



Pb-free

* Pb Free Part

THE POSSIBILITIES ARE INFINITE



Customer Name	Standard	FUJITSU MEDIA DEVICES LIMITED	
System	WCDMA Band VIII Duplexer (Rx balanced)	DATE	July 30, 2008
FMD P/N	FAR-D5GD-942M50-D1DF	Version 1.0gg	

Table 1. Electrical Specification

Item		Condition (MHz)	Specification (ver.1.0gg)			Unit	Remarks	
			Min	Typ	Max			
Tx to ANT	Insertion loss	880.4-914.6	-	2.2	3.0	dB (*1)		
	Pass band ripple	880.4-914.6	-	1.0	2.0		dB	
	VSWR	Tx	880.4-914.6	-	1.9	2.2	-	
		Ant		-	1.7	2.1	-	
	Input Power	880.4-914.6	29dBm, Ta=+55°C 10000h, CW			-		
	Absolute attenuation	927.4-957.6	42	49	-	dB	(*2)	
1574-1577		28	34	-	dB			
1760-1830		20	28	-	dB			
2640-2745		12	19	-	dB			
ANT to Rx	Insertion loss	925.4-959.6	-	2.5	3.5	dB (*1)		
	Pass band ripple	925.4-959.6	-	0.9	2.0		dB	
	Amplitude balance	925.4-959.6	-1.1	-0.5/ +0.5	+1.1	dB		
	Phase balance	925.4-959.6	-11	-6/ +4	+11	deg		
	VSWR	Ant	925.4-959.6	-	1.8	2.2	-	
		Rx		-	2.0	2.3	-	
Absolute attenuation	882.4-912.6	47	54	-	dB	(*2)		
Tx to Rx	Isolation	882.4-912.6	53	56	-	dB	(*2)	
		927.4-957.6	46	50	-	dB	(*2)	
Terminating Impedance	Tx port		50			Ohm	Single-ended	
	Rx port		100			Ohm	Differential	
	Ant port		50			Ohm	Single-ended	
Operating Temperature			-15 to +80			°C		
Device size (LxWxH)			3.0 x 2.5 x 0.7			mm		

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

(*2) Integrated attenuation or isolation over +/-1.92MHz around the WCDMA channel center frequency

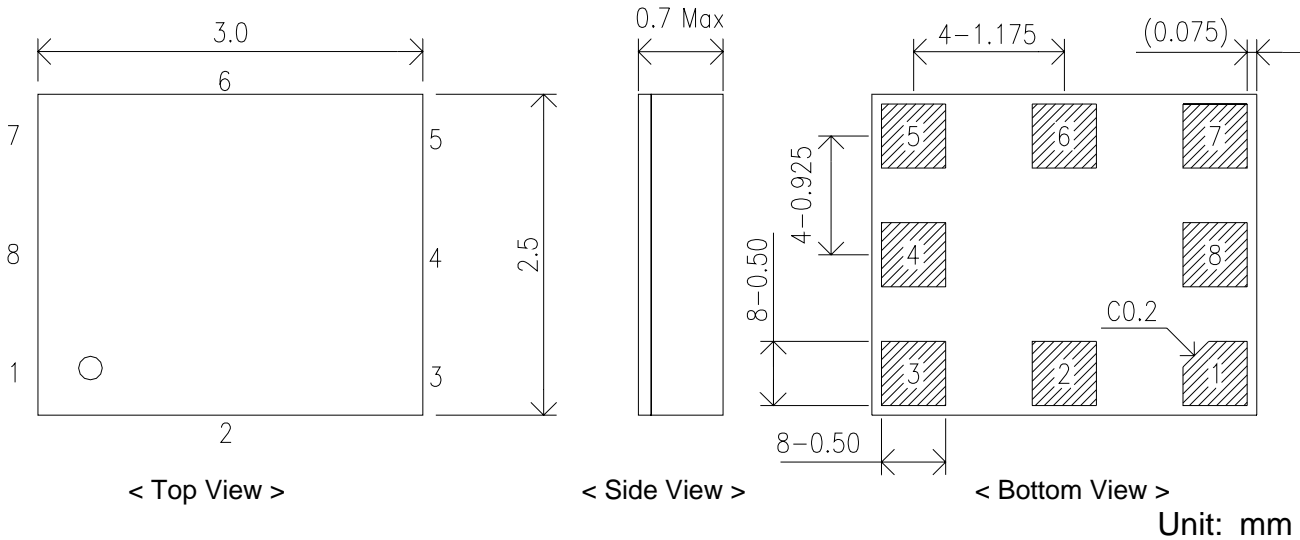


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Dimensions



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)

