



MSL1

* Pb Free Part

Customer Name	Standard specification	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	GPS (50/100 ohm)	Date	March 31, 2010
Part Number	FAR-F6KB-1G5754-B4GE	Version 3.1c	

Table 1. Electrical specifications

Passband: 1574.42~ 1576.42 MHz						
Item	Condition	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Insertion Loss	1574.42~1576.42 MHz	-	1.1	1.5	dB	
Ripple	1574.42~1576.42 MHz	-	0.1	0.6	dB	
Absolute attenuation	824~849 MHz	36	43	-	dB	
	880~915 MHz	36	41	-	dB	
	1475.42 MHz	28	36	-	dB	
	1525.42 MHz	25	40	-	dB	
	1625.42 MHz	13	19	-	dB	
	1675.42 MHz	15	23	-	dB	
	1710~1785 MHz	19	25	-	dB	
	1850~1910 MHz	30	37	-	dB	
	1920~1980 MHz	33	41	-	dB	
VSWR (Input)	1574.42~1576.42 MHz	-	1.4	1.9	-	
VSWR (Output)	1574.42~1576.42 MHz	-	1.4	1.9	-	
Amplitude Balance S21 / S31	1574.42~1576.42 MHz	-1.1	+0.2/ +0.3	+1.1	dB	
Phase Balance (Φ S21- Φ S31)-180	1574.42~1576.42 MHz	-11	+3.9/ +4.2	+11	deg.	
Input Impedance	Unbalanced	50			ohm	
Output Impedance	Balance	100			ohm	
Operating Temperature		-30 ~ +85			°C	
Device size		1.4typ.x1.0typ.x0.5max.			mm	



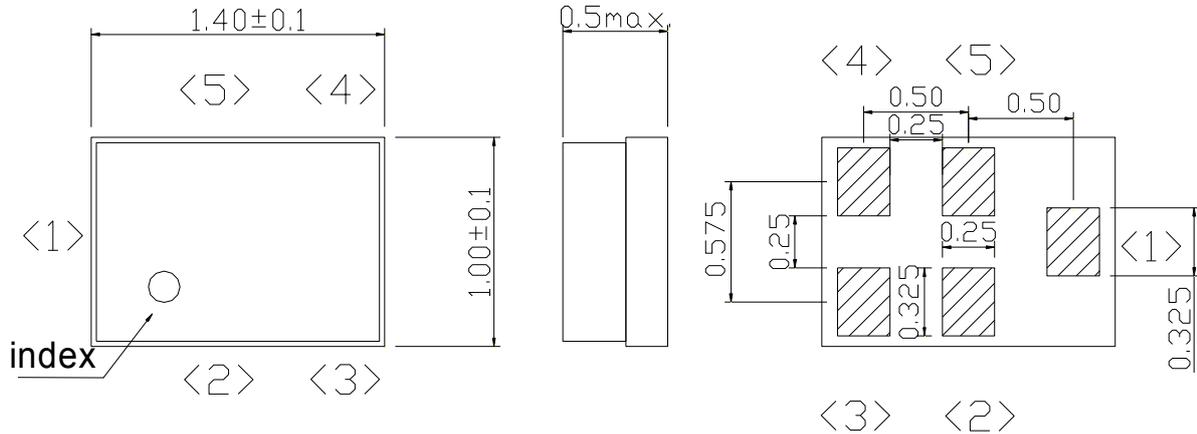
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Dimension

