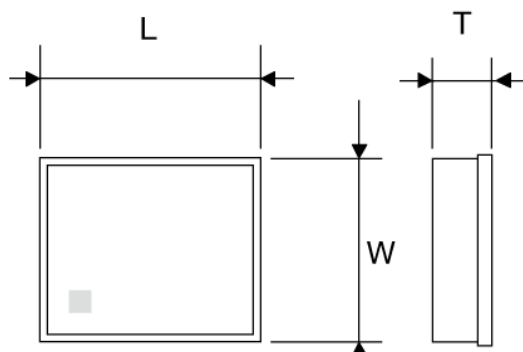


## SAW Dual Filter

## FAR-G6KG-2G1400-Y4SH



## ■ Features

- Item Summary  
W-CDMA , Rx, 705
- Lifecycle Stage  
Mass Production
- Standard packaging quantity (minimum)  
Taping Embossed 3000 , 15000pcs

## ■ Products characteristics table

Temperature Range	-25 to +85°C
Band(3GPP)	B1 / B5
Use	WCDMA
Transmitting / Receiving	Rx Dual Filter
Insertion Loss	1.6/1.5dB
Attenuation	42/64dB
RoHS Compliance	Yes
Halogen Free	Yes
Soldering Method	Reflow

## ■ External Dimensions

L	1.8mm +0.1:-0.1
W	1.4mm +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	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>

Table 1-1 Filter1 Electrical Specification

Parameter	Condition (MHz)	Specification				Remarks
		Min.	Typ.	Max.	Unit	
Maximum Insertion attenuation	2110 - 2170	-	1.6	2.4	dB	
Amplitude ripple (p-p)	2110 - 2170	-	0.2	1.3	dB	
Input VSWR	2110 - 2170	-	1.6	2.5	-	
Output VSWR	2110 - 2170	-	1.8	2.5	-	
Output amplitude balance ( S21/S31 )	2110 - 2170	-2	-0.4/+0.4	+2	dB	
Output phase balance (( $\Phi$ S21- $\Phi$ S31)+180)	2110 - 2170	-12	-0.4/+3.2	+12	deg	
Attenuation	0.03- 960	40	60	-	dB	
	1920 -1980	35	42	-	dB	
	4220 -4340	35	57	-	dB	
Operating temperature range		-25 ~ +85			°C	
Input Impedance (Unbalanced)		50			Ohm	
Output Impedance (Balanced)		200//10nH			Ohm	



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Table 1-2 Filter2 Electrical Specification

Parameter	Condition (MHz)	Specification				Remarks
		Min.	Typ.	Max.	Unit	
Maximum Insertion attenuation	869 – 894	-	1.5	2.5	dB	
Amplitude ripple (p-p)	869 – 894	-	0.4	1.4	dB	
Input VSWR	869 – 894	-	1.6	2.1	-	
Output VSWR	869 – 894	-	1.6	2.1	-	
Output amplitude balance ( S21/S31 )	869 – 894	-1	-0.1/+0.4	+1	dB	
Output phase balance (( $\Phi$ S21- $\Phi$ S31)+180)	869 – 894	-9	-0.9/+3.6	+9	deg	
Attenuation	DC - 824	45	65	-	dB	
	824 - 849	40	64	-	dB	
	914- 960	22	33	-	dB	
	960 -2000	40	54	-	dB	
	2000-6000	25	43	-	dB	
Operating temperature range		-25 ~ +85			°C	
Input Impedance (Unbalanced)		50			Ohm	
Output Impedance (Balanced)		200			Ohm	



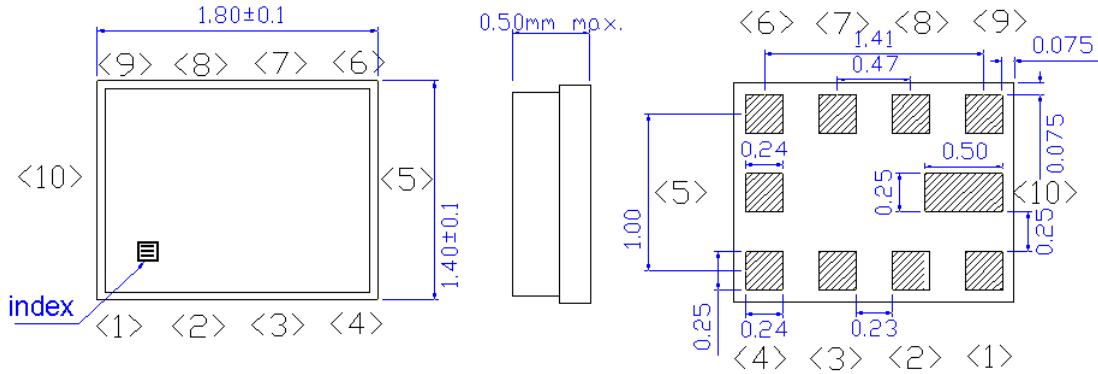
MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>

### Dimensions

Device size: 1.8typ. x 1.4typ. x 0.5max



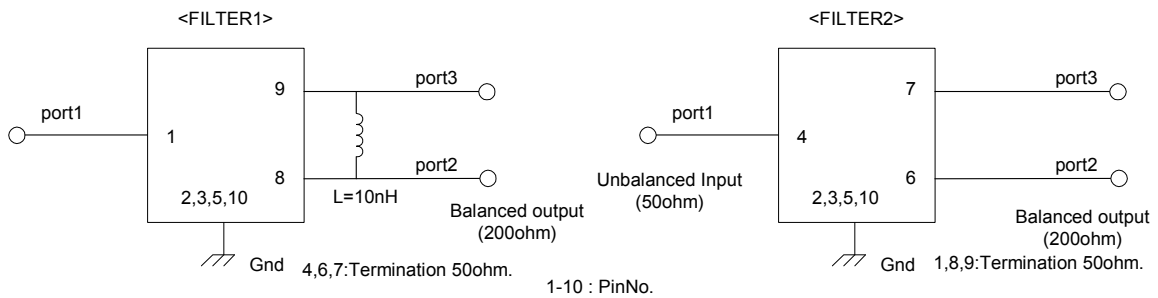
Unit : mm

### 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	Filter2 balanced output pin
7	OUT	Filter2 balanced output pin
8	OUT	Filter1 balanced output pin
9	OUT	Filter1 balanced output pin
10	GND	Ground

