.

The product shall not be used in any application listed below which requires especially high reliability for the prevention of such defect as may directly cause damage to the third party's life, body or property. You acknowledge and agree that, if you use our products in such applications, we will not be responsible for any failure to meet such requirements.

Furthermore, YOU AGREE TO INDEMNIFY AND DEFEND US AND OUR AFFILIATES AGAINST ALL CLAIMS, DAMAGES, COSTS, AND EXPENSES THAT MAY BE INCURRED, INCLUDING WITHOUT LIMITATION, ATTORNEY FEES AND COSTS, DUE TO THE USE OF OUR PRODUCTS IN SUCH APPLICATIONS.



Important Notice (2/2)

- Aircraft equipment.
- Aerospace equipment
- Undersea equipment.
- Power plant control equipment Medical equipment.
- Transportation equipment (vehicles, trains, ships, elevator, etc.).
- Traffic signal equipment.
- Disaster prevention / crime prevention equipment.
- Burning / explosion control equipment
- Application of similar complexity and/ or reliability requirements to the applications listed in the above.

We expressly prohibit you from analyzing, breaking, Reverse-Engineering, remodeling altering, and reproducing our product. Our product cannot be used for the product which is prohibited from being manufactured, used, and sold by the regulations and laws in the world.

Please do not use the product in molding condition.

This product is ESD (ElectroStatic Discharge) sensitive device. When you install or measure this, you should be careful not to add antistatic electricity or high voltage. Please be advised that you had better check anti serge voltage.

We do not warrant or represent that any license, either express or implied, is granted under any our patent right, copyright, mask work right, or our other intellectual property right relating to any combination, machine, or process in which our products or services are used. Information provided by us regarding third-party products or services does not constitute a license from us to use such products or services or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from us under our patents or other intellectual property.

Please do not use our products, our technical information and other data provided by us for the purpose of developing of mass-destruction weapons and the purpose of military use. Moreover, you must comply with "foreign exchange and foreign trade law", the "U.S. export administration regulations", etc.

Please note that we may discontinue the manufacture of our products, due to reasons such as end of supply of materials and/or components from our suppliers.

Customer acknowledges that Murata will, if requested by you, conduct a failure analysis for defect or alleged defect of Products only at the level required for consumer grade Products, and thus such analysis may not always be available or be in accordance with your request (for example, in cases where the defect was caused by components in Products supplied to Murata from a third party).

The product shall not be used in any other application/model than that of claimed to Murata.

Customer acknowledges that engineering samples may deviate from specifications and may contain defects due to their development status.

We reject any liability or product warranty for engineering samples.

In particular we disclaim liability for damages caused by

•the use of the engineering sample other than for evaluation purposes, particularly the installation or integration in the product to be sold by you,

·deviation or lapse in function of engineering sample,

·improper use of engineering samples.

We disclaim any liability for consequential and incidental damages.

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