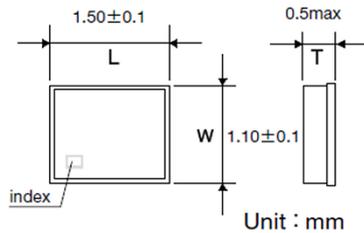


## FBAR/SAW Devices (SAW Dual Type)

## G6QJ2G017M2MD



## ■ Features

- Item Summary  
SAW, Dual Type, 1.5x1.1x0.5mm  
Band34 / Band39
- Lifecycle Stage  
Non-preferred
- Standard packaging quantity (minimum)  
Taping Embossed 5000 , 15000pcs

## ■ Products characteristics table

System	TD-LTE / TD-SCDMA
Type	SAW
Function	Dual Type
band (f1)	Band34
Insertion Loss (typ)	1.3 dB
band (f2)	Band39
Insertion Loss (f2)(typ)	1.4 dB
Operating Temp. Range	-30 to +85 °C
RoHS2 Compliance (10 subst.)	Yes
REACH Compliance (173 subst.)	Yes
Halogen Free	Yes
Soldering	Reflow

## ■ External Dimensions

Dimension L	1.5 ± 0.10 mm
Dimension W	1.1 ± 0.10 mm
Dimension T	Max 0.5 mm

2017.09.12

The data is reference only. Electrical characteristics vary depending on environment or measurement condition.  
 TAIYO YUDEN reserves the right to make change to the data at any time without notice.  
 Before making final selection, please check product specification.



MSL1

\*Pb Free part

Customer Name	<b>Standard Specification</b>	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	TD-SCDMA ( 2017+1900)	DATE	Nov. 17, 2011
Part Number	G6QJ2G017M2MD	Ver. 2.0bb	<b>Final</b>

**Table 1. Electrical specifications (Filter1)**

Passband: 2010 ~ 2025 MHz						
Item	Condition	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Insertion Loss	2010-2025 MHz	-	1.3	1.7	dB(*1)	
Ripple	2010-2025 MHz	-	0.3	1.0	dB	
Absolute attenuation	DC -1030 MHz	40	47	-	dB	
	1030-1960 MHz	25	30	-	dB	
	2075-2085 MHz	25	30	-	dB	
	2085-2430MHz	25	28	-	dB	
	2430-2565 MHz	30	37	-	dB	
	2565-4060 MHz	20	29	-	dB	
	4060-6000 MHz	15	25	-	dB	
VSWR (Input)	2010-2025 MHz	-	1.3	2.0	-	
VSWR (Output)	2010-2025 MHz	-	1.2	2.0	-	
Input Impedance	Unbalanced	50			ohm	
Output Impedance	Unbalanced	50			ohm	
Operating Temperature		-30 - +85			°C	

(\*1) Specification of insertion loss includes loss that comes from the test board.(0.15dB)



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**Table 2. Electrical specifications (Filter2)**

Passband: 1880 ~ 1920 MHz						
Item	Condition	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Insertion Loss	1880-1920 MHz	-	1.4	1.8	dB(*1)	
Ripple	1880-1920 MHz	-	0.5	1.1	dB	
Absolute attenuation	DC-970 MHz	40	47	-	dB	
	970-1830MHz	25	30	-	dB	
	1970-3850 MHz	22	25	-	dB	
	3850-6000 MHz	15	25	-	dB	
VSWR (Input)	1880-1920 MHz	-	1.4	2.0	-	
VSWR (Output)	1880-1920 MHz	-	1.4	2.0	-	
Input Impedance	Unbalanced	50			ohm	
Output Impedance	Unbalanced	50			ohm	
Operating Temperature		-30 - +85			°C	

(\*1) Specification of insertion loss includes loss that comes from the test board. (0.15dB)



