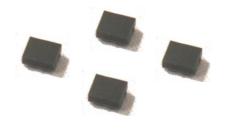


## Datasheet of SAW Device

## SAW Dual Filter

for Band5 Band13 / 1in2out Unbalanced / LH /1511

Murata PN: SAWFD751MAA1F0A



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



#### **General Information**

Operating temperature
 Storage temperature
 Input Power
 D.C. Volatage between the terminals
 -20 to +85 deg.C
 +40 to +85 deg.C
 +15 dBm 2000 h
 3V (25+/-2 deg.C)

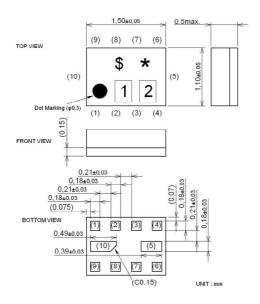
Minimum Resistance between the terminals : 10M ohm
 RoHS compliance : Yes
 ESD (ElectroStatic Discharge) sensitive device



#### Package Dimensions & Recommended Land Pattern

unit: mm

#### **Dimensions**



Marking: Laser Printing

\*: Month code

\$: Date code

1:2

2:F

#### **Terminal Number**

(1): Unbalanced port-Lch/Hch

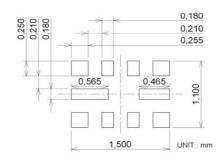
(9): Unbalanced port-Lch

(6): Unbalanced port-Hch

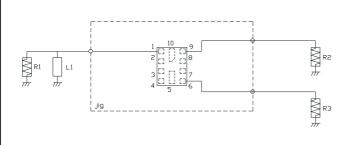
Others: GND

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

#### Land Pattern



## Measurement Circuit (Top Thru View)



R1:50 ohm	L1 :15nH(Ideal inductor)
R2:50 ohm	
R3:50 ohm	



## Electrical Characteristic < Low Freq. Filter >

Electrical Characteristic < Low i									
Low freq. filter					Characteristics			Unit	Note
					( -20 to +85 deg.C )				
					min.	typ.*		Offic	14010
					1111111.		max.		
Center frequency						751		MHz	
Insertion Loss	746.25	to	755.75			2.1	2.6	dB	
	746.25	to	755.75	MHz		2.1	2.4	dB	+23 to +27deg.C
Ripple Deviation	746.25	to	755.75	MHz		0.5	1.2	dB	
VSWR	746.25	to	755.75	MHz		1.8	2.1		
Absolute Attenuation	1.	to	686.	MHz	40	49		dB	
			31.	MHz	40	99		dB	Rx-Tx
	686.	to	728.	MHz	30	42		dB	
		to	772.	MHz	30	45		dB	(Rx-Tx)/2
		to	786.75	MHz	42	48		dB	Tx
		to	1710.	MHz	31	37		dB	
		to	849.	MHz	43	48		dB	
		to	1755.	MHz	31	37		dB	B4 Tx CA
			1850.	MHz	30	36		dB	D4 IX OA
		to	1910.	MHz	30	35		dB	B2 Tx CA
		to_			28	33		dВ	DZ IX UA
		to	2238.	MHz					104
		to	2268.	MHz	28	33		dB	3f
		to	2400.	MHz	27	33		dB	lione d
		to	2500.	MHz	27	32		dB	ISM2.4
		to	4900.	MHz	18	24		dB	
	4900.	to	5950.	MHz	16	21		dB	ISM 5G
	5950.	to	6048.	MHz	15	21		dB	
	6714.	to	6804.	MHz	14	19		dB	9f
	7460.	to	7560.	MHz	13	18		dB	10f
	8206.	to	8316.	MHz	18	23		dB	11f
	8952.	to	9072.	MHz	21	27		dB	12f
	9698.	to	9828.	MHz	19	24		dB	13f
		to	10584.	MHz	16	22		dB	14f
	<del></del>		11340.	MHz	14	20		dB	15f
			12096.	MHz	14	19		dB	16f
	12682.		12750.	MHz	16	21		dB	17f
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<sup>\*</sup> Typical value at 25±2deg.C



