



\* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band II Duplexer	Date	March 31, 2010
Part Number	FAR-D6NH-1G9600-M1Z9	Version 1.2dd	

**Table 1. Electrical Specification**

Item			Condition (MHz)	Specification			Unit	Remarks
				Min	Typ	Max		
Tx to ANT	Insertion loss		1850.4~1909.6	-	2.2	3.1	dB  (*1)	-20 to +85 °C
			1850.6~1909.4	-	2.2	3.1		
	Ripple		1850.4~1909.6	-	0.8	2.2	dB	
	VSWR	Ant	1850.4~1909.6	-	1.6	2.0	-	
		Tx		-	1.9	2.3		
	Input Power		1850.4~1909.6	+29dBm, Ta=+50°C 50kh,CW			dBm	
	Absolute attenuation		1570~1580	33	37	-	dB	-20 to +85 °C
			1930.4~1989.6	40	49	-	dB	
			1930.6~1989.4	40	49	-		
			3700~3820	20	27	-		
			5550~5730	15	22	-	dB	
ANT to Rx	Insertion loss		1930.4~1989.6	-	3.1	3.7	dB  (*1)	-20 to +85 °C
			1930.6~1989.4	-	3.1	3.7		
	Ripple		1930.4~1989.6	-	1.4	2.2	dB	
	VSWR	Ant	1930.4~1989.6	-	1.6	2.0	-	
		Rx	1930.4~1989.6	-	1.7	2.1	-	
	Absolute attenuation		1850.4~1909.6	45	52	-	dB	-20 to +85 °C
			1850.6~1909.4	45	52			
Tx to Rx	Isolation		1850.4~1909.6	51	55	-	dB	-20 to +85 °C
			1850.6~1909.4	51	55	-		
			1930.4~1989.6	45	50	-	dB	-20 to +85 °C
			1930.6~1989.4	45	50	-		
Terminating Impedance			Tx port	50			Ohm	Single-ended
			Rx port	50			Ohm	Single-ended
			Ant port	50			Ohm	Single-ended
Operating Temperature				-30 to +85			°C	
Device size (L typ. x W typ. x H max.)				2.5 x 2.0 x 0.65			mm	

(\*1) Specification of insertion loss excludes loss that comes from the test board. (Approximately 0.15dB)



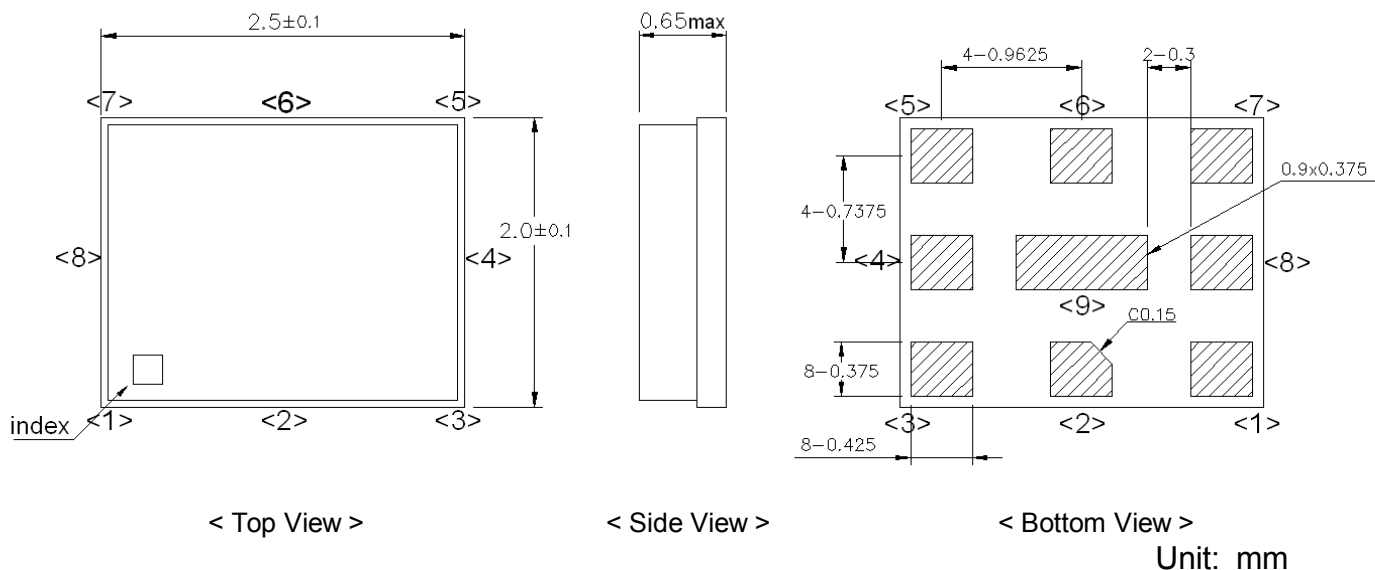
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## Dimensions