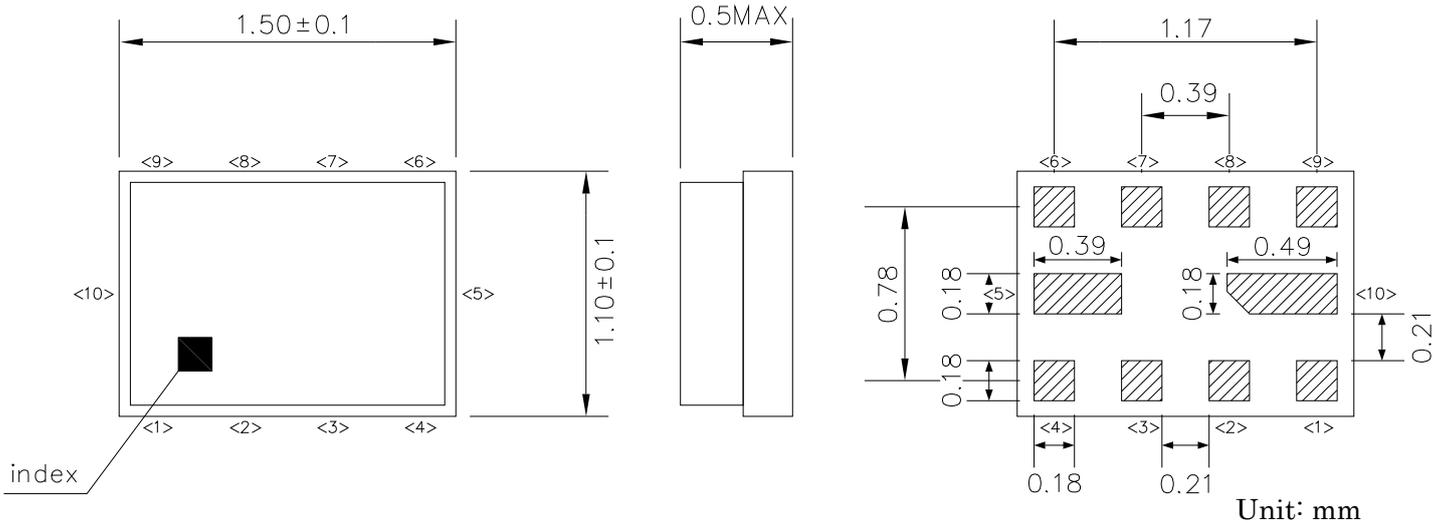
MSL1

\*Pb Free part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
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### Dimensions

Device size: 1.5yp. x 1.1typ. x 0.5max.

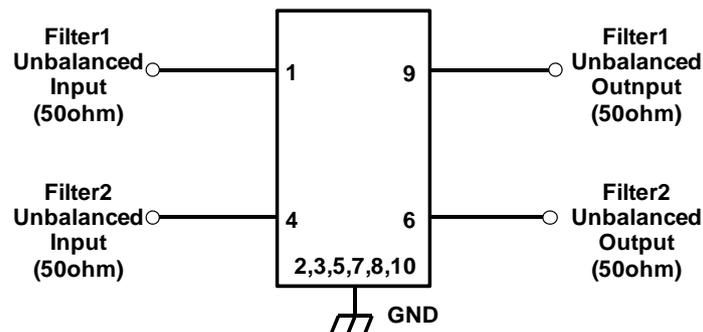


### Pin Configuration

Pin No.	Pin name	Description
1	IN	Filter1, input pin
2	GND	Ground
3	GND	Ground
4	IN	Filter2, input pin
5	GND	Ground
6	OUT	Filter2 output pin
7	GND	Ground
8	GND	Ground
9	OUT	Filter1 output pin
10	GND	Ground

Filter No.	Pass band (MHz)	System
1	2010 - 2025	2017.5
2	1880 - 1920	1900

### Evaluation Circuit





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\*Pb Free part

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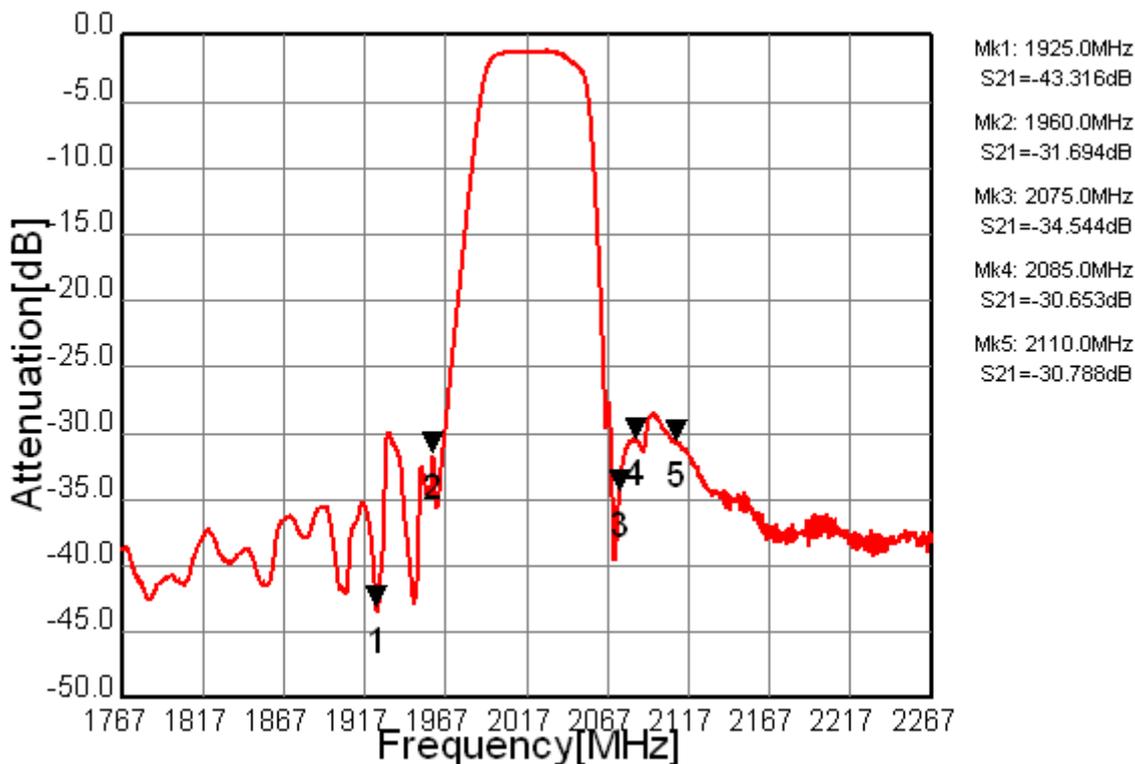


