



* Pb Free Part



Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 7 Duplexer	Date	Mar. 23, 2018
Part Number	D6DA2G655K2F1	Version 1.1aaA	Final

Table 1-1. Electrical Specification

Item		Condition (MHz)	Specification			Unit	Remarks
			Min.	Typ.	Max.		
Tx to Ant	Insertion loss (*1)	2500 - 2570	-	2.1	3.1	dB	2500 - 2535 MHz
			-	1.8	2.7	dB	2535 - 2570 MHz
	Ripple	2500 - 2570	-	0.9	2.6	dB	
	Ripple (any 5 MHz)	2500 - 2570	-	0.4	1.0	dB	Ta = 25 °C
			-	0.6	1.4	dB	
	VSWR	Tx	-	1.4	2.0	-	
		Ant	-	1.5	2.0	-	
	Input Power	2500 - 2570	+29 dBm, CW, +50 °C, 5000 h			-	
			+29 dBm, LTE 5 MHz 1RB, +50 °C, 5000 h			-	
			+29.5 dBm, CW, +50 °C, 2000 h			-	
			+29.5 dBm, LTE 5 MHz 1RB, +50 °C, 2000 h			-	
	Absolute attenuation	50 - 1606	36	40	-	dB	
		1805 - 1880	33	37	-	dB	
		1900 - 2025	33	37	-	dB	
		2110 - 2170	32	36	-	dB	
		2155 - 2200	33	36	-	dB	
		2300 - 2400	37	41	-	dB	
	Absolute attenuation (*2)	2403 - 2421	45	51	-	dB	
		2408 - 2426	46	53	-	dB	
		2413 - 2431	48	54	-	dB	
		2418 - 2436	49	54	-	dB	
		2423 - 2441	47	53	-	dB	
		2428 - 2446	46	52	-	dB	
		2433 - 2451	46	51	-	dB	
		2438 - 2456	41	51	-	dB	



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Table 1-2. Electrical Specification

Item			Condition (MHz)	Specification			Unit	Remarks
				Min.	Typ.	Max.		
Tx to Ant	Absolute attenuation (*2)		2443 - 2461	45	50	-	dB	
			2448 - 2466	45	50	-	dB	
			2453 - 2471	42	50	-	dB	
			2458 - 2476	22	49	-	dB	
			2463 - 2481	13	40	-	dB	
	Absolute attenuation		2620 - 2690	52	58	-	dB	
			3400 - 5000	32	37	-	dB	
			5000 - 5140	47	51	-	dB	
			5140 - 7710	42	46	-	dB	
Ant to Rx	Insertion loss (*1)		2620 - 2690	-	2.2	2.8	dB	2620 - 2655 MHz
				-	1.9	2.6	dB	2655 - 2690 MHz
	VSWR	Ant	2620 - 2690	-	1.4	2.0	-	
		Rx	2620 - 2690	-	1.7	2.2	-	
	Absolute attenuation		45	60	90	-	dB	
			718 - 748	53	57	-	dB	
			814 - 849	51	55	-	dB	
			832 - 862	51	55	-	dB	
			880 - 915	50	54	-	dB	
			1710 - 1785	40	44	-	dB	
			1920 - 1980	39	43	-	dB	
			2400 - 2500	45	49	-	dB	
			2402 - 2470	45	50	-	dB	
			2500 - 2570	51	55	-	dB	
			2570 - 2600	1	7	-	dB	
			2775 - 2790	60	65	-	dB	
			2775 - 6000	48	52	-	dB	
			4900 - 5300	57	62	-	dB	
			5300 - 5950	53	58	-	dB	
			7620 - 7830	43	48	-	dB	
			7860 - 8070	42	47	-	dB	
Tx to Rx	Isolation		2500 - 2570	57	60	-	dB	2500 - 2535 MHz



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Table 1-3. Electrical Specification

Item		Condition (MHz)	Specification			Unit	Remarks
			Min.	Typ.	Max.		
Tx to Rx	Isolation	2500 - 2570	55	58	-	dB	2535 - 2570 MHz
		2620 - 2690	56	61	-	dB	2620 - 2655 MHz
			54	60	-	dB	2655 - 2690 MHz
Terminating Impedance		Tx port	50			Ω	
		Rx port	50			Ω	
		Ant port	50 // 3.3 nH			Ω	
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 max. x W max. 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.

*2 Integrated attenuation per 18 MHz.



