Datasheet of SAW Device

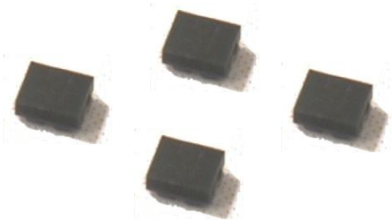
SAW Notch Filter

for Band34/39 / Unbalanced / 5pin /1411

Murata PN: SACEA1G90TB0F0A

■ Feature

- GSM1800 Post PA filter
- Double notch on B34/39
- High attenuation type



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

SACEA1G90TB0F0A (Band34/39 / Unbalanced / 5pin / 1411)

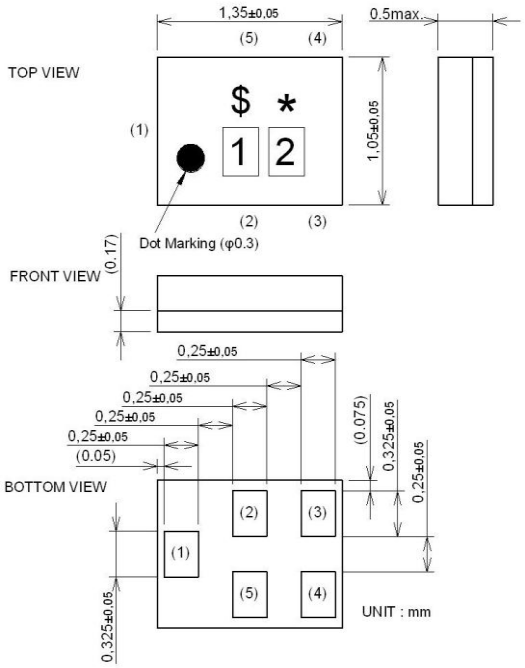
Revision No.	Date	Description
SACEA1G90TB0F0A_rev. A	Apr-23-2013	■ Initial Release / MP
SACEA1G90TB0F0A_rev. B	Dec-02-2013	■ Updated Ratings
SACEA1G90TB0F0A_rev. C	Jan-27-2014	■ Updated Ratings
SACEA1G90TB0F0A_rev. D	Mar-05-2014	■ Updated Matching Impedance

- Operating temperature : -30 to +85 deg.C
- Storage temperature : -40 to +85 deg.C
- Input Power : +33 dBm(1/8duty) 5000 h 55 deg.C at GSM1800 Tx Band (*)Input signal shall be applied to Terminal number(1)and(4)
- D.C. Volatage between the terminals : 3V (25+/-2 deg.C)
- Minimum Resistance betweem the terminals : 10M ohm
- RoHS compliance : Yes

Package Dimensions & Recommended Land Pattern

unit: mm

Dimensions

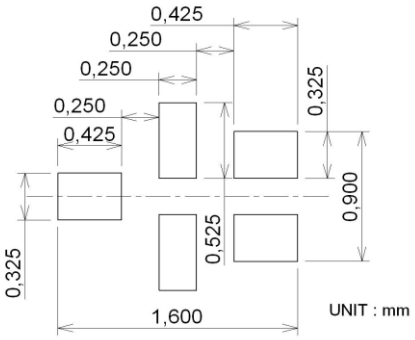


Marking : Laser Printing
* : Month code(Refer to the table A)
$: Date code(Refer to the table B)
1 : X
2 : 1

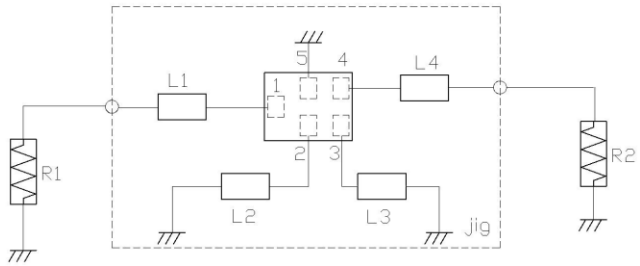
Terminal Number
(1) : Unbalance Port(ANTside/PAside)
(4) : Unbalance Port(PAside/ANTside)
(2)(3) : connected to coil
Other : GND.

