Datasheet of SAW Device

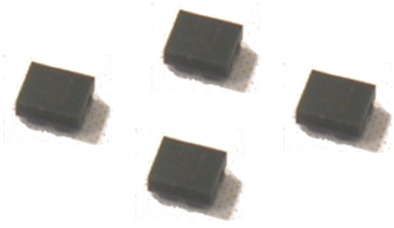
SAW Dual Filter

for Band1_Band8 / Dip-1in4out Balanced / LH /1511

Murata PN: SAWFD942MCA0F0A

■ Feature

- Diplexer Dual



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

SAWFD942MCA0F0A (Band1_Band8 / Dip-1in4out Balanced / LH / 1511)

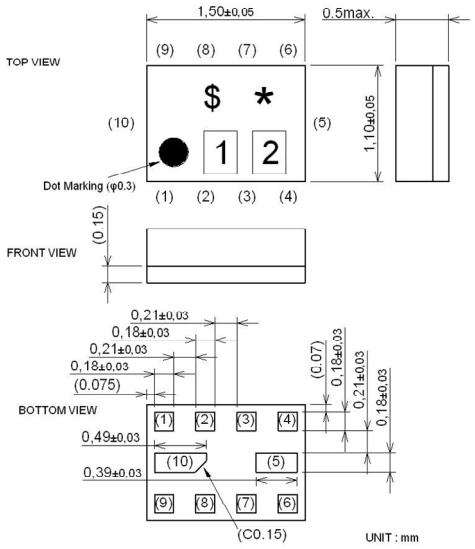
Revision Number	Date	Description
SAWFD942MCA0F0A_rev. A	Mar-25-2013	■ Initial Release/MP
SAWFD942MCA0F0A_rev. B	Aug-23-2016	■ Updated General Information
SAWFD942MCA0F0A_rev. C	Aug-29-2017	■ Updated General Information

- Operating temperature : -30 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

Package Dimensions & Recommended Land Pattern

unit: mm

Dimensions

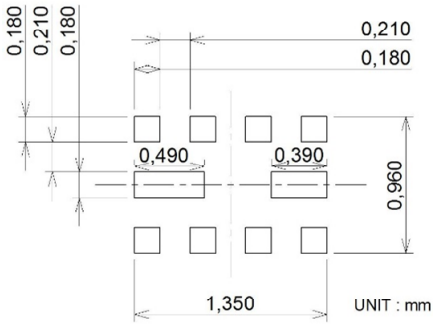


Marking : Laser Printing
* : Month code(Refer to the table A)
$: Date code(Refer to the table B)
1 : U
2 : C

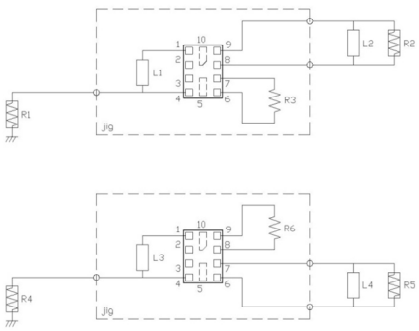
Terminal Number
(1) : Unbalance Port
(8)(9) : Balanced port-Lch
(4) : Unbalance Port
(6)(7) : Balance Port-Hch
Others : GND.

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

Land Pattern



Measurement Circuit (Top Thru View)



(Lch)	R1 : 50 ohm	L1 :5.6nH(LQP03TN5N6H02)
	R2 : 100 ohm	L2 :47nH(Ideal inductor)
	R3 : 100 ohm	
(Hch)	R4 : 50 ohm	L3 :5.6nH(LQP03TN5N6H02)
	R5 : 100 ohm	L4 :18nH(Ideal inductor)
	R6 : 100 ohm	

SAWFD942MCA0F0A (Band1_Band8 / Dip-1in4out Balanced / LH / 1511)

