



MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GSM1800/GSM900 Rx (50/150ohms)	Date	March 31, 2010
Part Number	FAR-G6KZ-1G8425-Y4WY	Version 2.0ba	

Table 1. Electrical specifications(Filter 1)

Pass Band (1805-1880MHz)						
Item	Condition (MHz)	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Insertion Loss	1805-1880	-	1.6	2.5	dB(*1)	
Ripple	1805-1880	-	0.5	1.3	dB	
Input VSWR	1805-1880	-	1.9	2.3	-	
Output VSWR	1805-1880	-	1.8	2.3	-	
Absolute attenuation	DC-1300	35	47	-	dB	
	1300-1705	28	40	-	dB	
	1705-1785	10	16	-	dB	
	1920-1980	18	21	-	dB	
	1980-3000	20	23	-	dB	
	3000-5000	35	48	-	dB	
	5000-6000	30	38	-	dB	
Amplitude balance (S21/S31)	1805-1880	-1.4	-0.3/+0.7	+1.4	dB	
Phase balance (( $\phi$ S21- $\phi$ S31)+180)	1805-1880	-11	-2/+3	+11	deg	
Input impedance (Unbalanced)		50			Ohm	
Output impedance (Balanced)		150//15nH			Ohm	
Operating temperature		-30 to +85			°C	

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



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Table 2. Electrical specifications(Filter 2)

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		
Input VSWR	925-960	-	1.6	2.1	-	
Output VSWR	925-960	-	1.5	2.1	-	
Absolute attenuation	DC-880	40	57	-	dB	
	880-905	30	36	-	dB	
	905-915	20	31	-	dB	
	980-1025	25	33	-	dB	
	1025-2880	36	53	-	dB	
	2880-6000	30	40	-	dB	
Amplitude balance ( S <sub>21</sub> /S <sub>31</sub>  )	925-960	-1.0	-0.3/+0.4	+1.0	dB	
Phase balance (∠S <sub>21</sub> -∠S <sub>31</sub> )+180)	925-960	-10	-3/+2	+10	deg	
Input impedance (Unbalanced)		50			Ohm	
Output impedance (Balanced)		150//82nH			Ohm	
Operating temperature		-30 to +85			°C	

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



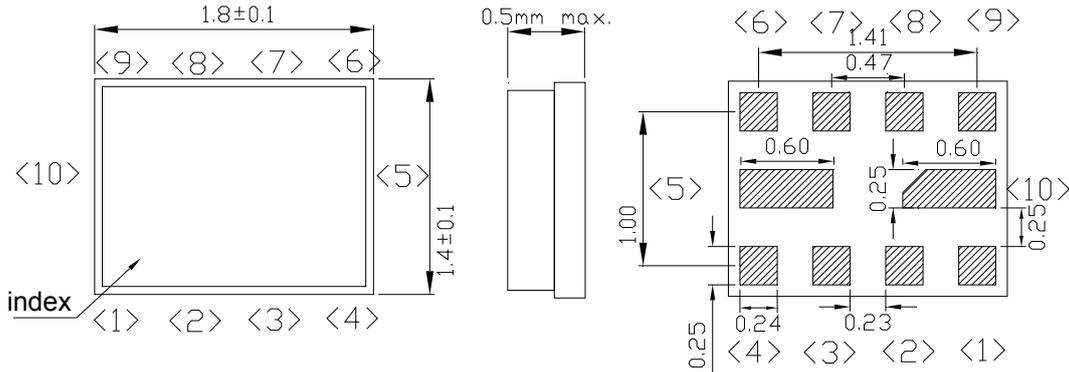
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**Dimensions**

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



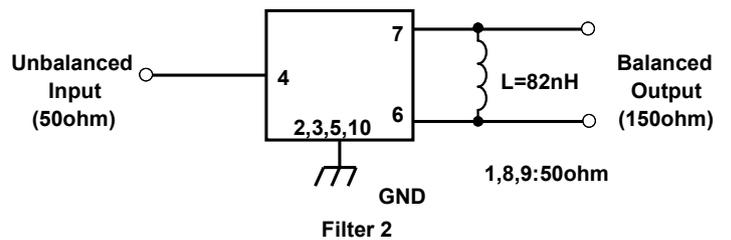
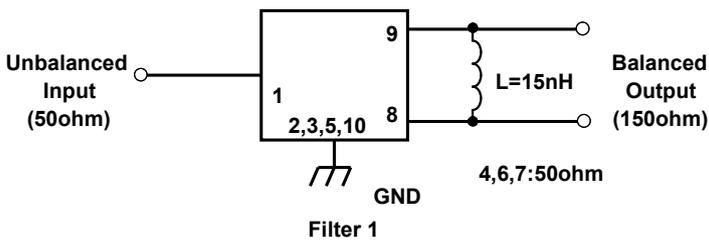
Unit: mm

