



\* 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	-20 to +85 °C	
		1850.6~1909.4	-	2.2	3.1			(*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		
		1930.4~1989.6	40	49	-	dB	-20 to +85 °C	
1930.6~1989.4		40	49	-				
3700~3820		20	27	-	dB			
5550~5730		15	22	-	dB			
ANT to Rx	Insertion loss	1930.4~1989.6	-	3.1	3.7	dB	-20 to +85 °C	
		1930.6~1989.4	-	3.1	3.7			(*1)
	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)

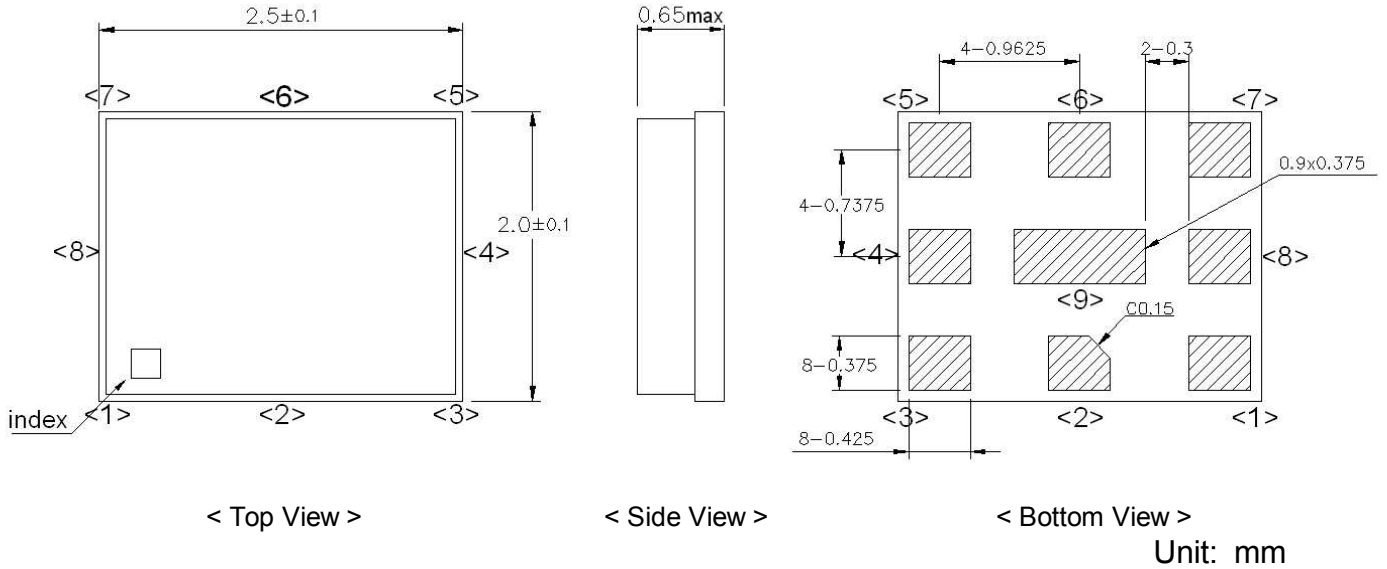


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### Dimensions



### 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**

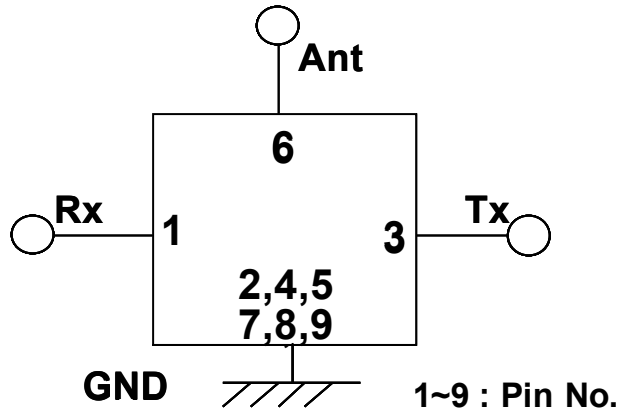


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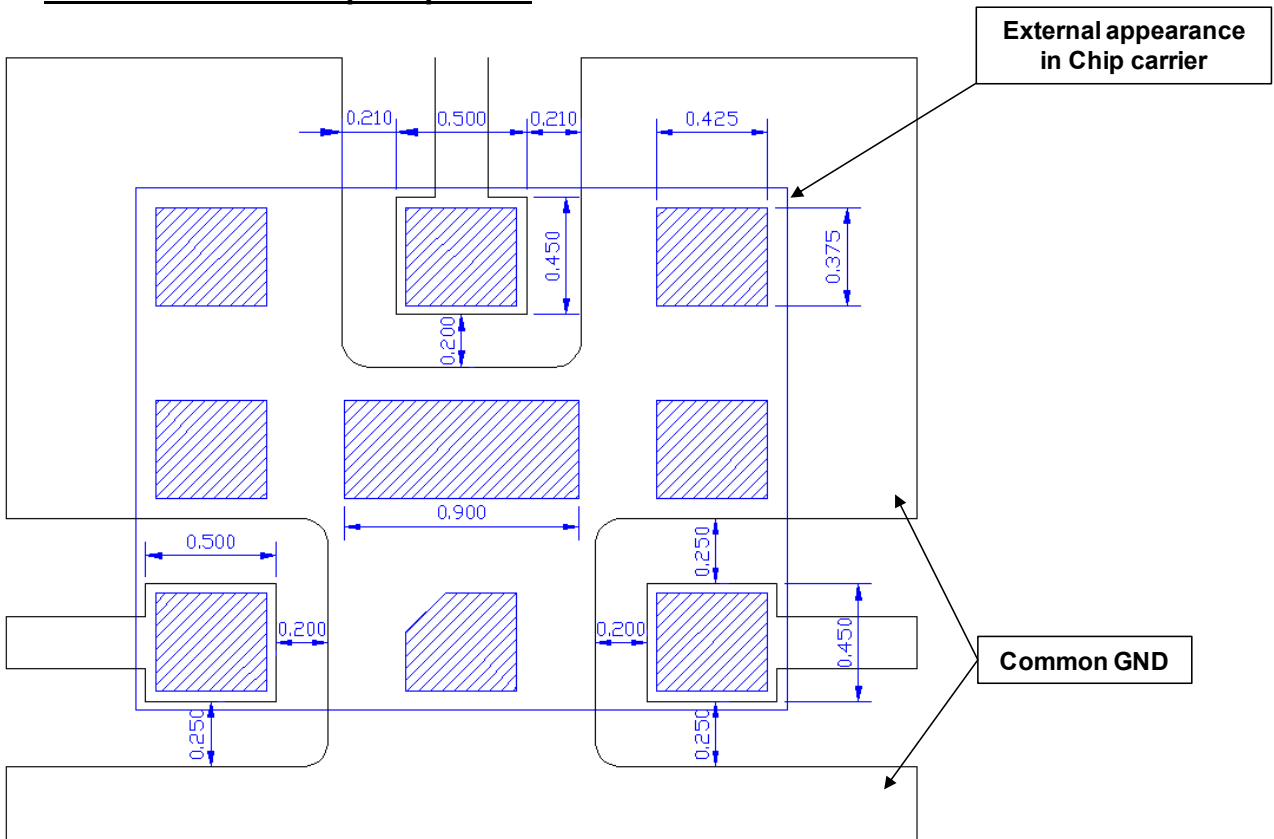
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### Evaluation Circuit



