



Pb-free
* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	W-CDMA Band II / CDMA2000 BC 1 Duplexer	Date	March 31, 2010
Part Number	FAR-D6NF-1G9600-P1BZ	Version 2.1dd	

Table 1. Electrical Specification

Item		Condition (MHz)	Specification			Unit	Remarks	
			Min	Typ	Max			
Tx to ANT	Insertion loss	1850.4~1909.6	-	2.4	3.2	dB	-20 to +85 °C	
		1850.6~1909.4	-	2.4	3.2	(*1)		
	Ripple	1850.4~1909.6	-	1.0	2.1	dB		
	VSWR	ANT	1850.4~1909.6	-	1.6	2.0	-	
		Tx		-	1.6	2.0	-	
	Input Power	1850.4~1909.6	+29dBm, Ta=+50°C, 50kh, CW			dBm		
	Absolute attenuation	1570~1580	38	43	-	dB		
		1930.4~1989.6	42	55	-	dB	-20 to +85 °C	
		1930.6~1989.4	39	55	-	dB		
		3700~3820	25	31	-	dB		
5550~5730		17	23	-	dB			
ANT to Rx	Insertion loss	1930.4~1989.6	-	3.4	4.0	dB	-20 to +85 °C	
		1930.6~1989.4	-	3.4	4.0	(*1)		
	Ripple	1930.4~1989.6	-	1.3	2.2	dB		
	Phase balance	1930.4~1989.6	-10	-4 +2	+10	deg		
	Amplitude balance	1930.4~1989.6	-1.3	-0.5 +0.5	+1.3	dB		
	VSWR	Ant	1930.4~1989.6	-	1.6	2.1	-	
		Rx		-	2.1	2.5	-	
	Absolute attenuation	1850.4~1909.6	45	51	-	dB	-20 to +85 °C	
1850.6~1909.4		46	51	-	dB			
Tx to Rx	Isolation	1850.4~1909.6	52	58	-	dB	-20 to +85 °C	
			53	-	-	dB	+25 +/- 2 °C	
		1850.6~1909.4	53	58	-	dB		
			53	-	-	dB	+25 +/- 2 °C	
		1930.4~1989.6	48	52	-	dB	-20 to +85 °C	
			48	-	-	dB	+25 +/- 2 °C	
		1930.6~1989.4	44	52	-	dB		
			48	-	-	dB	+25 +/- 2 °C	
		Terminating Impedance	Tx port	50			Ohm	Single-ended
			Rx port	100 // 27nH			Ohm	Differential
Ant port	50			Ohm	Single-ended			
Operating Temperature			-30 to +85			°C		
Device size (L typ. x W typ. x H max.)			2.5x2.0x0.65max			mm		

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

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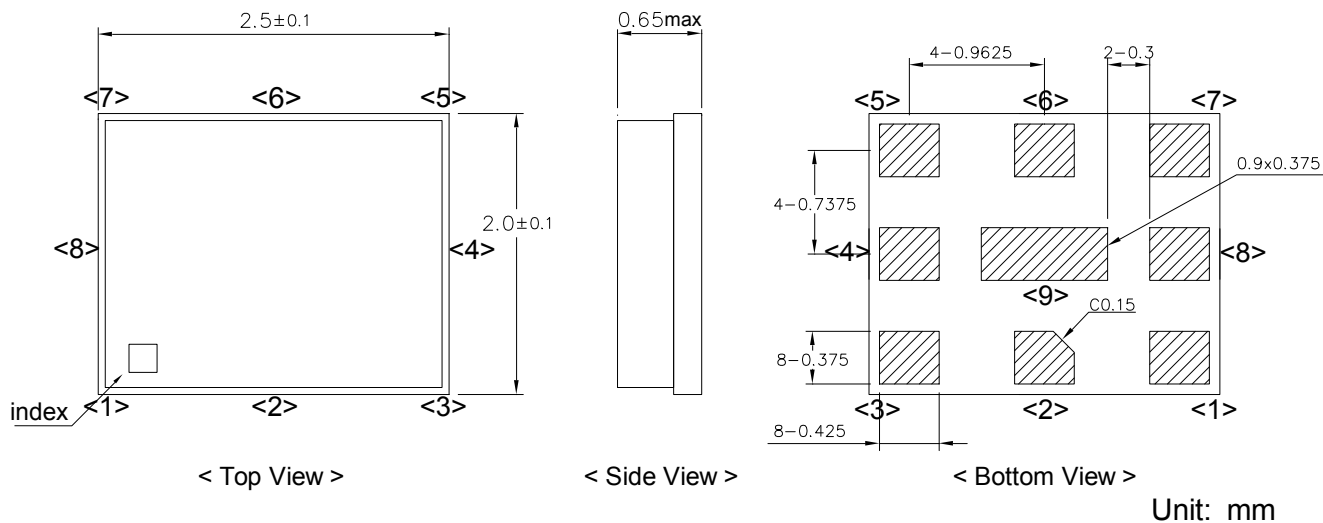
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Dimensions