## 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**



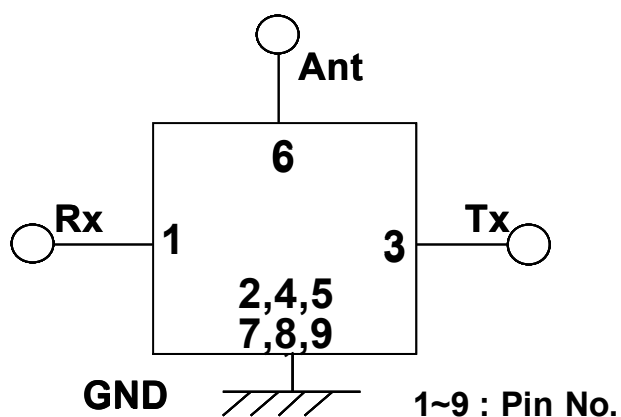
\* Pb Free Part



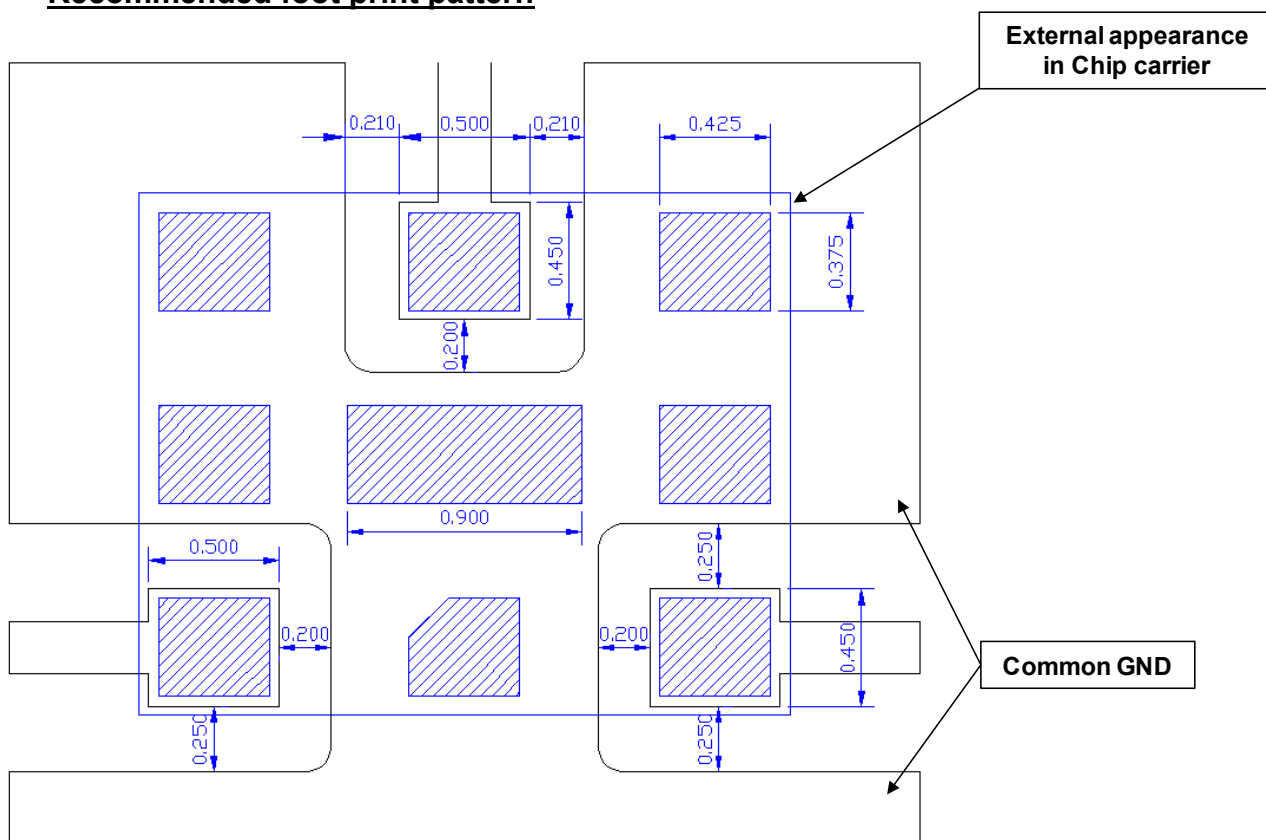
MSL1

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### Evaluation Circuit



### Recommended foot print pattern



Unit: mm