Fig.1 Pass-band Characteristics (Filter1)

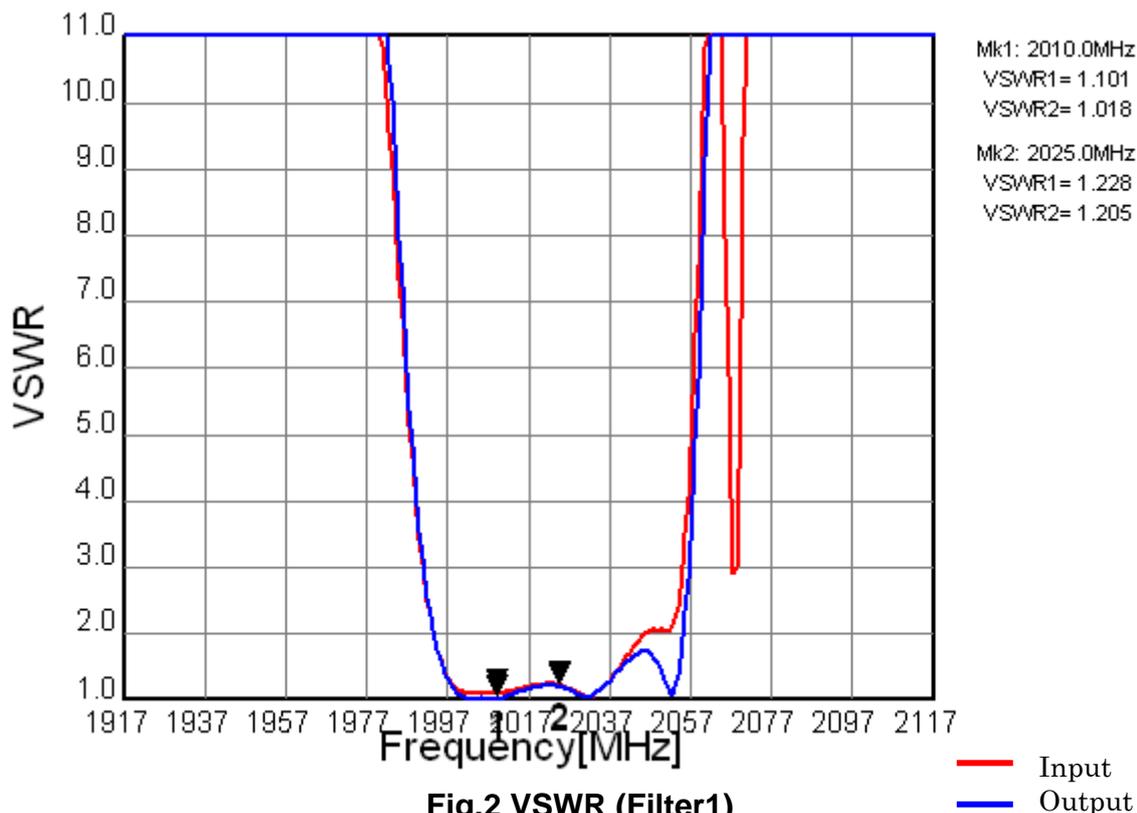


Fig.2 VSWR (Filter1)