**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	1805 ~ 1880	GSM1800-Rx
2	925 ~ 960	GSM900-Rx

**Evaluation Circuit**





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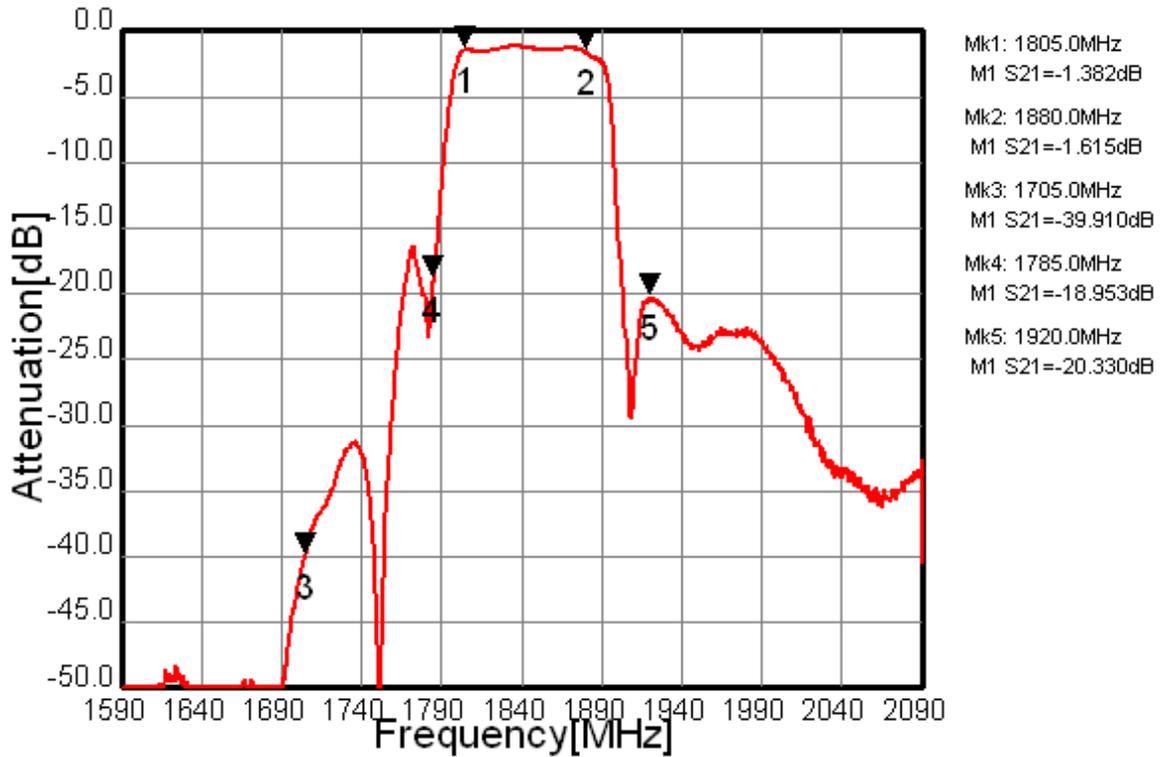


Fig.1 Pass-band Characteristic (Filter1)

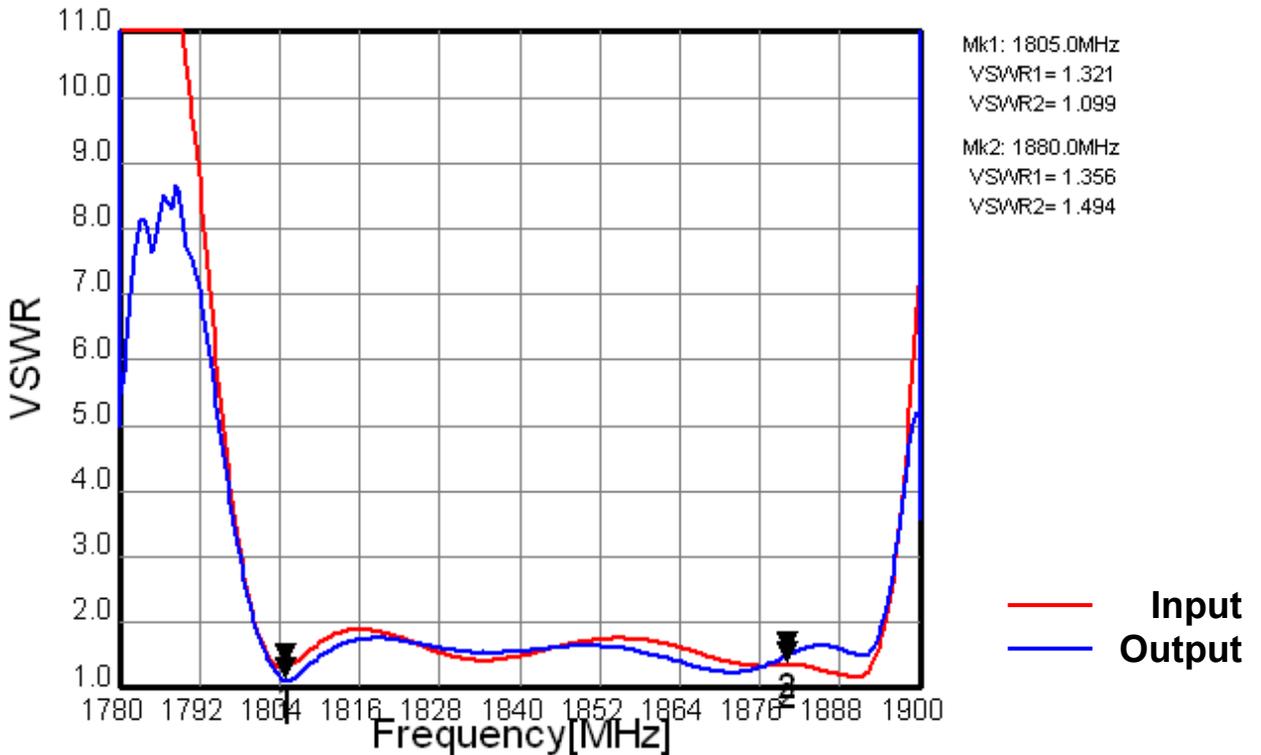


Fig.2 VSWR (Filter1)



