INNOVATOR IN ELECTRONICS

Datasheet of SAW Device

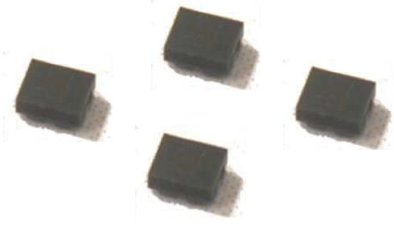
SAW Dual Filter

for Band39_Band41 / 1in2out Unbalanced / LH /1511

Murata PN: SAWFD1G90AA0F0A

■ Feature

- For CA DRx Dual
- Low Insertion Loss Band41 Narrow
- High Attenuation



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

SAWFD1G90AA0F0A (Band39_Band41 / 1in2out Unbalanced / LH / 1511)

Revision Number	Date	Description
SAWFD1G90AA0F0A_rev. A	Feb-09-2015	■ Initial Release
SAWFD1G90AA0F0A_rev. B	Mar-20-2015	■ Updated SPEC
SAWFD1G90AA0F0A_rev. C	Apr-09-2015	■ Updated SPEC
SAWFD1G90AA0F0A_rev. D	May-27-2015	■ Updated for MP
SAWFD1G90AA0F0A_rev. E	Sep-15-2016	■ Updated General Information
SAWFD1G90AA0F0A_rev. F	Aug-24-2017	■ Updated General Information
SAWFD1G90AA0F0A_rev. G	Feb-12-2020	■ Updated General Information

- Operating temperature : -20 to +85 deg.C
- Storage temperature : -40 to +85 deg.C
- Input Power : +13 dBm 2000 h
- 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

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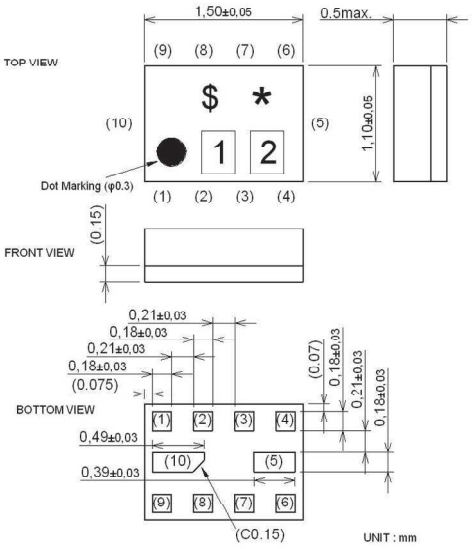
Package Dimensions & Recommended Land Pattern

unit: mm

Dimensions

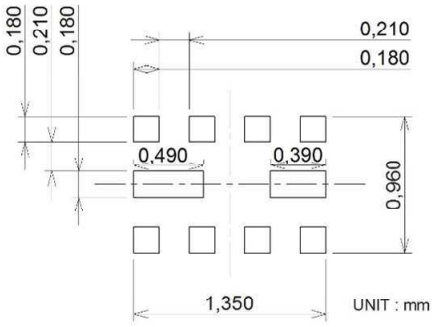


Marking : Laser Printing
* : Month code(Refer to the table A)
$: Date code(Refer to the table B)
1 : 5
2 : 7

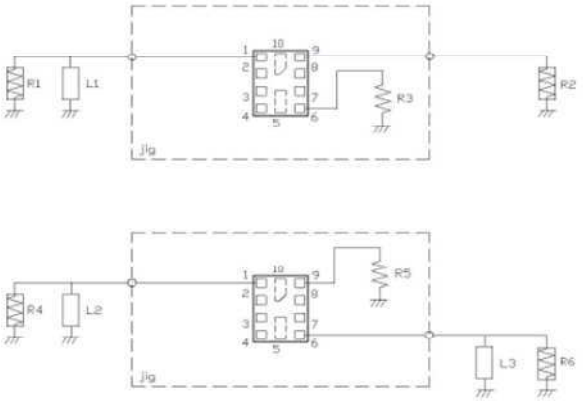
Terminal Number
(1) : Unbalanced port-Lch/Hch
(9) : Unbalanced port-Lch
(6) : Unbalanced port-Hch
Others : GND

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

Land Pattern



Measurement Circuit (Top Thru View)