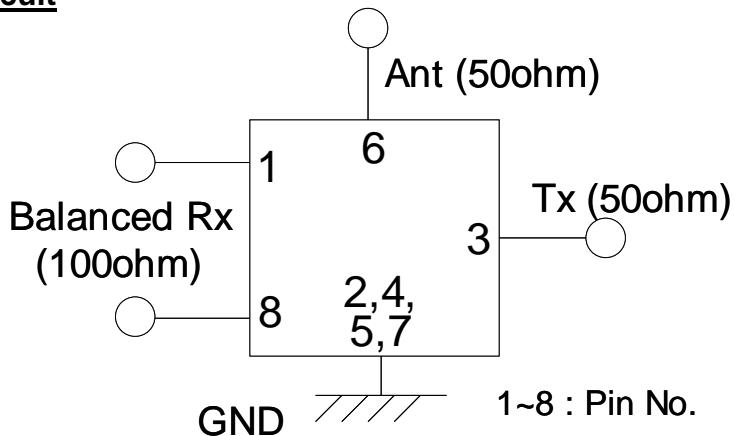
Figure 1. Dimensions and Pin assignment



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Evaluation Circuit



Recommended foot print pattern

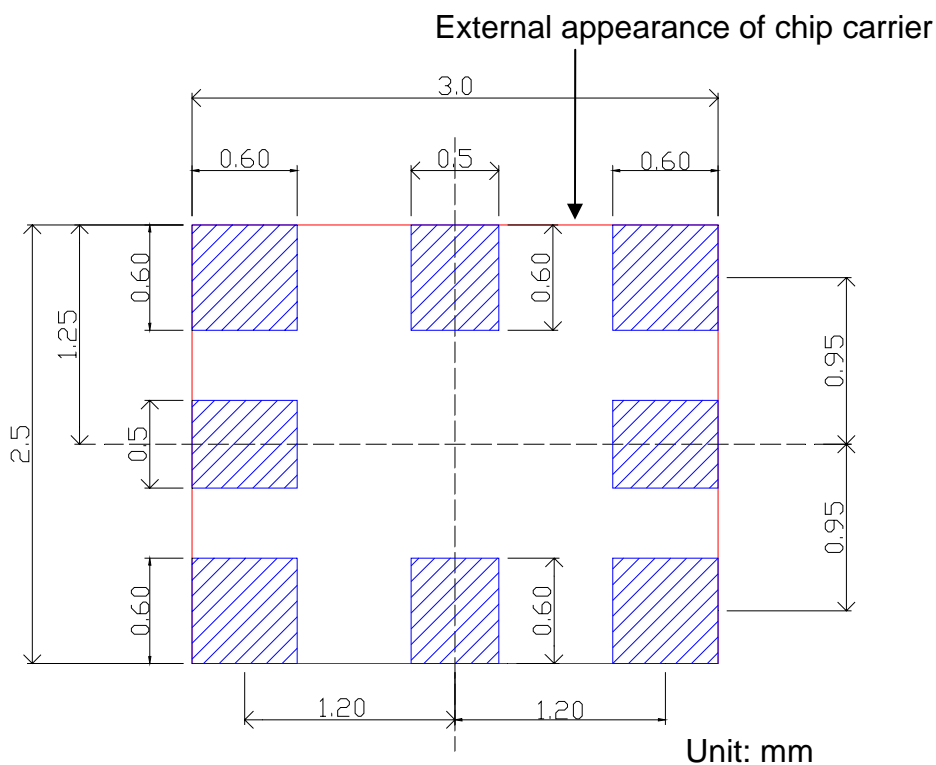


Figure 2. Recommended foot print pattern



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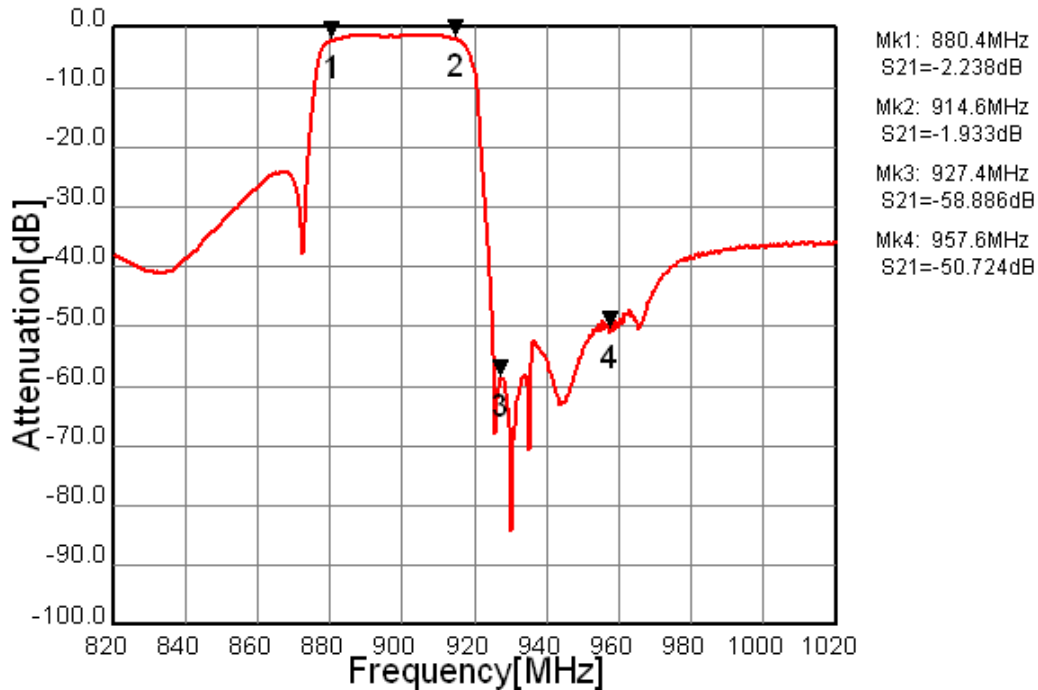
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Tx to Ant