— Input  
— Output



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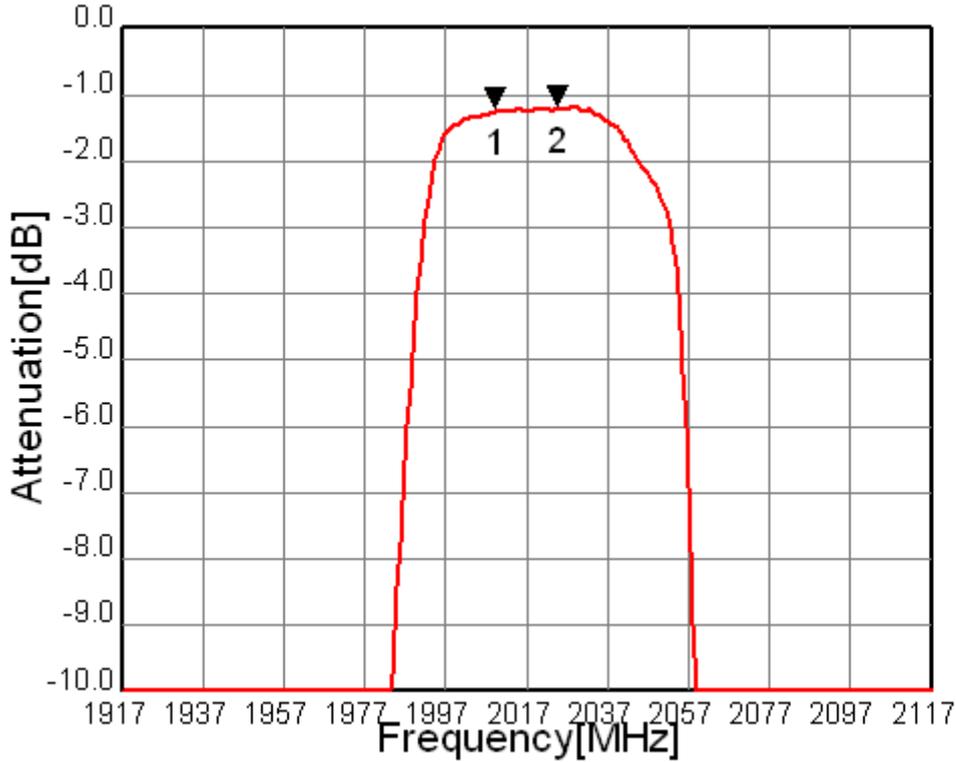


Fig.3 In-band Characteristics (Filter1)

