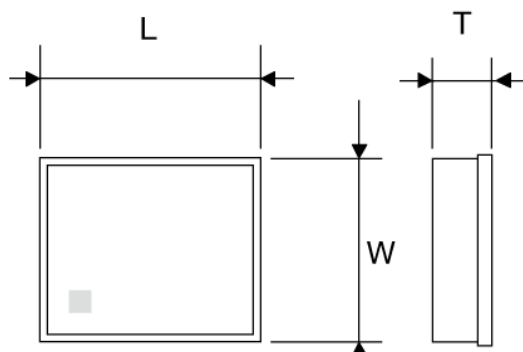


## SAW Dual Filter

## FAR-G6KT-1G9600-Y4RY



## ■ Features

- Item Summary  
GSM1900/1800 , Rx, 705
- Lifecycle Stage  
Mass Production
- Standard packaging quantity (minimum)  
Taping Embossed 3000 , 15000pcs

## ■ Products characteristics table

Temperature Range	-30 to +85°C
GSM	1900 / 1800
Use	GSM
Transmitting / Receiving	Rx Dual Filter
Insertion Loss	1.9/1.8dB
Attenuation	13/18dB
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	<b>Standard Specification</b>	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	PCS/ DCS Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G6KT-1G9600-Y4RY	Version 2.0bb	

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

Passband: 1930 ~ 1990 MHz						
Item	Condition	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Insertion Loss	1930~1990 MHz	-	1.9	2.7	dB	
Ripple	1930~1990 MHz	-	0.6	1.5	dB	
Absolute attenuation	DC ~1830 MHz	25	32	-	dB	
	1830~1910 MHz	10	13	-	dB	
	2010~2070 MHz	7	15	-	dB	
	2070~2150 MHz	13	18	-	dB	
	2150~3000 MHz	25	30	-	dB	
	3000~6000 MHz	25	35	-	dB	
VSWR (Input)	1930~1990 MHz	-	1.6	2.0	-	
VSWR (Output)	1930~1990 MHz	-	1.6	2.0	-	
Amplitude Balance  S21 / S31	1930~1990 MHz	-1.0	-0.2/+0.4	+1.0	dB	
Phase Balance ( $\phi$ S21- $\phi$ S31)-180	1930~1990 MHz	-15	-8/+5	+15	deg.	
Input Impedance	Unbalanced	50//3.3nH			ohm	
Output Impedance	Balance	150//18nH			ohm	
Operating Temperature		-30 ~ +85			°C	



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Part Number	FAR-G6KT-1G9600-Y4RY	Version 2.0bb	

Table 2. Electrical specifications (Filter2)

Passband: 1805 ~ 1880 MHz						
Item	Condition	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Insertion Loss	1805~1880 MHz	-	1.8	2.5	dB	
Ripple	1805~1880 MHz	-	0.6	1.5	dB	
Absolute attenuation	DC ~1300 MHz	30	44	-	dB	
	1300~1705 MHz	20	30	-	dB	
	1705~1785 MHz	12	18	-	dB	
	1920~1980 MHz	15	20	-	dB	
	1980~3000 MHz	18	25	-	dB	
	3000~5000 MHz	25	36	-	dB	
	5000~6000 MHz	25	36	-	dB	
VSWR (Input)	1805~1880 MHz	-	1.5	2.3	-	
VSWR (Output)	1805~1880 MHz	-	1.8	2.3	-	
Amplitude Balance  S21 / S31	1805~1880 MHz	-1.4	-0.6/+0.8	+1.4	dB	
Phase Balance ( $\Phi$ S21- $\Phi$ S31)-180	1805~1880 MHz	-10	-4.0/+4.0	+10	deg.	
Input Impedance	Unbalanced	50//3.3nH			ohm	
Output Impedance	Balance	150//15nH			ohm	
Operating Temperature		-30 ~ +85			°C	



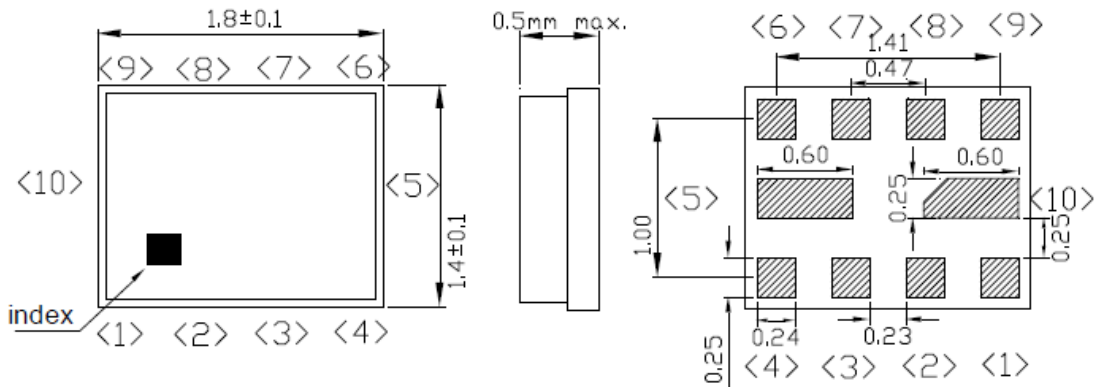
MSL1

\* Pb Free Part

Customer Name	<b>Standard Specification</b>	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	PCS/ DCS Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G6KT-1G9600-Y4RY	Version 2.0bb	

**Dimensions**

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



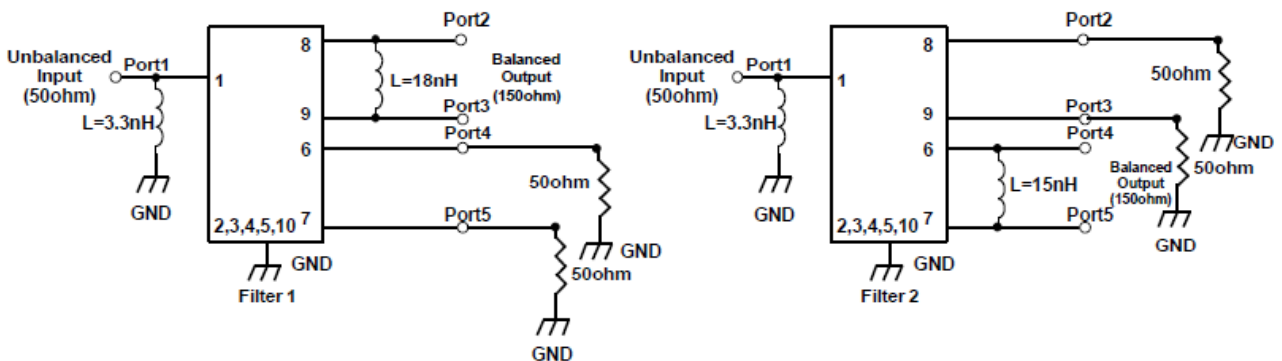
Unit: mm

**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.	Pass band (MHz)	System
1	1930 ~ 1990	PCS-Rx
2	1805 ~ 1880	DCS-Rx

