



\* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band V Duplexer	Date	Aug. 20, 2013
Part Number	FAR-D5PE-881M50-P3EZ	Version1.2bbA	Final

**Table 1-1. Electrical Specification**

Item		Condition (MHz)	Specification			Unit	Remarks	
			Min	Typ	Max			
Tx to ANT	Insertion loss	824~849	-	1.4	1.9	dB (*1)		
	Ripple	824~849	-	0.4	1.0	dB		
	VSWR	ANT	824~849	-	1.5	2.0	-	
		Tx		-	1.6	2.0	-	
	Input Power		824~849	+29dBm, Ta=+50°C, 50k h,CW			dBm	
	Absolute attenuation		779~804	30	39	-	dB	
			869~894	45	51	-	dB	
			1574~1577	45	48	-	dB	
		1648~1698	45	48	-	dB		
		2472~2547	25	33	-	dB		
ANT to Rx	Insertion loss	869~894	-	1.7	2.2	dB (*1)		
	Ripple	869~894	-	0.4	1.1	dB		
	Phase balance	869~894	-10	-2/+2	+10	deg		
	Amplitude balance	869~894	-1.0	-0.2/+0.2	+1.0	dB		
	VSWR	Ant	869~894	-	1.6	2.0	-	
		Rx		-	1.6	2.0	-	
	Absolute attenuation		824~849	51	58	-	dB	
			1738~1788	40	54	-	dB	
		1850~1910	40	54	-	dB		
		1920~1980	40	53	-	dB		
		2400~2500	40	52	-	dB		
		3476~3576	40	49	-	dB		
Tx to Rx	Isolation	824~849	57	59	-	dB		
		869~894	49	52	-	dB		
Terminating Impedance		Tx port	50			Ohm	Single-ended	
		Rx port	100			Ohm	Differential	
		Ant port	50 // 8.2nH			Ohm	Single-ended	
Operating Temperature			-30 to +85			°C		
Device size (L typ. x W typ. x H max.)			2.0 x 1.6 x 0.5			mm		

(\*1) Specification of insertion loss excludes loss that comes from the test board. (Approximately 0.05dB)



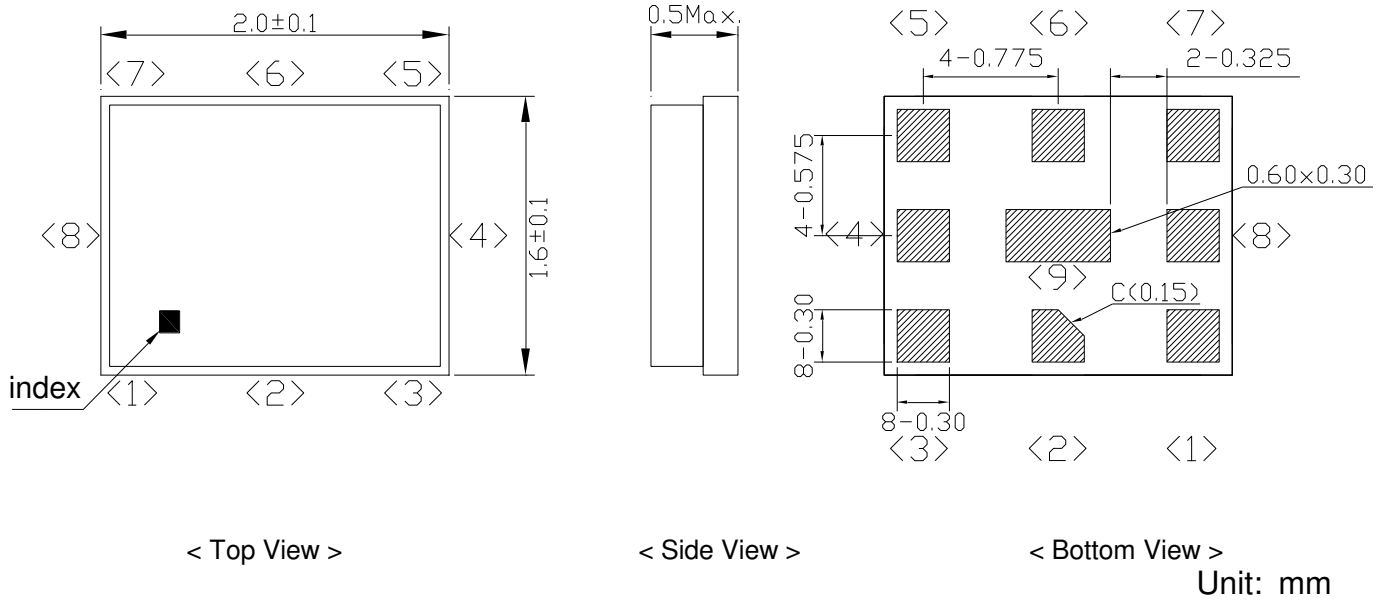
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**Dimensions**



**Pin Configuration**

Pin No.	Pin name	Description
1	Rx	Receiver Pin (balanced)
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	Rx	Receiver Pin (balanced)
9	GND	Ground Pin

**Figure 1. Dimensions and Pin assignment**



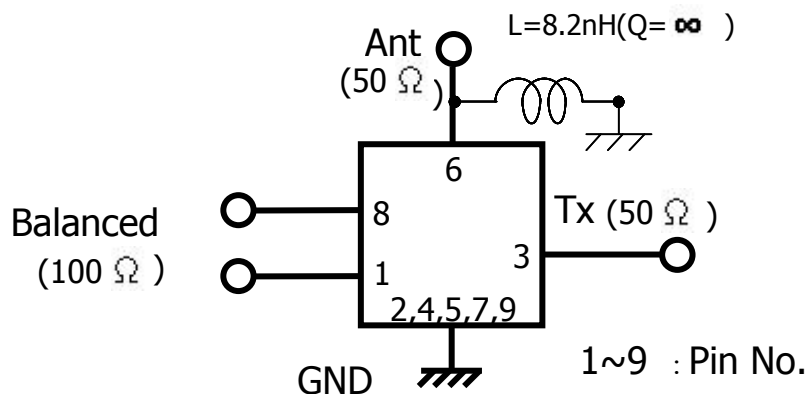
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### Evaluation Circuit



