



MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA IX (1.7G) Rx	Date	March 31, 2010
Part Number	FAR-F6KB-1G8625-B4GT	Version 1.0a	

Table 1 Electrical Specification

Pass Band (1844.9 ~1880 MHz)						
Item	Condition	Value			Unit	Remarks
		Min.	Typ.	Max.		
Insertion Loss	1844.9-1880 MHz	-	2.1	2.7	dB	
Ripple	1844.9-1880 MHz	-	0.4	1.0	dB	
Absolute attenuation	DC-1577MHz	30	52	-	dB	
	1749.9-1785MHz	33	40	-	dB	
	1920-1980 MHz	20	35	-	dB	
	2110-2170 MHz	35	45	-	dB	
	3689.8-3760 MHz	38	53	-	dB	
	5534.7-5640 MHz	25	40	-	dB	
VSWR(unbal.)	1844.9-1880 MHz	-	2.0	2.5	-	
VSWR(bal.)	1844.9-1880 MHz	-	2.0	2.5	-	
Amplitude balance( S <sub>21</sub> /S <sub>31</sub>  )	1844.9-1880 MHz	-2.0	-0.8/-1.2	-2.0	dB	
Phase balance(( $\Phi$ S <sub>21</sub> - $\Phi$ S <sub>31</sub> )+180)	1844.9-1880 MHz	-16	-8.8/+1.5	+16	deg.	
Input Power	-	TBD			dBm	Pass Band
Input impedance	-	50			ohm	
Output impedance	-	100//18nH			ohm	
Operating temperature		-30 to +85			°C	
Device size (L x W x H)		1.4typ.x1.0typ.x0.5max.			mm	SMD

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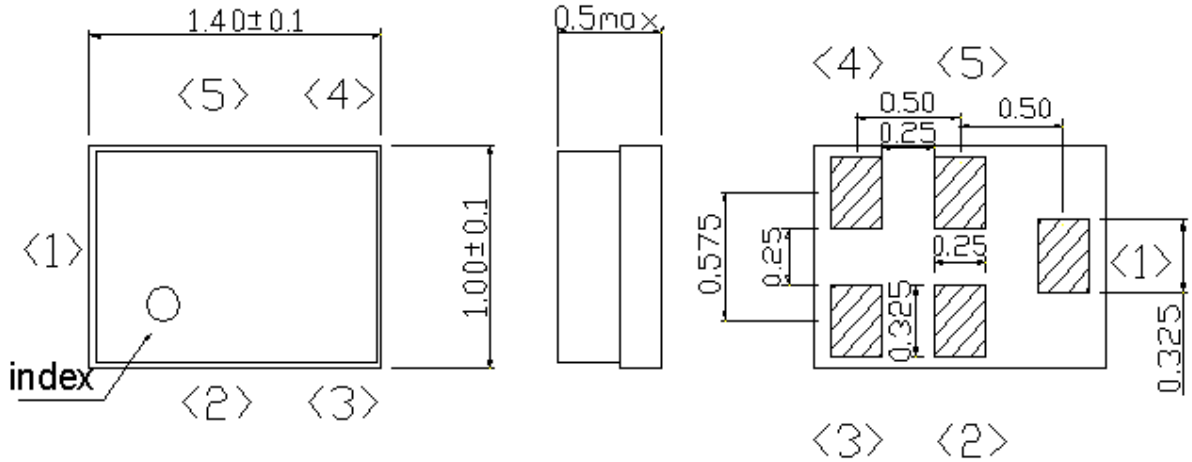
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### Dimensions

Device size: 1.4typ. x 1.0typ. x 0.5max.