Ant to Rx

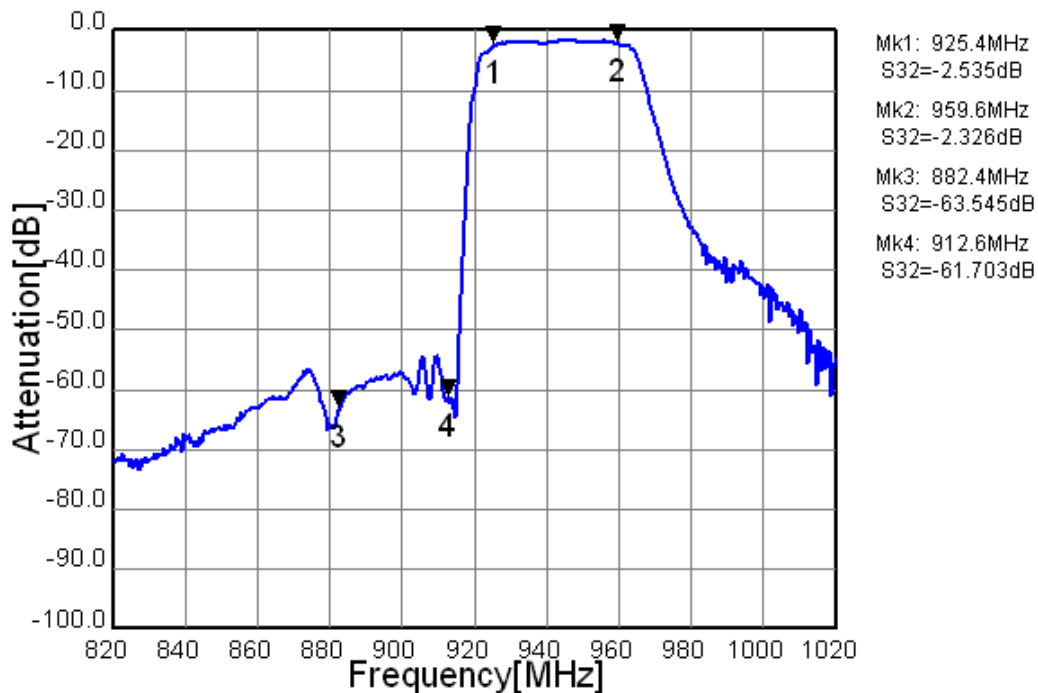


Figure 3-1. Electrical Characteristics

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



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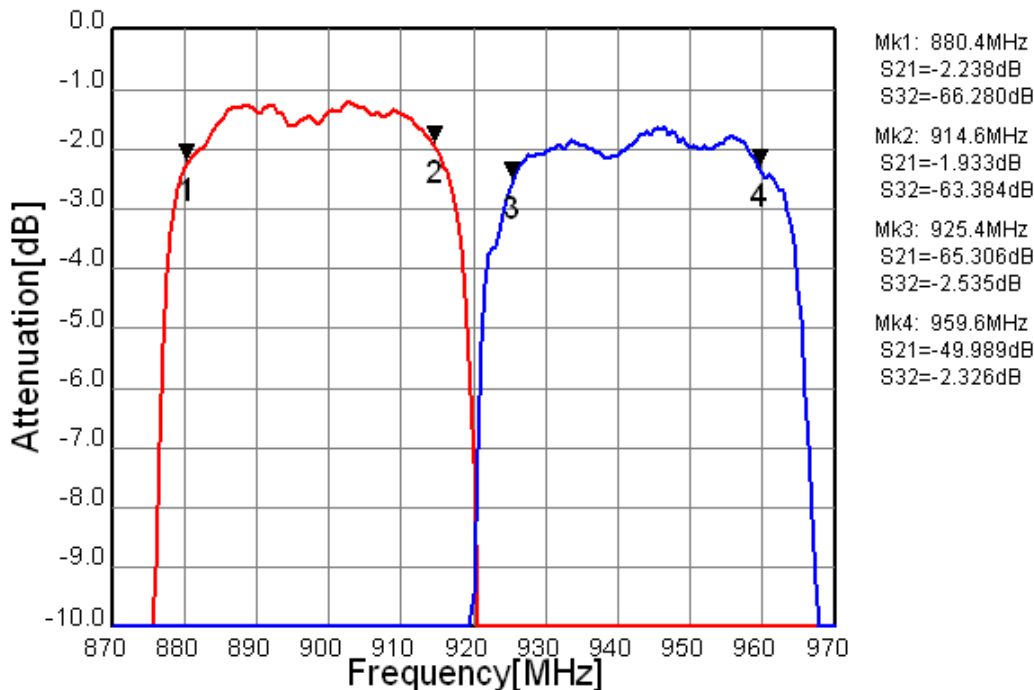
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Tx to Ant, Ant to Rx