**Evaluation Circuit**





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\* Pb Free Part

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System	PCS/ DCS Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G6KT-1G9600-Y4RY	Version 2.0bb	

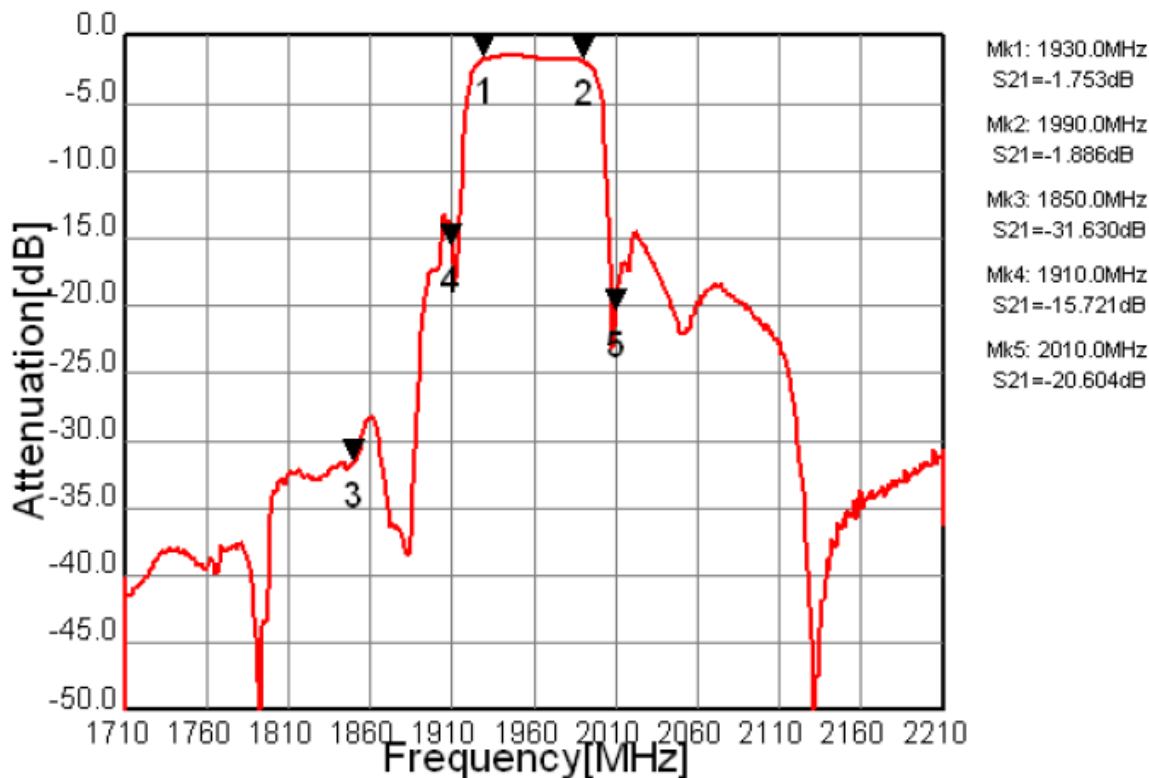


Fig.1 Pass-band Characteristics (Filter1)

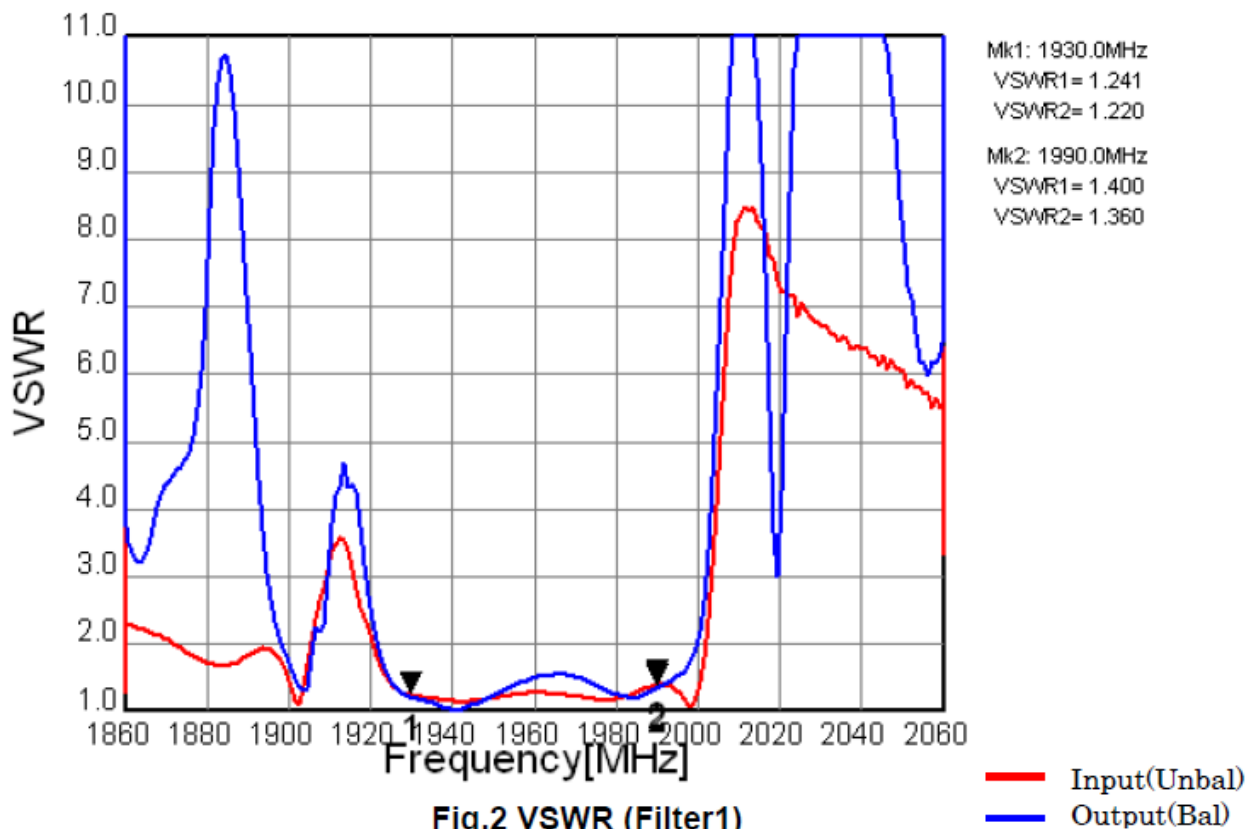


Fig.2 VSWR (Filter1)