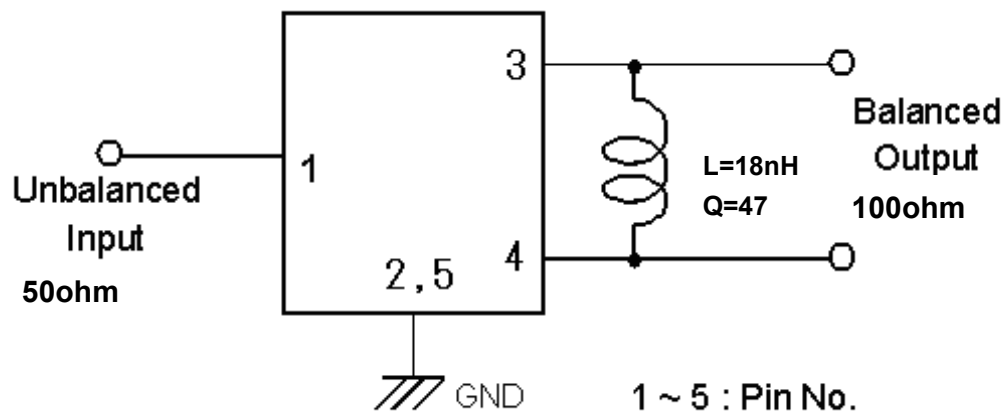


Unit : mm

### Pin Configuration

Pin No.	Pin name	Description
1	IN	Unbalanced pin
2	GND	Ground
3	OUT	Balanced pin
4	OUT	Balanced pin
5	GND	Ground

### Evaluation Circuit



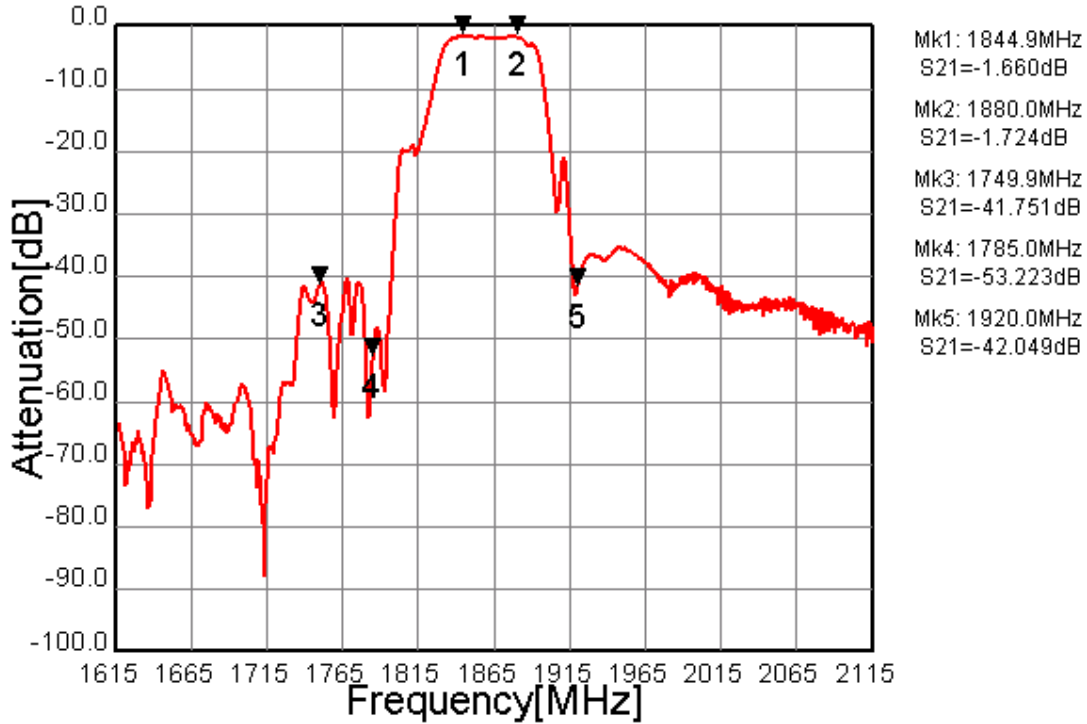
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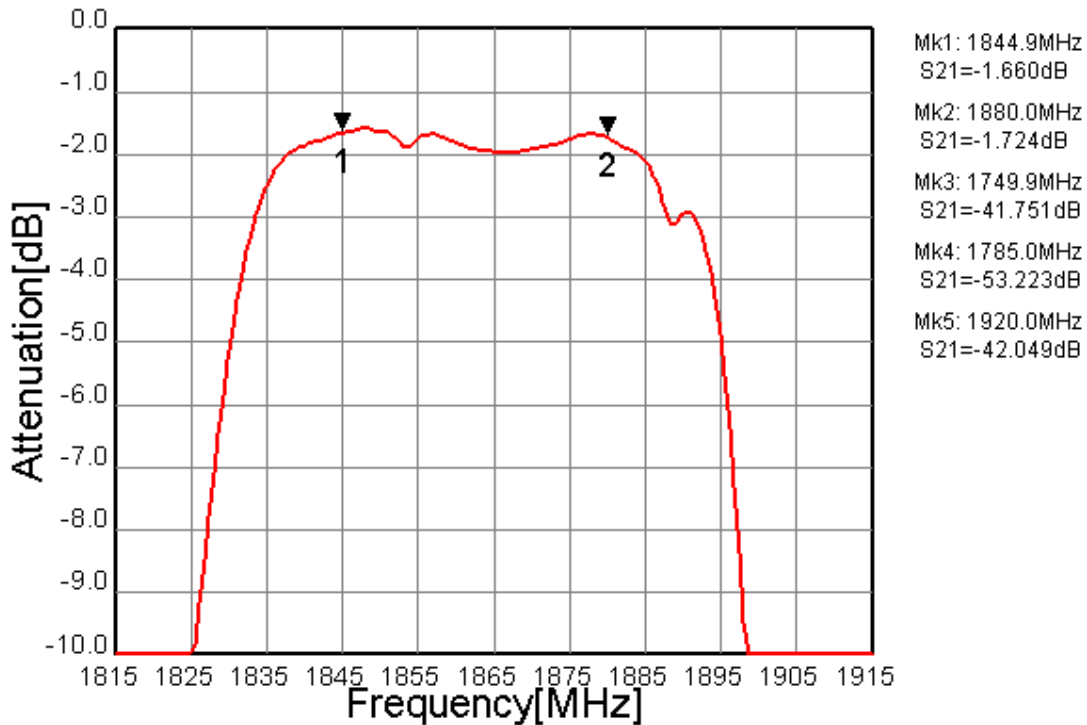
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**Fig.1 Pass-band Characteristics**