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



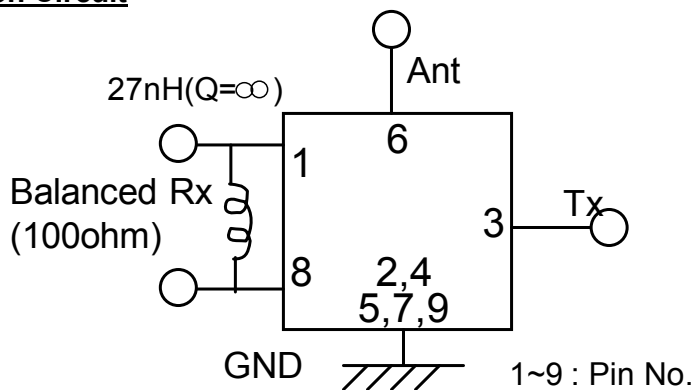
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Evaluation Circuit



Recommended foot print pattern

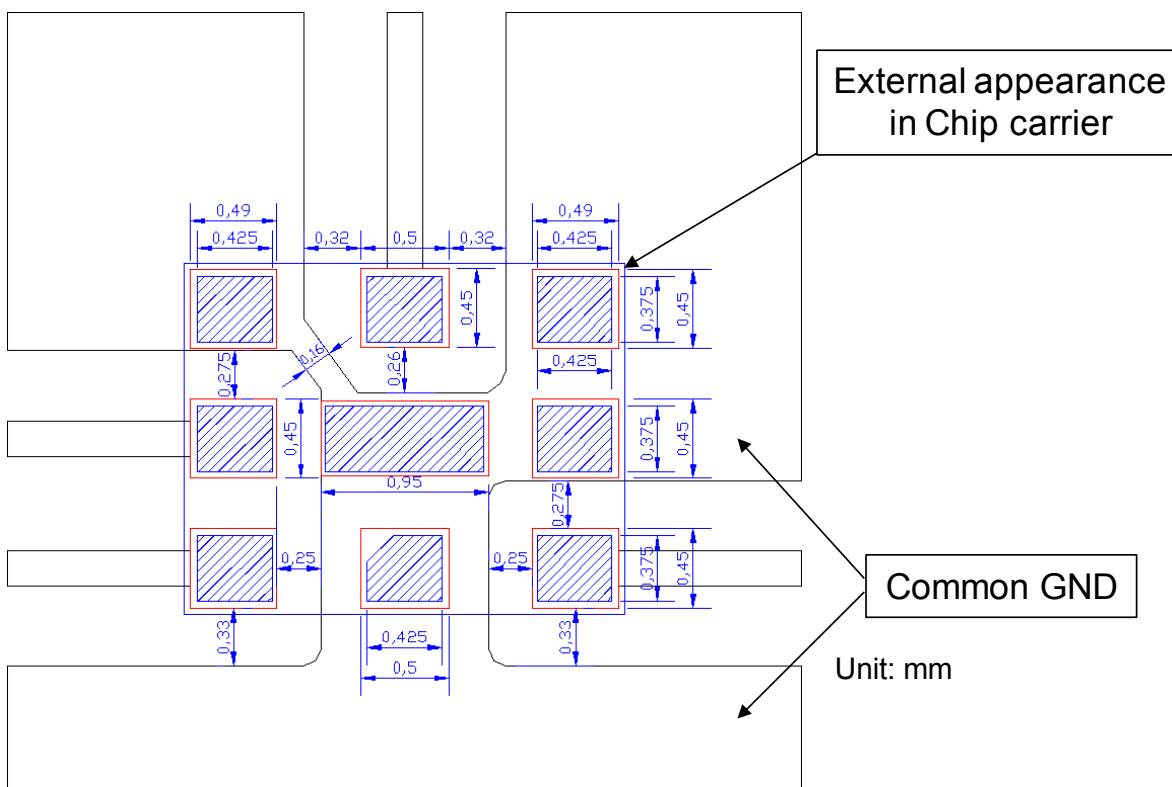


Figure 2. Recommended foot print pattern



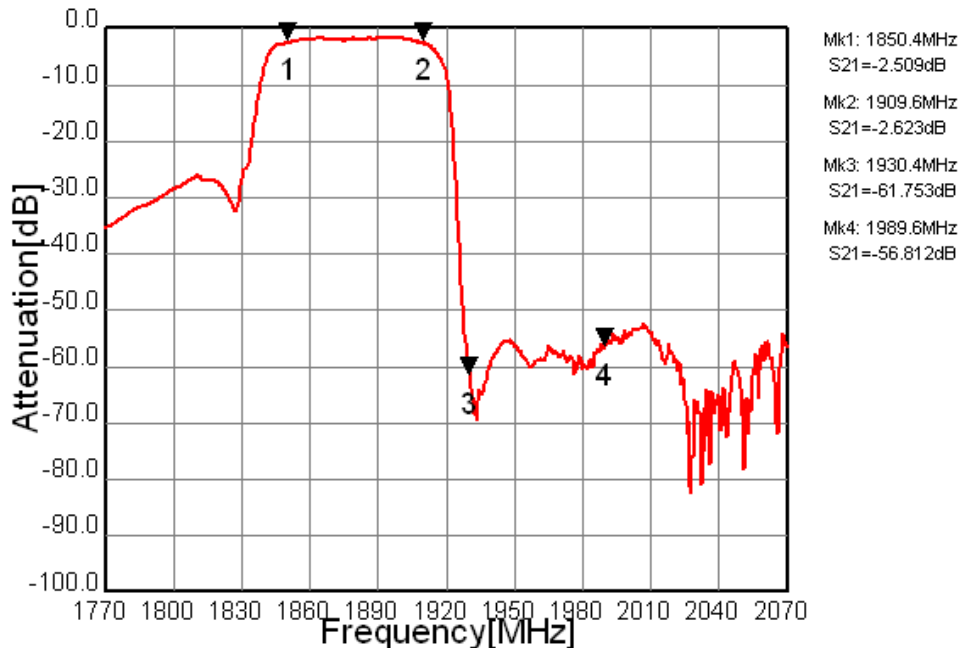
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Tx to Ant