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\* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	PCS/ DCS Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G6KT-1G9600-Y4RY	Version 2.0bb	

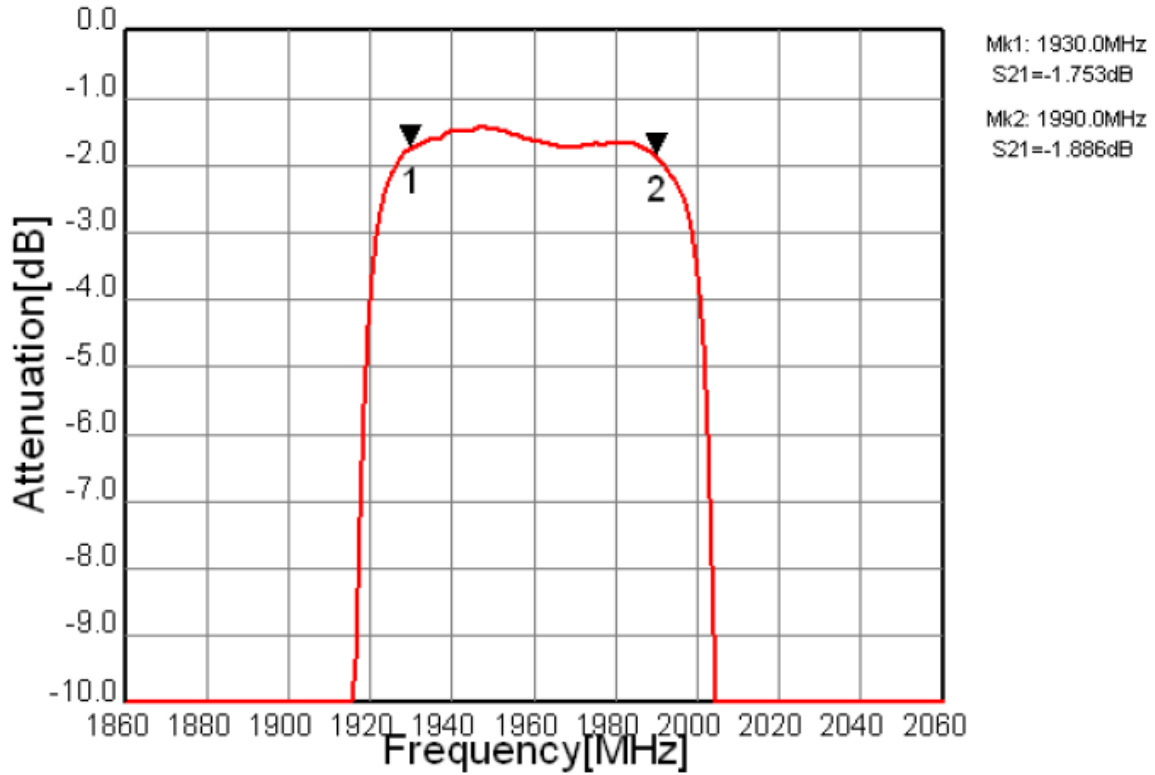


Fig.3 In-band Characteristics (Filter1)

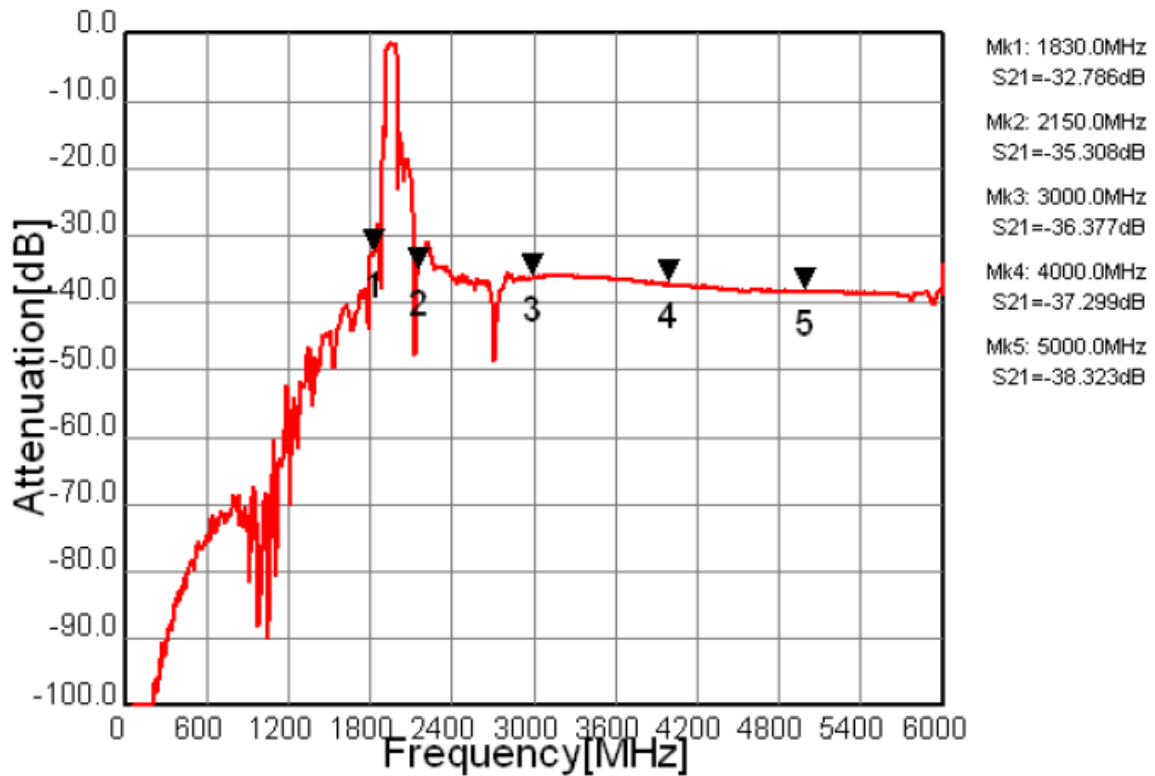


Fig. 4 Wide-band Characteristics (Filter1)



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\* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	PCS/ DCS Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G6KT-1G9600-Y4RY	Version 2.0bb	

