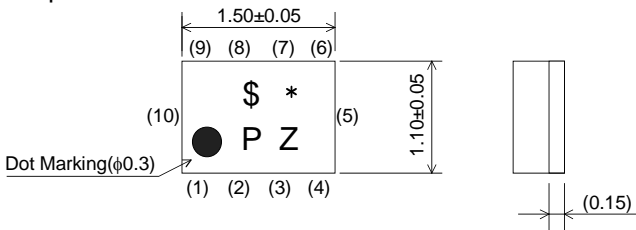


# SAW FILTER FOR TD-SCDMA

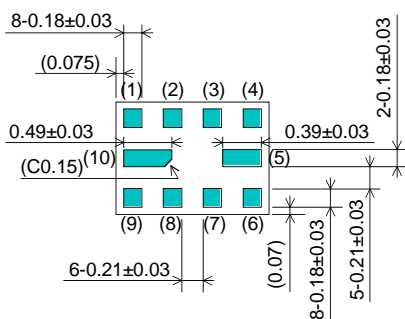
Murata part number :SAWFD1G90CR0F0A (fc=1900MHz)

## Package Dimensions

Top View



Bottom View



Marking: Laser Printing

\* : EIAJ Code

(Refer to the table 1)

\$ : Date Code

(Refer to the table 2)

(1) : Unbalance Port (1900MHz)

(4) : Unbalance Port (2017.5MHz)

(8)(9) : Balance Port (1900MHz)

(6)(7) : Balance Port (2017.5MHz)

Others : Ground

Unit : mm

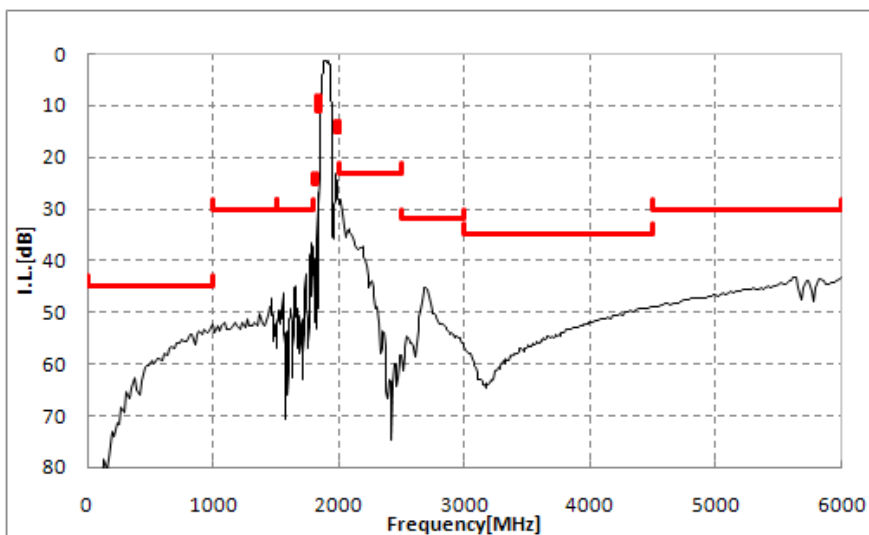
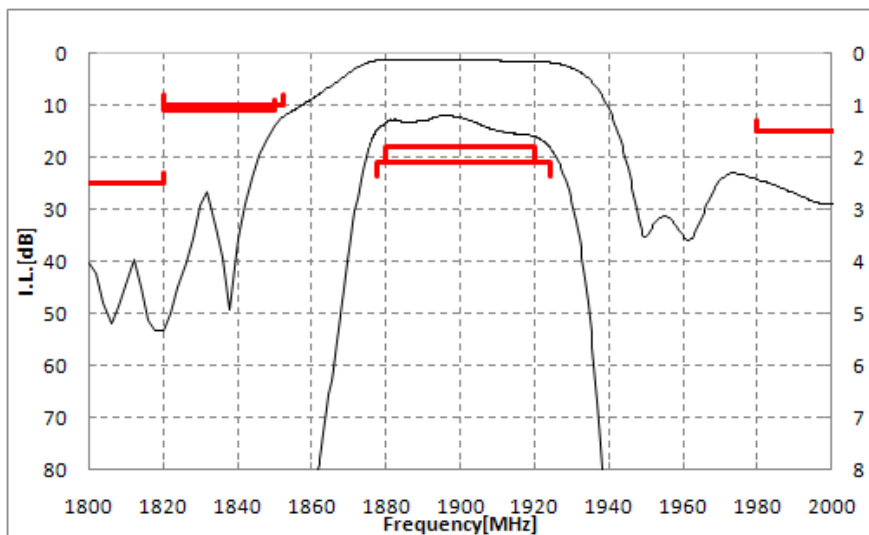
## Specification