Ant to Rx

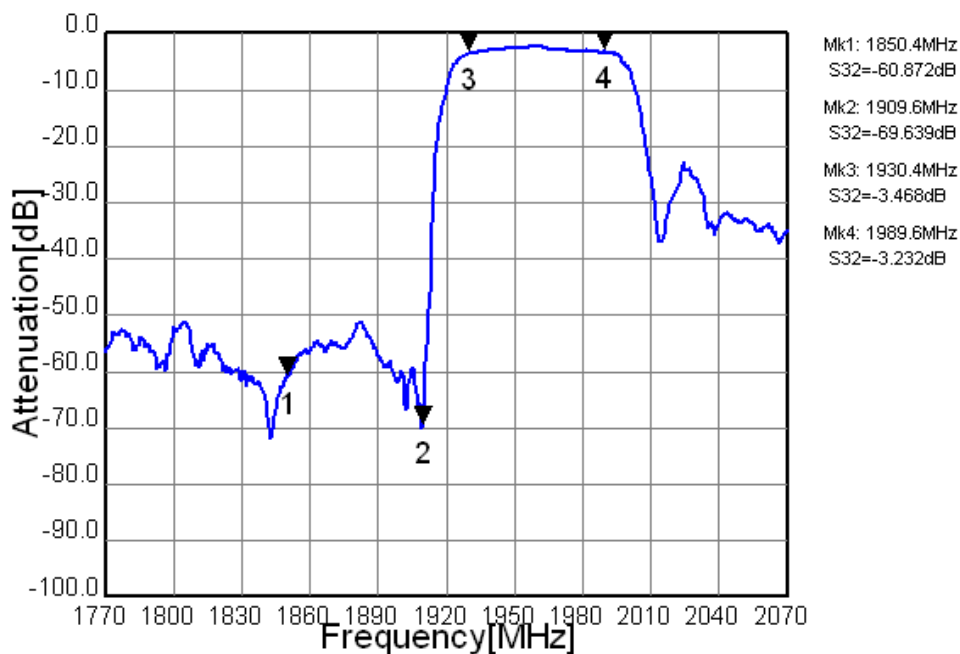


Figure 3-1. Electrical Characteristics

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





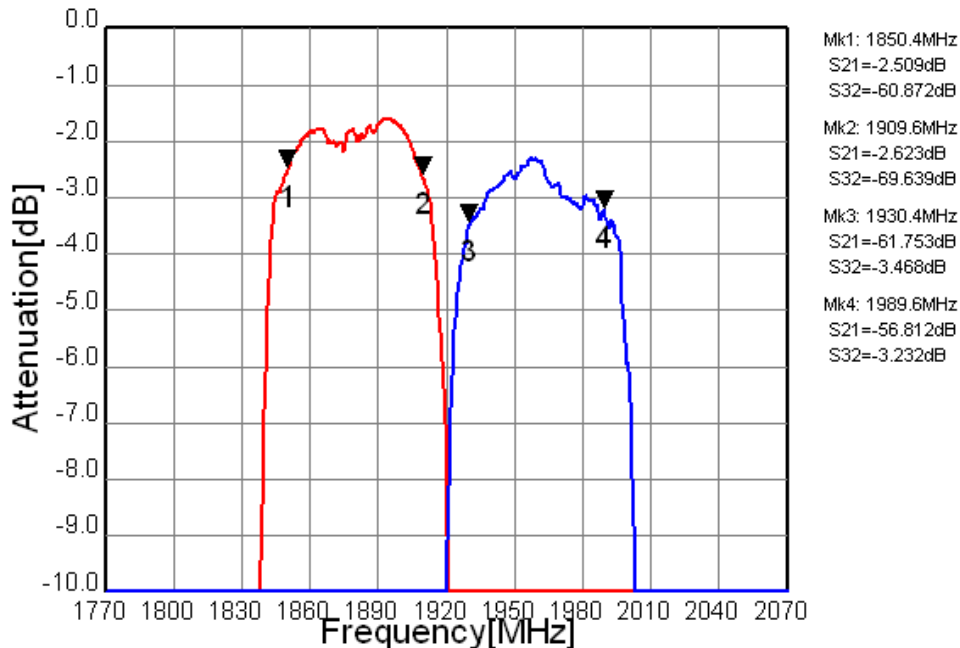
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Tx to Ant, Ant to Rx