### Recommended foot print pattern



Unit: mm

Figure 2. Recommended foot print pattern

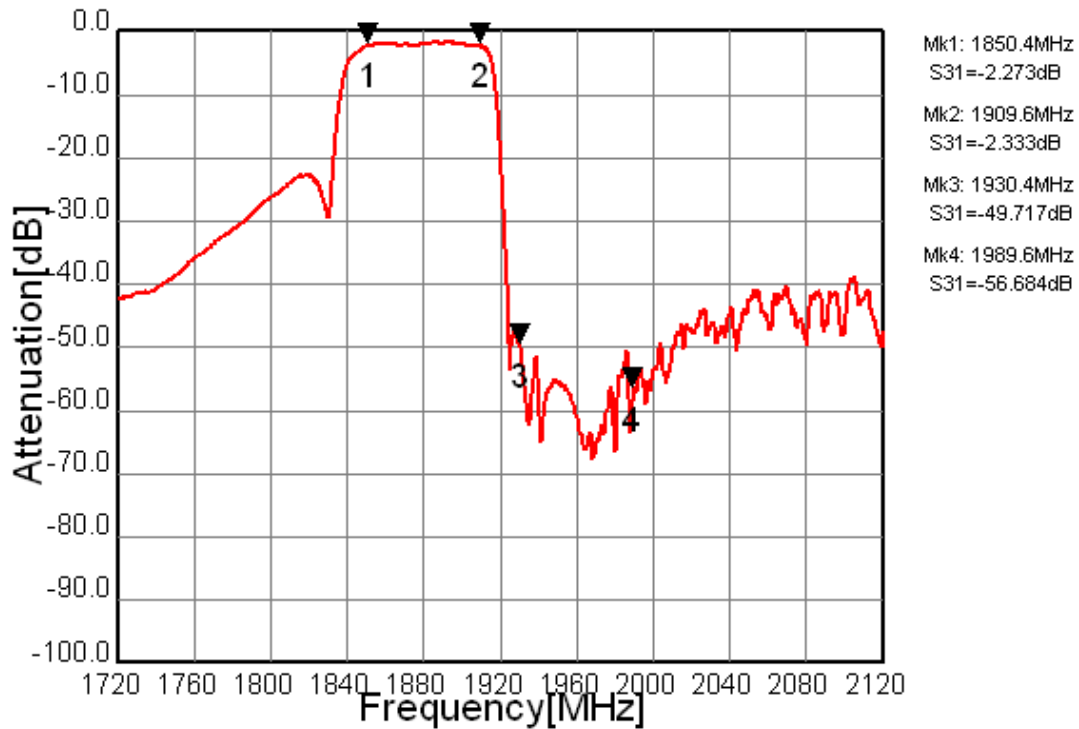
### Tx to Ant



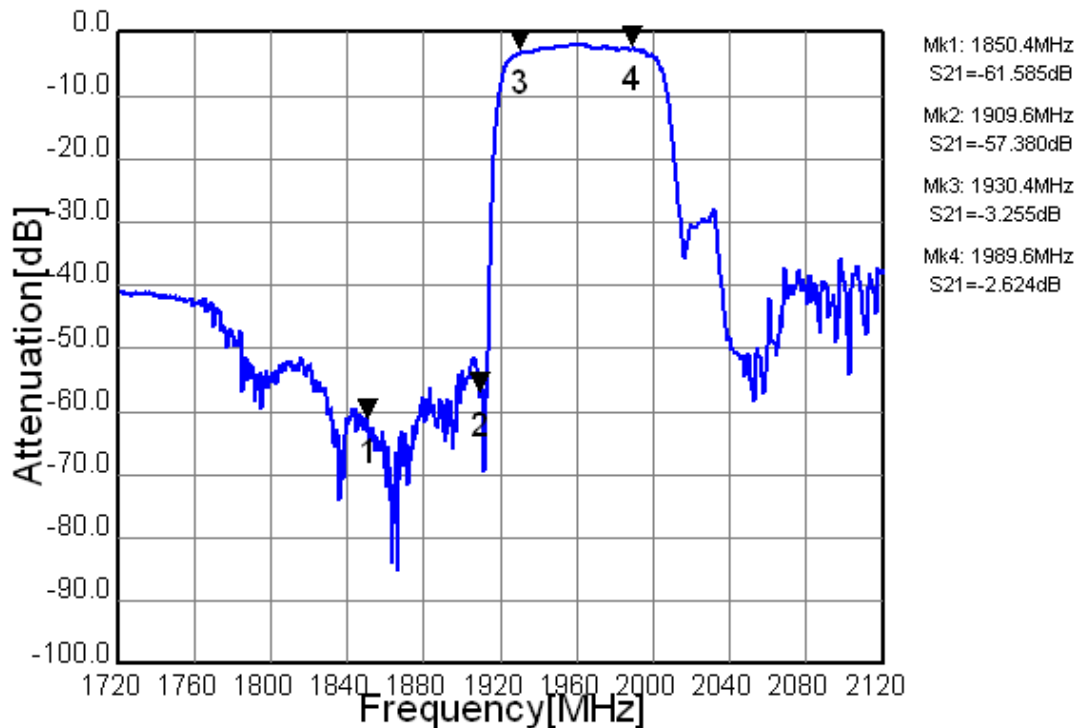
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### Ant to Rx