### Recommended foot print pattern

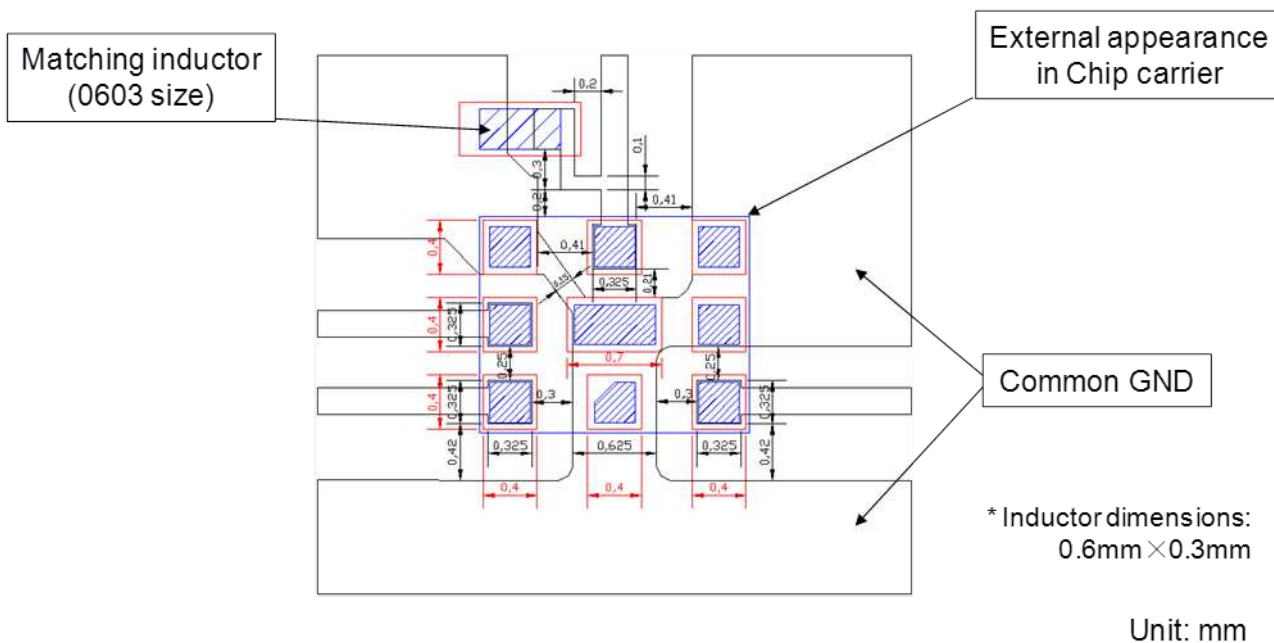


Figure 2. Recommended foot print pattern



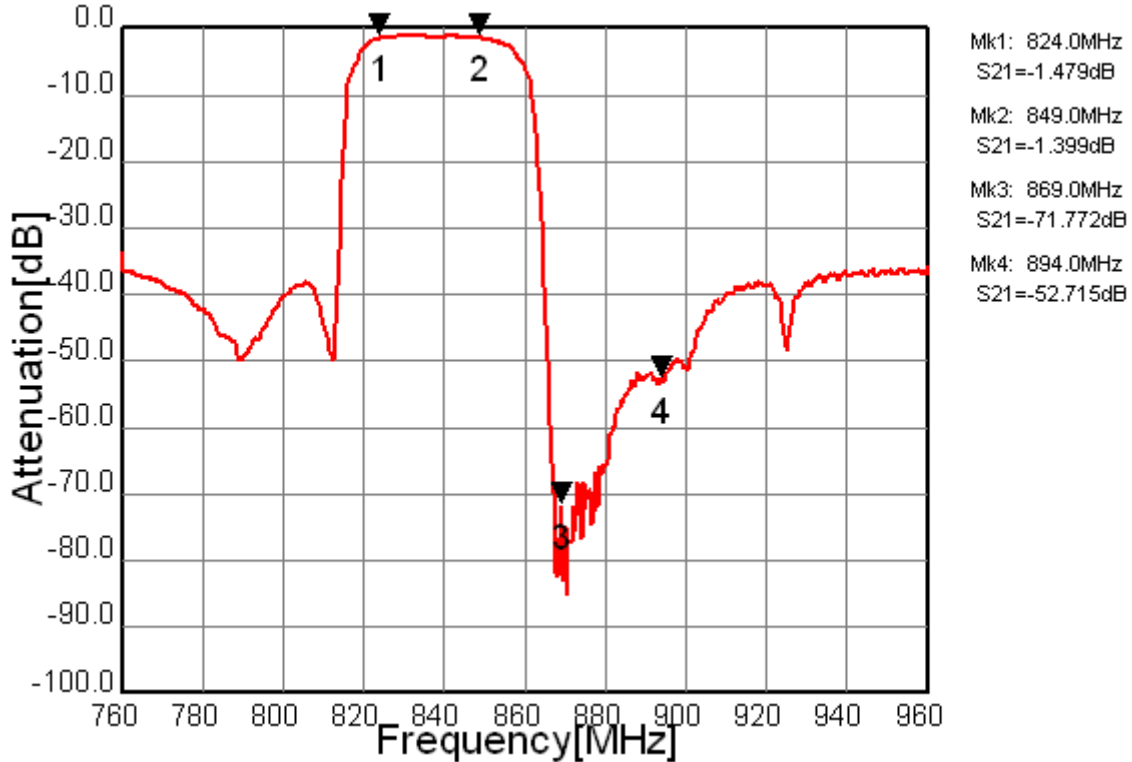
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### Tx to Ant