Tx to Rx Isolation

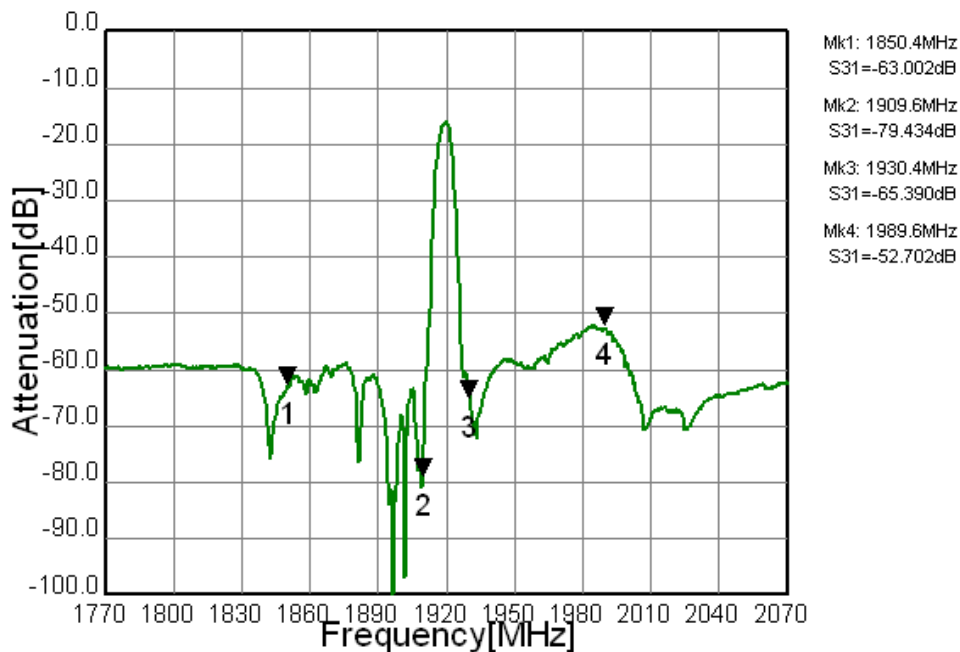


Figure 3-2. Electrical Characteristics

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

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Tx Port

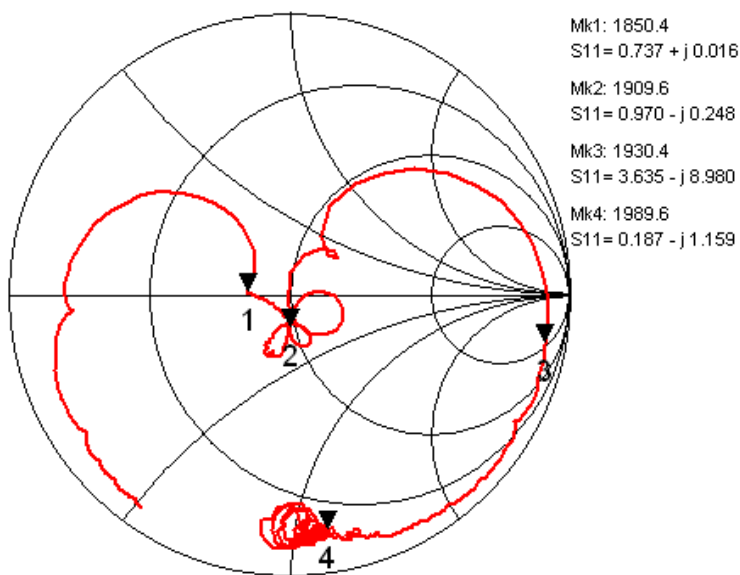