**Figure 2. Recommended foot print pattern**

**Tx to Ant**

**TAIYO YUDEN**

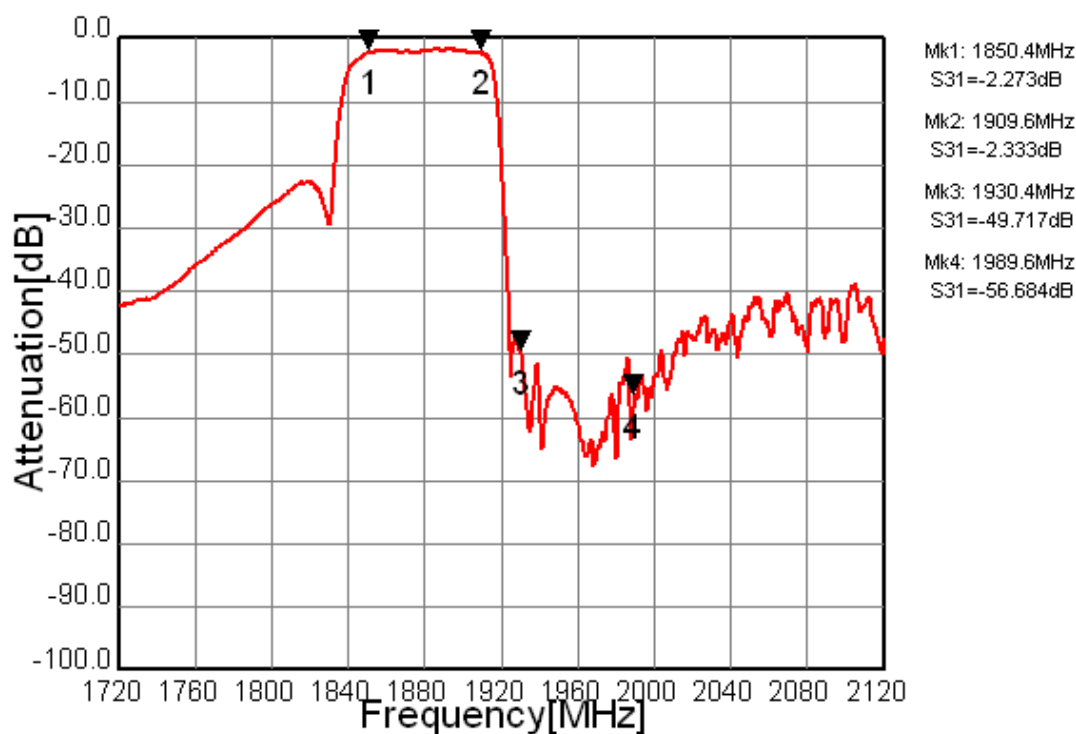


\* Pb Free Part

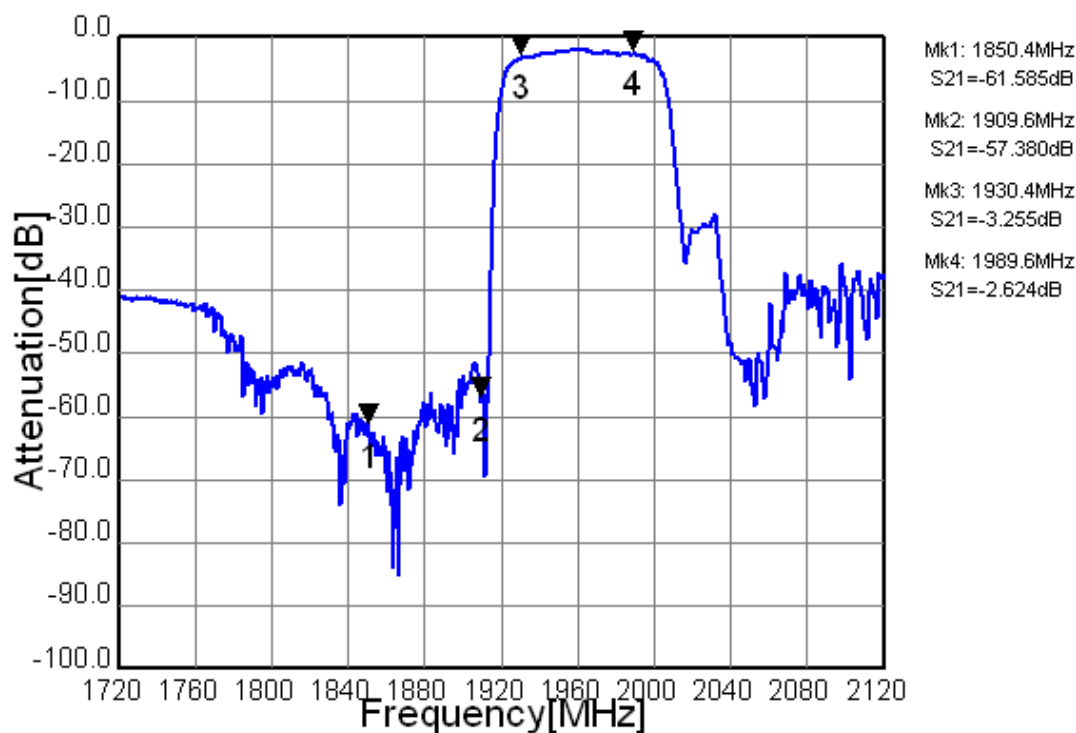
**RoHS**

MSL1

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System	Band II Duplexer	Date	March 31, 2010
Part Number	FAR-D6NH-1G9600-M1Z9	Version 1.2dd	



