

Datasheet of SAW Device

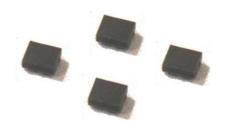
SAW Dual Filter

for GSM1800_GSM1900 / 1in2out Unbalanced / HL /1511

Murata PN: SAWFD1G84AM0F0A

Feature

Low Insertion Loss



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 G



Operating temperature
 Storage temperature
 Input Power
 D.C. Volatage between the terminals
 -30 to +85 deg.C
 +40 to +85 deg.C
 +13 dBm 2000 h
 3V (25+/-2 deg.C)

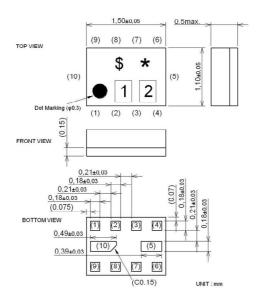
Minimum Resistance between the terminals : 10M ohm
 RoHS compliance : Yes
 ESD (ElectroStatic Discharge) sensitive device



Package Dimensions & Recommended Land Pattern

unit: mm

Dimensions



Marking: Laser Printing

*: Month code

\$: Date code

1 : T

2:2

Terminal Number

(1): Unbalanced port-Lch/Hch

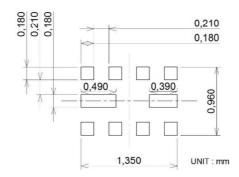
(6): Unbalanced port-Lch

(9): Unbalanced port-Hch

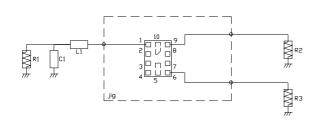
Others: GND

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

Land Pattern



Measurement Circuit (Top Thru View)



(Hch) (Lch)

	R1 : 50 ohm	L1 :4.3nH(Ideal inductor)				
		C1 :1.7pF(Ideal capacitor)				
)	R2 : 50 ohm					
	R3 : 50 ohm					



Electrical Characteristic < Low Freq. Filter >

Electrical Cria							
				Characteristics		Unit	Note
Low	(-30 to +85 deg.C)						
Low Freq. Filter						UIIIL	INOLE
			min.	typ.*	max.		
Center Frequency				1842.5		MHz	
Insertion Loss	1805. to 1880.	MHz		2.1	2.8	dB	
Insertion 2035				2.1	2.4	dB	100 to 107dos C
		MHz					+23 to +27deg.C
Ripple Deviation	1805. to 1880.	MHz		0.7	1.8	dB	
VSWR	1805. to 1880.	MHz		1.9	2.4		
Absolute Attenuation	0.1 to 1705.	MHz	25	32		dB	
, moonate , monature	- 10	MHz	12	32		dB	
							100 to 107 to 20
	1705. to 1785.	MHz	14	32		dB	+23 to +27deg.C
	1920. to 1980.	MHz	15	28		dB	
	1980. to 2400.	MHz	25	33		dB	
	2400. to 2500.	MHz	30	38		dB	
	3610. to 3760.	MHz	50	61		dB	
			40	57		dB	
		MHz					
	7220. to 7520.	MHz	40	57		dB	
	9025. to 9400.	MHz	40	60		dB	
	10830. to 11280.	MHz	35	52		dB	
	12635. to 13160.	MHz	25	52		dB	
	12000. [0 10100.	IVII IZ	20	UZ		αD	
]				
				-			
			-	-	-		
]				
			-	-			
			<u> </u>	<u> </u>			
	<u> </u>		-	-			

^{*} Typical value at 25±2deg.C



Electrical Characteristic < High Freq. Filter >

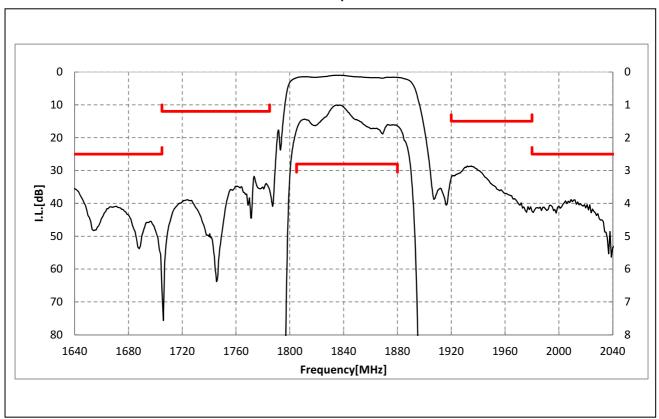
Electrical Cha	racten	Suc	<u> </u>	підп					
					Characteristics (-30 to +85 deg.C)				Note
High Freq. Filter						(-30 to +85 deg.C)		Unit	
riigiri roq. r iitor				min.	typ.*	max.	0	11010	
					1111111.		IIIax.	NAL I	
Center Frequency	4000		4000	F 41 '		1960	0.0	MHz	
Insertion Loss	1930.	to	1990.	MHz		2.3	2.9	dB	
	1930.	to	1990.	MHz		2.3	2.6	dB	+23 to +27deg.C
Ripple Deviation	1930.	to	1990.	MHz		0.9	1.6	dB	
VSWR	1930.	to	1990.	MHz		1.7	2.2		
Absolute Attenuation	0.1	to	824.	MHz	33	39		dB	
	824.	to	849.	MHz	33	39		dB	
	849.	to	1850.	MHz	33	37		dB	
	1850.	to	1910.	MHz	12	23		dB	
	1850.	to	1910.	MHz	14	23		dB	+23 to +27deg.C
	2010.	to	2070.	MHz	4.0	14.0		dB	Ĭ
	2010.	to	2070.	MHz	10	14		dB	+23 to +27deg.C
	2070.	to	2400.	MHz	20	25		dB	
	2400.	to	2500.	MHz	35	42		dB	
	3860.	to	3980.	MHz	45	49		dB	
	5790.	to	5970.	MHz	40	49		dB	
	7720.		7960.	MHz	40	52		dB	
	9650.	to	9950.	MHz	40	54		dB	
	11580.	to	11940.		35	52		dВ	
	11300.	to	11940.	MHz	33	52		uD	
1									
									İ
1									
									1
	<u> </u>								
	<u> </u>								
	I								* Typical value at 2512dag C