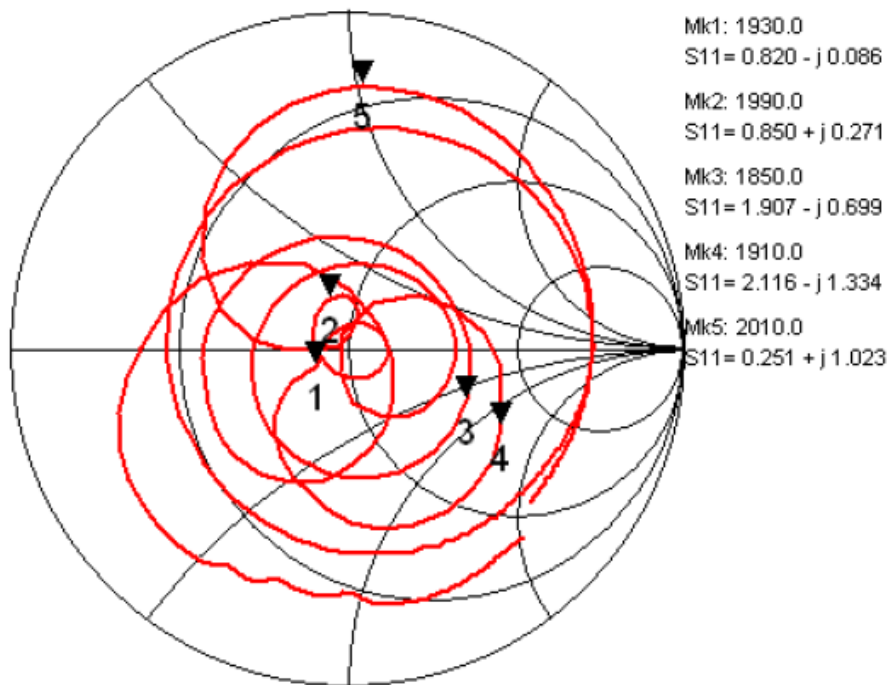


Fig. 5 Input Impedance (Unbalance) (Filter1)

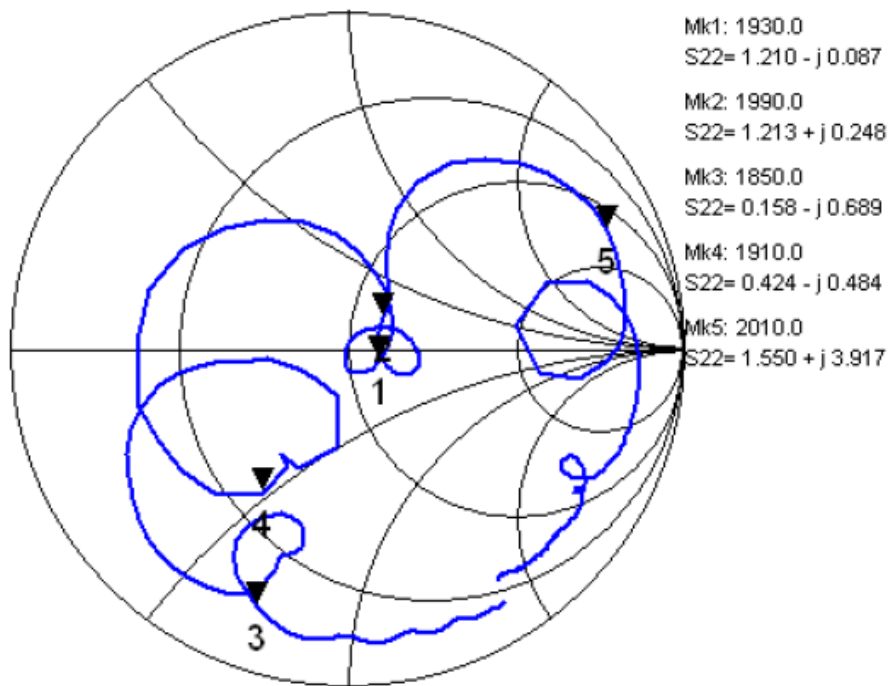


Fig. 6 Output Impedance (Balance) (Filter1)



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\* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	PCS/ DCS Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G6KT-1G9600-Y4RY	Version 2.0bb	

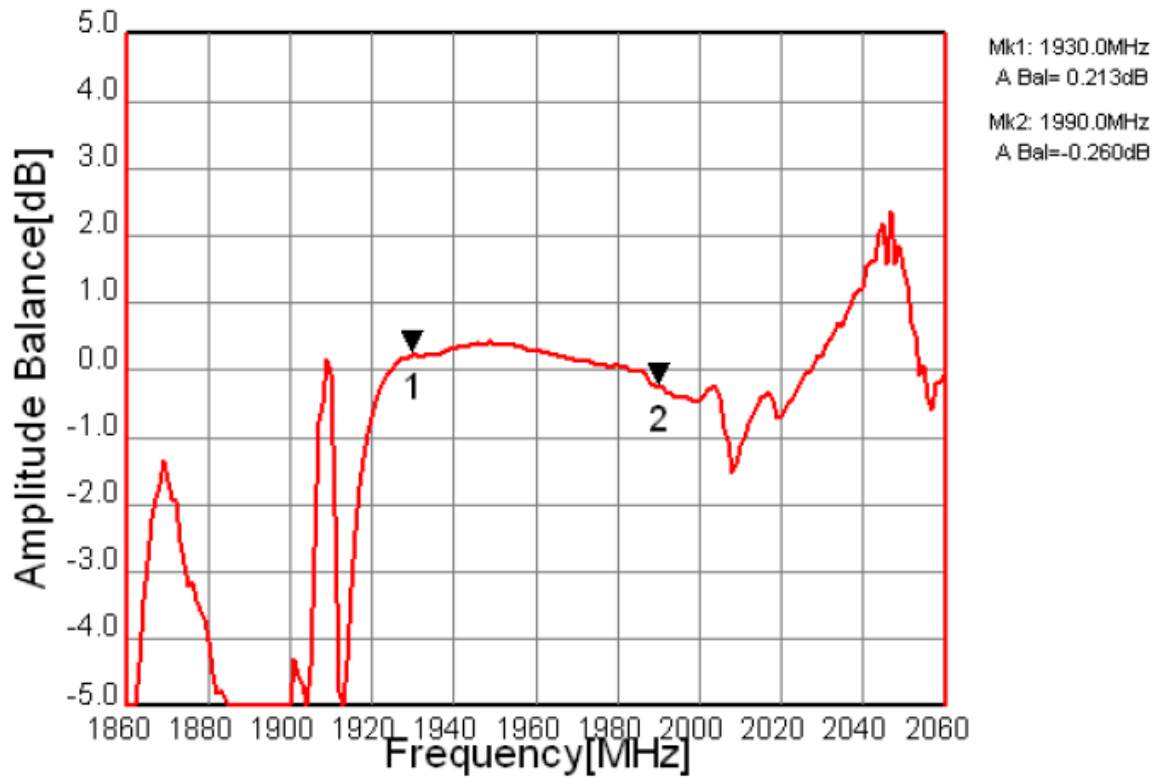


Fig. 7 Amplitude Balance (Filter1)