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Dimensions

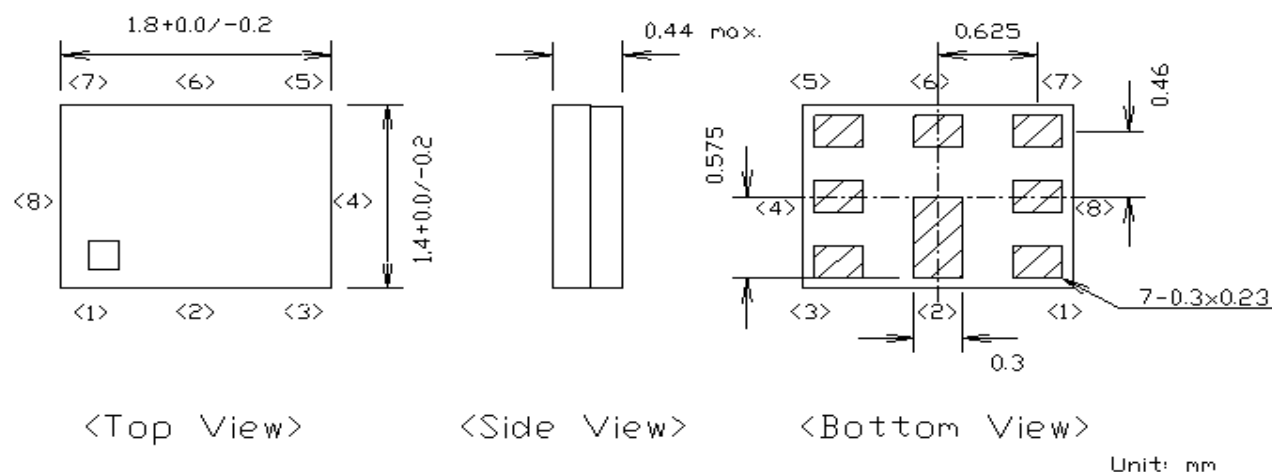


Figure 1. Dimensions

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



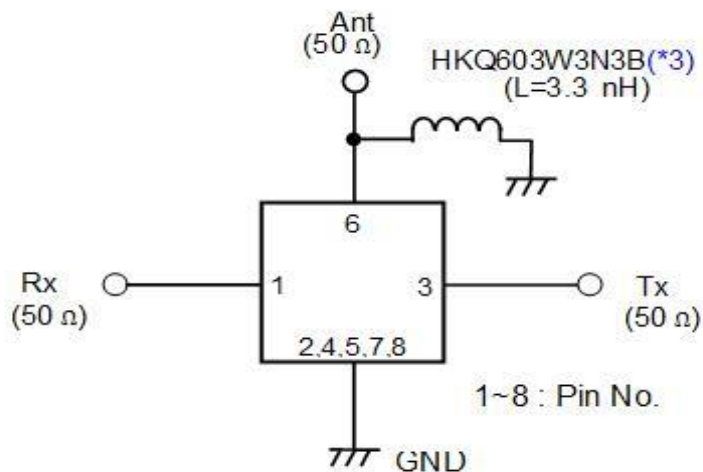
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MSL1

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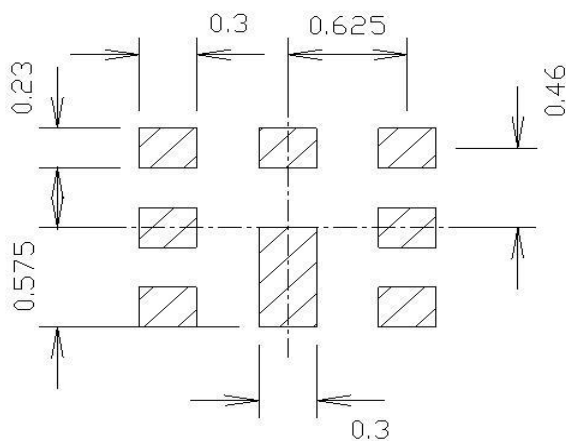
Evaluation Circuit



(*3) Matching inductor is used TAIYO YUDEN inductor 'HKQ0603W series'.