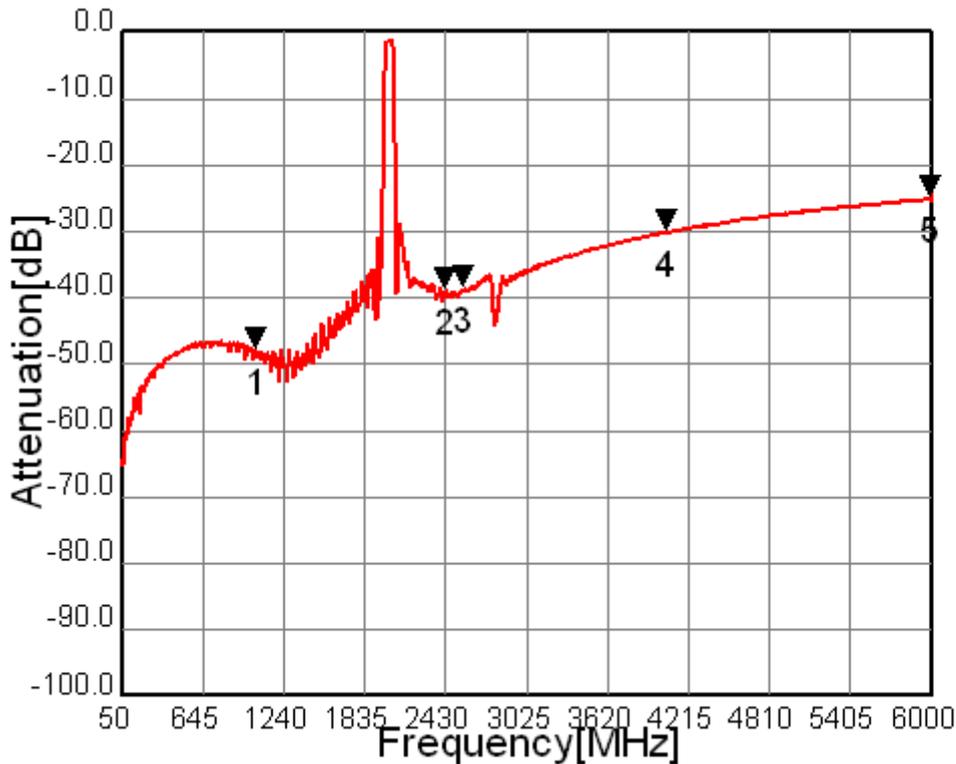


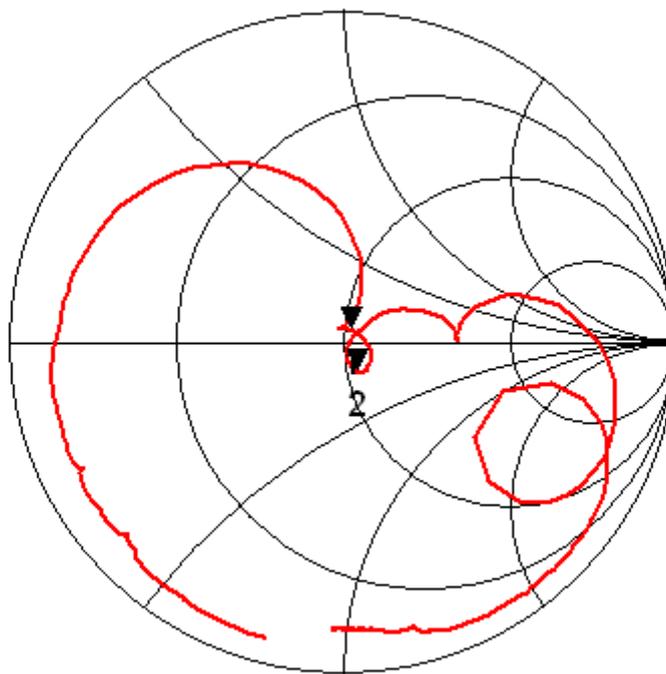
Fig. 4 Wide-band Characteristics (Filter1)



MSL1

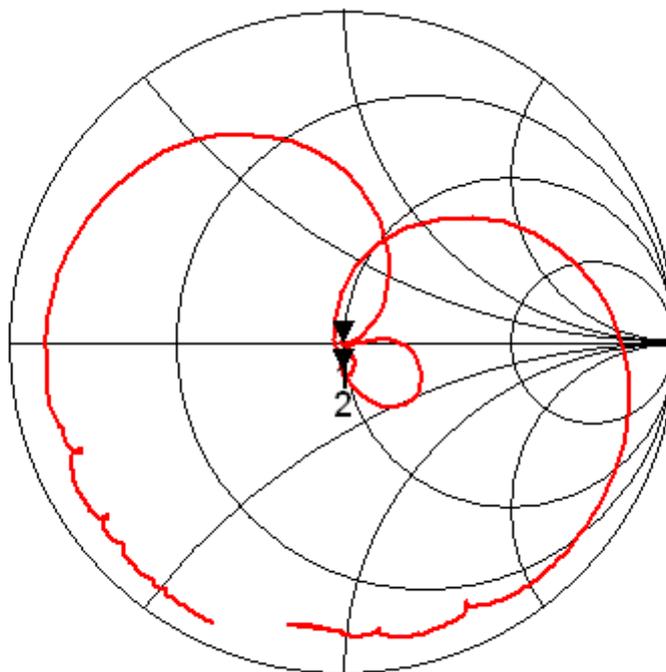
\*Pb Free part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
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Part Number	G6QJ2G017M2MD	Ver. 2.0bb	Final



Mk1: 2010.0  
S11= 1.051 + j 0.085  
Mk2: 2025.0  
S11= 1.075 - j 0.200

Fig. 5 Input Impedance (Filter1)



Mk1: 2010.0  
S22= 1.011 - j 0.014  
Mk2: 2025.0  
S22= 0.978 - j 0.183

Fig. 6 Output Impedance (Filter1)