Tx to Rx Isolation

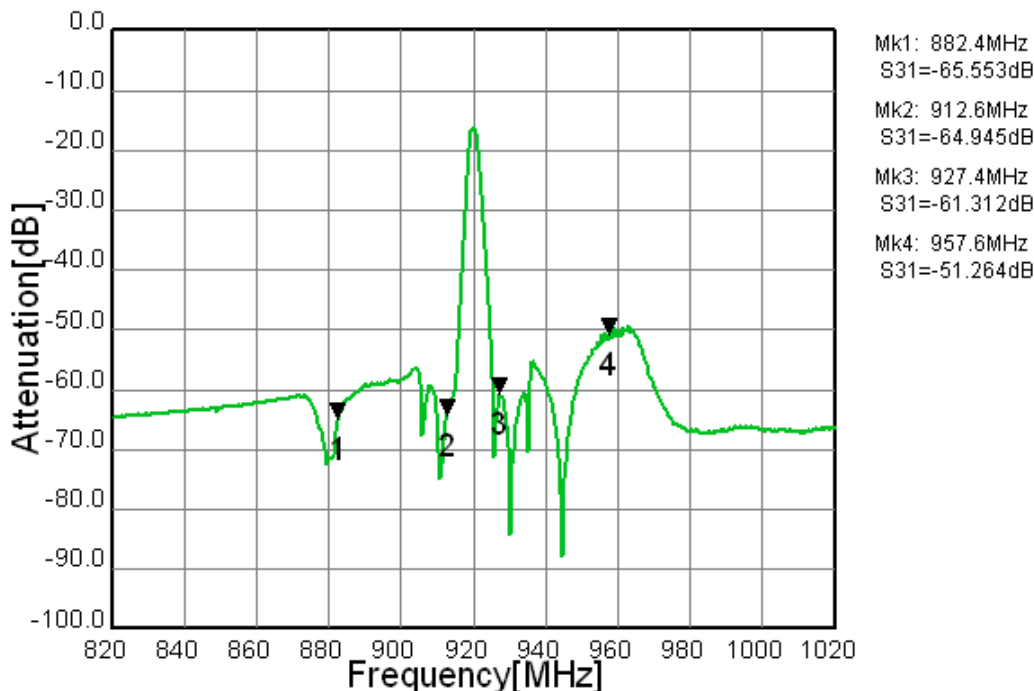


Figure 3-2. Electrical Characteristics

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



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Tx Port

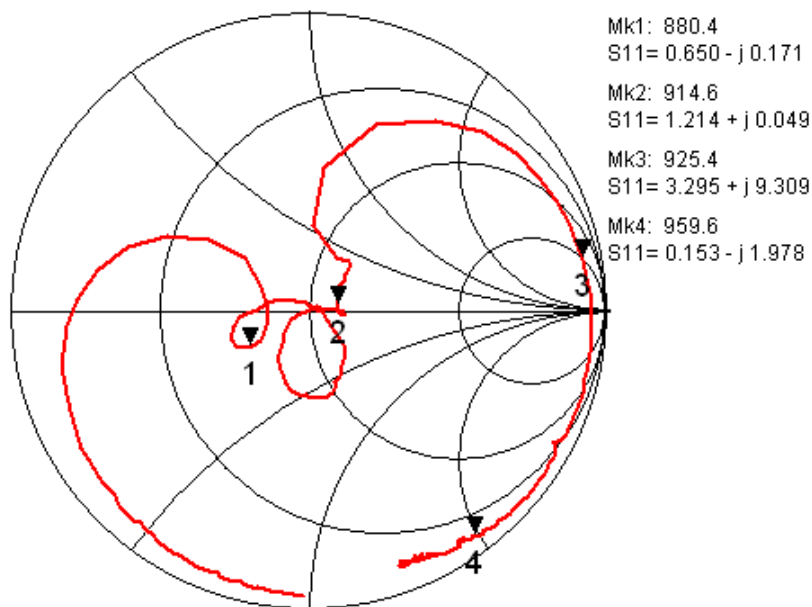
