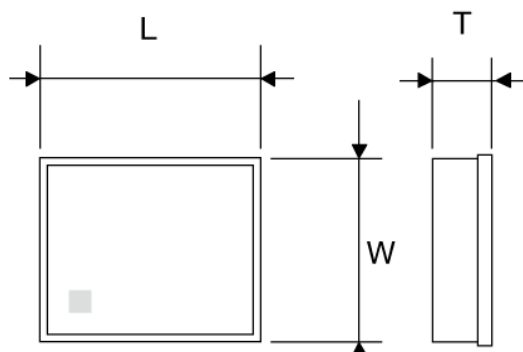


## SAW Dual Filter

## FAR-G5KT-942M50-Y4RW



## ■ Features

- Item Summary  
GSM850/900 , Rx, 705
- Lifecycle Stage  
Mass Production
- Standard packaging quantity (minimum)  
Taping Embossed 3000 , 15000pcs

## ■ Products characteristics table

Temperature Range	-30 to +85°C
GSM	850 / 900
Use	GSM
Transmitting / Receiving	Rx Dual Filter
Insertion Loss	1.9/2.2dB
Attenuation	50/25dB
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.



\* Pb Free Part



MSL1

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	GSM850/ GSM900 Rx (50/150ohms)	DATE	Aug. 10, 2011
Part Number	FAR-G5KT-942M50-Y4RW	Version 1.0aa	<b>Final</b>

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

Pass Band (869-894MHz)						
Item	Condition (MHz)	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Insertion Loss	869-894	-	1.9	2.6	dB(*1)	
Ripple	869-894	-	0.5	1.3	dB	
Input VSWR	869-894	-	1.6	2.1	-	
Output VSWR	869-894	-	1.7	2.1	-	
Absolute attenuation	DC-824	45	50	-	dB	
	824-849	40	50	-	dB	
	914-960	25	38	-	dB	
	960-2000	34	42	-	dB	
	2000-6000	25	39	-	dB	
Amplitude balance ( S21/S31 )	869-894	-1.0	-0.0/+0.2	+1.0	dB	
Phase balance (∠S21-∠S31)+180)	869-894	-10	+2/+4	+10	deg	
Input impedance (Unbalanced)		50//10nH			ohm	
Output impedance (Balanced)		150			ohm	
Operating temperature		-30 to +85			°C	

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



\* Pb Free Part



MSL1

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Table 2. Electrical specifications(Filter 2)

Pass Band (925-960MHz)						
Item	Condition (MHz)	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Insertion Loss	925-960	-	2.2	3.1	dB(*1)	
Ripple	925-960	-	0.8	1.7	dB	
Input VSWR	925-960	-	1.8	2.1	-	
Output VSWR	925-960	-	2.0	2.3	-	
Absolute attenuation	DC-880	40	44	-	dB	
	880-905	30	44	-	dB	
	905-915	18	25	-	dB	
	980-1025	25	31	-	dB	
	1025-2880	36	44	-	dB	
	2880-6000	25	39	-	dB	
Amplitude balance ( S <sub>21</sub> /S <sub>31</sub>  )	925-960	-1.0	-0.0/+0.2	+1.0	dB	
Phase balance (∠S <sub>21</sub> -∠S <sub>31</sub> )+180)	925-960	-10	0/+2.0	+10	deg	
Input impedance (Unbalanced)	50//10nH			ohm		
Output impedance (Balanced)	150			ohm		
Operating temperature	-30 to +85			°C		

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



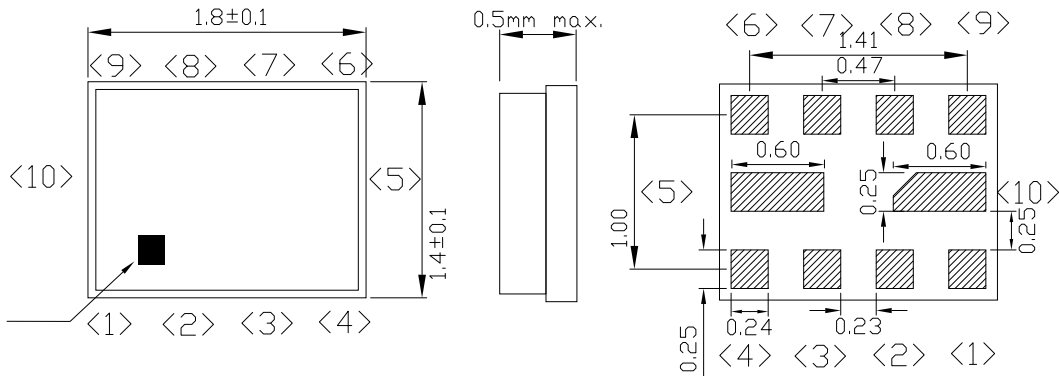
MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM850/ GSM900 Rx (50/150ohms)	DATE	Aug. 10, 2011
Part Number	FAR-G5KT-942M50-Y4RW	Version 1.0aa	

### Dimensions

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



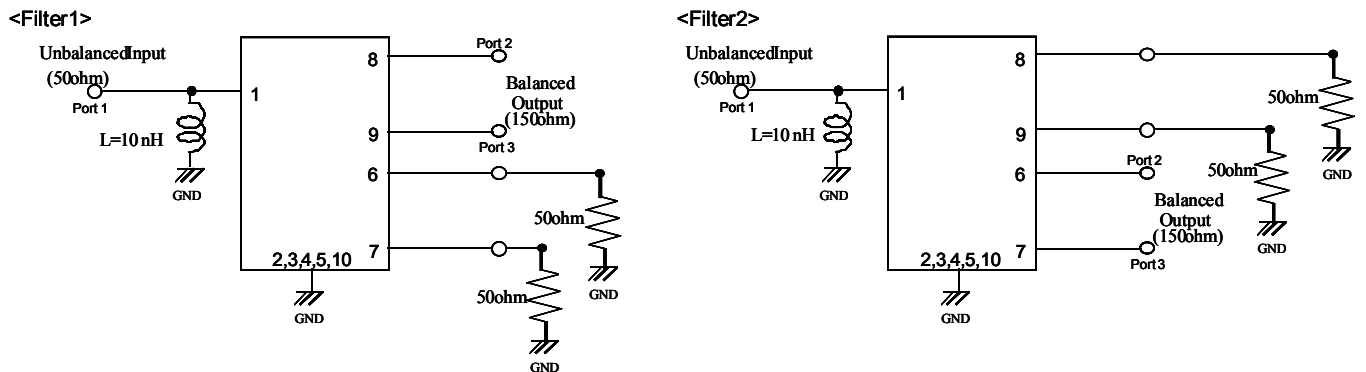
Unit : mm

### Pin Configuration

Pin No.	Pin name	Description
1	IN	Filter1,2 input pin
2	GND	Ground
3	GND	Ground
4	GND	Ground
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	869 ~ 894	GSM850-Rx
2	925 ~ 960	GSM900-Rx

