



* Pb Free Part



Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 20 Duplexer	Date	Jun. 11, 2018
Part Number	D5FC847M0K3NE	Version 2.4adB	Final

Table 1-1. Electrical Specification

Item			Condition (MHz)	Specification			Unit	Remarks
				Min.	Typ.	Max.		
Tx to Ant	Insertion loss (*1)		832.25 - 861.75	-	1.8	2.5	dB	
	Ripple		832 - 862	-	1.0	1.8	dB	
	VSWR	Tx	832 - 862	-	1.6	2.0	-	
		Ant	832 - 862	-	1.7	2.0	-	
	Input Power		832.25 - 861.75	29dBm,Ta=+50°C 50000h,CW			-	
				29dBm,Ta=+50°C LTE 5MHz 1RB 50000h			-	
				30dBm,Ta=+50°C 5000h,CW			-	
				30dBm,Ta=+50°C LTE 5MHz 1RB 5000h			-	
	Absolute attenuation		791.25 - 820.75	45	54	-	dB	
			1565 - 1606	45	57	-	dB	
			1664 - 1724	40	55	-	dB	
			2400 - 2586	35	44	-	dB	
Ant to Rx	Insertion loss (*1)		791.25 - 820.75	-	1.8	3.0	dB	
	Ripple		791 - 821	-	0.9	2.3	dB	
	VSWR	Ant	791 - 821	-	1.7	2.3	-	
		Rx	791 - 821	-	1.8	2.2	-	
	Absolute attenuation		832.25 - 861.75	45	53	-	dB	
			1623 - 1683	35	47	-	dB	
			2400 - 2545	30	43	-	dB	
Tx to Rx	Isolation		832.25 - 861.75	50	55	-	dB	
			791.25 - 820.75	53	56	-	dB	
Terminating Impedance			Tx port	50			Ω	
			Rx port	50			Ω	
			Ant port	50//10nH			Ω	



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Table 1-2. Electrical Specification

Item	Condition (MHz)	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Operating Temperature		-30 to +85			°C	
Maximum DC in all ports		-	-	5	VDC	Device only
DC impedance to ground		100			MΩ	Device only
Device size (L typ. x W typ. x H max.)		1.8 x 1.4 x 0.44			mm	

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



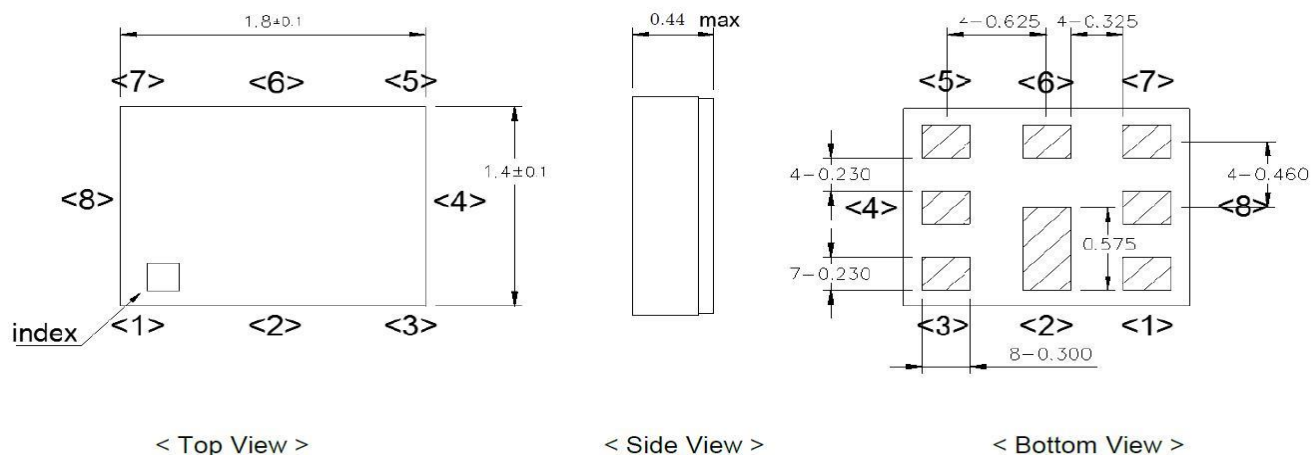
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Dimensions



Unit: mm

Figure 1. Dimensions

Pin Assignment

Table 2. Pin Assignment

Pin No.	Pin name	Description
1	Rx	Receiver
2	GND	Ground
3	Tx	Transmitter
4	GND	Ground
5	GND	Ground
6	Ant	Antenna
7	GND	Ground
8	GND	Ground