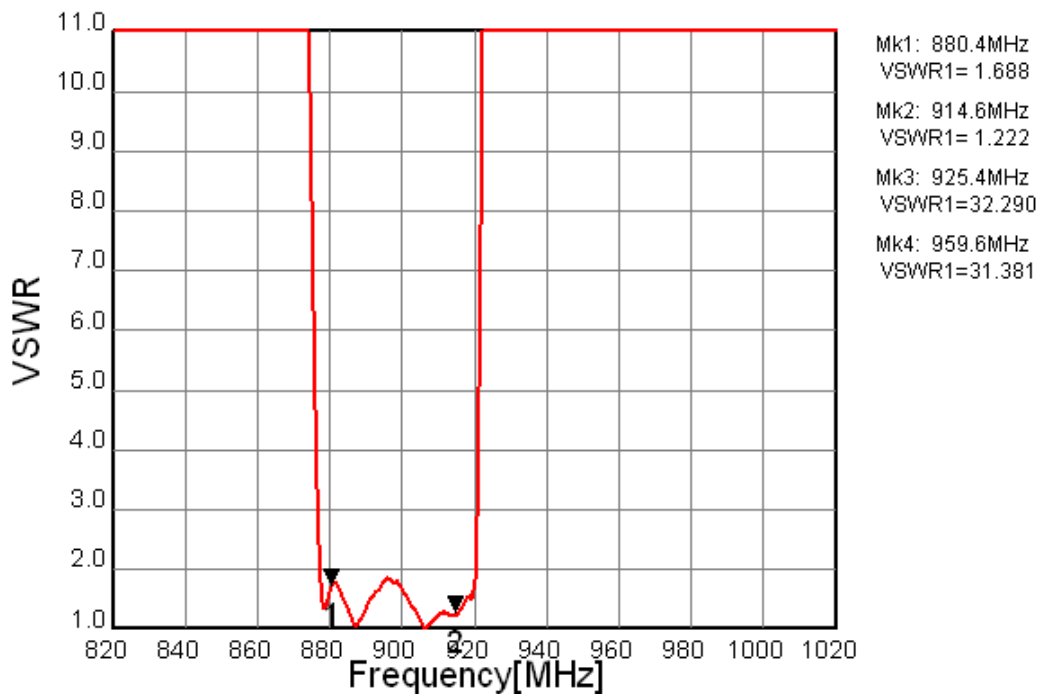


Figure 3-3. Electrical Characteristics



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Rx Port

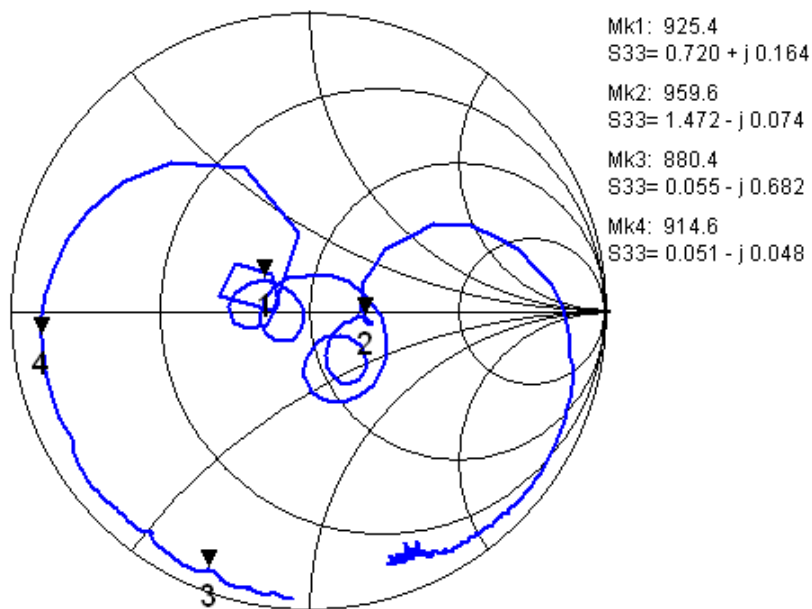
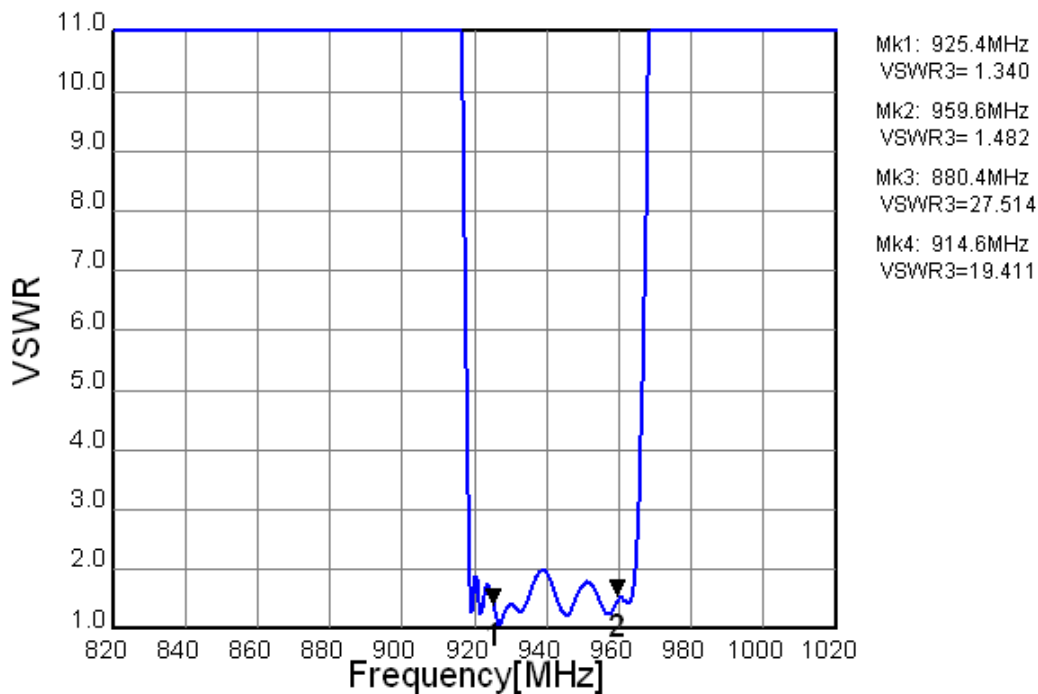