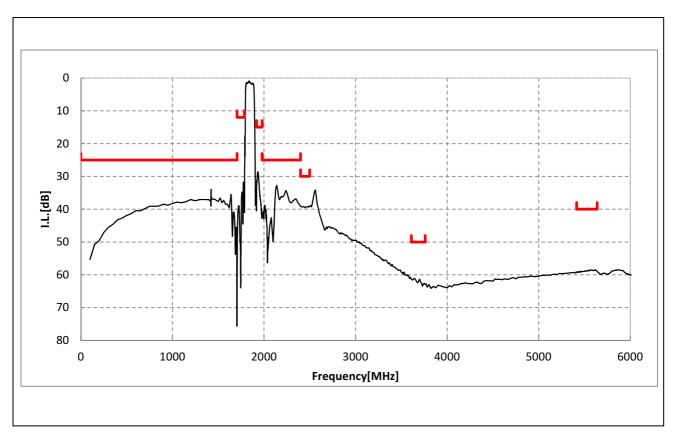
^{*} Typical value at 25±2deg.C



Electrical Characteristic

< Low Freq. Filter >

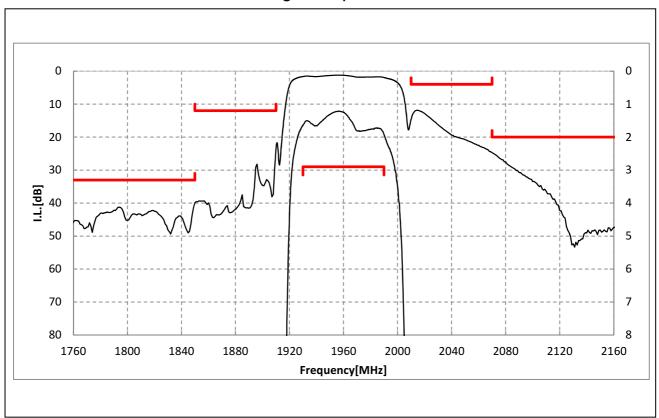


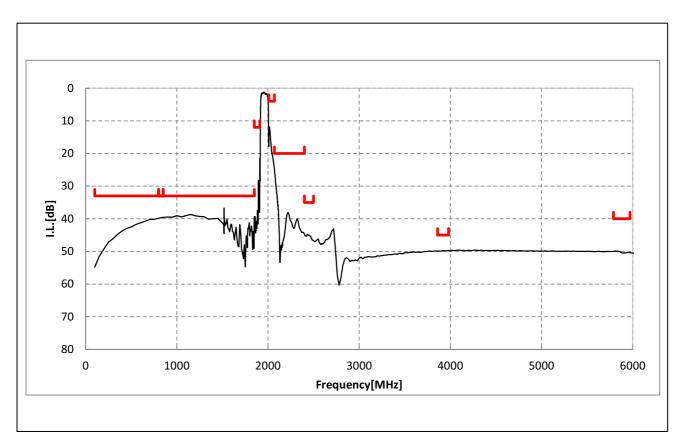




Electrical Characteristic

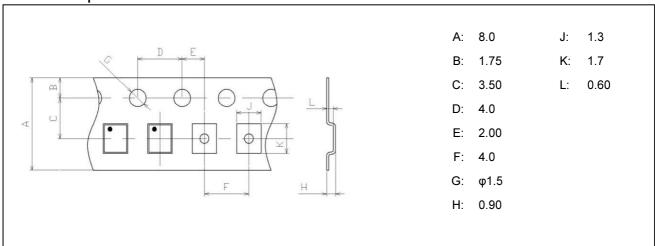
< High Freq. Filter >



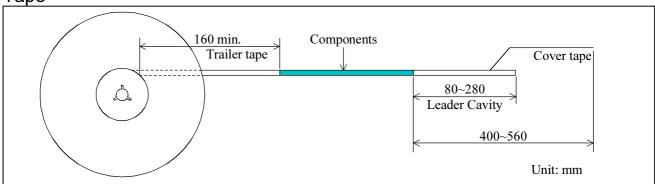


Dimensions of Tape & Reel unit: mm

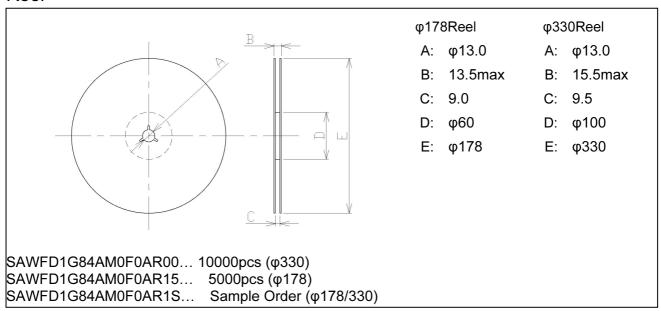
Carrier Tape



Tape



Reel





SAWFD1G84AM0F0A (GSM1800_GSM1900 / 1in2out Unbalanced / HL / 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.

If you can't agree the above contents, you should inquire our sales.