Filter No.	Passband(MHz)	System
1	2110 ~ 2170	-
2	869 ~ 894	-

### Test Condition

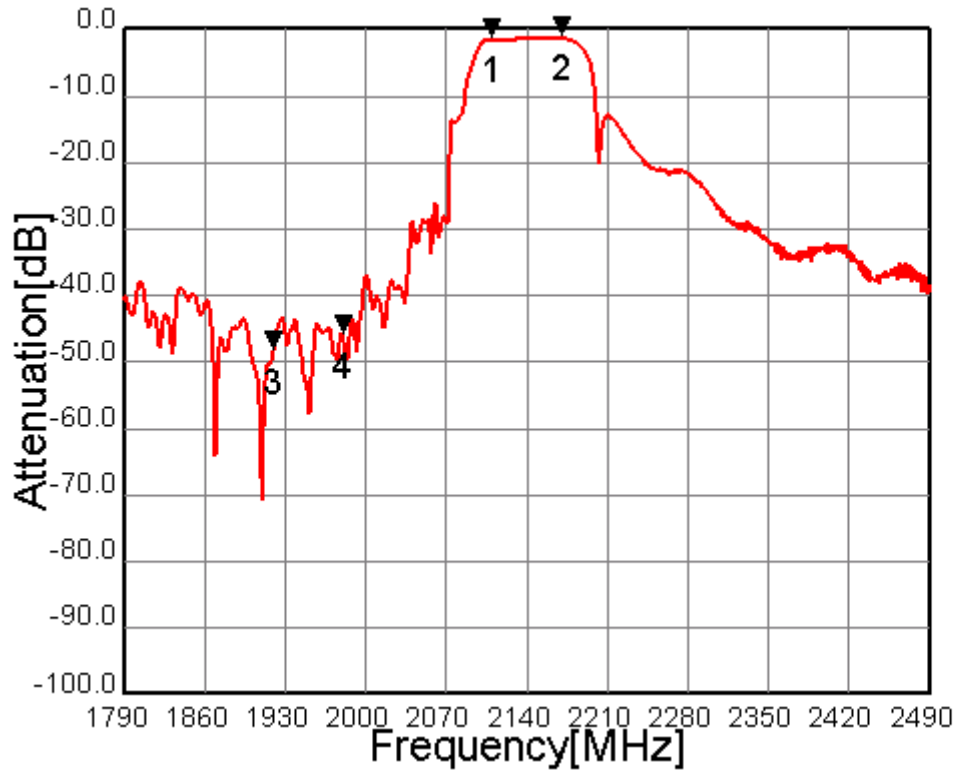




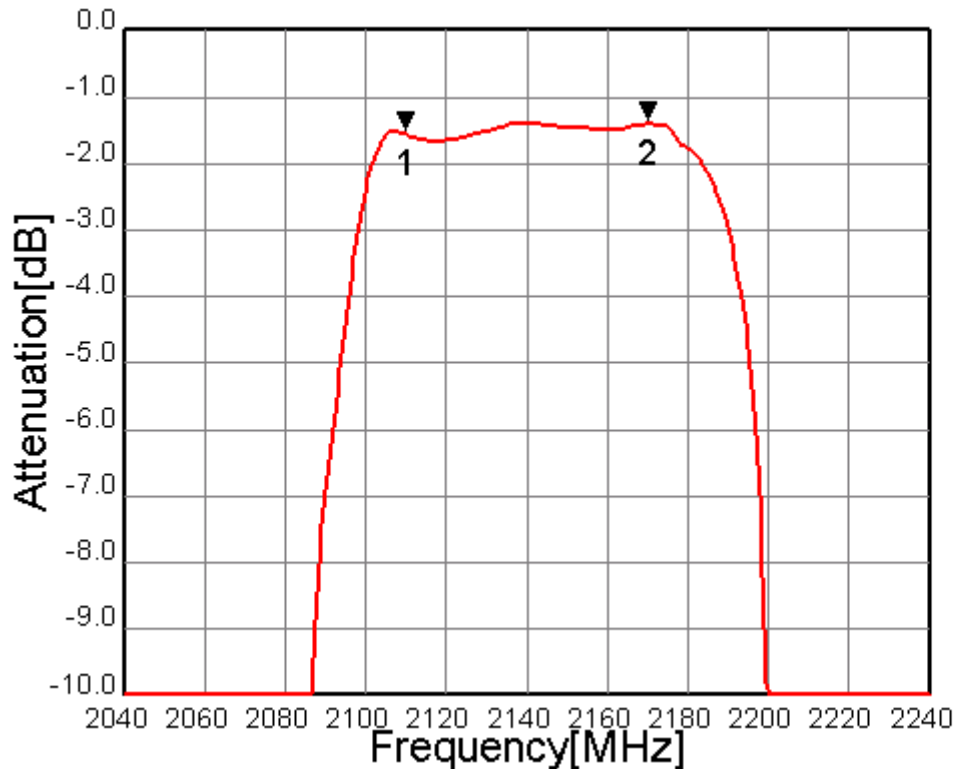
MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>