### Ant to Rx



**Figure 3-1. Electrical Characteristics**

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

**TAIYO YUDEN**



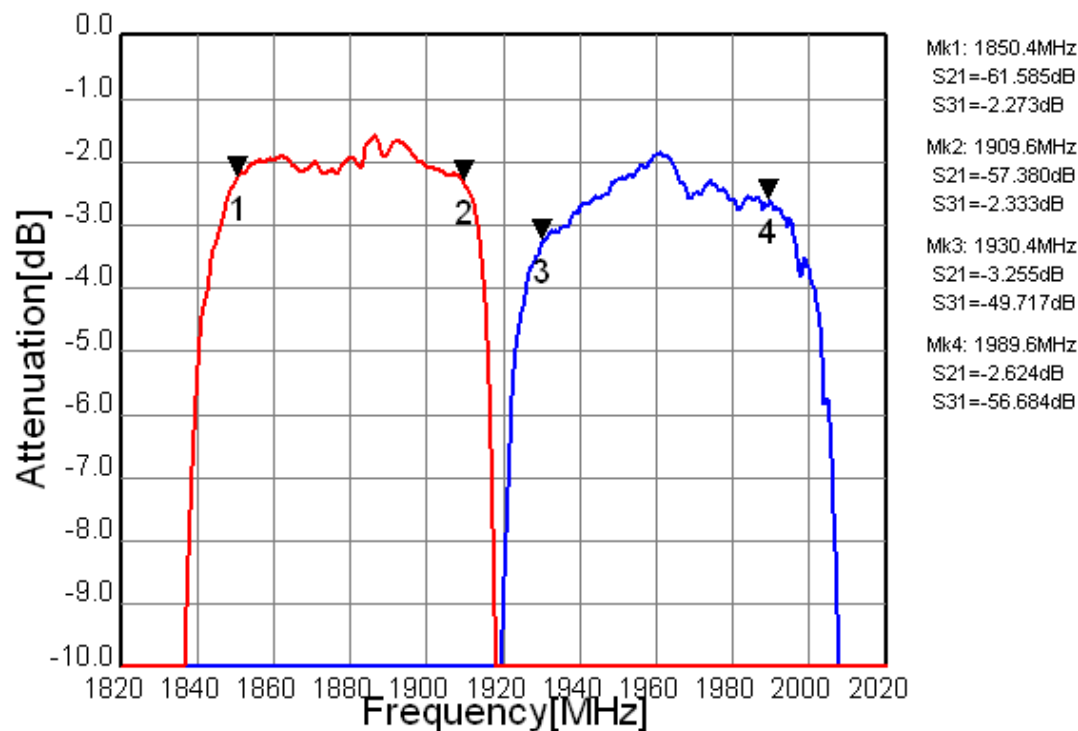
\* Pb Free Part



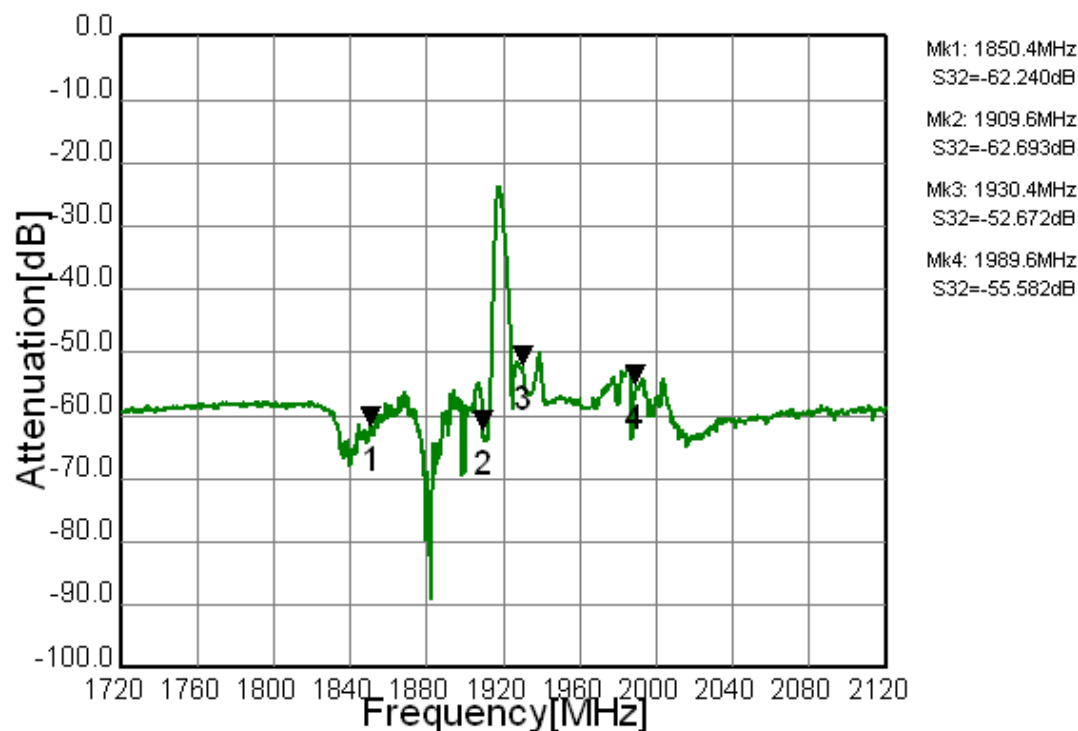
MSL1

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System	Band II Duplexer	Date	March 31, 2010
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## 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)

