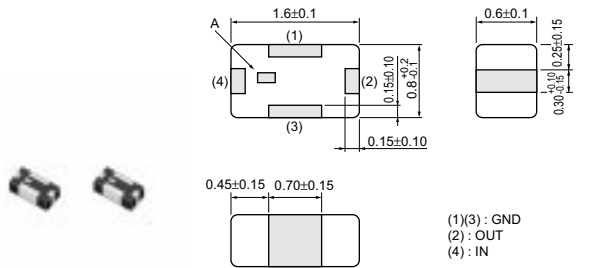


## for RF/Local

### Chip Multilayer LC Filters (BPF)

#### ● LFB18/21/2H/31\_SG Series

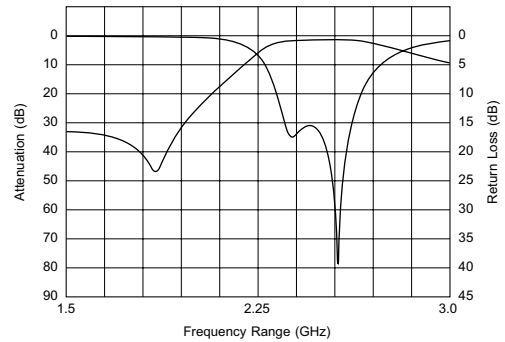


LFB18\_SG Series

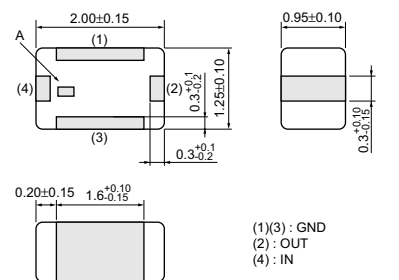
A : Directional Input Mark

All the technical data and information contained herein are subject to change without prior notice. (in mm)

Frequency Characteristics



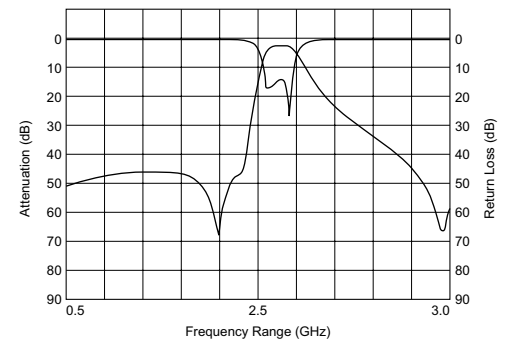
LFB21\_SG Series



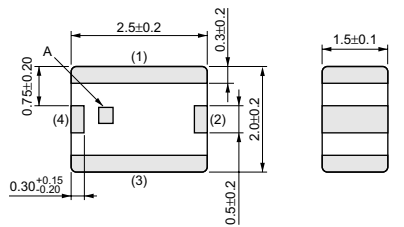
A : Directional Input Mark

All the technical data and information contained herein are subject to change without prior notice. (in mm)

Frequency Characteristics



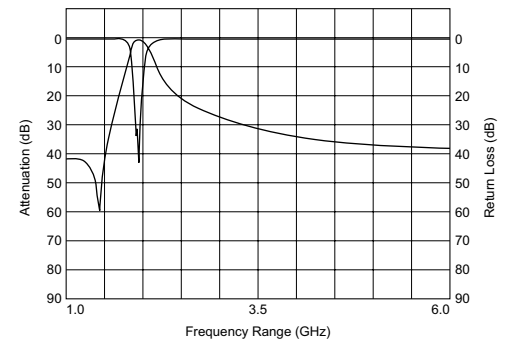
LFB2H\_SG6Series



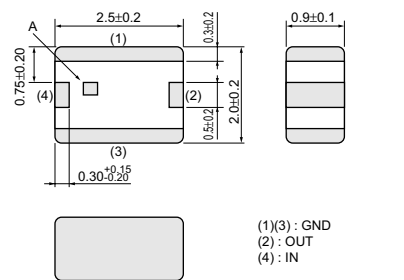
A : Directional Input Mark

All the technical data and information contained herein are subject to change without prior notice. (in mm)

Frequency Characteristics



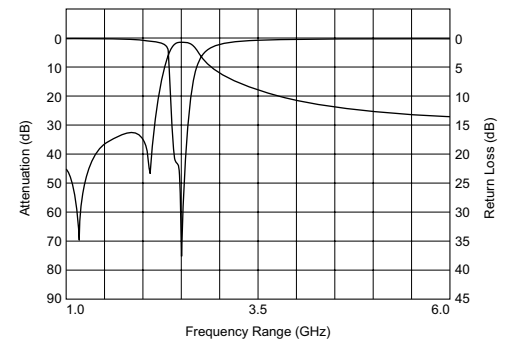
LFB2H\_SG7 Series



A : Directional Input Mark

All the technical data and information contained herein are subject to change without prior notice. (in mm)

The Characteristics of Spurious

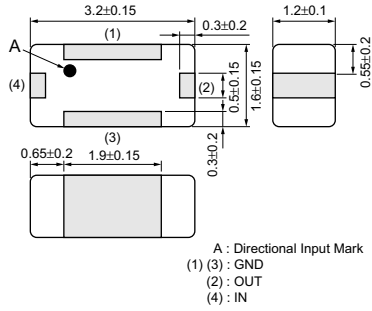


Continued on the following page.

Continued from the preceding page.