**Fig.2 In-band Characteristics**

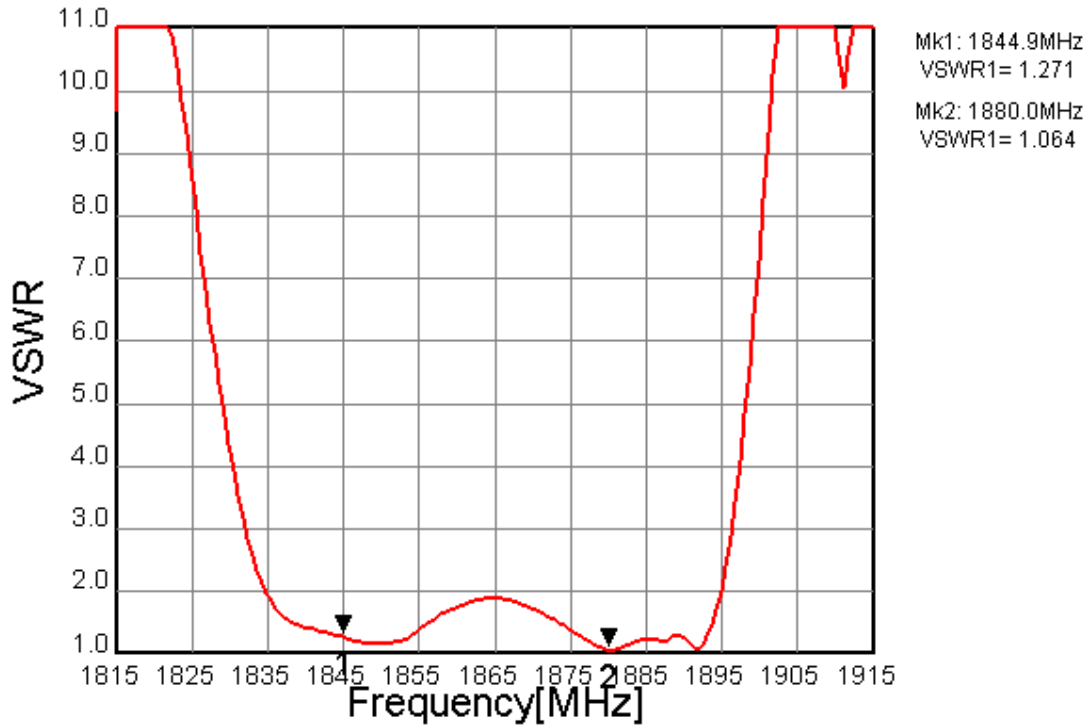
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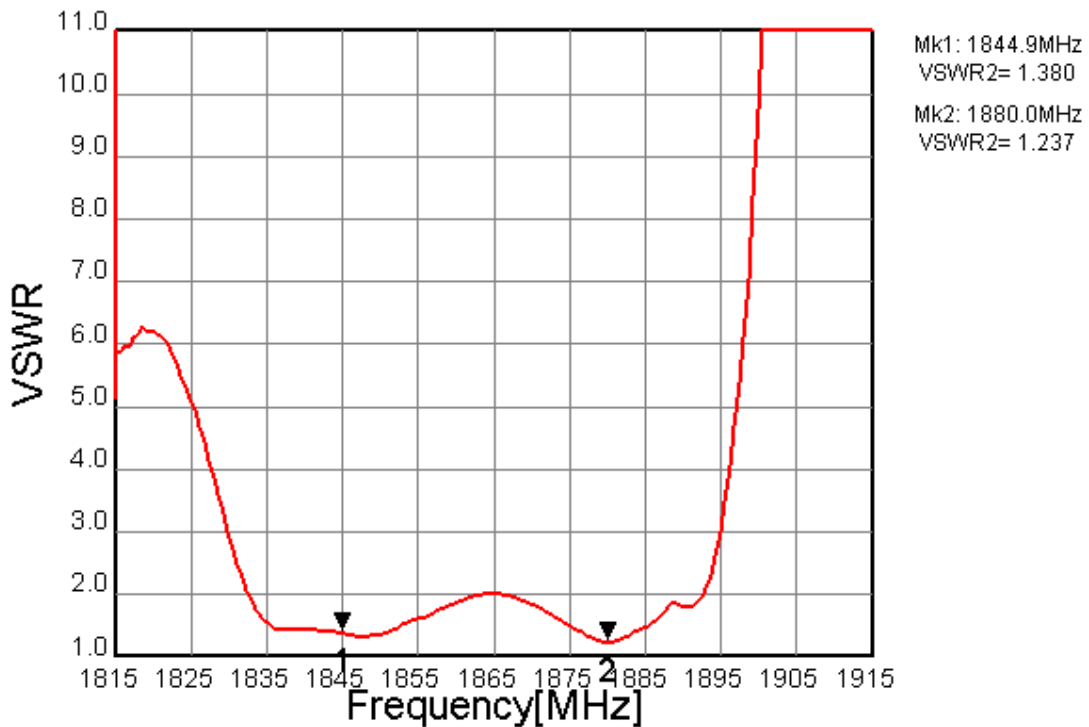
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**Fig.3 VSWR (unbal)**