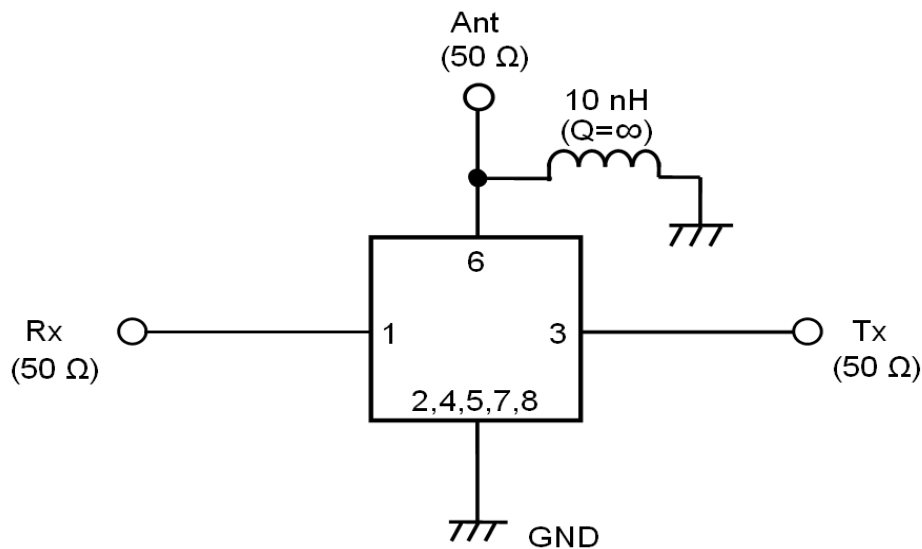
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Evaluation Circuit



1 to 8: Pin No.