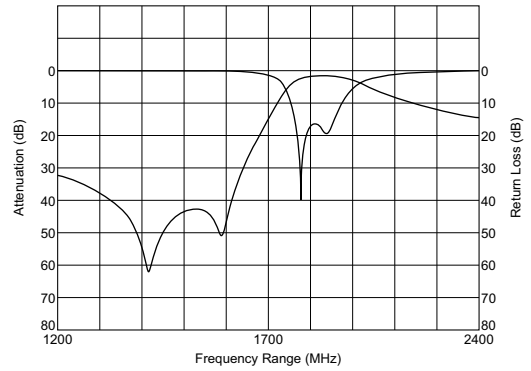


**LFB31\_SG1 Series**

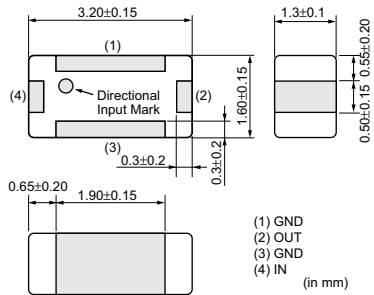


All the technical data and information contained herein are subject to change without prior notice. (in mm)

**Frequency Characteristics**

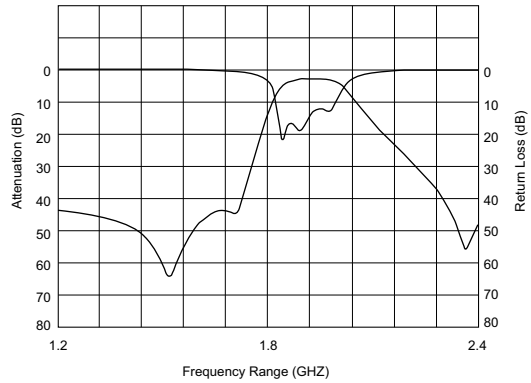


**LFB31\_SG2 Series**

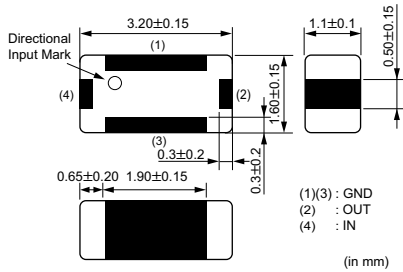


All the technical data and information contained herein are subject to change without prior notice.

**Frequency Characteristics**

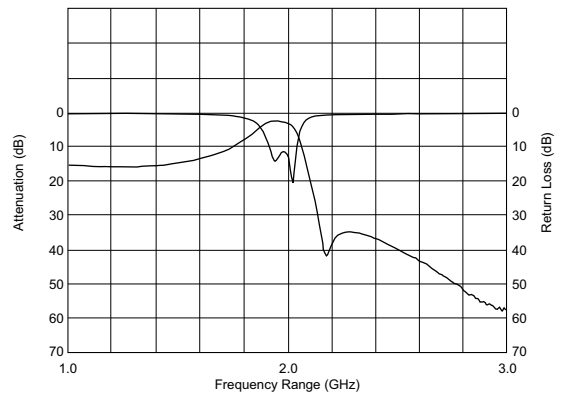


**LFB31\_SG3 Series**

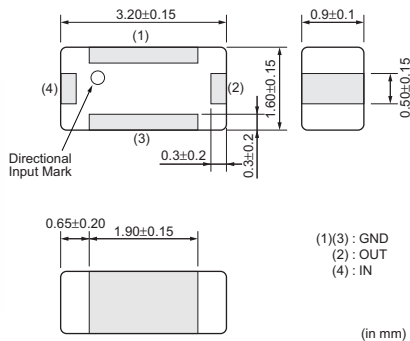


All the technical and information contained herein are subject to change without prior notice.

**Frequency Characteristics**

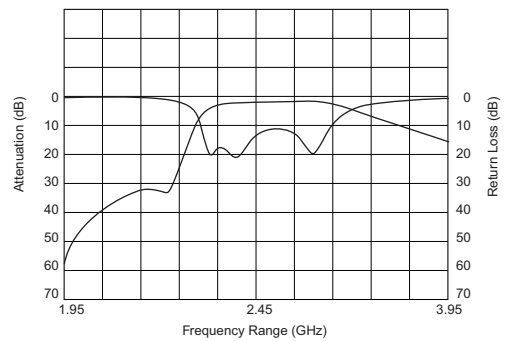


**LFB31\_SG7 Series**



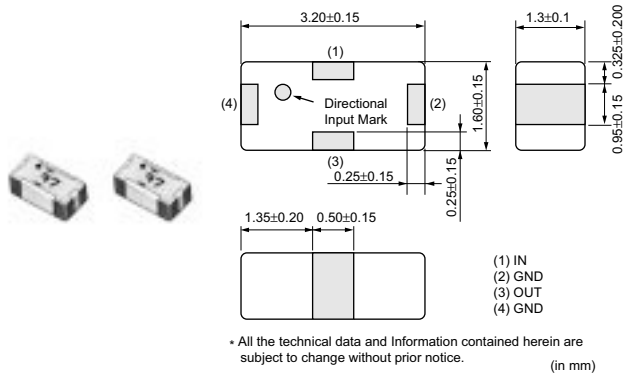
All the technical data and information contained herein are subject to change without prior notice.

