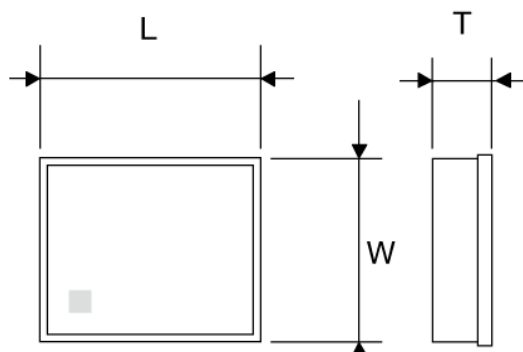


## SAW Dual Filter

G5QT942M5N2VA



## ■ Features

- Item Summary  
W-CDMA, 604
- Lifecycle Stage  
Mass Production
- Standard packaging quantity (minimum)  
Taping Embossed 5000 , 15000pcs

## ■ Products characteristics table

Temperature Range	-30 to +85°C
Band(3GPP)	B8 / B5
Use	WCDMA
Transmitting / Receiving	Rx Dual Filter
Insertion Loss	2.3/2.0dB
Attenuation	48/48dB
RoHS Compliance	Yes
Halogen Free	Yes
Soldering Method	Reflow

## ■ External Dimensions

L	1.5mm +0.1:-0.1
W	1.1mm +0.1:-0.1
T	0.5mm max

2015.06.03

The data is reference only. Electrical characteristics vary depending on environment or measurement condition.  
 TAIYO YUDEN reserves the right to make change to the Date 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	Band8/Band5-Rx(50/100ohm)	DATE	Mar. 16, 2012
Part Number	G5QT942M5N2VA	Version 2.1ba	<b>Final</b>

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

Passband: 927.4 ~ 957.6 MHz						
Item	Condition (MHz)	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Insertion Loss	927.4~957.6	-	2.3	3.0	dB(*1)	
Ripple	927.4~957.6	-	0.7	1.8	dB	
Absolute attenuation	DC~880	40	47	-	dB	
	880~894	40	48	-	dB	
	894~912.6	35	41	-	dB	
	980~1025	23	31	-	dB	
	1025~2880	30	41	-	dB	
	2880~6000	25	35	-	dB	
VSWR (Input)	927.4~957.6	-	1.8	2.4	-	
VSWR (Output)	927.4~957.6	-	1.6	2.2	-	
Amplitude Balance  S21 / S31	927.4~957.6	-1.0	-0.1/+0.3	+1.0	dB	
Phase Balance ( $\Phi$ S21- $\Phi$ S31)-180	927.4~957.6	-10	-3/+0	+10	deg.	
Input Impedance		50			ohm	Unbalanced
Output Impedance		100//18nH			ohm	Balanced
Operating Temperature		-30 ~ +85			°C	

(\*1) Specification of insertion loss includes loss that comes from the test board.(0.05dB)



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

Passband: 869 ~ 894 MHz						
Item	Condition (MHz)	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Insertion Loss	869~894	-	2.0	2.6	dB	
Ripple	869~894	-	0.5	1.4	dB	
Absolute attenuation	DC~824	40	51	-	dB	
	824~849	40	48	-	dB	
	914~960	23	33	-	dB	
	960~2000	35	45	-	dB	
	2000~6000	25	34	-	dB	
VSWR (Input)	869~894	-	1.7	2.1	-	
VSWR (Output)	869~894	-	1.5	2.0	-	
Amplitude Balance $ S_{21} / S_{31} $	869~894	-1.0	-0.1/+0.2	+1.0	dB	
Phase Balance $(\phi_{S21}-\phi_{S31})-180$	869~894	-10	-1/+1	+10	deg.	
Input Impedance		50			ohm	Unbalanced
Output Impedance		100//18nH			ohm	Balanced
Operating Temperature		-30 ~ +85			°C	



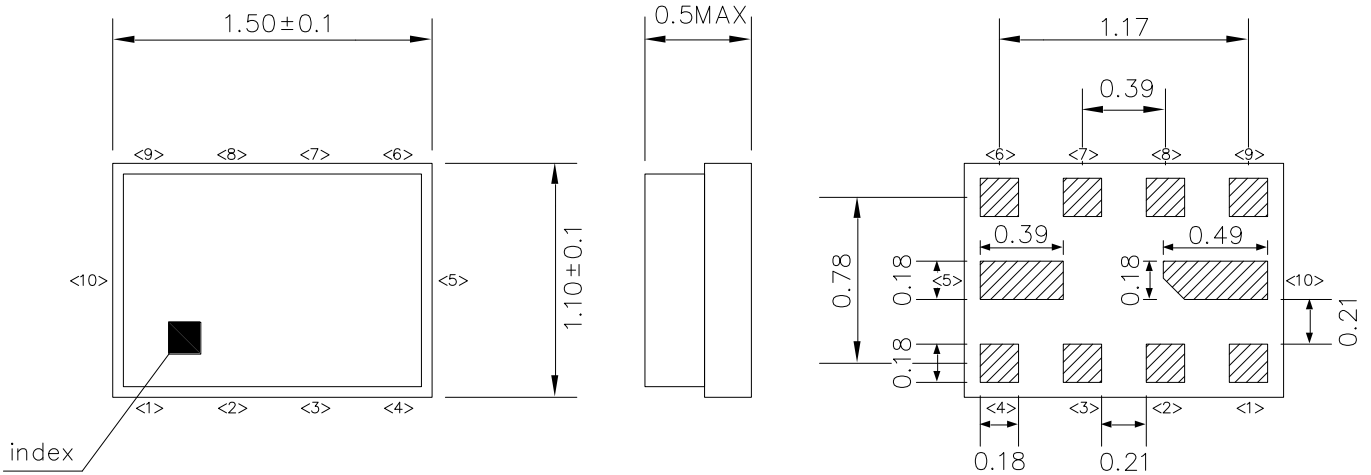
MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band8/Band5-Rx(50/100ohm)	DATE	Mar. 16, 2012
Part Number	G5QT942M5N2VA	Version 2.1ba	Final