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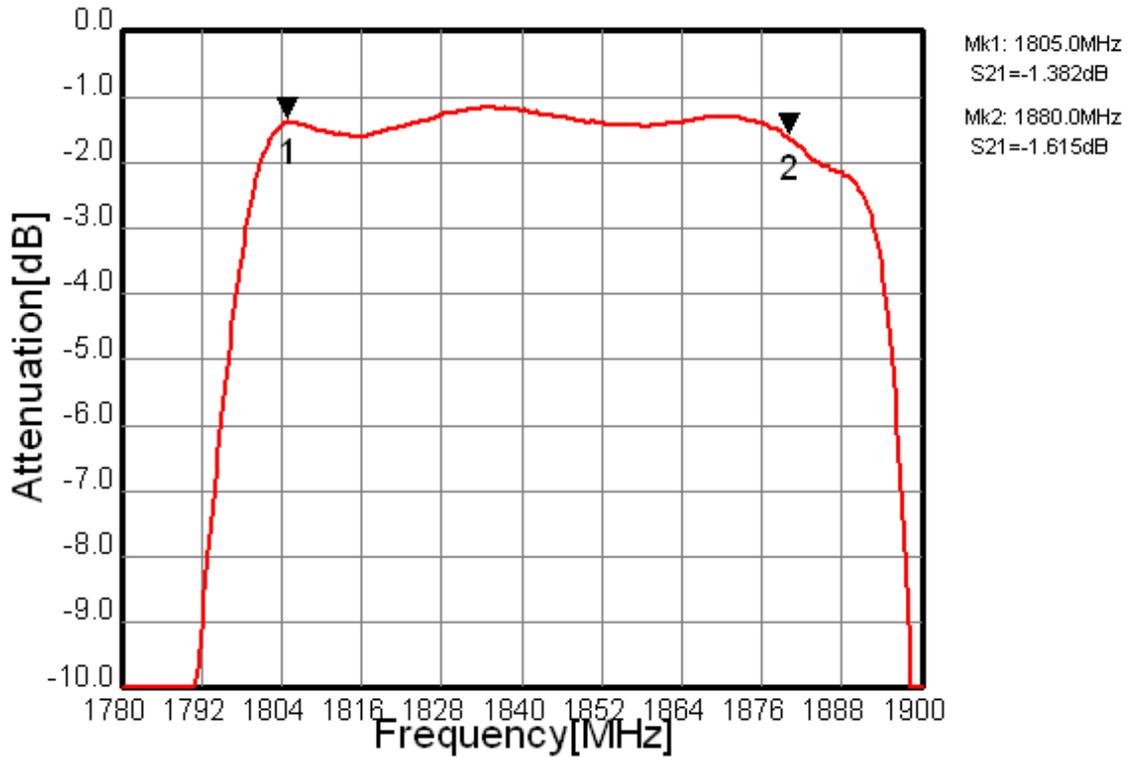


Fig.3 In-band Characteristic (Filter1)

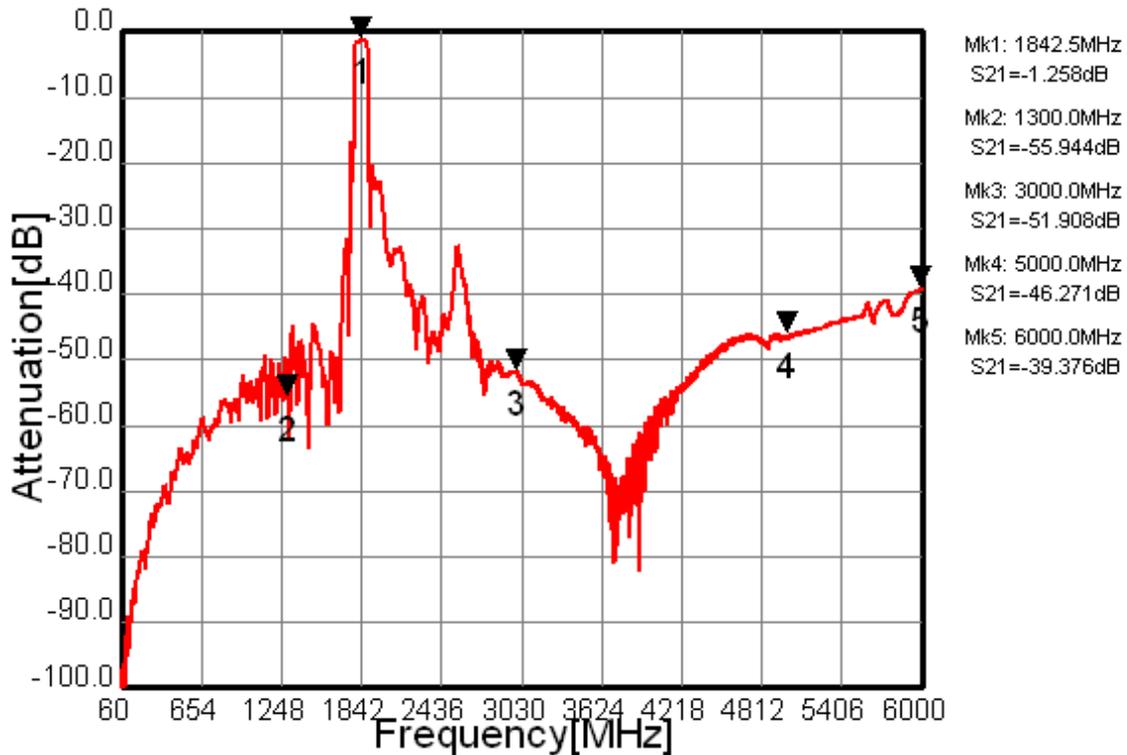


Fig.4 Wide-band Characteristic (Filter1)



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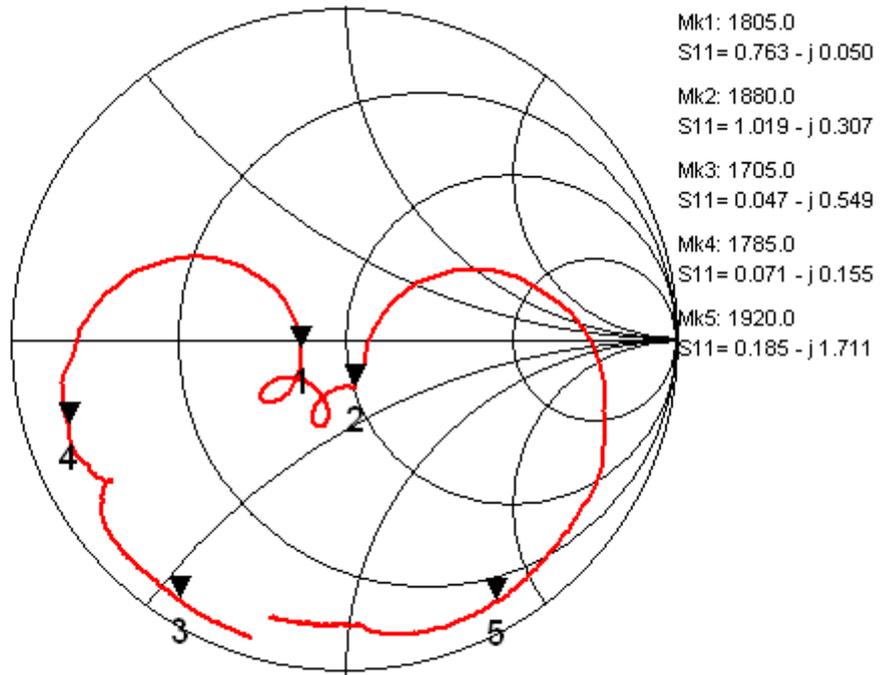