**Frequency Characteristics**

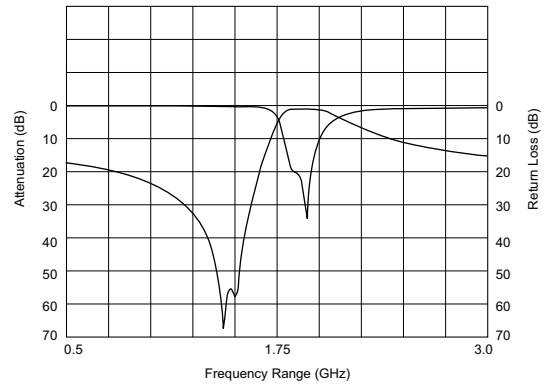


Part Number	Nominal Center Frequency (fo) (MHz)	Bandwidth (BW) (MHz)	Insertion Loss in BW (dB)	Attenuation (Absolute Value) I (dB)	Attenuation (Absolute Value) II (dB)	Application
LFB182G45SG9A213	2450	fo±50	2.2 max. (at 25°C)	24 min. at 880-960MHz	20 min. at 1710-1990MHz	WLAN/BT
LFB182G45SG9A246	2450	fo±50	2.2 max. (at 25°C)	24.5 min. at 880-960MHz	12.5 min. at 1710-1990MHz	WLAN/BT
LFB182G45SG9A272	2450	fo±50	1.8 max. (at 25°C)	25 min. at 880-1000MHz	22.5 min. at 1200-1300MHz	WLAN/BT
LFB185G78SGAB713	5787.5	fo±62.5	2.2 max. (at 25°C)	16.5 min. at 4800MHz	23.5 min. at 11450-11700MHz	WLAN/BT
LFB211G90SG8B704	1906.5	fo±13.5	3.0 max. (at 25°C)	20 min. at 1660.5-1686.3MHz	11 min. at 2126.8-2152.6MHz	PHS
LFB212G45SG8A127	2450	fo±50	1.5 max. (at 25°C)	25 min. at 1200-1300MHz	10.0 min. at 2000MHz	WLAN/BT
LFB212G45SG8A143	2450	fo±50	2.7 max. (at 25°C)	20 min. at 880-1710MHz	30 min. at 1710-1990MHz	WLAN/BT
LFB212G45SG8A166	2450	fo±50	1.4 max. (at 25°C)	30 min. at 880-915MHz	30 min. at 1710-1910MHz	WLAN/BT
LFB212G45SG8A192	2450	fo±50	2.6 max. (at 25°C)	40 min. at 880-960MHz	38 min. at 1710-1990MHz	WLAN/BT
LFB215G12SG8A178	5125	fo±225	1.5 max. (at 25°C)	25 min. at 4200MHz	17 min. at 2x(fo±225)MHz	WLAN/BT
LFB215G12SG8A183	5125	fo±225	1.5 max. (at 25°C)	10.0 min. at 4250MHz	10.0 min. at 5900MHz	WLAN/BT
LFB215G25SG8A144	5250	fo±100.0	1.5 max. (at 25°C)	30 min. at 3450MHz	-	WLAN/BT
LFB215G37SG8A180	5375	fo±475	1.8 max. (at 25°C)	29.5 min. at 500-4000MHz	34.5 min. at 3450MHz	WLAN/BT
LFB215G37SG8A185	5375	fo±475	2.2 max. (at 25°C)	40 min. at 340-1195MHz	21 min. at 2140-3580MHz	WLAN/BT
LFB215G51SG8A132	5512	fo±363	1.9 max. (at 25°C)	30 min. at 500-4000MHz	20 min. at 4600MHz	WLAN/BT
LFB215G78SG8A170	5787.5	fo±62.5	2.2 max. (at 25°C)	35 min. at 3275-3400MHz	37 min. at 2x(fo±62.5)MHz	WLAN/BT
LFB2H1G90SG6A157	1906.5	fo±13.5	1.5 max. (at 25°C)	14 min. at 1687MHz	6 min. at 2126MHz	PHS
LFB2H2G45SG7A134	2450	fo±50	1.7 max. (at 25°C)	25 min. at 1750MHz	25 min. at 2100MHz	WLAN/BT
LFB2H2G45SG7A158	2450	fo±50	1.2 max. (at 25°C)	30 min. at 880-915MHz	30 min. at 1710-1785MHz	WLAN/BT
LFB2H2G45SG7A159	2450	fo±50	2.1 max. (at 25°C)	45 min. at 880-915MHz	48 min. at 1710-1990MHz	WLAN/BT
LFB2H2G45SG7B793	2450	fo±50	3.5 max. (at 25°C)	42 min. at 869-915MHz	45 min. at 1710-1785MHz	WLAN/BT
LFB2H5G78SG7A175	5787.5	fo±62.5	2.5 max. (at 25°C)	51.5 min. at 902-928MHz	41 min. at 3919-4044MHz	WLAN/BT
LFB311G90SG1-799	1906.5	fo +24.5/-13.5MHz	2.5 max. (at 25°C)	40 min. at 1397.05-1422.85MHz	35 min. at 1645.5-1671.3MHz	PHS
LFB311G90SG2-797	1906.5	fo±13.5	2.7 max. (at 25°C)	40 min. at 1427-1454MHz	35 min. at 1660-1687MHz	PHS
LFB311G95SG3A564	1950	fo±30	3.5 max. (at 25°C)	20 min. at 2110-2170MHz	25 min. at 2490-2550MHz	UMTS (Band1)
LFB312G45SG2A509	2450	fo±50	2 max. (at 25°C)	38 min. at 902-928MHz	15 min. at 2100-2200MHz	WLAN/BT
LFB312G45SG7A572	2450	fo±50	2.5 max. (at 25°C)	37 min. at 902-928MHz	20 min. at 2100-2200MHz	WLAN/BT

