

Datasheet of SAW Device

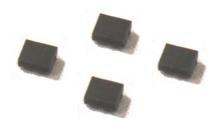
SAW Duplexer

for Band14 / Unbalanced / LR /1814

Murata PN: SAYEY763MBA0F0A

Feature

- High Rejection Near Pass Band
- > High Isolation



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 Number	Date	Description
SAYEY763MBA0F0A_rev. A	Jul-14-2016	■ Initial Release
SAYEY763MBA0F0A_rev. B	Aug-30-2016	■ Updated General Information
SAYEY763MBA0F0A_rev. C	Dec-15-2016	■ Updated for MP
SAYEY763MBA0F0A_rev. D	Aug-02-2017	■ Updated General Information
SAYEY763MBA0F0A_rev. E	Dec-07-2017	■ Updated SPEC

- Operating temperature : -20 to +85 deg.C - Storage temperature : -40 to +85 deg.C

- Input Power : +29 dBm 5000 h +50 deg.C

- D.C. Volatage between the terminals : 3V (25+/-2 deg.C)

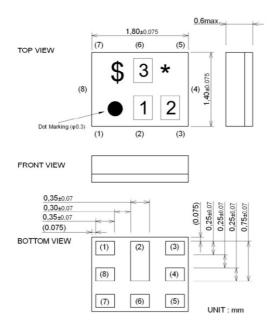
Minimum Resistance between the terminals : 10M ohm
 RoHS compliance : Yes
 ESD (ElectroStatic Discharge) sensitive device



Package Dimensions & Recommended Land Pattern

unit: mm

Dimensions



Marking: Laser Printing

* : Month code(Refer to the table A)

\$: Date code(Refer to the table B)

1:8

2 : W

3 : A

Terminal Number

(6): Ant

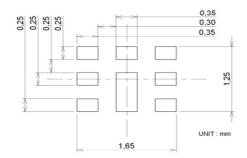
(3):TX

(1): RX

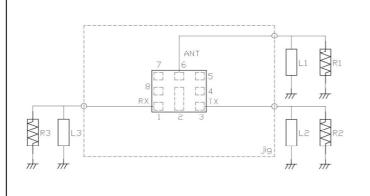
Others: GND

Notice) Please refer to Measurement Circuit for Port information in detail.

Land Pattern



Measurement Circuit (Top Thru View)



R1 : 50 ohm	L1 :9nH(Ideal inductor)
	:9.1nH(LQP03TN9N1)
	<reference></reference>
R2 : 50 ohm	L2 :20nH(Ideal inductor)
R3 : 50 ohm	L3 :35nH(Ideal inductor)



Electrical Characteristic < TX→ANT. >

T				(-20	Characteristics (-20 to +85 deg.C)			Note		
					min.	typ.*	max.			
Center Frequency						793		MHz		
Insertion Loss		to	798. 795.5	MHz		1.5	1.8	dB	A STATE OF THE STA	
		to	795.5	MHz MHz		1.3 1.5	1.5 1.6	dB _{INT} dB	Any 4.5MHz +23 to +27deg.C	
Ripple Deviation		to to	798.	MHz		0.5	1.7	dB	+23 to +27deg.C	
VSWR		to	798.	MHz		1.2	2.0	ub	TX	
VOWIK		to	798.	MHz		1.3	2.0		ANT.	
Absolute Attenuation		to	894.	MHz	34	39		dB	BC0 RX band noise rejection	
	1559.	to	1563.	MHz	40	46		dB	COMPASS	
	1574.42	to	1576.42	MHz	44	46		dB	GPS band noise rejection	
		to	1880.	MHz	40	51		dB	DCS	
		to	2000.	MHz	46	54		dB	BC1 RX band noise rejection	
		to	768.	MHz	50	58		dB	Attenuation in RX band	
		to	1596.	MHz	40	46 56		dB	2f	
		to	2394. 3192.	MHz MHz	40 40	51		dB dB	3f 4f	
		to	5950.	MHz	20	35		dВ	ISM 5G	
	4300.	to	J9JU.	IVI⊓∠		33		ub	IGIVI JG	
	-									
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	<u> </u>				1	1	ı	I	1	