Fig.5 Impedance (S11) (Filter1)

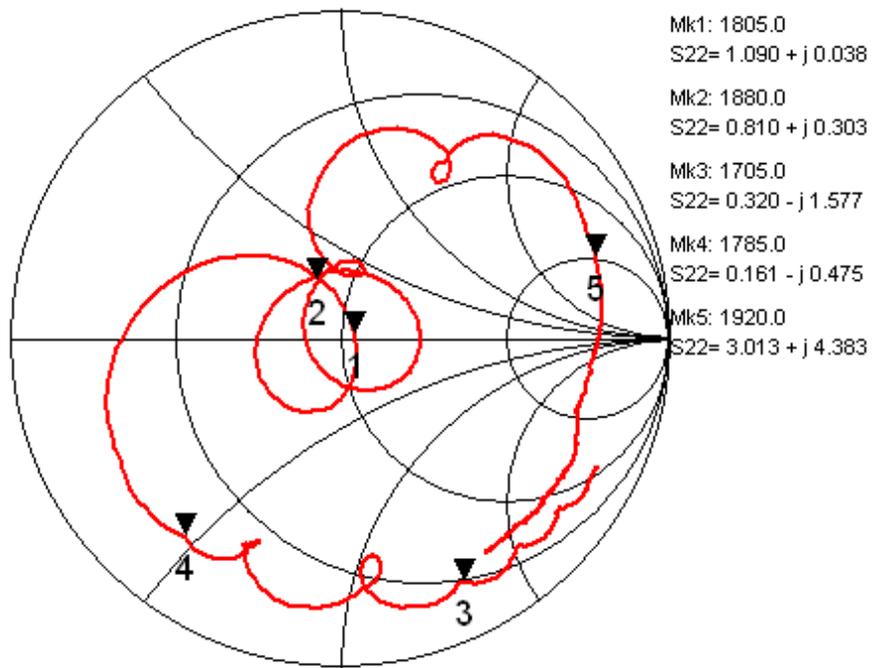


Fig.6 Impedance (S22) (Filter1)



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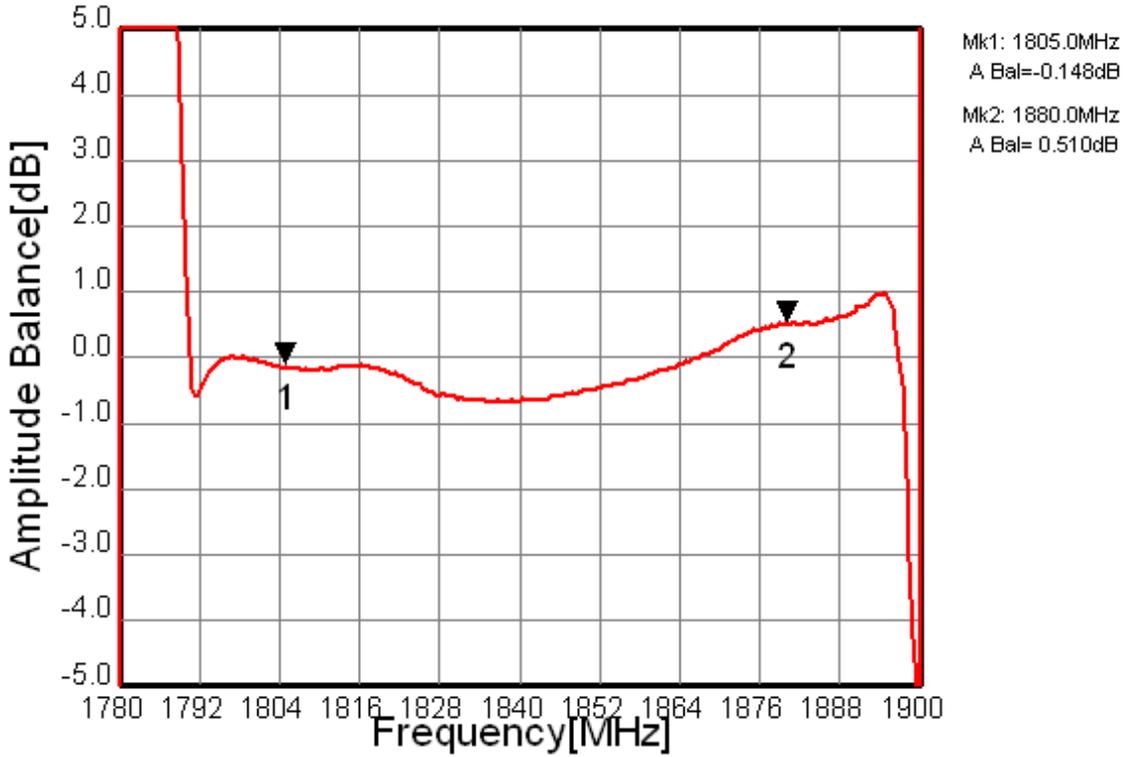


Fig.7 Amplitude Balance (Filter1)