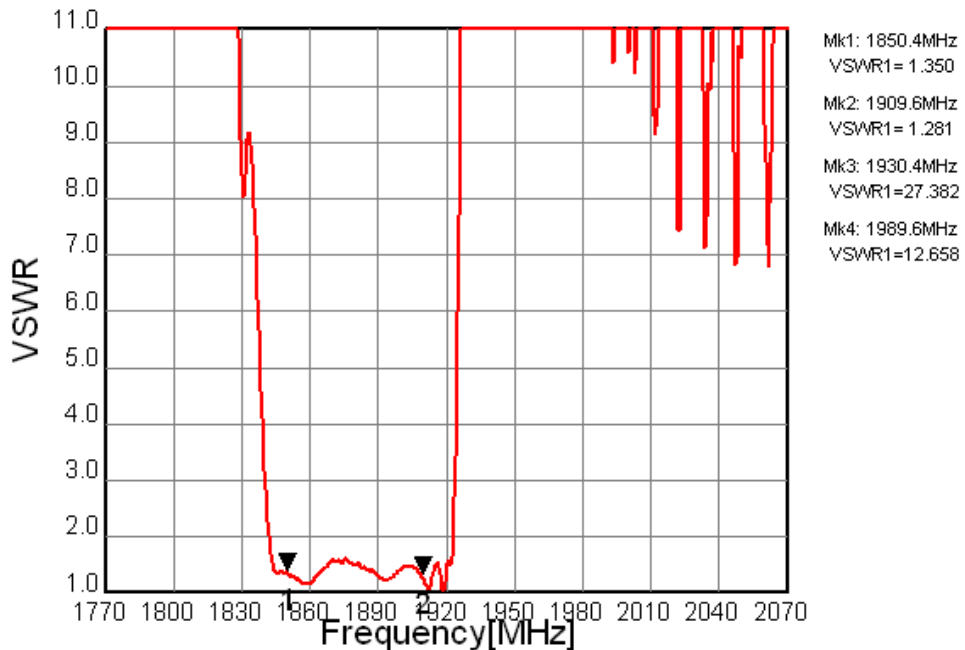


Figure 3-3. Electrical Characteristics

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Rx Port

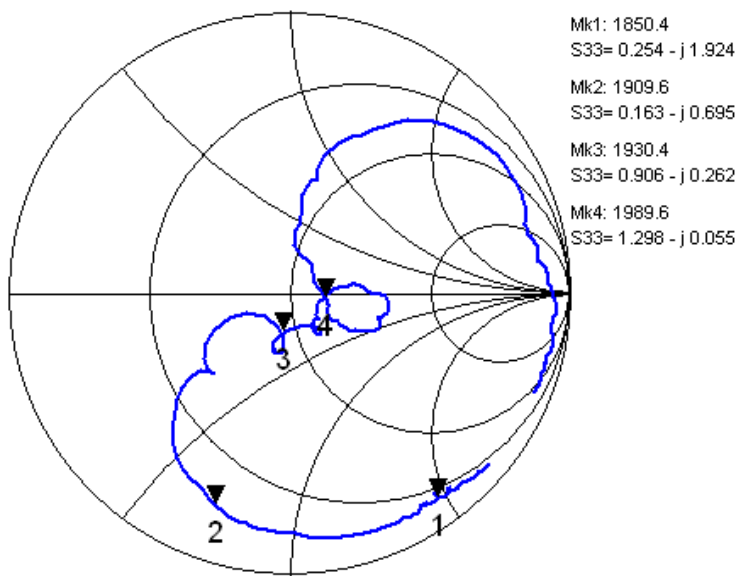
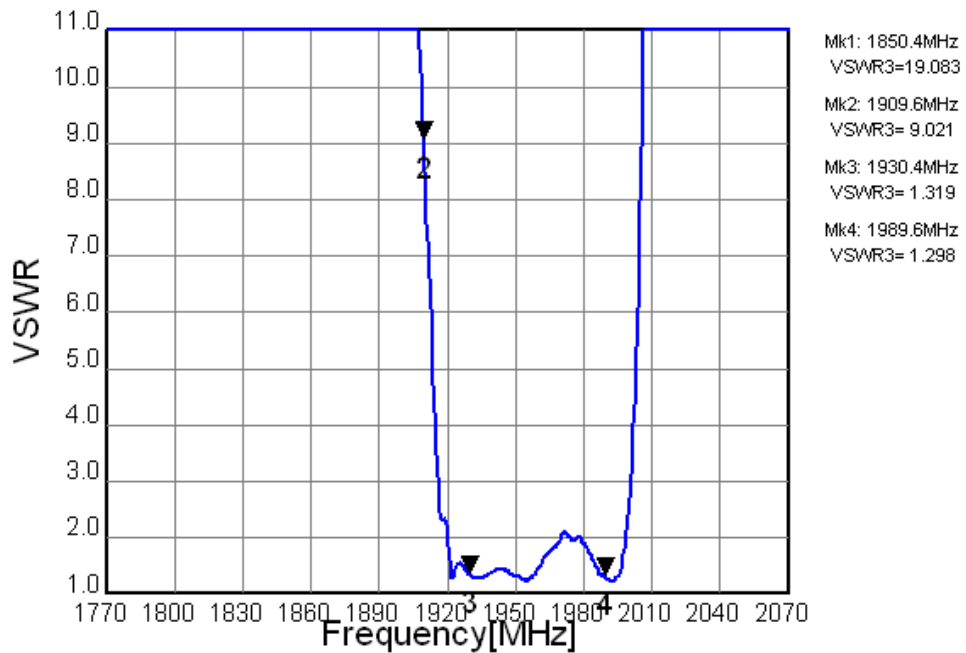