Figure 2. Evaluation Circuit

Recommended Foot Print Pattern

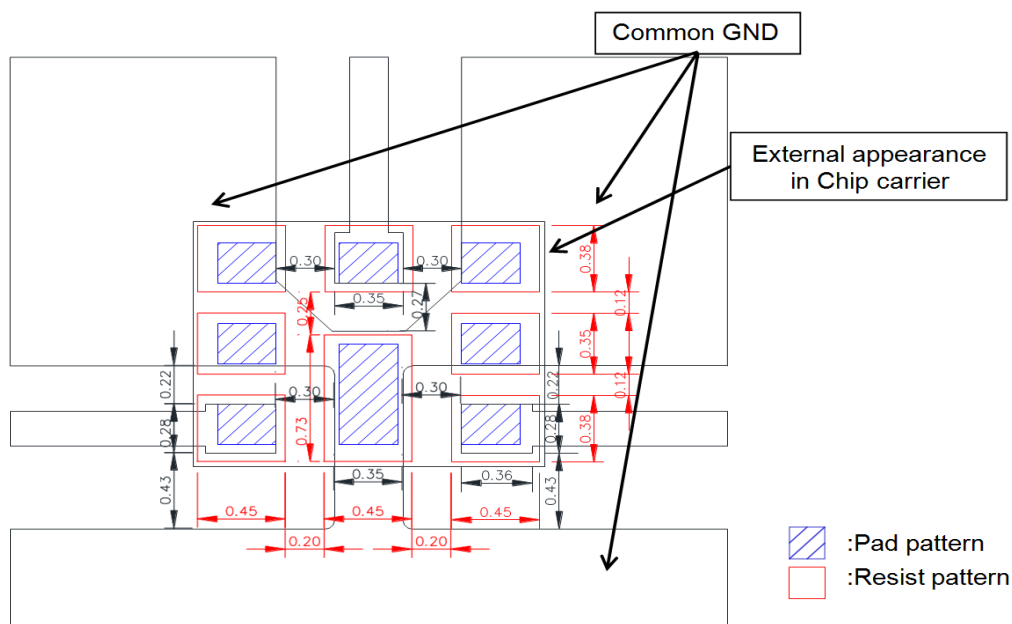


Figure 3. Recommended Foot Print Pattern



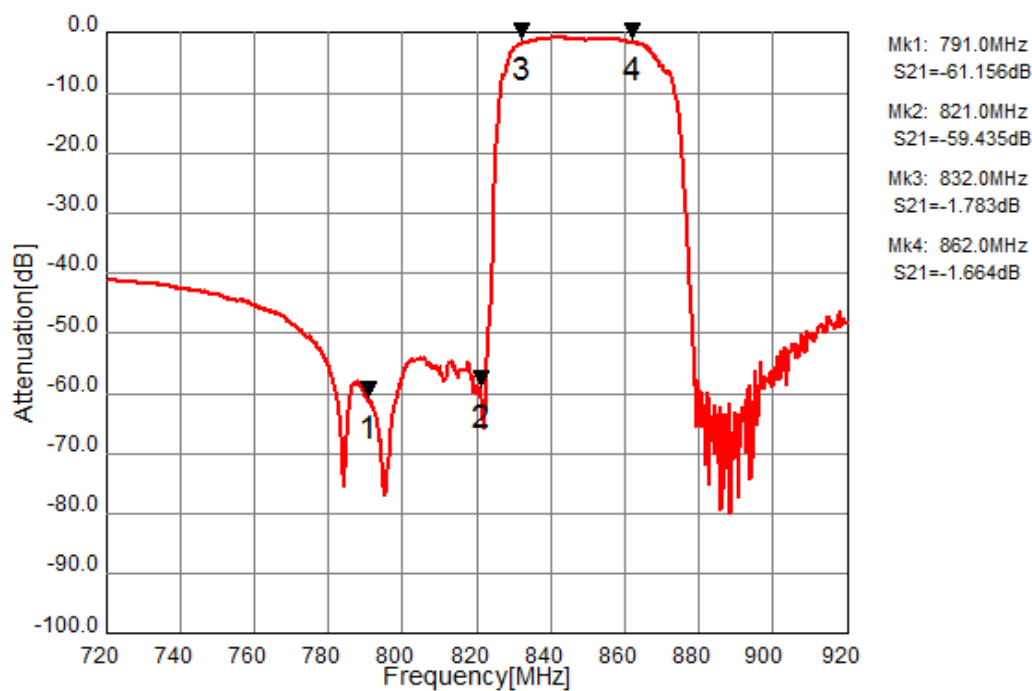
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Tx to Ant



Ant to Rx

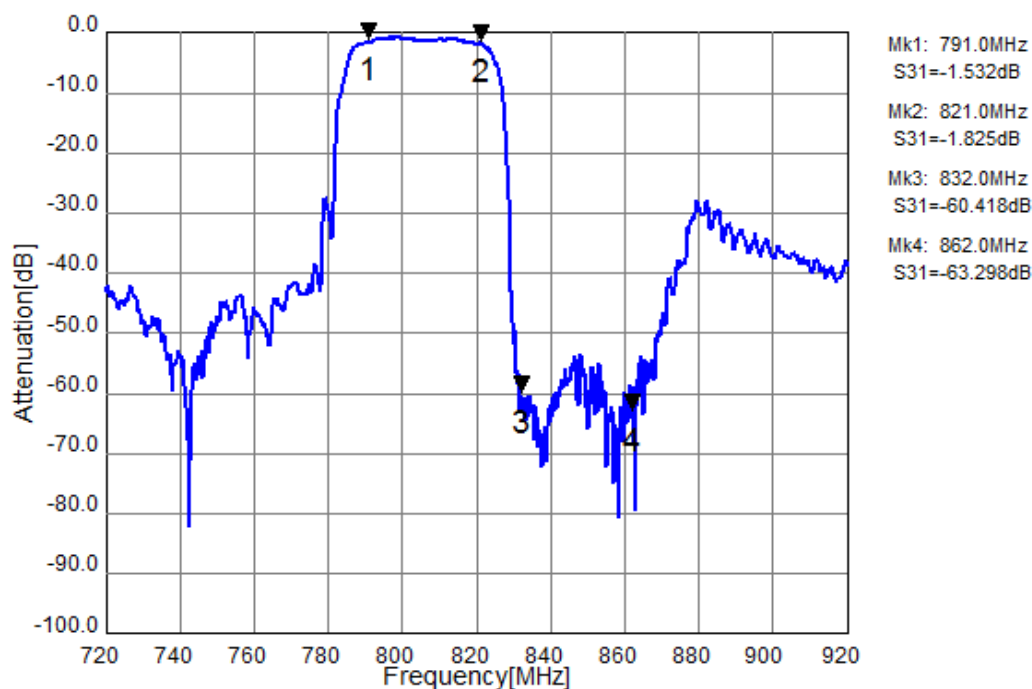


Figure 4-1. Electrical Characteristics

These data exclude loss that comes from the test board.