### Dimensions

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



Unit: mm

### Pin Configuration

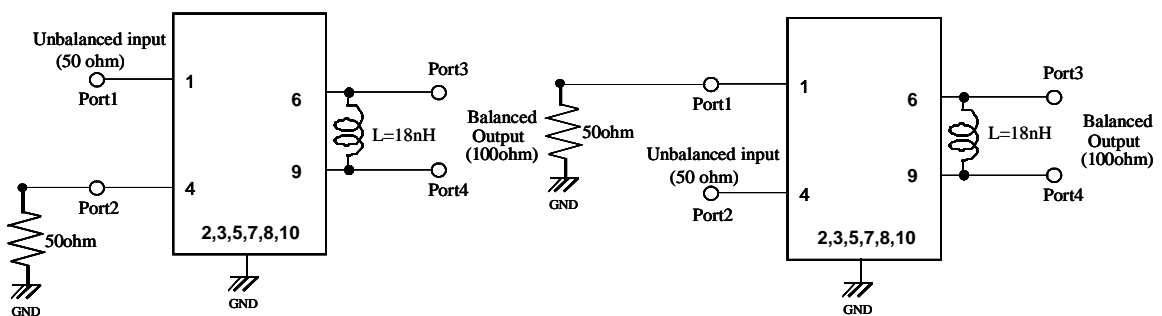
Pin No.	Pin name	Description
1	IN	Filter1 input pin
2	GND	Ground
3	GND	Ground
4	IN	Filter2 input pin
5	GND	Ground
6	OUT	Filter1/Filter2 balanced output pin
7	GND	Ground
8	GND	Ground
9	OUT	Filter1/Filter2 balanced output pin
10	GND	Ground

Filter No.	Pass band (MHz)	System
1	927.4 ~ 957.6	Band8-Rx
2	869 ~ 894	Band5-Rx

### Evaluation Circuit

<Filter1>

<Filter2>





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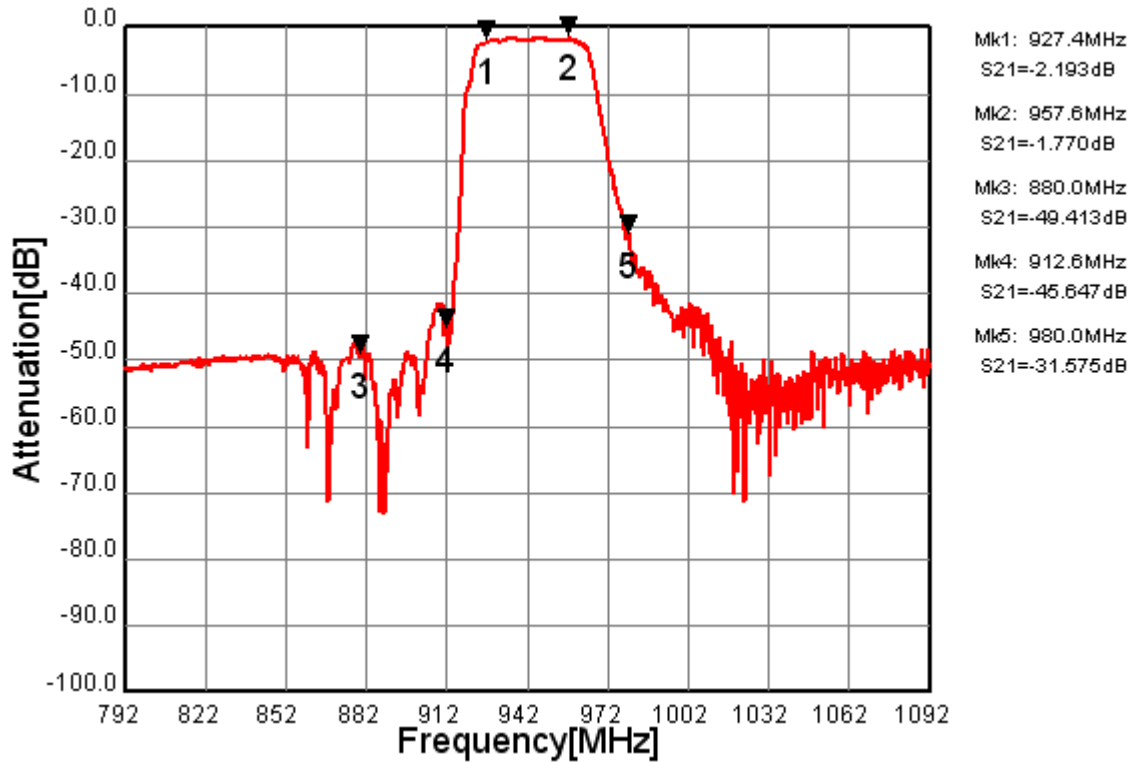


Fig.1 Pass-band Characteristics (Filter1)

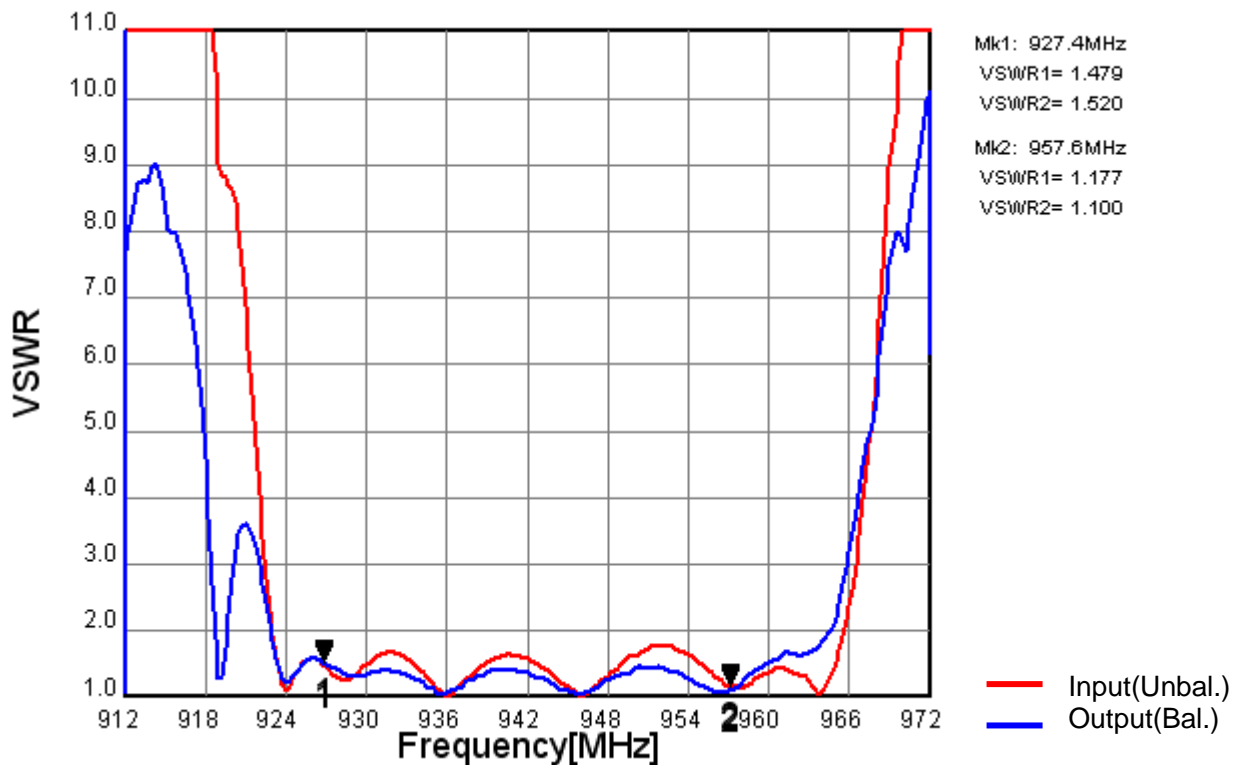


Fig.2 VSWR (Filter1)