Electrical Characteristic < High Freq. Filter >

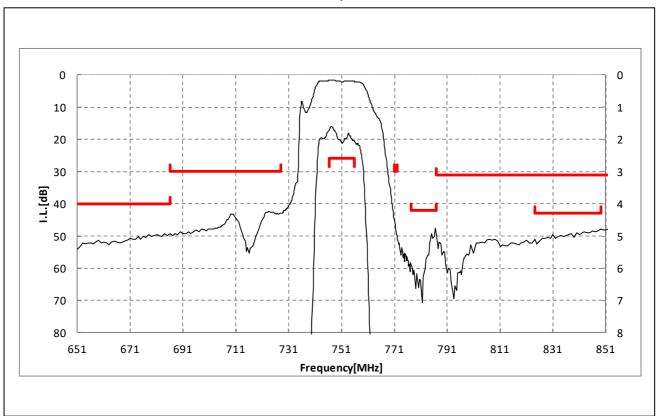
Electrical Cria	acien	Stit		nign					
High Freq. Filter					Characteristics		Unit	Note	
					( -20 to +85 deg.C )				
					min.	typ.*	max.	]	
Center Frequency	T					881.5	max.	MHz	
Insertion Loss	871.4	+0	891.6	MHz		1.4	1.9	dB <sub>INT</sub>	Any 3.84MHz
Insertion Loss	869.	to	894.	MHz		1.6	2.1	dB	ATTY 5.04IVIT IZ
Dinale Deviction		to	894.			0.5		dB	
Ripple Deviation	869.	to		MHz			1.1		
VOMB	869.	to	894.	MHz		0.4	1.2	dB	Any 5MHz
VSWR	869.	to	894.	MHz		1.4	2.0		
Absolute Attenuation	45.	to	45.	MHz	50	91		dB	
	746.	to	756.	MHz	46	52		dB	
	777.	to	804.	MHz	46	57		dB	
	824.	to	849.	MHz	46	51		dB	
	846.5	to	854.	MHz	35	51		dB	
	1693.	to	1743.	MHz	38	49		dB	
	1738.	to	1788.	MHz	38	49		dB	
	2400.	to	2500.	MHz	33	44		dB	
	2517.	to	2592.	MHz	33	44		dB	
	2607.	to	2682.	MHz	33	44		dB	
	3476.	to	3576.	MHz	30	41		dB	
	4345.	to	4470.	MHz	30	39		dB	
	5214.	to	5364.	MHz	30	38		dB	
	5725.	to	5875.	MHz	30	37		dB	
	6083.		6258.	MHz	30	37		dB	
	6952.	to	7152.	MHz	30	38		dB	
		to			30	34		dB	
	7821.	<u>to</u>	8046.	MHz		33			
	8690.	<u>to</u>	8940.	MHz	28			dB	
	9559.	to	9834.	MHz	25	33		dB	
	10428.		10728.	MHz	22	33		dB	
	11297.	to	11622.	MHz	18	31		dB	
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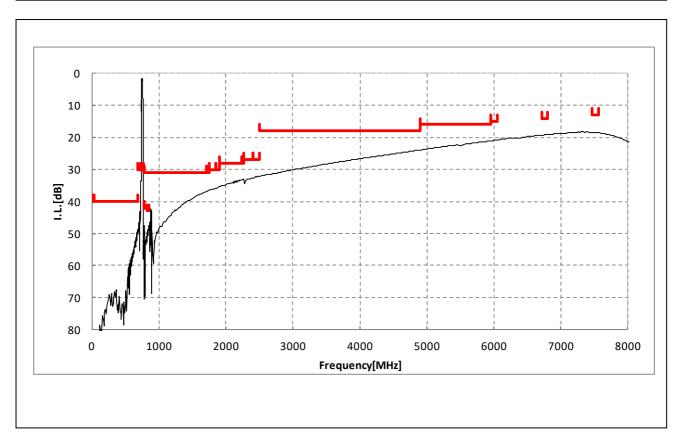
<sup>\*</sup> Typical value at 25±2deg.C