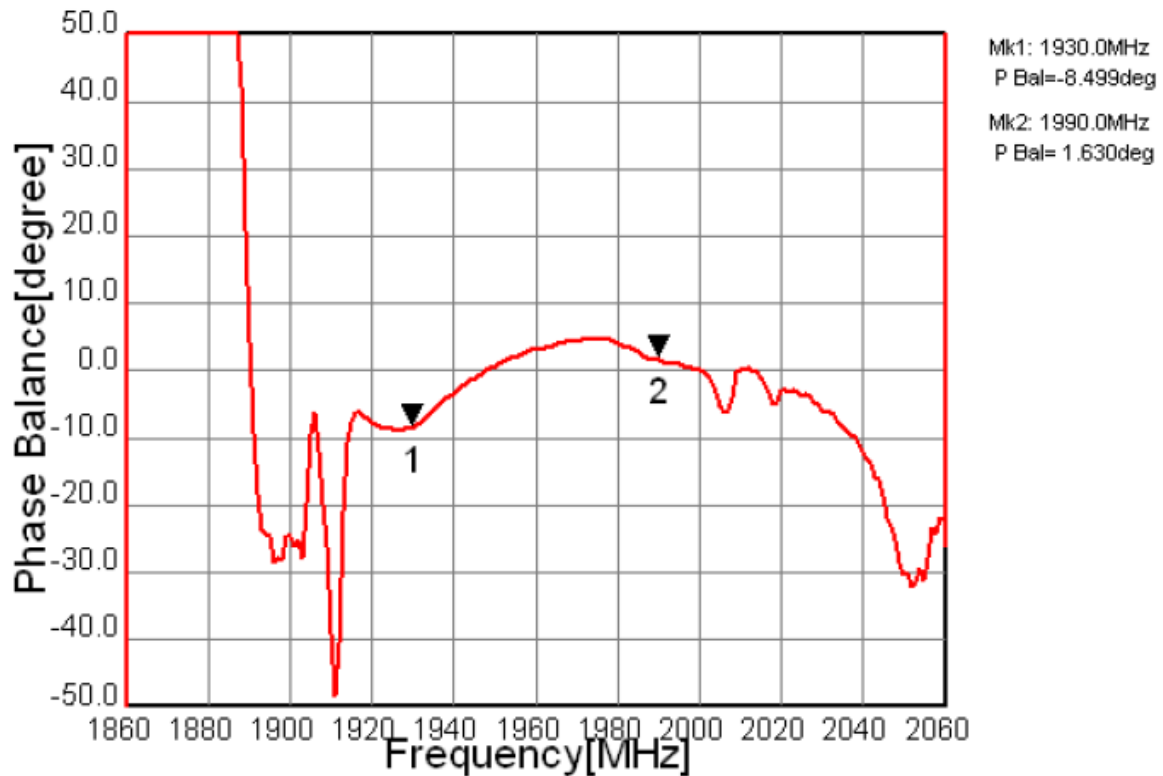


Fig. 8 Phase Balance (Filter1)





MSL1

\* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	PCS/ DCS Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G6KT-1G9600-Y4RY	Version 2.0bb	

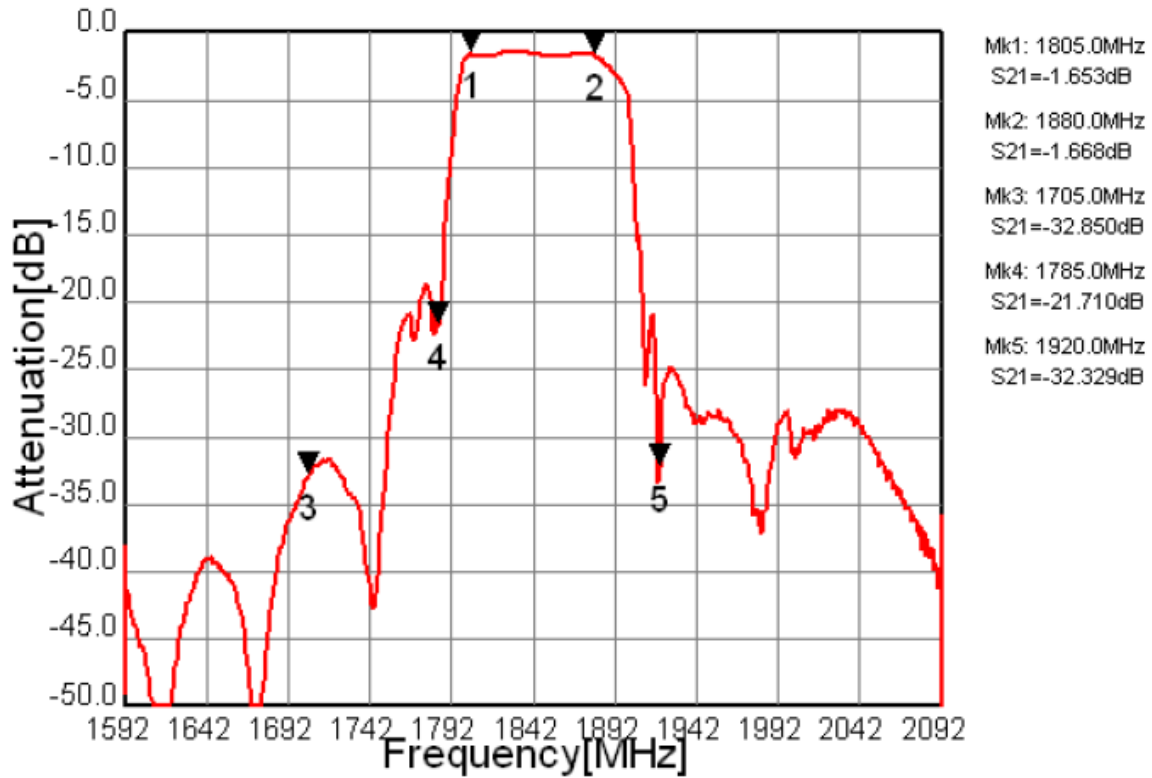


Fig.9 Pass-band Characteristics (Filter2)