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\* Pb Free Part

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Part Number	G5QT942M5N2VA	Version 2.1ba	Final

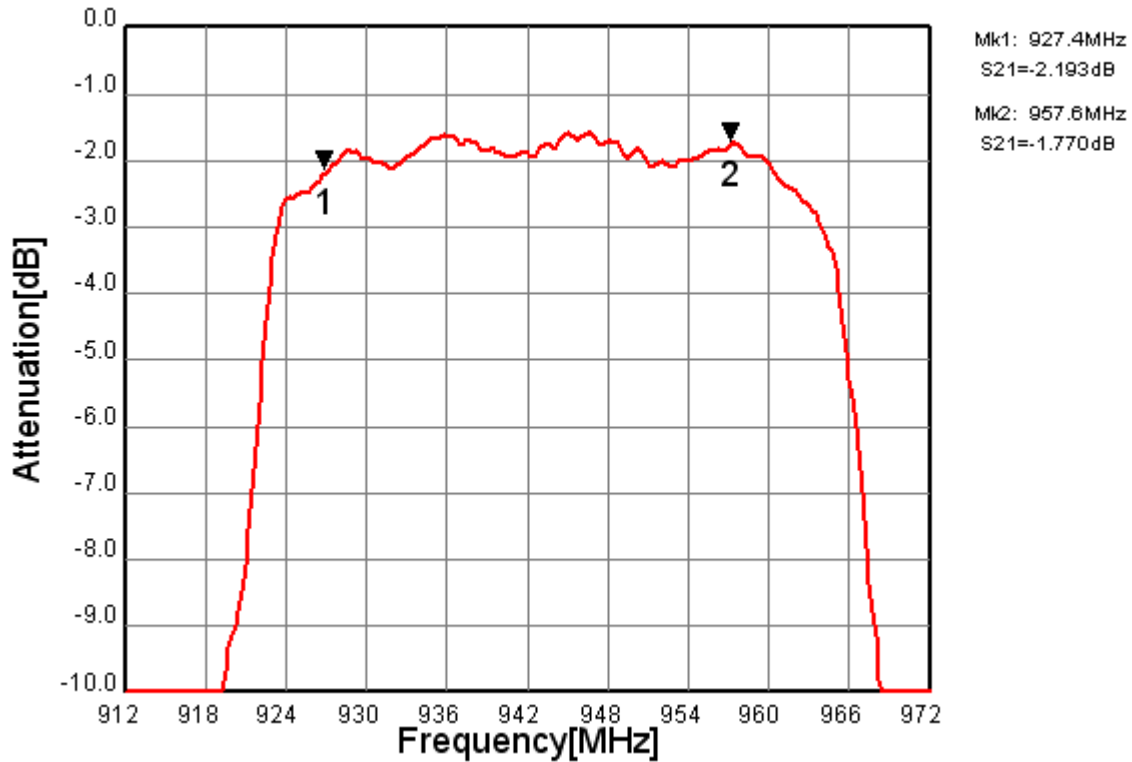


Fig.3 In-band Characteristics (Filter1)

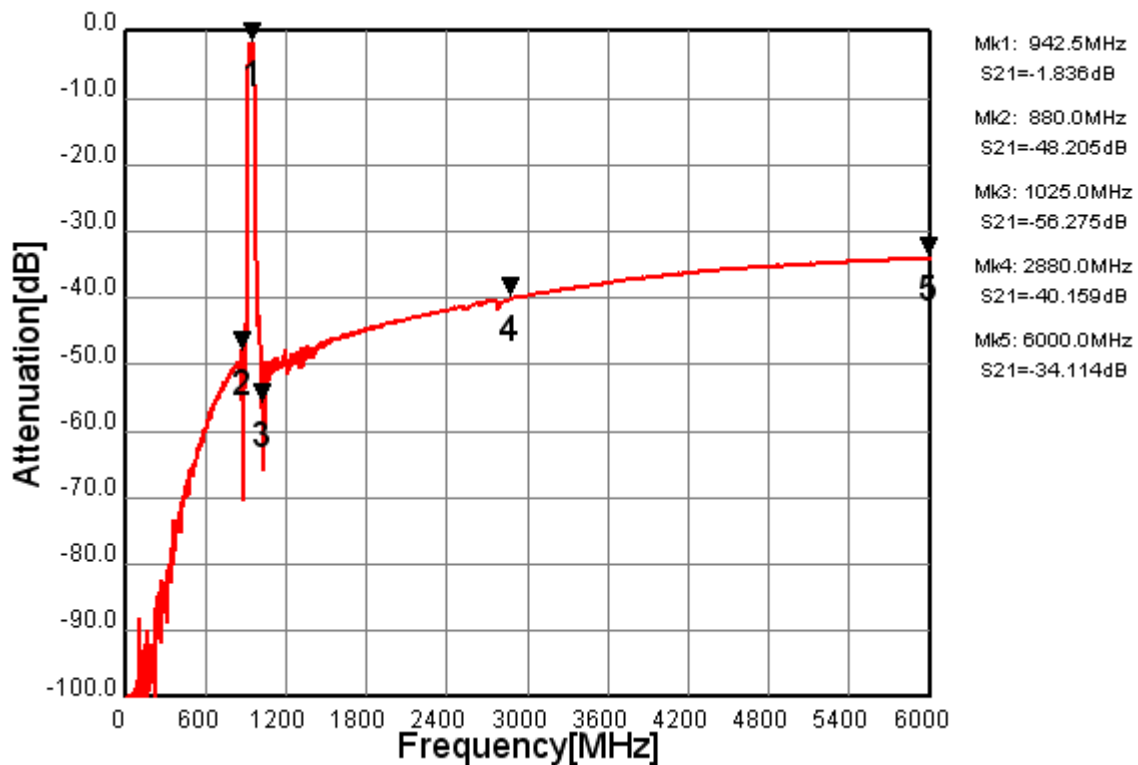


Fig. 4 Wide-band Characteristics (Filter1)