**Fig.4 VSWR (bal)**

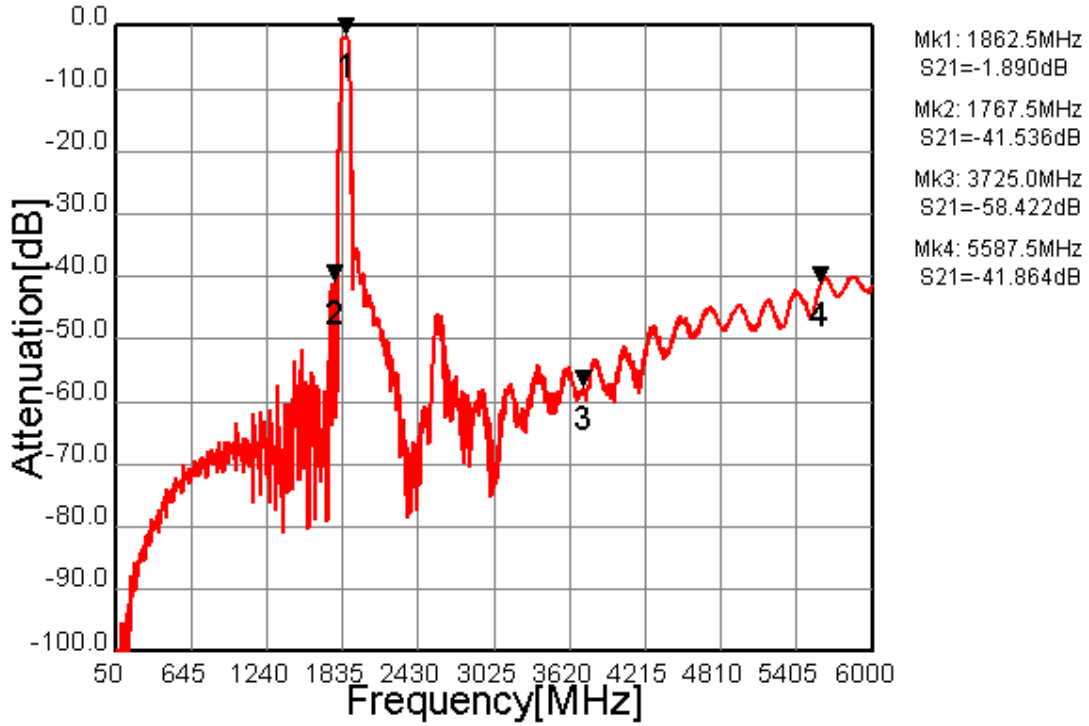
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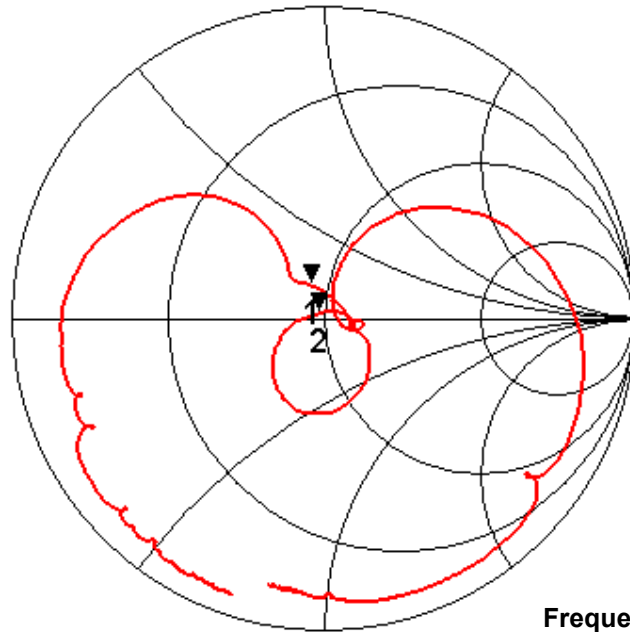
**Fig.5 Wide-band Characteristics**