## ● LFB31\_SP Series (1206)



### Frequency Characteristics



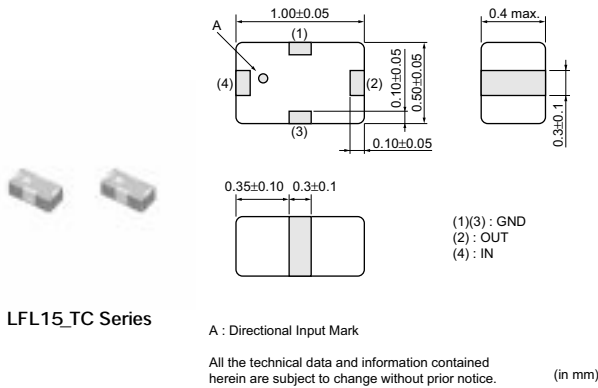
Part Number	Nominal Center Frequency (fo) (MHz)	Bandwidth (BW) (MHz)	Insertion Loss in BW (dB)	Attenuation (Absolute Value) I (dB)	Attenuation (Absolute Value) II (dB)	Application
LFB311G90SP1-798	1906.5	fo±13.5	1.0 max. (at 25°C)	38 min. at 1405~1440MHz	12.0 min. at 1649~1680MHz	PHS
LFB312G45SP1A502	2450	fo±50	1.4 max. (at 25°C)	20 min. at 902~928MHz	35 min. at 1500~1550MHz	WLAN/BT

## for RF/Local

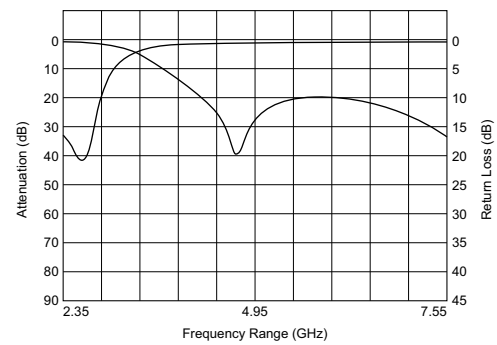
### Chip Multilayer LC Filters (LPF)

## ● LFL15\_TC (0402) / LFL18\_TC (0603) / LFL21\_TC (0805) Series

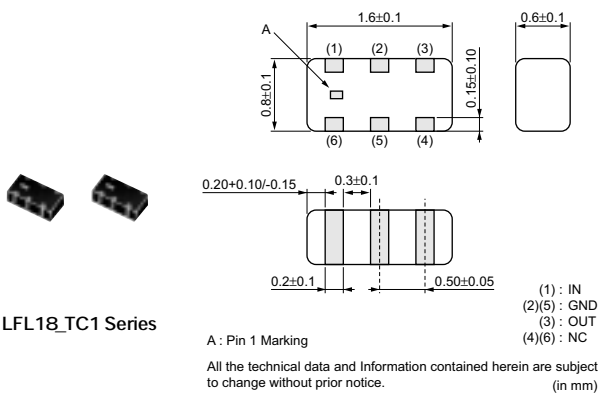
7 Filters for Communication Equipment



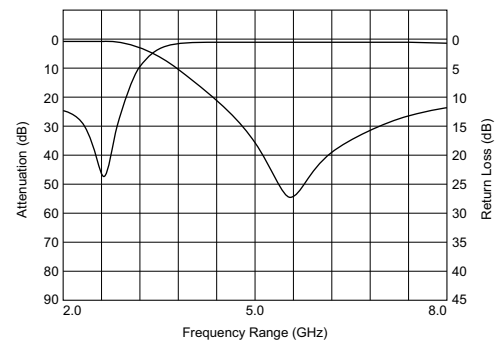
### Frequency Characteristics



LFL15\_TC Series



### Frequency Characteristics



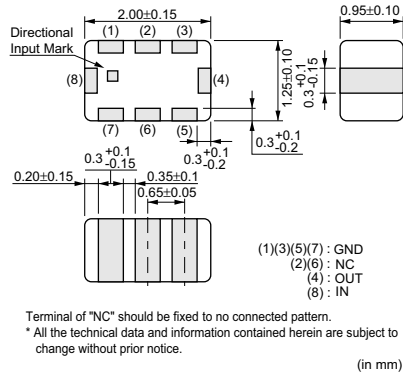
LFL18\_TC1 Series

Continued on the following page.

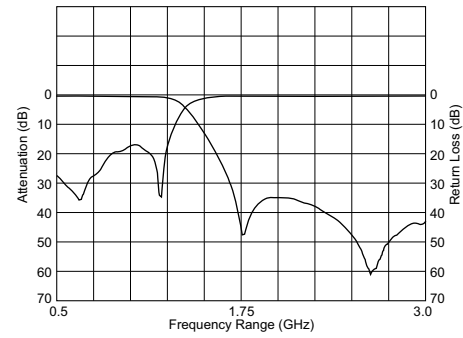
Continued from the preceding page.



