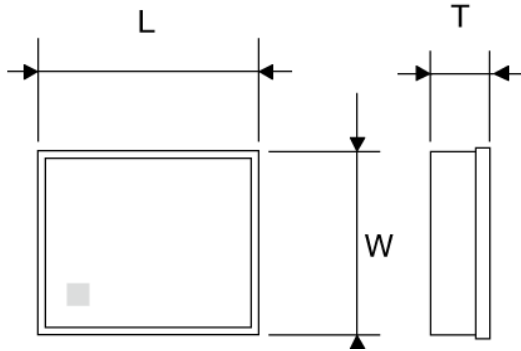


# SAW Filter

## FAR-F6KB-2G1400-B4GC



### ■ Features

- Item Summary  
W-CDMA / LTE / CDMA , Rx, 504
- Lifecycle Stage  
Mass Production
- Standard packaging quantity (minimum)  
Taping Embossed 3000 , 15000pcs

### ■ Products characteristics table

Temperature Range	-30 to +85°C
Band(3GPP)	B1 / B4
Band(3GPP2)	BC6
Use	WCDMA / CDMA / LTE
Transmitting / Receiving	Rx Filter
Insertion Loss	1.7dB
Attenuation	39dB
RoHS Compliance	Yes
Halogen Free	Yes
Soldering Method	Reflow

### ■ External Dimensions

L	1.4mm +0.1:-0.1
W	1.0mm +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	W-CDMA I(2G) Rx	Date	March 31, 2010
Part Number	FAR-F6KB-2G1400-B4GC	Version 3.1d	

Table 1 Electrical Specification

Passband : 2110~ 2170 MHz						
Item	Condition (MHz)	Specification			Unit	Remark
		Min.	Typ.	Max.		
Insertion Loss	2110 ~ 2170	-	1.7	2.6	dB	
Ripple	2110 ~ 2170	-	0.3	1.4	dB	
Absolute attenuation	DC ~ 190	40	85	-	dB	
	1730 ~ 1790	30	46	-	dB	
	1920 ~ 1980	32	39	-	dB	
	2300 ~ 2360	20	28	-	dB	
	4030 ~ 4150	30	50	-	dB	
	5950~ 6130	20	45	-	dB	
	6140 ~ 6320	20	45	-	dB	
VSWR(input unbal)	2110 ~ 2170	-	1.7	2.7	-	
VSWR(output bal)	2110 ~ 2170	-	1.7	2.7	-	
Amplitude balance ( S <sub>21</sub> /S <sub>31</sub>  )	2110 ~ 2170	-2	-0.3/+0.9	+2	dB	
Phase balance ((∠S <sub>21</sub> -∠S <sub>31</sub> )+180)	2110 ~ 2170	-10	-3.5/+3.1	+10	deg.	
Input Impedance	Unbalanced	50			ohm	
Output Impedance	Balanced	100//10nH			ohm	
Operating temperature		-30~ +85			°C	
Device size		1.4typ. x 1.0typ. x 0.5max.			mm	