Item	Specification		
	-30 to 85°C	25±2°C	typ.
Nominal Center Frequency(fc)	1900MHz		
Insertion Loss (1880 to 1920MHz)	2.3 dB max.	1.8 dB max.	1.6 dB
Absolute Attenuation			
1) 0.1 to 1000 MHz	45 dB min.	45 dB min.	52 dB
2) 1000 to 1795 MHz	30 dB min.	30 dB min.	37 dB
3) 1795 to 1820 MHz	25 dB min.	25 dB min.	37 dB
4) 1820 to 1850 MHz	10 dB min.	11 dB min.	14 dB
5) 1980 to 2005 MHz	15 dB min.	15 dB min.	24 dB
6) 2005 to 2500 MHz	23 dB min.	23 dB min.	28 dB
7) 2500 to 3000 MHz	32 dB min.	32 dB min.	45 dB
8) 3000 to 4500 MHz	35 dB min.	35 dB min.	49 dB
9) 4500 to 6000 MHz	30 dB min.	30 dB min.	43 dB
Ripple Deviation (1880 to 1920MHz)	1.1 dB max.	0.8 dB max.	0.4 dB
VSWR (1880 to 1920MHz)	2.1 max.	2.0 max.	1.6
Amplitude Balance (1880 to 1920MHz)	±1.2 dB max.	±1.2 dB max.	+0.9 dB
Phase Balance (1880 to 1920MHz)	180±10deg. max.	180±10deg. max.	180.0±6.6deg.
Unbalance Port Matching Impedance (nominal)	50Ω		
Balance Port Matching Impedance (nominal)	100Ω/30nH		
Input Signal Level	+13dBm, 2000 hours		

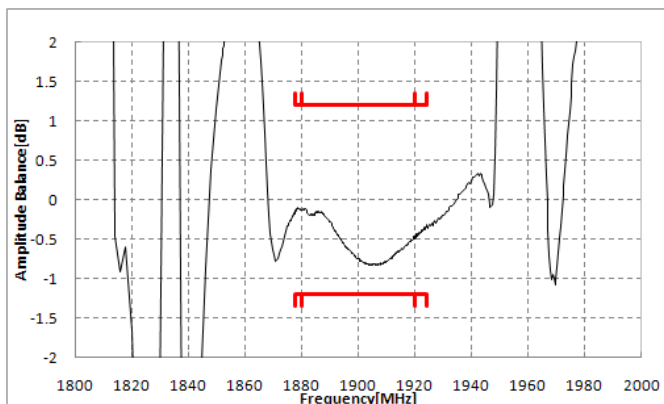
# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90CR0F0A (fc=1900MHz)