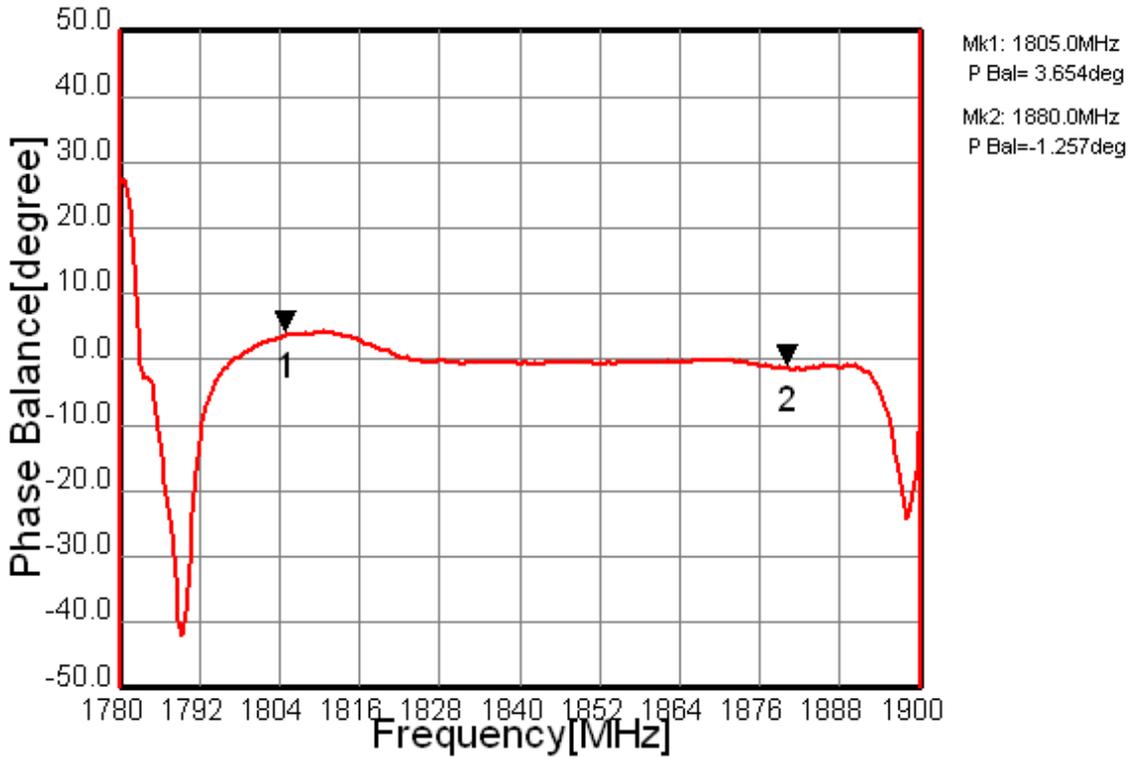


Fig.8 Phase Balance (Filter1)



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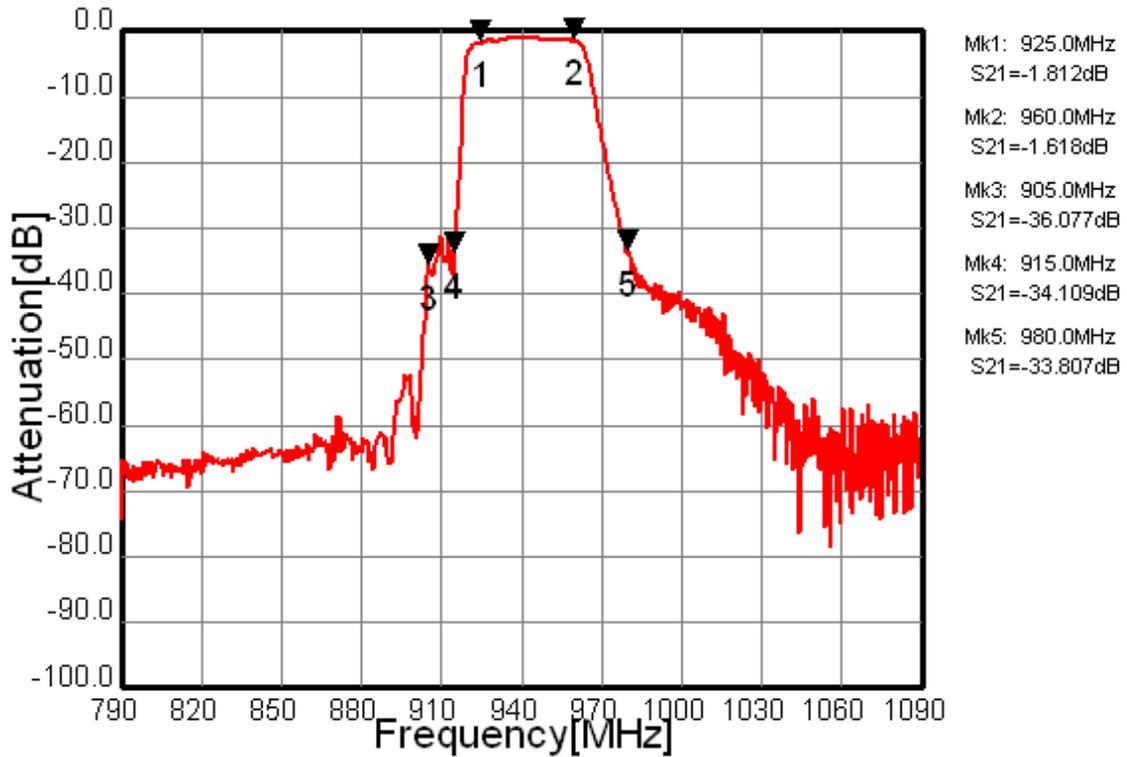


Fig.9 Pass-band Characteristic (Filter2)