**Fig.1 Pass-band Characteristics (Fliter1)**



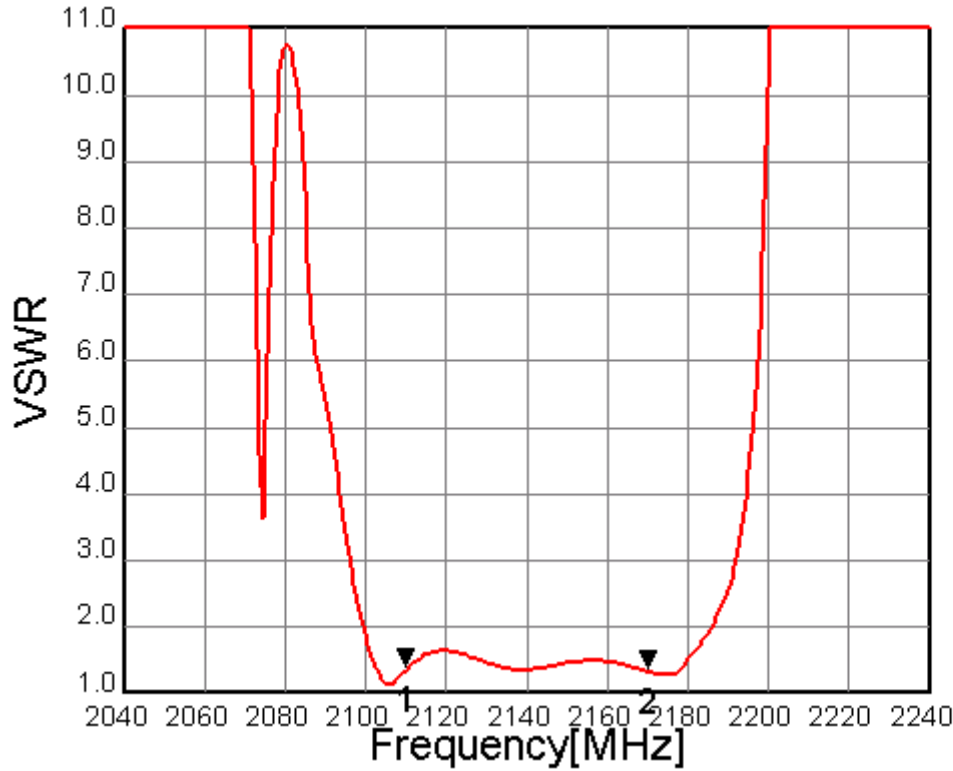
**Fig.2 In-band Characteristics (Fliter1)**



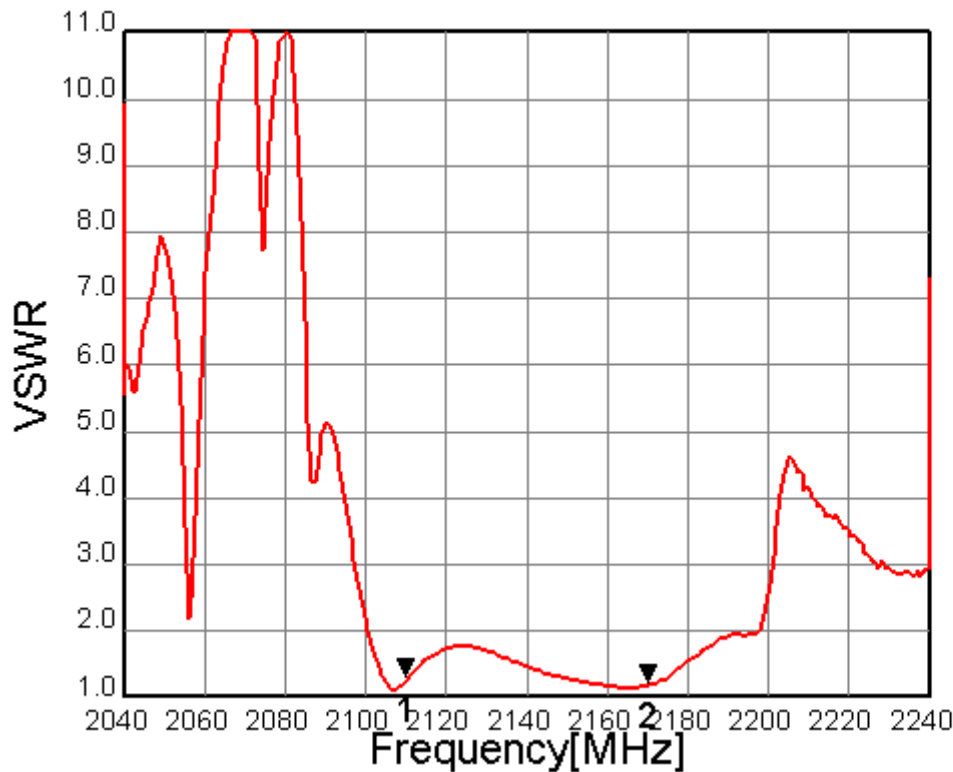
MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>