**Figure 3-1. Electrical Characteristics**

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

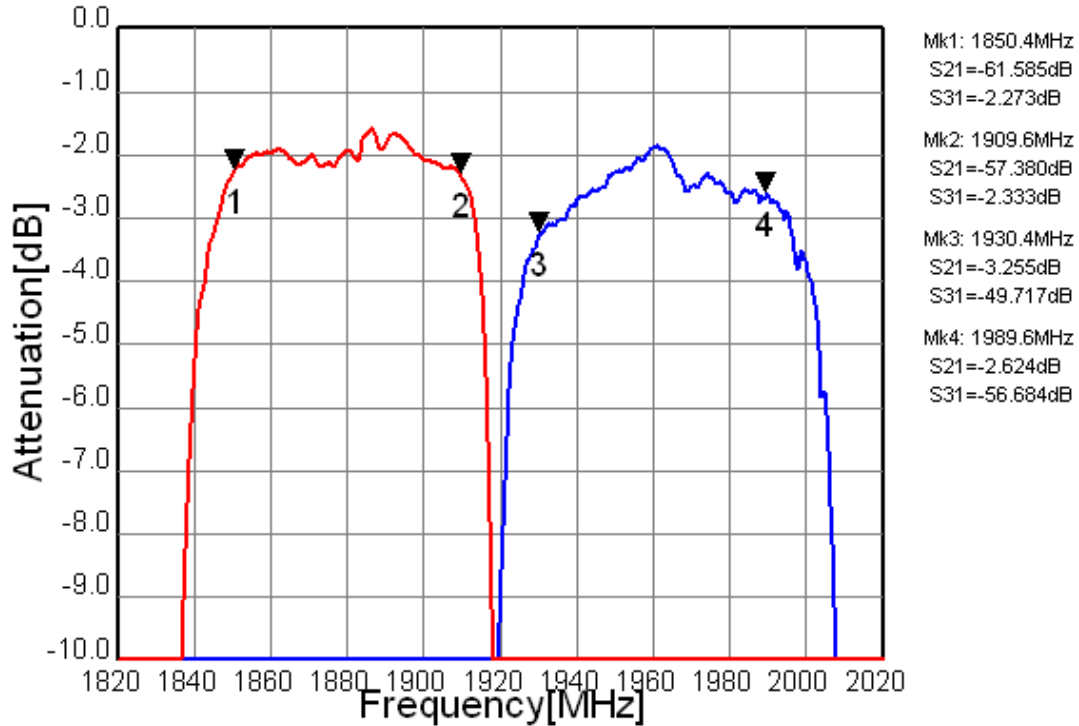


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### Tx to Ant, Ant to Rx



### Tx to Rx Isolation

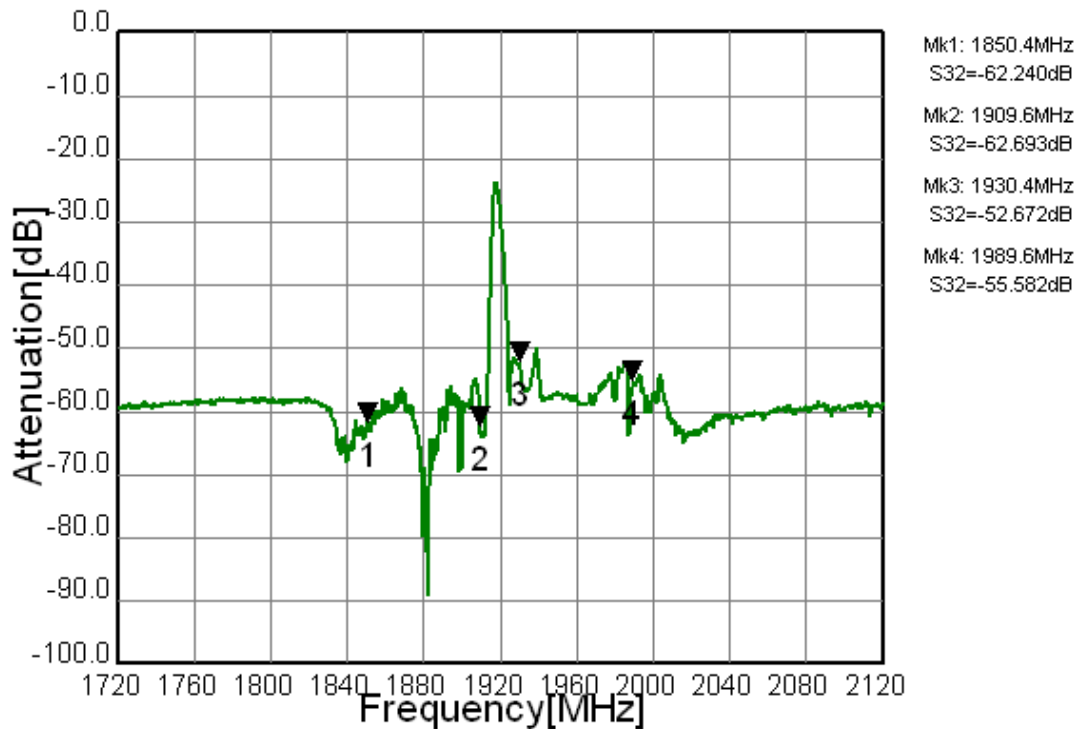