Figure 3-4. Electrical Characteristics

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Ant Port

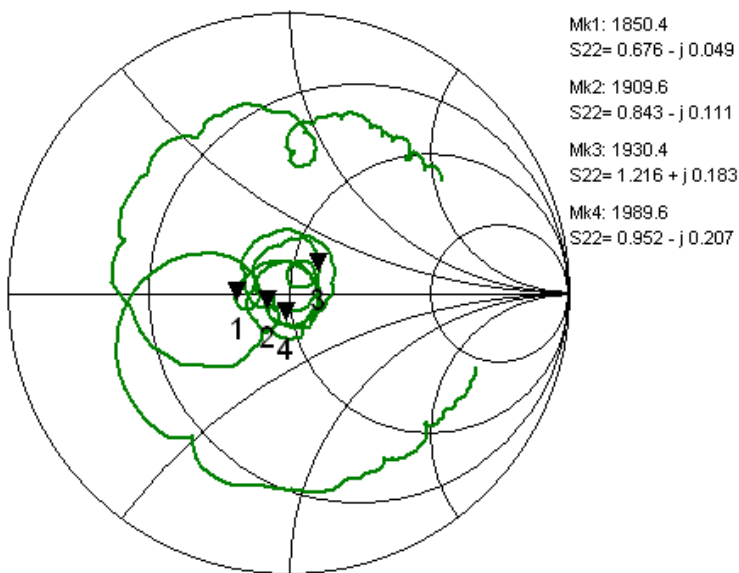
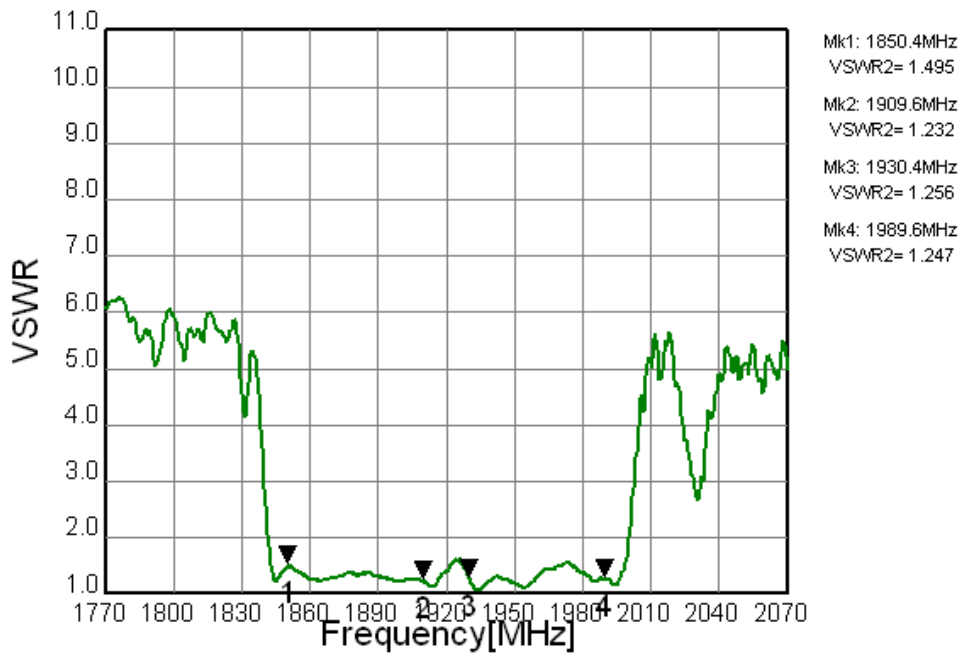