**Fig.3 VSWR (Unbal) (Fliter1)**



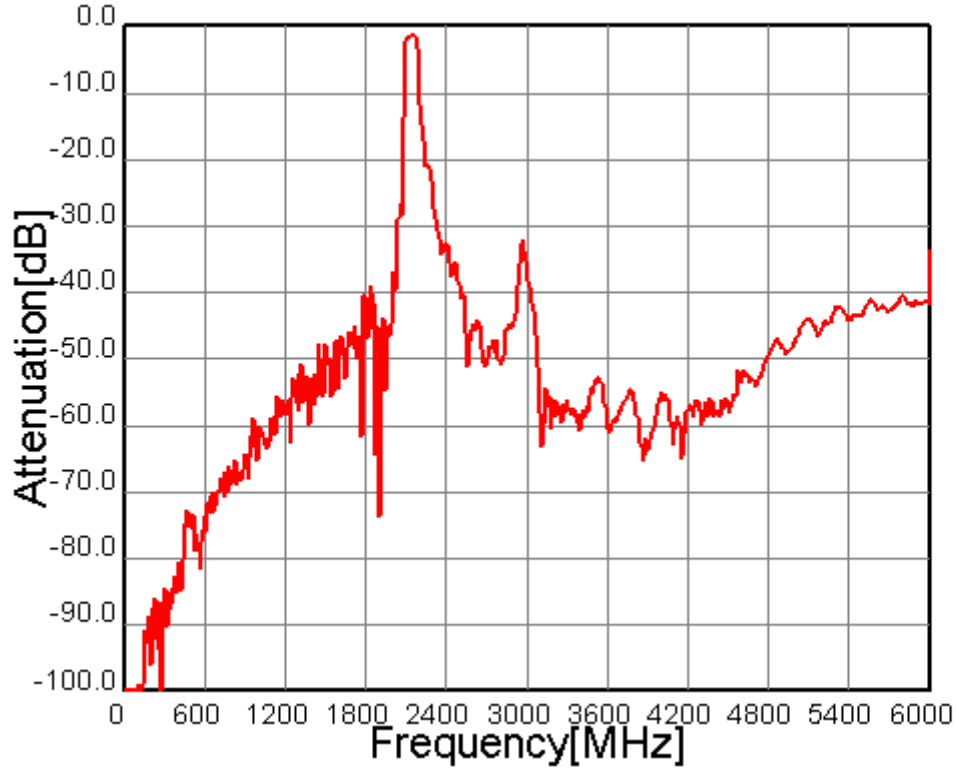
**Fig.4 VSWR (Bal) (Fliter1)**



MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>



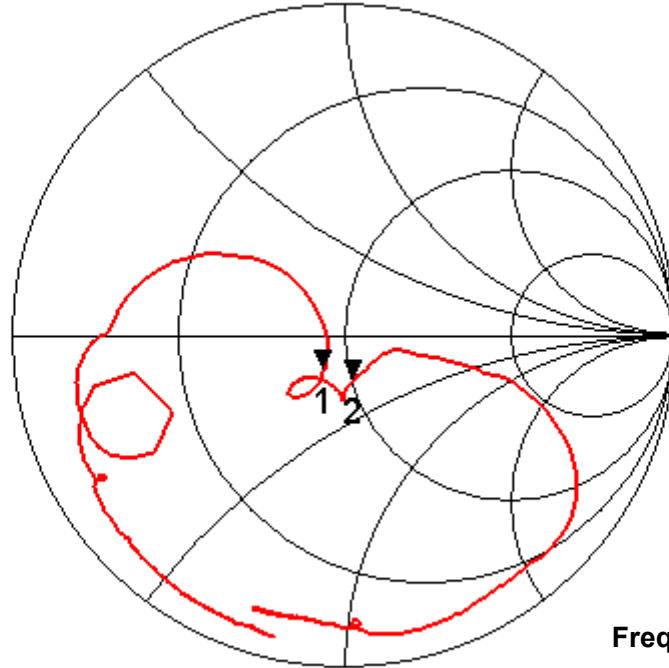
**Fig.5 Wide-band Characteristics (Fliter1)**



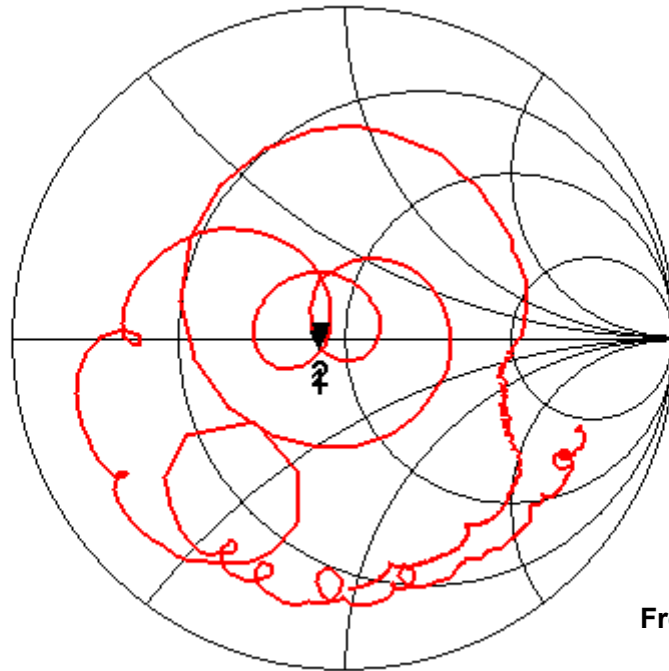
MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>



