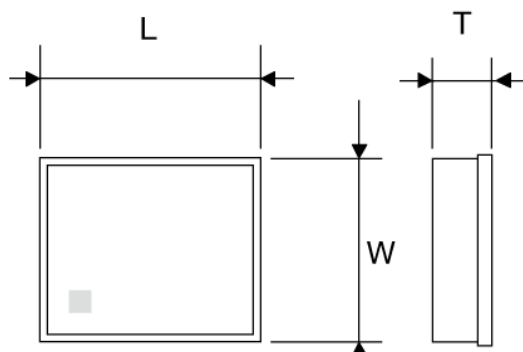


SAW Dual Filter

FAR-G5KC-942M50-Y4YW



■ Features

- Item Summary
GSM900/850 , Rx, 705
- Lifecycle Stage
Mass Production
- Standard packaging quantity (minimum)
Taping Embossed 3000 , 15000pcs

■ Products characteristics table

Temperature Range	-30 to +85°C
GSM	900 / 850
Use	GSM
Transmitting / Receiving	Rx Dual Filter
Insertion Loss	1.8/1.4dB
Attenuation	31/54dB
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	GSM900/GSM850 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G5KC-942M50-Y4YW	Version 1.1bc	

Table 1.Electrical specifications(Filter 1)

Pass Band (925-960MHz)						
Item	Condition (MHz)	Specification			Unit	Remark
		Min.	Typ.	Max.		
Insertion Loss	925-960	-	1.8	2.4	dB (*1)	
Ripple	925-960	-	0.7	1.4	dB	
Input VSWR	925-960	-	1.8	2.2	-	
Output VSWR	925-960	-	1.8	2.2	-	
Absolute attenuation	DC-880	40	60	-	dB	
	880-905	28	40	-	dB	
	905-915	20	31	-	dB	
	980-1025	25	34	-	dB	
	1025-2880	36	51	-	dB	
	2880-6000	30	43	-	dB	
Amplitude balance (S21/S31)	925-960	-1.0	-0.2/+0.2	+1.0	dB	
Phase balance (∠S21-∠S31)+180)	925-960	-10	-1/+4	+10	deg	
Input impedance (Unbalanced)	50			Ohm		
Output impedance (Balanced)	150//82nH			Ohm		
Operating temperature	-30to +85			°C		

(*1) These data include loss that comes from the test board.



MSL1

* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM900/GSM850 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G5KC-942M50-Y4YW	Version 1.1bc	

Table 2.Electrical specifications(Filter 2)

Pass Band (869-894MHz)						
Item	Condition (MHz)	Specification			Unit	Remark
		Min.	Typ.	Max.		
Insertion Loss	869-894	-	1.4	2.1	dB (*1)	
Ripple	869-894	-	0.3	1.1	dB	
Input VSWR	869-894	-	1.5	2.0	-	
Output VSWR	869-894	-	1.5	2.0	-	
Absolute attenuation	DC-824	45	62	-	dB	
	824-849	40	54	-	dB	
	914-960	25	35	-	dB	
	960-2000	35	53	-	dB	
	2000-6000	30	43	-	dB	
Amplitude balance ((S21/S31))	869-894	-1.0	-0.0/+0.2	+1.0	dB	
Phase balance ((Φ S21- Φ S31)+180)	869-894	-10	0/+2	+10	deg	
Input impedance (Unbalanced)		50			Ohm	
Output impedance (Balanced)		150			Ohm	
Operating temperature		-30to +85			°C	

(*1) These data include loss that comes from the test board.



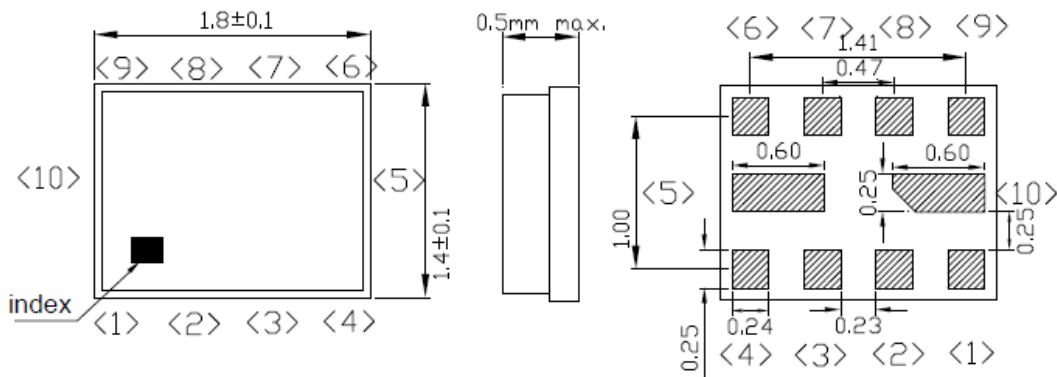
MSL1

* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM900/GSM850 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G5KC-942M50-Y4YW	Version 1.1bc	

Dimensions

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



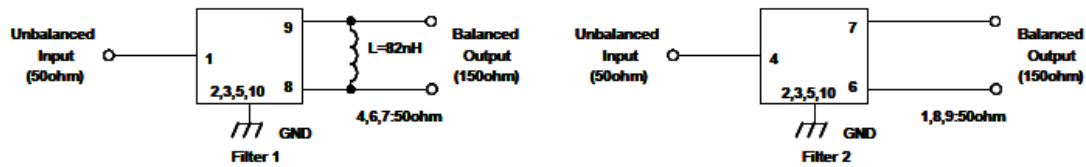
Unit : mm

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	925 ~ 960	GSM900-Rx
2	869 ~ 894	GSM850-Rx