Figure 3-4. Electrical Characteristics



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Ant Port

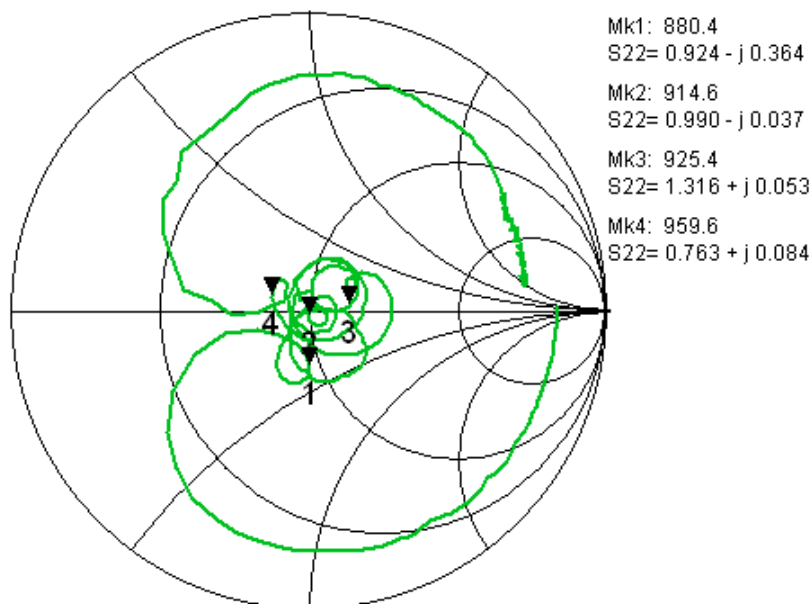
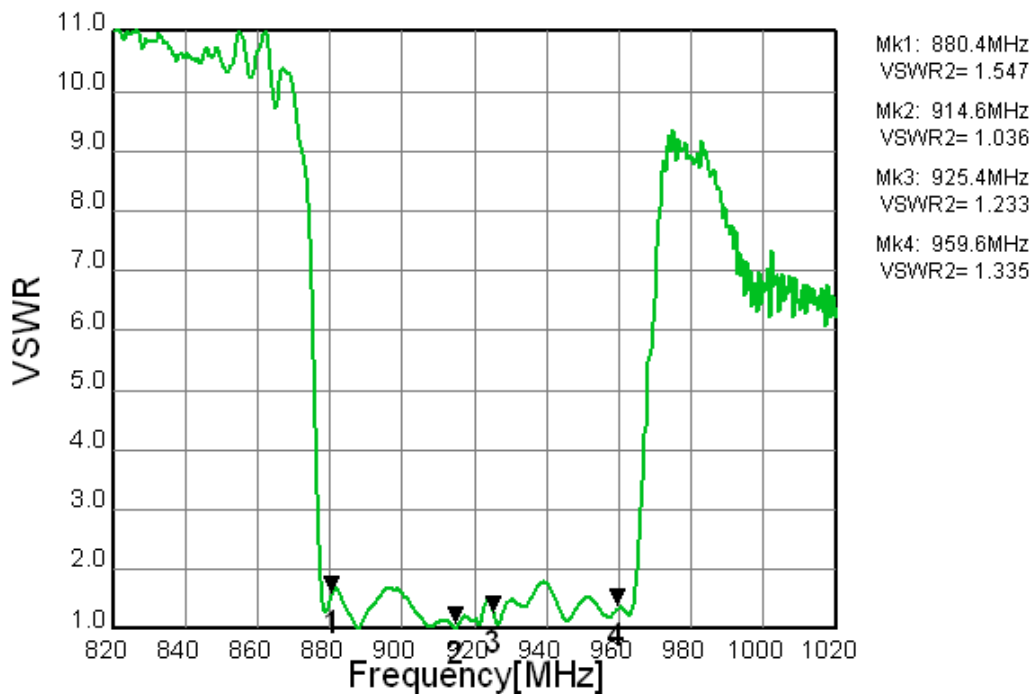