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\*Pb Free part

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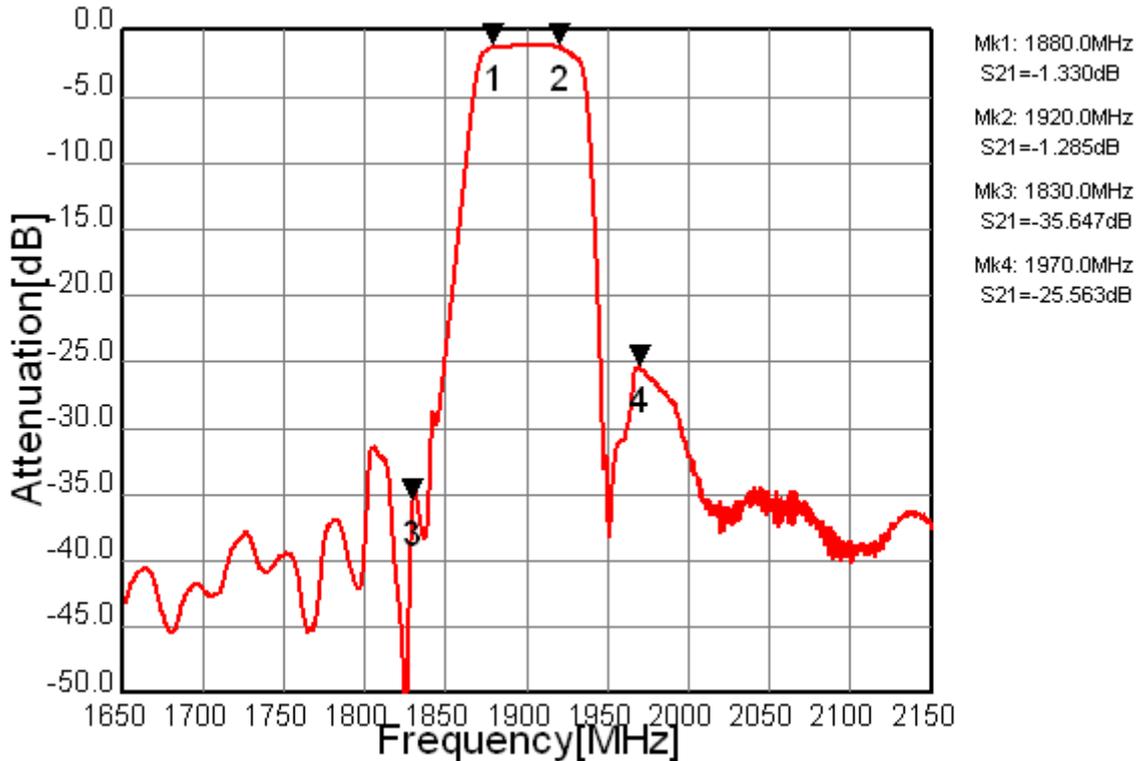


Fig.7 Pass-band Characteristics (Filter2)

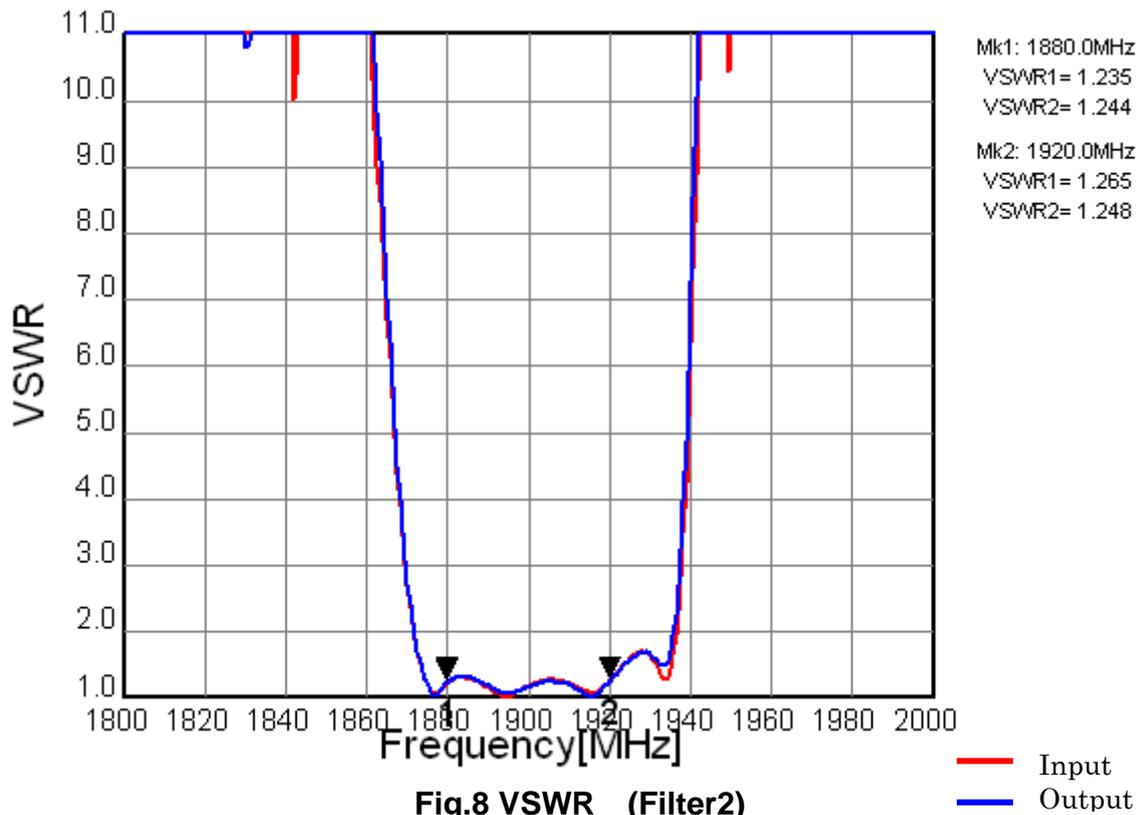


Fig.8 VSWR (Filter2)