Evaluation Circuit





MSL1

* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM900/GSM850 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G5KC-942M50-Y4YW	Version 1.1bc	

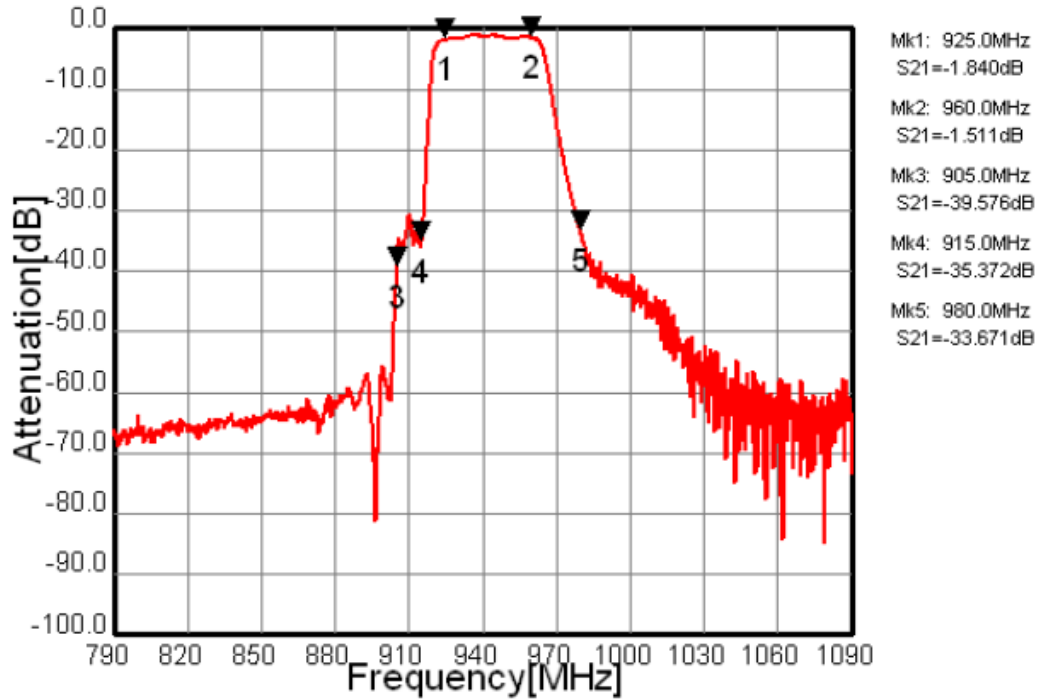


Fig.1 Pass-band Characteristic (Filter1)

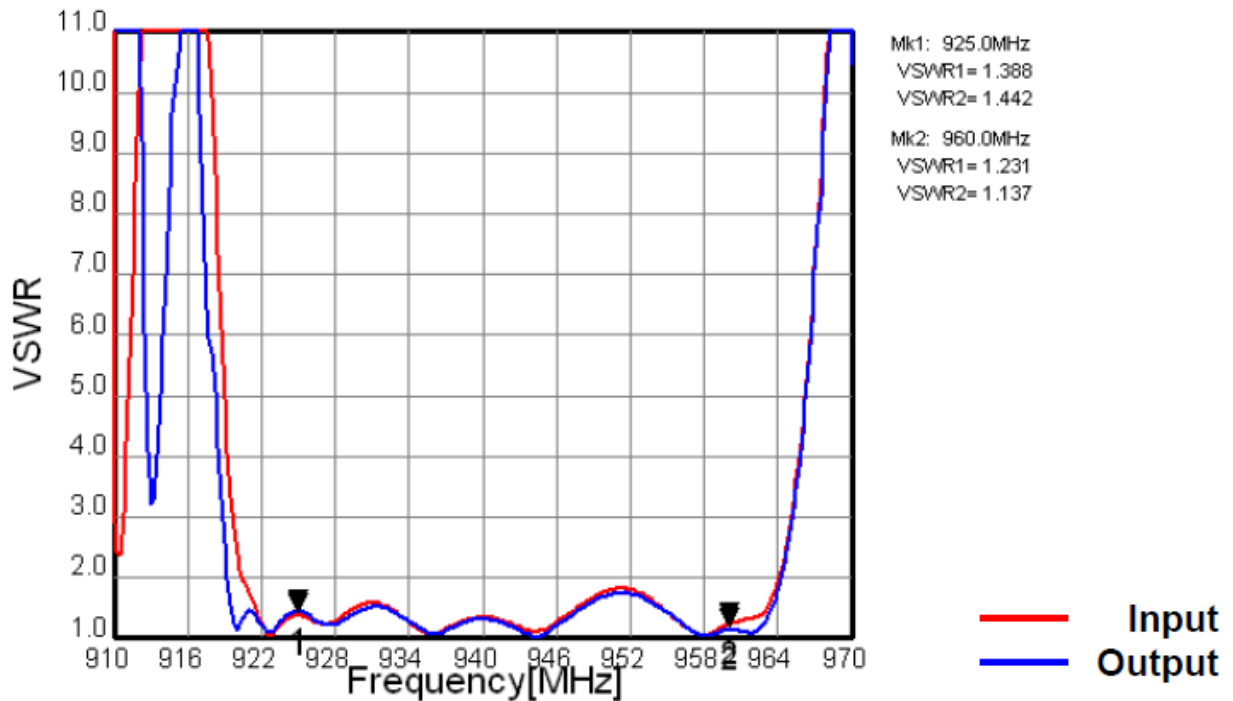


Fig.2 VSWR (Filter1)