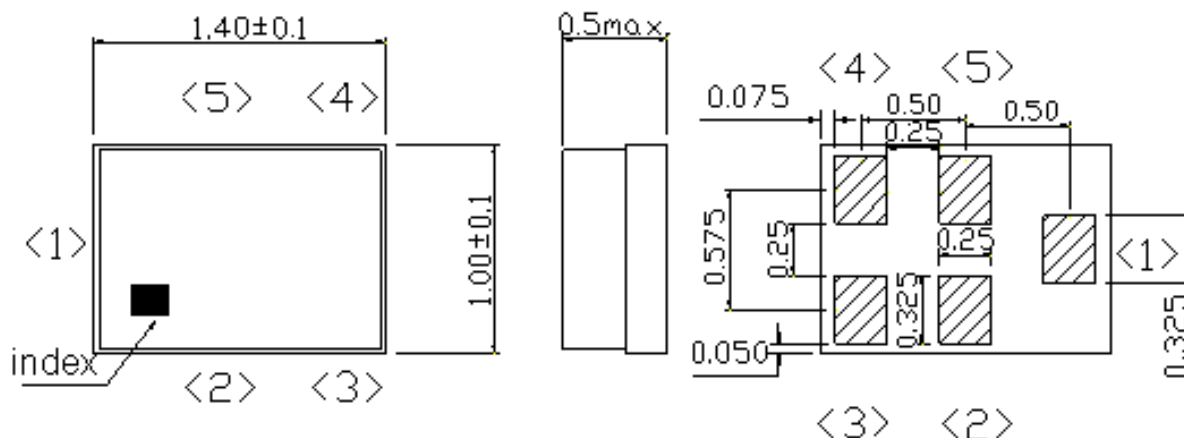
MSL1

\* Pb Free Part

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System	W-CDMA I(2G) Rx	Date	March 31, 2010
Part Number	FAR-F6KB-2G1400-B4GC	Version 3.1d	

### Dimensions

Device size: 1.4mmtyp. x 1.0mmtyp. x 0.5mmmax.

