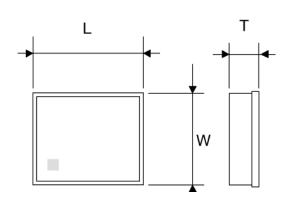
#### **Spec Sheet**

## FBAR Filter

# D6HK1G960DK12



#### Features

- Item Summary
  W-CDMA / CDMA, 1008
- Lifecycle Stage

Mass Production

Standard packaging quantity (minimum)
 Taping Embossed 3000, 10000pcs

#### ■ Products characteristics table

Temperature Range	-20 to +85℃
Band(3GPP)	B2
Band(3GPP2)	BC1
Use	WCDMA / CDMA
Transmitting / Receiving	Duplexer
Insertion Loss	2.0/2.3dB
Attenuation	58/52dB
RoHS Compliance	Yes
Halogen Free	Yes
Soldering Method	Reflow

#### ■ External Dimensions

L	2.5mm +0.1:-0.1
W	2.0mm +0.1:-0.1
Т	0.65mm 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	TAIYO YUDEN Mobile Technology Co., Lt		
System	W-CDMA Band II / CDMA2000 BC 1 Duplexer	Date	May. 25, 2011	
Part Number	D6HK1G960DK12	Version 2.0ab		

#### Table 1. Electrical Specification

Item			Condition	S	pecificatio	n	Lloit	Remarks
		(MHz)	Min	Тур	Max	Unit	Remarks	
Tx	Insertion loss		1850.6~1909.4	-	2.0	2.9	dB (*1)	
to			1850.48~1909.52	-	-	2.9	dB (*1)	
ANT	Ripple		1850.48~1909.52	-	0.8	2.0	dB	
	VSWR	ANT	1850.48~1909.52	-	1.5	2.0	-	
		Тх	1050.40~1909.52	-	1.7	2.1	-	
	Absolute atte	enuation	1570~1580	38	41	-	dB	
			1930.6~1989.4	44	50	-	dB	
			1930.48~1989.52	44	-	-	dB	
			2400~2500	25	37	-	dB	
			3700~3820	22	27	-	dB	
			5550~5730	15	19	-	dB	
ANT	Insertion loss	6	1930.6~1989.4	-	2.3	3.2	dB (*1)	
to			1930.48~1989.52	-	-	3.2	dB (*1)	
Rx	Ripple		1930.48~1989.52	-	1.4	2.5	dB	
	VSWR	ANT	1930.48~1989.52	-	1.8	2.2	-	
		Rx	1930.46~1969.52	-	1.8	2.2	-	
	Absolute atte	enuation	1850.6~1909.4	45	56	-	dB	
			1850.48~1909.52	45	-	-	dB	
			2400~2500	35	50		dB	
Tx to	Isolation		1850.6~1909.4	55	58	-	dB	
Rx			1850.48~1909.52	55	-	-	dB	
			1930.6~1989.4	48	52	-	dB	
			1930.48~1989.52	48	-	-	dB	
Termina	Terminating Impedance		Tx port		50		Ohm	Single-ended
	Rx port		Rx port		50		Ohm	Single-ended
	Ant port			50 // 4.3n	Н	Ohm	Single-ended	
Operati	ng Temperatu	re			-20 to +85	<u> </u>	۰C	
Device	size (LxWxH)			2.5 x	2.0 x 0.65	Max	mm	

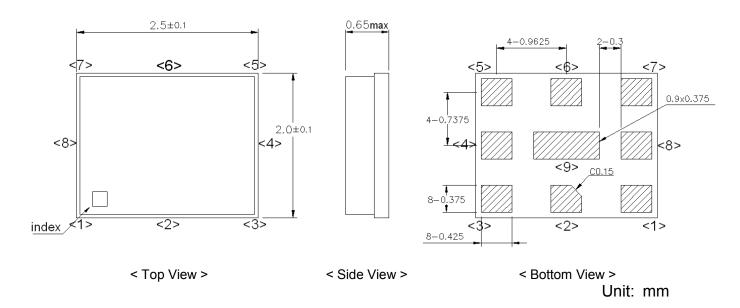
<sup>(\*1)</sup> Specification of insertion loss excludes loss that comes from the test board. ( approximately 0.15dB. )





Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd	
System	W-CDMA Band II / CDMA2000 BC 1 Duplexer	Date	May. 25, 2011
Part Number	D6HK1G960DK12	Version 2.0ab	