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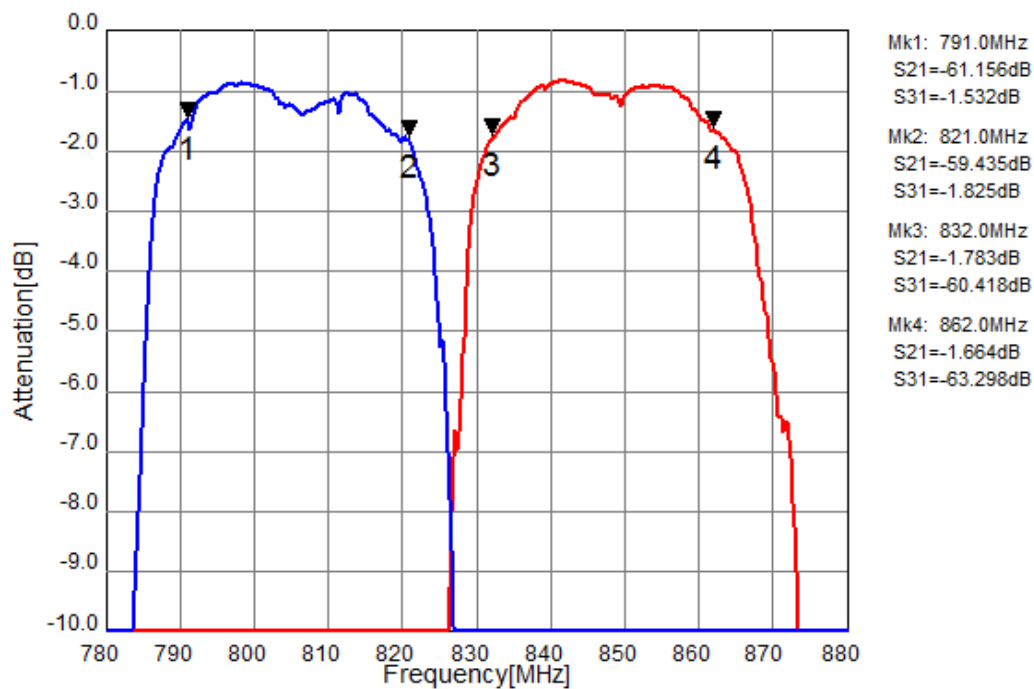
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Tx to Ant, Ant to Rx