Electrical Characteristic < Low Freq. Filter >

Low Freq. Filter				Characteristics (-30 to +85 deg.C)			Unit	Note
				min.	typ.	max.		
Center Frequency					942.5		MHz	
Insertion Loss	925.	to	960. MHz		2.3	4.5	dB	
	925.	to	960. MHz		2.3	4.0	dB	+23 to +27deg.C
	925.48	to	959.52 MHz		2.2	4.2	dB	
	925.48	to	959.52 MHz		2.2	3.8	dB	+23 to +27deg.C
Ripple Deviation	925.	to	960. MHz		0.8	3.5	dB	
	925.	to	960. MHz		0.8	3.0	dB	+23 to +27deg.C
VSWR	925.	to	960. MHz		1.8	2.5		
	925.	to	960. MHz		1.8	2.3		+23 to +27deg.C
Amplitude Balance	925.	to	960. MHz	-1.0	0.3	+1.0	dB	
Phase Balance	925.	to	960. MHz	173	183	187	deg.	
Absolute Attenuation	1.	to	835. MHz	50	57		dB	
	835.	to	880. MHz	50	55		dB	
	880.	to	915. MHz	35	43		dB	
	880.48	to	914.52 MHz	39	43		dB	
	980.	to	1060. MHz	23	30		dB	
	1060.	to	6000. MHz	25	28		dB	

* Typical value at 25±2deg.C

SAWFD942MCA0F0A (Band1_Band8 / Dip-1in4out Balanced / LH / 1511)

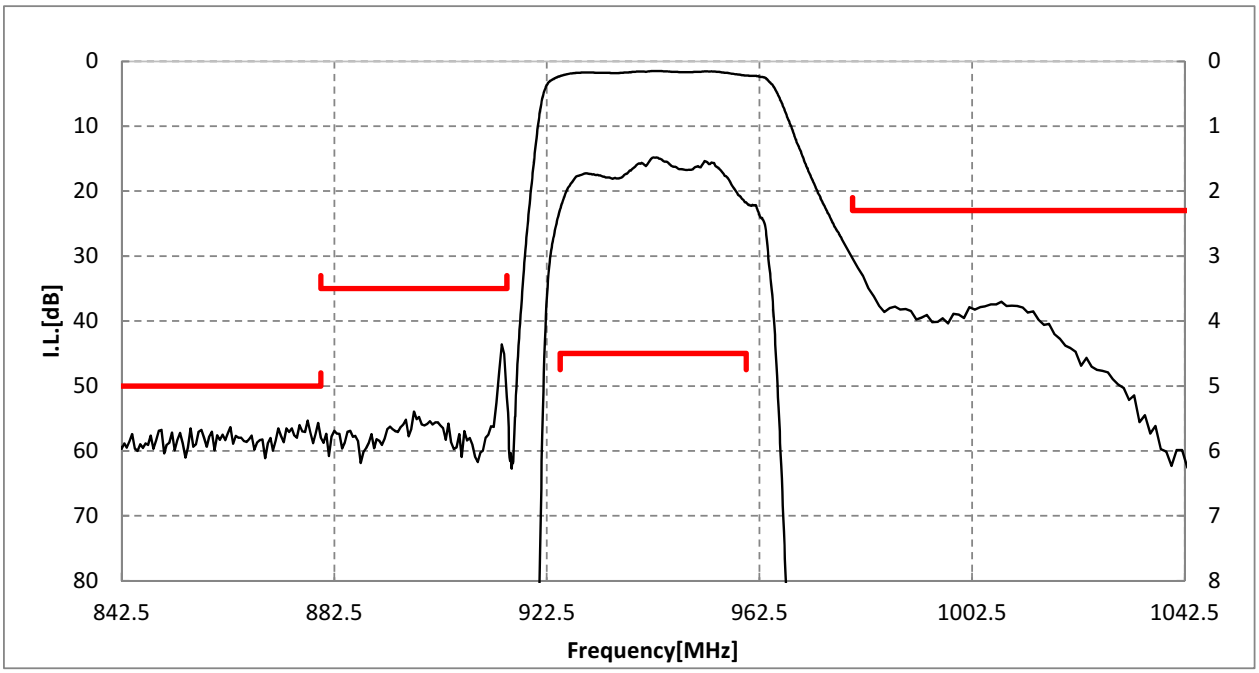
Electrical Characteristic < High Freq. Filter >