### Ant to Rx

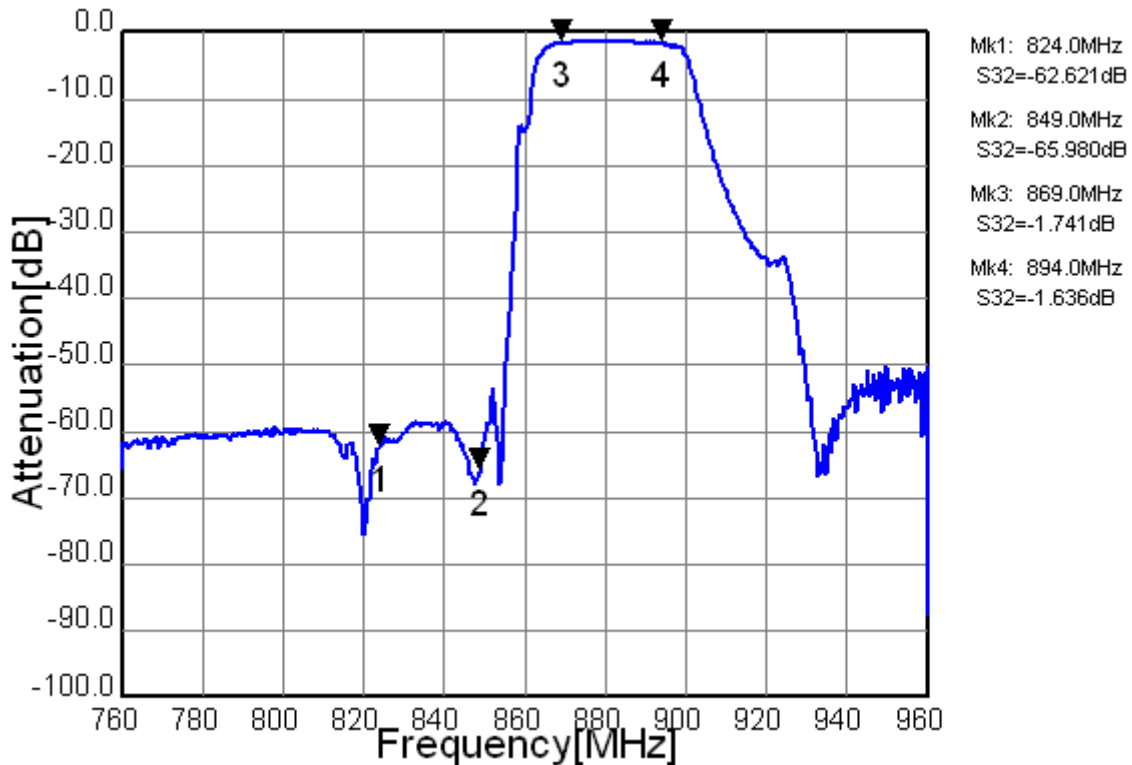


Figure 3-1. Electrical Characteristics

These data include loss that comes from the test board. (Approximately 0.05dB)



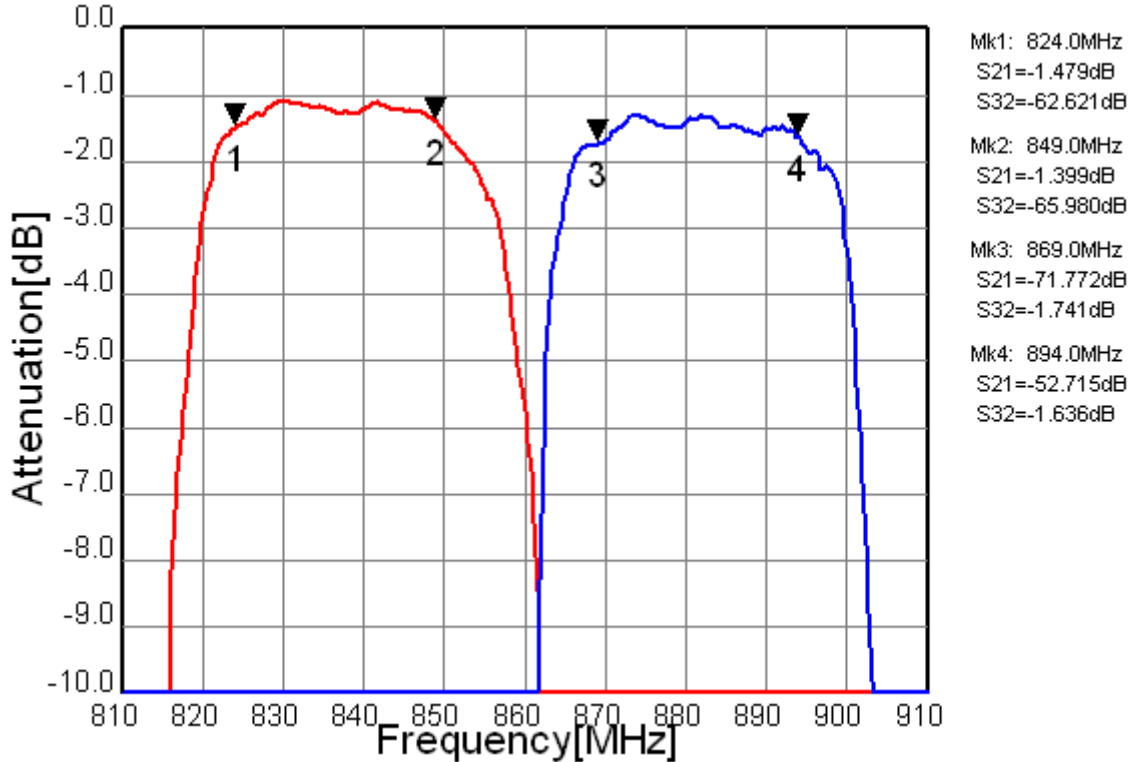
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## Tx to Ant, Ant to Rx