### Evaluation Circuit





\* Pb Free Part



MSL1

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System	GSM850/ GSM900 Rx (50/150ohms)	DATE	Aug. 10, 2011
Part Number	FAR-G5KT-942M50-Y4RW	Version 1.0aa	

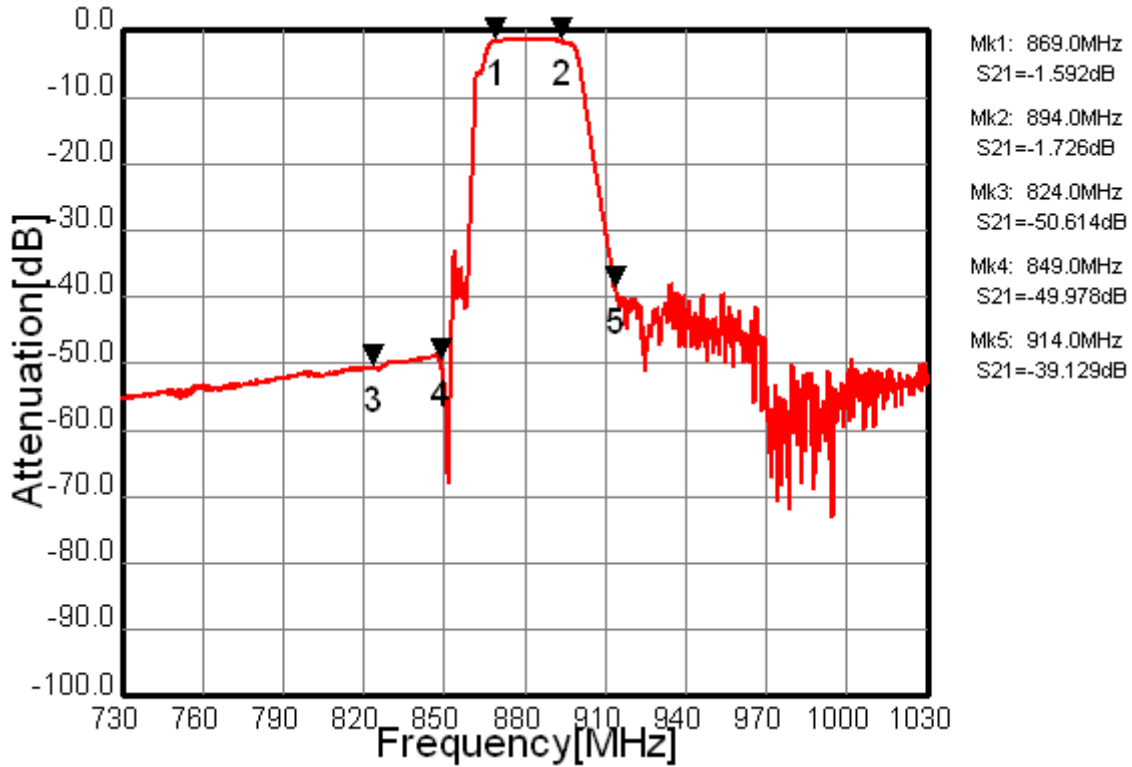


Fig.1 Pass-band Characteristic (Filter1)

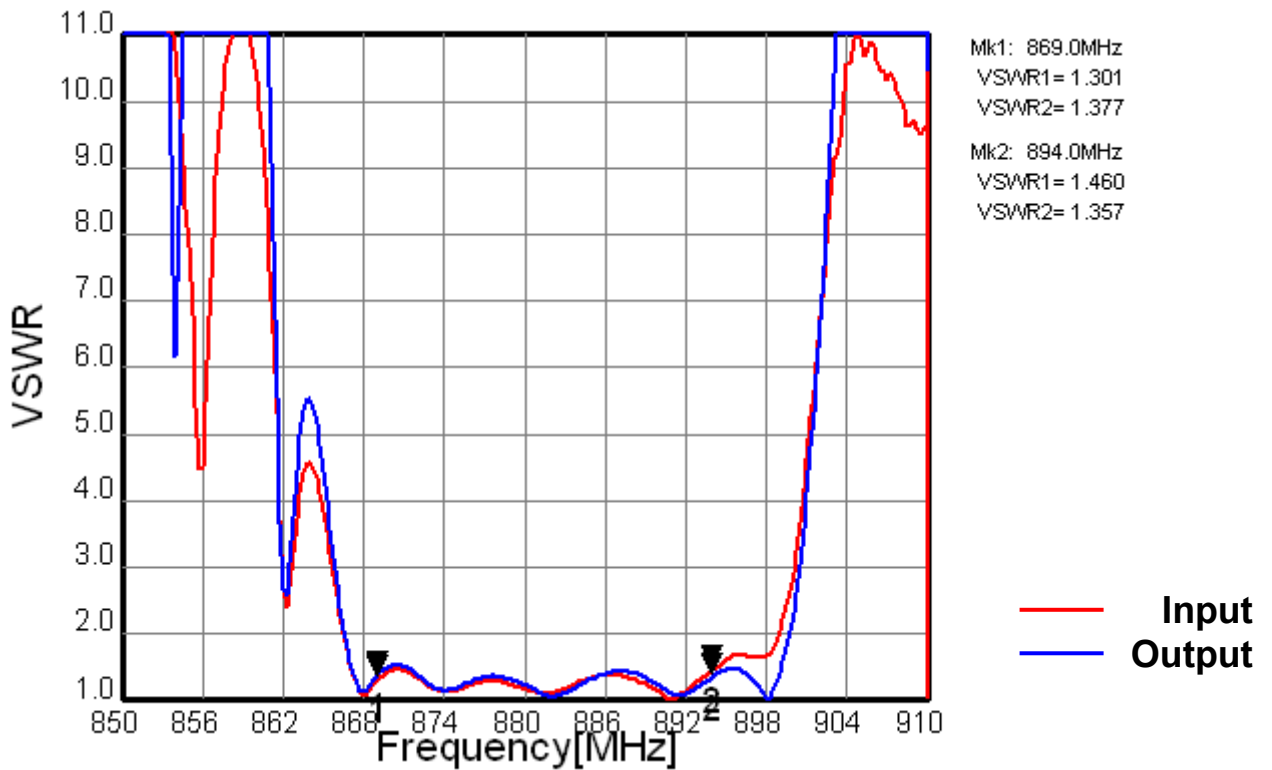


Fig.2 VSWR (Filter1)