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

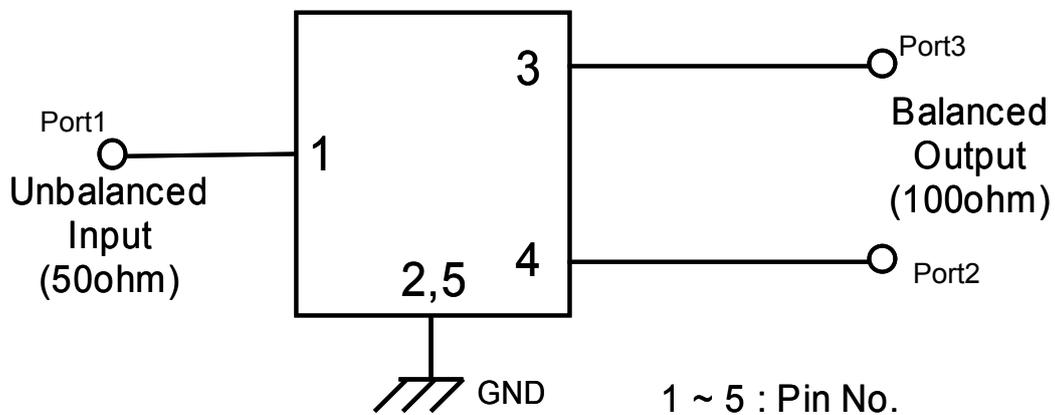


Unit: mm

Pin Configuration

Pin No.	Symbol	Function
1	IN	Unbalanced pin
2	GND	Ground
3	OUT	Balanced pin
4	OUT	Balanced pin
5	GND	Ground

Evaluation Circuit





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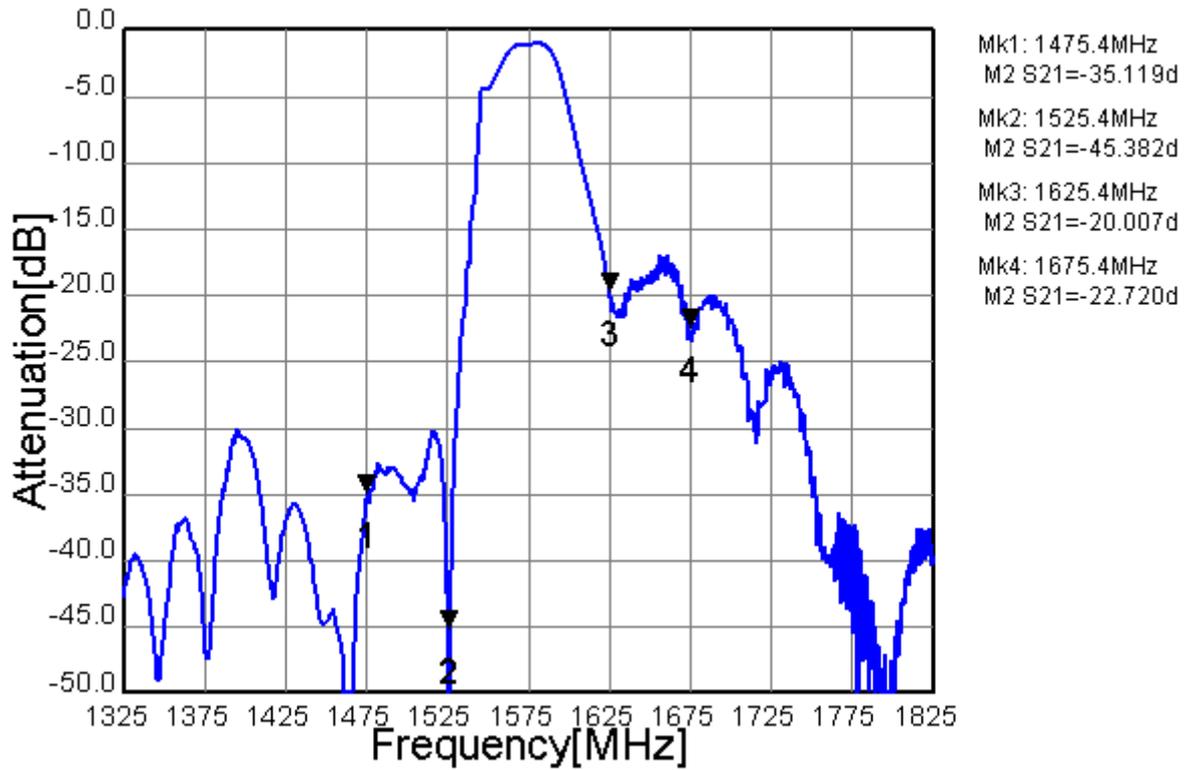