Figure 3-2. Electrical Characteristics

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



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### Tx Port

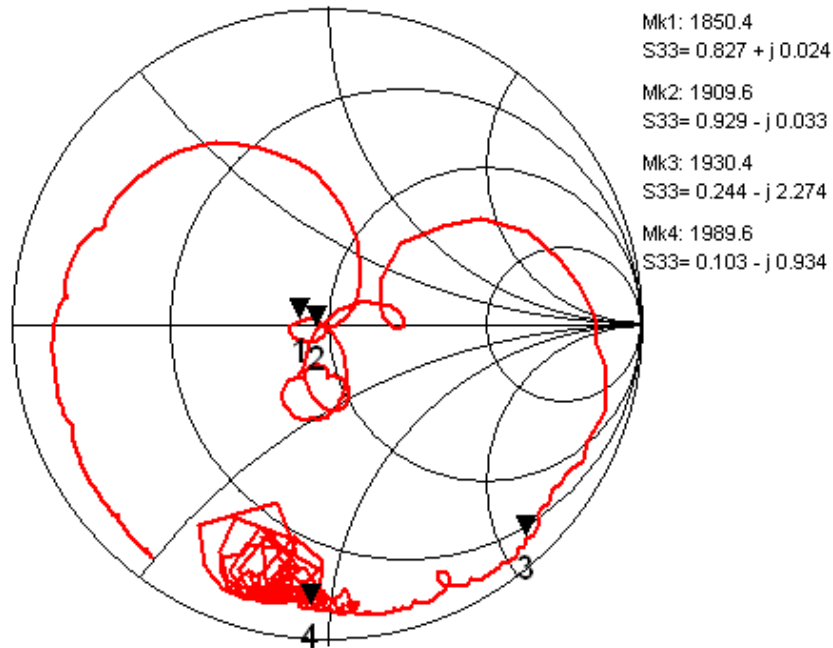
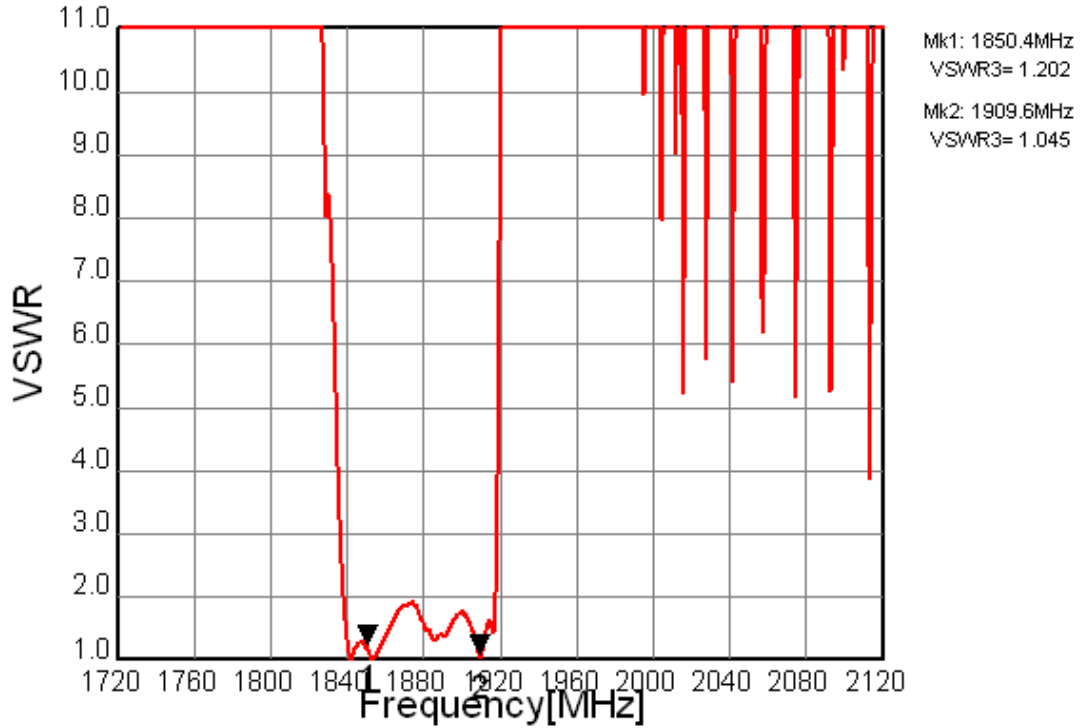