\* Pb Free Part



MSL1

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM850/ GSM900 Rx (50/150ohms)	DATE	Aug. 10, 2011
Part Number	FAR-G5KT-942M50-Y4RW	Version 1.0aa	

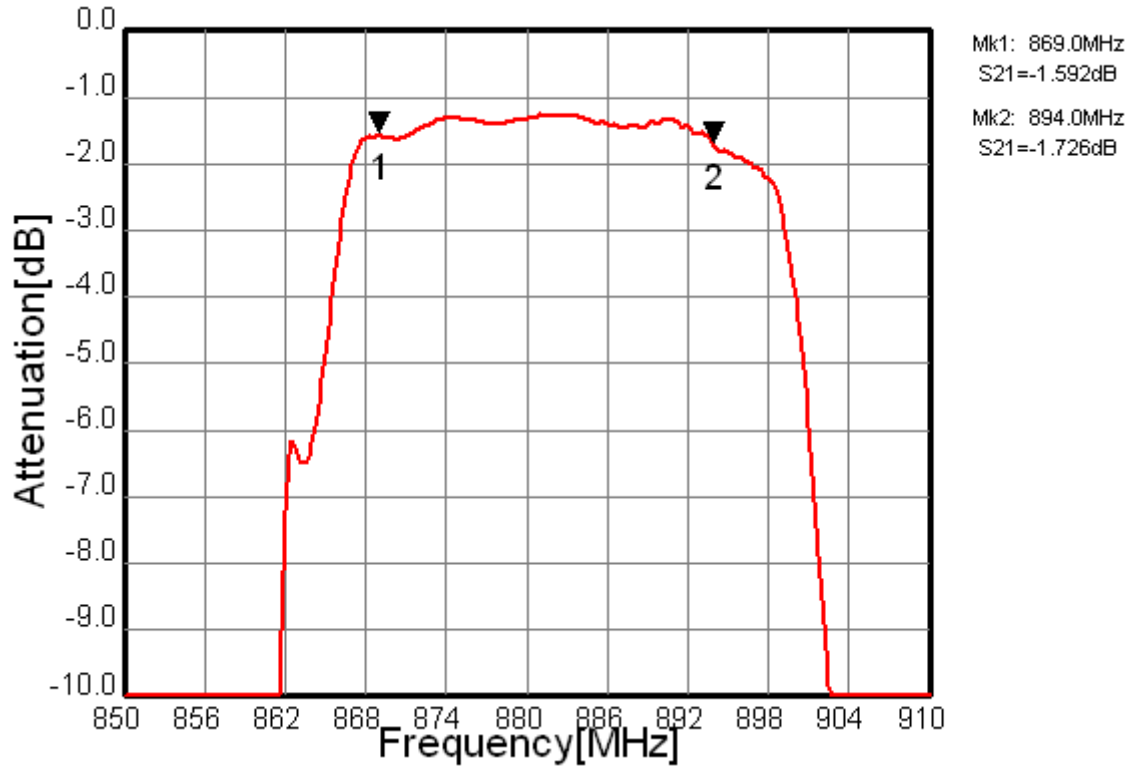


Fig.3 In-band Characteristic (Filter1)

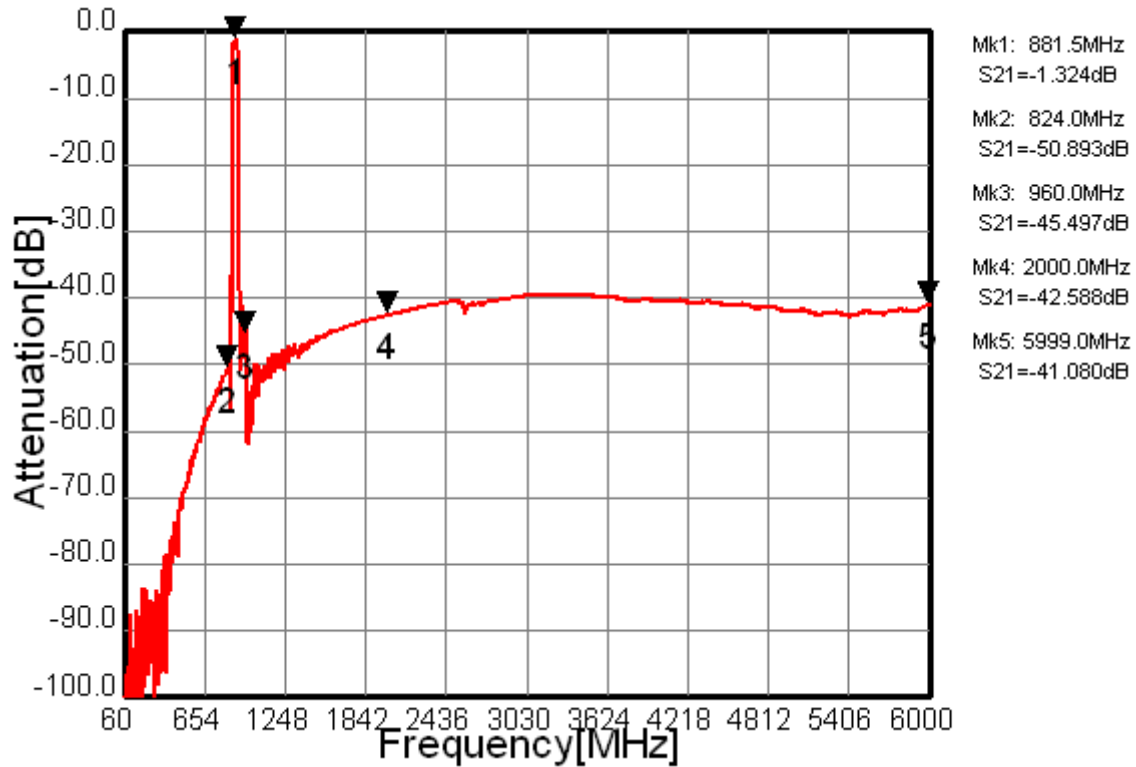


Fig.4 Wide-band Characteristic (Filter1)



\* Pb Free Part



MSL1

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM850/ GSM900 Rx (50/150ohms)	DATE	Aug. 10, 2011
Part Number	FAR-G5KT-942M50-Y4RW	Version 1.0aa	

