

# **Datasheet of SAW Device**

## SAW Single Filter for Band71 / Unbalanced / 5pin /1109

Murata PN: SAFRN634MAA0C0A

## Feature

- Low Insertion Loss
- High Tx Attenuation



Note: This Murata SAW Component is Consumer grade product and applicable for Cellular phone or similar end devices.

Please also read Important Notice at the end of this document.

Revision D



#### **General Information**

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

- Input Power : +15.0dBm 5000h +50deg.C (1) +13.5dBm 5000h +50deg.C (2)

(1) applicable for W-CDMA, SC-FDMA, DFT-s-OFDM

(2) applicable for CP-OFDM

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

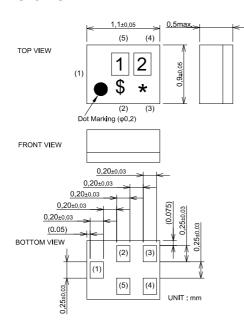
Minimum Resistance between the terminals : 1M ohm
 RoHS compliance : Yes
 ESD (ElectroStatic Discharge) sensitive device



## Package Dimensions & Recommended Land Pattern

unit: mm

#### **Dimensions**



Marking: Laser Printing

\*: Month code

\$: Date code

1 : N

2:x

#### **Terminal Number**

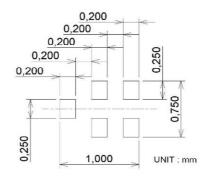
(1): Unbalanced port

(4): Unbalanced port

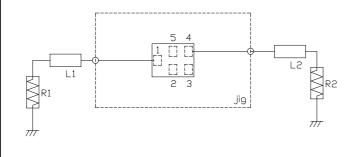
Others: GND

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

#### **Land Pattern**



## Measurement Circuit (Top Thru View)



R1 : 50 ohm	L1 :11nH(Ideal inductor)					
R2 : 50 ohm	L2 :11nH(Ideal inductor)					