Figure 3-3. Electrical Characteristics



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### Rx Port

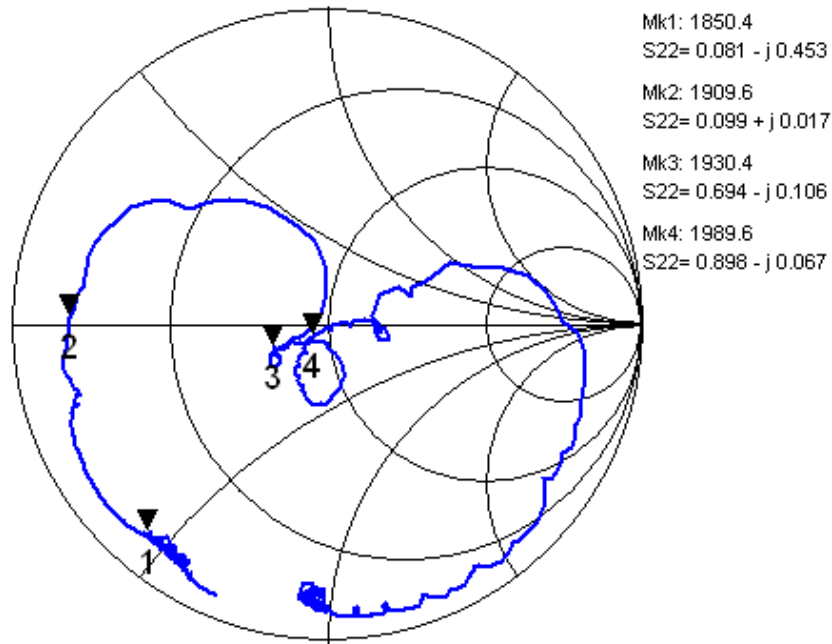
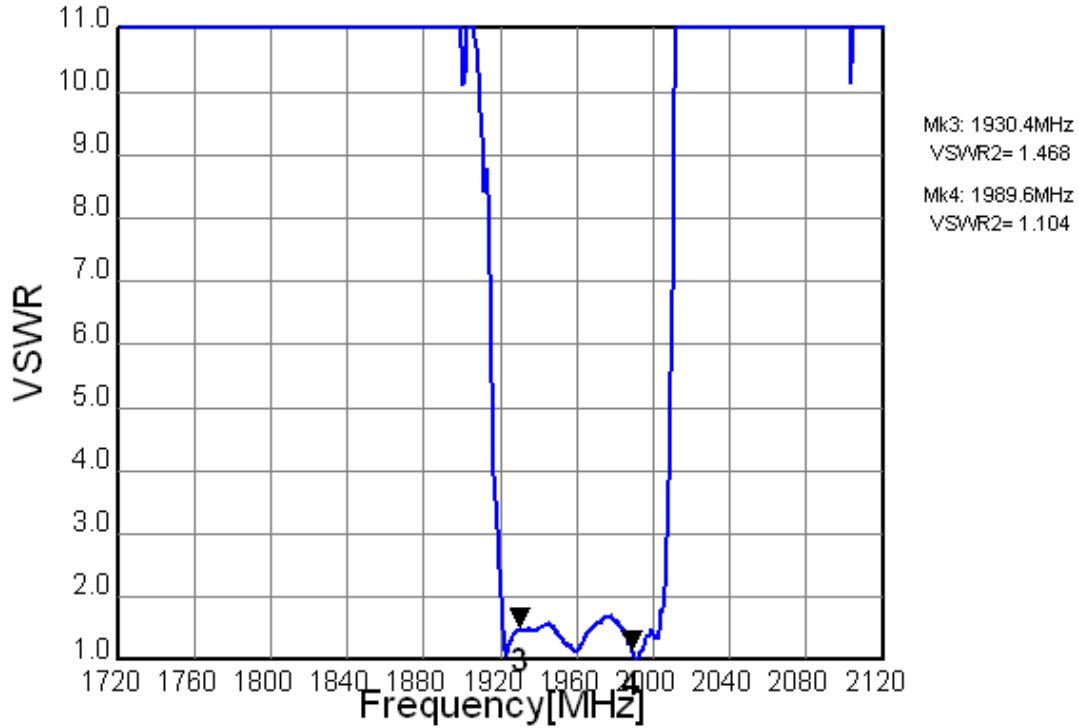