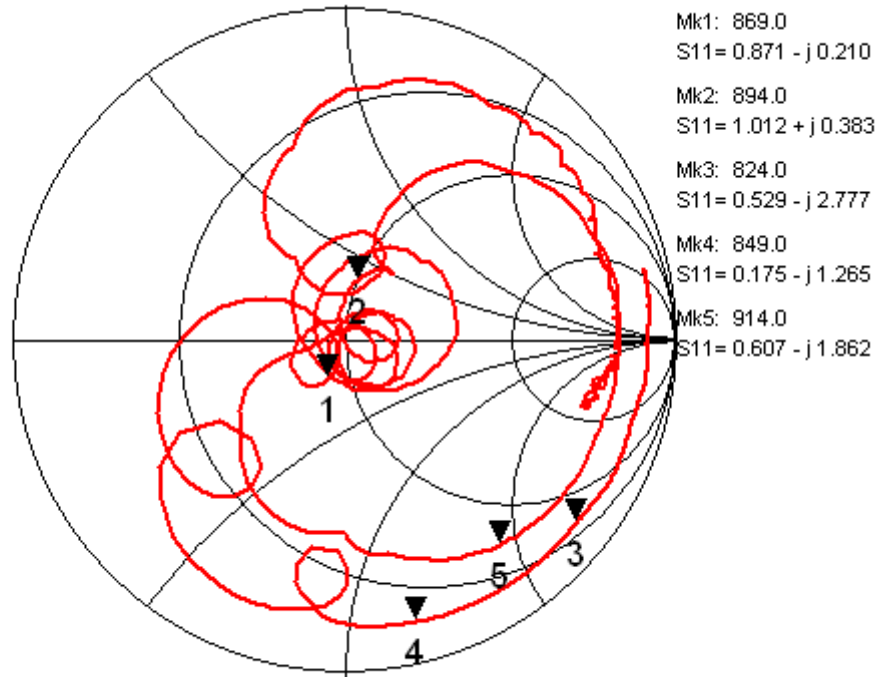


Fig.5 Impedance (SS11) (Filter1)

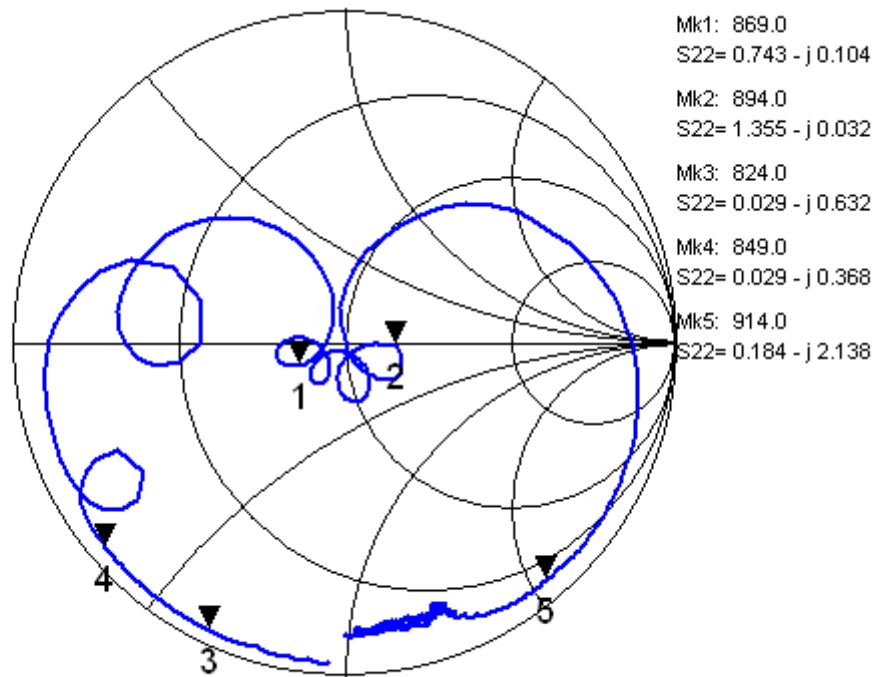


Fig.6 Impedance (SS22) (Filter1)



\* Pb Free Part



MSL1

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM850/ GSM900 Rx (50/150ohms)	DATE	Aug. 10, 2011
Part Number	FAR-G5KT-942M50-Y4RW	Version 1.0aa	

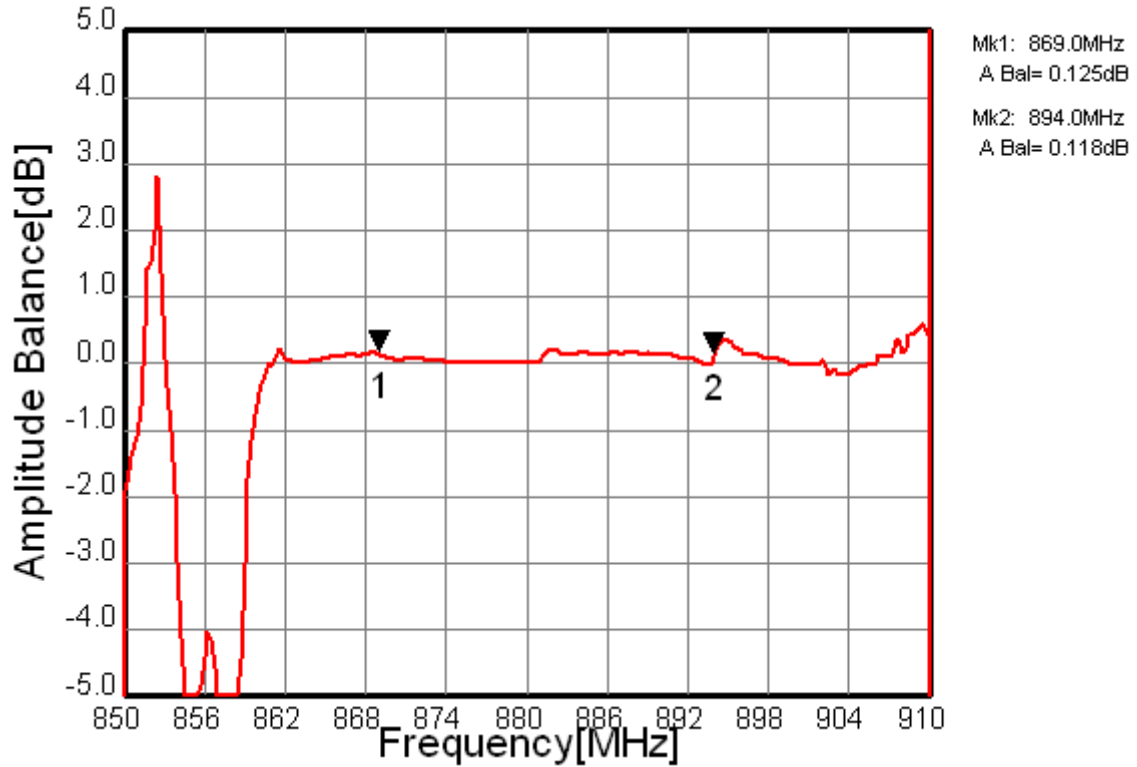


Fig.7 Amplitude Balance (Filter1)