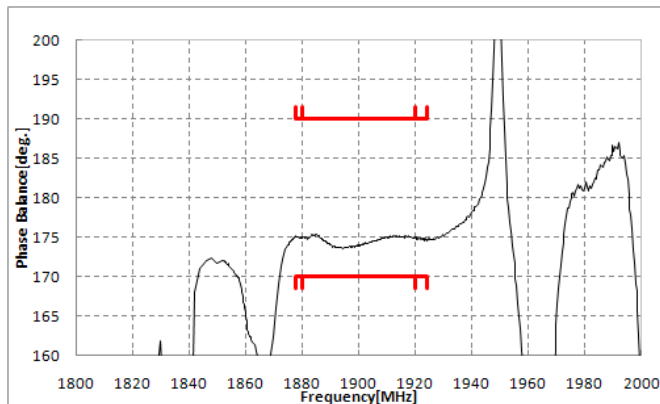
## Frequency Performance



## Amplitude balance



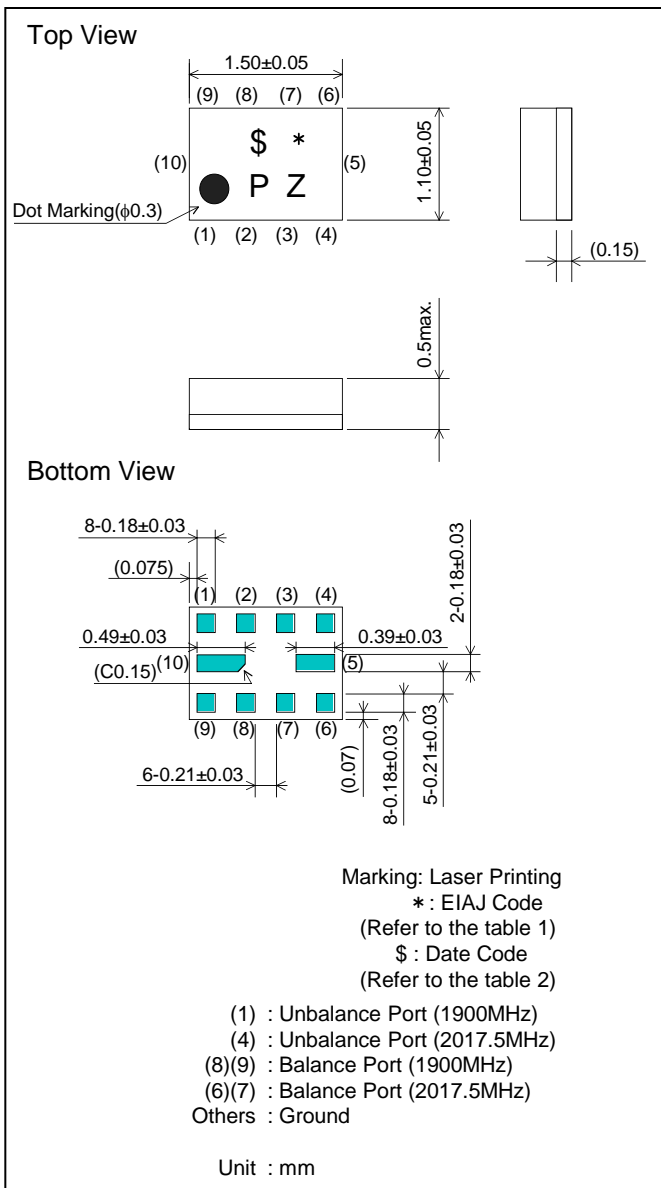
## Phase balance



# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90CR0F0A (fc=2017.5MHz)

## Package Dimensions



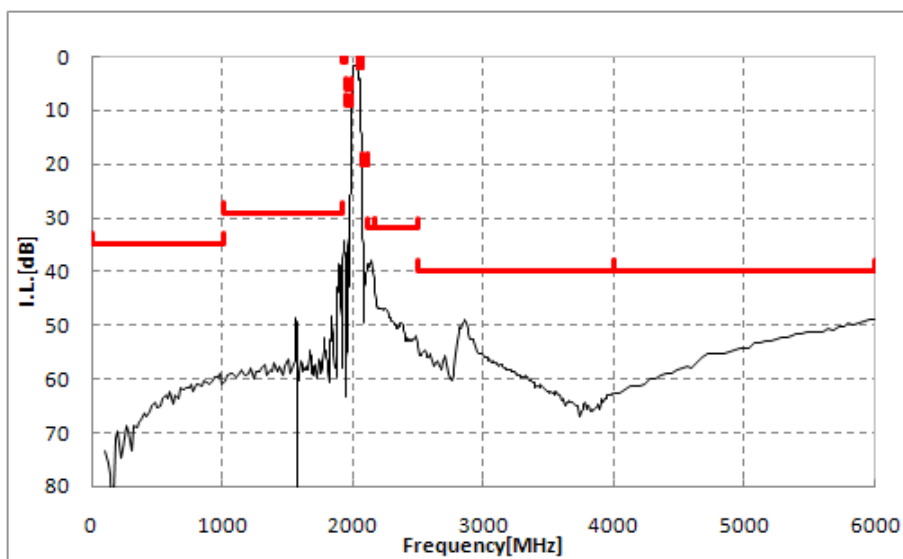
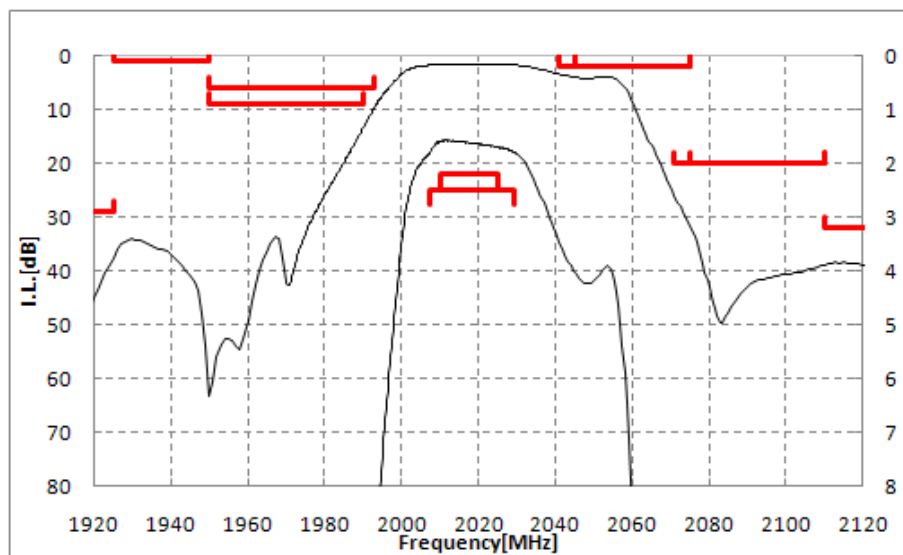
## Specification