Tx to Rx Isolation

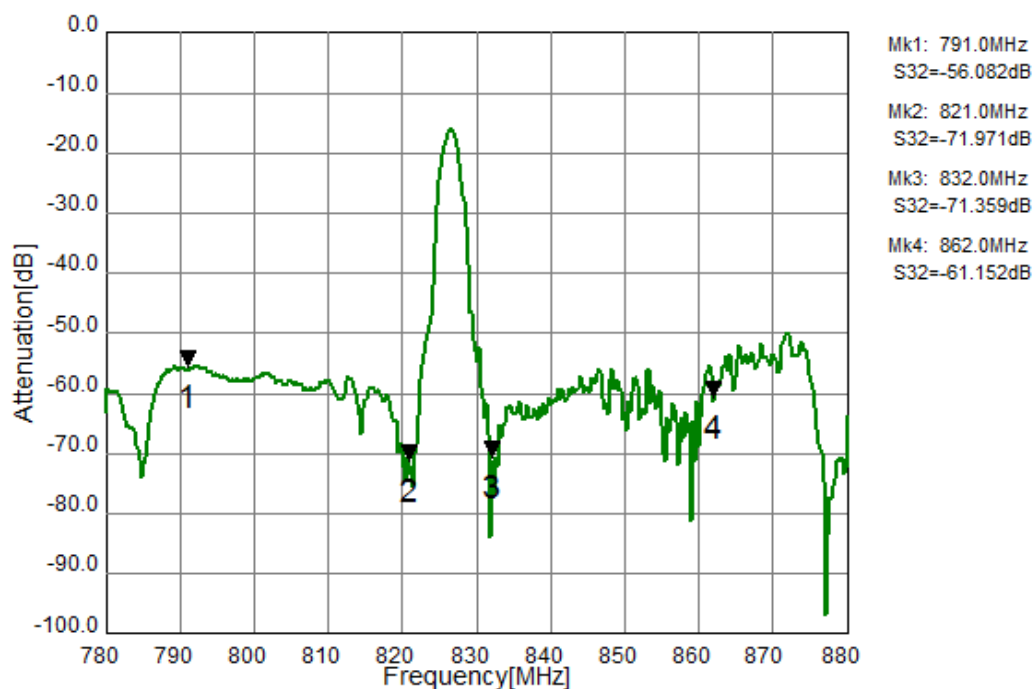


Figure 4-2. Electrical Characteristics



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Tx Port

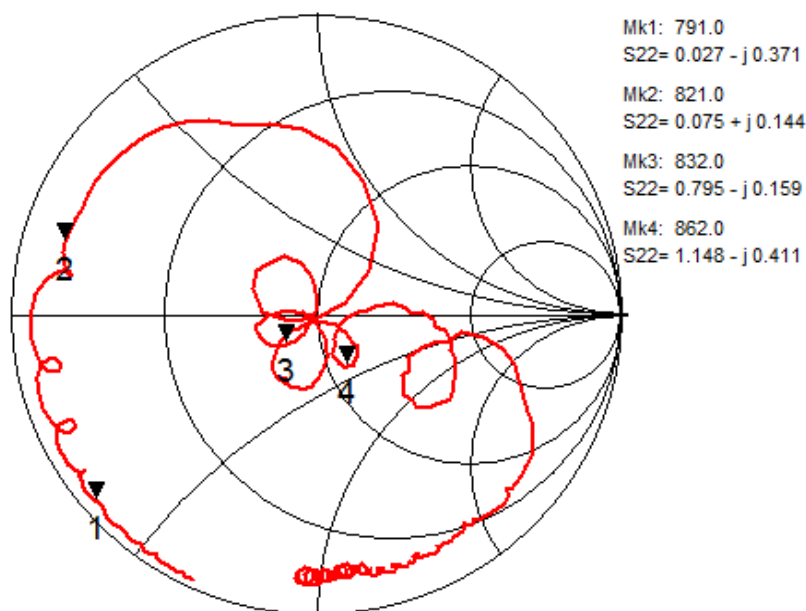
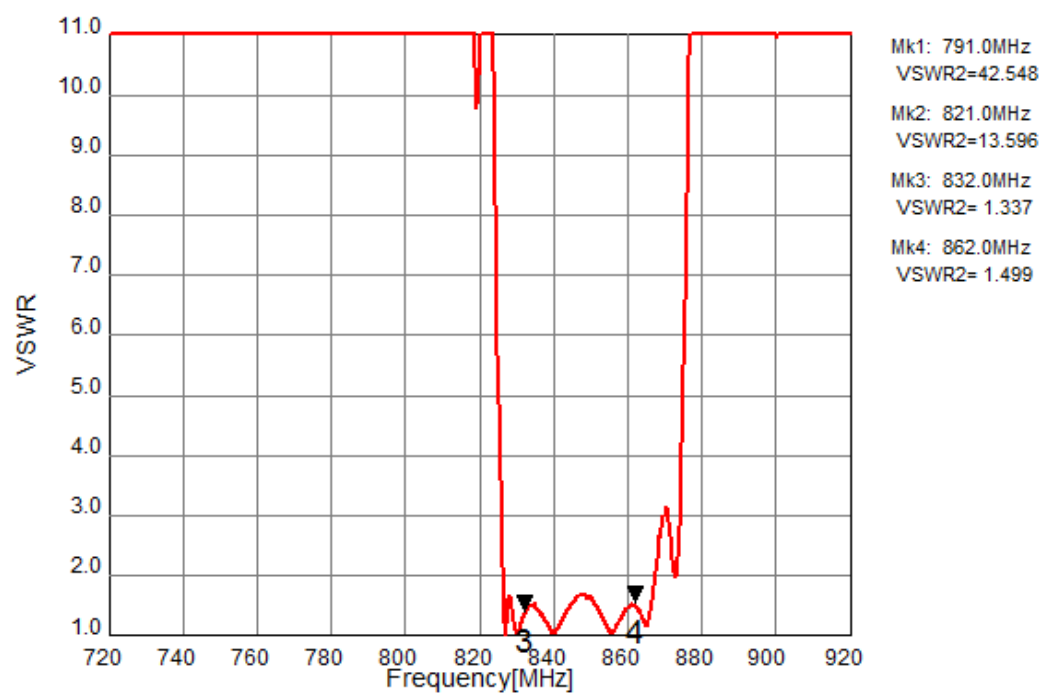