## Tx to Rx Isolation

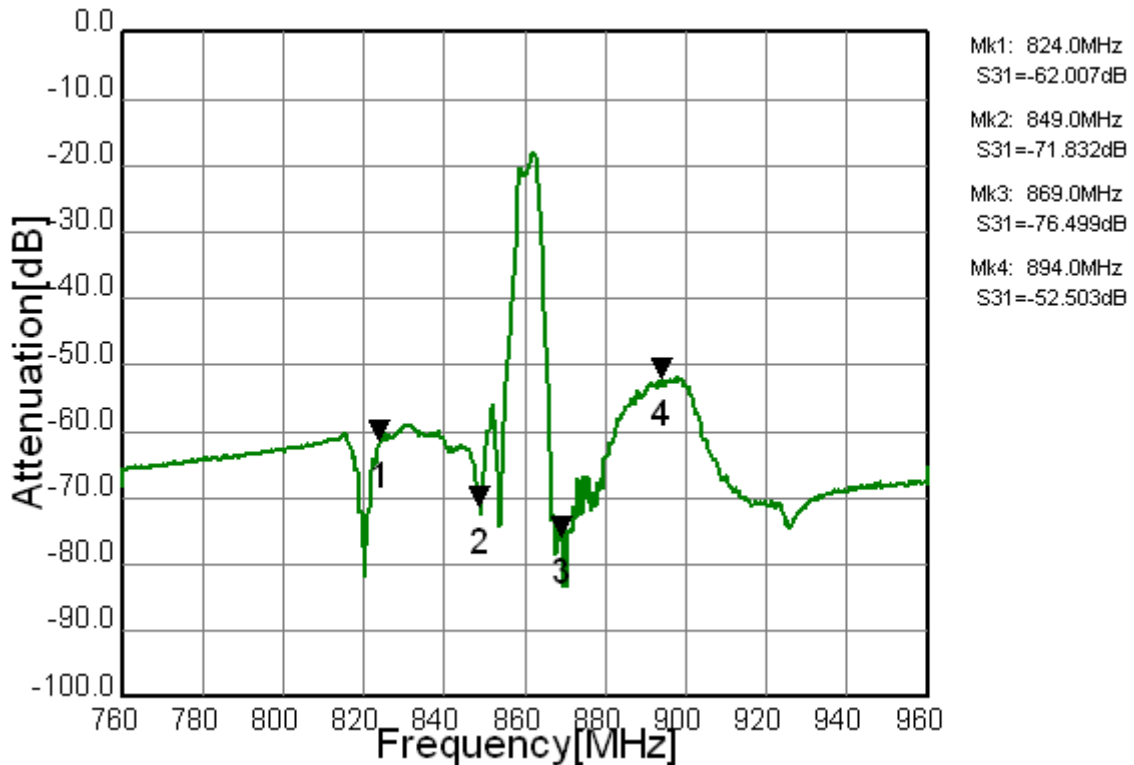


Figure 3-2. Electrical Characteristics

These data include loss that comes from the test board. (Approximately 0.05dB)



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## Tx Port

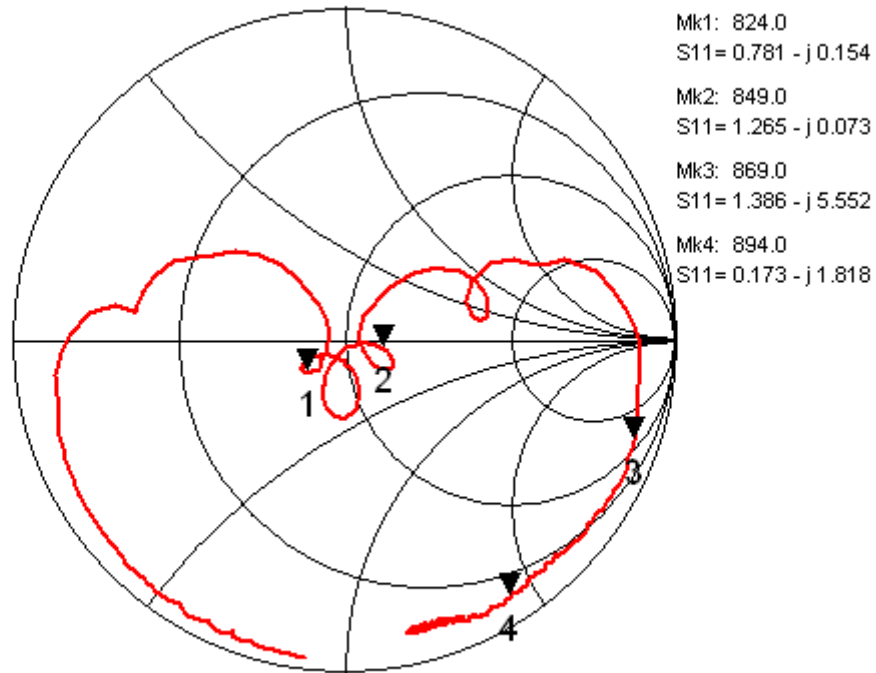
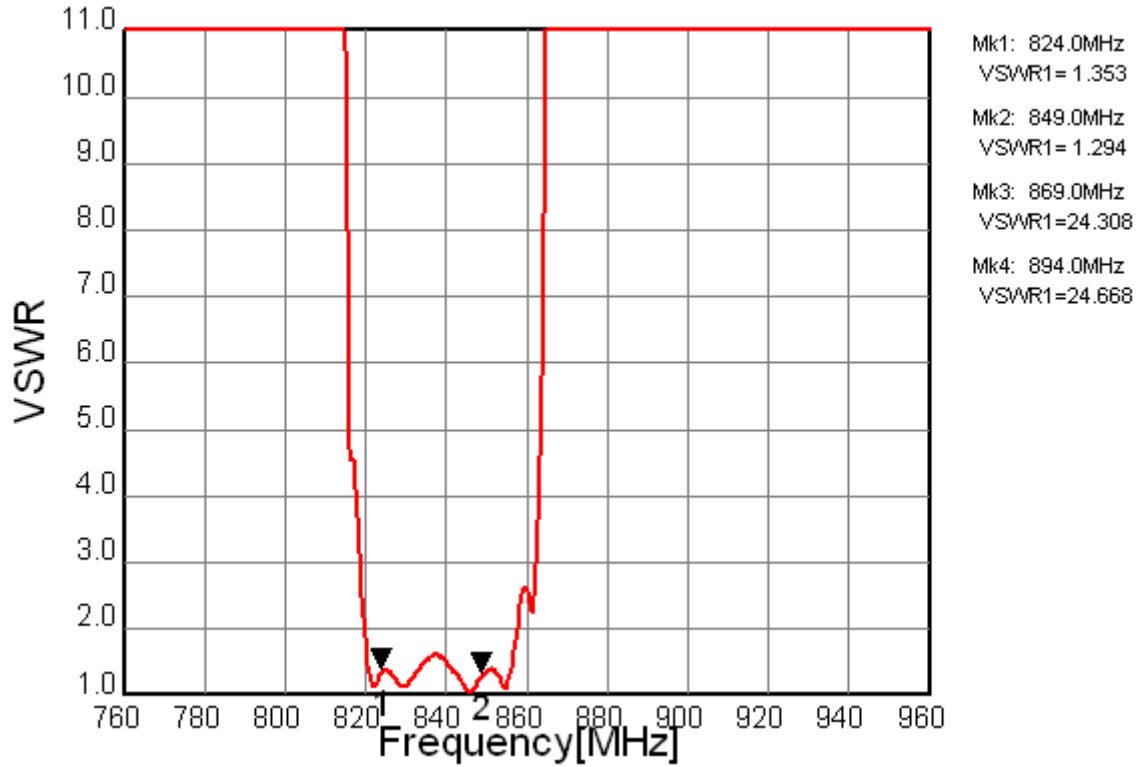