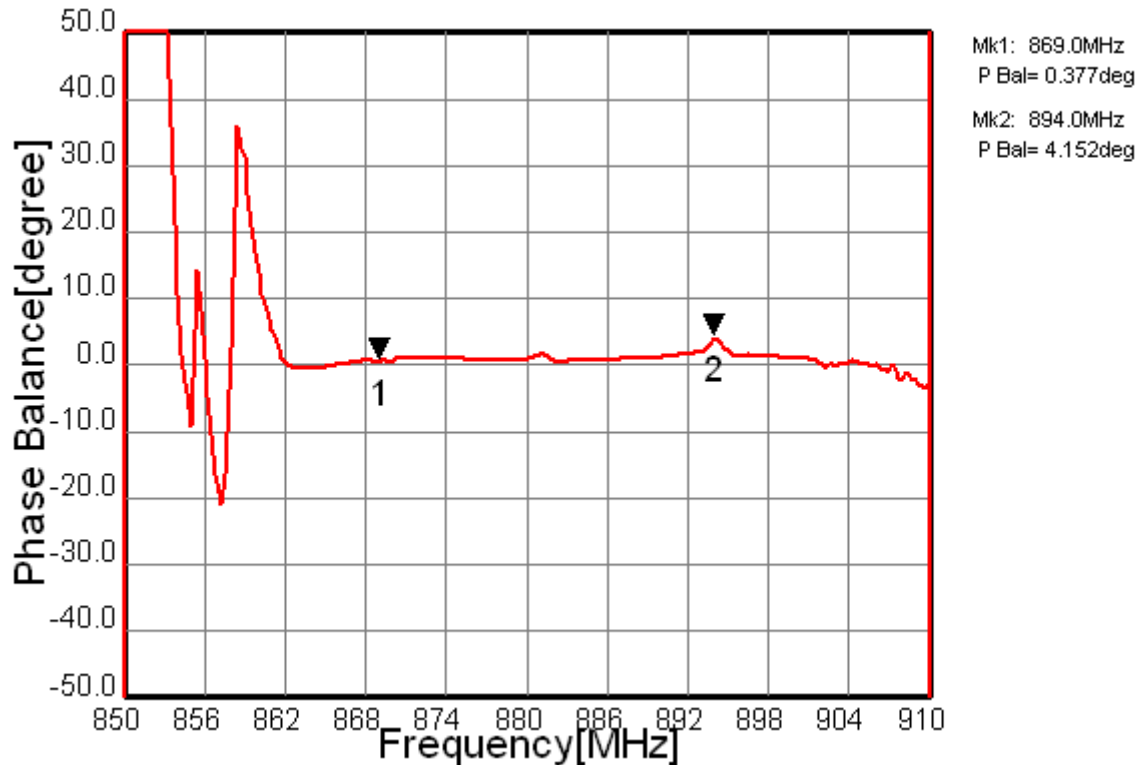


Fig.8 Phase Balance (Filter1)





\* Pb Free Part



MSL1

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM850/ GSM900 Rx (50/150ohms)	DATE	Aug. 10, 2011
Part Number	FAR-G5KT-942M50-Y4RW	Version 1.0aa	

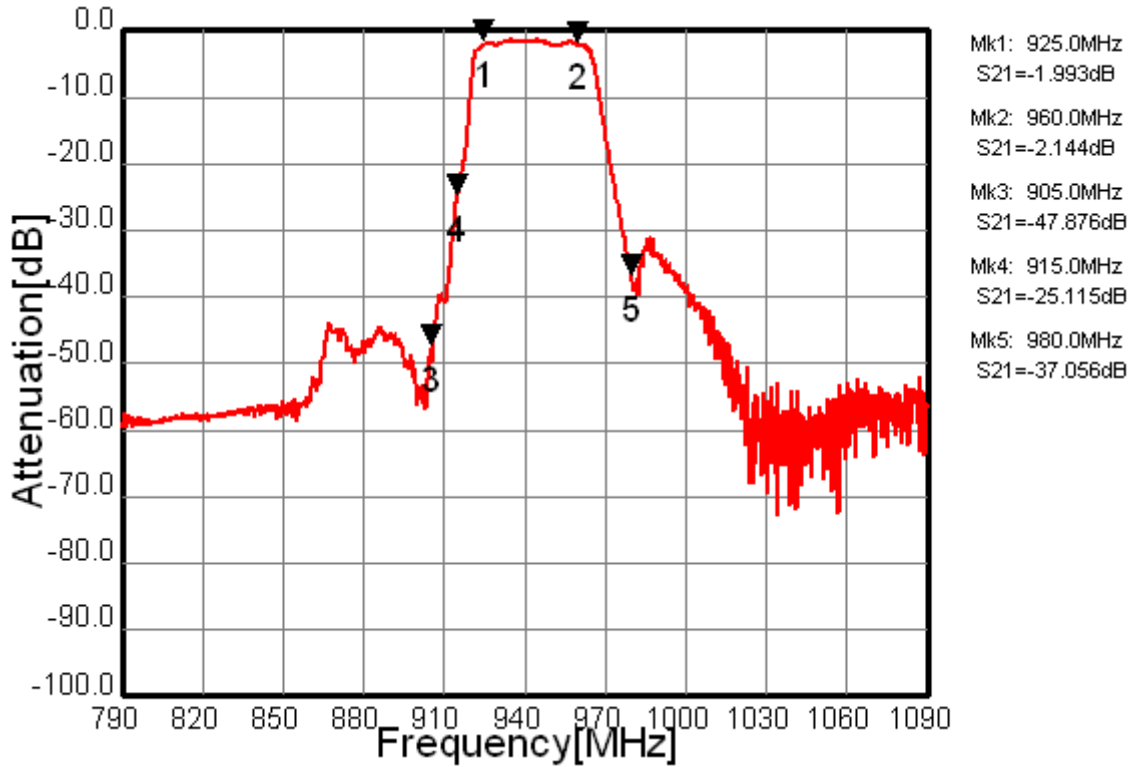


Fig.9 Pass-band Characteristic (Filter2)