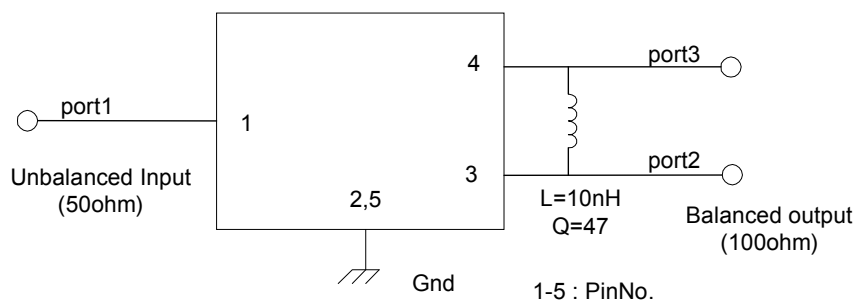


Unit : mm

### 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

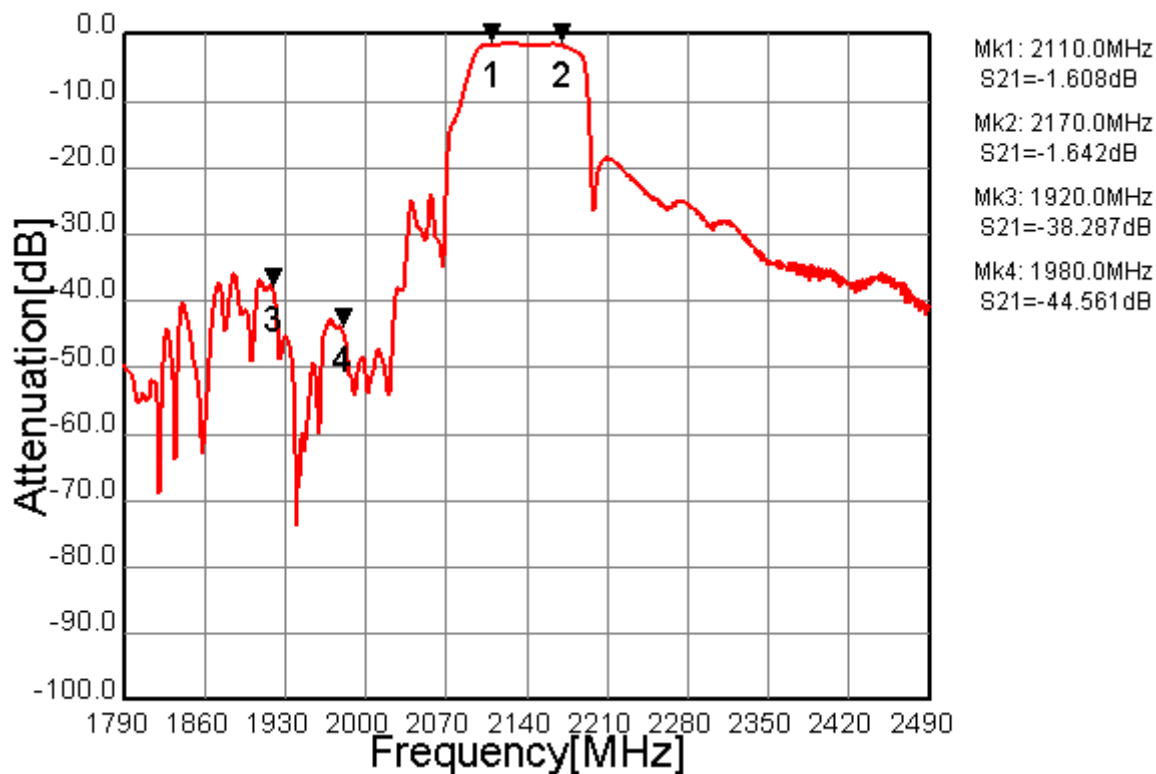




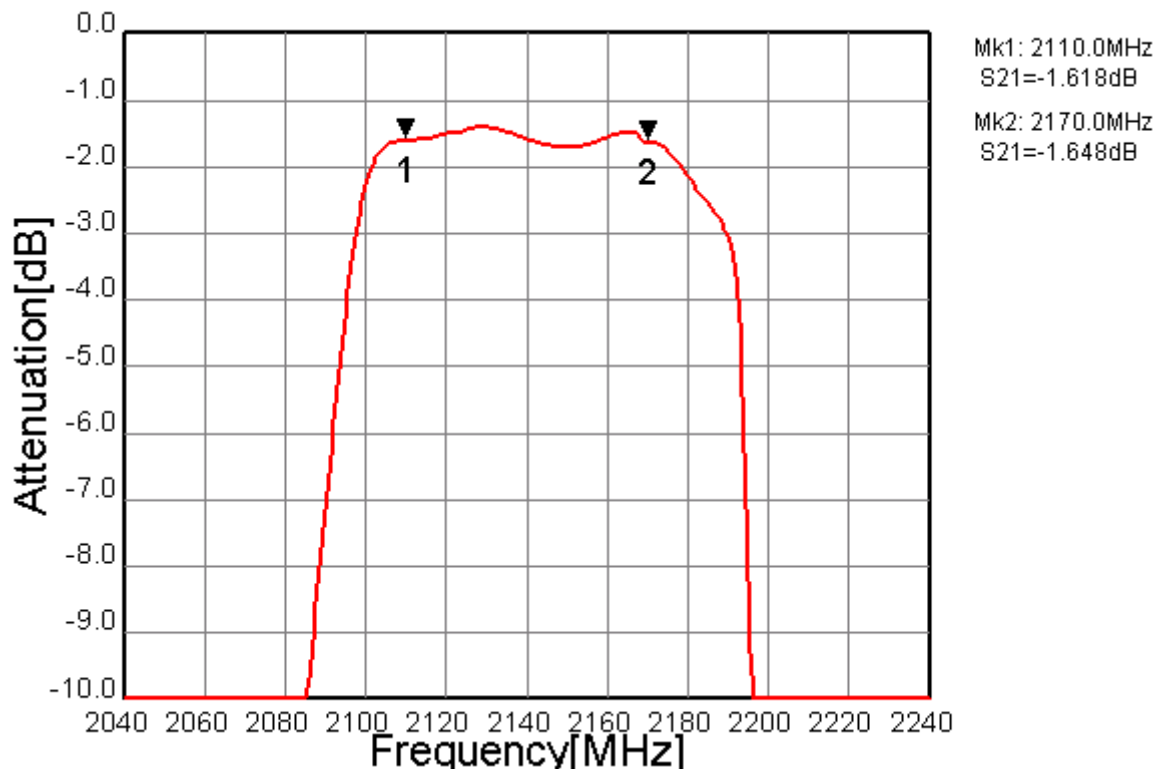
MSL1

\* Pb Free Part

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**Fig.1 Pass-band Characteristics**



**Fig.2 In-band Characteristics**



\* Pb Free Part



MSL1

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Part Number	FAR-F6KB-2G1400-B4GC	Version 3.1d	