Fig.1 Pass-band Characteristic

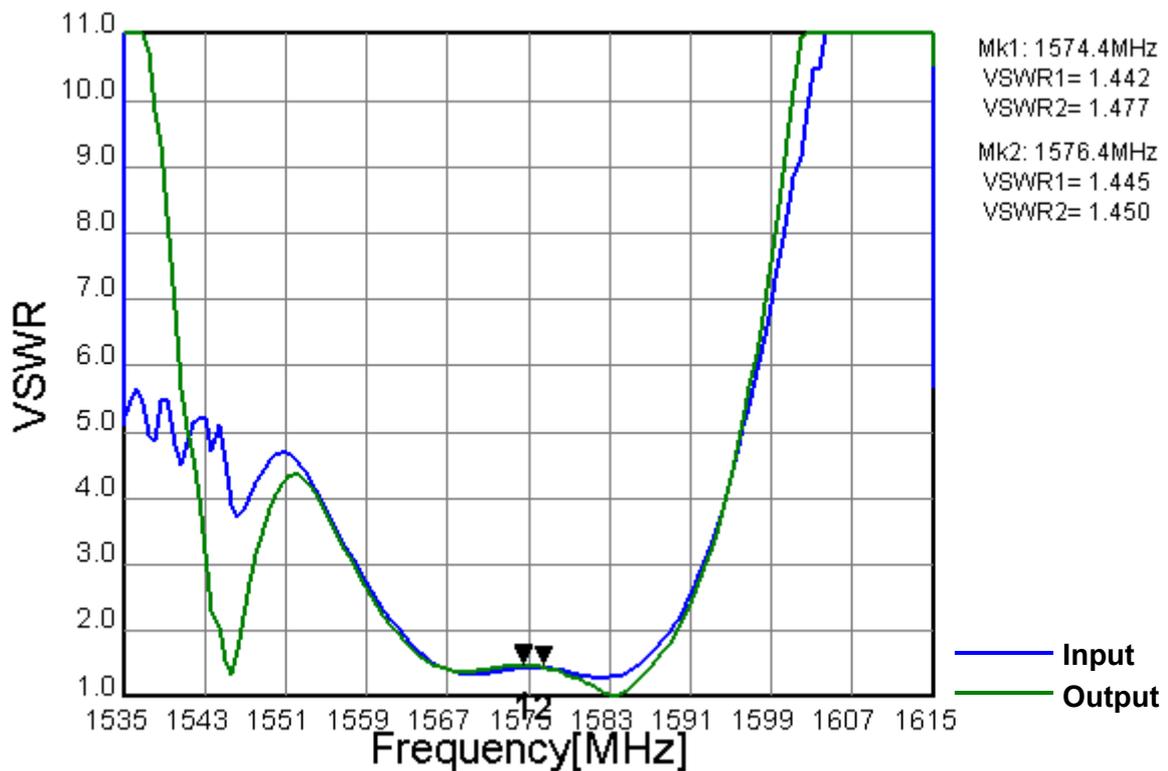


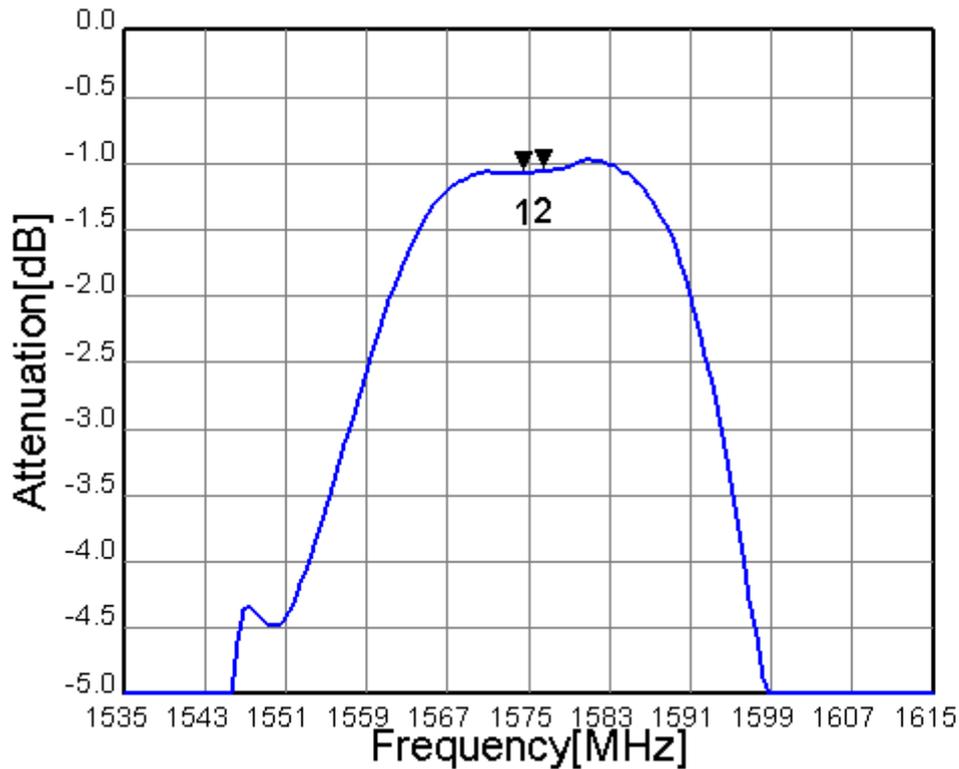
Fig.2 VSWR



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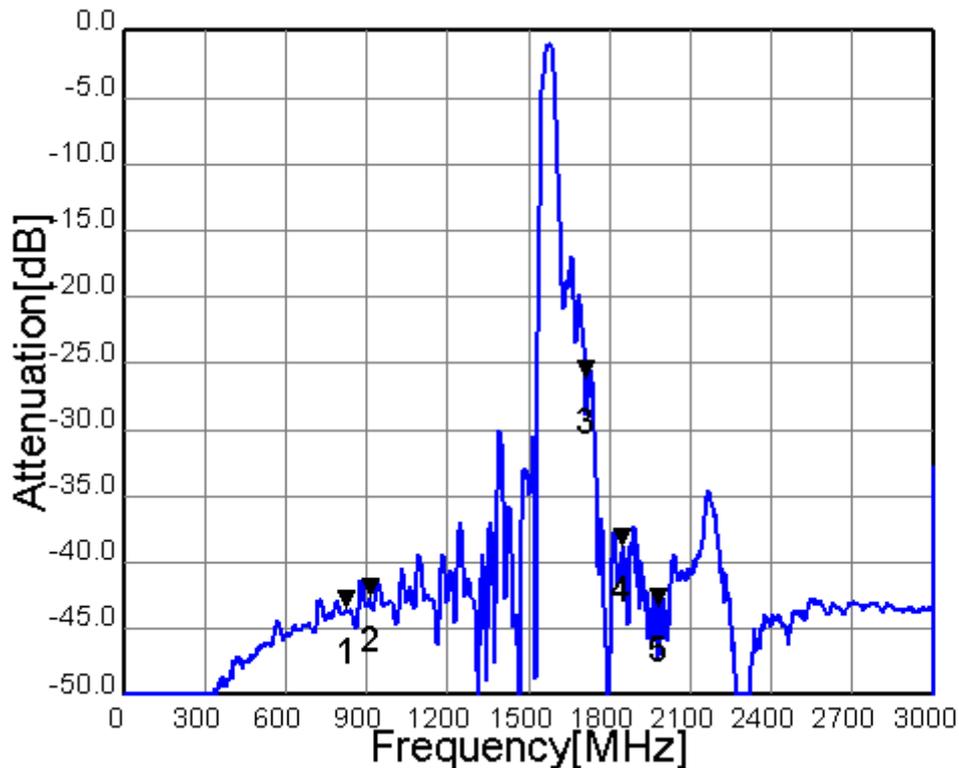
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Mk1: 1574.4MHz
S21=-1.070dB
Mk2: 1576.4MHz
S21=-1.065dB

Fig.3 In-band Characteristic



Mk1: 824.0MHz
S21=-43.691dB
Mk2: 915.0MHz
S21=-42.827dB
Mk3: 1710.0MHz
S21=-26.482dB
Mk4: 1850.0MHz
S21=-39.138dB
Mk5: 1980.0MHz
S21=-43.547dB