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\* Pb Free Part

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Part Number	G5QT942M5N2VA	Version 2.1ba	<b>Final</b>

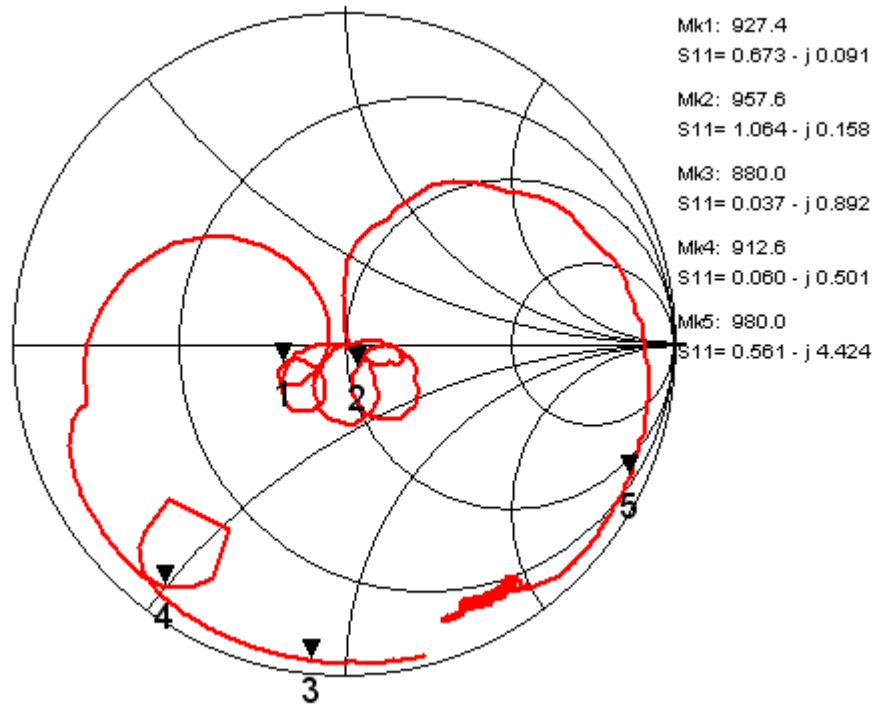


Fig. 5 Input Impedance (Unbalance) (Filter1)

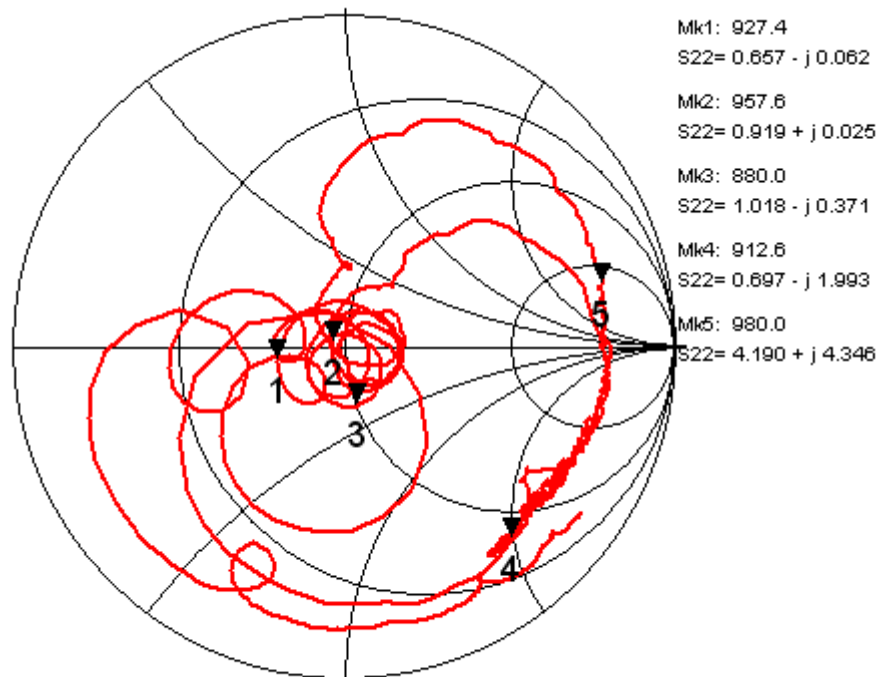


Fig. 6 Output Impedance (Balance) (Filter1)

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\* Pb Free Part

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Part Number	G5QT942M5N2VA	Version 2.1ba	<b>Final</b>

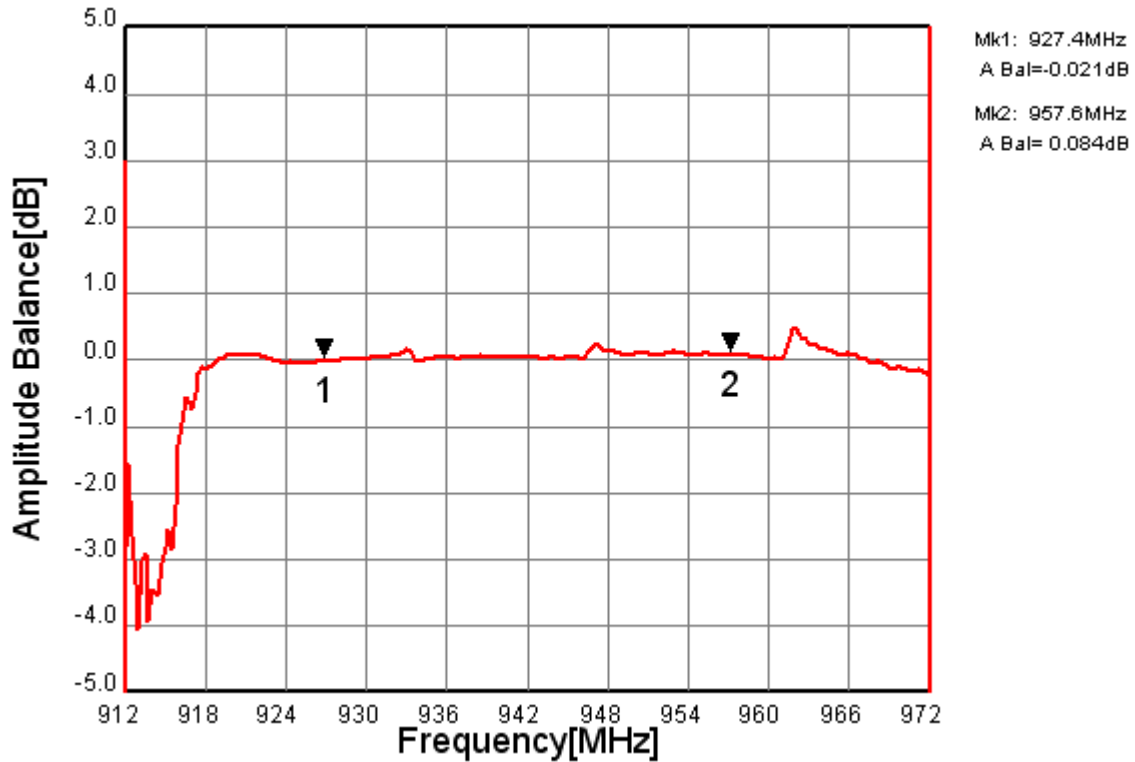


Fig. 7 Amplitude Balance (Filter1)