Figure 2. Evaluation Circuit

Recommended Foot Print Pattern



Unit: mm

Figure 3. Recommended Foot Print Pattern



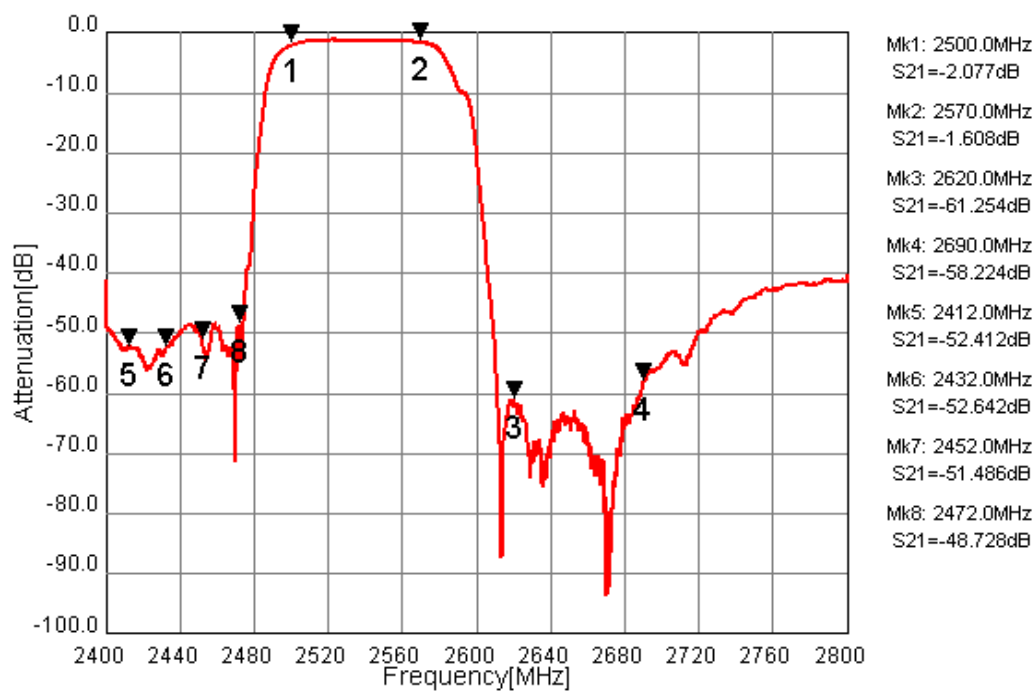
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Tx to Ant



Ant to Rx

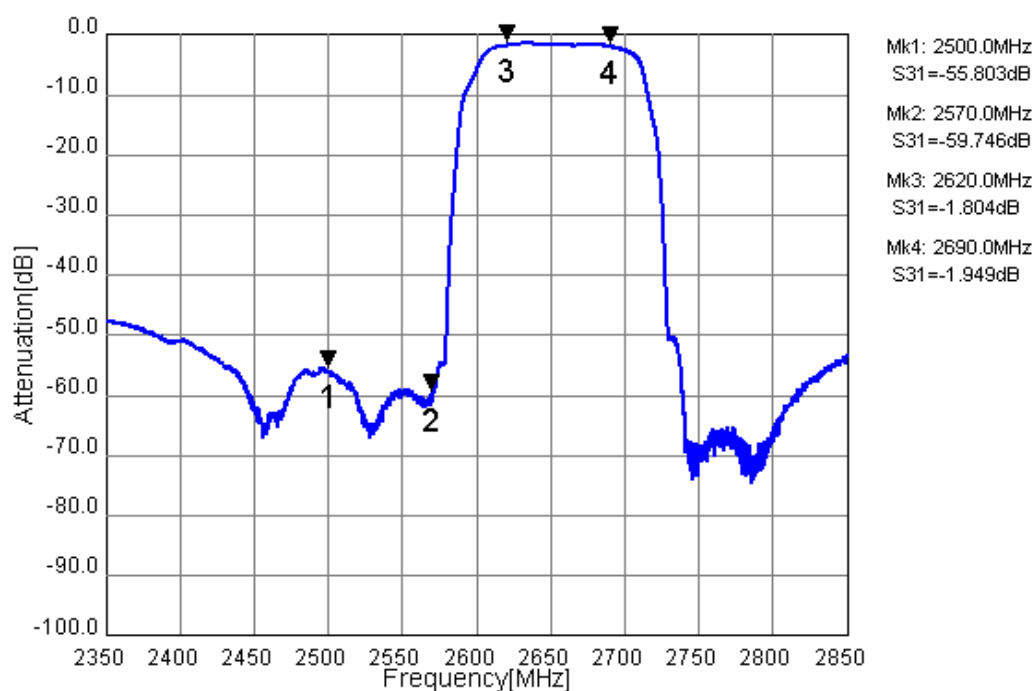


Figure 4-1. Electrical Characteristics

These data exclude loss that comes from the test board.