MSL1

* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM900/GSM850 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G5KC-942M50-Y4YW	Version 1.1bc	

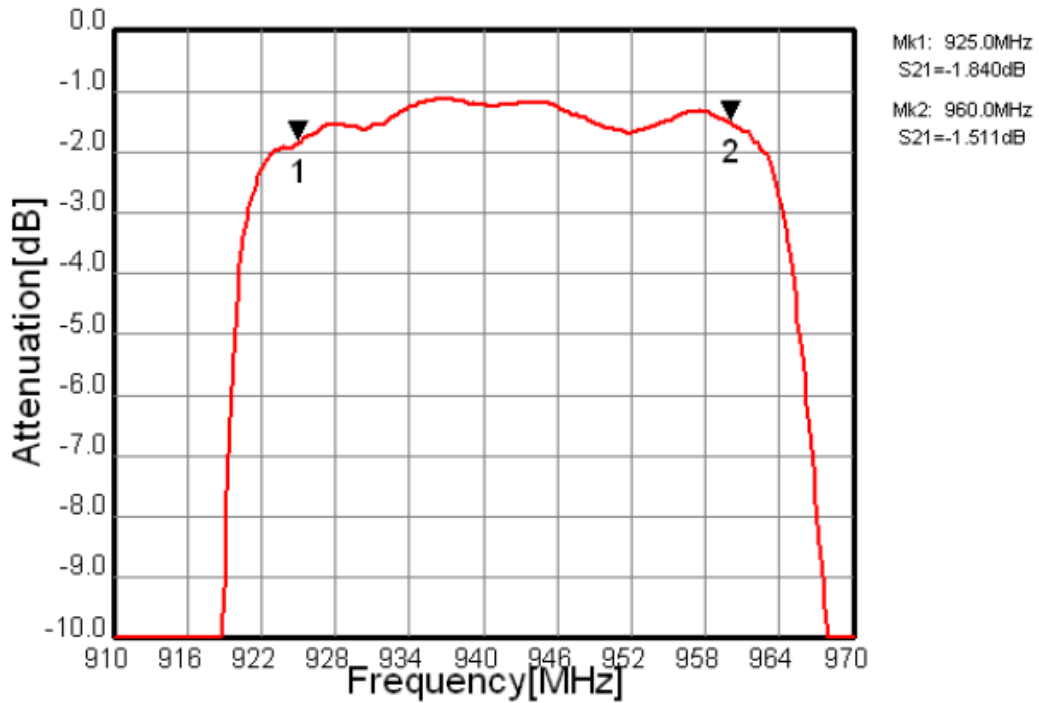


Fig.3 In-band Characteristic (Filter1)

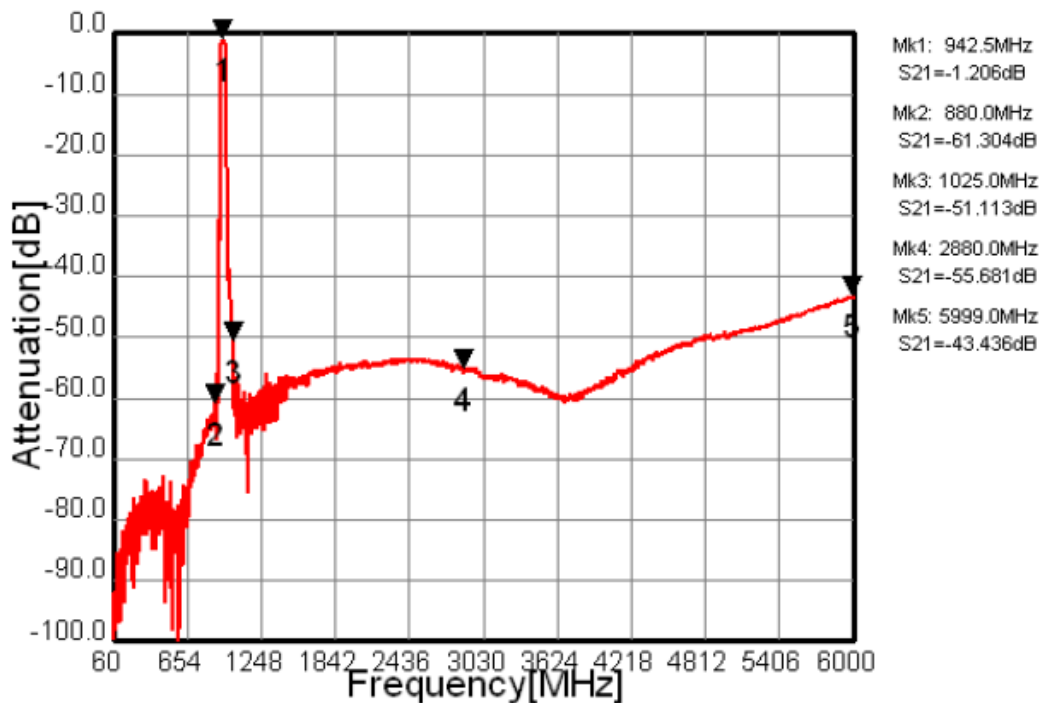


Fig.4 Wide-band Characteristic (Filter1)



MSL1

* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM900/GSM850 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G5KC-942M50-Y4YW	Version 1.1bc	