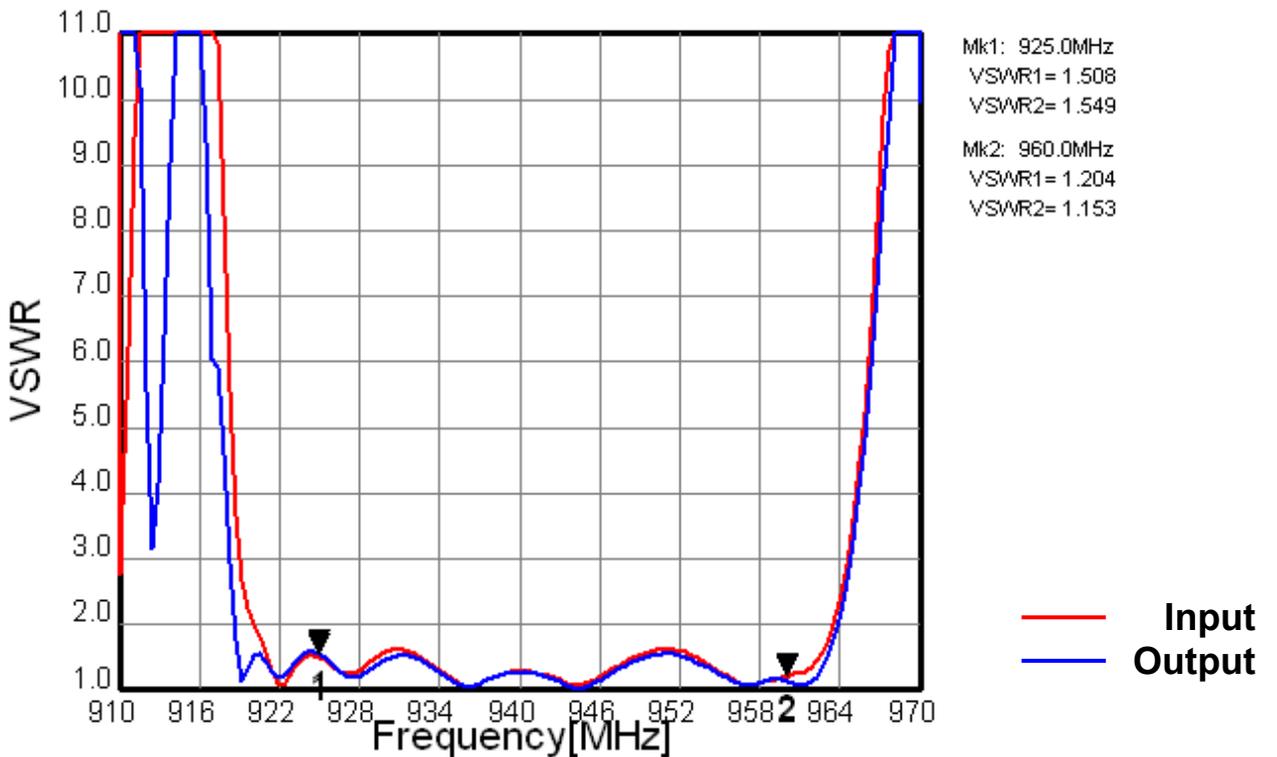


Fig.10 VSWR (Filter2)



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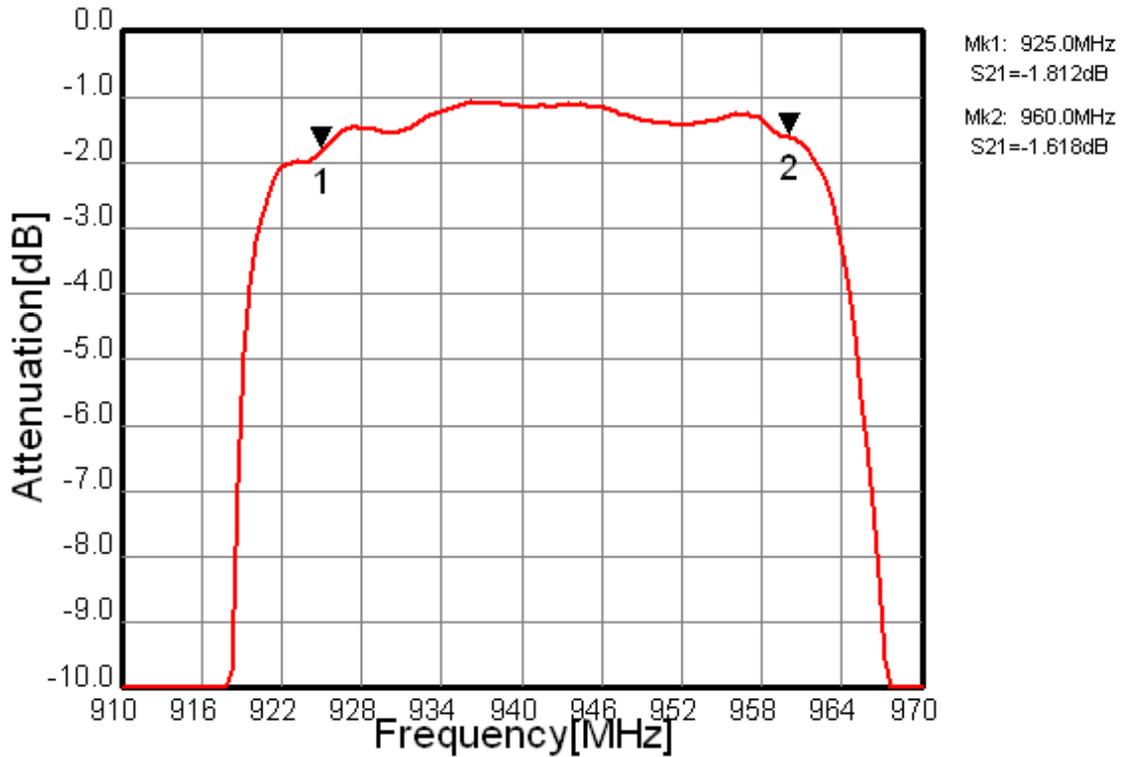


Fig.11 In-band Characteristic (Filter2)