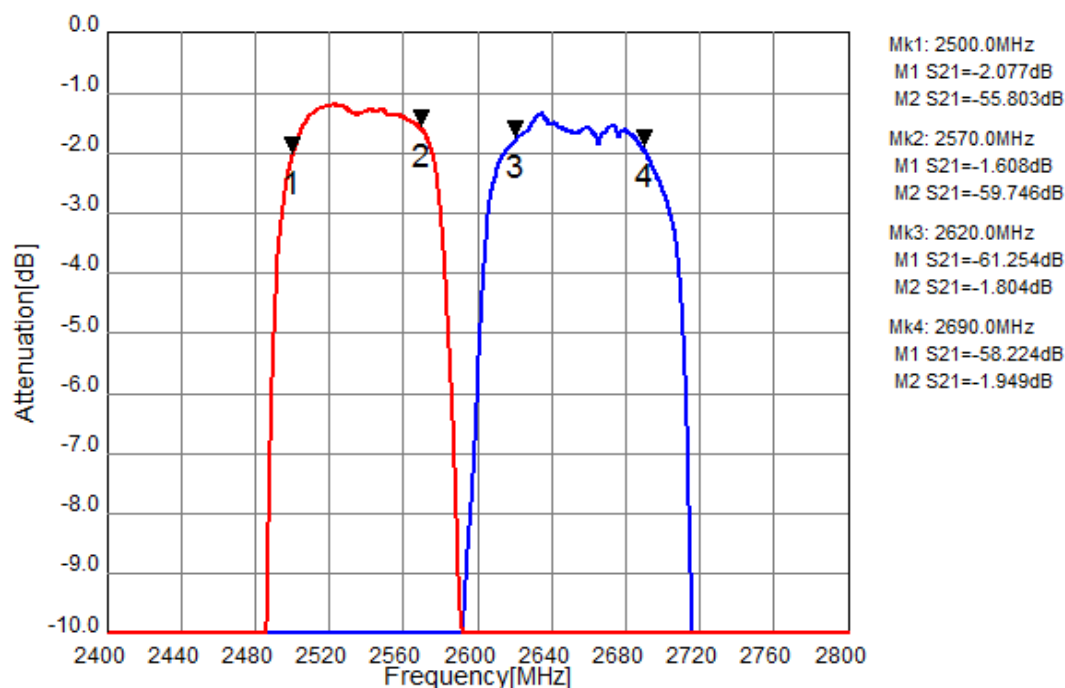
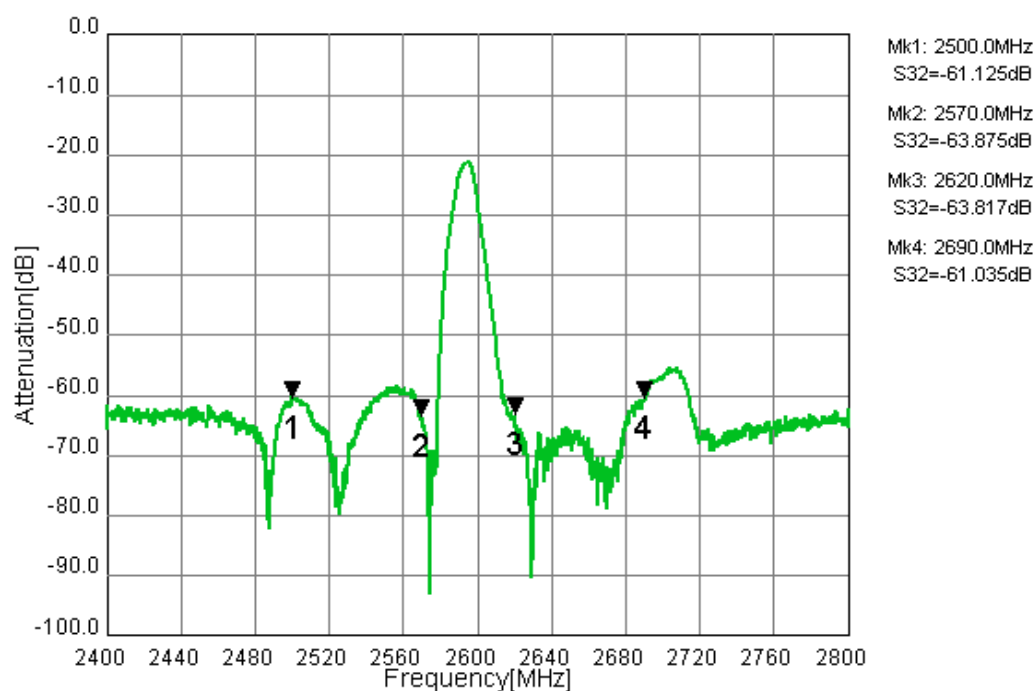
TAIYO YUDEN



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Tx to Ant, Ant to Rx**Tx to Rx Isolation****Figure 4-2. Electrical Characteristics**

These data exclude loss that comes from the test board.