Figure 3-4. Electrical Characteristics



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### Ant Port

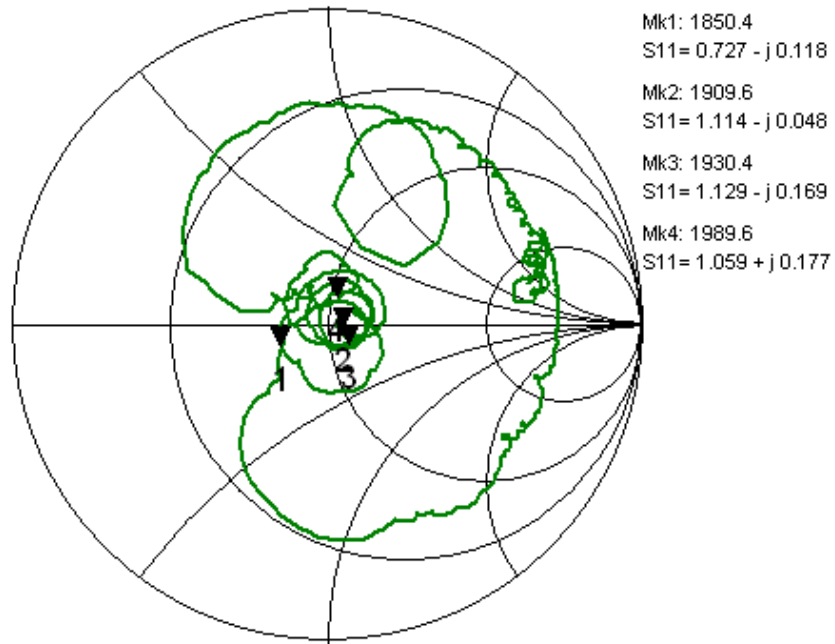
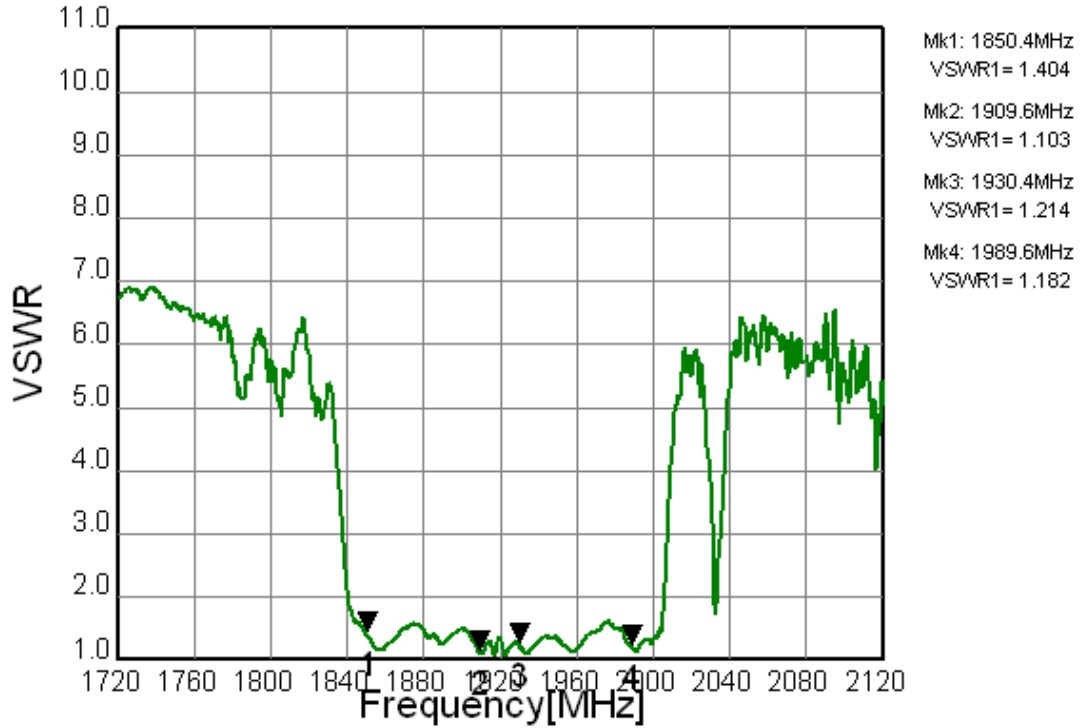