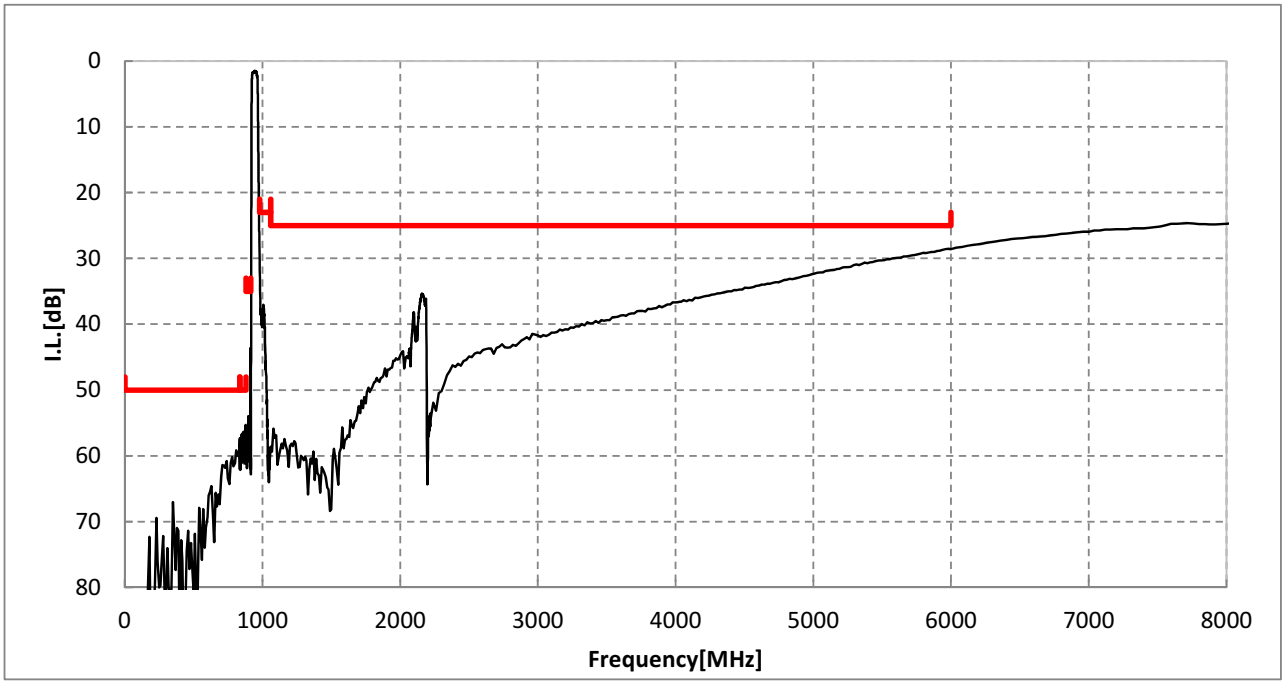
High Freq. Filter					Characteristics (-30 to +85 deg.C)			Unit	Note
					min.	typ.	max.		
Center Frequency						2140		MHz	
Insertion Loss	2110.	to	2170.	MHz		2.0	2.5	dB	
	2110.	to	2170.	MHz		2.0	2.2	dB	+23 to +27deg.C
Ripple Deviation	2110.	to	2170.	MHz		0.5	2.0	dB	
VSWR	2110.	to	2170.	MHz		0.6	2.0		
Amplitude Balance	2110.	to	2170.	MHz	-1.2	0.7	+1.2	dB	
Phase Balance	2110.	to	2170.	MHz	170	184	190	deg.	
Absolute Attenuation	1.	to	824.	MHz	50	68		dB	
	824.	to	849.	MHz	50	71		dB	
	898.	to	925.	MHz	38	43		dB	
	1710.	to	1755.	MHz	42	47		dB	
	1920.	to	1980.	MHz	45	50		dB	
	2400.	to	2484.	MHz	30	36		dB	
	4222.	to	4340.	MHz	40	43		dB	
	4340.	to	6000.	MHz	30	36		dB	