**TAIYO YUDEN**



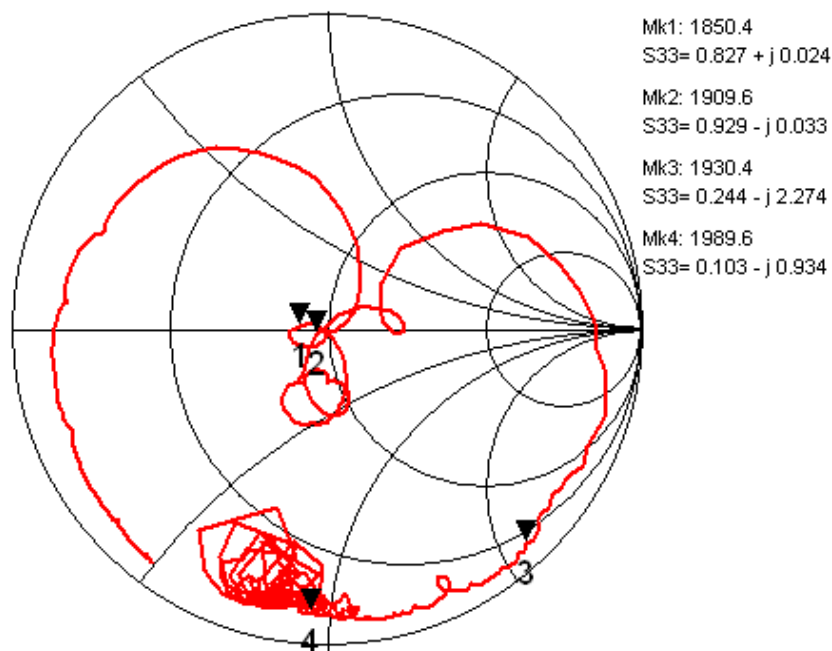
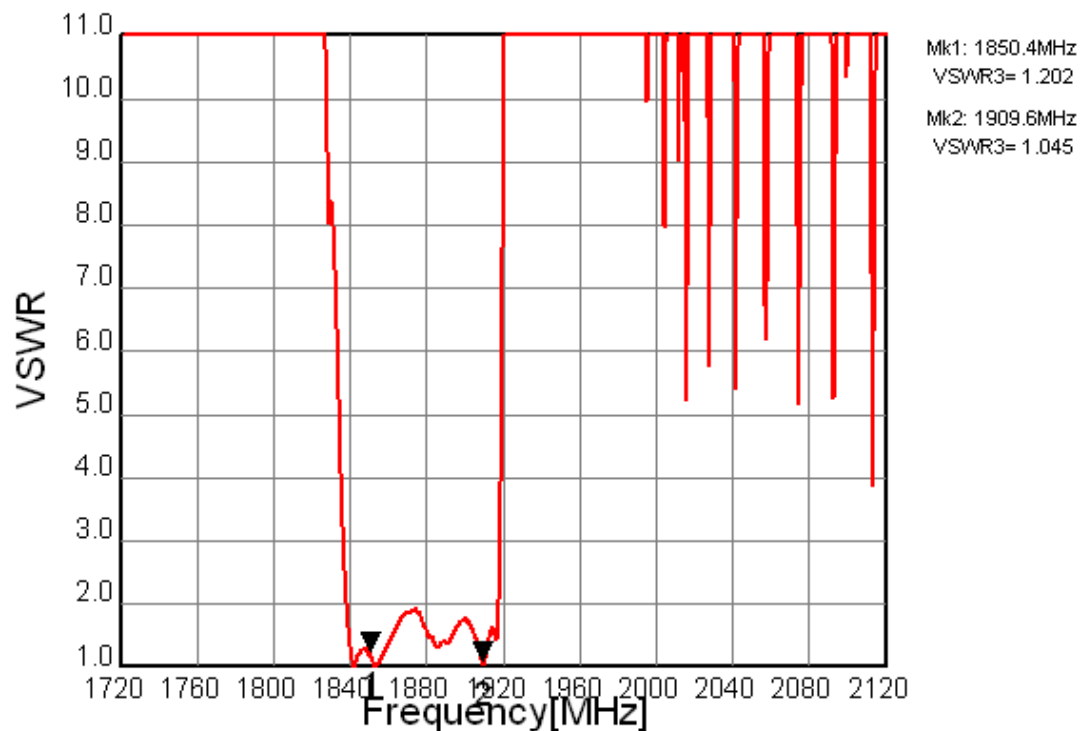
\* Pb Free Part