LFL21\_TC Series



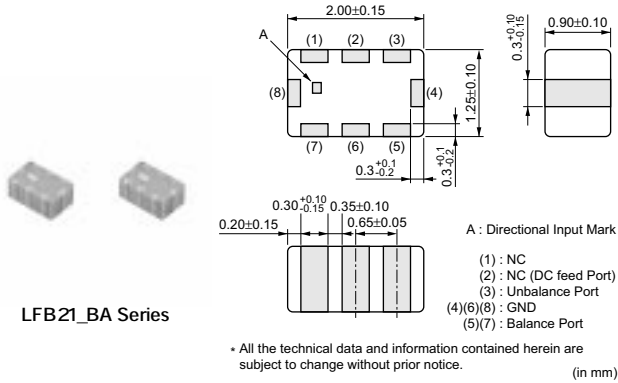
## Frequency Characteristics



Part Number	Nominal Center Frequency (fo) (MHz)	Bandwidth (BW) (MHz)	Insertion Loss in BW (dB)	Attenuation (Absolute Value) I) (dB)	Attenuation (Absolute Value) II) (dB)	Application
LFL152G45TC1A219	2450	fo±50	0.45 max. (at 25°C)	21 min. at 2x (fo±50.0)MHz	21 min. at 3x (fo±50.0)MHz	WLAN/BT
LFL182G45TC1A108	2450	fo±50	0.37 max. (at 25°C)	27 min. at 4800~5000MHz	25 min. at 7200~7500MHz	WLAN/BT
LFL182G45TC1A202	2450	fo±50	0.40 max. (at 25°C)	27 min. at 4800~5000MHz	30 min. at 7200~7500MHz	WLAN/BT
LFL21902MTC1A018	902.5	fo±12.5	0.6 max. (at 25°C)	30 min. at 2x (fo±12.5)MHz	30 min. at 3x (fo±12.5)MHz	GSM
LFL211G90TC1A008	1907.5	fo±12.5	0.47 max. (at 25°C)	30 min. at 2x (fo±12.5)MHz	25 min. at 3x (fo±12.5)MHz	PHS
LFL211G92TC1A060	1920	fo±70	0.6 max. (at 25°C)	24 min. at 3335~3700MHz	30 min. at 3700~3820MHz	UMTS (Band1)
LFL212G45TC1A007	2450	fo±50	0.50 max. (at 25°C)	27 min. at 2x (fo±50.0)MHz	30 min. at 3x (fo±50.0)MHz	WLAN/BT
LFL215G25TC1A156	5250	fo±100.0	0.70 max. (at 25°C)	24 min. at 2x (fo±100)MHz	19 min. at 3x (fo±100)MHz	WLAN/BT
LFL215G37TC1A210	5375	fo±475	0.70 max. (at 25°C)	30 min. at 2x (fo±475)MHz	20 min. at 3x (fo±475)MHz	WLAN/BT
LFL215G51TC1A149	5512	fo±363	0.70 max. (at 25°C)	30 min. at 2x (fo±363)MHz	20 min. at 3x (fo±363)MHz	WLAN/BT
LFL215G78TC1A155	5787.5	fo±62.5	0.70 max. (at 25°C)	30 min. at 2x (fo±62.5)MHz	20 min. at 3x (fo±62.5)MHz	WLAN/BT

## for RF/Local

### Chip Multilayer LC Filters (Balanced Filters)



LFB21\_BA Series

Part Number	Nominal Center Frequency (fo) (MHz)	Bandwidth (BW) (MHz)	Insertion Loss in BW (dB)	Balance Impedance (Differential) (Nom.) (ohm)	Unbalance Impedance (Nom.) (ohm)	Application
LFB212G45BA1A220	2450.00	fo±50.00	3.5 max. (at 25°C)	34.2 -j95.0ohm (Differential) Source Impedance	50	WLAN/BT
LFB212G45BA1A234	2450.00	fo±50.00	3.5 max. (at 25°C)	50	50	WLAN/BT
LFB212G45BA1B759	2450.00	fo±50.00	3.5 max. (at 25°C)	100	50	WLAN/BT
LFB212G45BA1B763	2450.00	fo±50.00	3.5 max. (at 25°C)	50 +j50ohm (Differential) Source Impedance	50	WLAN/BT
LFB215G37BA1A233	5375.00	fo±475.00	2.8 max. (at 25°C)	100	50	WLAN/BT
LFB2H2G44BB5B754	2441.75	fo±41.75	3.3 max. (at 25°C)	120	50	WLAN/BT
LFB2H2G45BB1A221	2450	fo±50	3.0 max. (at 25°C)	75	50	WLAN/BT
LFB2H2G45BB1A243	2450	fo±50	3.0 max. (at 25°C)	100	50	WLAN/BT