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Part Number	D6DA2G655K2F1	Version 1.1aaA	Final

Tx Port

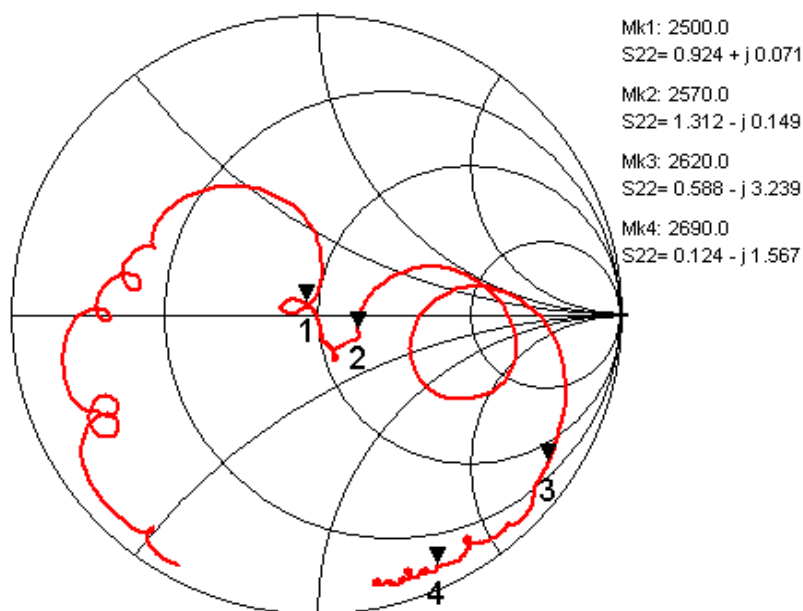
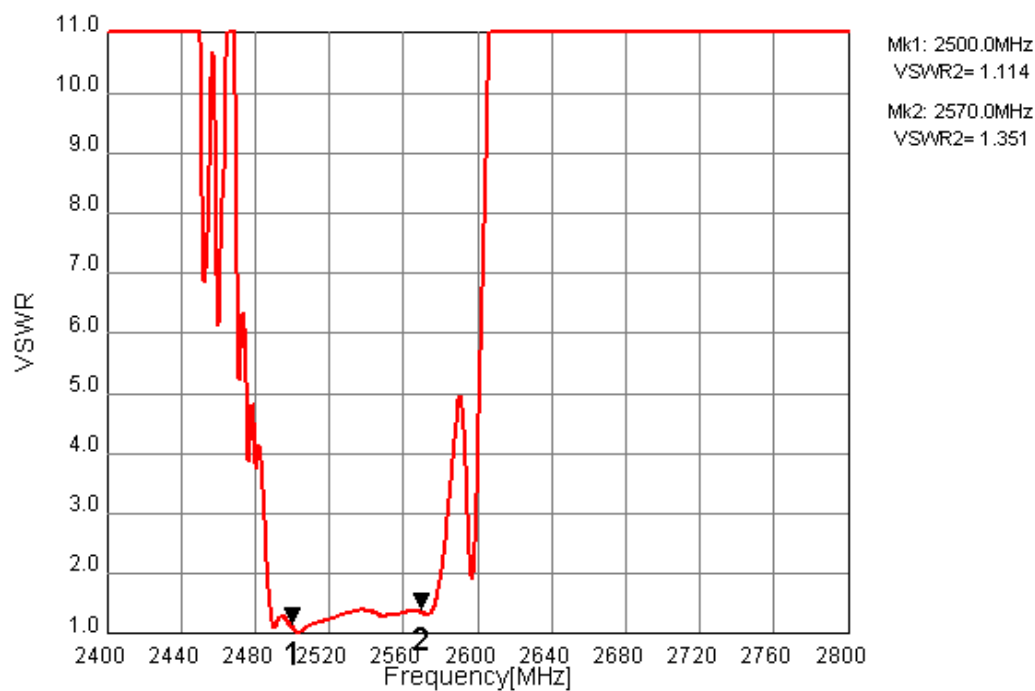