**Fig.6 Impedance (Unbal) (Fliter1)**



**Fig.7 Impedance (Bal) (Fliter1)**

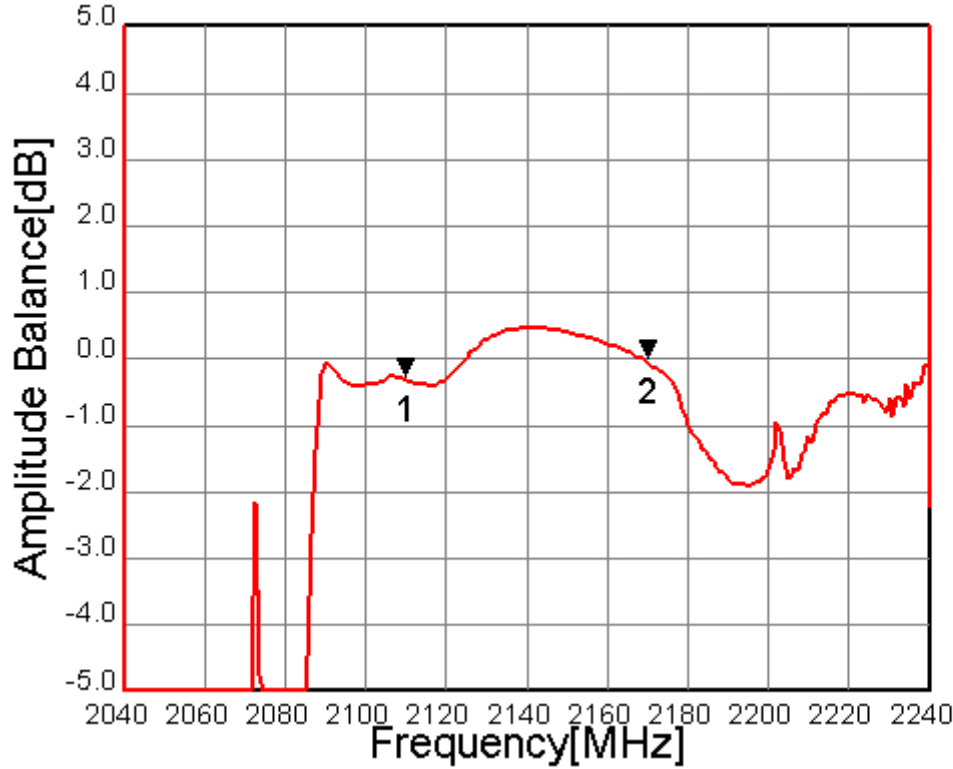




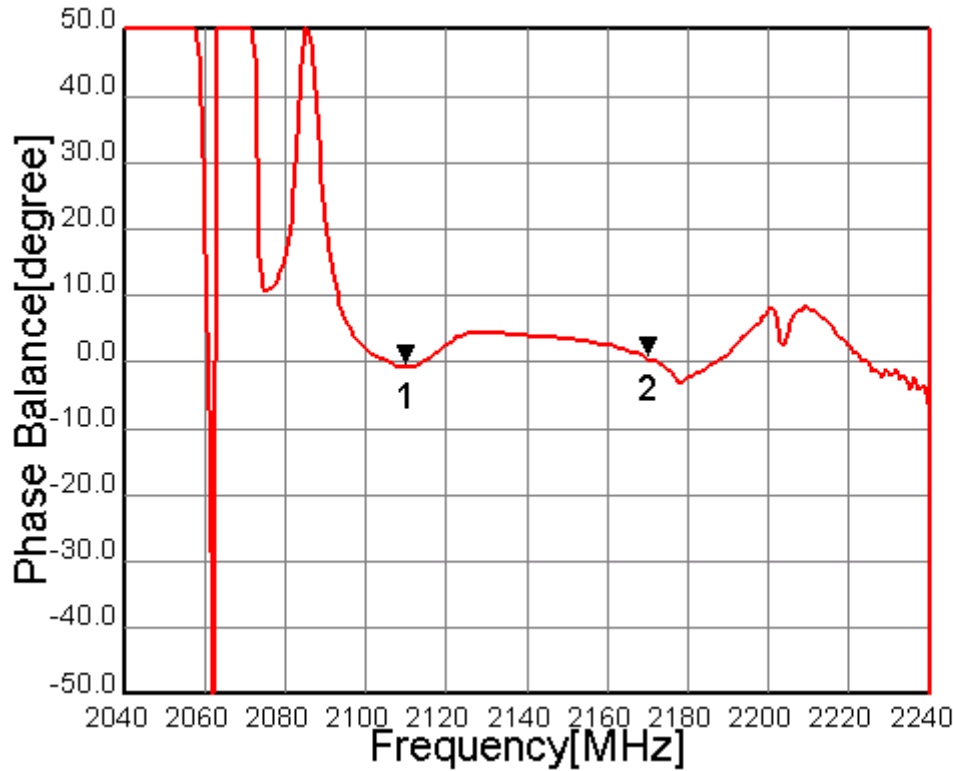
MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>



**Fig.8 Amplitude Balance (Fliter1)**



**Fig.9 Phase Balance (Fliter1)**



MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>

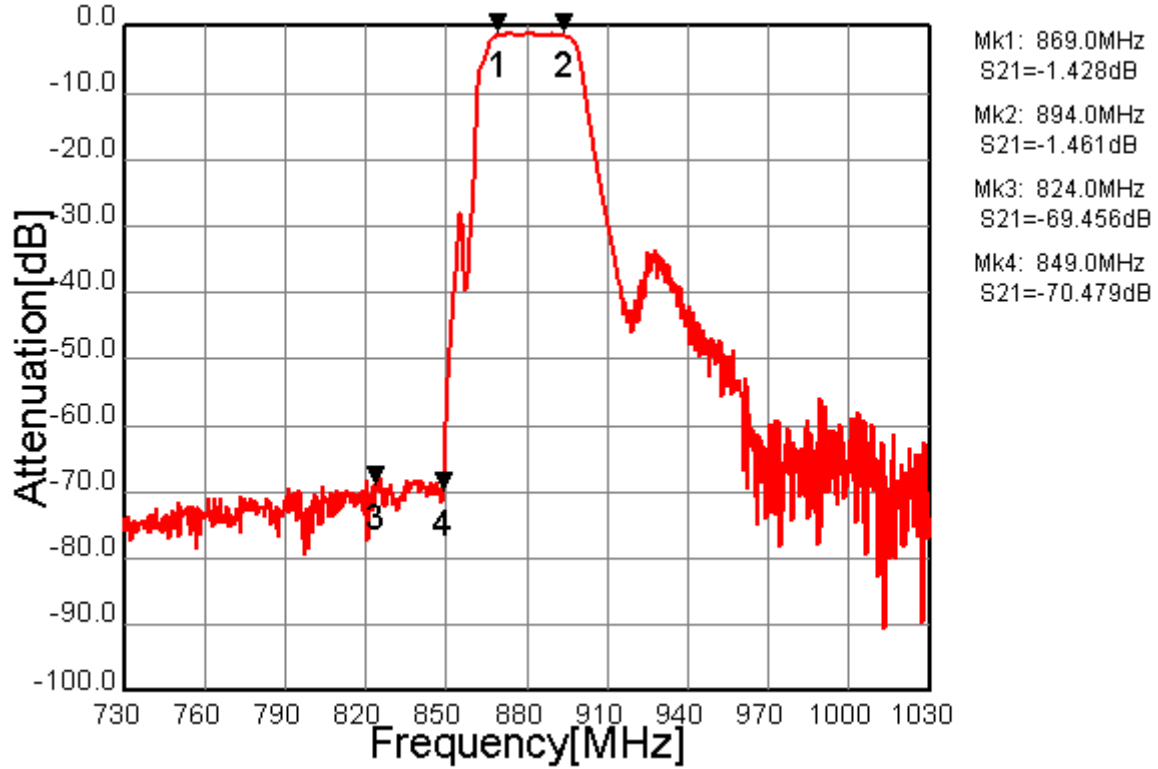


Fig.10 Pass-band Characteristics (Filter2)