#### **Dimensions**



#### **Pin Configuration**

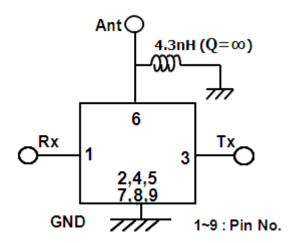
Pin No.	Pin name	Description
1	Rx	Receiver Pin
2	GND	Ground Pin
3	Tx	Transmitter Pin
4	GND	Ground Pin
5	GND	Ground Pin
6	ANT	Antenna Pin
7	GND	Ground Pin
8	GND	Ground Pin
9	GND	Ground Pin

Figure 1. Dimensions and Pin assignment



Customer Name	Standard	TAIYO YUDEN Mo	obile Technology Co.,Ltd.
System	W-CDMA Band II / CDMA2000 BC 1 Duplexer	Date	May. 25, 2011
Part Number	D6HK1G960DK12	Version 2.0ab	

#### **Evaluation Circuit**



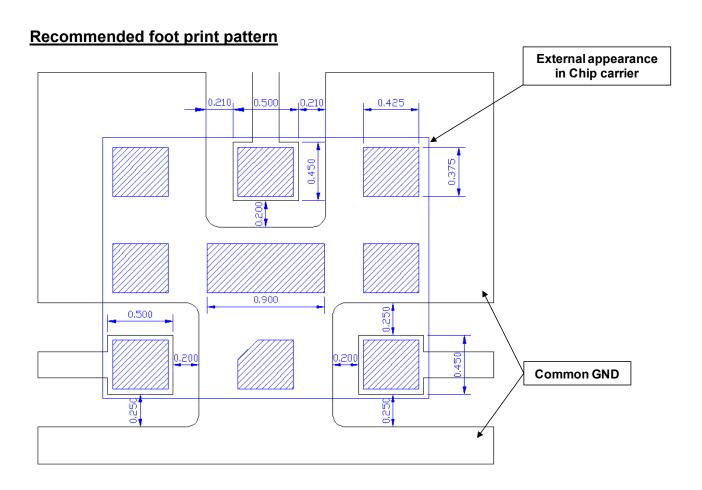


Figure 2. Recommended foot print pattern



Customer Name	Standard	TAIYO YUDEN Mo	obile Technology Co.,Ltd.
System	W-CDMA Band II / CDMA2000 BC 1 Duplexer	Date	May. 25, 2011
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### Tx to Ant



## **Ant to Rx**

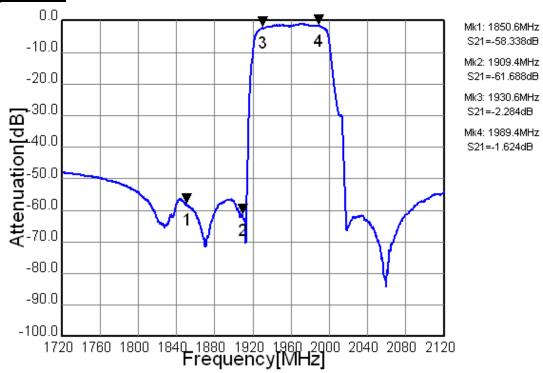


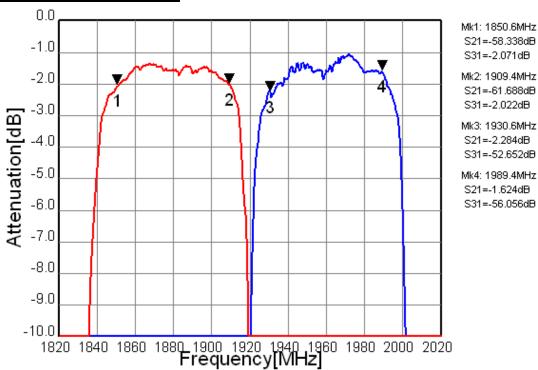
Figure 3-1. Electrical Characteristics

These data include loss that comes from the test board. (Approximately 0.15dB.)



Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Lt		
System	W-CDMA Band II / CDMA2000 BC 1 Duplexer	Date	May. 25, 2011	
Part Number	D6HK1G960DK12	Version 2.0ab		

### Tx to Ant, Ant to Rx



## Tx to Rx Isolation

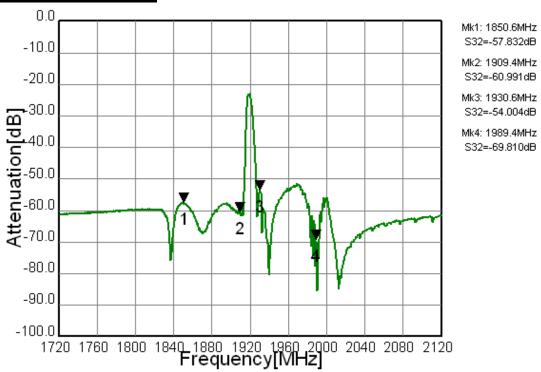


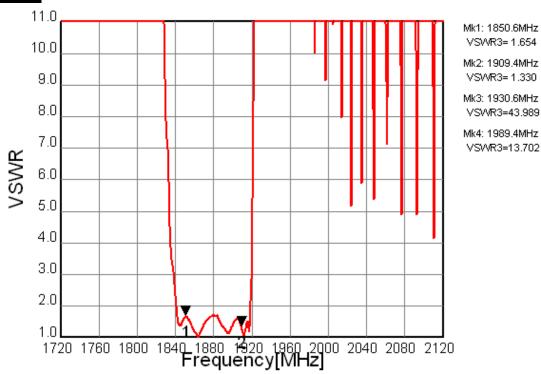
Figure 3-2. Electrical Characteristics

These data include loss that comes from the test board. (Approximately 0.15dB.)



Customer Name	Standard	TAIYO YUDEN Mo	obile Technology Co.,Ltd.
System	W-CDMA Band II / CDMA2000 BC 1 Duplexer	Date	May. 25, 2011
Part Number	D6HK1G960DK12	Version 2.0ab	

## **Tx Port**



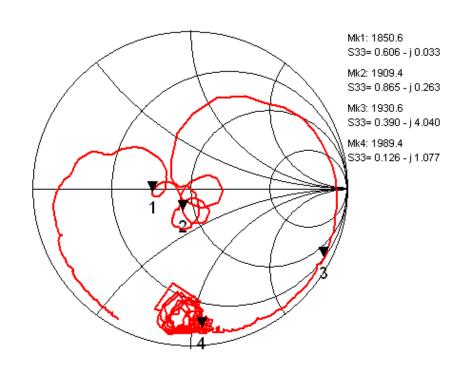
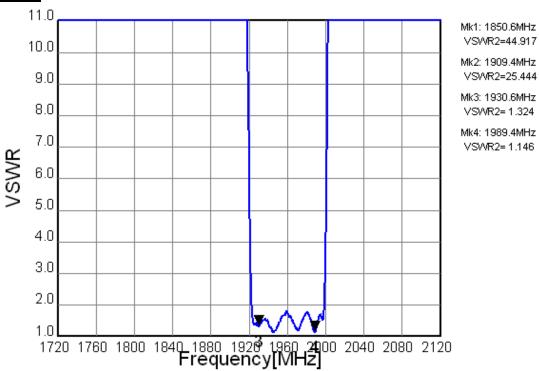


Figure 3-3. Electrical Characteristics



Customer Name	Standard	TAIYO YUDEN Mo	obile Technology Co.,Ltd.
System	W-CDMA Band II / CDMA2000 BC 1 Duplexer	Date	May. 25, 2011
Part Number	D6HK1G960DK12	Version 2.0ab	

## **Rx Port**



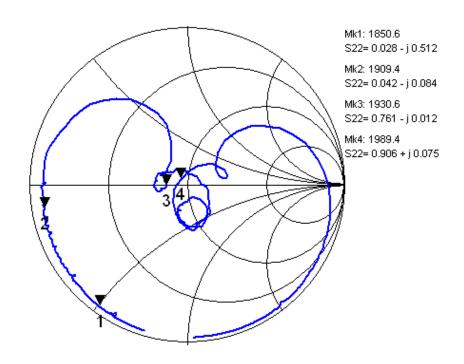
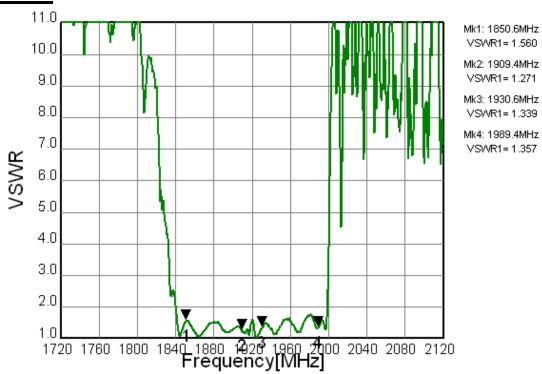