Figure 3-5. Electrical Characteristics



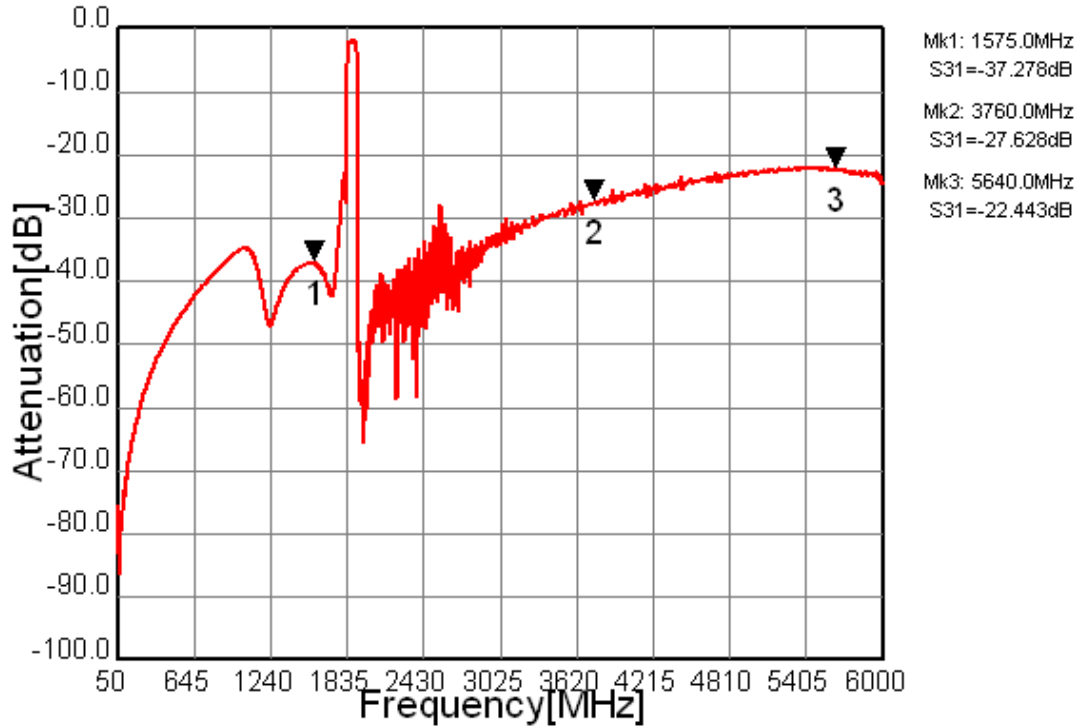


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### Tx to Ant (Wide span)



### Ant to Rx (Wide span)

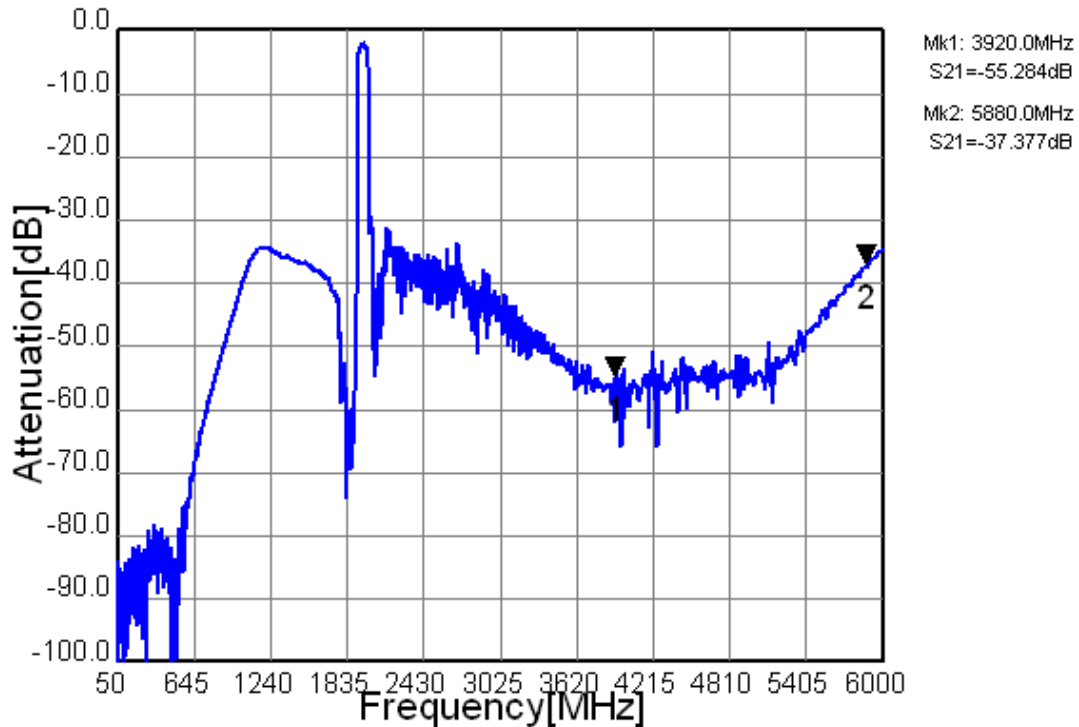


Figure 3-6. Electrical Characteristics