Figure 3-5. Electrical Characteristics

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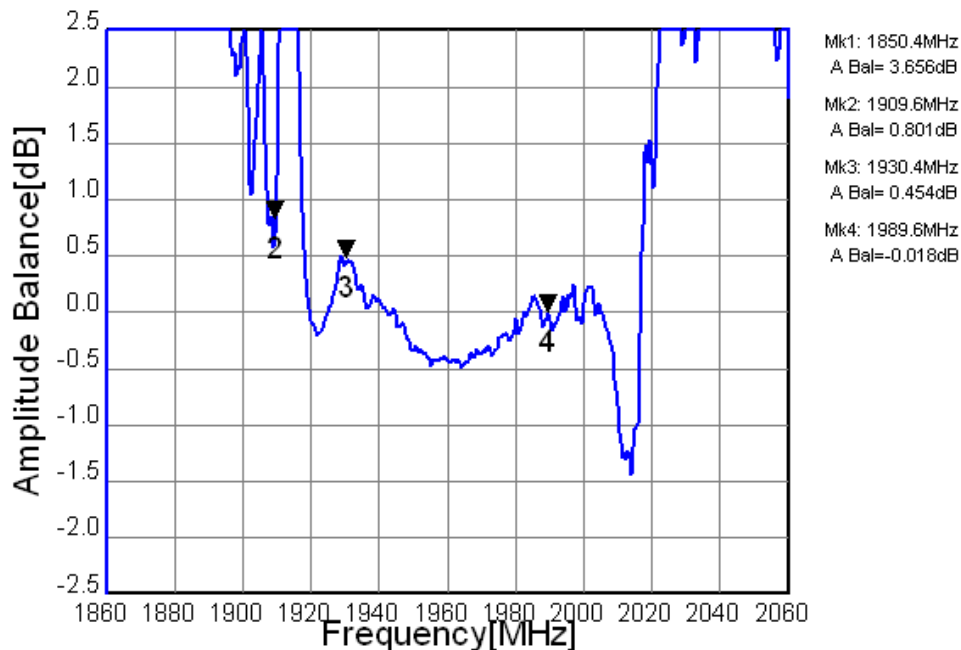
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Ant to Rx (Amplitude balance)



Ant to Rx (Phase balance)