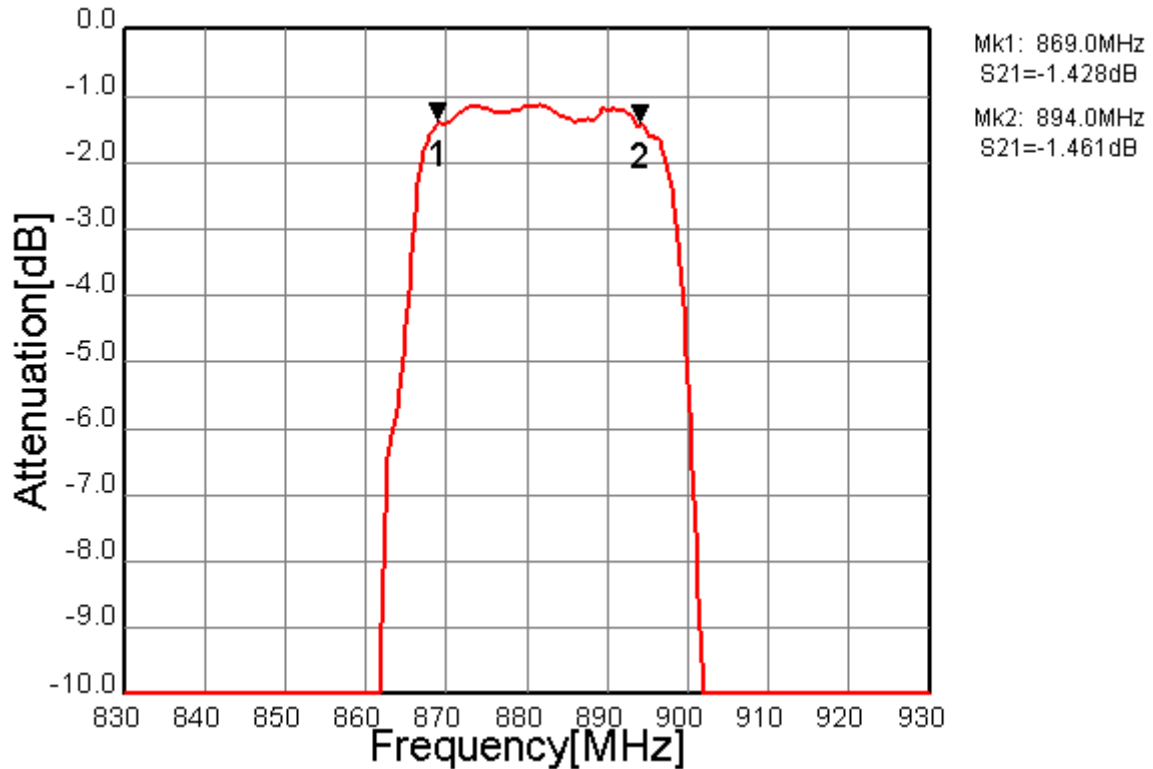


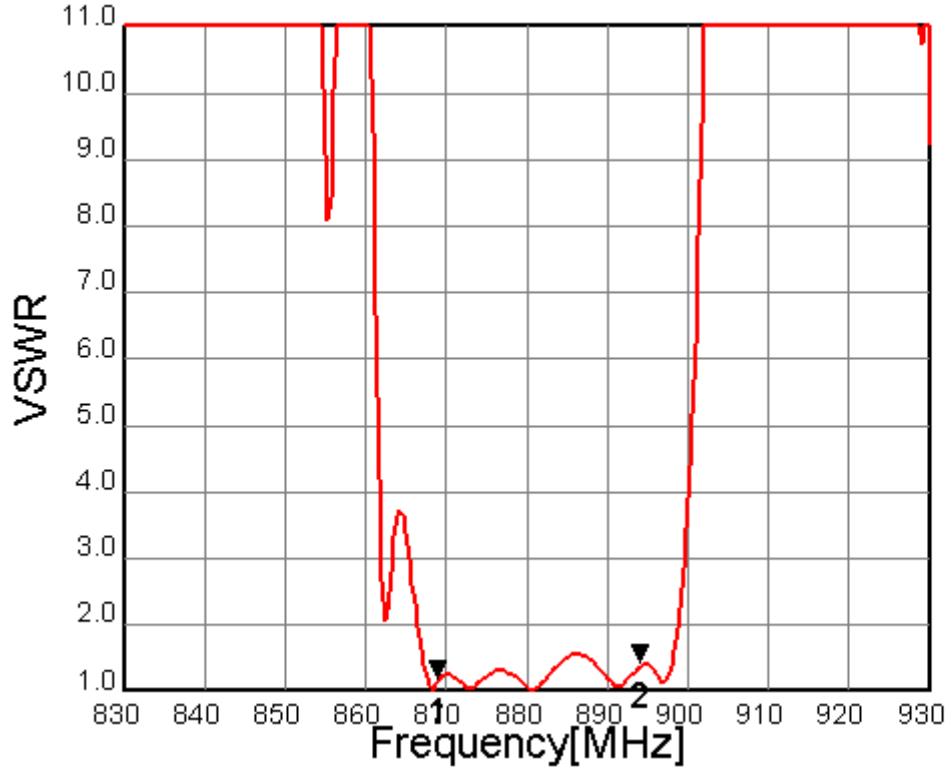
Fig.11 In-band Characteristics (Filter2)



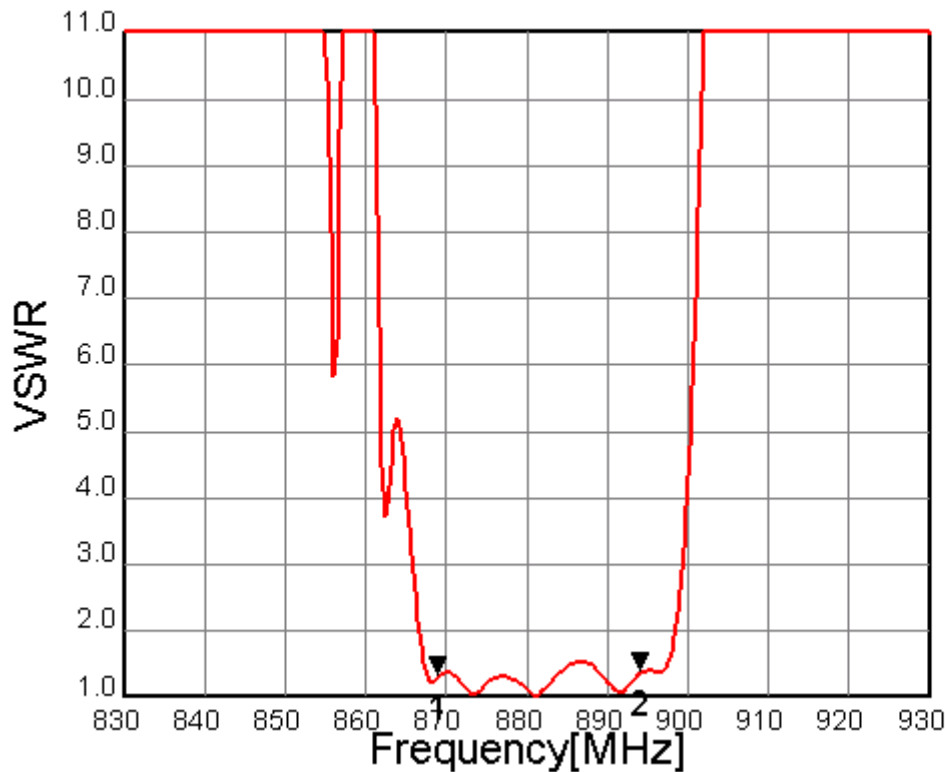
MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>