Figure 4-3. Electrical Characteristics



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Part Number	D6DA2G655K2F1	Version 1.1aaA	Final

Rx Port

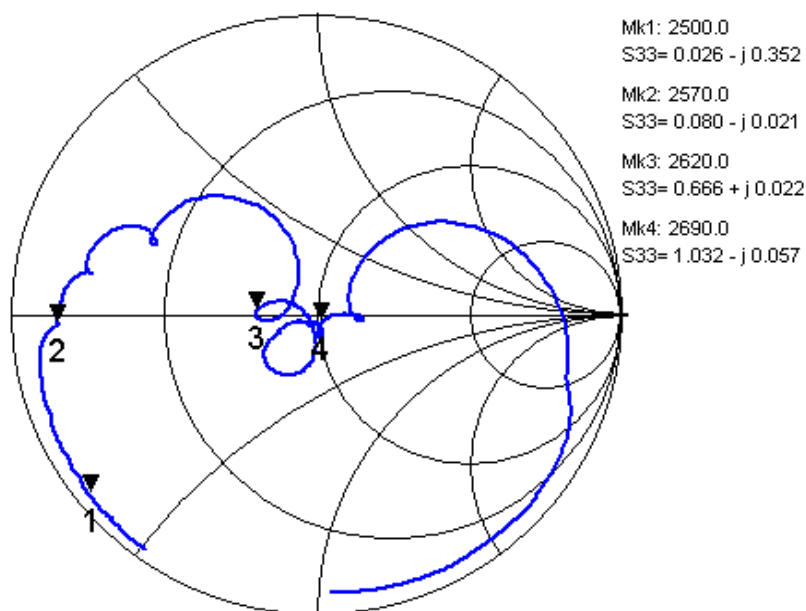
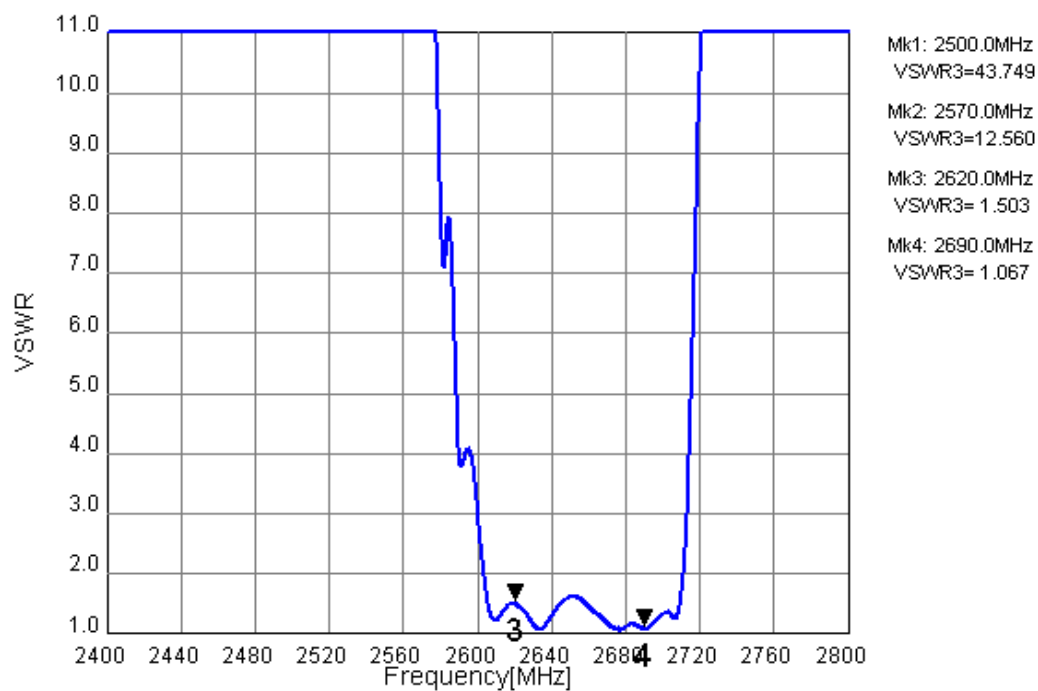