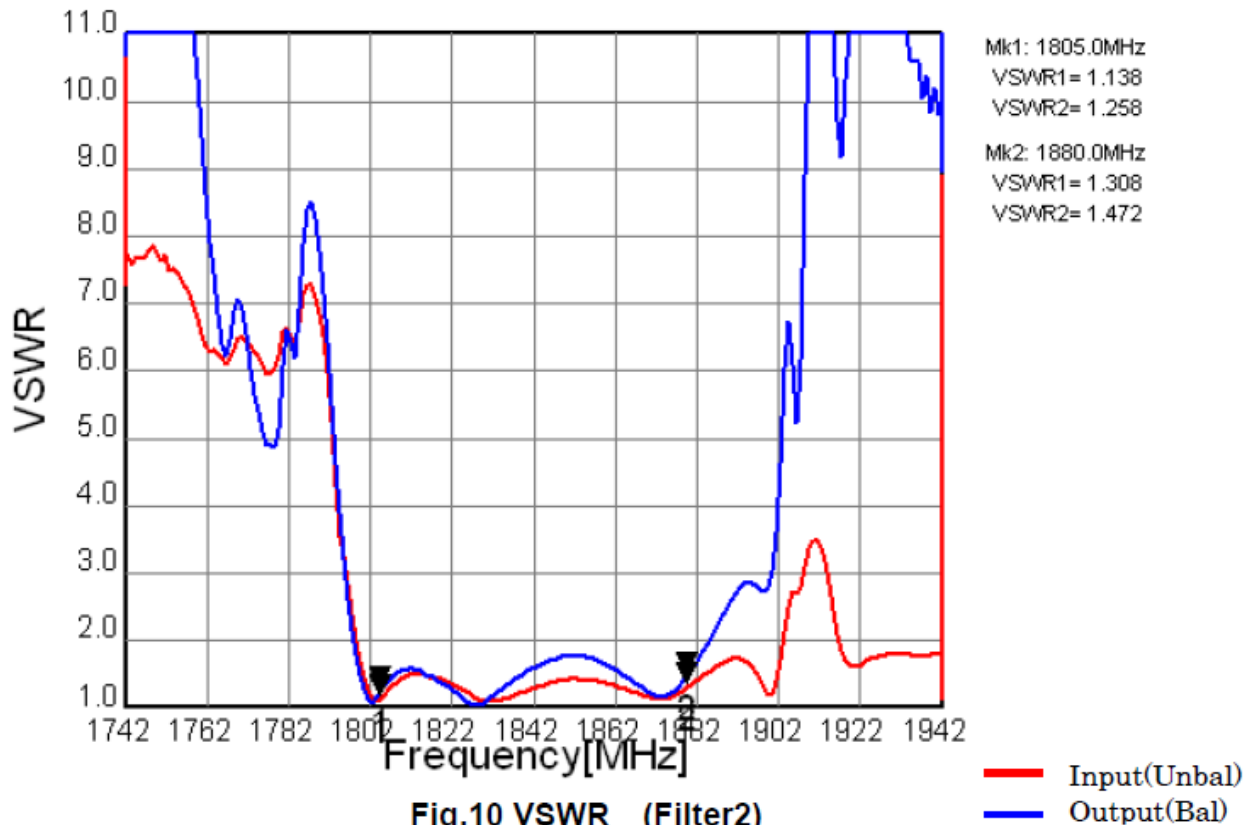


Fig.10 VSWR (Filter2)



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\* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	PCS/ DCS Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G6KT-1G9600-Y4RY	Version 2.0bb	

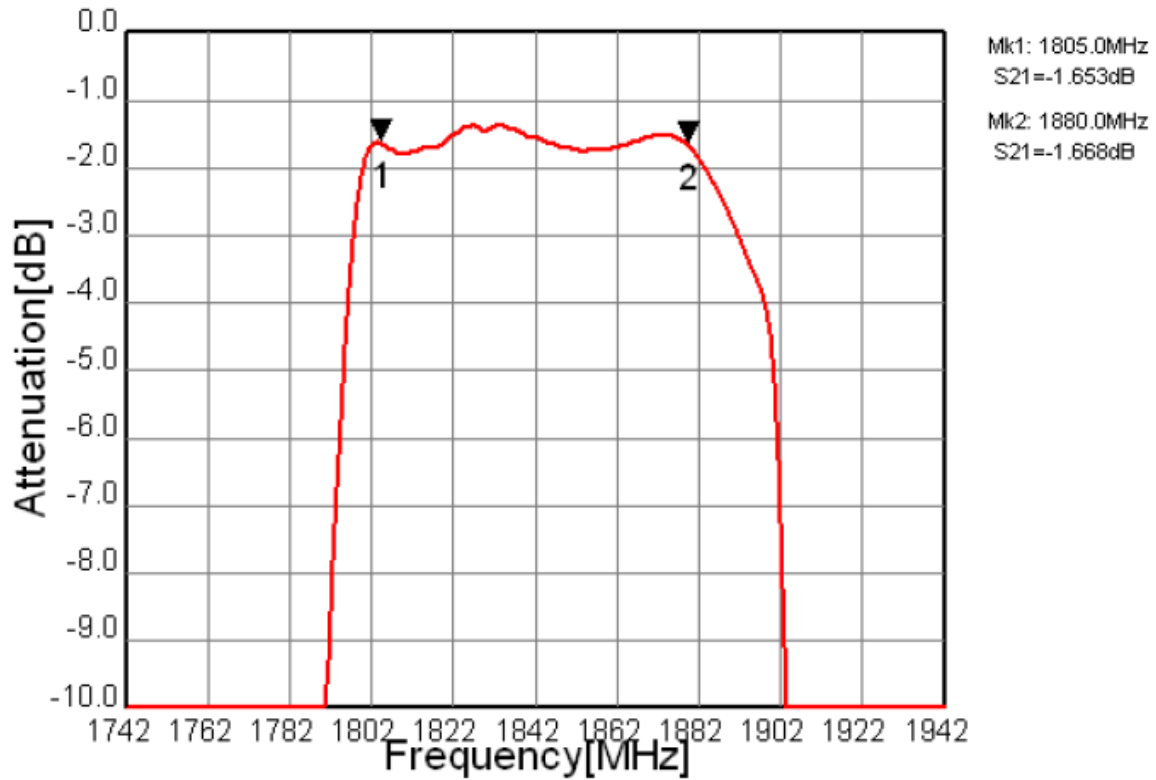


Fig.11 In-band Characteristics (Filter2)