Figure 3-3. Electrical Characteristics



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## Rx Port

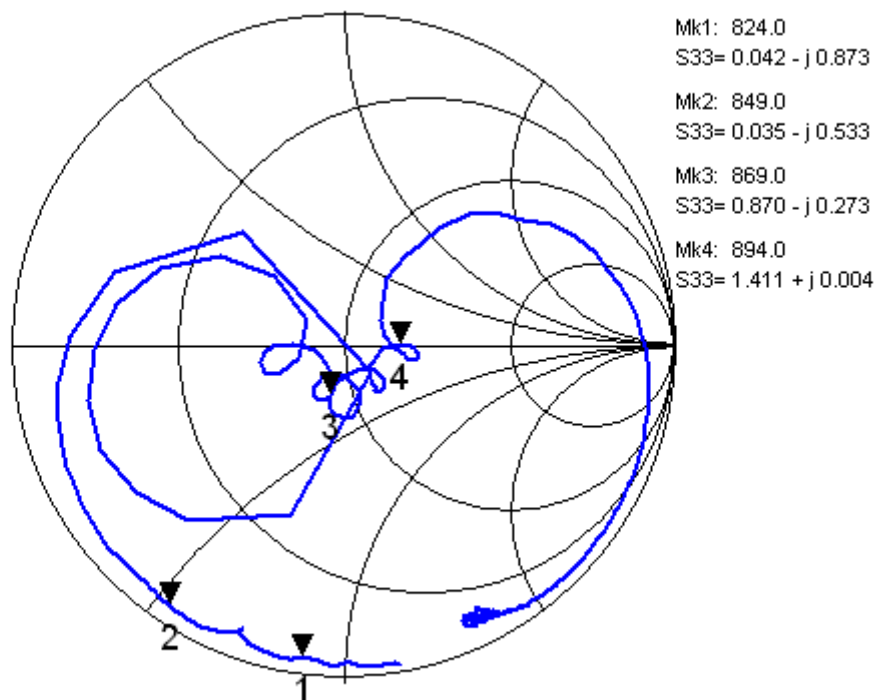
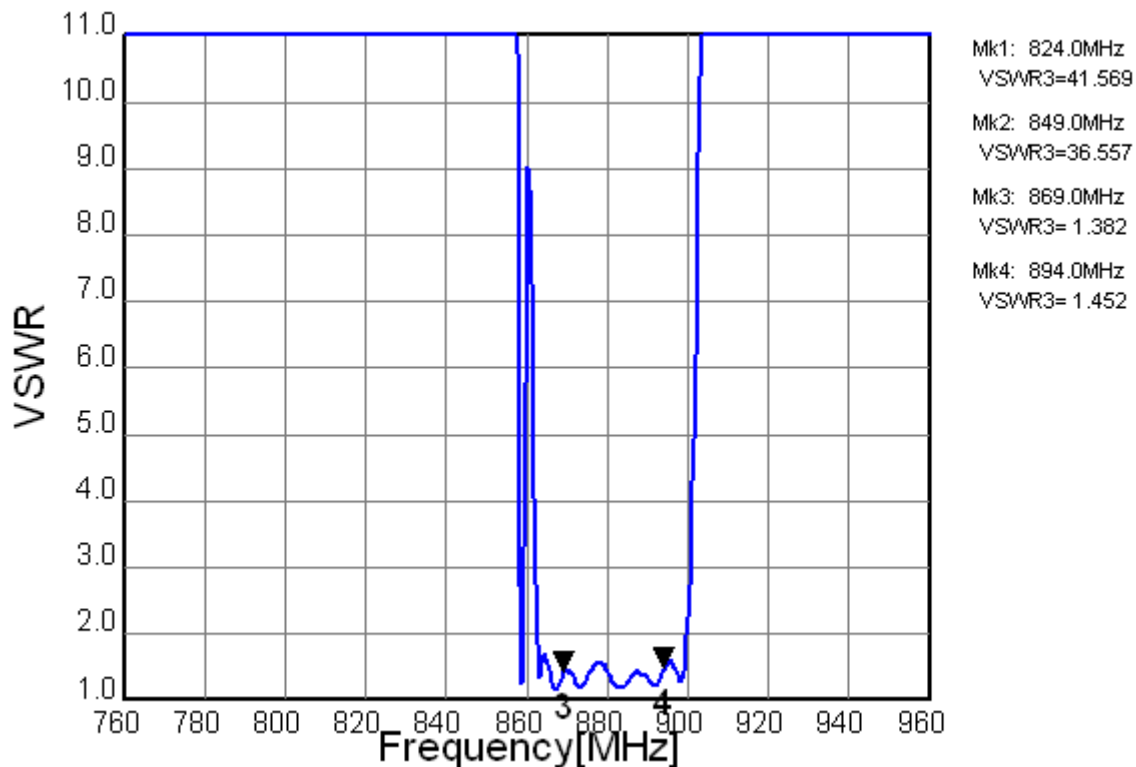