Item	Specification		
	-30 to 85°C	25±2°C	typ.
Nominal Center Frequency(fc)	2017.5MHz		
Insertion Loss (2010 to 2025MHz)	2.5 dB max.	2.3 dB max.	1.7 dB
Absolute Attenuation			
1) 0.1 to 1013 MHz	35 dB min.	35 dB min.	59 dB
2) 1013 to 1925 MHz	29 dB min.	29 dB min.	38 dB
3) 1925 to 1950 MHz	14 dB min.	14 dB min.	34 dB
4) 1950 to 1990 MHz	6 dB min.	6 dB min.	13 dB
5) 2045 to 2075 MHz	2.0 dB min.	2.0 dB min.	4.0 dB
6) 2075 to 2110 MHz	20 dB min.	20 dB min.	31 dB
7) 2110 to 2170 MHz	32 dB min.	32 dB min.	38 dB
8) 2170 to 2500 MHz	32 dB min.	32 dB min.	44 dB
9) 2500 to 4000 MHz	40 dB min.	40 dB min.	49 dB
10) 4000 to 6000 MHz	40 dB min.	40 dB min.	49 dB
Ripple Deviation (2010 to 2025MHz)	1.0 dB max.	0.8 dB max.	0.1 dB
VSWR (2010 to 2025MHz)	2.0 max.	2.0 max.	1.3
Amplitude Balance (2010 to 2025MHz)	±1.0 dB max.	±1.0 dB max.	+0.6 dB
Phase Balance (2010 to 2025MHz)	180±10deg. max.	180±10deg. max.	180.0+3.2deg.
Unbalance Port Matching Impedance (nominal)	50Ω		
Balance Port Matching Impedance (nominal)	100Ω		
Input Signal Level	+13dBm, 2000 hours		

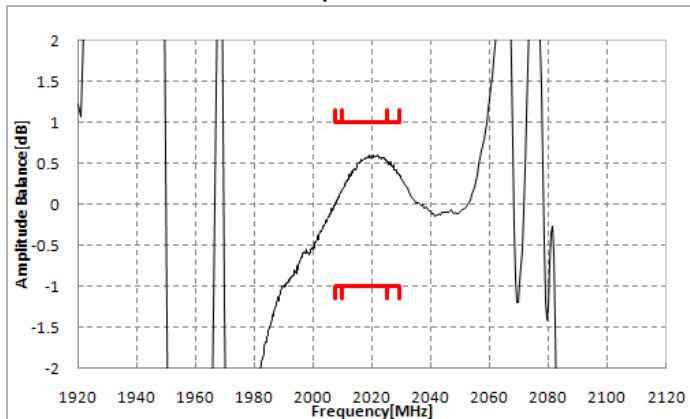
# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90CR0F0A ( $f_c=2017.5\text{MHz}$ )