**Fig.12 VSWR (Unbal) (Fliter2)**



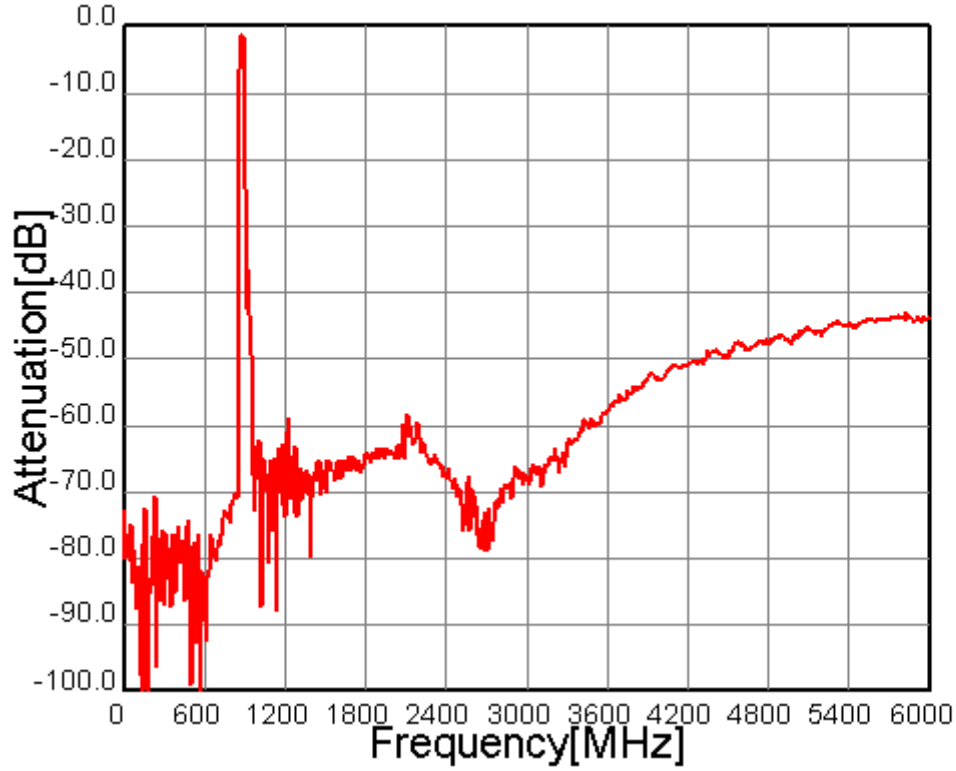
**Fig.13 VSWR (Bal) (Fliter2)**



MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>



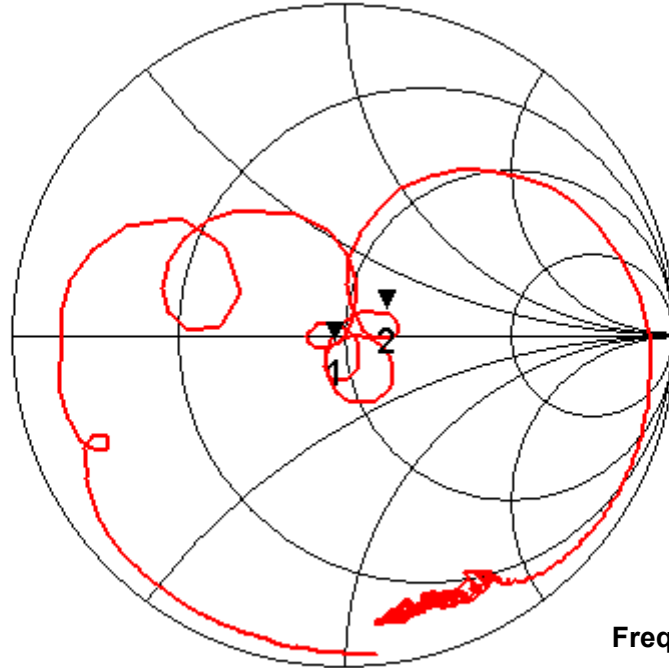
**Fig.14 Wide-band Characteristics (Fliter2)**



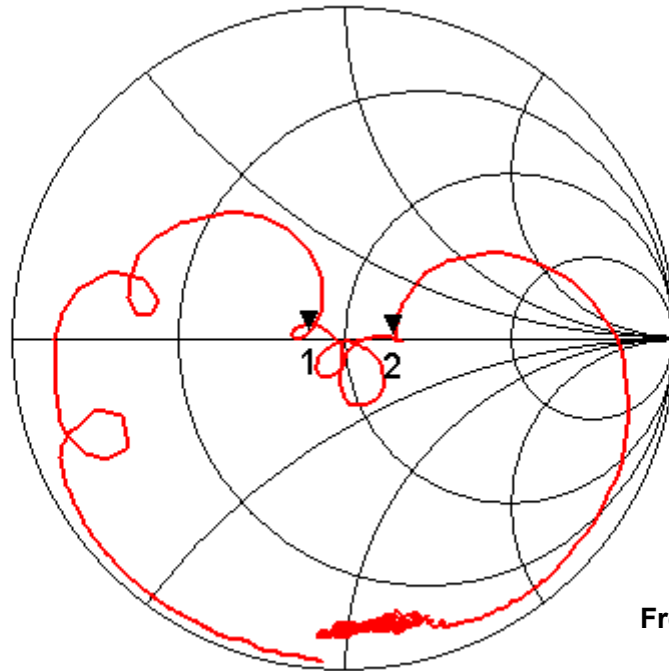
MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>