Figure 3-4. Electrical Characteristics



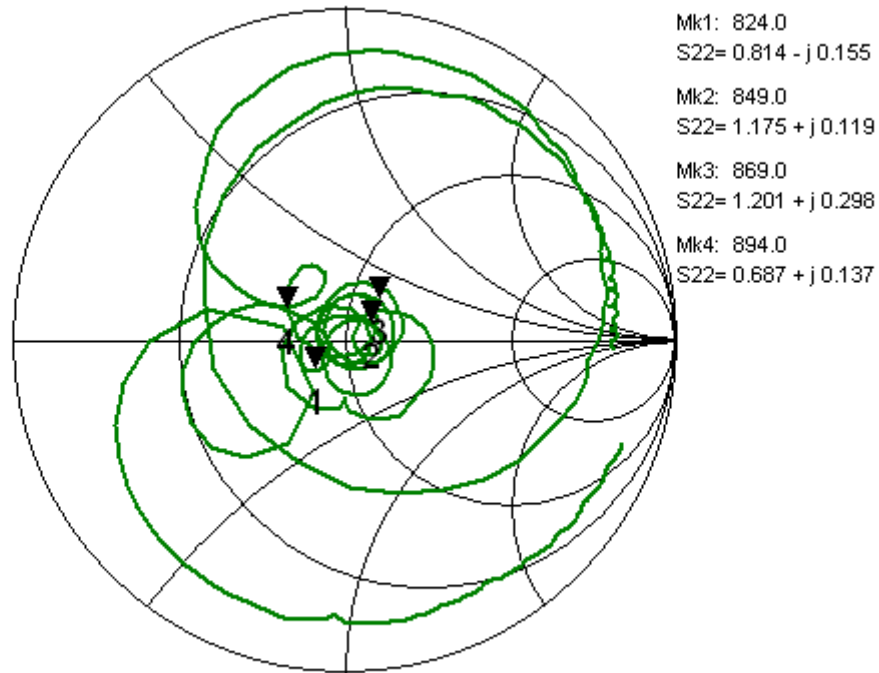
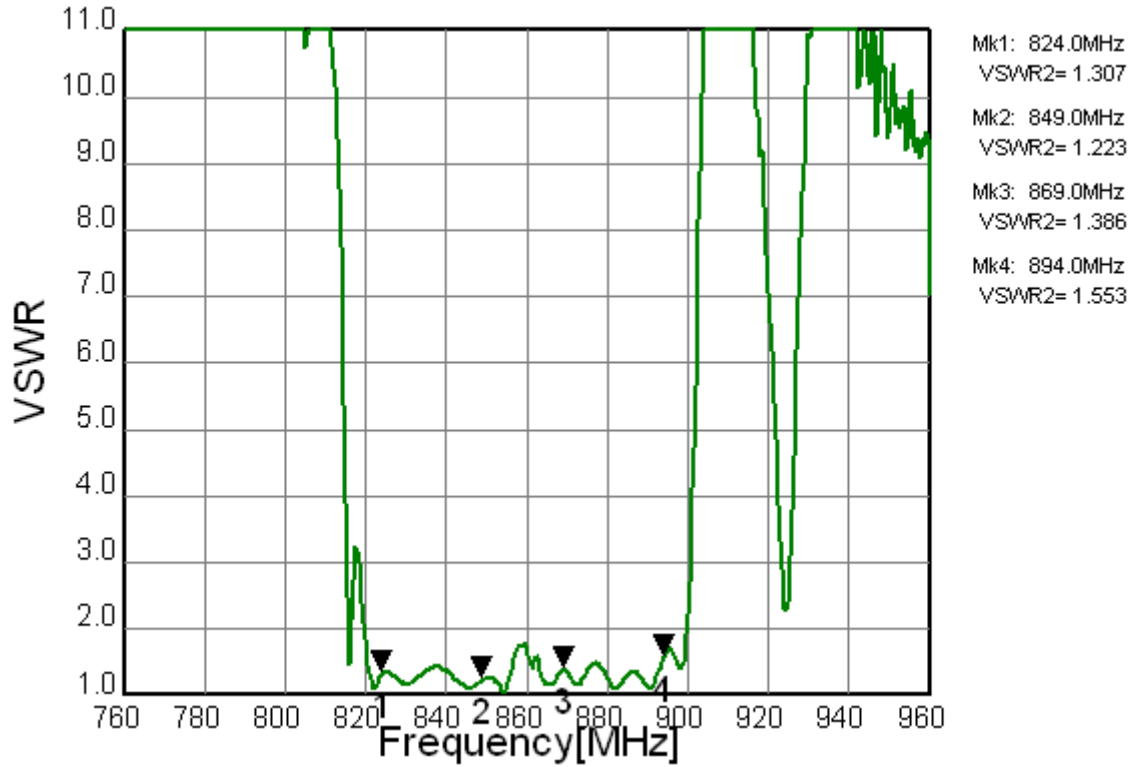
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## Ant Port