**RoHS**

MSL1

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## Tx Port



**Figure 3-3. Electrical Characteristics**

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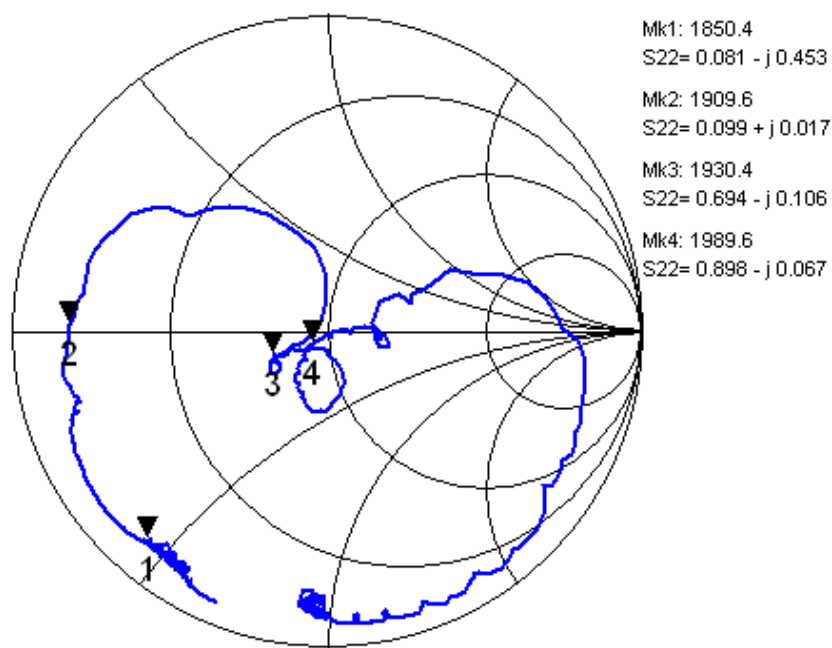
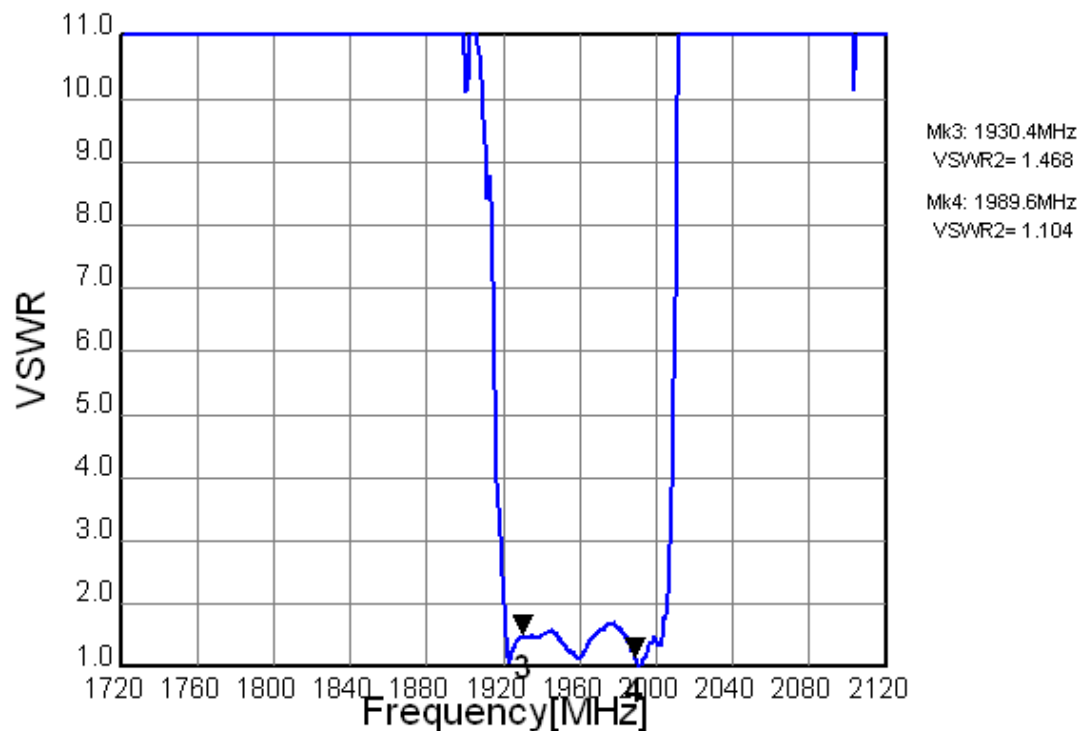
\* Pb Free Part