Figure 4-3. Electrical Characteristics



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Rx Port

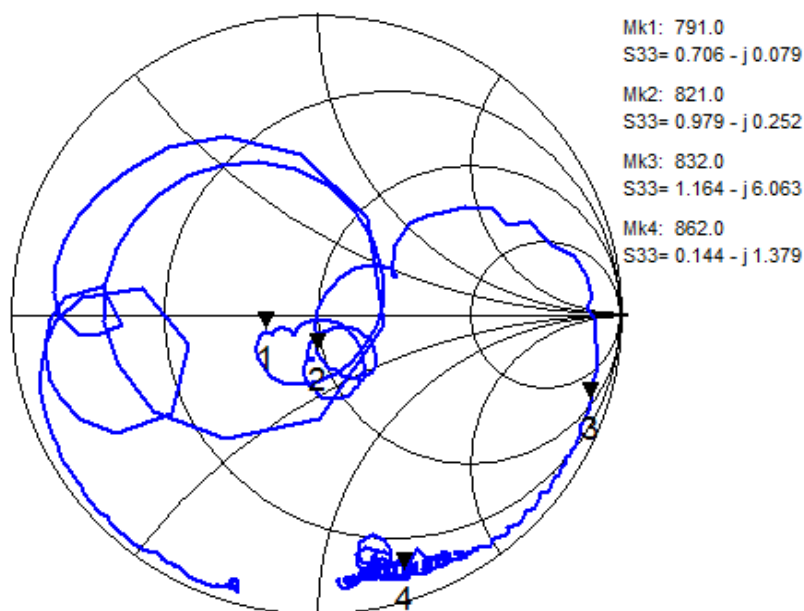
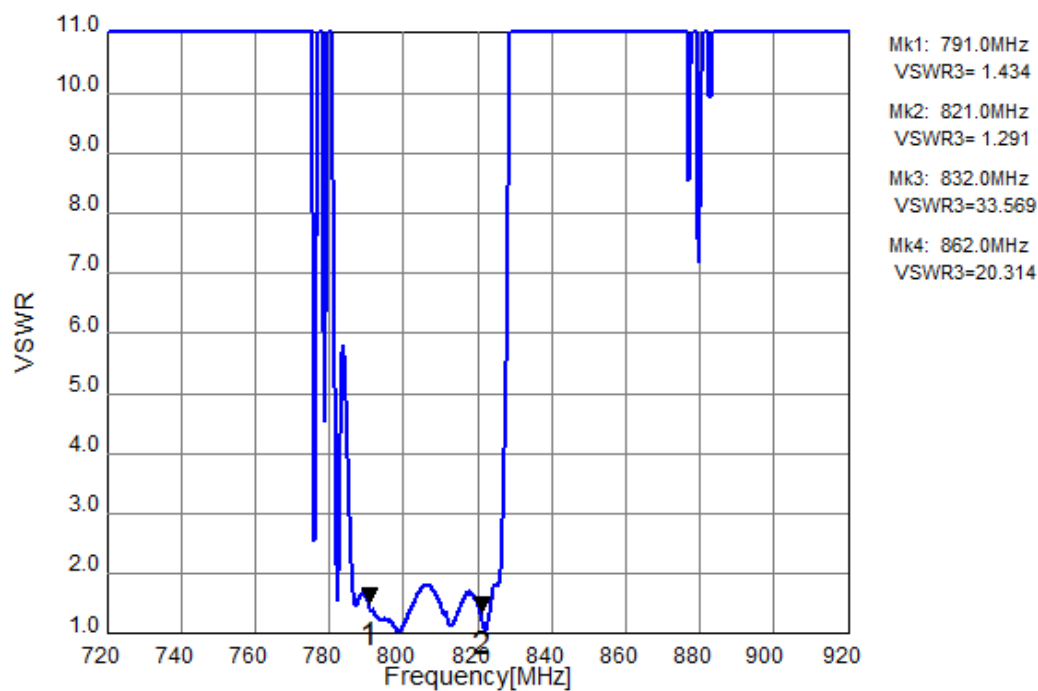