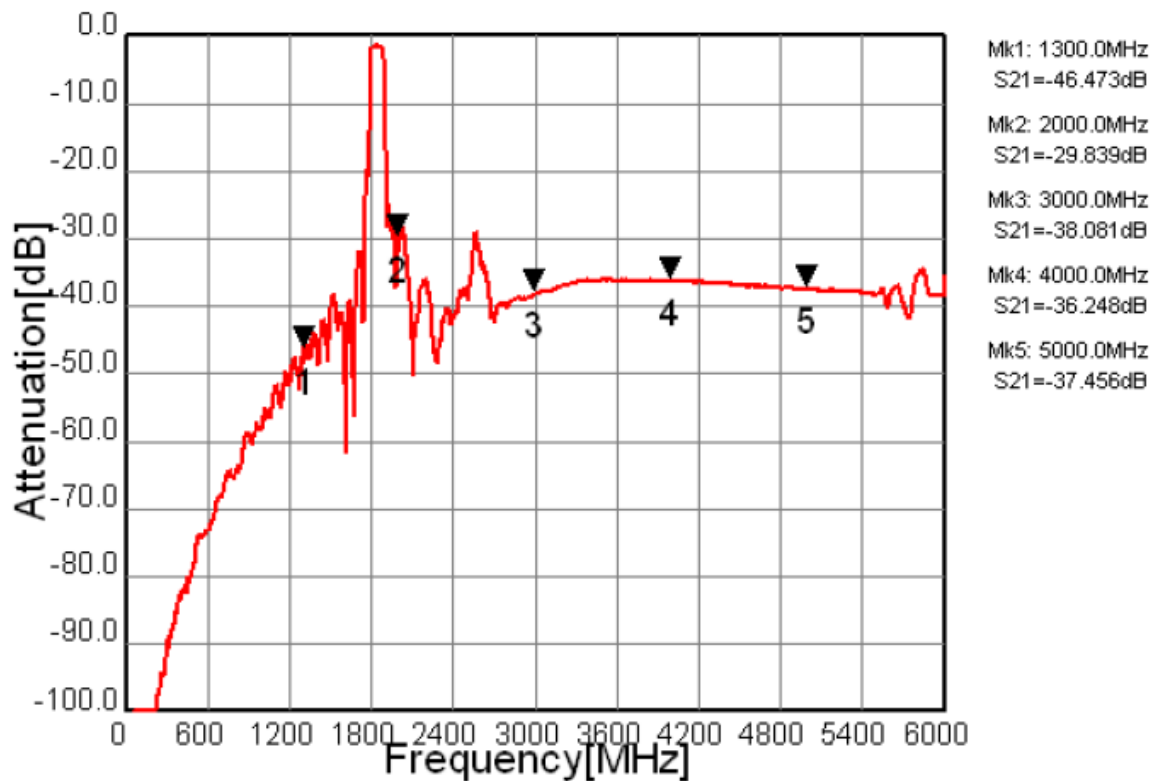


Fig.12 Wide-band Characteristics (Filter2)



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\* Pb Free Part

Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	PCS/ DCS Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G6KT-1G9600-Y4RY	Version 2.0bb	

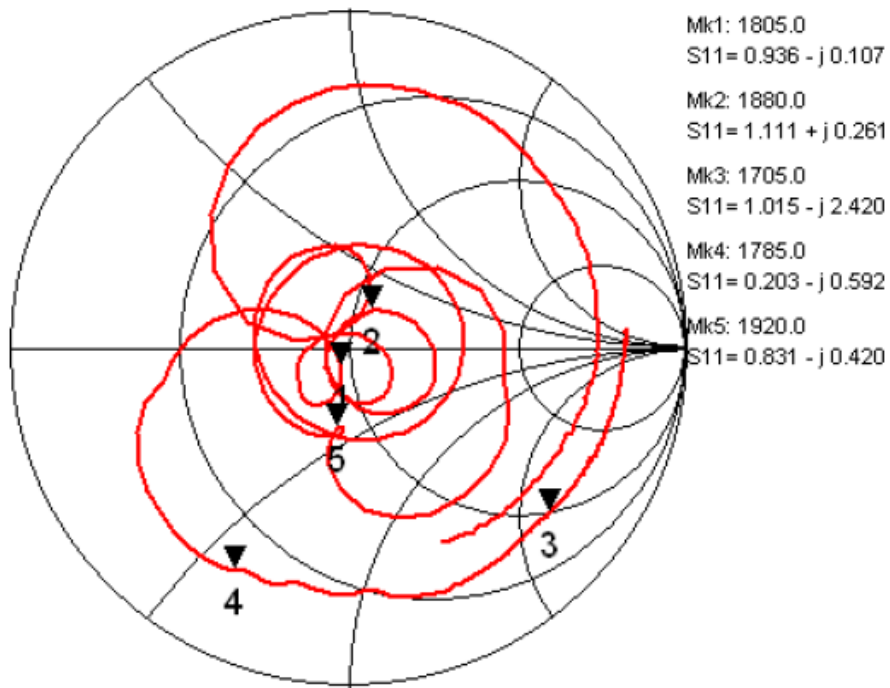


Fig.13 Input Impedance (Unbalance) (Filter2)

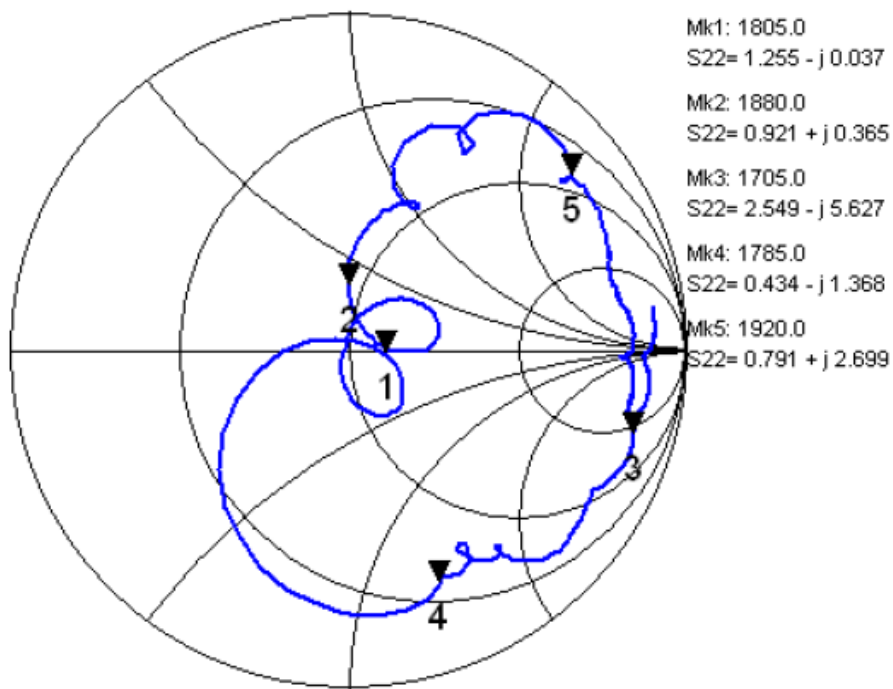


Fig.14 Output Impedance (Balance) (Filter2)