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\*Pb Free part

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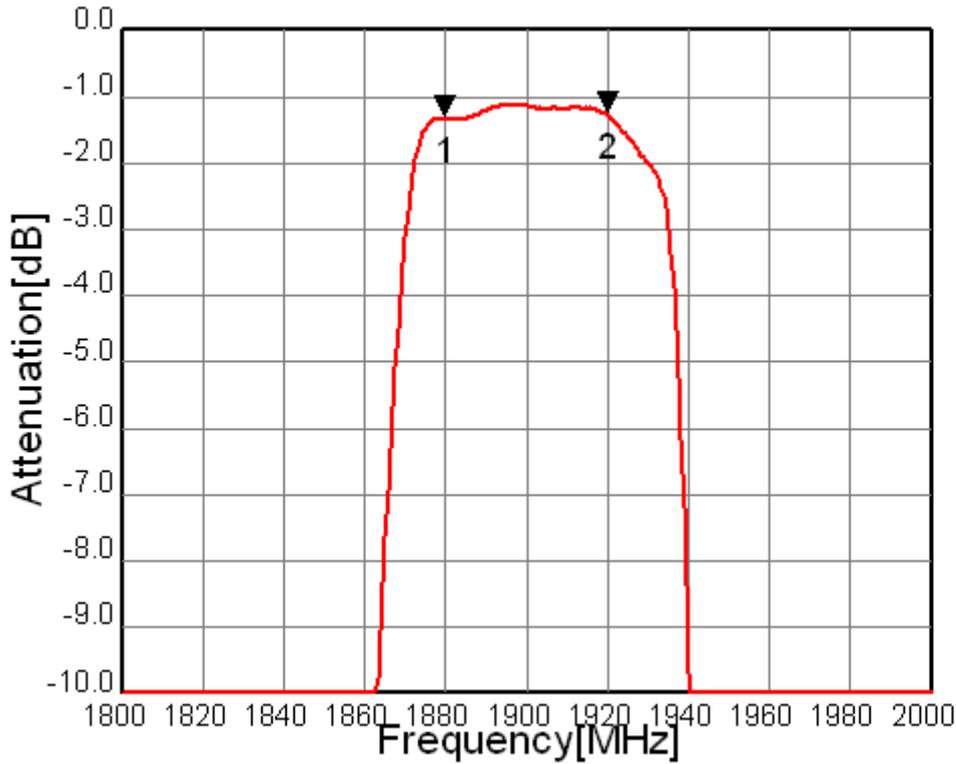


Fig.9 In-band Characteristics (Filter2)

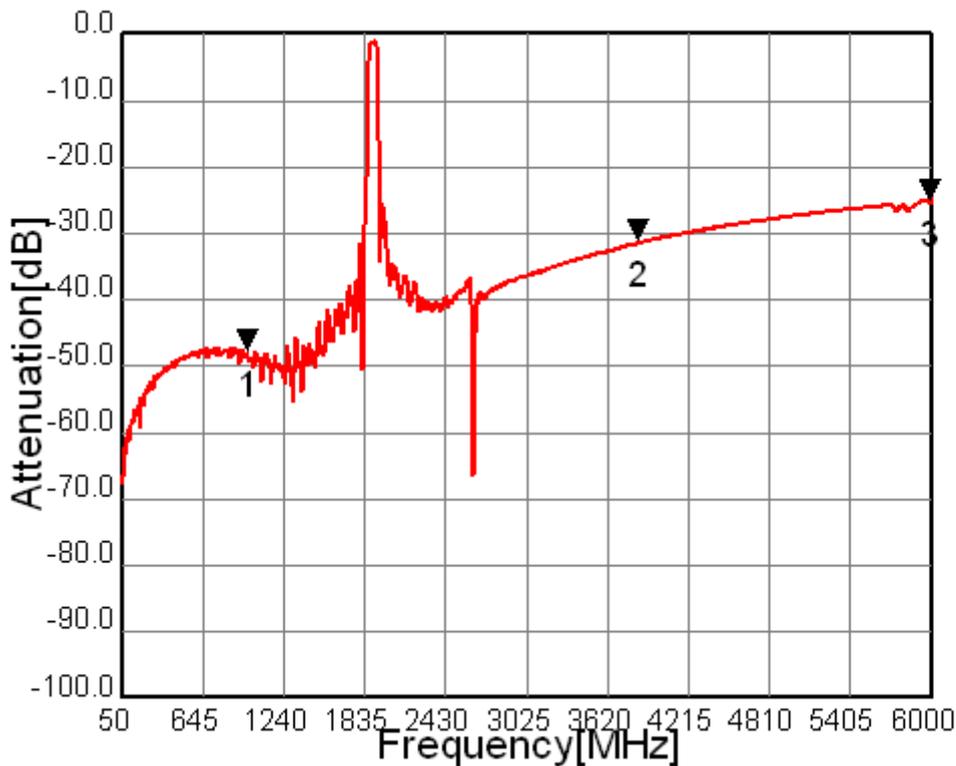


Fig.10 Wide-band Characteristics (Filter2)