**RoHS**

MSL1

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## Rx Port



**Figure 3-4. Electrical Characteristics**

**TAIYO YUDEN**



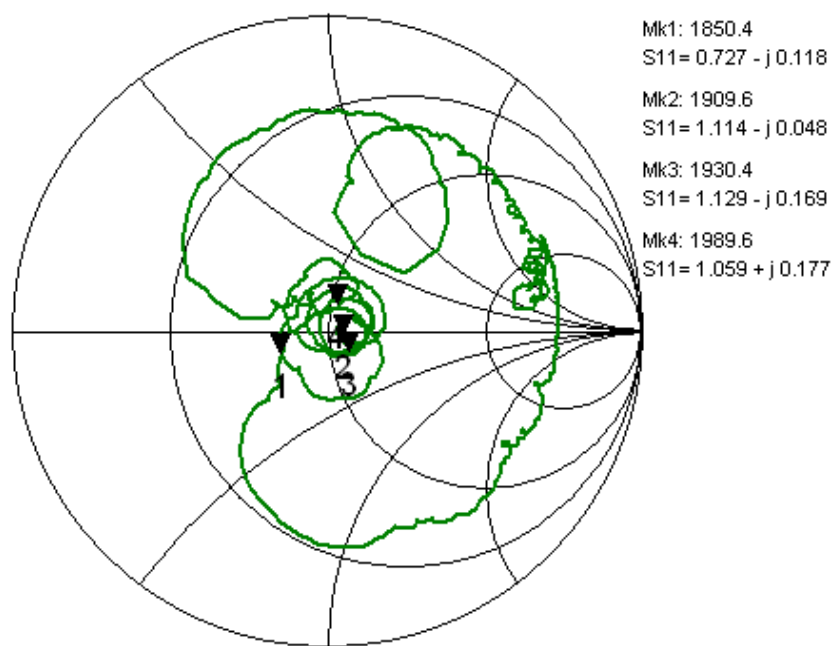
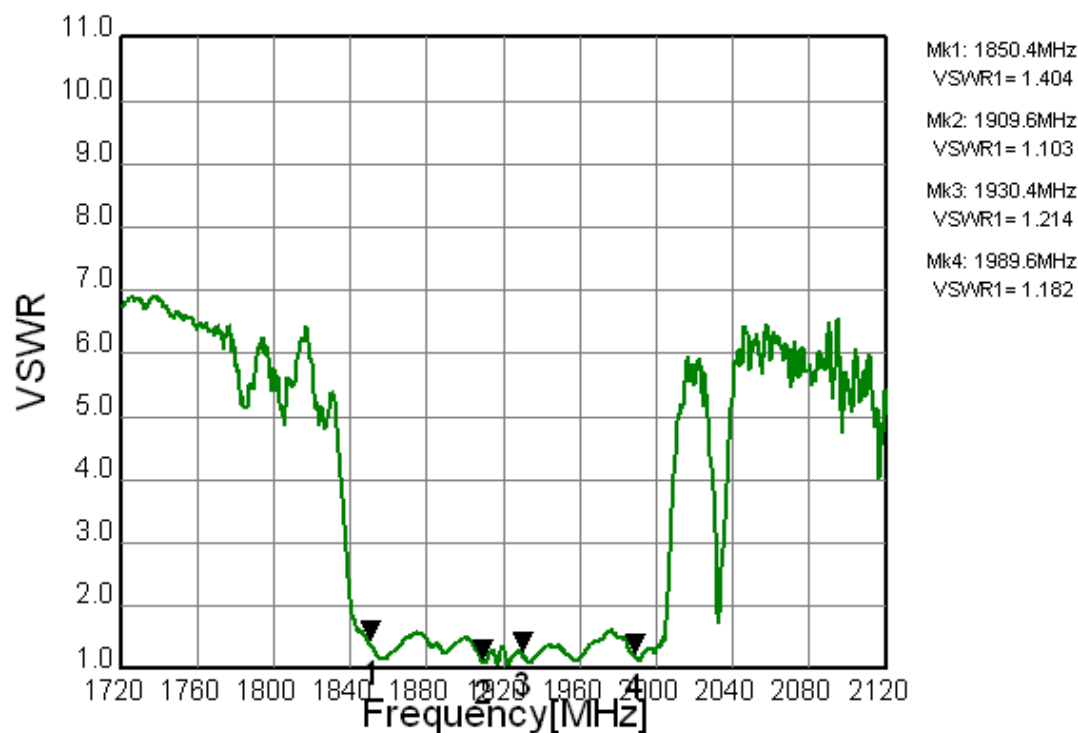
\* Pb Free Part

**RoHS**

MSL1

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System	Band II Duplexer	Date	March 31, 2010
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## Ant Port