**Figure 3-5. Electrical Characteristics**





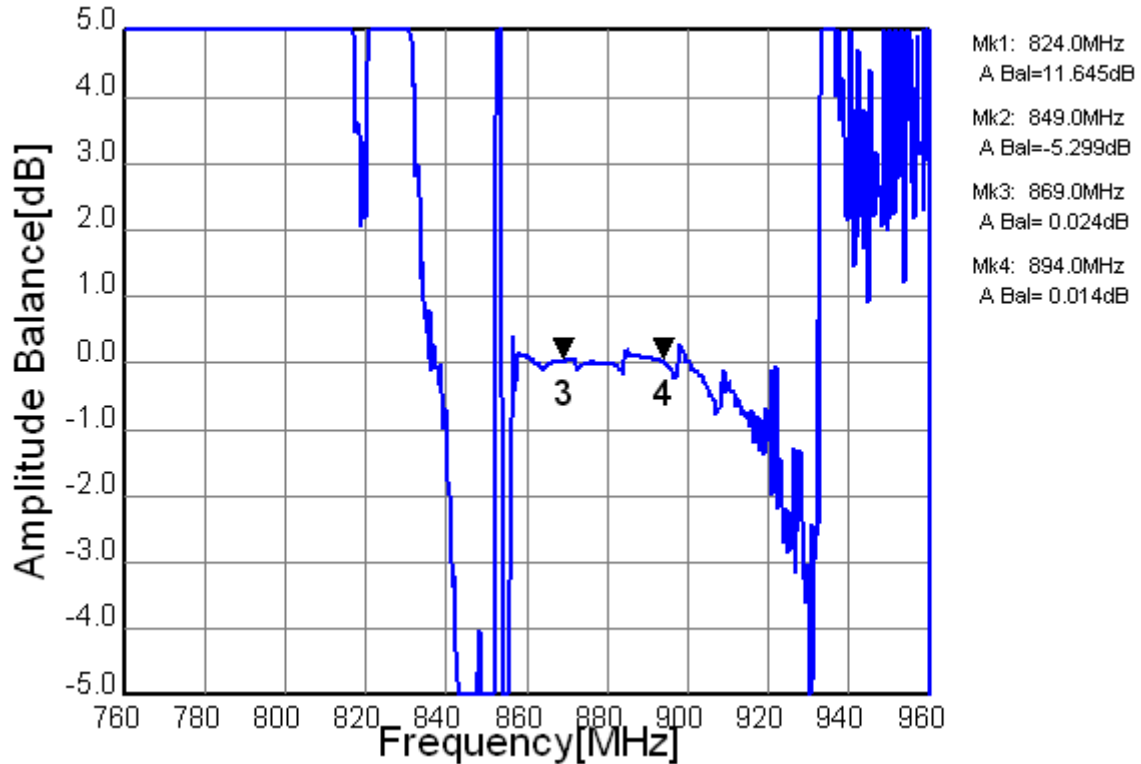
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### Ant to Rx (Amplitude balance)