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

Land Pattern



Measurement Circuit (Top View)



R1 : 50 ohm	L1 : 2.4 nH(LQW15AN)
R2 : 50 ohm	L4 : 2.2 nH(LQW15AN)
	L2 : 3.9 nH(LQW15AN)
	L3 : 4.7 nH(LQW15AN)

SACEA1G90TB0F0A (Band34/39 / Unbalanced / 5pin / 1411)

Electrical Characteristic < Single Filter >

Matching Impedance (nominal)

- : Unbalance Port : 50 ohm // 2.4 nH(LQW15AN2N4)
- : Unbalance Port : 50 ohm // 2.2 nH(LQW15AN2N2)

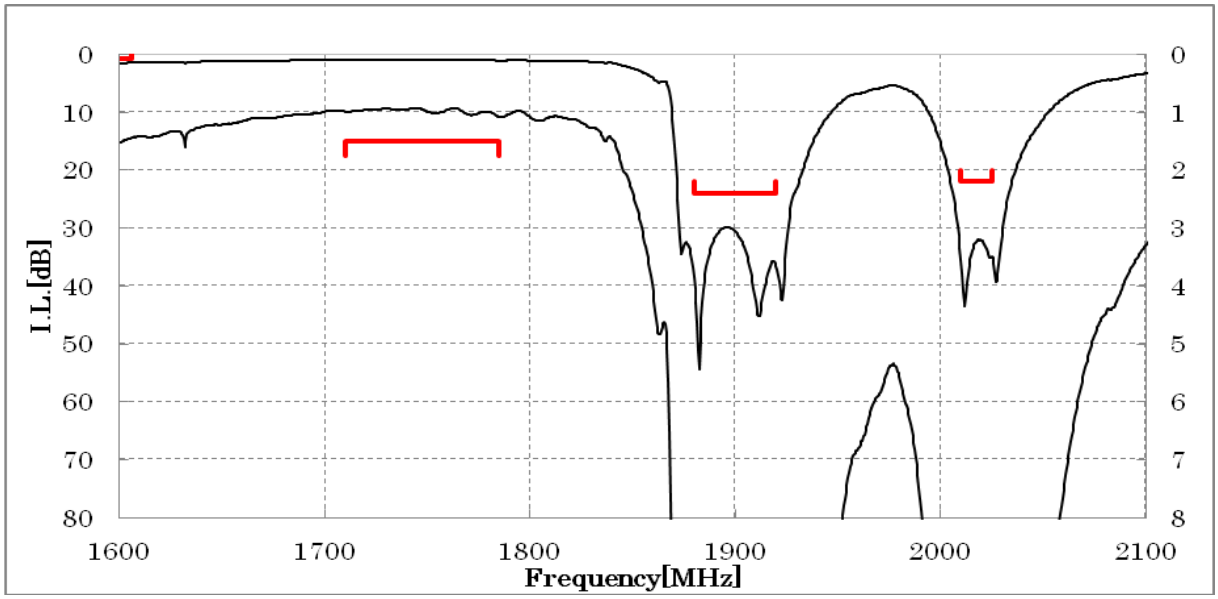
Item					Characteristics (-30 to +85 deg.C)			Unit	Note
					min.	typ.	max.		
Center Frequency						1900		MHz	
Absolute Attenuation	1880.	to	1920.	MHz	24	30		dB	
	1880.	to	1920.	MHz	25	30		dB	+23 to +27deg.C
	2010.	to	2025.	MHz	22	32		dB	
	2010.	to	2025.	MHz	27	32		dB	+23 to +27deg.C
	1.	to	1559.	MHz	1.0	1.8		dB	
	1559.	to	1606.	MHz	0.8	1.4		dB	
	1710.	to	1785.	MHz		1.1	1.5	dB	
	1710.	to	1785.	MHz		1.1	1.4	dB	+23 to +27deg.C
	3420.	to	3570.	MHz	4	8		dB	
	3420.	to	3570.	MHz	5	8		dB	+23 to +27deg.C
	5130.	to	5355.	MHz	14	19		dB	
	5130.	to	5355.	MHz	15	19		dB	+23 to +27deg.C
Ripple Deviation	1710.	to	1785.	MHz		0.2	0.7	dB	
	1710.	to	1785.	MHz		0.2	0.5	dB	+23 to +27deg.C
VSWR	1710.	to	1785.	MHz		1.3	1.7		
	1710.	to	1785.	MHz		1.3	1.6		+23 to +27deg.C