**Fig.15 Impedance (Unbal) (Fliter2)**



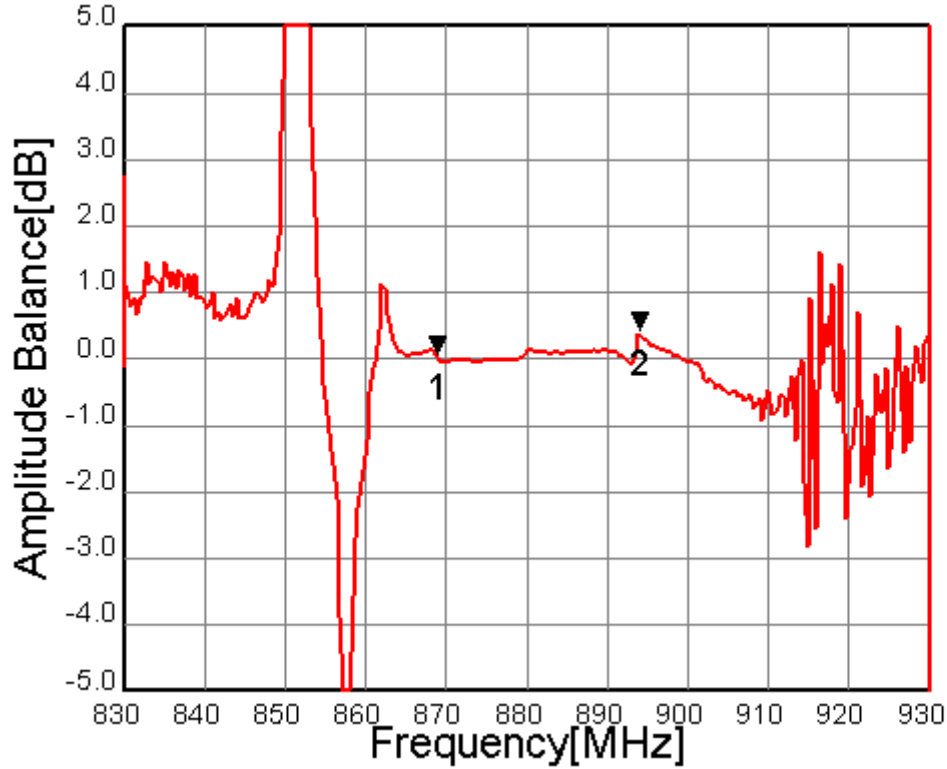
**Fig.16 Impedance (Bal) (Fliter2)**



MSL1

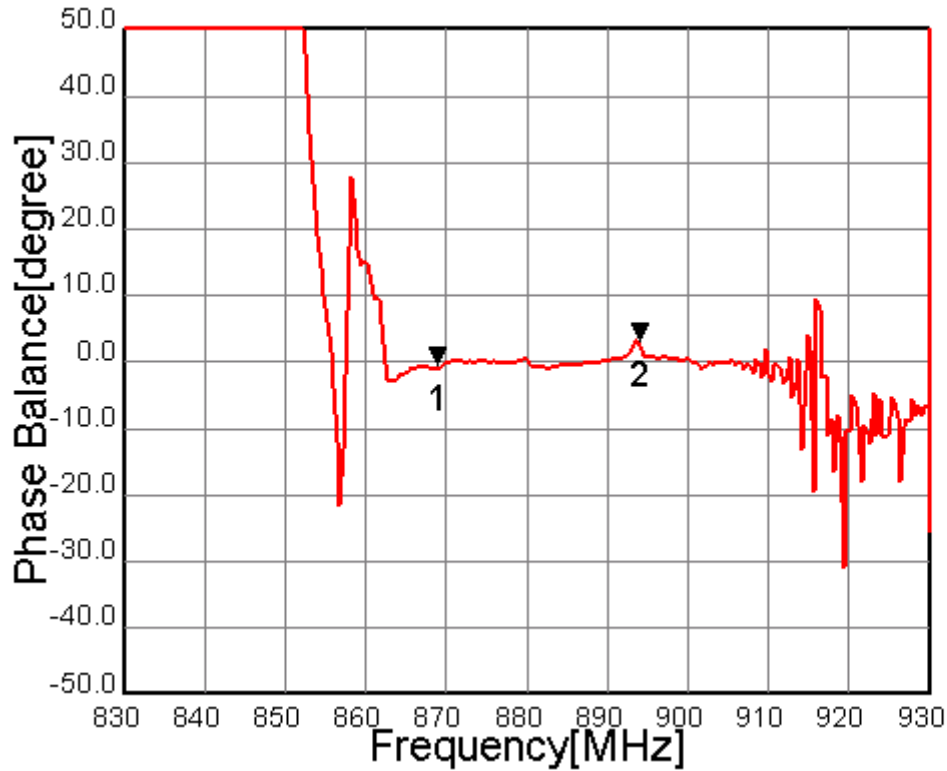
\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>



Mk1: 869.0MHz  
 A Bal= 0.024dB  
 Mk2: 894.0MHz  
 A Bal= 0.364dB

**Fig.17 Amplitude Balance (Fliter2)**



Mk1: 869.0MHz  
 P Bal=-1.106deg  
 Mk2: 894.0MHz  
 P Bal= 2.660deg

**Fig.18 Phase Balance (Fliter2)**



MSL1

\* Pb Free Part

Customer Name	<b>Standard specification</b>	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G)+V(850) Rx	Date	Jun. 15, 2011
Part Number	G6KG2G140Y4SH	Version 2.1db	<b>FINAL</b>

## Ordering Code

Ordering Code	Packing	Reel size	Status
G6KG2G140Y4SH-Z S	Tape & Reel	3,000pcs.	ES
G6KG2G140Y4SH-ZAS	Tape & Reel	less than 3,000 pcs.	ES
G6KG2G140Y4SH-Y S	Tape & Reel	15,000pcs	ES
G6KG2G140Y4SH-YAS	Tape & Reel	less than 15,000 pcs.	ES
G6KG2G140Y4SH-Q S	Bulk	few pcs.	ES

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

\*MP: Mass Production

(For Mass Production (MP) order, please delete a letter of "S" at the end of the ordering code indicated above.)

## 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.