Figure 3-4. Electrical Characteristics



Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Lt		
System	W-CDMA Band II / CDMA2000 BC 1 Duplexer	Date	May. 25, 2011	
Part Number	D6HK1G960DK12	Version 2.0ab		

## **Ant Port**



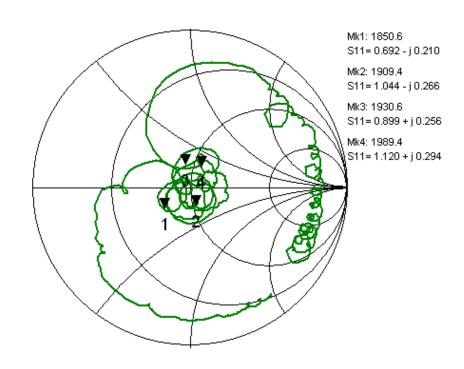


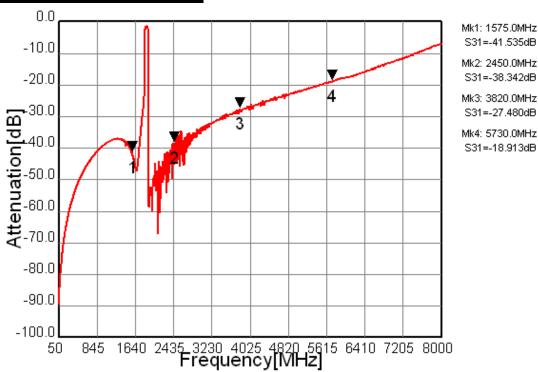
Figure 3-5. Electrical Characteristics





Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.		
System	W-CDMA Band II / CDMA2000 BC 1 Duplexer	Date	May. 25, 2011	
Part Number	D6HK1G960DK12	Version 2.0ab		

### Tx to Ant (Wide span)



## Ant to Rx (Wide span)

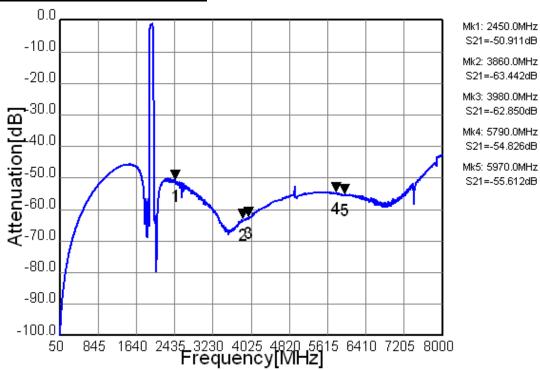


Figure 3-6. Electrical Characteristics



Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.		
System	W-CDMA Band II / CDMA2000 BC 1 Duplexer	Date	May. 25, 2011	
Part Number	D6HK1G960DK12	Version 2.0ab		

#### **Ordering Code**

Ordering Code	Packing	Reel size	Status
D6HK1G960DK12-Z	Tape & Reel	3,000 pcs.	MP
D6HK1G960DK12-ZA	Tape & Reel	less than 3,000 pcs.	MP
D6HK1G960DK12- <mark>U</mark>	Tape & Reel	10,000 pcs.	MP
D6HK1G960DK12-UA	Tape & Reel	less than 10,000 pcs.	MP
D6HK1G960DK12-Q	Bulk	few pcs.	MP

<sup>\*</sup>Minimum order quantity (MOQ) is assigned for each inquiry, Please contact to Sales Representatives..

#### **Notice**

All of the contents specified herein are subject to change without notice due to technical improvements, etc.

Please contact Taiyo Yuden Co., Ltd. for further details of product specifications.

Please conduct validation and verification of products in actual condition of mounting and operating environment before commercial shipment of the equipment.



<sup>\*</sup>MP: Mass Production

<sup>(</sup> For Engineering Sample (ES) order, please add a letter of "S" at the end of the ordering code indicated above.)