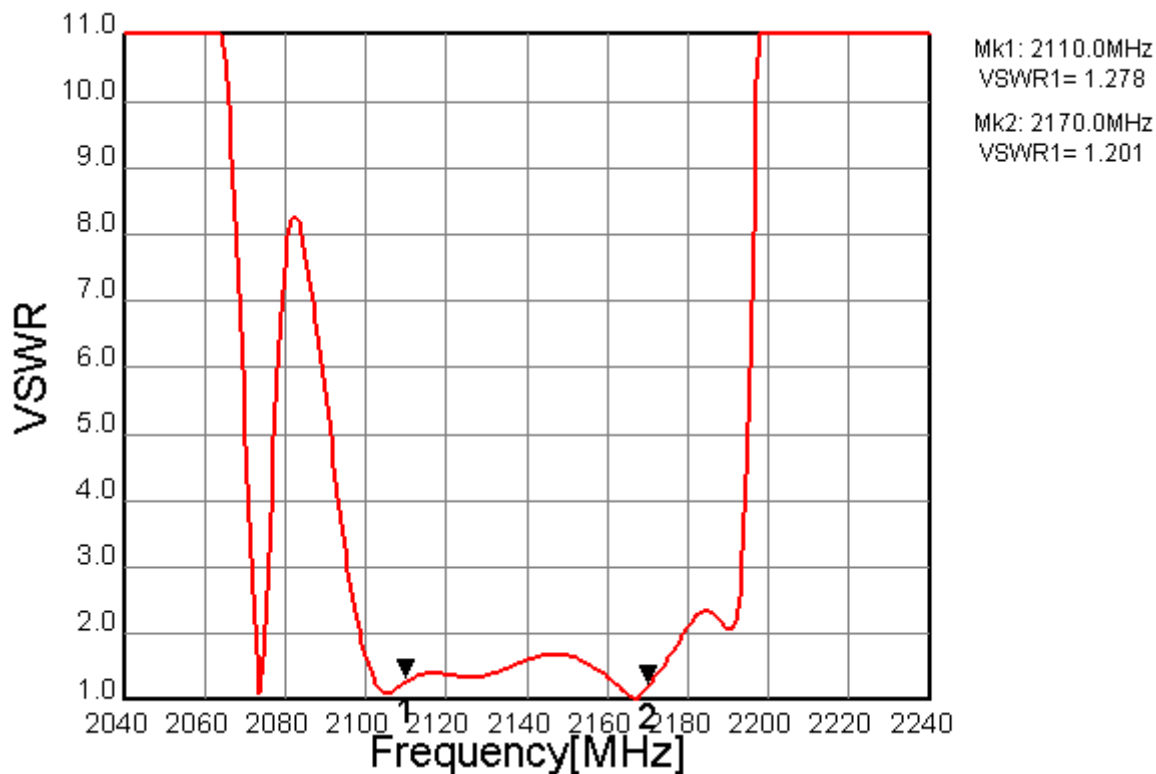


Fig.3 VSWR (unbal)