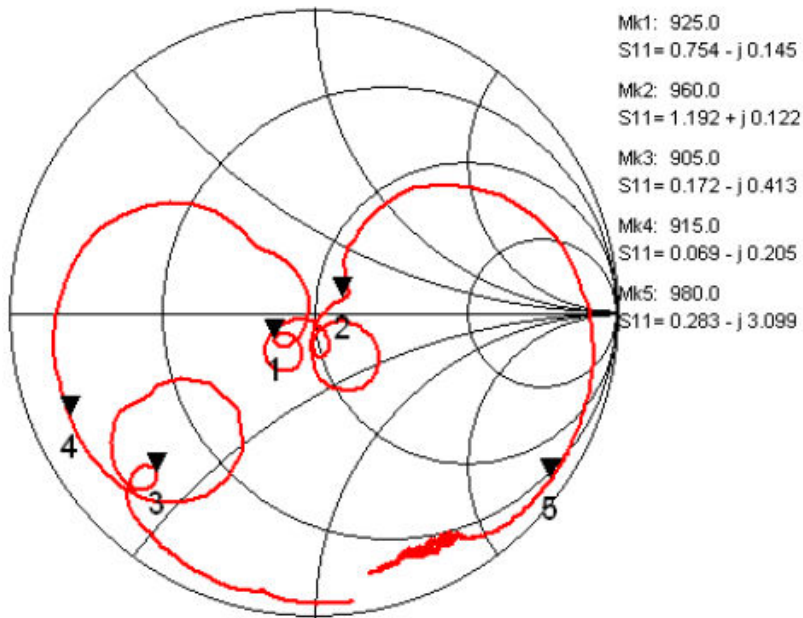


Fig.5 Impedance (S11) (Filter1)

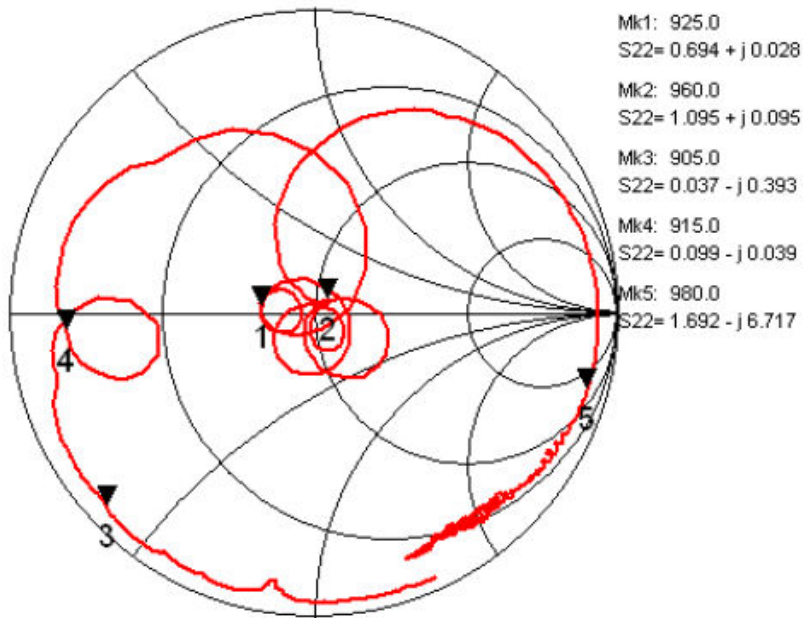


Fig.6 Impedance (S22) (Filter1)



MSL1

* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM900/GSM850 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G5KC-942M50-Y4YW	Version 1.1bc	

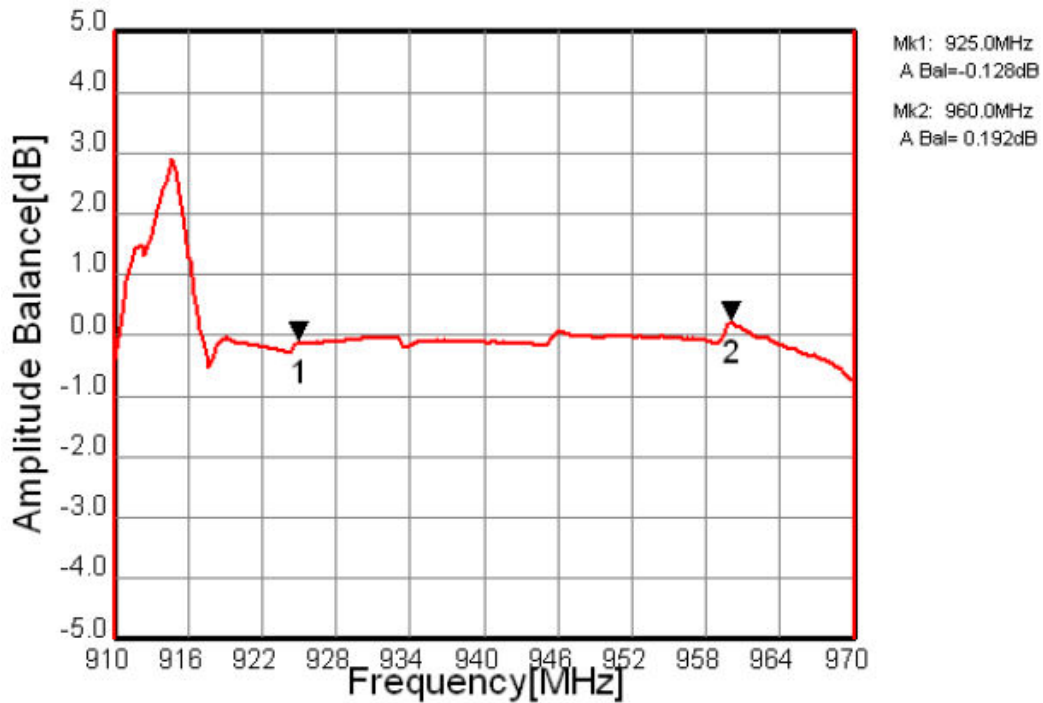


Fig.7 Amplitude Balance (Filter1)