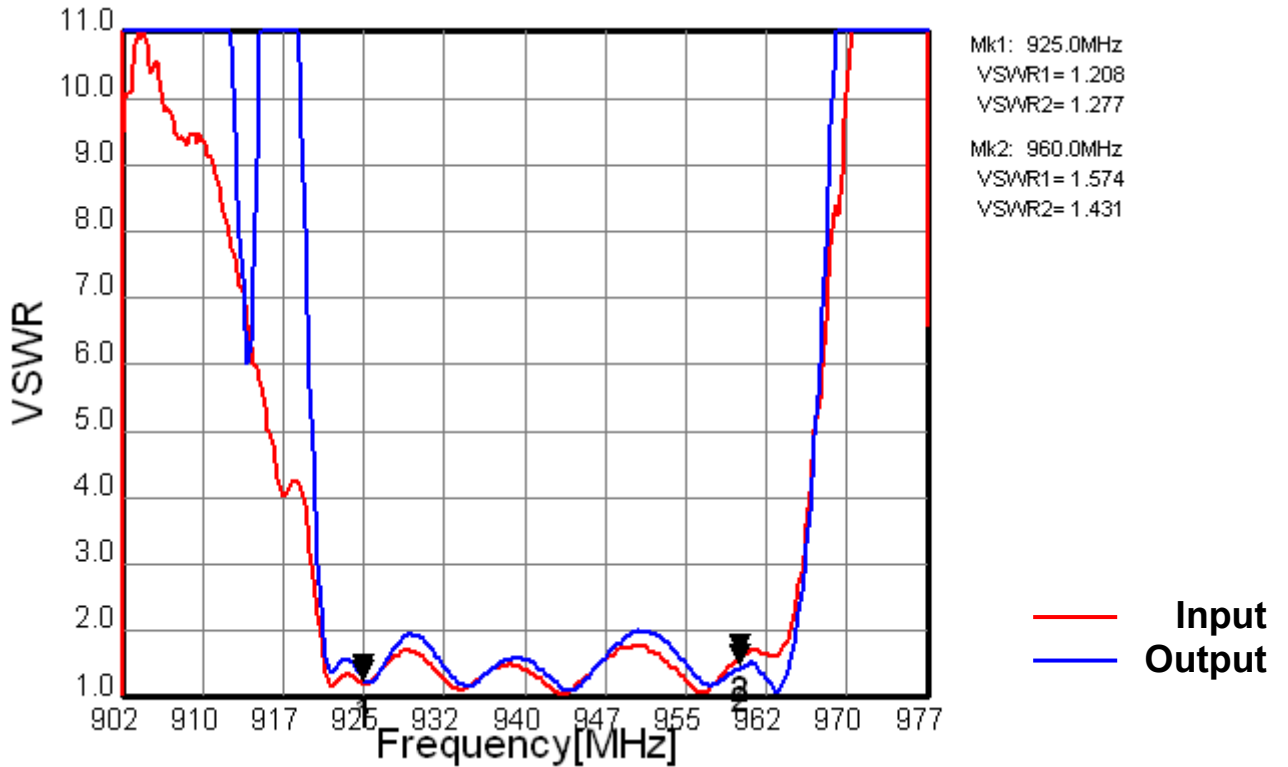


Fig.10 VSWR (Filter2)

**TAIYO YUDEN**



\* Pb Free Part



MSL1

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM850/ GSM900 Rx (50/150ohms)	DATE	Aug. 10, 2011
Part Number	FAR-G5KT-942M50-Y4RW	Version 1.0aa	

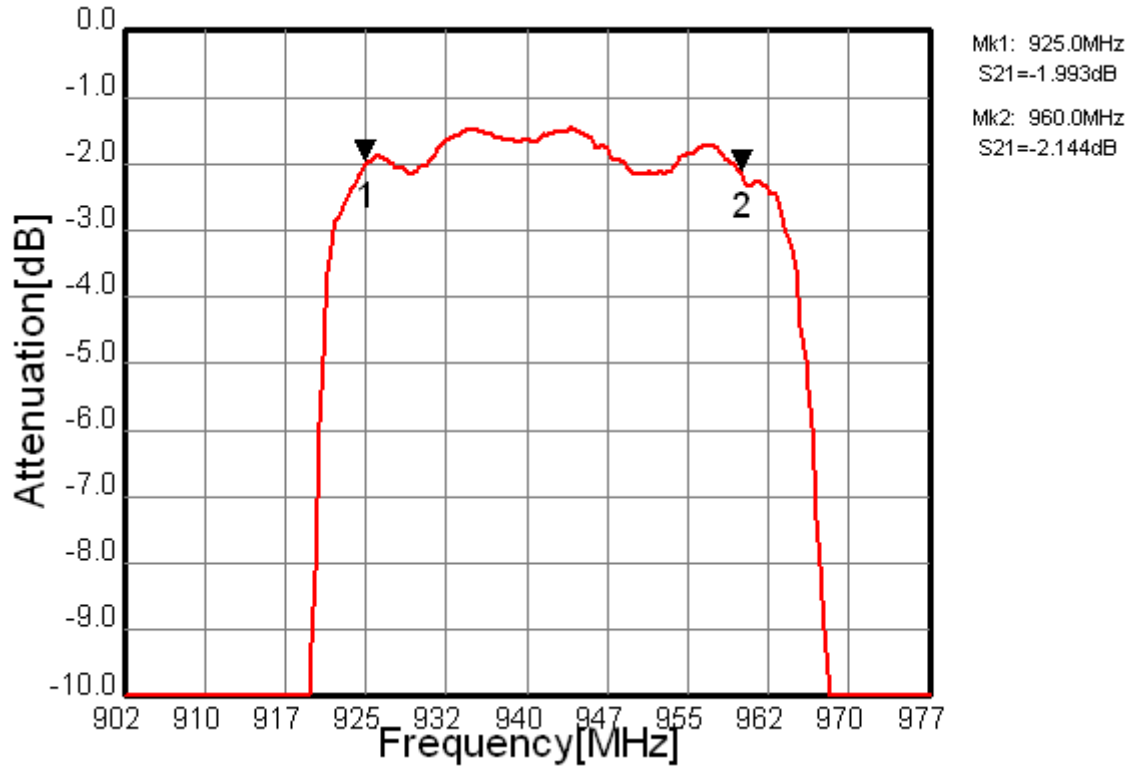


Fig.11 In-band Characteristic (Filter2)