^{*} Typical value at 25±2deg.C



Electrical Characteristic < ANT.→RX >

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					Cha	racteri	stics		
A	$NT. \rightarrow RX$					to +85 d	1	Unit	Note
					min.	typ.*	max.		
Center Frequency						763		MHz	
Insertion Loss	758.	to	768.	MHz		2.1	3.5	dB	
	760.5	to	765.5	MHz		1.7	2.4	dB _{INT}	Any 4.5MHz
Disale Desieties	758.	to	768.	MHz		2.1	2.7	dB	+23 to +27deg.C
Ripple Deviation VSWR	758. 758.	to	768. 768.	MHz MHz		1.0 1.4	2.5 2.0	dB	RX
VOVK	758.	to	768.	MHz		1.4	2.0		ANT.
Absolute Attenuation	1.	to to	698.	MHz	40	46	2.0	dB	ANI.
Absolute Attenuation	'·	ιo	30.	MHz	50	117		dB	RX-TX
	698.	to	716.	MHz	35	49		dB	FLO signal Att.
	716.	to	728.	MHz	40	58		dB	Lower 700MHz TX Att.
	776.	to	787.	MHz	15	30		dB	Upper 700MHz TX Att.
	776.	to	787.	MHz	28	30		dB	+25 to +85deg.C
	788.	to	798.	MHz	50	59		dB	TX
	798.	to	6000.	MHz	35	44		dB	
	2274.	to	2304.	MHz	40	56		dB	3f
	2400.	to	2500.	MHz	40	66		dB	ISM2.4
	4900.	to	5950.	MHz	37	46		dB	ISM5G
	6064.	to	6144.	MHz	30	44		dB	8f
	6822.	to	6912.	MHz	24	34		dB	9f
	7580.	to	7680.	MHz	24	30		dB	10f
	8338.	to	8448.	MHz	20	32		dB	11f
	9096.	to	9216.	MHz	20	35		dB	12f
	9854.	to	9984.	MHz	15	29		dB	13f
	10612.	to	10752.	MHz	15	26		dB	14f
	11370.	<u>to</u>	11520.	MHz	15	23		dB	15f
	12128.	to	12288.	MHz	15	22		dB	16f
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^{*} Typical value at 25±2deg.C



Electrical Characteristic < TX→RX. >

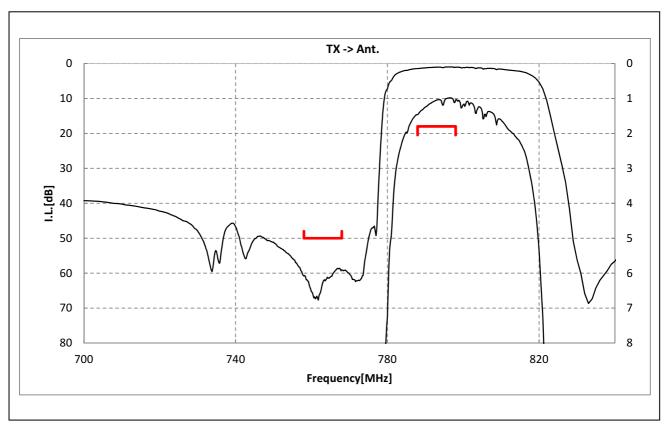
						Characteristics				
	$TX \to RX$				(-20 to +85 c			Unit	Note	
	700		700		min.		max.	15		
Isolation	788. 790.5	to	798. 795.5	MHz MHz	57 57	59 59		dB dB _{INT}	TX Any 4.5MHz, TX	
	758.	to to	768.	MHz	55	59		dB	RY	
	760.5	to	765.5	MHz	55	61		dB _{INT}	Any 4.5MHz, RX	
	1576.	to	1596.	MHz	30	58		dB	2f	
	2364.	to	2394.	MHz	30	53		dB	3f	
	3152.	to	3192.	MHz	30	50		dB	4f	
						-				
						-				