Figure 4-4. Electrical Characteristics



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Ant Port

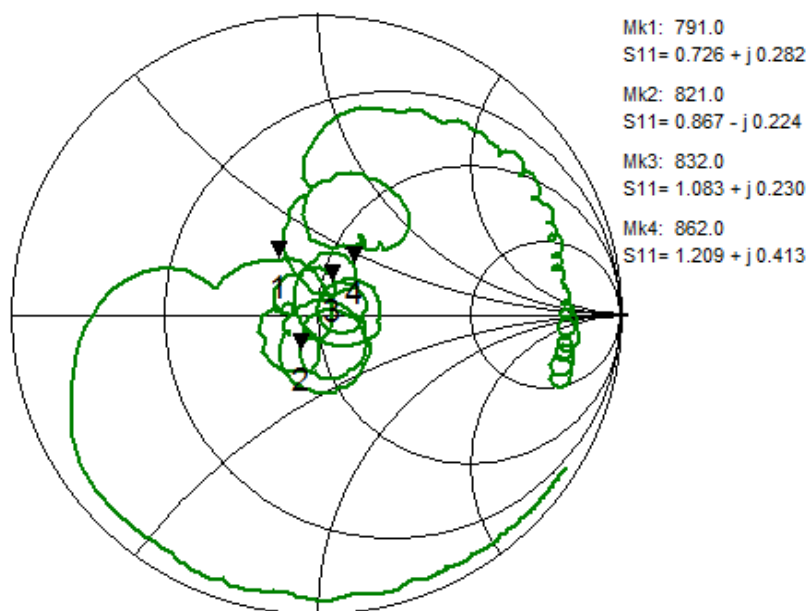
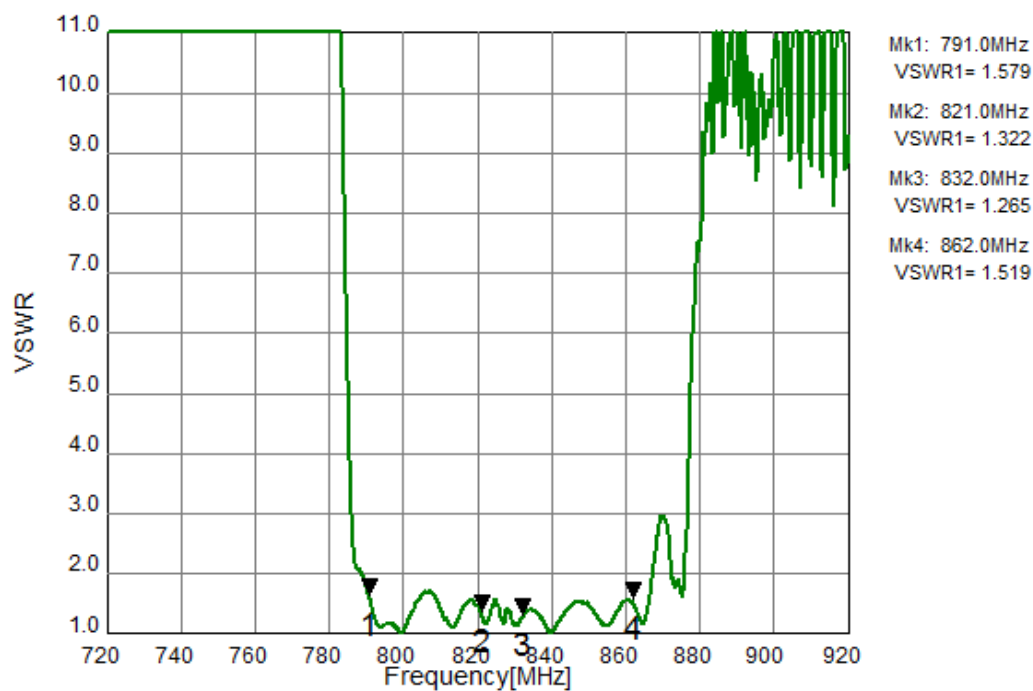


Figure 4-5. Electrical Characteristics



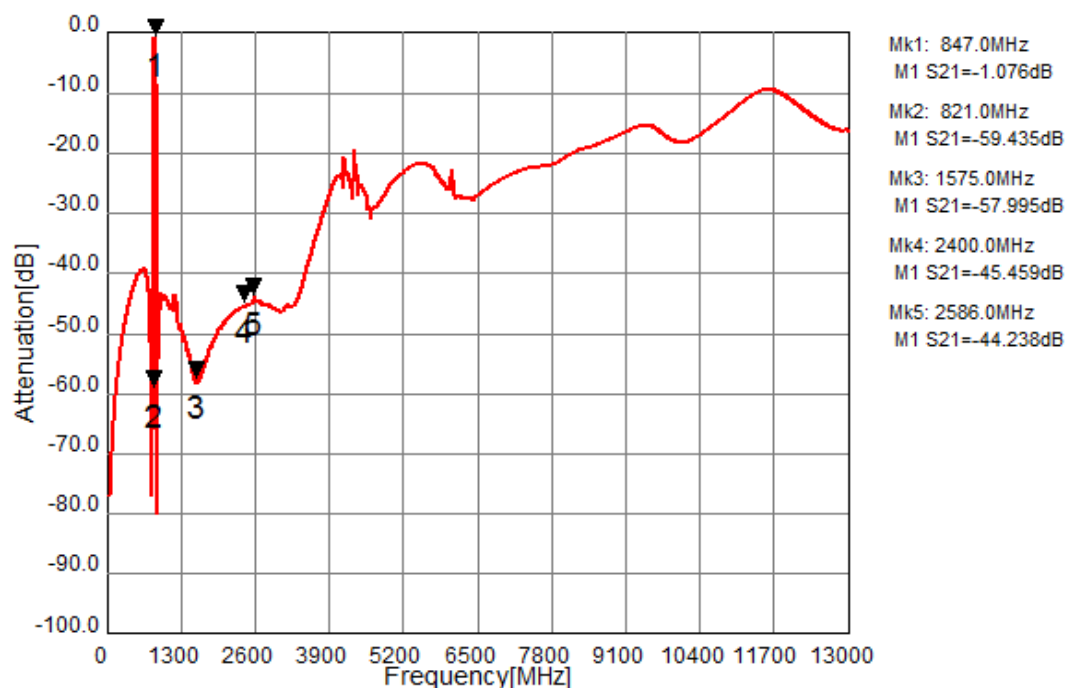
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Tx to Ant(Wide span)