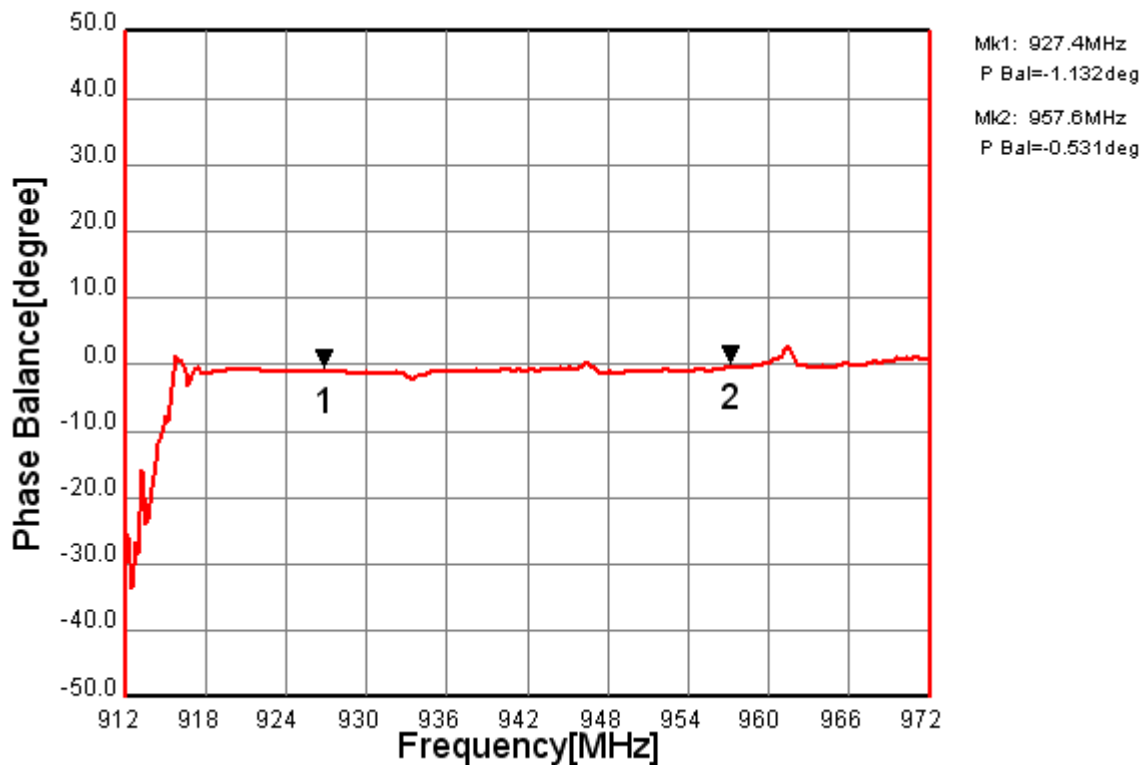


Fig.8 Phase Balance (Filter1)

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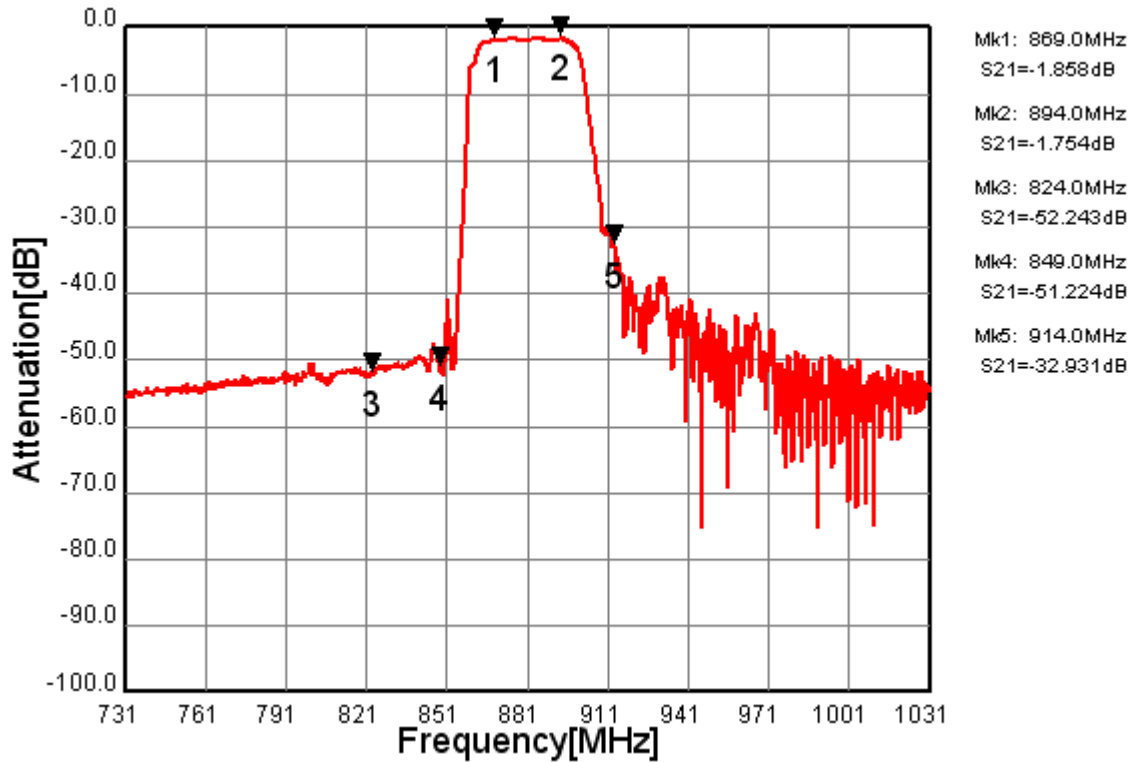


Fig.9 Pass-band Characteristics (Filter2)