### Ant to Rx (Phase balance)

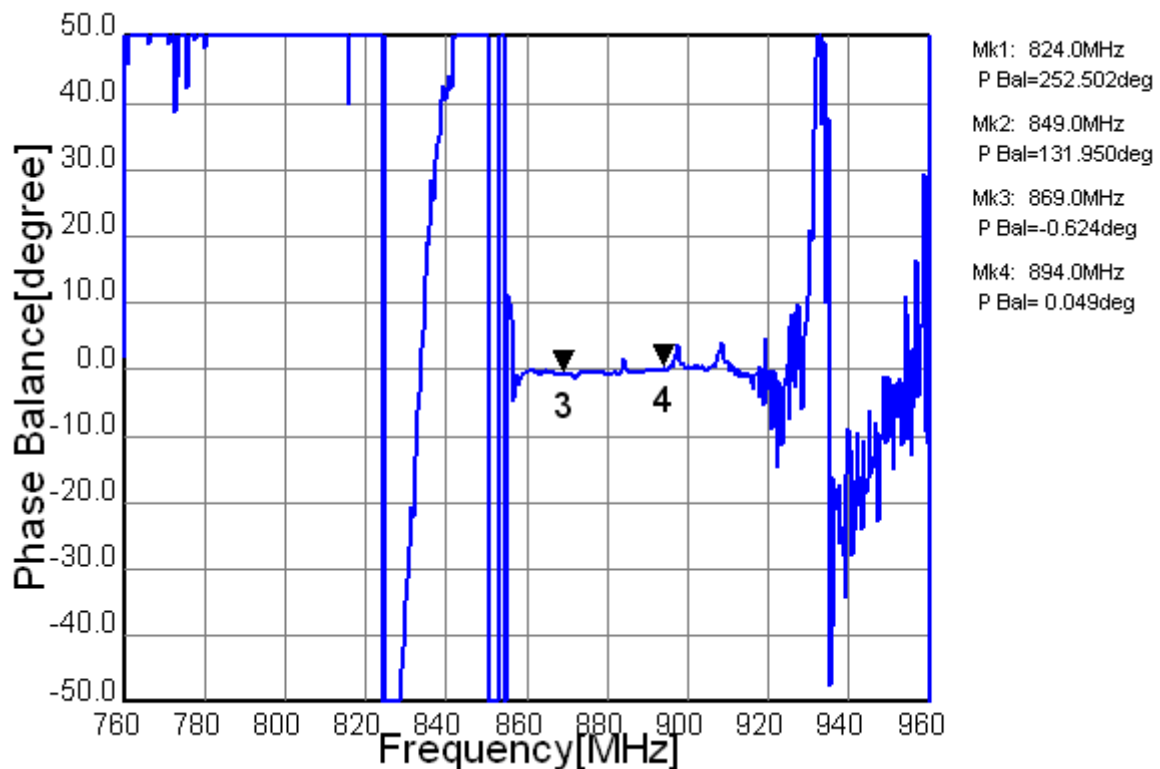


Figure 3-6. Electrical Characteristics



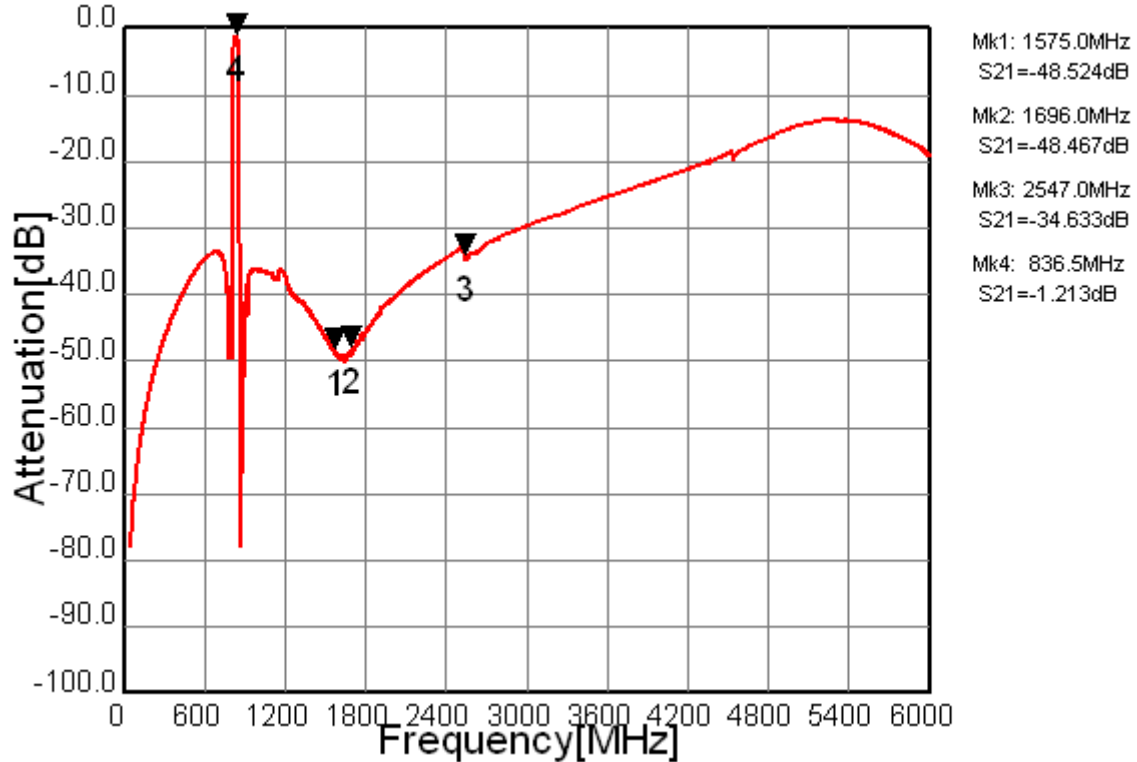
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### Tx to Ant (Wide span)



### Ant to Rx (Wide span)

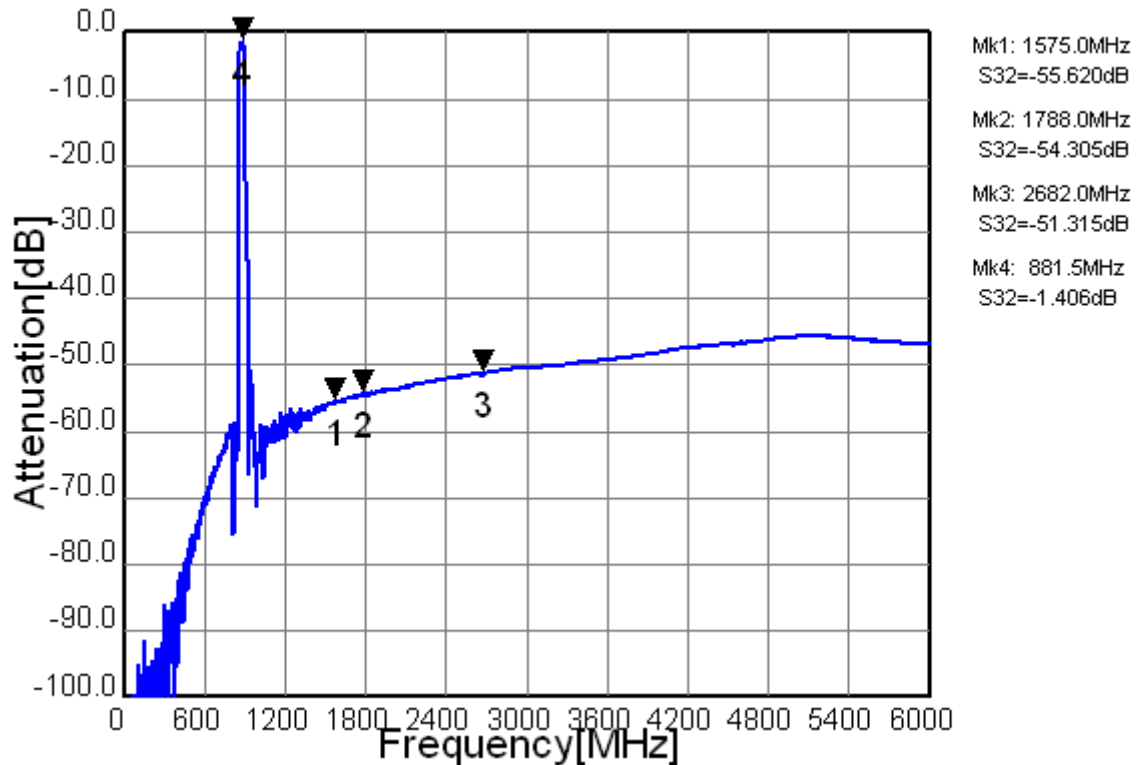


Figure 3-7. Electrical Characteristics