## Electrical Characteristic < Item >

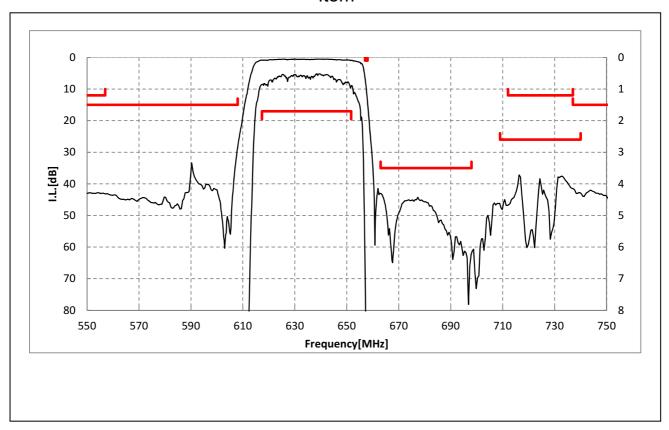
	Characteristics									
	Item			(-20 to +85 deg.C)			Unit	Note		
ltem			min.	typ.*	max.	Offic	Note			
Center Frequency	1				1111111.	634.5	IIIax.		1	
Insertion Loss	617.34	to	651.66	MHz		1.0	1.7	dB		
moordon 2000		to	649.5	MHz		0.8	1.2	dB <sub>INT</sub>	Any 4.5MHz	
Ripple Deviation		to	651.66	MHz		0.4	1.5	dB	Any 10MHz	
VSWR	617.34	to	651.66	MHz		1.4	2.0			
Absolute Attenuation	1.	to	608.	MHz	15	29		dB	Channel 36 and below	
	35.	to	55.	MHz	50	58		dB	Rx - Tx	
	205.	to	218.	MHz	40	50		dB	Rx/3 IM3	
	308.5 532.	to	326. 557.	MHz	40 12	46 40		dB dB	Rx/2 IM2	
	608.	to	614.	MHz MHz	3.0	9.6		dВ	OOB range 2 Average	
	657.	to to	663.	MHz	5.0	17.0		dB	Average, WiFi rejection	
	657.	to	658.	MHz	1.0	6.7		dB	(Rx+Tx)/2	
	663.	to	698.	MHz	35	43		dB	Tx	
	665.5	to	695.5	MHz	40	45		dB <sub>INT</sub>	Any 4.5MHz, Tx	
	709.	to	740.	MHz	26	37		dB	2Tx-Rx	
	712.	to	737.	MHz	12	37		dB	OOB range 2	
	737.	to	12750.	MHz	15	32		dB	OOB range 3	
	793.	to	805.	MHz	29	36		dB	PS mobile transmitters	
	816.	to	818.	MHz	32	39		dB		
	1058.	to	1138.	MHz	25	44		dB	B4 Tx CA Tx-Rx	
	1163. 1233.	to	1204. 1281.	MHz	34 34	46 50		dB dB	B4 Tx CA (Rx+Tx)/2	
	1233.	to	1304.	MHz MHz	25	50		dB dB	B2 Tx CA (Rx+Tx)/2 2x LO	
	1280.	to to	1350.	MHz	35	43		dB	Rx + Tx	
	1461.	to	1484.	MHz	34	57		dB	B30 Tx CA (Rx+Tx)/2	
	1653.	to	1698.	MHz	25	61		dB	B30 Tx CA Tx-Rx	
	1710.	to	1755.	MHz	20	60		dB	B4 Tx CA	
	1850.	to	1910.	MHz	20	53		dB	B2 Tx CA	
	1851.	to	1956.	MHz	20	53		dB	3x LO	
	1943.	to	2048.	MHz	35	59		dB	2Tx + Rx (B12)	
	2305.	to	2315.	MHz	20	64		dB	B30 Tx CA	
	2327.	to	2407.	MHz	20	63		dB	B4 Tx CA Tx+Rx	
	2400.	to	2500.	MHz	30	63		dB	ISM 2.4G	
	2468. 2922.	to	2608. 2967.	MHz	20 20	63 64		dB dB	4x LO	
	4900.	to	5950.	MHz MHz	20	67		dВ	B30 Tx CA Tx+Rx ISM 5G	
	5553.	to to	5868.	MHz	20	69		dB	9x LO	
	6170.	to	6520.	MHz	20	69		dB	10x LO	
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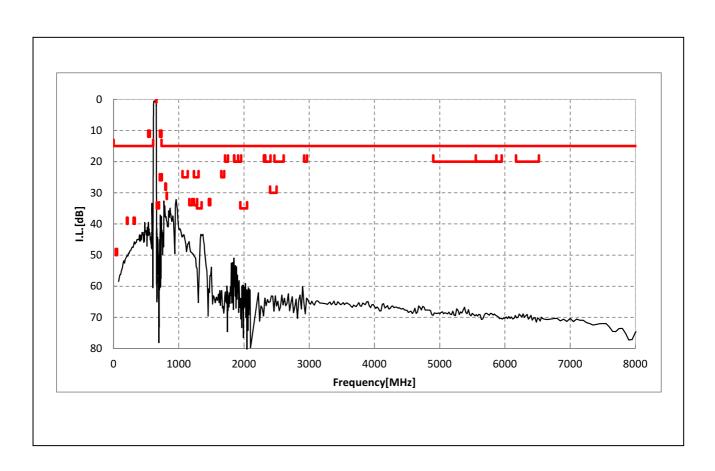
<sup>\*</sup> Typical value at 25±2deg.C



#### **Electrical Characteristic**

#### < Item >

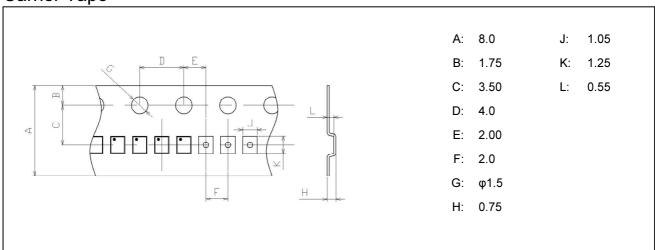




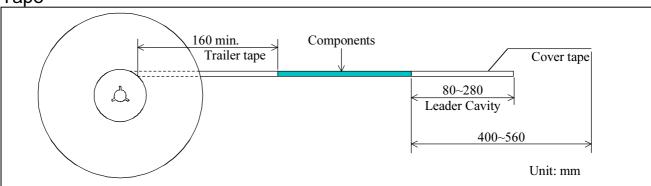


## Dimensions of Tape & Reel unit: mm

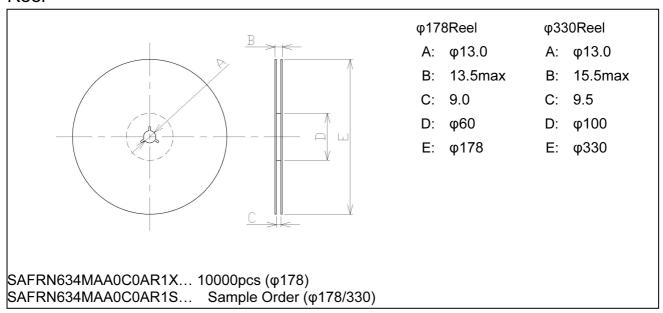
#### **Carrier Tape**



#### Tape



#### Reel





#### 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.

- 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.



#### Important Notice (2/2)

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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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