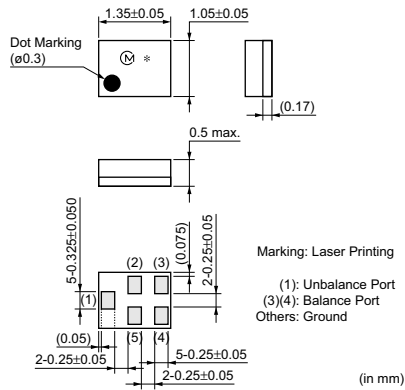
## for RF/Local

### SAW Filters

#### ● SAFEA Series



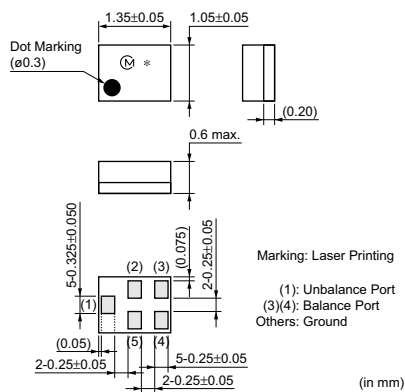
Balance Type



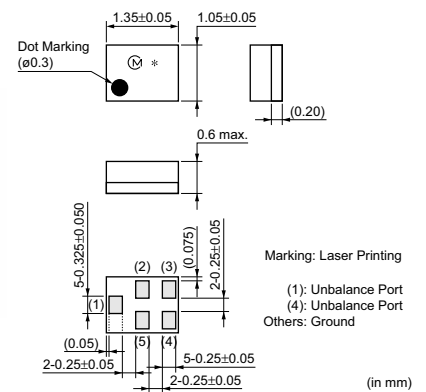
#### ● SAFEB Series



Balance Type



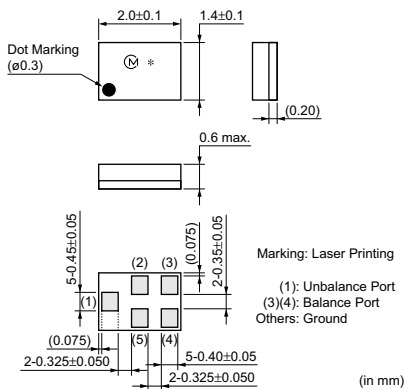
Unbalance Type



#### ● SAFED Series



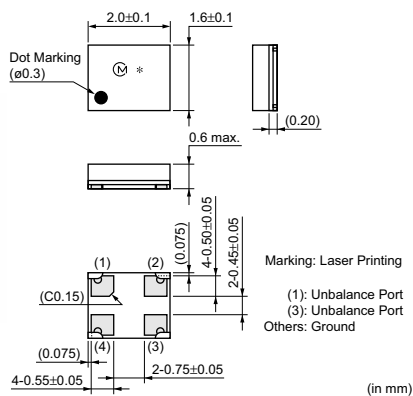
Balance Type



#### ● SAFEF Series



Unbalance Type



Continued on the following page.

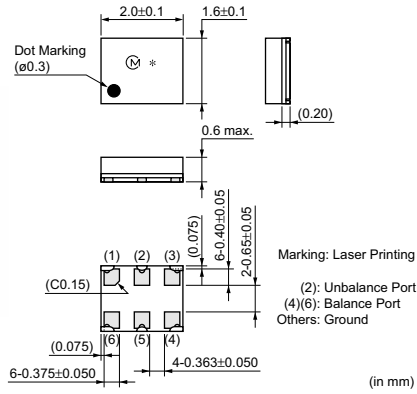
△Note • This PDF catalog is downloaded from the website of Murata Manufacturing Co., Ltd. Therefore, its specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.  
 • This PDF catalog has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

Continued from the preceding page.

## SAFEH Series



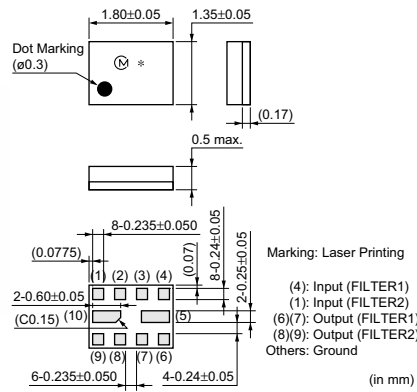
Balance Type



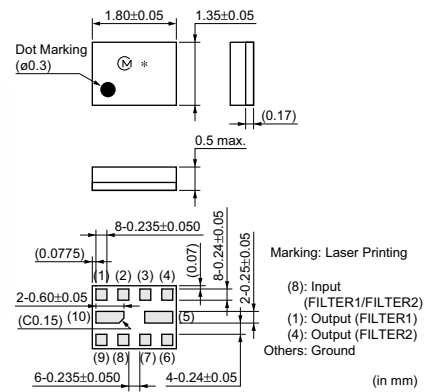
## SAWEN Series



Balance Type



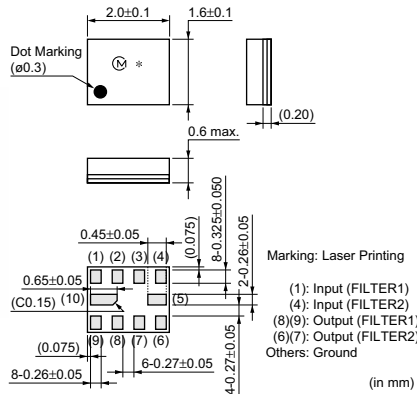
Unbalance Type



## SAWEP Series



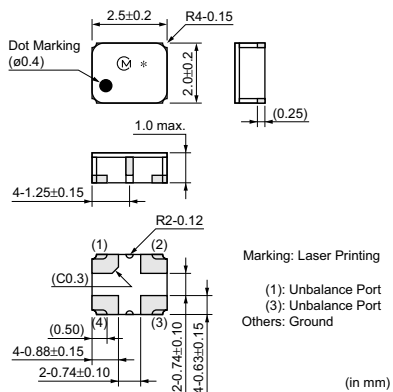
Balance Type



## SAFSE Series



Unbalance Type





## ● GPS

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
SAFEB1G57FA0F00	1575.5	1.6 max. (1574MHz~1577MHz)	0.6 (1574MHz~1577MHz)	1.7 max. (1574MHz~1577MHz)	50ohm	100ohm (Balance)
SAFEB1G57KB0F00	1575.42	0.8 max. (1574.22MHz~1576.62MHz)	0.5 (1574.22MHz~1576.62MHz)	2.0 max. (1574.22MHz~1576.62MHz)	50ohm	50ohm
SAFEB1G57KE0F00	1575.5	1.3 max. (1573.92MHz~1576.92MHz)	0.6 (1573.92MHz~1576.92MHz)	1.7 max. (1573.92MHz~1576.92MHz)	50ohm	50ohm
SAFSE1G57KA0T09	1575.42	2.0 max. (1574.42MHz~1576.42MHz)	1.5 (1574.42MHz~1576.42MHz)	1.8 max. (1574.42MHz~1576.42MHz)	50ohm	50ohm

## ● GSM850

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
SAFEA881MFL0F00	881.5	1.9 max. (869MHz~894MHz)	1.0 (869MHz~894MHz)	1.7 max. (869MHz~894MHz)	50ohm	150ohm//82nH (Balance)
SAFEB881MFL0F00	881.5	2.3 max. (869MHz~894MHz)	1.2 (869MHz~894MHz)	1.8 max. (869MHz~894MHz)	50ohm	150ohm//82nH (Balance)
SAFEB881MAL0F00	881.5	2.6 max. (869MHz~894MHz)	1.2 (869MHz~894MHz)	2.0 max. (869MHz~894MHz)	50ohm	50ohm
SAFED881MFL0F05	881.5	2.0 max. (869MHz~894MHz)	1.1 (869MHz~894MHz)	1.8 max. (869MHz~894MHz)	50ohm	150ohm//68nH (Balance)