Ant to Rx(Wide span)

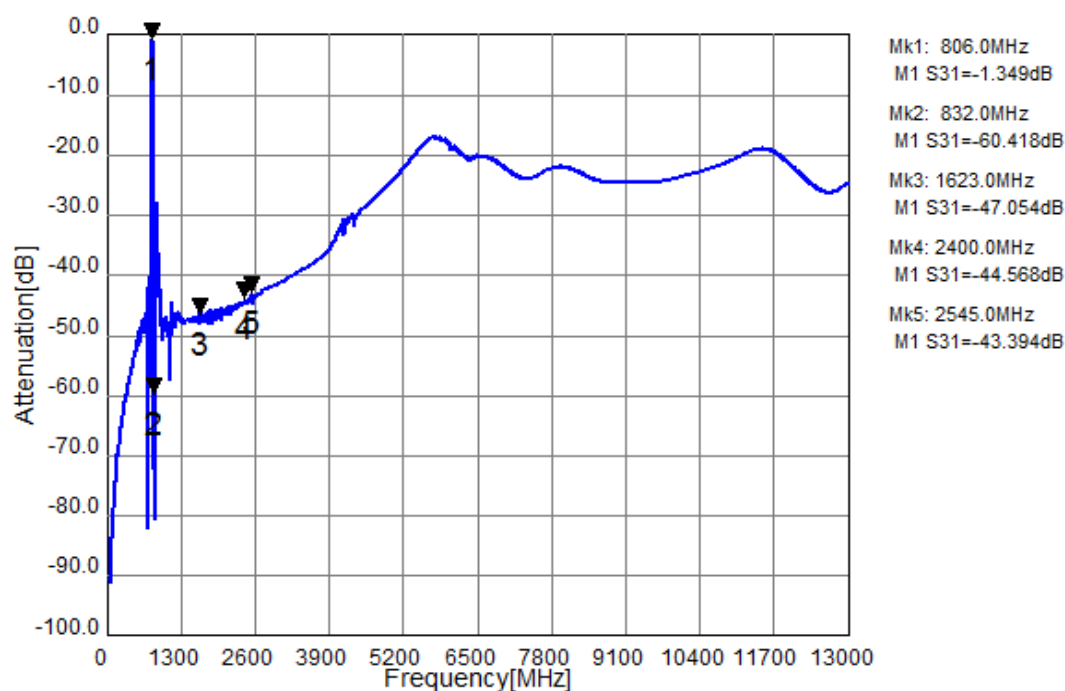


Figure 4-6. Electrical Characteristics



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Ordering Code

Ordering Code	Packing	Reel size	Status
D5FC847M0K3NE-Z	Tape & Reel	3,000 pcs.	MP
D5FC847M0K3NE-ZA	Tape & Reel	less than 3,000 pcs.	MP
D5FC847M0K3NE-Y	Tape & Reel	15,000 pcs.	MP
D5FC847M0K3NE-YA	Tape & Reel	less than 15,000 pcs.	MP
D5FC847M0K3NE-Q	Bulk	few pcs.	MP

*Minimum order quantity (MOQ) is assigned for each inquiry, Please contact to Sales Representatives.

*MP : Mass Production

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- Please conduct validation and verification of our products in actual condition of mounting and operating environment before using our products.
- The products listed in this specification are intended for use in general electronic equipment (e.g., AV equipment, OA equipment, home electric appliances, office equipment, information and communication equipment including, without limitation, mobile phone, and PC). Please be sure to contact TAIYO YUDEN for further information before using the products for any equipment which may directly cause loss of human life or bodily injury (e.g., transportation equipment including, without limitation, automotive powertrain control system, train control system, and ship control system, traffic signal equipment, disaster prevention equipment, medical equipment classified as Class I, II or III by IMDRF, highly public information network equipment including, without limitation, telephone exchange, and base station).
Please do not incorporate our products into any equipment requiring high levels of safety and/or reliability (e.g., aerospace equipment, aviation equipment, medical equipment classified as Class IV by IMDRF, nuclear control equipment, undersea equipment, military equipment).
When our products are used even for high safety and/or reliability-required devices or circuits of general electronic equipment, it is strongly recommended to perform a thorough safety evaluation prior to use of our products and to install a protection circuit as necessary.
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