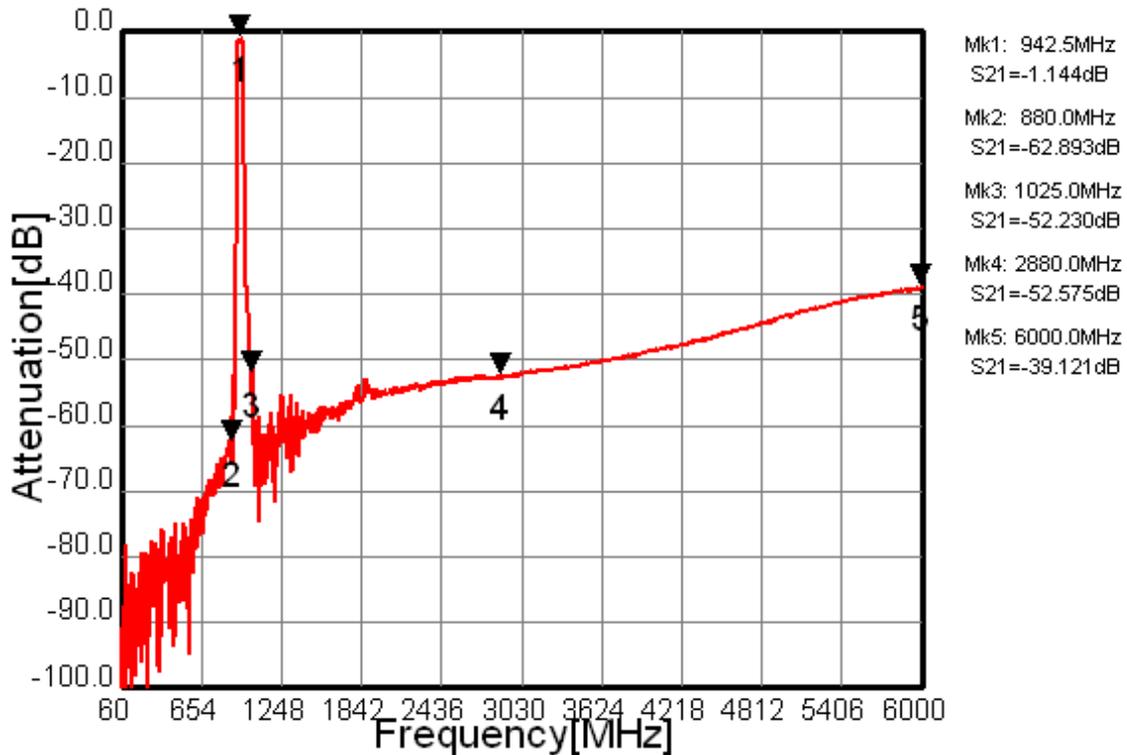


Fig.12 Wide-band Characteristic (Filter2)



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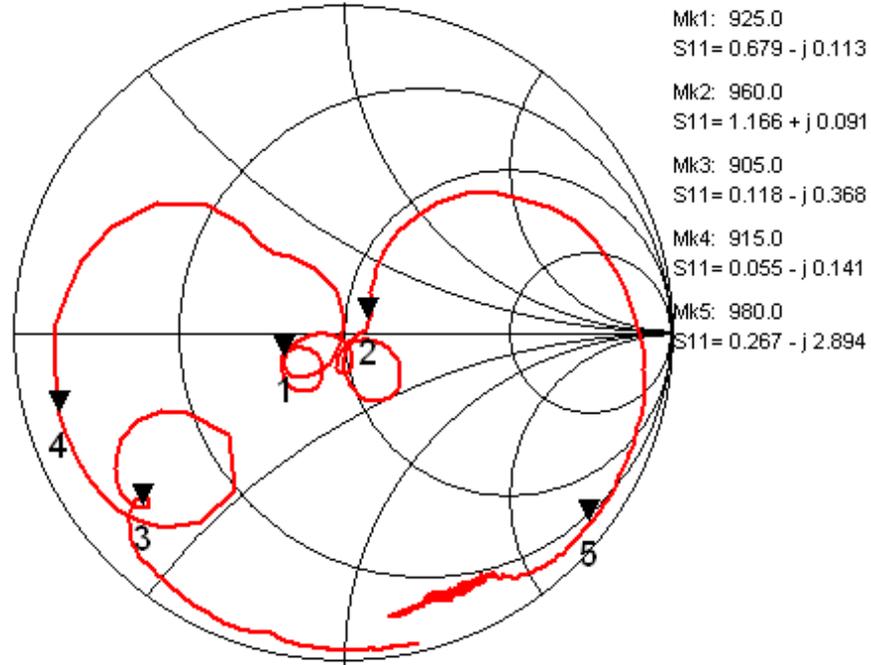


Fig.13 Impedance (S11) (Filter2)

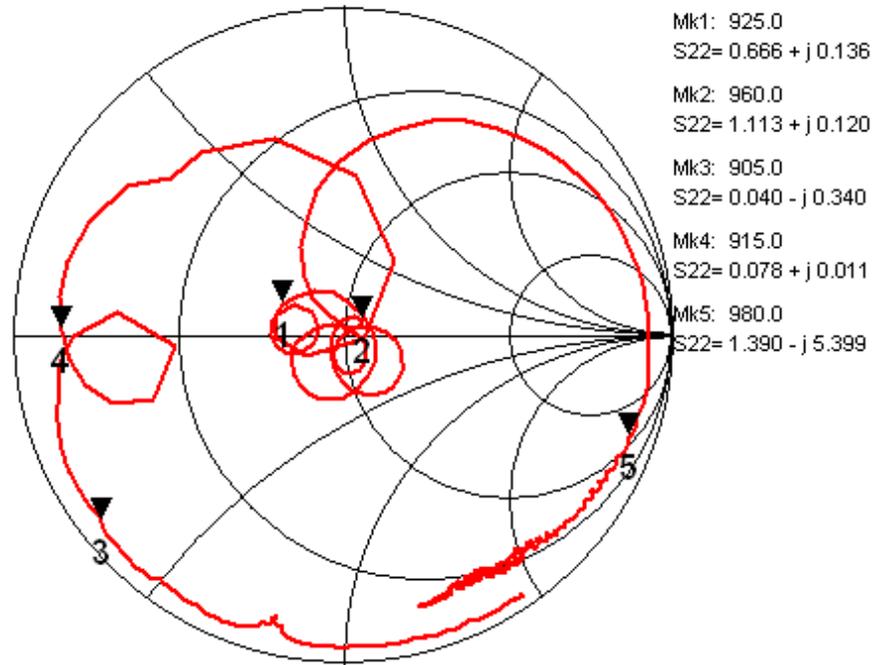


Fig.14 Impedance (S22) (Filter2)