## ● GSM850/GSM900 Dual Band

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
SAWEN881MCN0F00(881.5)	881.5	2.0 max. (869MHz~894MHz)	1.1 max. (869MHz~894MHz)	2.0 max. (869MHz~894MHz)	50ohm	150ohm//82nH (Balance)
SAWEN881MCN0F00(942.5)	942.5	2.4 max. (925MHz~960MHz)	1.5 max. (925MHz~960MHz)	2.1 max. (925MHz~960MHz)	50ohm	150ohm//82nH (Balance)
SAWEP881MCQ0F00(881.5)	881.5	2.0 max. (869MHz~894MHz)	1.1 (869MHz~894MHz)	2.0 max. (869MHz~894MHz)	50ohm	150ohm//82nH (Balance)
SAWEP881MCQ0F00(942.5)	942.5	2.4 max. (925MHz~960MHz)	1.5 (925MHz~960MHz)	2.1 max. (925MHz~960MHz)	50ohm	150ohm//82nH (Balance)

## ● GSM850/GSM1900 Dual Band

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
SAWEN881MCM2F00(881.5)	881.5	2.0 max. (869MHz~894MHz)	1.1 max. (869MHz~894MHz)	2.0 max. (869MHz~894MHz)	50ohm	150ohm//82nH (Balance)
SAWEN881MCM2F00(1960)	1960	2.6 max. (1930MHz~1990MHz)	1.8 max. (1930~1990MHz)	2.2 max. (1930~1990MHz)	50ohm	150ohm//22nH (Balance)
SAWEP881MCN2F00(881.5)	881.5	2.3 max. (869MHz~894MHz)	1.2 max. (869MHz~894MHz)	1.8 max. (869MHz~894MHz)	50ohm	150ohm//82nH (Balance)
SAWEP881MCN2F00(1960)	1960	2.6 max. (1930MHz~1990MHz)	1.8 max. (1930MHz~1990MHz)	2.2 max. (1930MHz~1990MHz)	50ohm	150ohm//18nH (Balance)

## ● GSM900

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
SAFEA942MFL0F00	942.5	2.3 max. (925MHz~960MHz)	1.4 (925MHz~960MHz)	2.0 max. (925MHz~960MHz)	50ohm	150ohm//82nH (Balance)
SAFEB942MFL0F00	942.5	2.7 max. (925MHz~960MHz)	1.7 (925MHz~960MHz)	2 max. (925MHz~960MHz)	50ohm	150ohm//82nH (Balance)
SAFEB942MAL0F00	942.5	2.7 max. (925MHz~960MHz)	1.7 (925MHz~960MHz)	2.0 max. (925MHz~960MHz)	50ohm	50ohm

Continued on the following page.

Continued from the preceding page.

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
<b>SAFED942MFM0F00</b>	942.5	2.2 max. (925MHz~960MHz)	1.3 (925MHz~960MHz)	2.1 max. (925MHz~960MHz)	50ohm	150ohm//82nH (Balance)

### ● GSM900/GSM1800 Dual Band

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
<b>SAWEN942MCN0F00(942.5)</b>	942.5	2.3 max. (925MHz~960MHz)	1.5 max. (925MHz~960MHz)	2.0 max. (925MHz~960MHz)	50ohm	150ohm//82nH (Balance)
<b>SAWEN942MCN0F00(1842.5)</b>	1842.5	2.5 max. (1805MHz~1880MHz)	1.5 max. (1805MHz~1880MHz)	2.3 max. (1805MHz~1880MHz)	50ohm	150ohm//15nH (Balance)
<b>SAWEP942MCN0F00(942.5)</b>	942.5	2.3 max. (925MHz~960MHz)	1.3 (925MHz~960MHz)	2.1 max. (925MHz~960MHz)	50ohm	150ohm//82nH (Balance)
<b>SAWEP942MCN0F00(1842.5)</b>	1842.5	2.2 max. (1805MHz~1880MHz)	1.2 (1805MHz~1880MHz)	2.2 max. (1805MHz~1880MHz)	50ohm	150ohm//15nH (Balance)

### ● GSM1800

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
<b>SAFEA1F84FA0F00</b>	1842.5	2.2 max. (1805MHz~1880MHz)	1.5 (1805MHz~1880MHz)	2.1 max. (1805MHz~1880MHz)	50ohm	150ohm//18nH (Balance)
<b>SAFEB1G84FA0F00</b>	1842.5	2.5 max. (1805~1880MHz)	1.5 (1805MHz~1880MHz)	2.2 max. (1805MHz~1880MHz)	50ohm	150ohm//18nH (Balance)
<b>SAFEB1G84AA0F00</b>	1842.5	2.8 max. (1805MHz~1880MHz)	1.6 (1805MHz~1880MHz)	2.5 max. (1805MHz~1880MHz)	50ohm	50ohm
<b>SAFED1G84FB0F00</b>	1842.5	2.0 max. (1805~1880MHz)	1.3 (1805MHz~1880MHz)	2.5 max. (1805MHz~1880MHz)	50ohm	150ohm//18nH (Balance)

