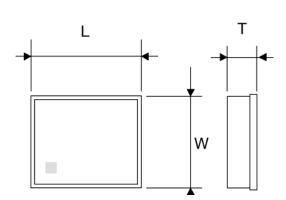
### **Spec Sheet**

## SAW Filter

# FAR-F5KY-942M50-B4UW



#### Features

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

#### ■ Products characteristics table

Temperature Range	-30 to +85℃
Band(3GPP)	B8
Use	WCDMA / LTE
Transmitting / Receiving	Rx Filter
Insertion Loss	2.0dB
Attenuation	57dB
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
Т	0.5mm max

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.





Customer Name	Standard Specification	TAIYO YUDEN Mobil	e Technology Co.,Ltd.
System	BandVIII Rx	Date	March 31, 2010
Part Number	FAR-F5KY-942M50-B4UW	Version 3.1c	

## Table 1 Filter1 Electrical Specification

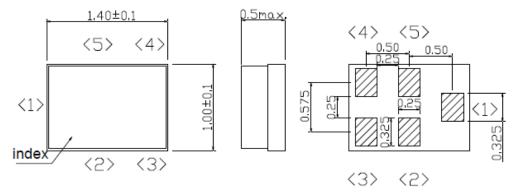
Parameter	Condition (MHz)	Specification  Ver.3.1c		Unit	Remarks	
	(1-11-12)	Min.	Тур.	Max.		
Insertion Loss	925 - 960	-	2.0	3.0	dB	@927.4 - 957.6MHz
Amplitude ripple	925 - 960	-	0.7	2	dB	@927.4 - 957.6MHz
Input VSWR	925 - 960	-	1.8	2.2	dB	@927.4 - 957.6MHz
Output VSWR	925 - 960	-	1.9	<u>2.2</u>	dB	@927.4 - 957.6MHz
	10 - 880	50	67	-	dB	
A.,	880 – 915	51	57	-	dB	@882.4-912.6MHz
Attenuation	1045 - 1750	40	57	-	dB	
	1750 - 4810	<u>35</u>	57	-	dB	
Amplitude Balance ( S21/S31 )	925 - 960	-1	-0.3/ +0.2	+1	dB	@927.4 - 957.6MHz
Phase Balance ((ΦS21-ΦS31)+180)	925 - 960	<u>-10</u>	-3/+2	<u>+10</u>	deg.	@927.4 - 957.6MHz
Operating temperature range -30~ +85		°C				
Input Impedance (	Unbalanced)	50		ohm		
Output Impe (Balanced / diff		100		ohm		



Customer Name	Standard Specification	TAIYO YUDEN Mobile Technology Co., Ltd	
System	BandVIII Rx	Date	March 31, 2010
Part Number	FAR-F5KY-942M50-B4UW	Version 3.1c	

### **Dimensions**

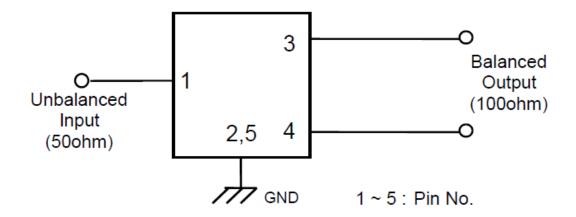
Device size: 1.4mmtyp. x 1.0mmtyp. x 0.5mmmax.



Unit: mm

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

### **Evaluation Circuit**



Customer Name	Standard Specification	TAIYO YUDEN Mobil	e Technology Co.,Ltd.
System	BandVIII Rx	Date	March 31, 2010
Part Number	FAR-F5KY-942M50-B4UW	Version 3.1c	

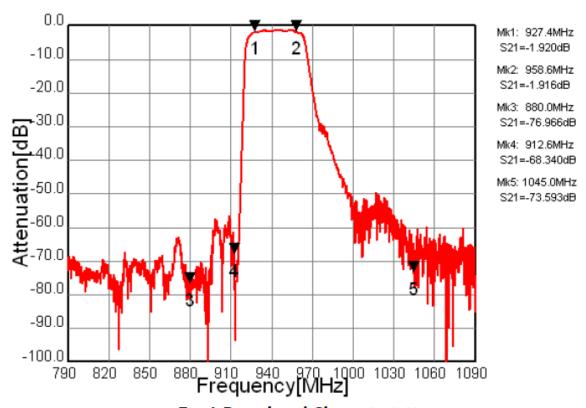


Fig.1 Pass-band Characteristic

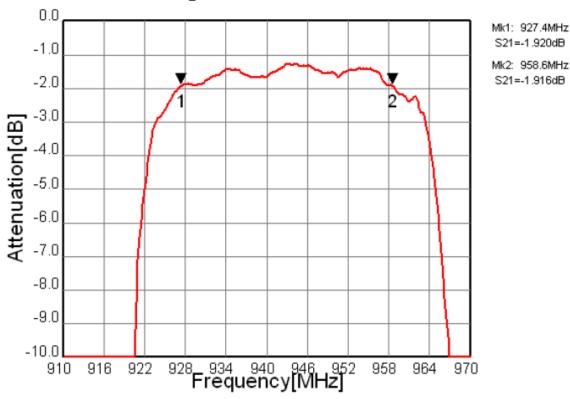
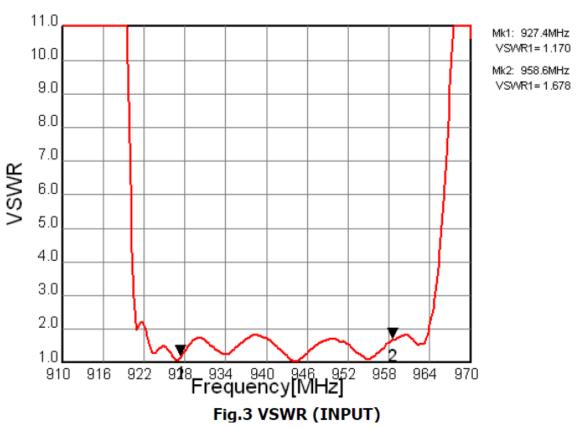