MSL1

\* Pb Free Part

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System	PCS/ DCS Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G6KT-1G9600-Y4RY	Version 2.0bb	

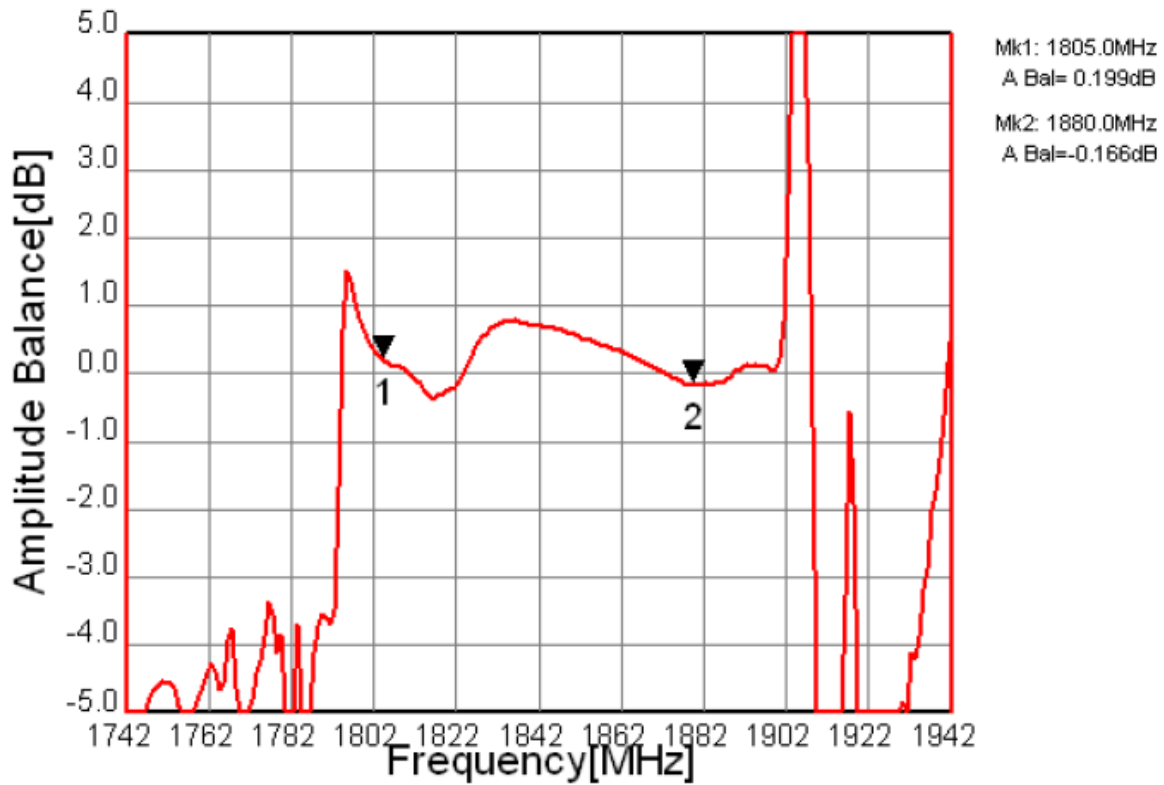


Fig.15 Amplitude Balance (Filter2)

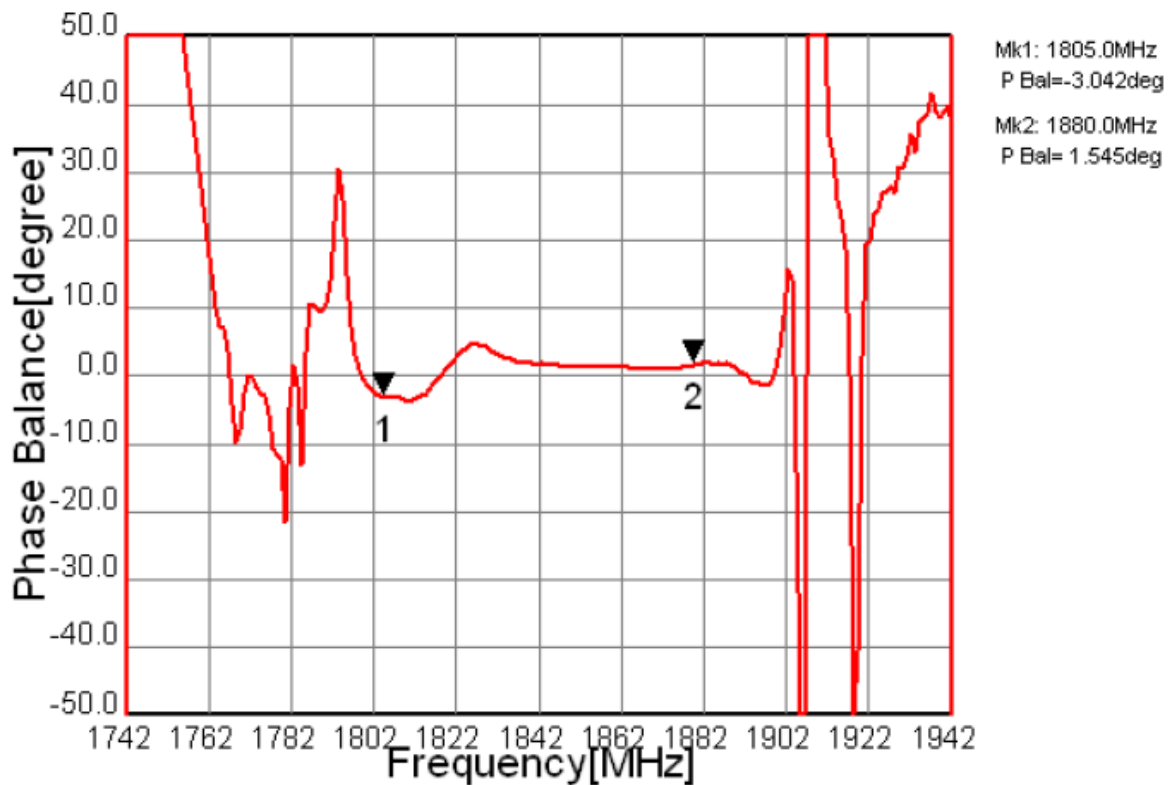


Fig.16 Phase Balance (Filter2)