(Lch)	R1 : 50 ohm	L1 :2.7nH(Ideal inductor)
	R2 : 50 ohm	
	R3 : 50 ohm	
(Hch)	R4 : 50 ohm	L2 :2.7nH(Ideal inductor)
	R5 : 50 ohm	
	R6 : 50 ohm	L3 :5.1nH(Ideal inductor)

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SAWFD1G90AA0F0A (Band39_Band41 / 1in2out Unbalanced / LH / 1511)

Electrical Characteristic < Low Freq. Filter >

Low Freq. Filter					Characteristics (-20 to +85 deg.C)			Unit	Note
					min.	typ.*	max.		
Center Frequency						1900		MHz	
Insertion Loss	1880.	to	1920.	MHz		1.4	1.9	dB	
Ripple Deviation	1880.	to	1920.	MHz		0.3	1.0	dB	
VSWR	1880.	to	1920.	MHz		1.4	1.6		
Absolute Attenuation	10.	to	1710.	MHz	28	31		dB	
	1710.	to	1785.	MHz	28	33		dB	
	1795.	to	1820.	MHz	30	33		dB	
	1950.	to	1980.	MHz	5.0	14.0		dB	
	1980.	to	2025.	MHz	32	36		dB	
	2025.	to	2400.	MHz	28	34		dB	
	2400.	to	2500.	MHz	28	38		dB	
	2500.	to	6000.	MHz	20	25		dB	

* Typical value at 25±2deg.C

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SAWFD1G90AA0F0A (Band39_Band41 / 1in2out Unbalanced / LH / 1511)

Electrical Characteristic < High Freq. Filter >

High Freq. Filter					Characteristics (-20 to +85 deg.C)			Unit	Note
					min.	typ.*	max.		
Center Frequency						2605		MHz	
Insertion Loss	2555.	to	2655.	MHz		2.5	3.1	dB	
Ripple Deviation	2555.	to	2655.	MHz		0.7	2.0	dB	
VSWR	2555.	to	2655.	MHz		1.9	2.1		
Absolute Attenuation	10.	to	1564.	MHz	25	27		dB	
	1565.	to	1615.	MHz	25	27		dB	
	1616.	to	2400.	MHz	22	24		dB	
	2401.	to	2483.	MHz	30	33		dB	
	2775.	to	4991.	MHz	30	33		dB	
	4992.	to	5380.	MHz	30	35		dB	
	5381.	to	7487.	MHz	25	28		dB	
	7488.	to	8070.	MHz	10	25		dB	
	8071.	to	12750.	MHz	8.0	17.0		dB	