Figure 3-5. Electrical Characteristics



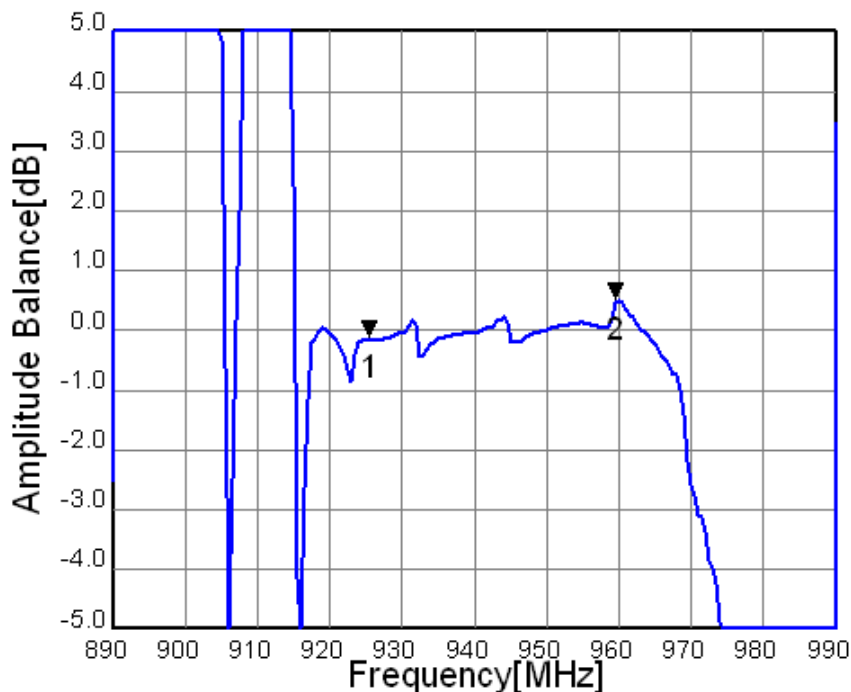
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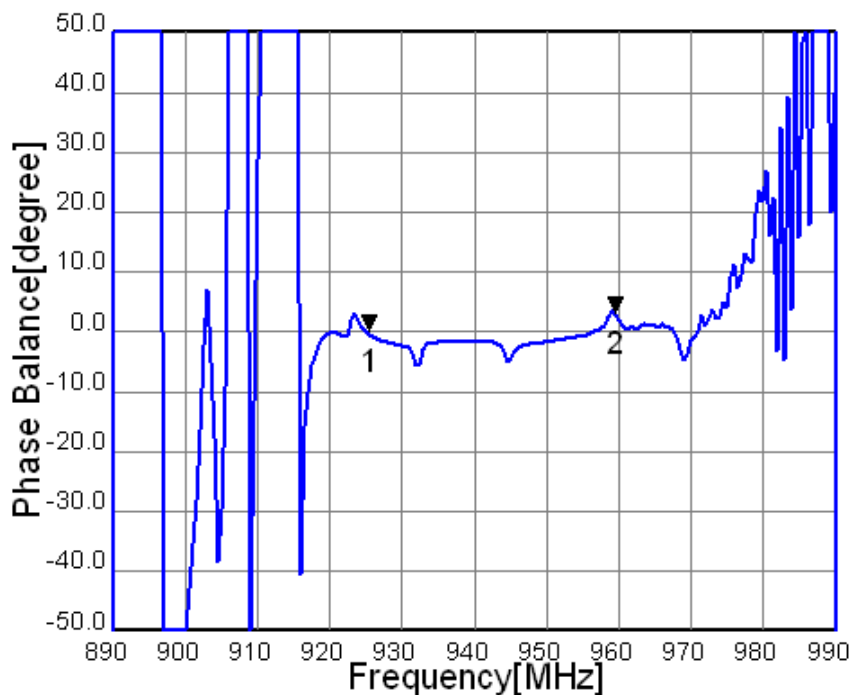
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Ant to Rx (Amplitude balance)



Mk1: 925.4MHz
A Bal=-0.175dB
Mk2: 959.6MHz
A Bal= 0.466dB

Ant to Rx (Phase balance)