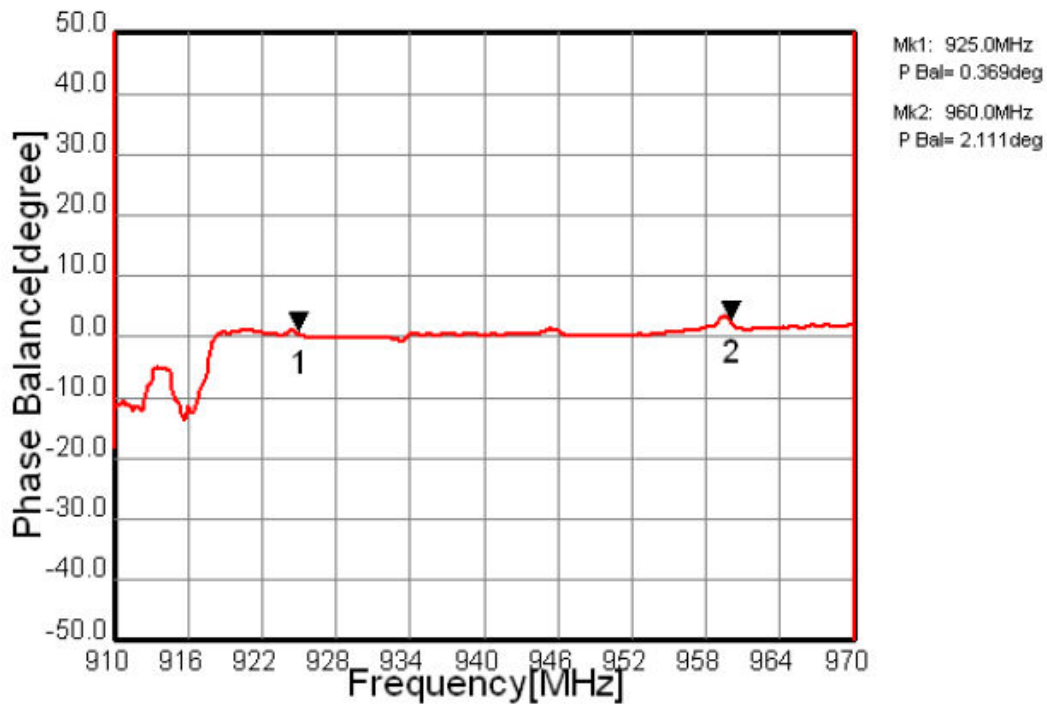


Fig.8 Phase Balance (Filter1)



MSL1

* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM900/GSM850 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G5KC-942M50-Y4YW	Version 1.1bc	

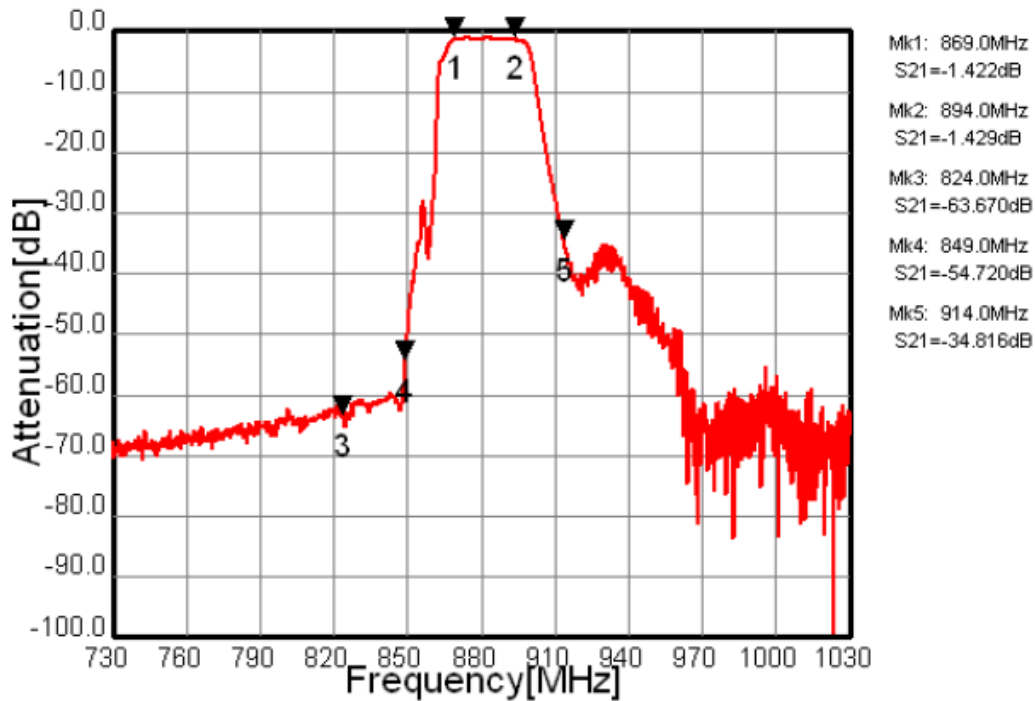


Fig.9 Pass-band Characteristic (Filter2)