* Typical value at 25±2deg.C

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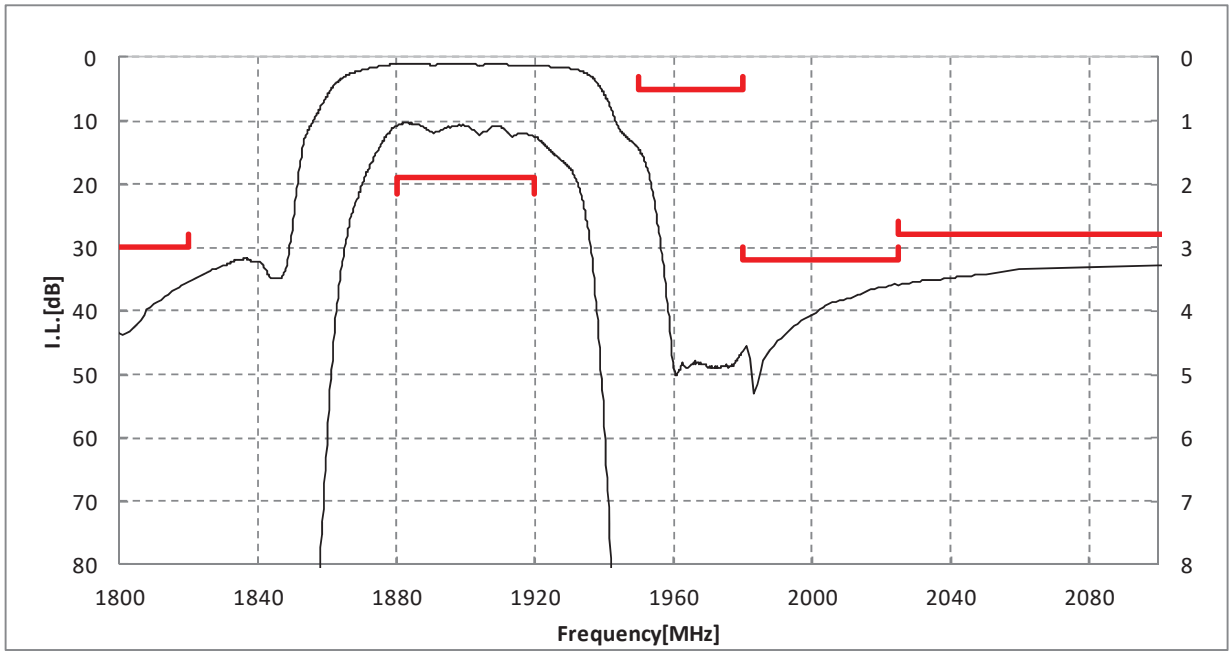
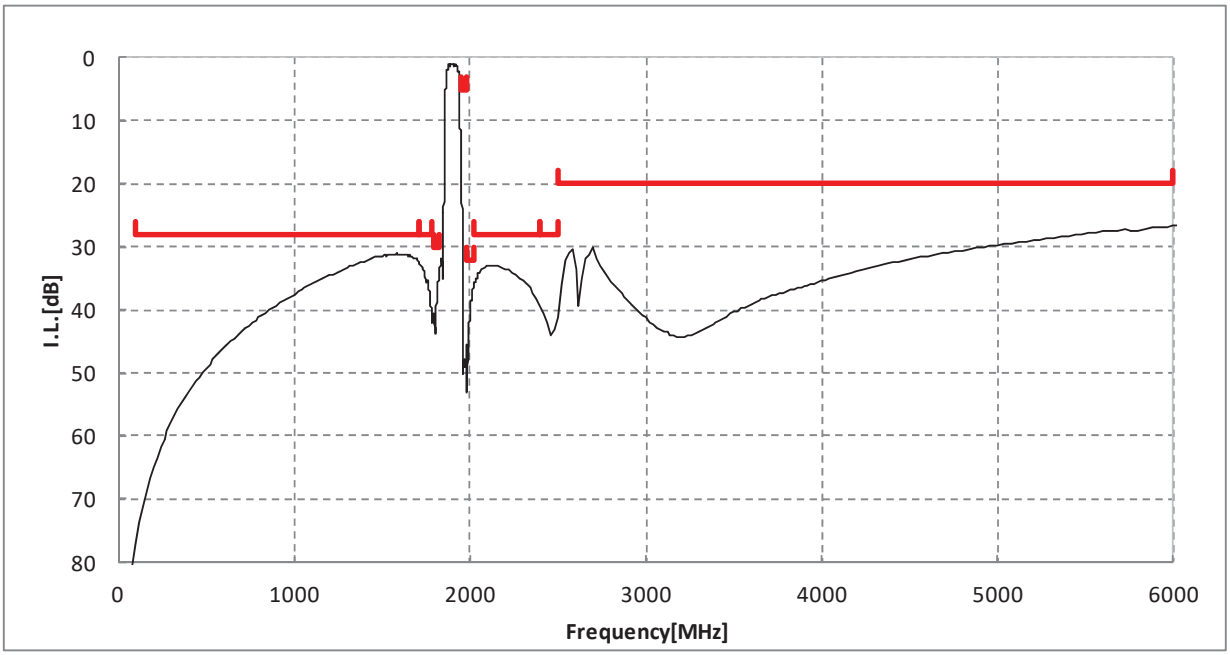
Electrical Characteristic