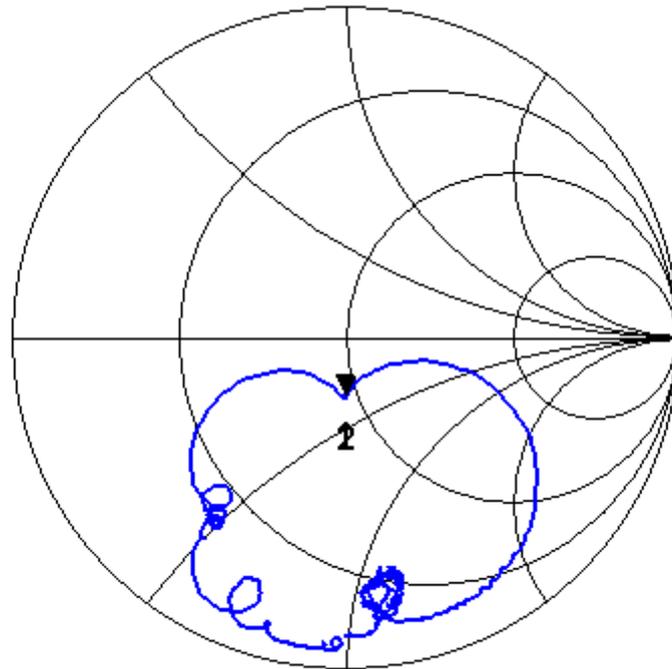
Fig.4 Wide-band Characteristic



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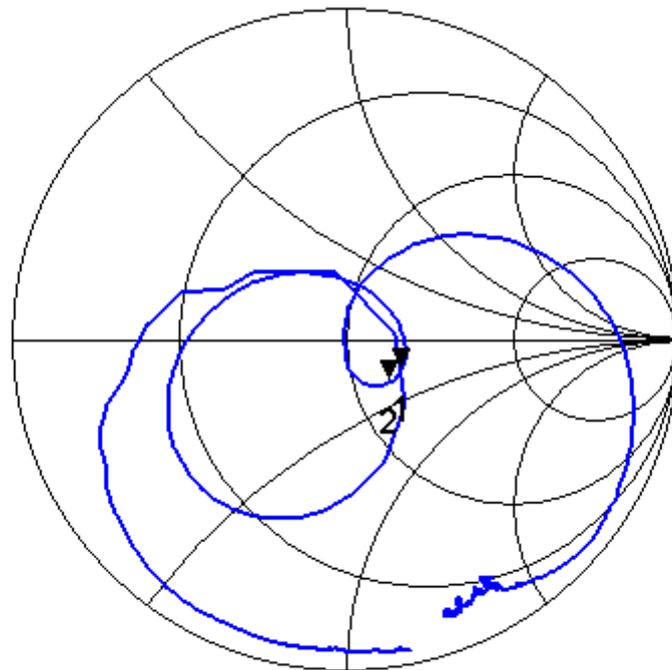
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Mk1: 1574.4
S11= 0.917 - j 0.342
Mk2: 1576.4
S11= 0.931 - j 0.351

Fig.5 Input Impedance



Mk1: 1574.4
S22= 1.369 - j 0.274
Mk2: 1576.4
S22= 1.250 - j 0.337

Fig.6 Output Impedance



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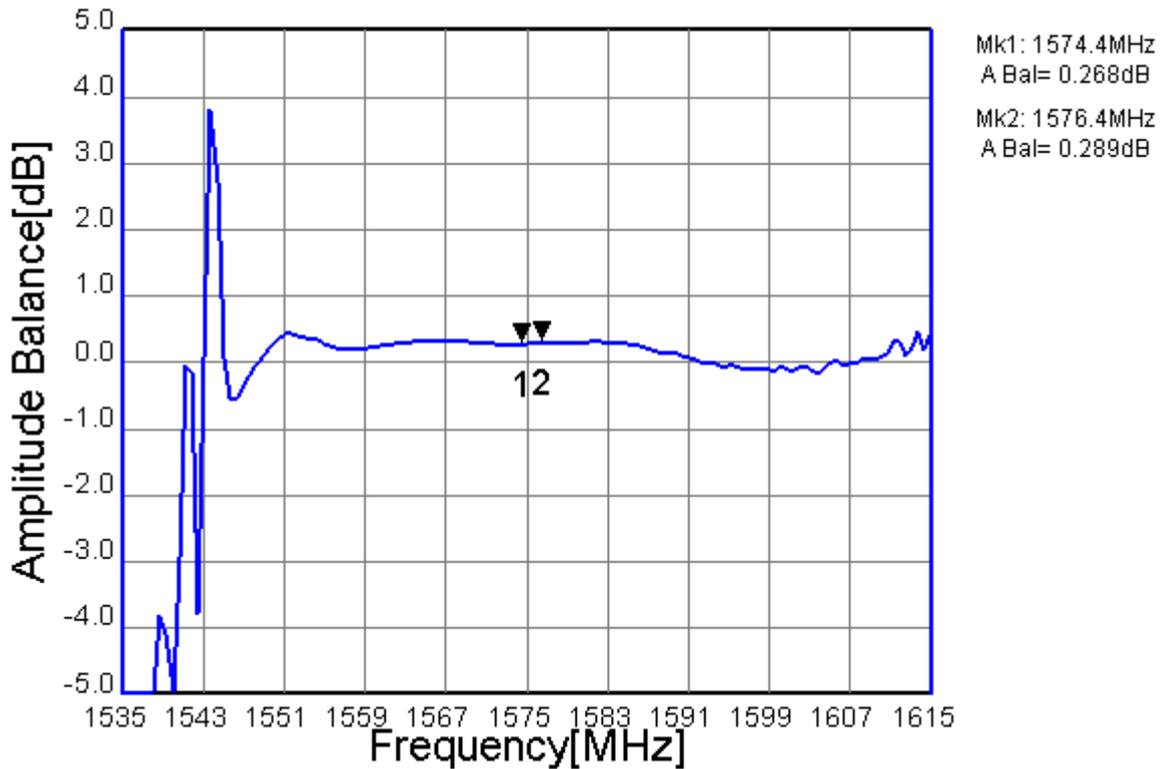