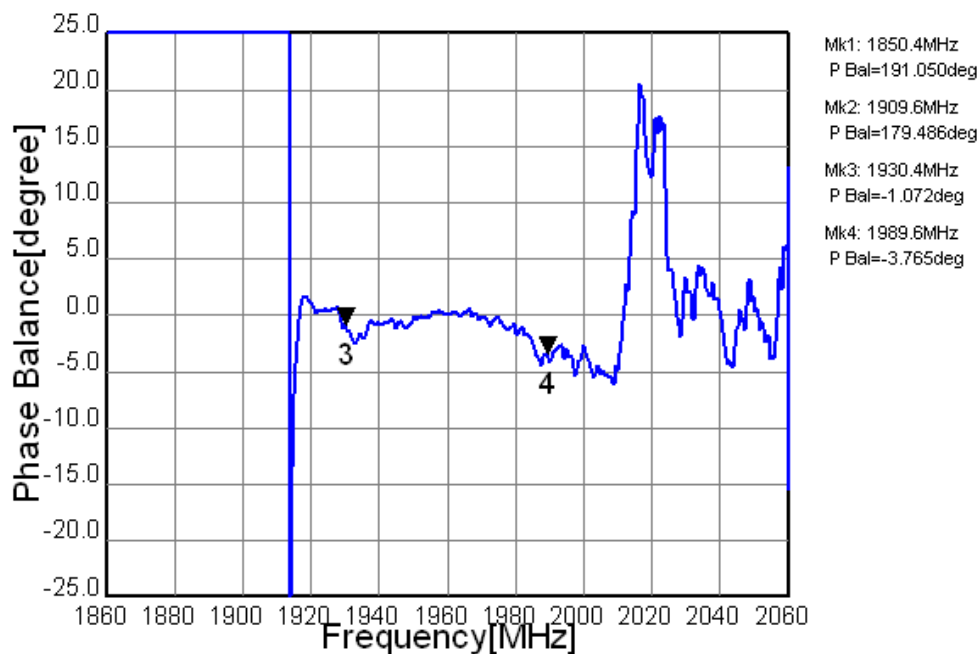


Figure 3-6. Electrical Characteristics

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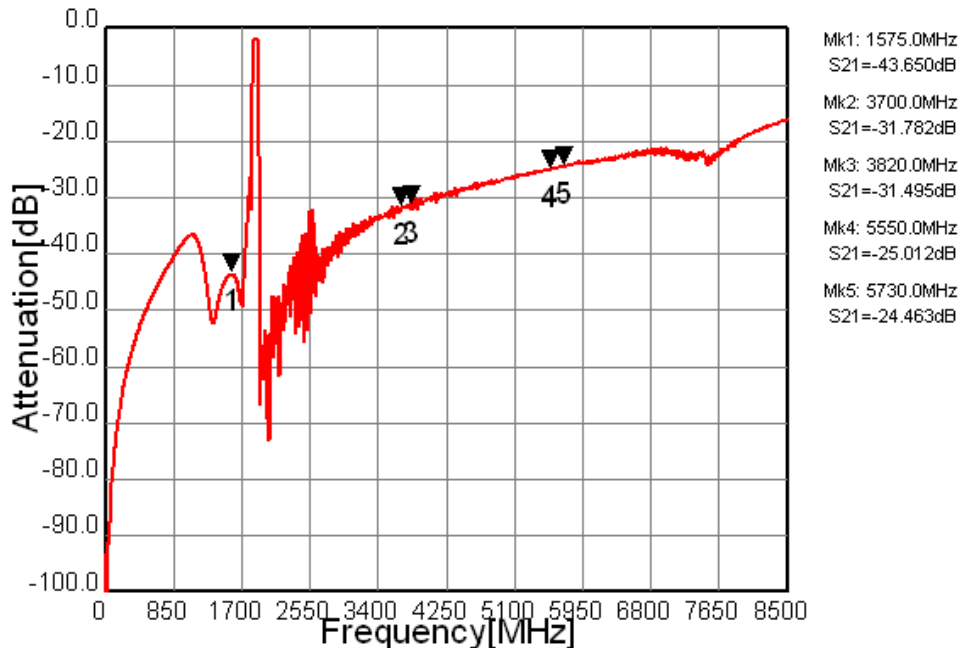
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Tx to Ant (Wide span)



Ant to Rx (Wide span)

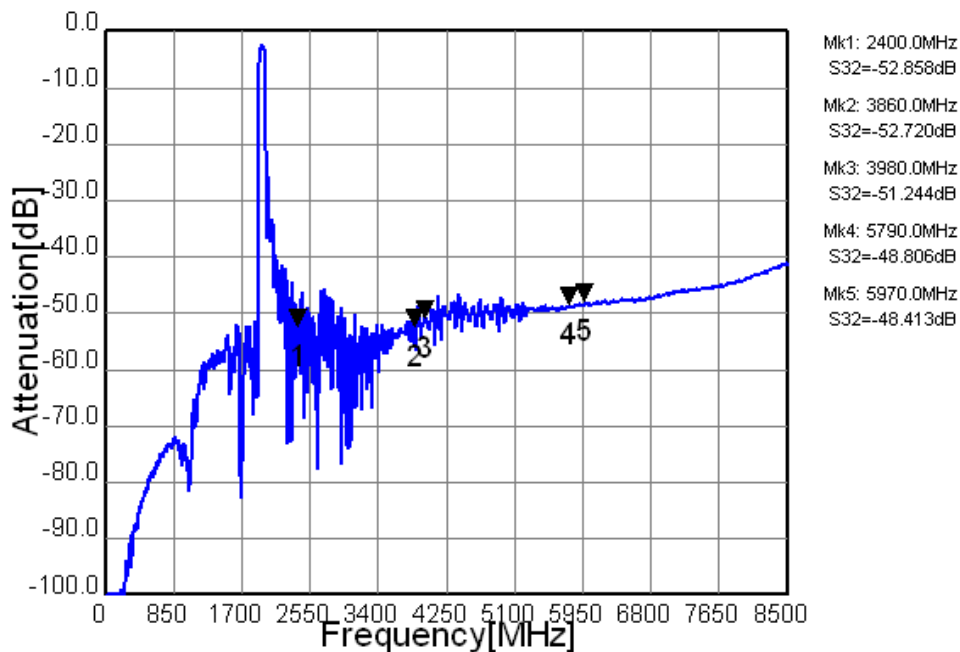


Figure 3-7. Electrical Characteristics

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