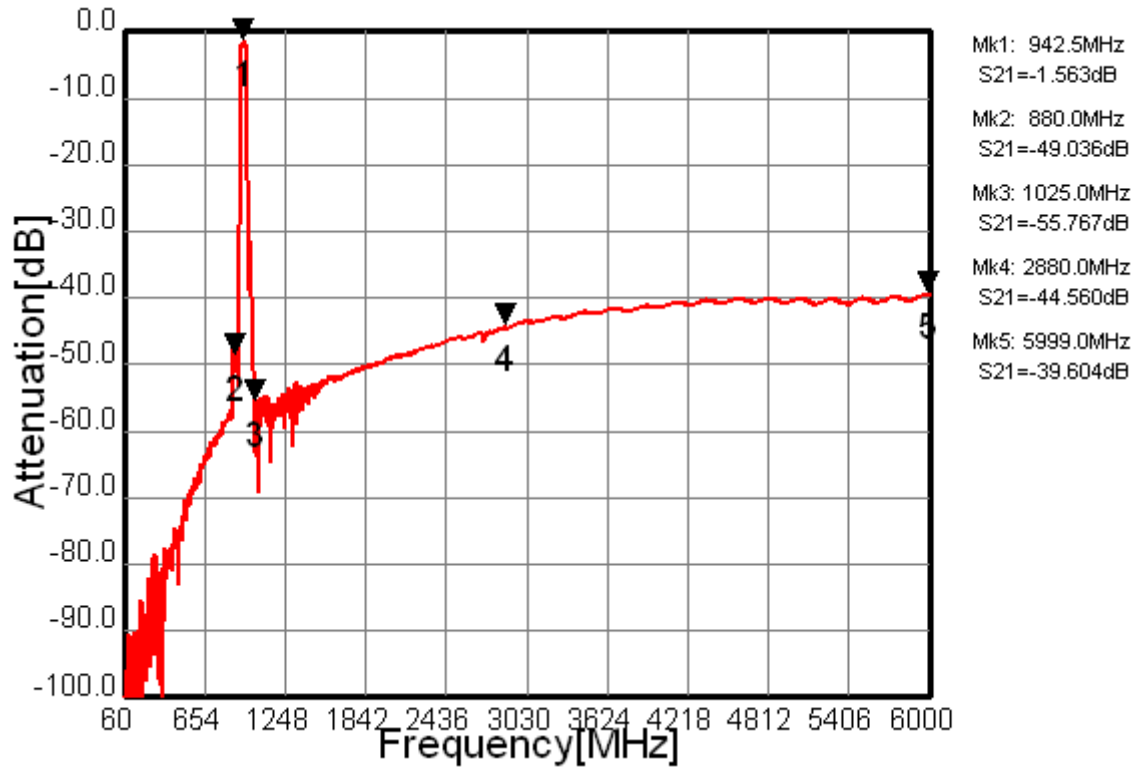


Fig.12 Wide-band Characteristic (Filter2)



\* Pb Free Part



MSL1

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM850/ GSM900 Rx (50/150ohms)	DATE	Aug. 10, 2011
Part Number	FAR-G5KT-942M50-Y4RW	Version 1.0aa	

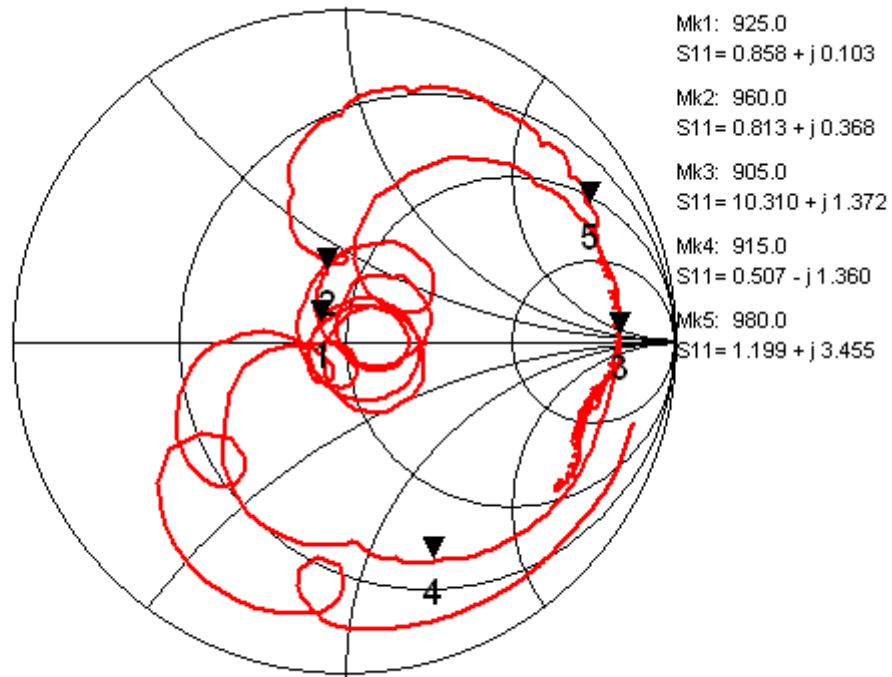


Fig.13 Impedance (SS11) (Filter2)

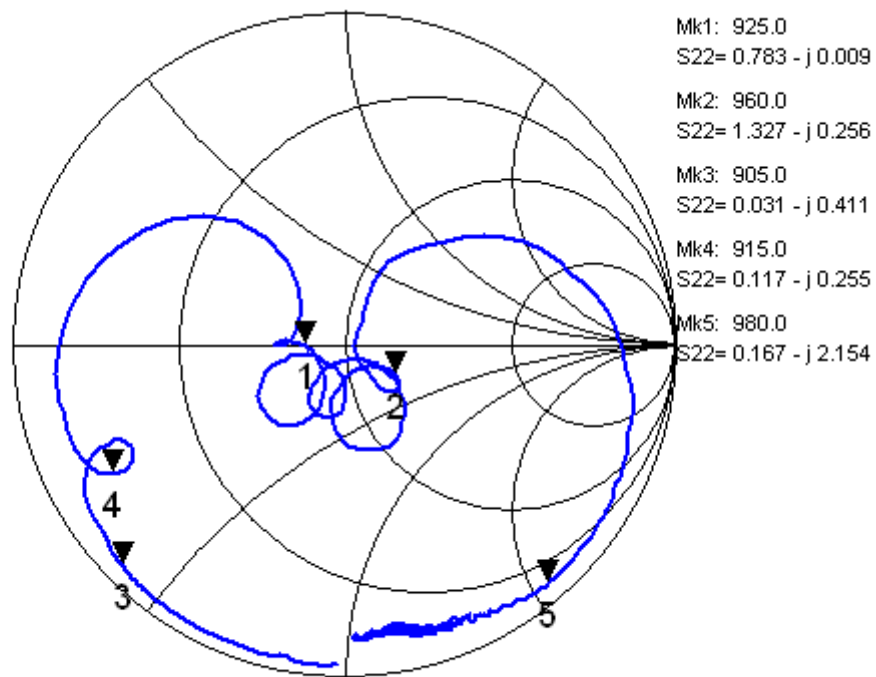


Fig.14 Impedance (SS22) (Filter2)