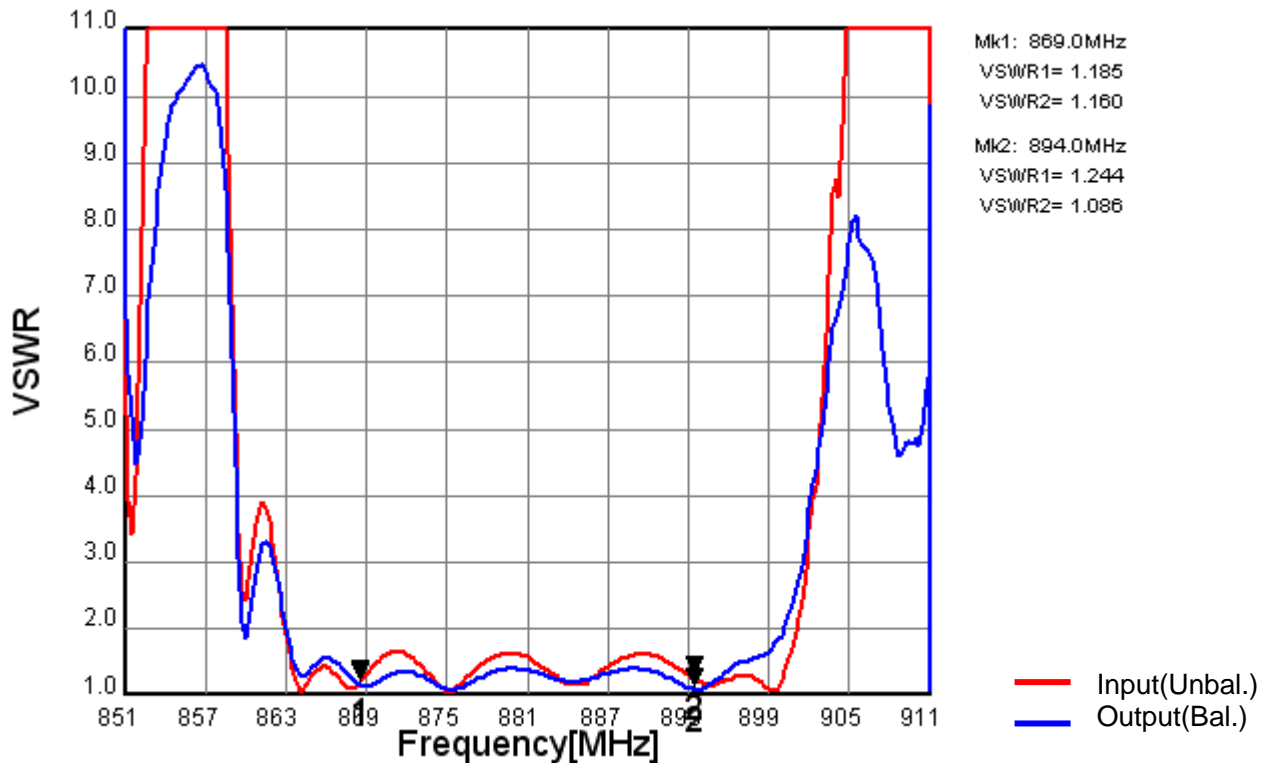


Fig.10 VSWR (Filter2)

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Part Number	G5QT942M5N2VA	Version 2.1ba	<b>Final</b>

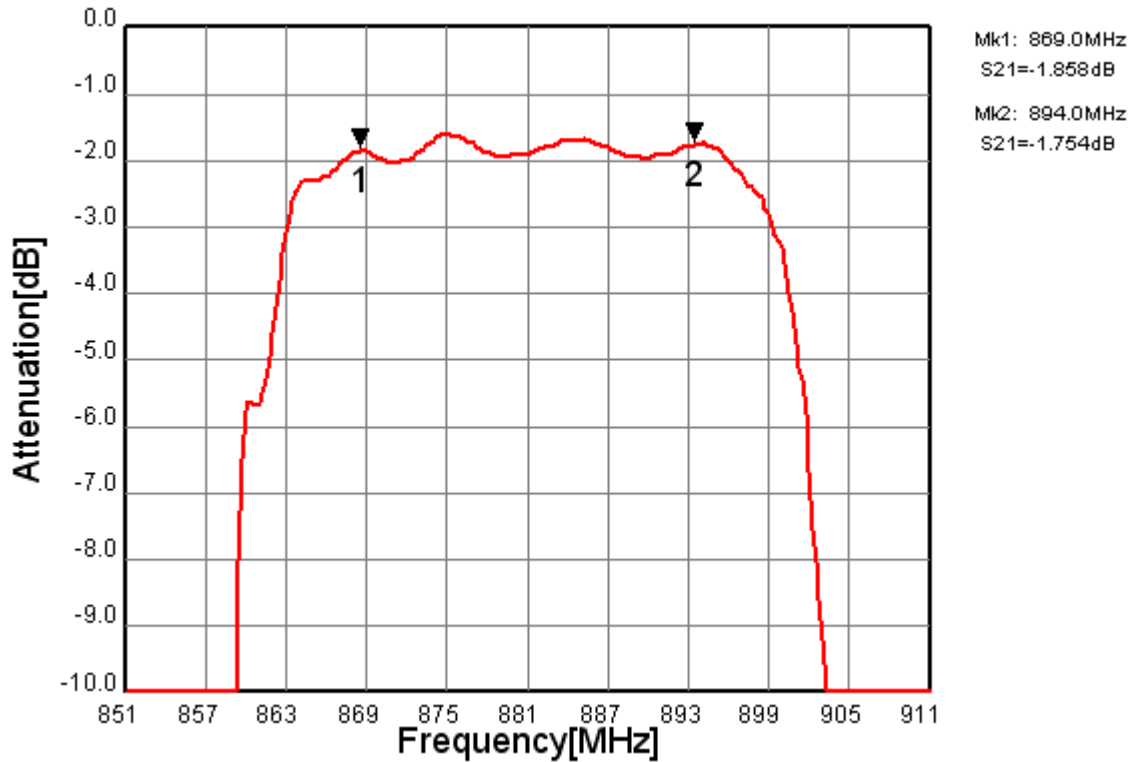


Fig.11 In-band Characteristics (Filter2)