#### **Electrical Characteristic**

< Low Freq. Filter >

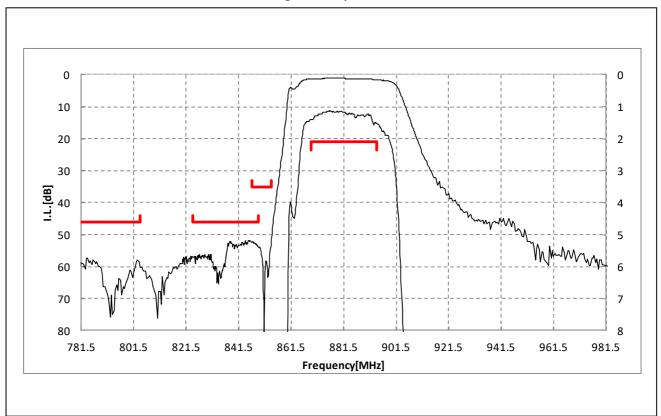


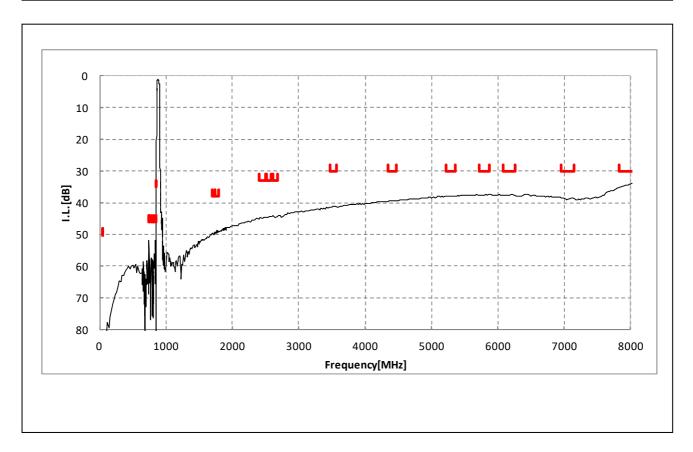




#### **Electrical Characteristic**

< High Freq. Filter >

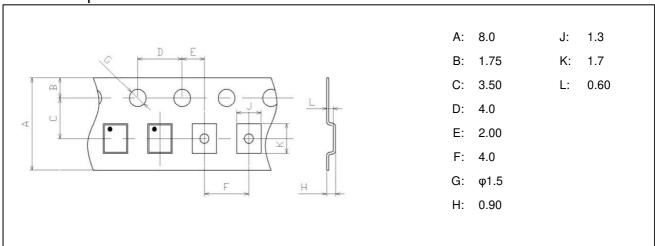




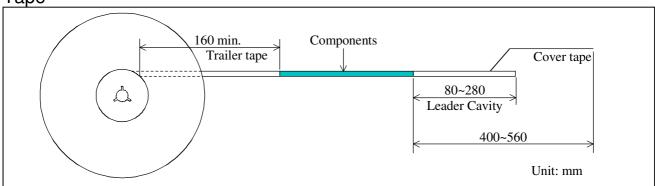


## Dimensions of Tape & Reel unit: mm

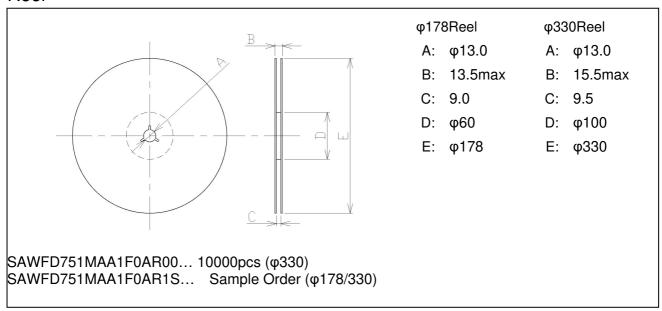
#### Carrier Tape



#### Tape



#### Reel





# SAWFD751MAA1F0A (Band5\_Band13 / 1in2out Unbalanced / LH / 1511 ) 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 specified in the front page of this product specifications (the "Product" or "Products") 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 Product 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 for any application which requires especially high reliability or accuracy in order to prevent defect which incurs high possibility of damage to the third party's life, body or property such as the applications listed below as item (a) to (j) (the "Prohibited Application"). You acknowledge and agree that, if you use our Products in the Prohibited Applications, we will not be responsible for any damage caused by such use.

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 THE PROHIBITED APPLICATIONS.

- (a) Aircraft equipment.
- (b) Aerospace equipment
- (c) Undersea equipment.
- (d) Power plant control equipment
- (e) Medical equipment.
- (f) Transportation equipment (vehicles, automotive, trains, ships, etc.).
- (g)Traffic signal equipment.
- (h)Disaster prevention / crime prevention equipment.
- (i) Burning / explosion control equipment
- (j) Application of similar complexity and/ or reliability requirements to the applications listed in the above.

For the avoidance of doubt, the Product is not automotive grade, and will not support such requests for automotive as below, also not support other specific requests for automotive.

- AEC-Q200
- PPAP
- IATF16949, VDA6.3
- Zero Defect program
- Long product life cycle
- Automotive 8D failure analysis and report



#### Important Notice (2/2)

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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