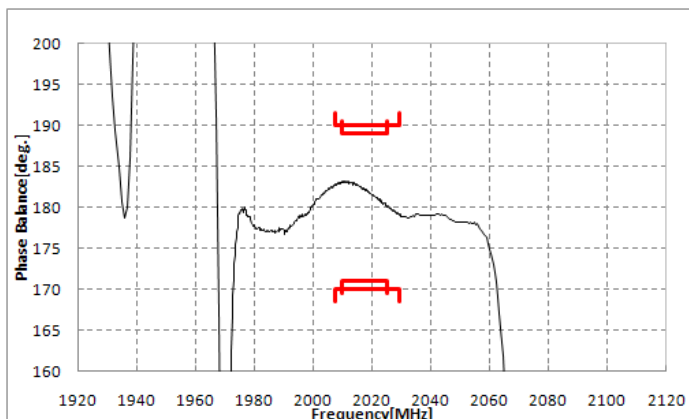
## Frequency Performance



## Amplitude balance



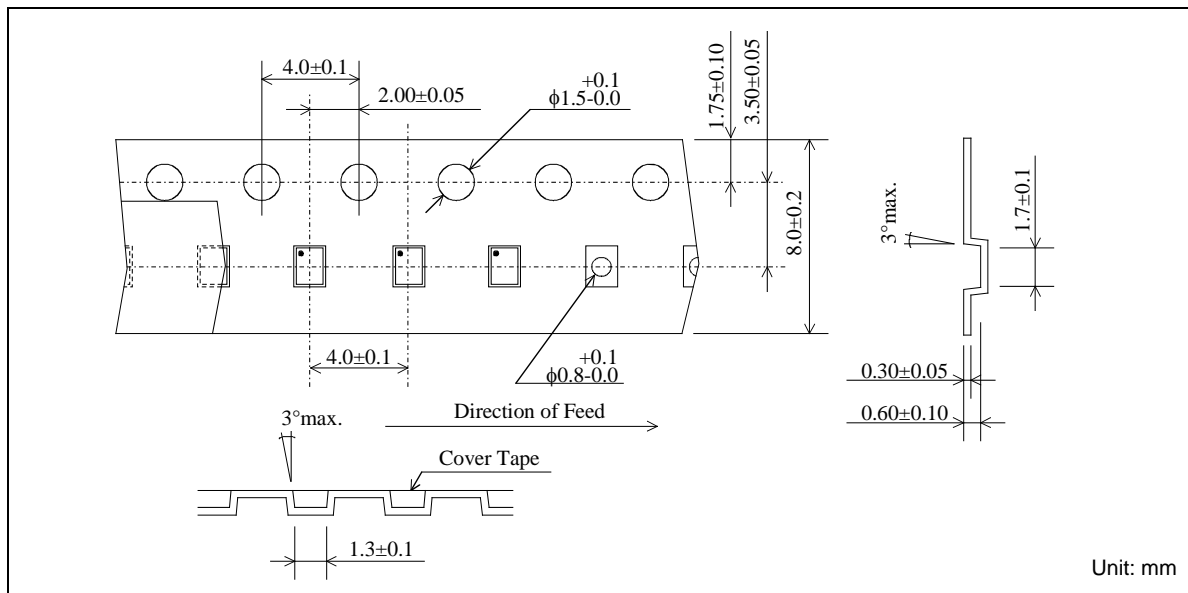
## Phase balance



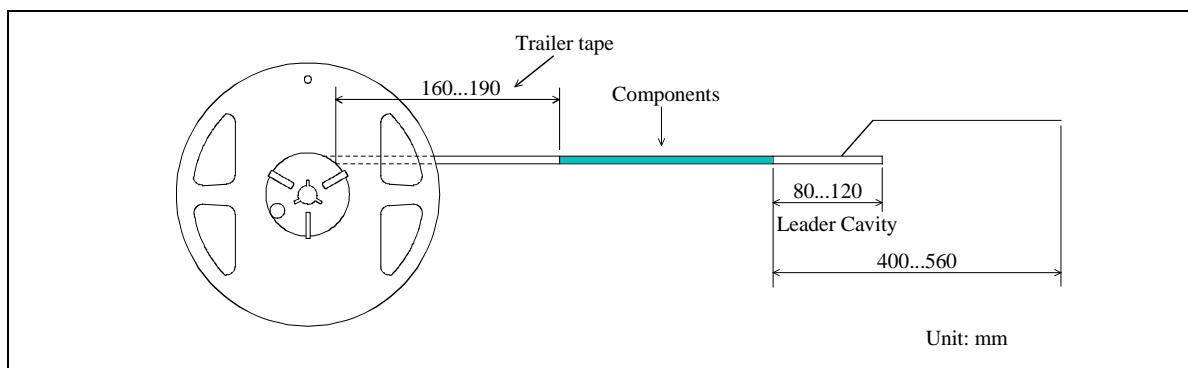
# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90CR0F0A