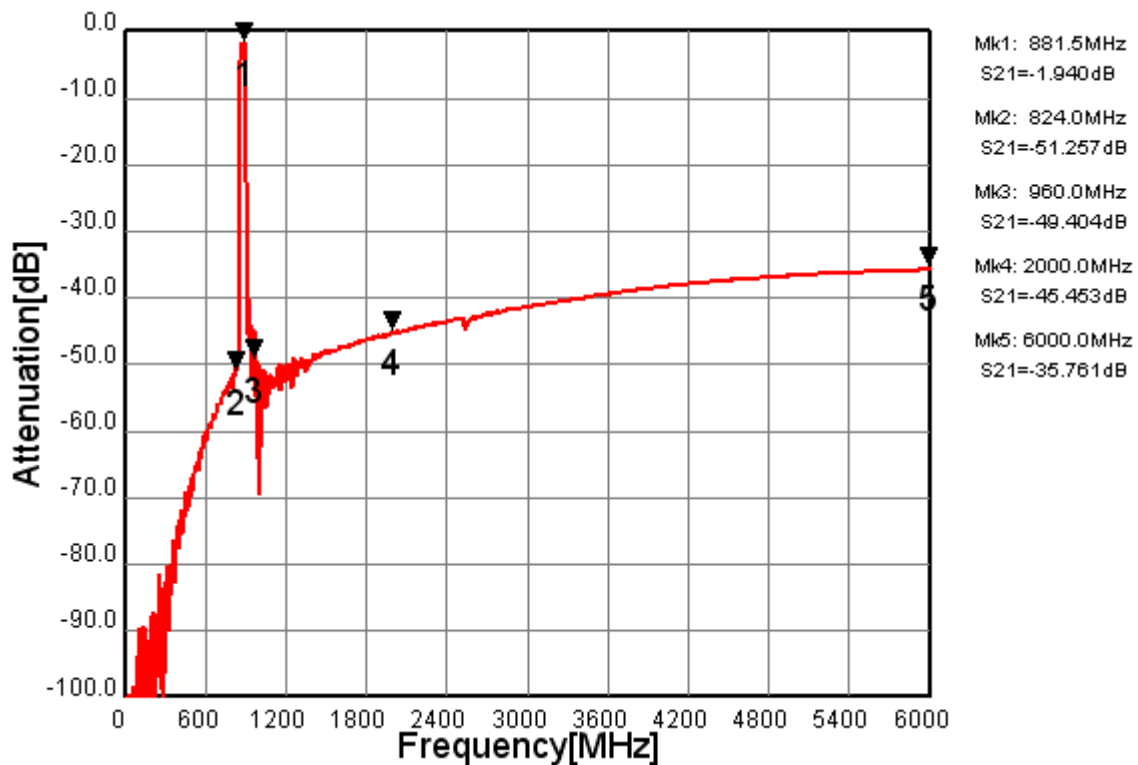


Fig.12 Wide-band Characteristics (Filter2)

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\* Pb Free Part

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Part Number	G5QT942M5N2VA	Version 2.1ba	<b>Final</b>

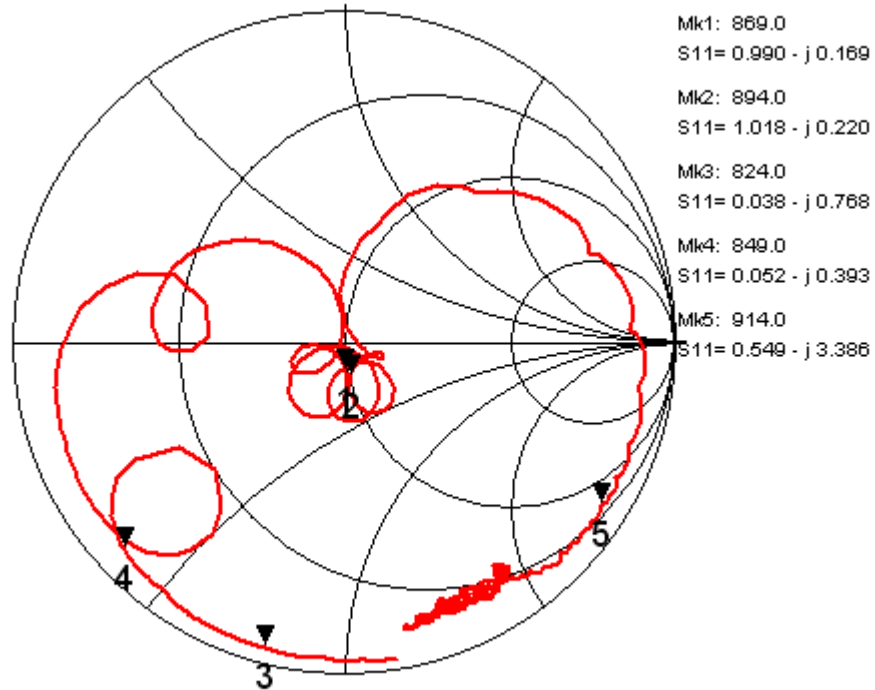


Fig.13 Input Impedance (Unbalance) (Filter2)

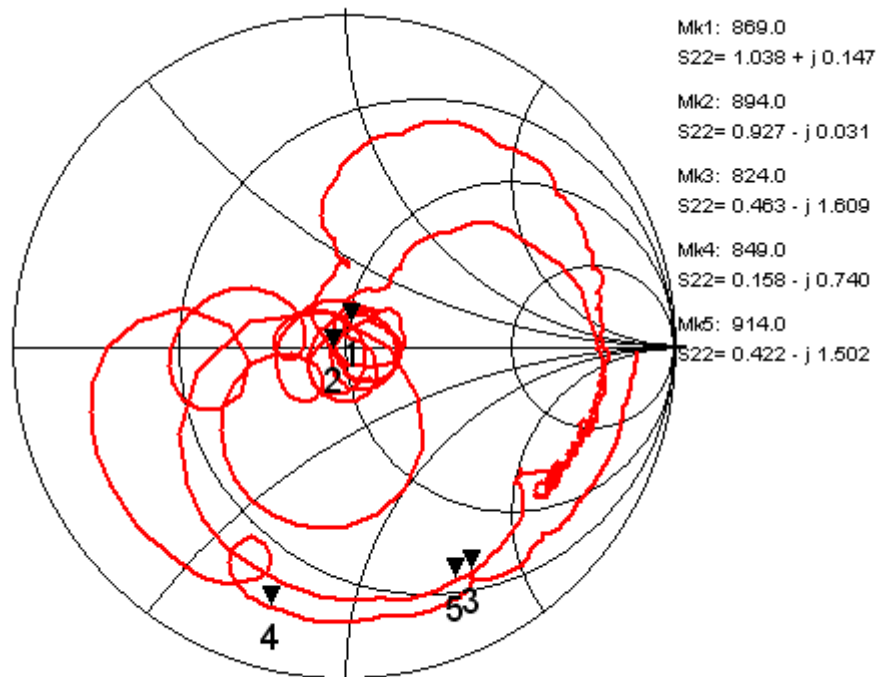


Fig.14 Output Impedance (Balance) (Filter2)