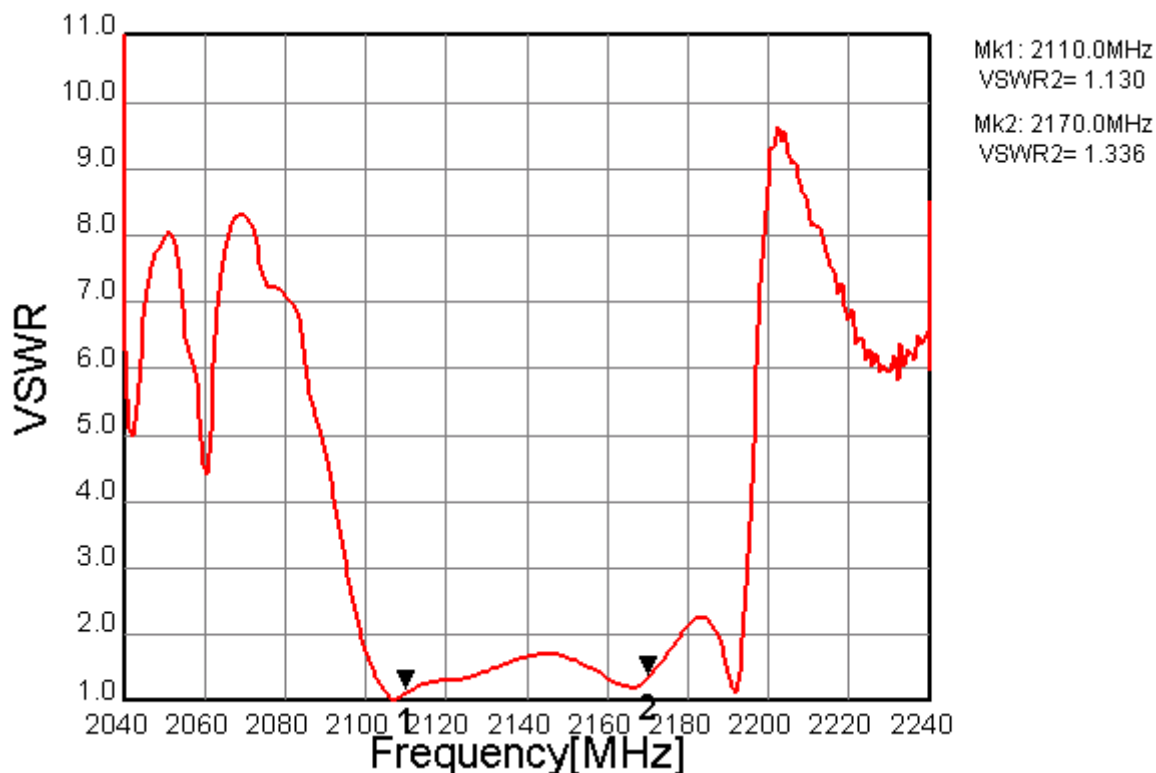


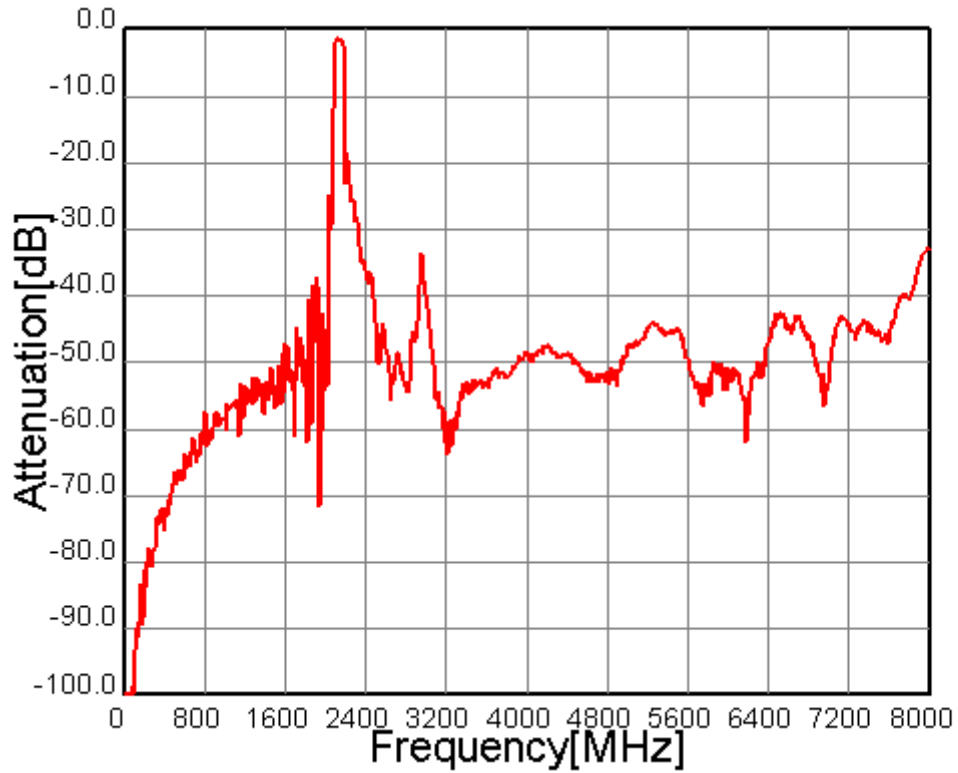
Fig.4 VSWR(bal)



MSL1

\* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
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Part Number	FAR-F6KB-2G1400-B4GC	Version 3.1d	