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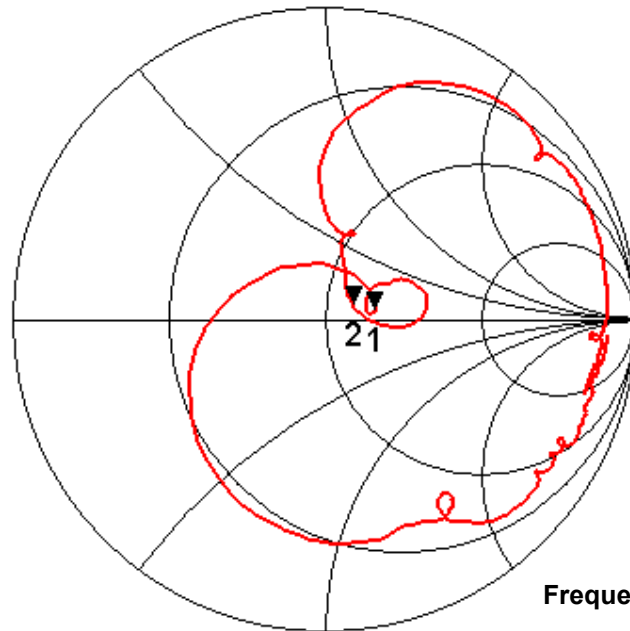
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Mk1: 1844.9  
 $S_{11} = 0.895 + j0.202$   
 Mk2: 1880.0  
 $S_{11} = 0.954 + j0.043$

Frequency 1615-2115MHz

**Fig.6 Impedance (unbal)**



Mk1: 1844.9  
 $S_{22} = 1.372 + j0.074$   
 Mk2: 1880.0  
 $S_{22} = 1.204 + j0.114$