Fig.7 Amplitude Balance

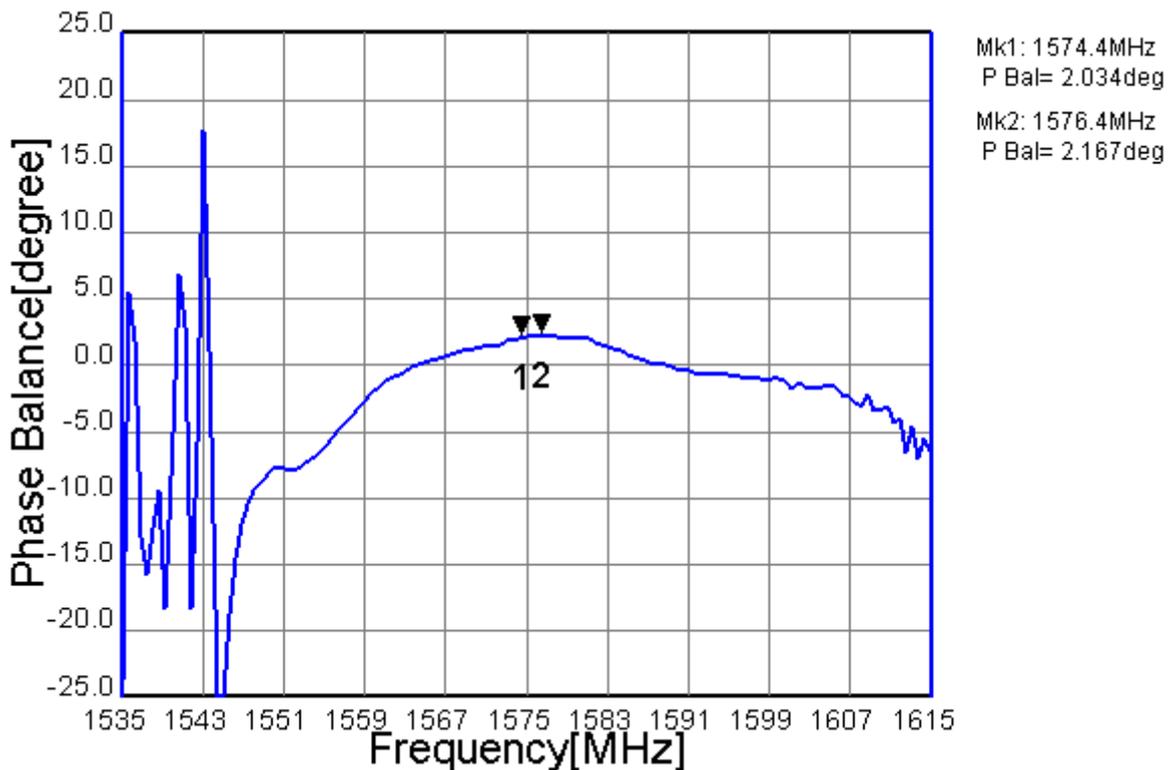


Fig.8 Phase Balance