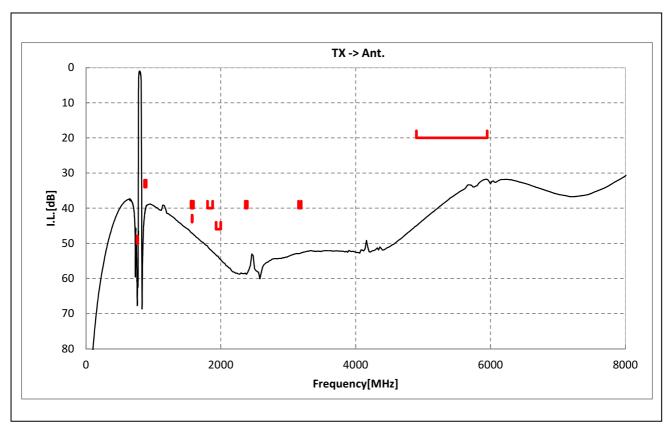
^{*} Typical value at 25±2deg.C



Electrical Characteristic

< TX→ANT. >

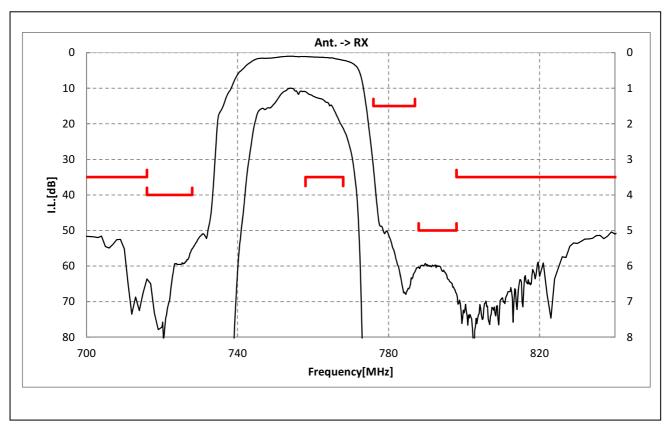


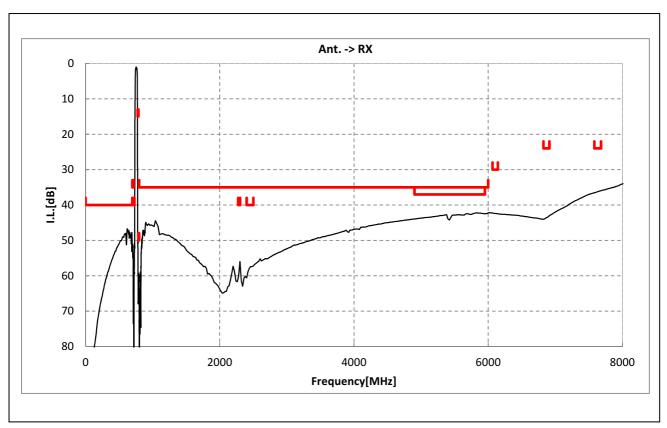




Electrical Characteristic

< ANT.→RX >

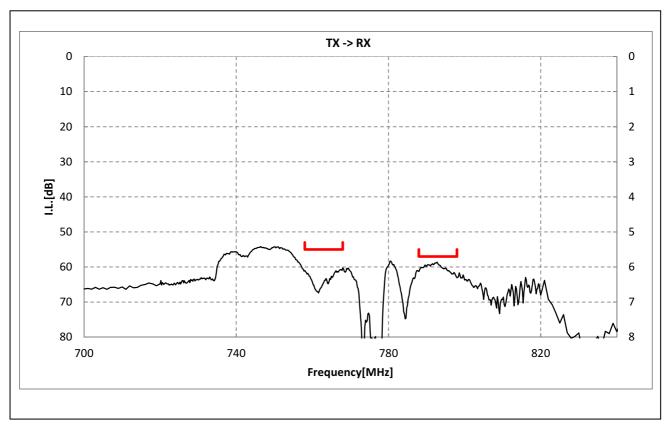


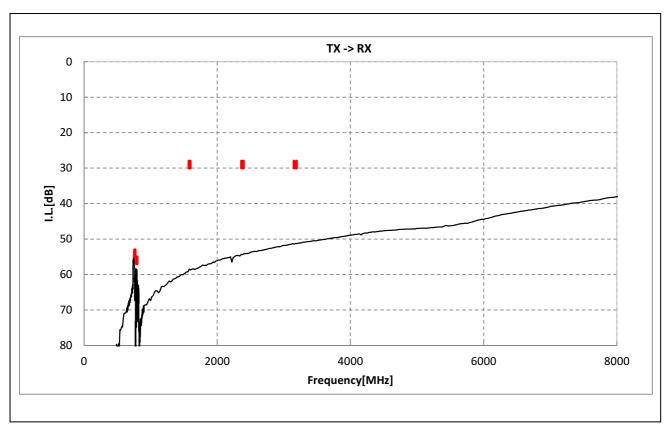




Electrical Characteristic

< TX→RX. >

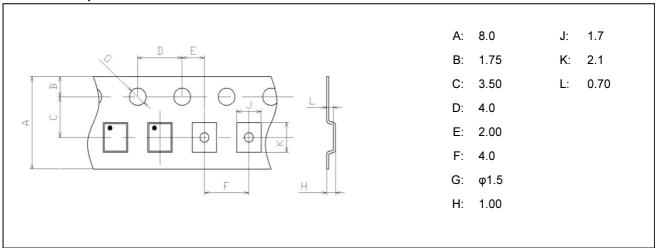




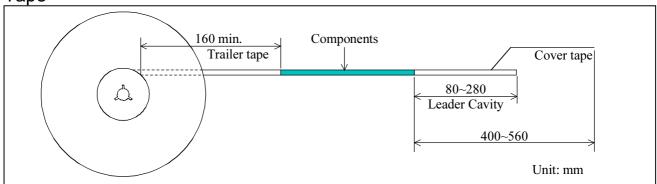


Dimensions of Tape & Reel unit: mm

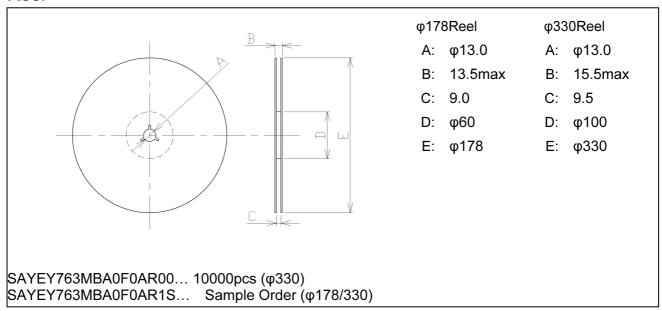
Carrier Tape



Tape



Reel





Marking Code

Table A: Month Code

2013	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2017 2021	Α	В	O	D	Е	F	G	Н	٦	К	١	М
2014	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2018 2022	N	Р	Q	R	S	Т	U	V	W	Х	Υ	Z
2015	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2019 2023	а	ь	10	đ	е	f	gg	h	j	k	Q	m
2016	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2020 2024	n	P	G	r	4	t	э	Ú	3	æ	y	3

Table B: Date Code

date code	21st W	22nd X	23rd	24th	25th a	26th b	27th	28th	29th e	30th	31st g
code	L	М	N	Р	Q	R	S	T	U	V	
date	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	
code	Α	В	С	D	Е	F	G	Н	J	K	
date	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	

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.

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