\* Pb Free Part



MSL1

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System	GSM850/ GSM900 Rx (50/150ohms)	DATE	Aug. 10, 2011
Part Number	FAR-G5KT-942M50-Y4RW	Version 1.0aa	

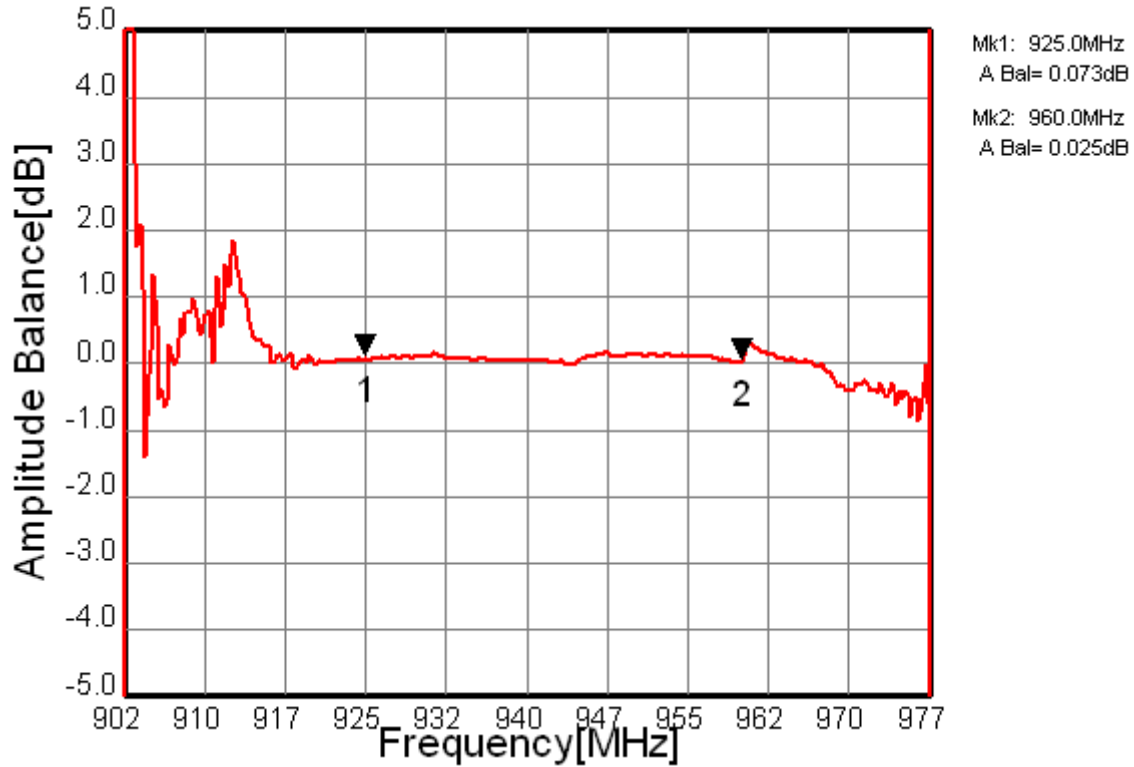


Fig.15 Amplitude Balance (Filter2)

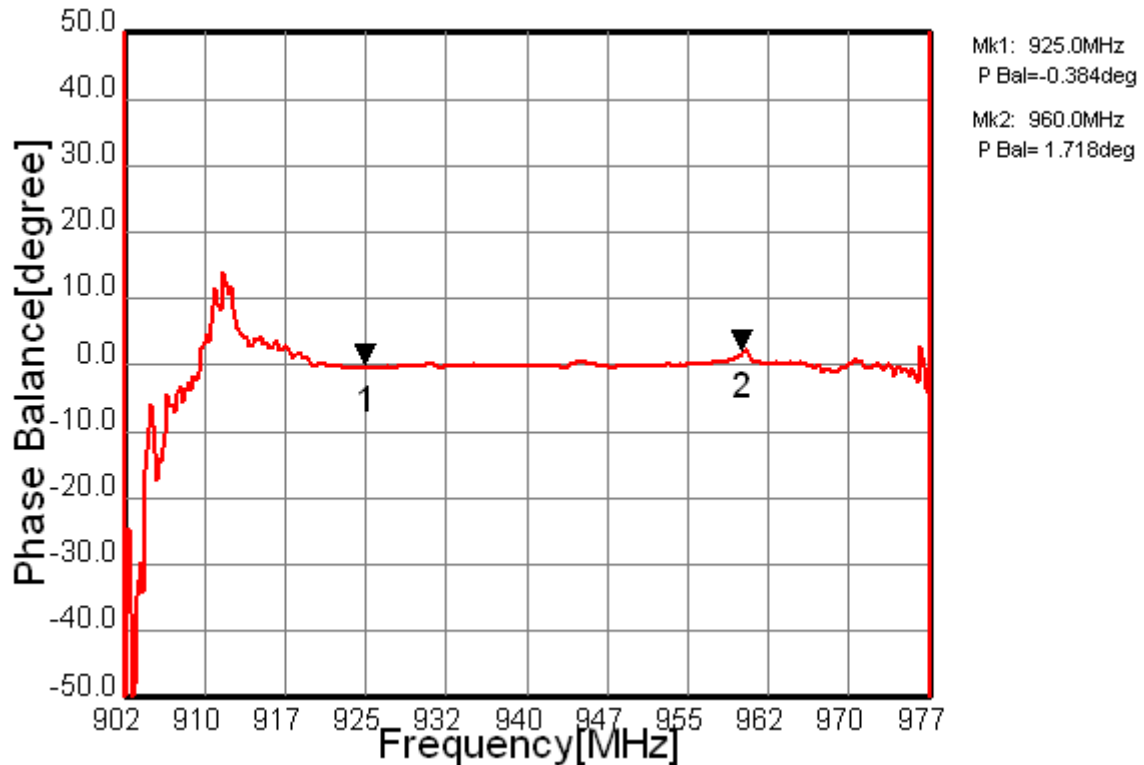


Fig.16 Phase Balance (Filter2)