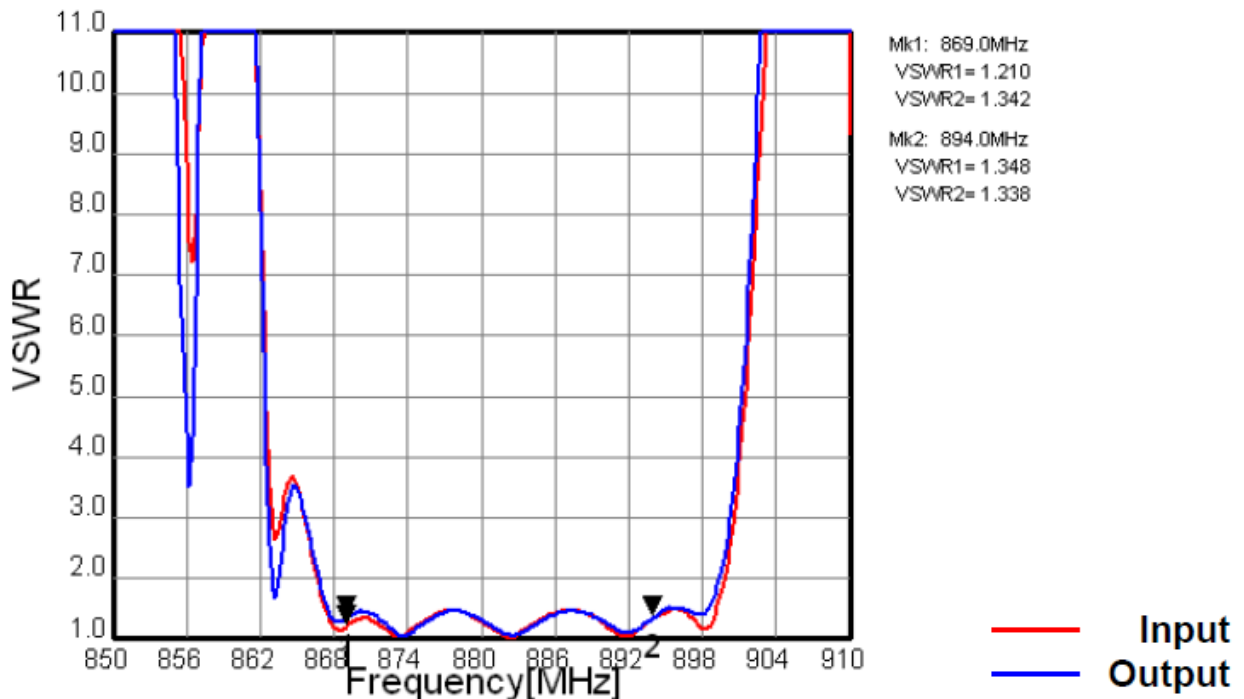


Fig.10 VSWR (Filter2)



MSL1

* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM900/GSM850 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G5KC-942M50-Y4YW	Version 1.1bc	

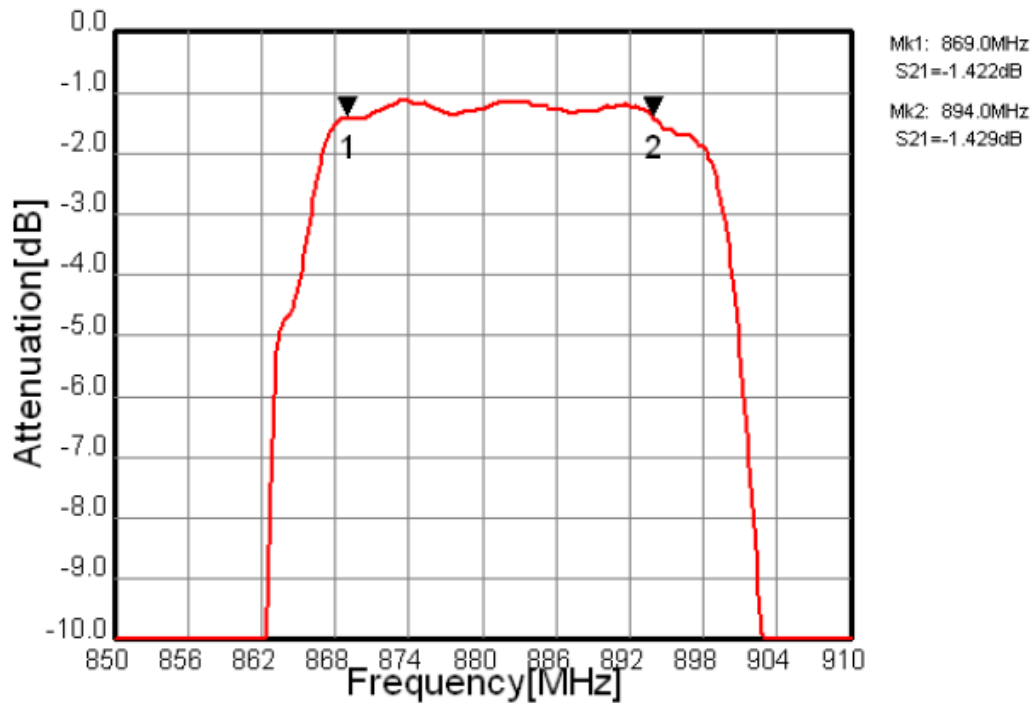


Fig.11 In-band Characteristic (Filter2)