* Typical value at 25±2deg.C

Electrical Characteristic

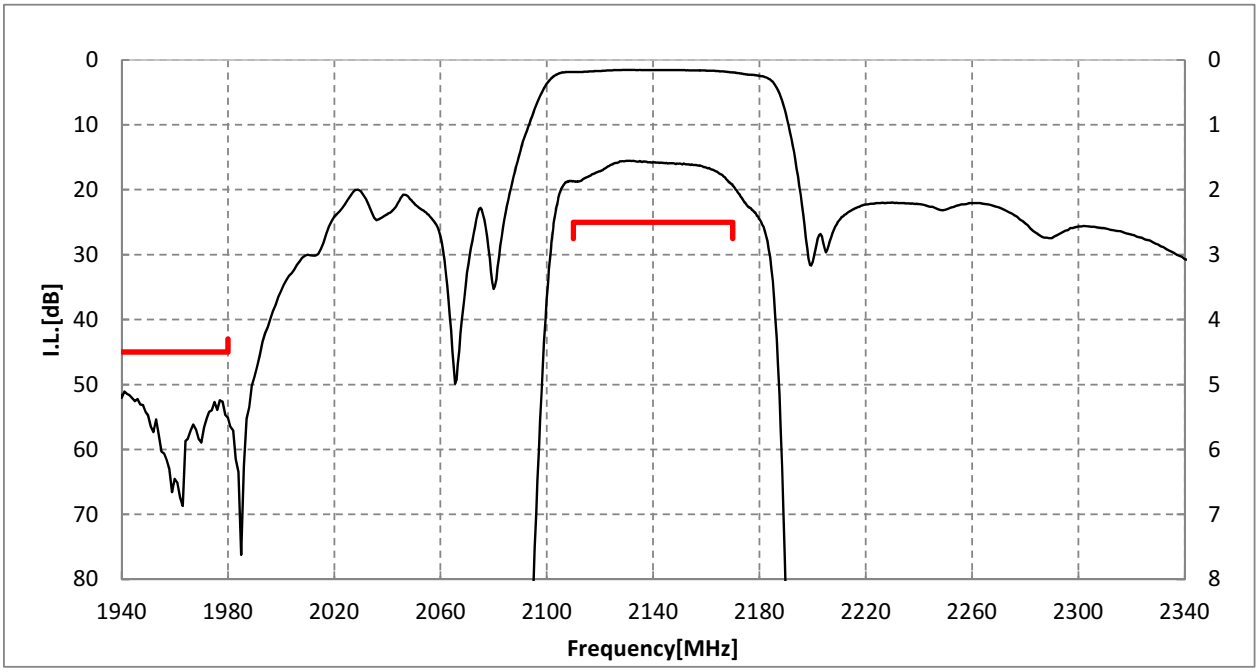
< Low Freq. Filter >

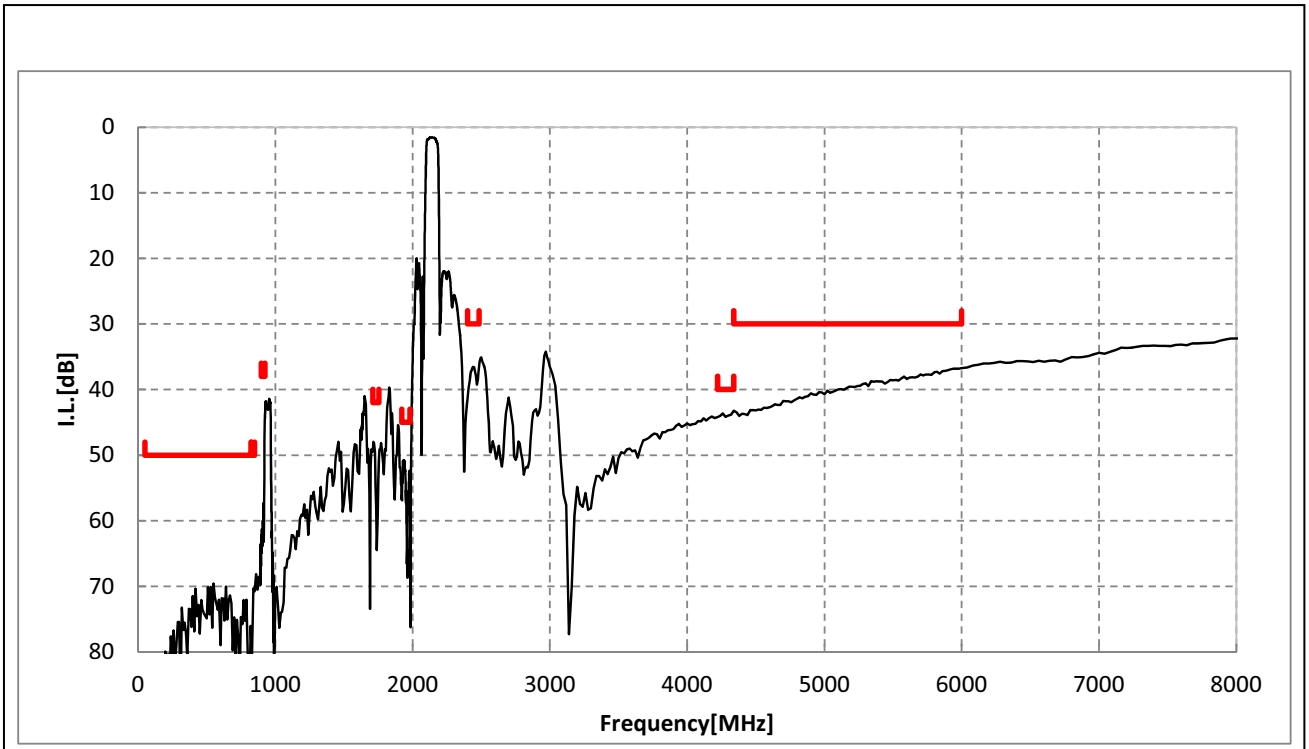




Electrical Characteristic

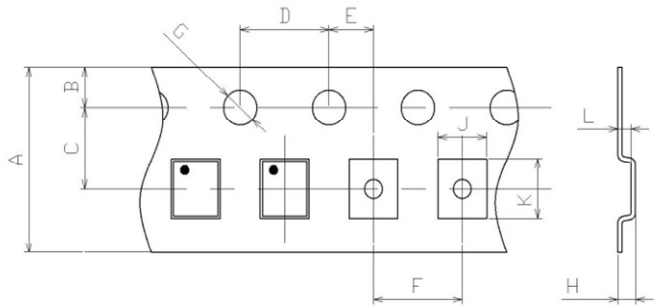
< High Freq. Filter >





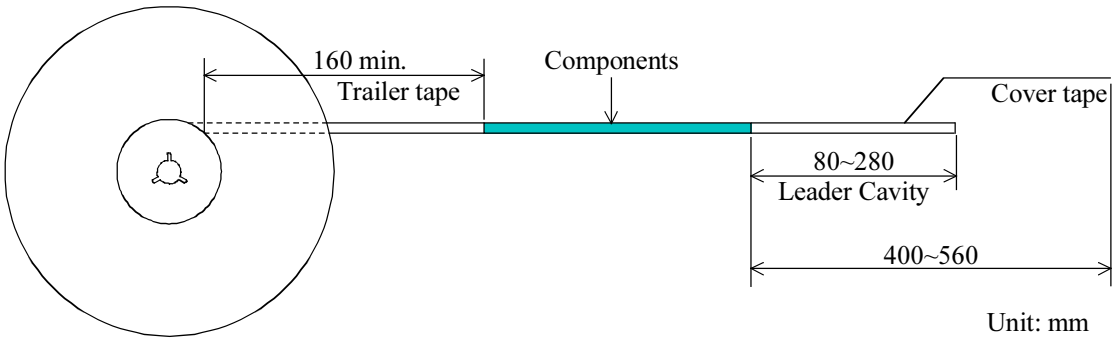
Dimensions of Tape & Reel unit: mm

Carrier Tape

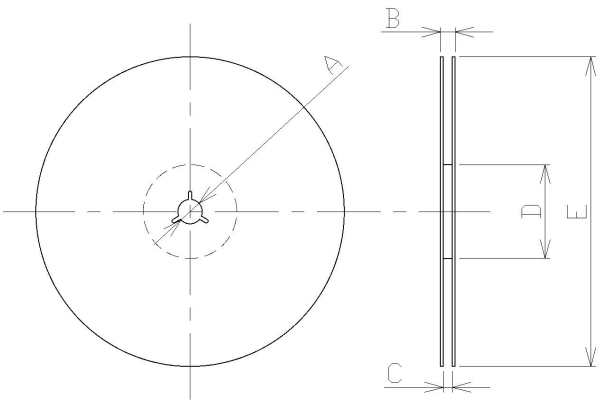


A:	8.0	J:	1.3
B:	1.75	K:	1.7
C:	3.50	L:	0.60
D:	4.0		
E:	2.00		
F:	4.0		
G:	φ1.5		
H:	0.90		

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

SAWFD942MCA0F0AR00… 10000pcs (φ330)
SAWFD942MCA0F0AR15… 5000pcs (φ178)
SAWFD942MCA0F0AR1S… Sample Order (φ178/330)

Marking Code

Table A: Month Code

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

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- Burning / explosion control equipment
- Application of similar complexity and/ or reliability requirements to the applications listed in the above.

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Please be advised that you had better check anti serge voltage.

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