Frequency 1615-2115MHz

**Fig.7 Impedance (bal)**

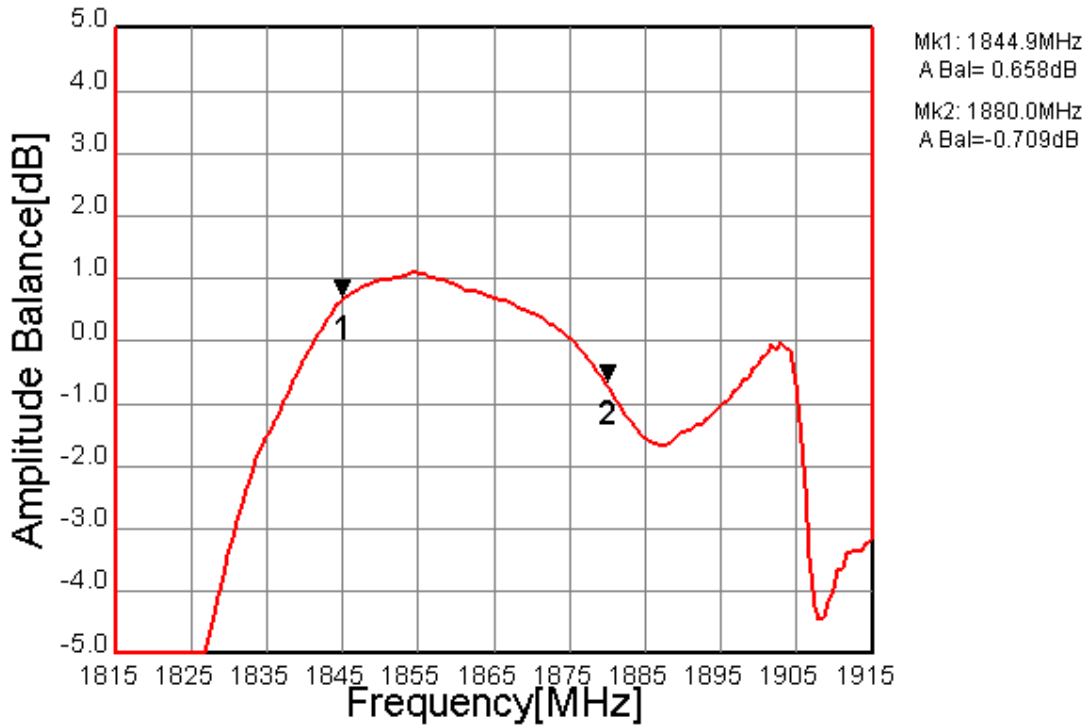
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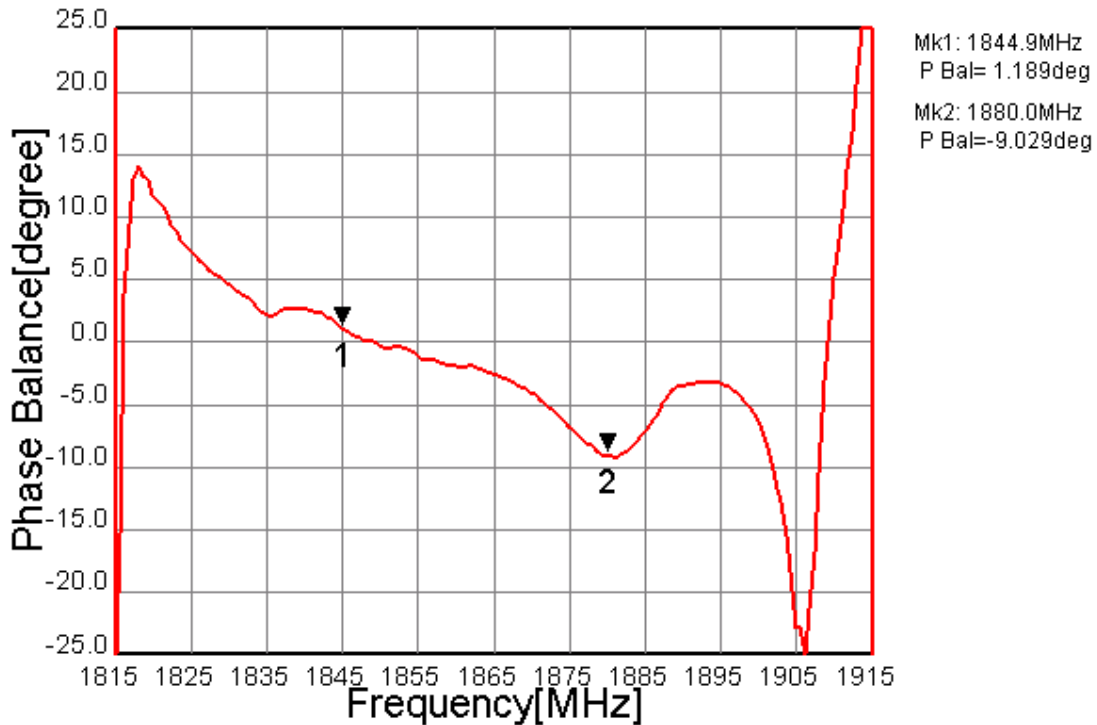
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**Fig.8 Amplitude Balance**



**Fig.9 Phase Balance**

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