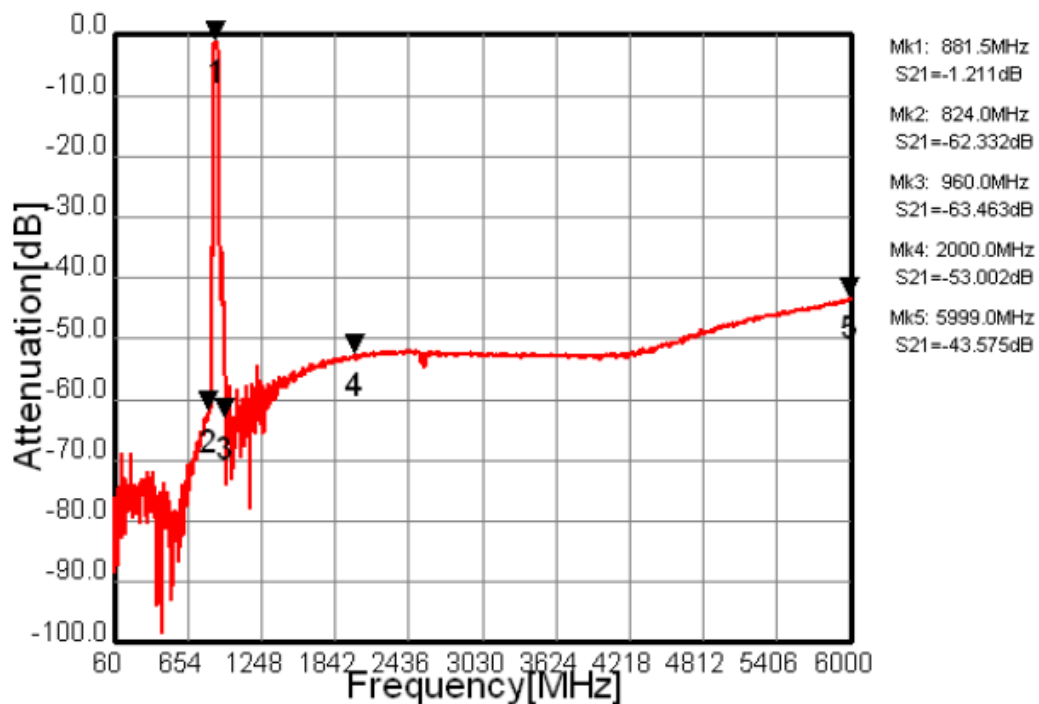


Fig.12 Wide-band Characteristic (Filter2)



MSL1

* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM900/GSM850 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G5KC-942M50-Y4YW	Version 1.1bc	

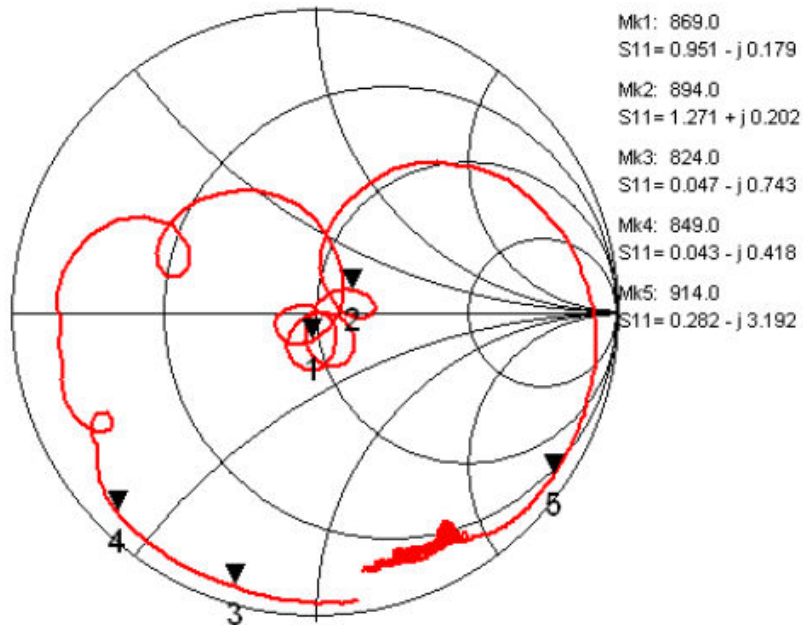


Fig.13 Impedance (S11) (Filter2)

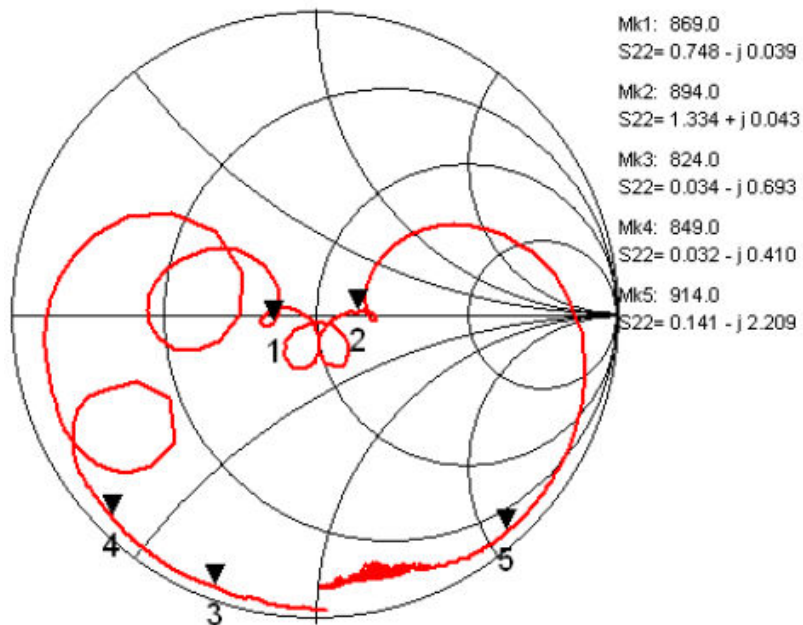


Fig.14 Impedance (S22) (Filter2)