Figure 4-4. Electrical Characteristics



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Ant Port

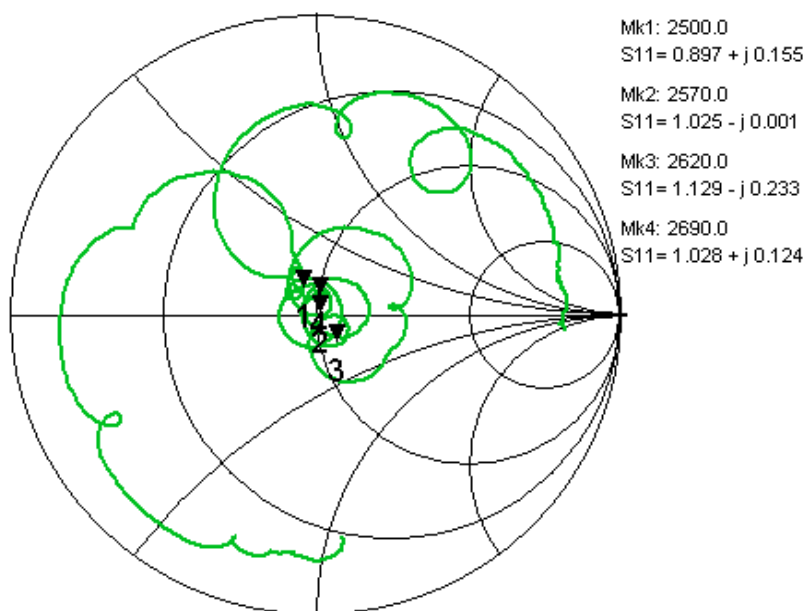
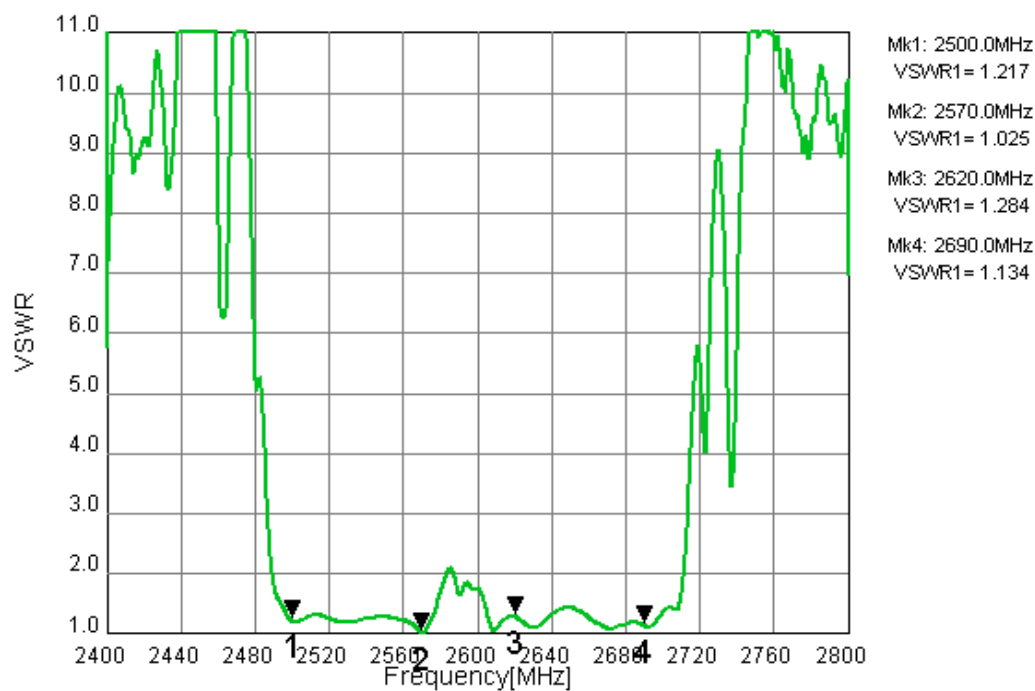