* Typical value at 25±2deg.C

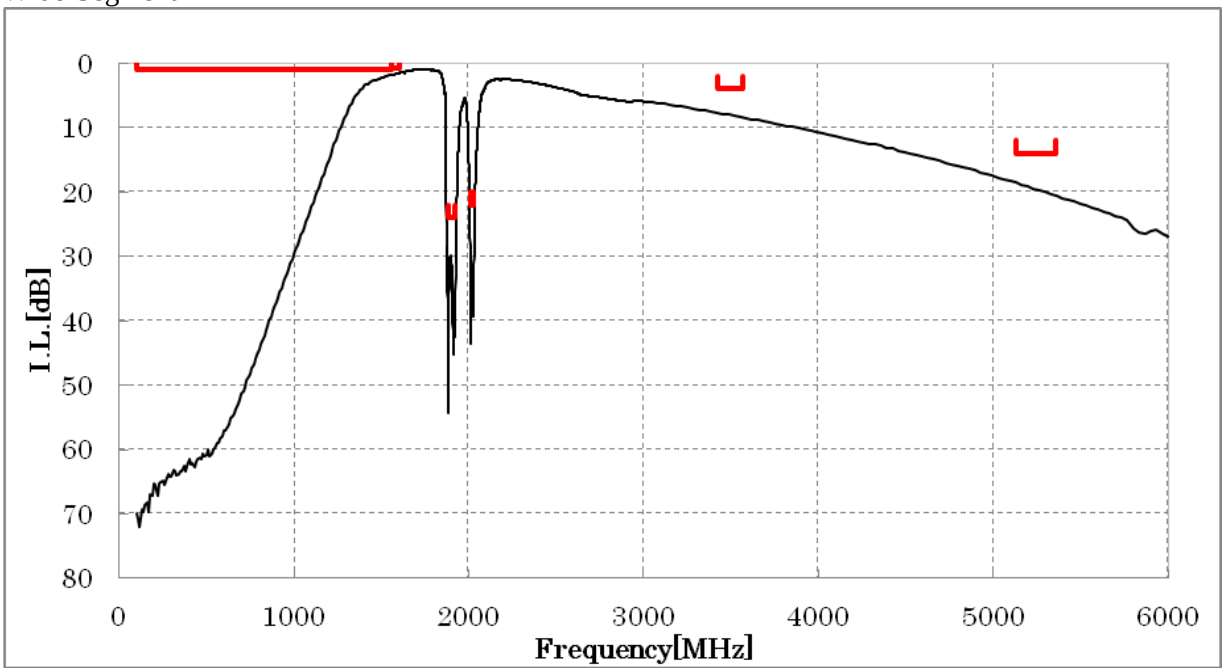
Electrical Characteristic

< Single Filter >

Narrow-Segment



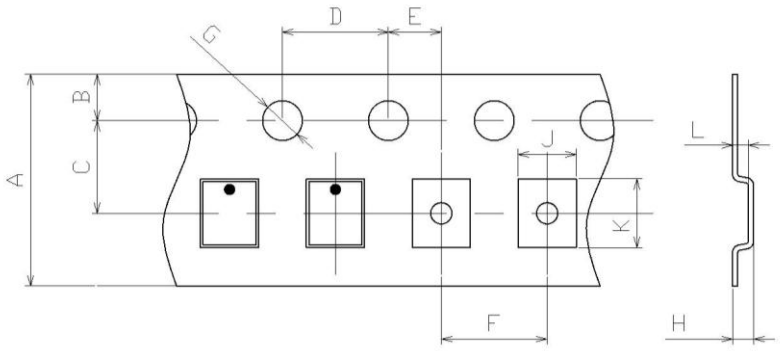
Wide-Segment



SACEA1G90TB0F0A (Band34/39 / Unbalanced / 5pin / 1411)

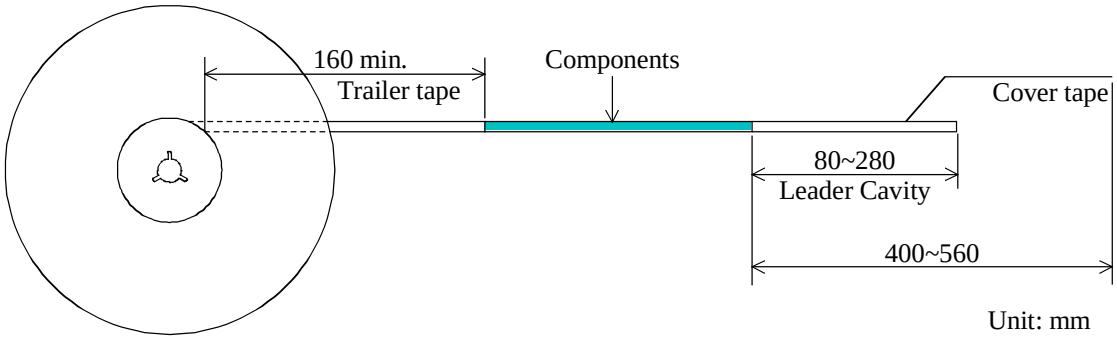
Dimensions of Tape & Reel unit: mm

Carrier Tape



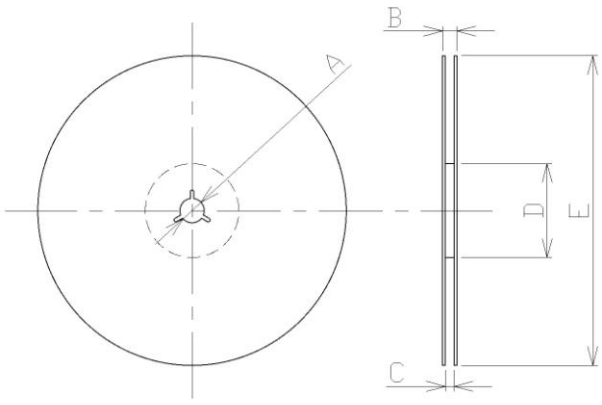
A:	8.0	J:	1.3
B:	1.75	K:	1.6
C:	3.50	L:	0.70
D:	4.0		
E:	2.00		
F:	4.0		
G:	φ1.5		
H:	1.00		

Tape



Unit: mm

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

SACEA1G90TB0F0AR00… 10000pcs (φ330)
SACEA1G90TB0F0AR15… 5000pcs (φ178)
SACEA1G90TB0F0AR1S… sample Order (φ178)

Marking Code

Table A: Month Code

2009 2013 2017	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	A	B	C	D	E	F	G	H	J	K	L	M
2010 2014 2018	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	N	P	Q	R	S	T	U	V	W	X	Y	Z
2011 2015 2019	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	a	b	c̄	d	e	f	g	h	j	k	l	m
2012 2016 2020	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	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)

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.

Important Notice (2/2)

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- 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.

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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.

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We reject any liability or product warranty for engineering samples.
In particular we disclaim liability for damages caused by

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- deviation or lapse in function of engineering sample,
- improper use of engineering samples.

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