MSL1

* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM900/GSM850 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G5KC-942M50-Y4YW	Version 1.1bc	

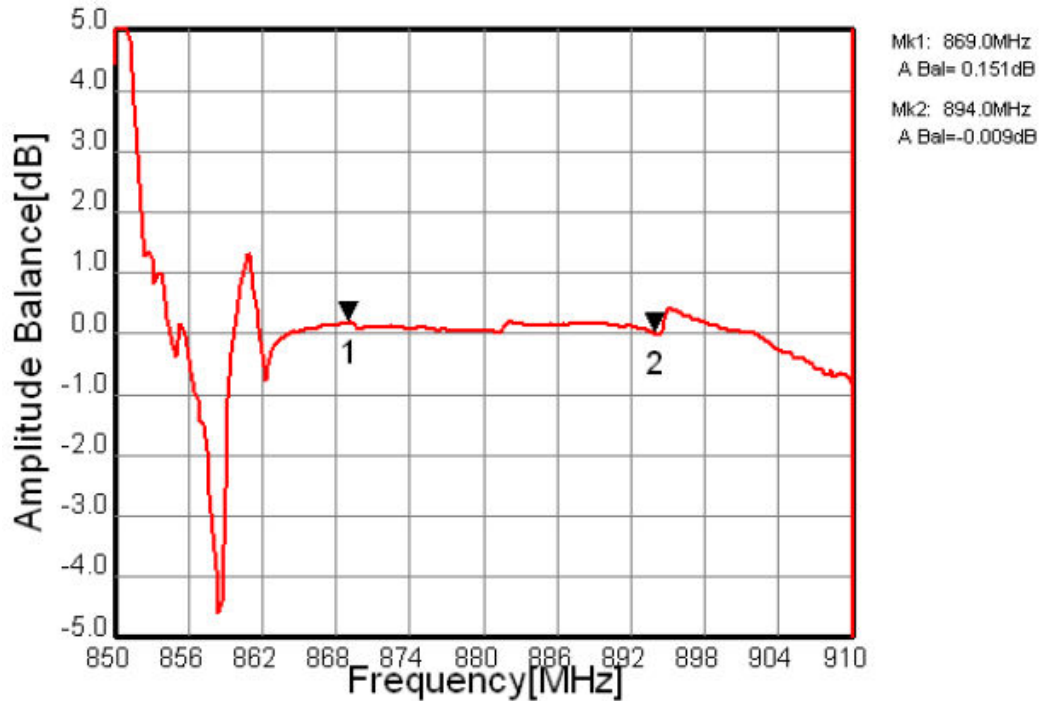


Fig.15 Amplitude Balance (Filter2)

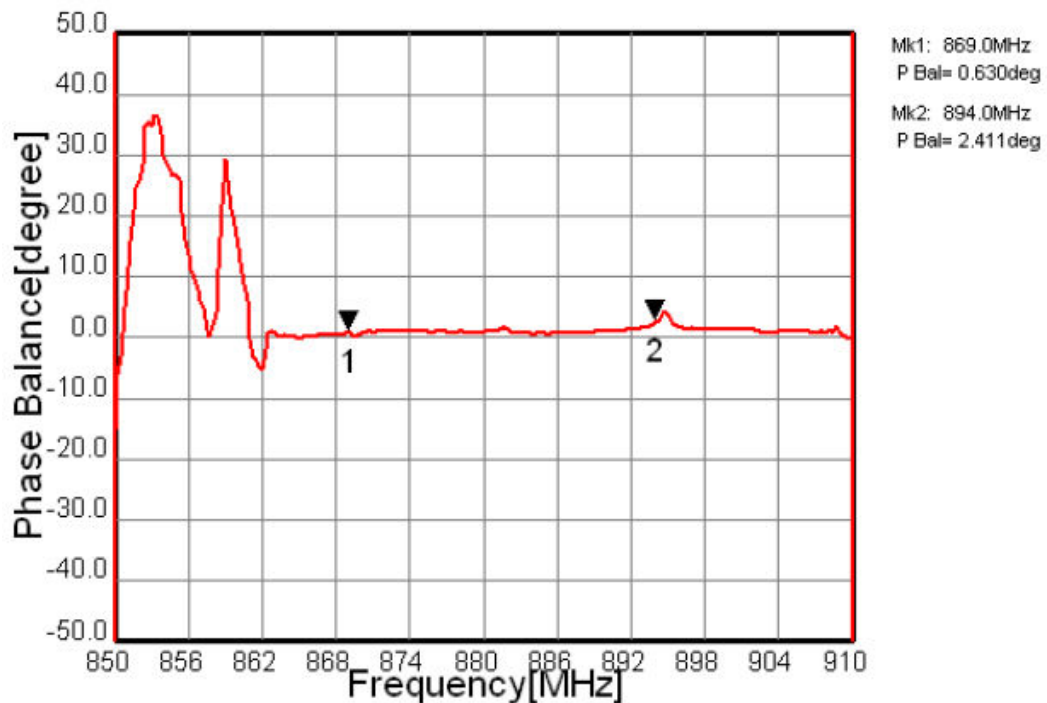


Fig.16 Phase Balance (Filter2)