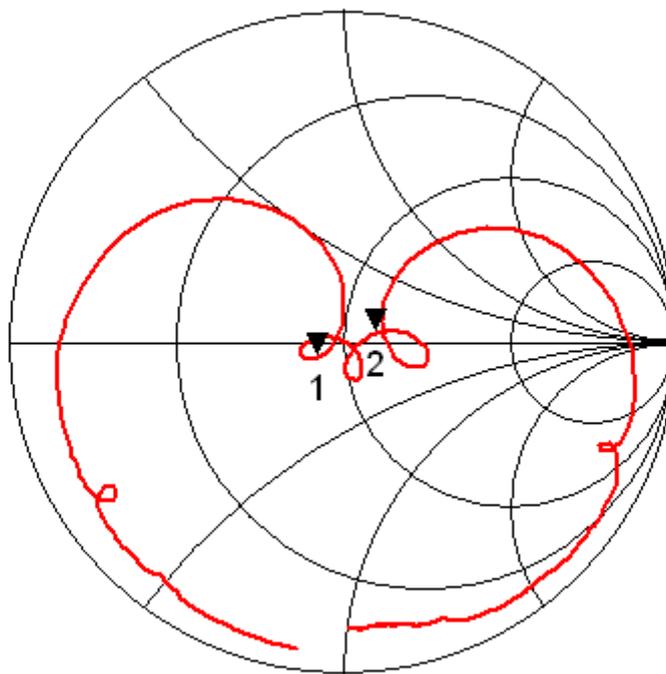
TAIYO YUDEN



MSL1

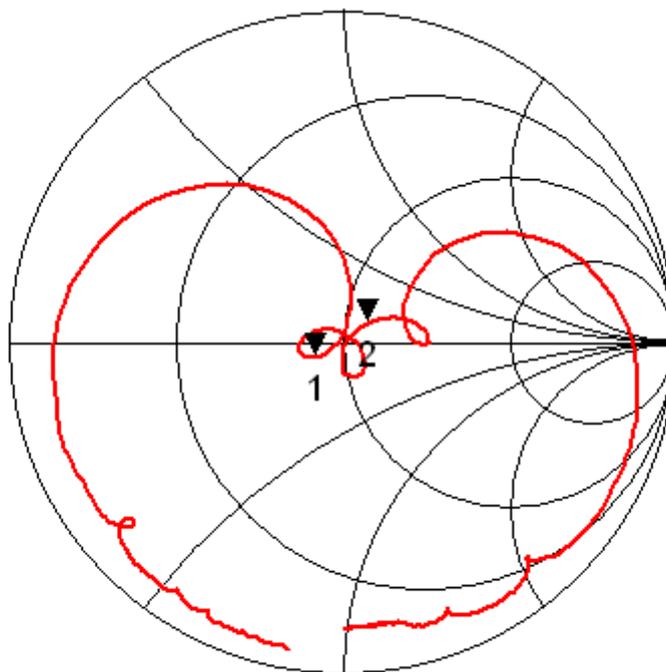
\*Pb Free part

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Part Number	G6QJ2G017M2MD	Ver. 2.0bb	Final



Mk1: 1880.0  
S11= 0.844 - j 0.080  
Mk2: 1920.0  
S11= 1.215 + j 0.079

Fig.11 Input Impedance (Filter2)



Mk1: 1880.0  
S22= 0.838 - j 0.076  
Mk2: 1920.0  
S22= 1.155 + j 0.147

Fig.12 Output Impedance (Filter2)



MSL1

\*Pb Free part

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Part Number	G6QJ2G017M2MD	Ver. 2.0bb	<b>Final</b>

## Ordering Code

Ordering Code	Packing	Reel size	Status
G6QJ2G017M2MD-J	Tape & Reel	5,000 pcs.	MP
G6QJ2G017M2MD-JA	Tape & Reel	less than 5,000 pcs.	MP
G6QJ2G017M2MD-Y	Tape & Reel	15,000 pcs.	MP
G6QJ2G017M2MD-Q	Bulk	few pcs.	MP

\*Minimum order quantity (MOQ) is assigned for each inquiry, Please contact to Sales Representatives..

\*MP : Mass Production

## Notice

All of the contents specified herein are subject to change without notice due to technical improvements, etc.

Please contact Taiyo Yuden Co., Ltd. for further details of product specifications.

Please conduct validation and verification of products in actual condition of mounting and operating environment before commercial shipment of the equipment.