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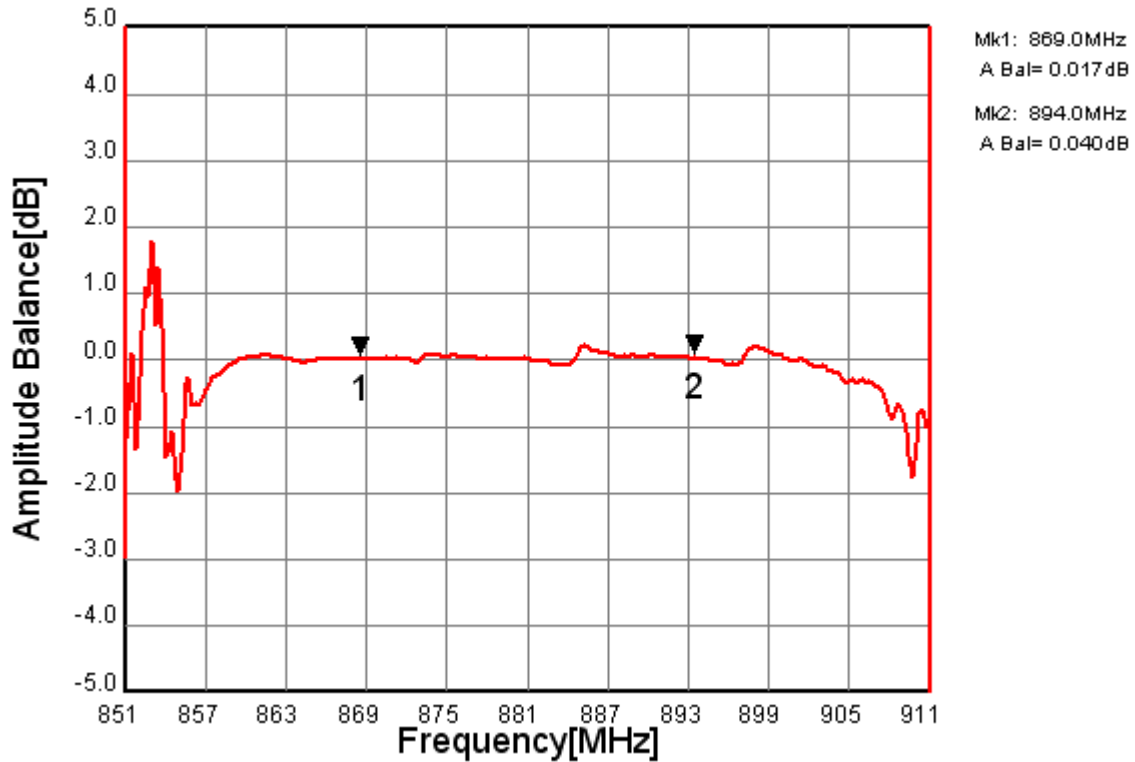


Fig.15 Amplitude Balance (Filter2)

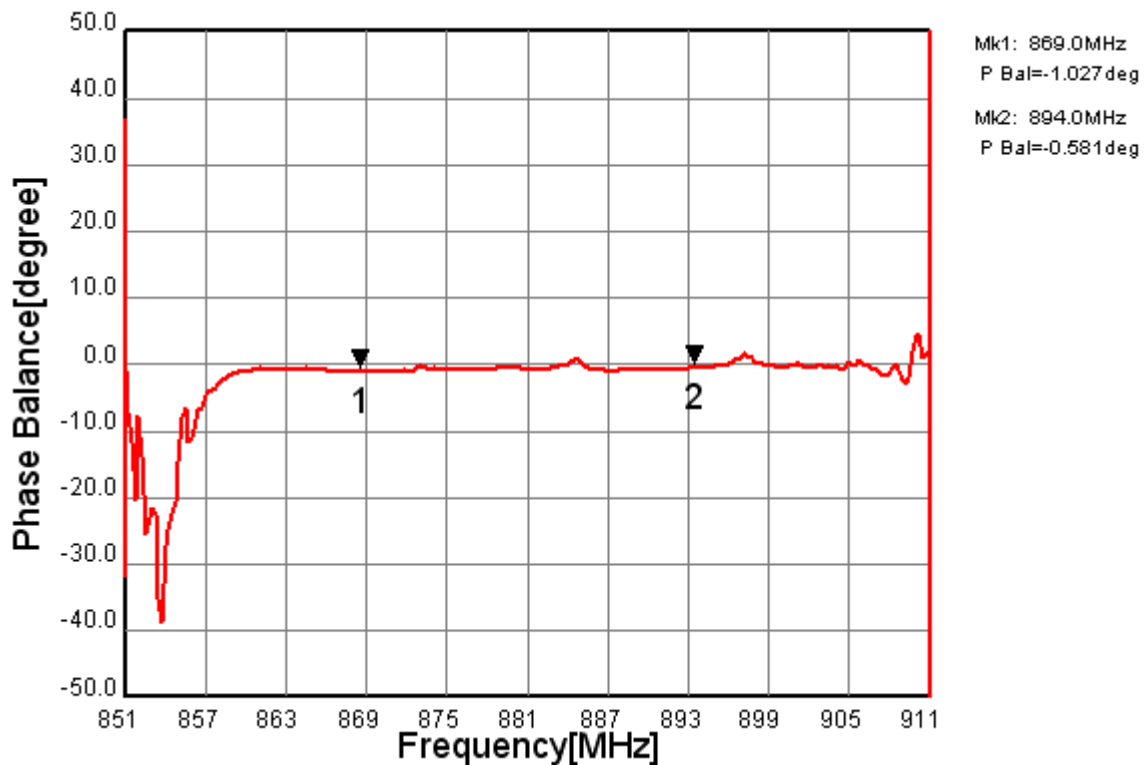


Fig.16 Phase Balance (Filter2)



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Part Number	G5QT942M5N2VA	Version 2.1ba	<b>Final</b>

## Ordering Code

Ordering Code	Packing	Reel size	Status
G5QT942M5N2VA-J	Tape & Reel	5,000pcs.	MP
G5QT942M5N2VA-JA	Tape & Reel	less than 5,000 pcs.	MP
G5QT942M5N2VA-Y	Tape & Reel	15,000pcs	MP
G5QT942M5N2VA-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.

This product is for general electronics equipment such as Audio-Visual equipment, household electronics, office supplies, information services and telecommunications; therefore, in case this product is used for any medical equipment, space equipment, nuclear equipment or disaster prevention equipment, please contact TAIYO YUDEN in advance.

In case this product is used for general electronics equipment or circuits which require high safety and high reliability, thoroughly evaluate on safety and add a protection circuit if necessary.