**Fig.5 Wide-band Characteristics**

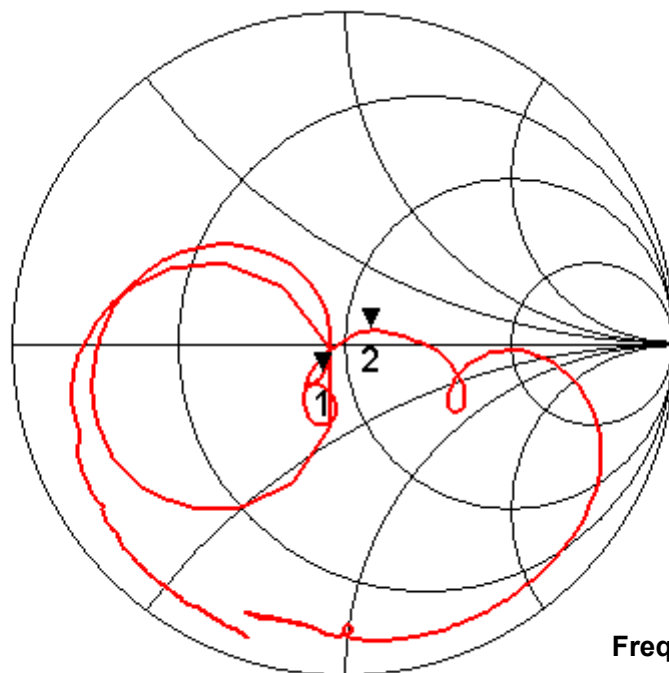


\* Pb Free Part



MSL1

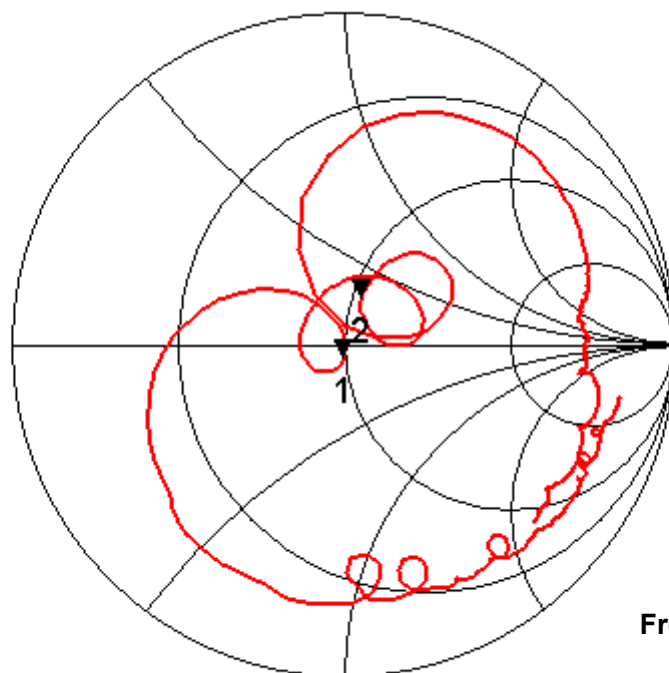
Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA I(2G) Rx	Date	March 31, 2010
Part Number	FAR-F6KB-2G1400-B4GC	Version 3.1d	



Mk1: 2110.0  
 $S_{11} = 0.854 - j 0.160$   
 Mk2: 2170.0  
 $S_{11} = 1.167 + j 0.107$

Frequency 1790-2490MHz

**Fig.6 Impedance (unbal)**



Mk1: 2110.0  
 $S_{22} = 0.976 - j 0.105$   
 Mk2: 2170.0  
 $S_{22} = 1.072 + j 0.292$