< Low Freq. Filter >





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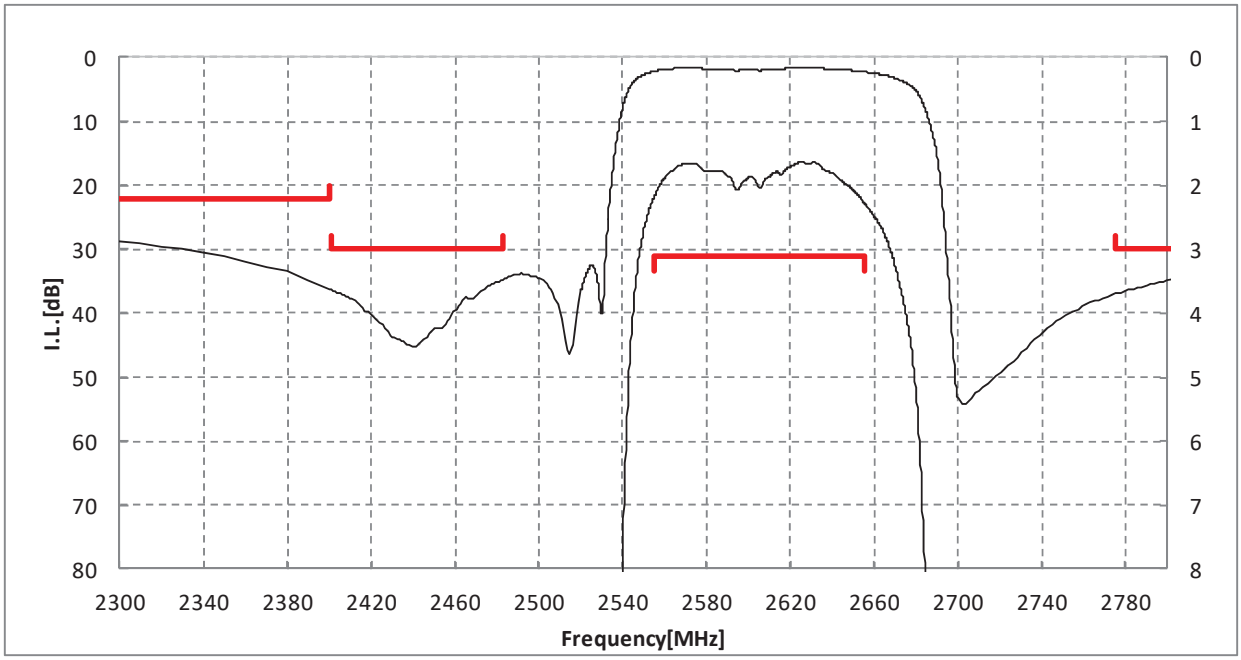
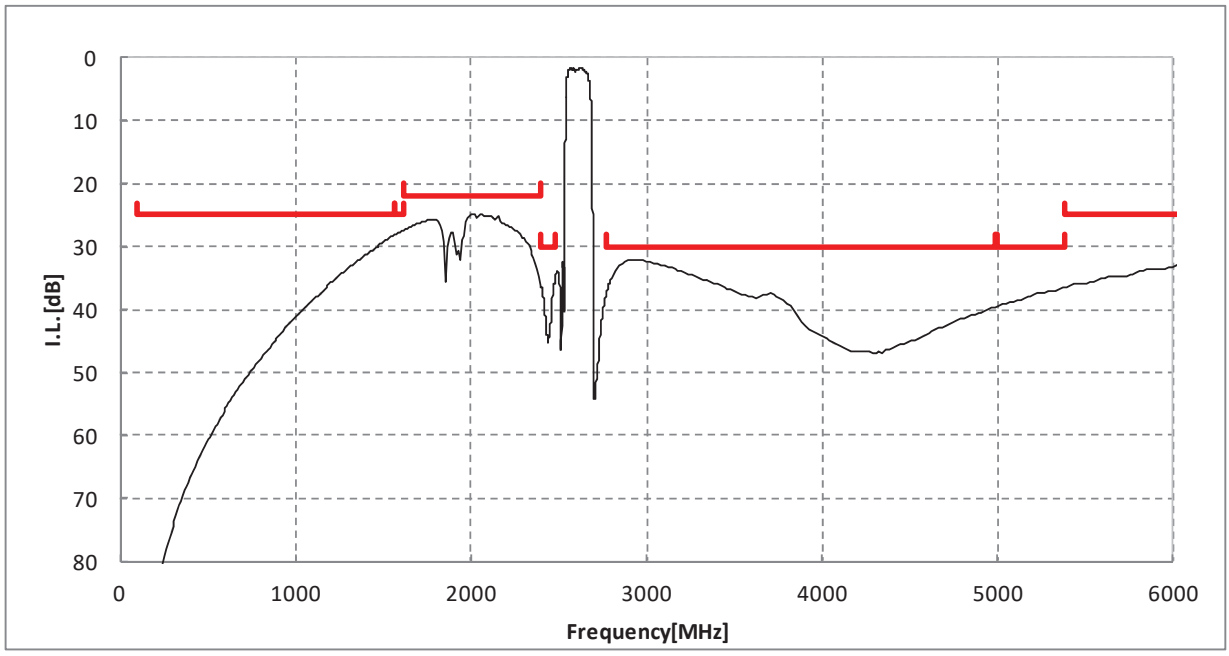
Electrical Characteristic