Mk1: 925.4MHz
P Bal=-0.373deg
Mk2: 959.6MHz
P Bal= 2.590deg

Figure 3-6. Electrical Characteristics



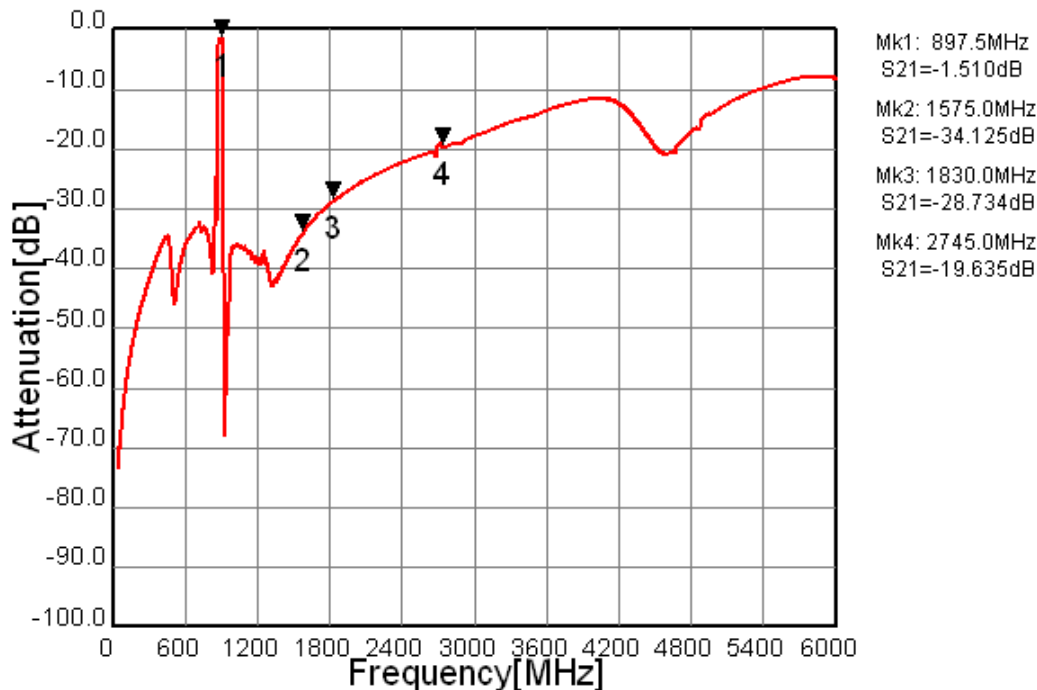
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Tx to Ant (Wide span)



Ant to Rx (Wide span)

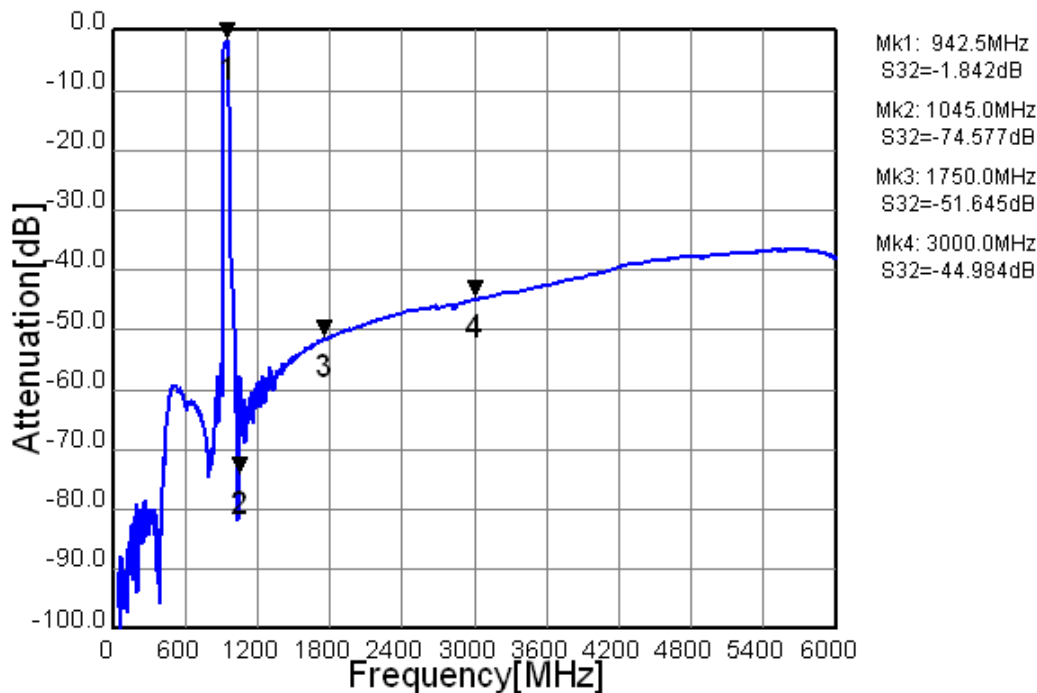


Figure 3-7. Electrical Characteristics