**Figure 3-5. Electrical Characteristics**

**TAIYO YUDEN**





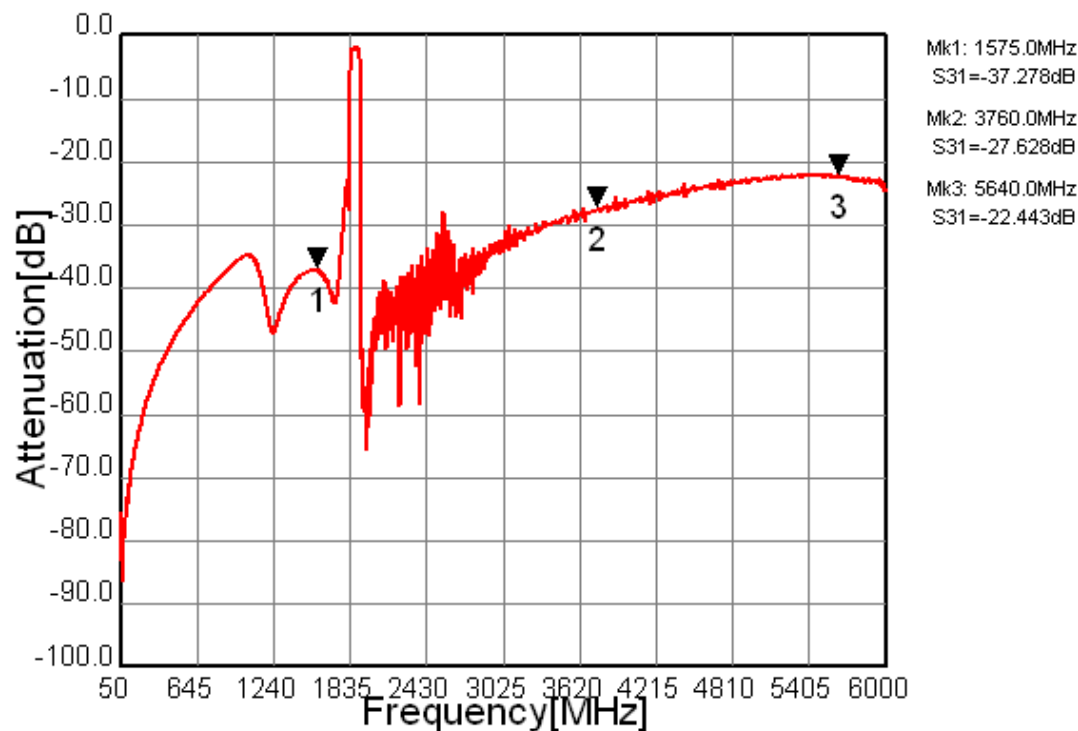
\* Pb Free Part



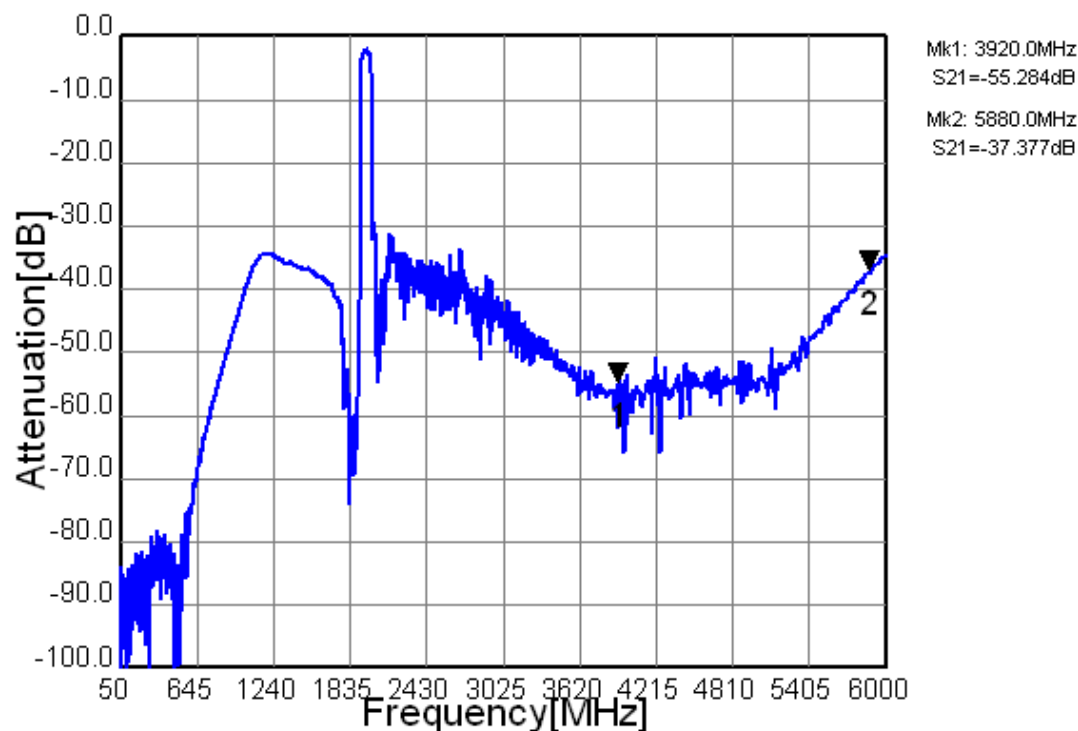
MSL1

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Part Number	FAR-D6NH-1G9600-M1Z9	Version 1.2dd	

### Tx to Ant (Wide span)



### Ant to Rx (Wide span)



**Figure 3-6. Electrical Characteristics**

**TAIYO YUDEN**