### ● GSM1800/GSM1900 Dual Band

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
<b>SAWEN1G84CN0F00(1842.5)</b>	1842.5	2.5 max. (1805MHz~1880MHz)	1.8 max. (1805MHz~1880MHz)	2.2 max. (1805MHz~1880MHz)	50ohm	150ohm//15nH (Balance)
<b>SAWEN1G84CN0F00(1960)</b>	1960	2.6 max. (1930MHz~1990MHz)	1.8 max. (1930MHz~1990MHz)	2.2 max. (1930MHz~1990MHz)	50ohm	150ohm//22nH (Balance)
<b>SAWEP1G84CQ0F00(1842.5)</b>	1842.5	2.5 max. (1805MHz~1880MHz)	1.5 (1805MHz~1880MHz)	2.2 max. (1805MHz~1880MHz)	50ohm	150ohm//15nH (Balance)
<b>SAWEP1G84CQ0F00(1960)</b>	1960	2.6 max. (1930MHz~1990MHz)	1.8 (1930MHz~1990MHz)	2.2 max. (1930MHz~1990MHz)	50ohm	150ohm//18nH (Balance)

### ● GSM1900

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
<b>SAFEA1G96FA0F00</b>	1960	2.6 max. (1930MHz~1990MHz)	1.7 (1930MHz~1990MHz)	2.2 max. (1930MHz~1990MHz)	50ohm	150ohm//27nH (Balance)
<b>SAFEB1G96FA0F00</b>	1960	2.6 max. (1930~1990MHz)	1.8 (1930MHz~1990MHz)	2.2 max. (1930MHz~1990MHz)	50ohm	150ohm//27nH (Balance)
<b>SAFED1G96FA0F00</b>	1960	2.9 max. (1930~1990MHz)	1.8 (1930MHz~1990MHz)	2.4 max. (1930MHz~1990MHz)	50ohm	150ohm//18nH (Balance)
<b>SAFEB1G96AA0F00</b>	1960	2.8 max. (1930MHz~1990MHz)	1.7 (1930MHz~1990MHz)	2.5 max. (1930MHz~1990MHz)	50ohm	50ohm

## ● J-CDMA

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
SAFEA859MCL0F00	859	2.9max. (843MHz~875MHz)	2.0max. (843MHz~875MHz)	2.3max. (843MHz~875MHz)	50ohm	100ohm (Balance)
SAFE859MAL0F00	859	3.2max. (843MHz~875MHz)	1.8max. (843MHz~875MHz)	2.0max. (843MHz~870MHz) 2.2max. (870MHz~875MHz)	50ohm	50ohm
SAFE8911MAL0F00	911.5	2.2max. (898MHz~925MHz)	1.2 (898MHz~925MHz)	2.0max. (898MHz~925MHz)	50ohm	50ohm
SAWEN827MAA0F00(827)	827	3.0max. (824MHz~830MHz)	1.3max. (824MHz~830MHz)	2.0max. (824MHz~830MHz)	50ohm	50ohm
SAWEN827MAA0F00(911.5)	911.5	3.0max. (898MHz~925MHz)	1.5max. (898MHz~925MHz)	2.1max. (898MHz~925MHz)	50ohm	50ohm

## ● PCS (CDMA)

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
SAFE81G88KA0F00	1880	4.0max. (1850MHz~1910MHz)	3.1max. (1850MHz~1910MHz)	1.9max. (1850MHz~1910MHz)	50ohm	50ohm
SAFE81G96FL0F00	1960	3.3max. (1930MHz~1990MHz)	1.8max. (1930MHz~1990MHz)	2.4max. (1930MHz~1990MHz)	50ohm	100ohm (Balance)
SAFE81G96KA0F00	1960	3.3max. (1930MHz~1990MHz) 3.1max. (1930.4MHz~1989.6MHz)	2.3max. (1930MHz~1990MHz)	2.2max. (1930MHz~1990MHz)	50ohm	50ohm

## ● W-CDMA

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
SAFE81G95FL0F00	1950	2.6max. (1920~1980MHz)	1.3 (1920MHz~1980MHz)	1.8max. (1920MHz~1980MHz)	200ohm//27nH	50ohm (Balance)
SAFE81G95KA0F00	1950	2.9max. (1920~1980MHz)	2.0 (1920MHz~1980MHz)	2max. (1920MHz~1980MHz)	50ohm	50ohm
SAFEH1G95FL0F00	1950	2.8max. (1920~1980MHz)	1.5 (1920MHz~1980MHz)	2max. (1920MHz~1980MHz)	200ohm//33nH	50ohm (Balance)
SAFE82G14FA0F00	2140	2.3max. (2110~2170MHz)	1.2 (2110MHz~2170MHz)	1.8max. (2110MHz~2170MHz)	50ohm	200ohm//27nH (Balance)
SAFE82G14FB0F00	2140	2.5max. (2110~2170MHz)	1.5 (2110~2170MHz)	1.9max. (2110~2170MHz)	50ohm	100ohm//27nH (Balance)
SAFE82G14AL0F00	2140	3.5max. (2110~2170MHz)	1.6 (2110~2170MHz)	2.0max. (2110~2170MHz)	50ohm	50ohm
SAFEH2G14FA0F00	2140	2.3max. (2110~2170MHz)	1.2 (2110MHz~2170MHz)	1.8max. (2110MHz~2170MHz)	50ohm	200ohm//27nH (Balance)

## ● CDMA800/TDMA800/E-AMPS/GSM850

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Ripple (dB max.)	VSWR	Input Impedance	Output Impedance
SAFE8881MFM0F00	881.5	2.2max. (869MHz~894MHz)	1.5 (869MHz~894MHz)	2.0max. (869MHz~894MHz)	50ohm	100ohm (Balance)
SAFE8836MAL0F00	836.5	2.5max. (824MHz~849MHz)	1.8 (824MHz~849MHz)	1.9max. (824MHz~849MHz)	50ohm	50ohm
SAFE8836MAL0F00	836.5	2.8max. (824MHz~849MHz)	1.4 (824MHz~849MHz)	1.9max. (824MHz~849MHz)	50ohm	50ohm