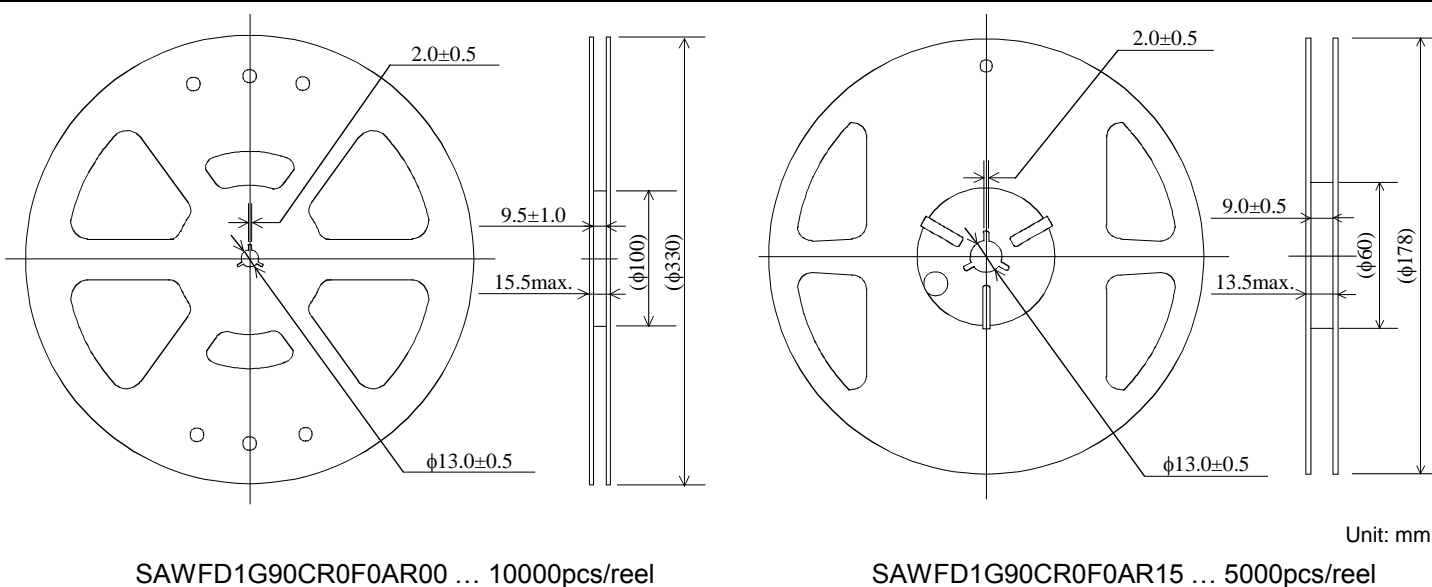
## Dimensions of Carrier Tape



## Dimensions of Tape



## Dimensions of Reel



SAWFD1G90CR0F0AR00 ... 10000pcs/reel

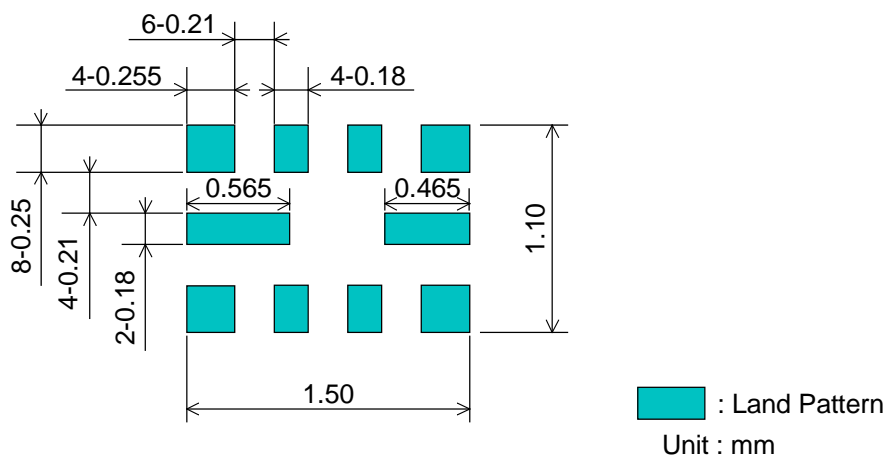
SAWFD1G90CR0F0AR15 ... 5000pcs/reel

# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90CR0F0A

## Recommended Land Pattern

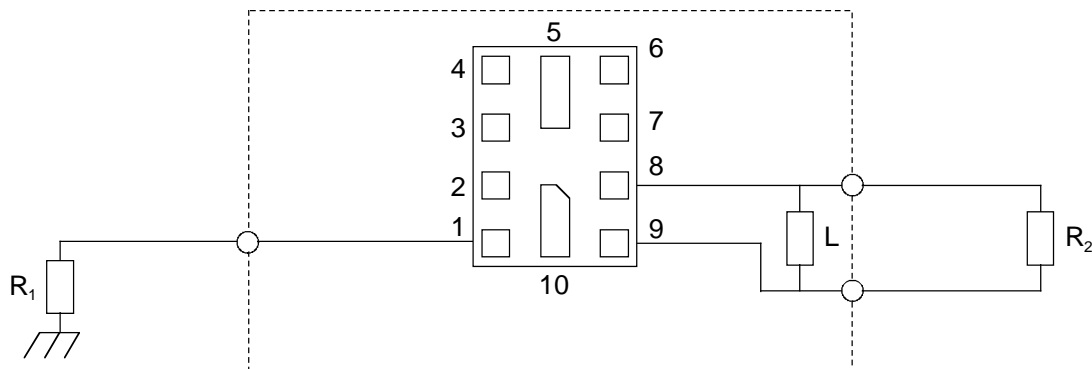
Top View



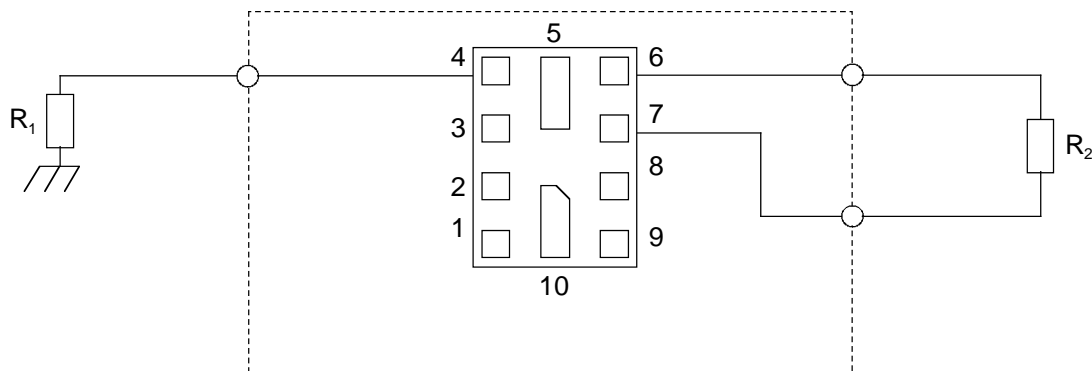
## Test Circuit

Bottom View

1900MHz



2017.5MHz



$R_1$ : 50 $\Omega$   
 $R_2$ : 100 $\Omega$   
 $L$ : 30nH

# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90CR0F0A

## ■ RoHS Compliance

This component is compliant with RoHS directive.  
This component was always RoHS compliant from the first date of manufacture.

### • Caution - Limitation of Applications

This product is intended for the following applications only; however, please do not use this product in these applications where defects might directly cause damage to a third party's life, body or property.

- a. Mobile Telephone
- b. Cordless phone (except for Automotive use)
- c. PC (Including Notebook PC, Netbook PC, Tablet)
- d. Game
- e. Camera (except for Business/security use)
- f. Set Top Box
- g. Electronic dictionary
- h. Digital audio equipment

This catalog is for reference only and not an official product specification document, therefore, please review and approve our official product specification before ordering this product.

## ■ Marking code

Table 1 ★ : EIAJ Code

This rule of code is applied repeatedly every four year.

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

Table 2 \$: 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	
code	W	X	Y	Z	a	b	c̄	d	e	f	
											31st

# SAW FILTER FOR TD-SCDMA

## Murata part number :SAWFD1G90CR0F0A

### ■Important notice

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.

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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.

# ***SAW FILTER FOR TD-SCDMA***

## ***Murata part number :SAWFD1G90CR0F0A***

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

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- deviation or lapse in function of engineering sample,

- improper use of engineering samples.

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