Fig.2 In-band Characteristic



Customer Name	Standard Specification	TAIYO YUDEN Mobil	e Technology Co.,Ltd.
System	BandVIII Rx	Date	March 31, 2010
Part Number	FAR-F5KY-942M50-B4UW	Version 3.1c	



Mk1: 927.4MHz VSWR2=1.227

Mk2: 958.6MHz

VSWR2= 1.683

11.0 10.0 9.0 8.0 7.0 6.0 5.0 4.0 3.0 2.0 1.0 918 934 940 946 952 958 Frequency[MHz] 916 922 964 970 910

Fig.4 VSWR (OUTPUT)

## **TAIYO YUDEN**



Customer Name	Standard Specification	TAIYO YUDEN Mobil	e Technology Co.,Ltd.
System	BandVIII Rx	Date	March 31, 2010
Part Number	FAR-F5KY-942M50-B4UW	Version 3.1c	

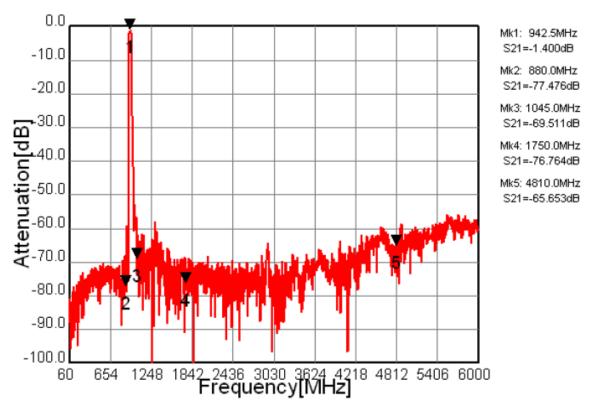


Fig.5 Wide-band Characteristic

Customer Name	Standard Specification	TAIYO YUDEN Mobil	e Technology Co.,Ltd.
System	BandVIII Rx	Date	March 31, 2010
Part Number	FAR-F5KY-942M50-B4UW	Version 3.1c	

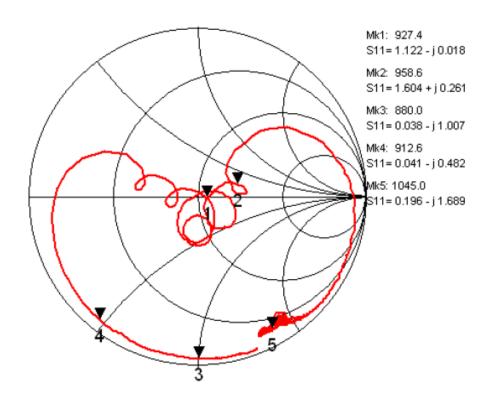


Fig.6 Impedance (Input)

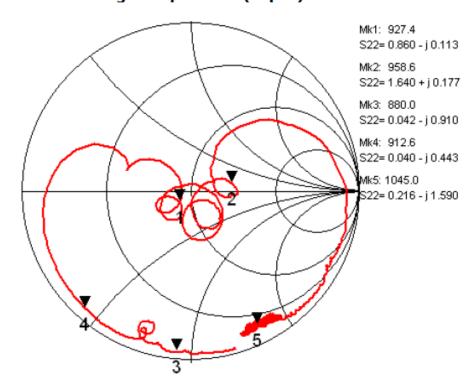


Fig.7 Impedance (Output)





Customer Name	Standard Specification	TAIYO YUDEN Mobil	e Technology Co.,Ltd.
System	BandVIII Rx	Date	March 31, 2010
Part Number	FAR-F5KY-942M50-B4UW	Version 3.1c	

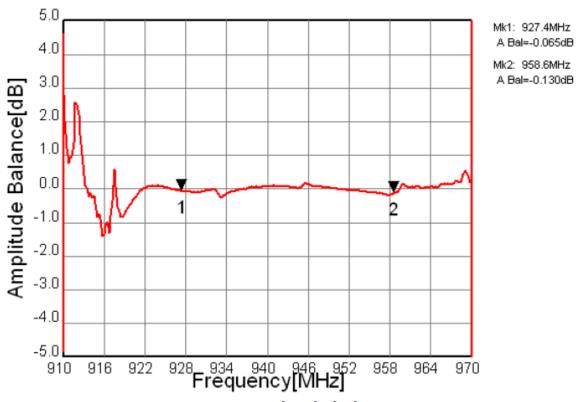


Fig.8 Amplitude balance

Mk1: 927.4MHz P Bal= 0.272deg

Mk2: 958.6MHz

P Bal= 1.068deg

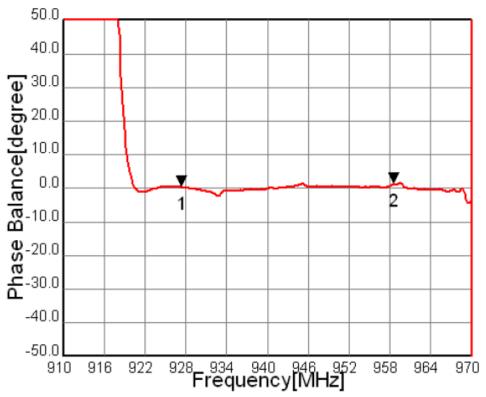


Fig.9 Phase balance