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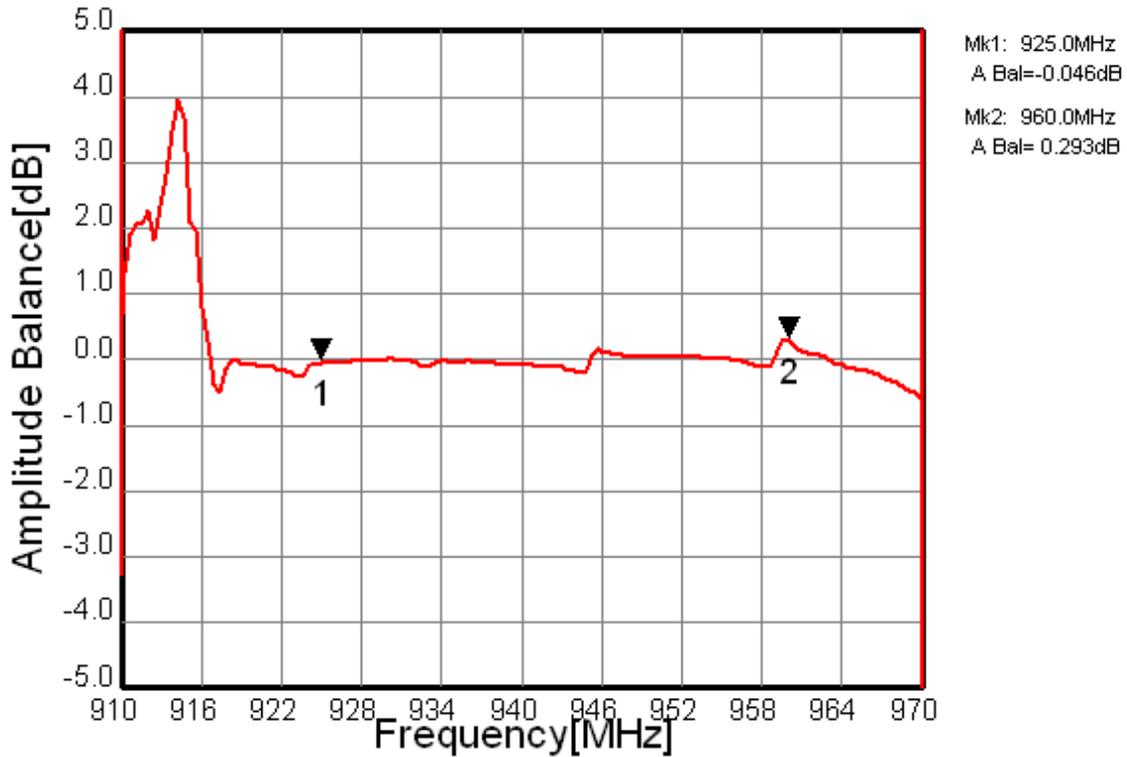


Fig.15 Amplitude Balance (Filter2)

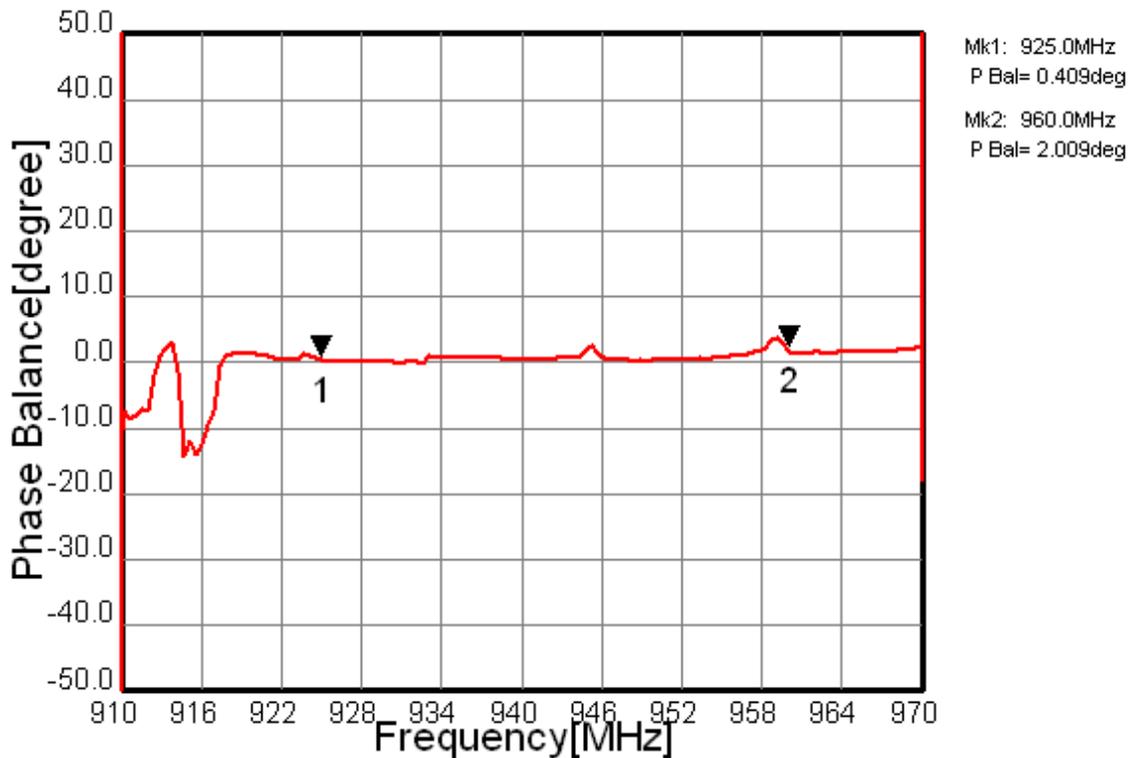


Fig.16 Phase Balance (Filter2)