< High Freq. Filter >





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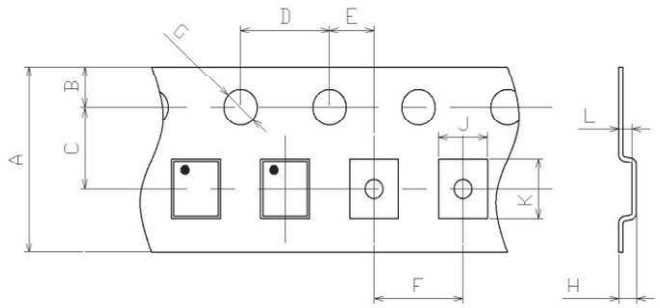
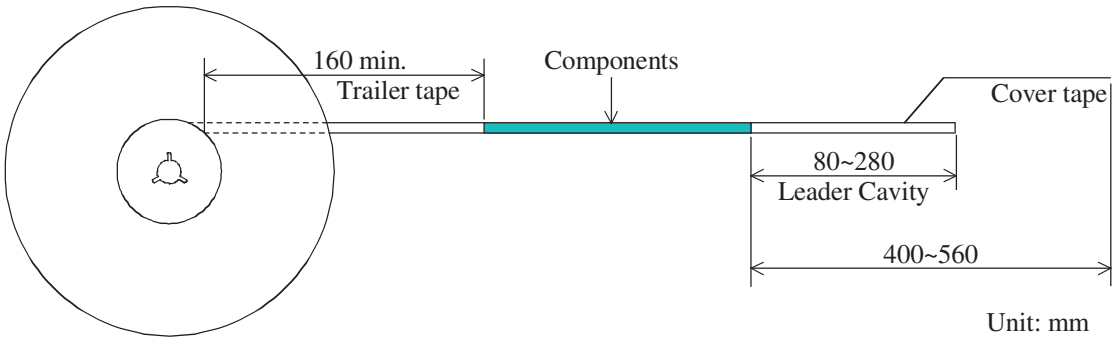
Dimensions of Tape & Reel unit: mm

Carrier Tape

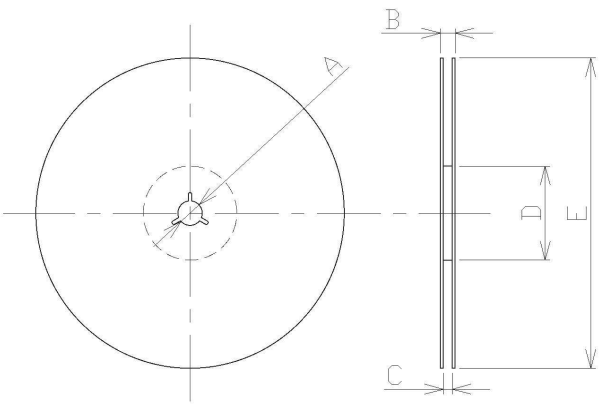


A:	8.0	J:	1.3
B:	1.75	K:	1.7
C:	3.50	L:	0.60
D:	4.0		
E:	2.00		
F:	4.0		
G:	φ1.5		
H:	0.90		

Tape



Reel



φ178Reel		φ330Reel	
A:	φ13.0	A:	φ13.0
B:	13.5max	B:	15.5max
C:	9.0	C:	9.5
D:	φ60	D:	φ100
E:	φ178	E:	φ330

SAWFD1G90AA0F0AR00… 10000pcs (φ330)
SAWFD1G90AA0F0AR1S… Sample Order (φ178/330)

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Marking Code

Table A: Month Code

2013	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2017 2021	A	B	C	D	E	F	G	H	J	K	L	M
2014	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2018 2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2019 2023	a	b	c̄	d	e	f	g	h	j	k	l	m
2016	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2020 2024	n	p	q	r	s	t	u	v	w	x	y	z

Table B: Date Code

date	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
code	A	B	C	D	E	F	G	H	J	K
date	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th
code	L	M	N	P	Q	R	S	T	U	V
date	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
code	W	X	Y	Z	a	b	c̄	d	e	f	g

Important Notice (1/2)

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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.
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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.

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

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