Frequency 1790-2490MHz

**Fig.7 Impedance (bal)**

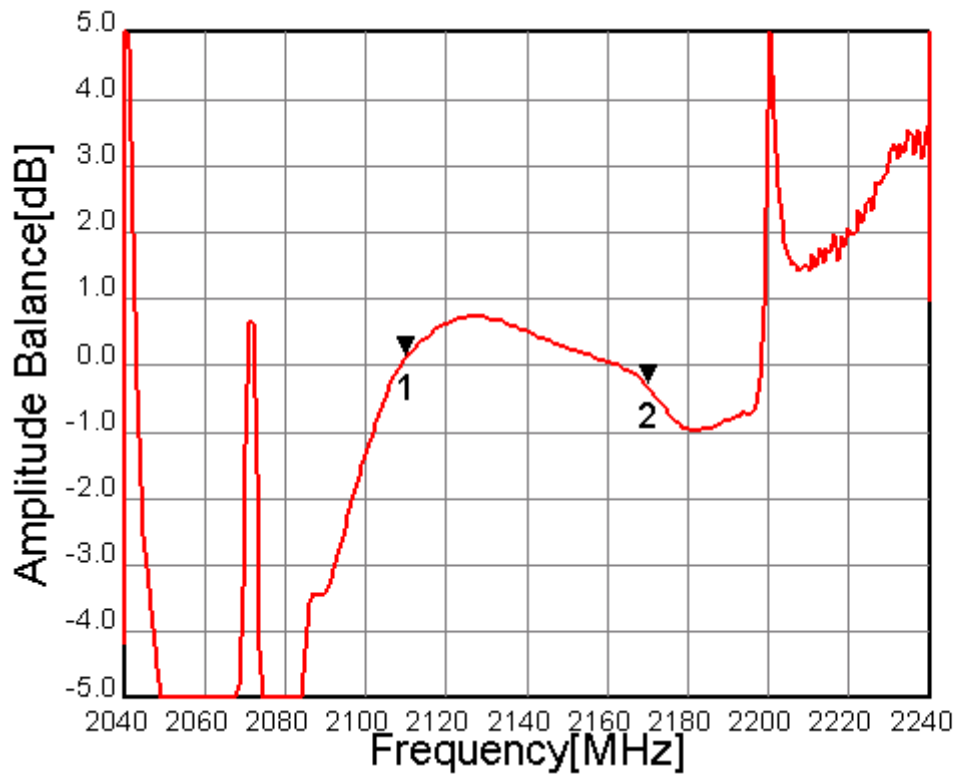


\* Pb Free Part

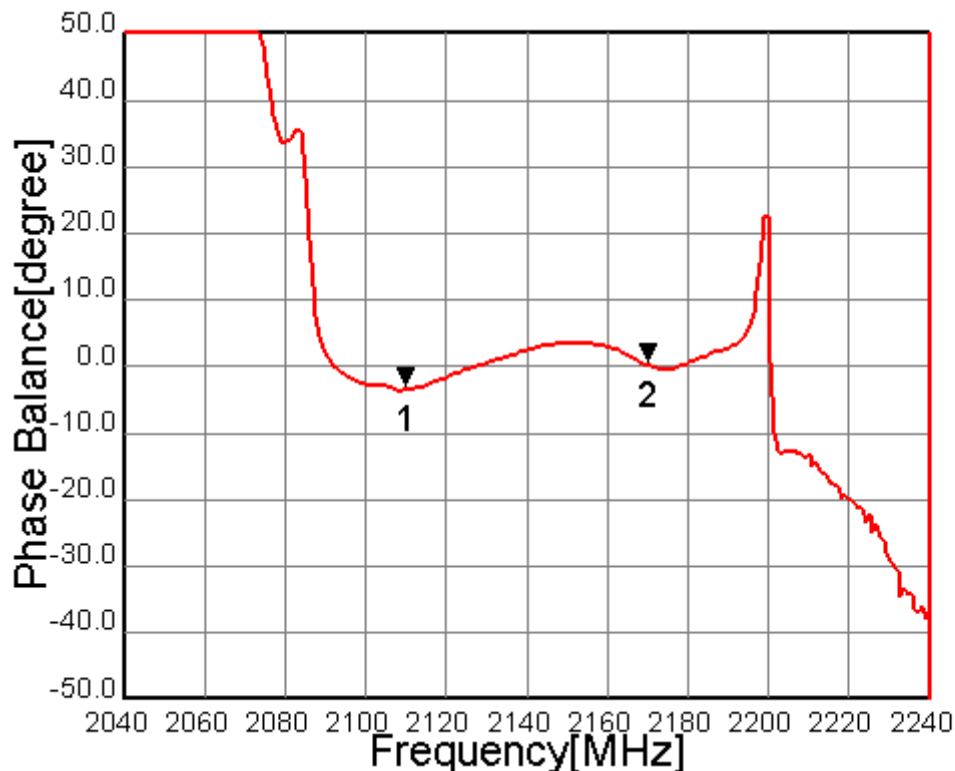


MSL1

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**Fig.8 Amplitude Balance**



**Fig.9 Phase Balance**