Figure 4-5. Electrical Characteristics



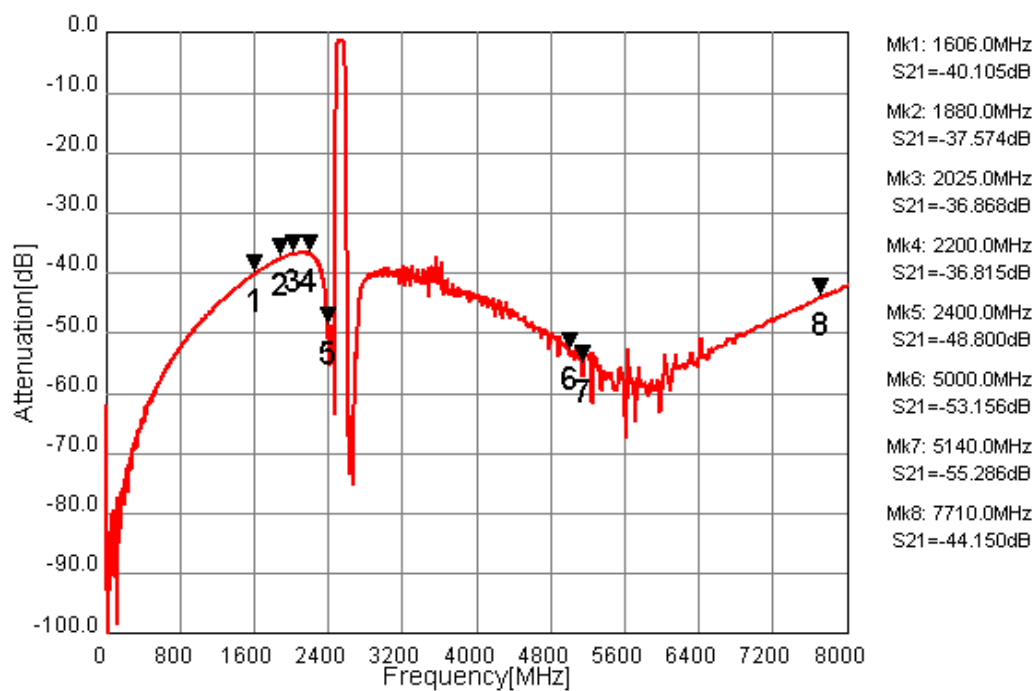
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Tx to Ant (Wide span)



Ant to Rx (Wide span)

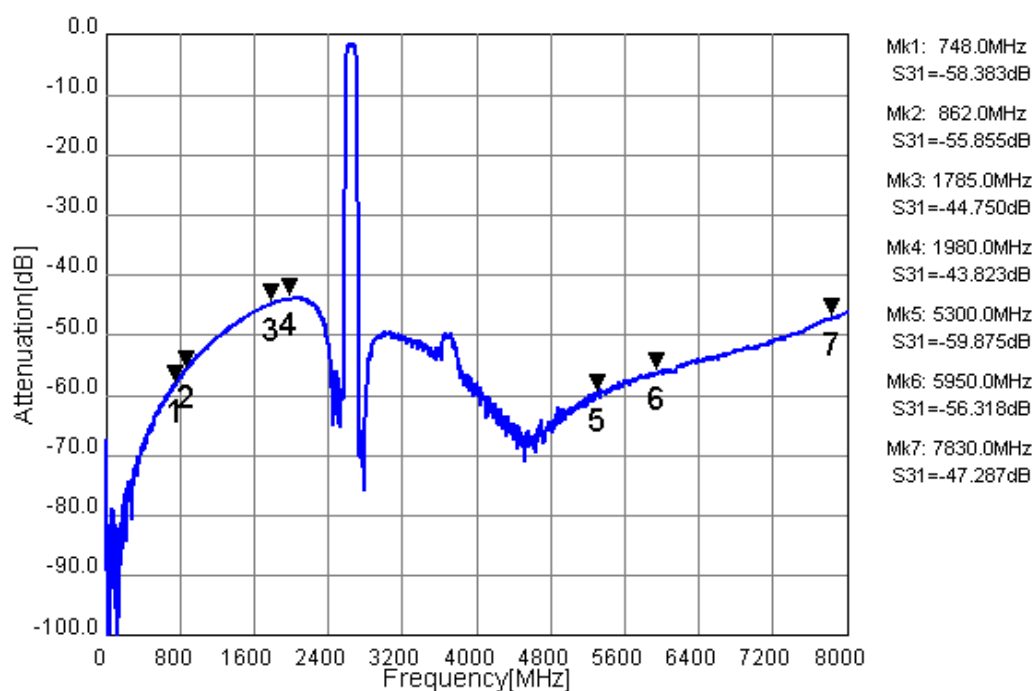


Figure 4-6. Electrical Characteristics



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MSL1

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Part Number	D6DA2G655K2F1	Version 1.1aaA	Final

Tx to Rx Isolation (Wide span)

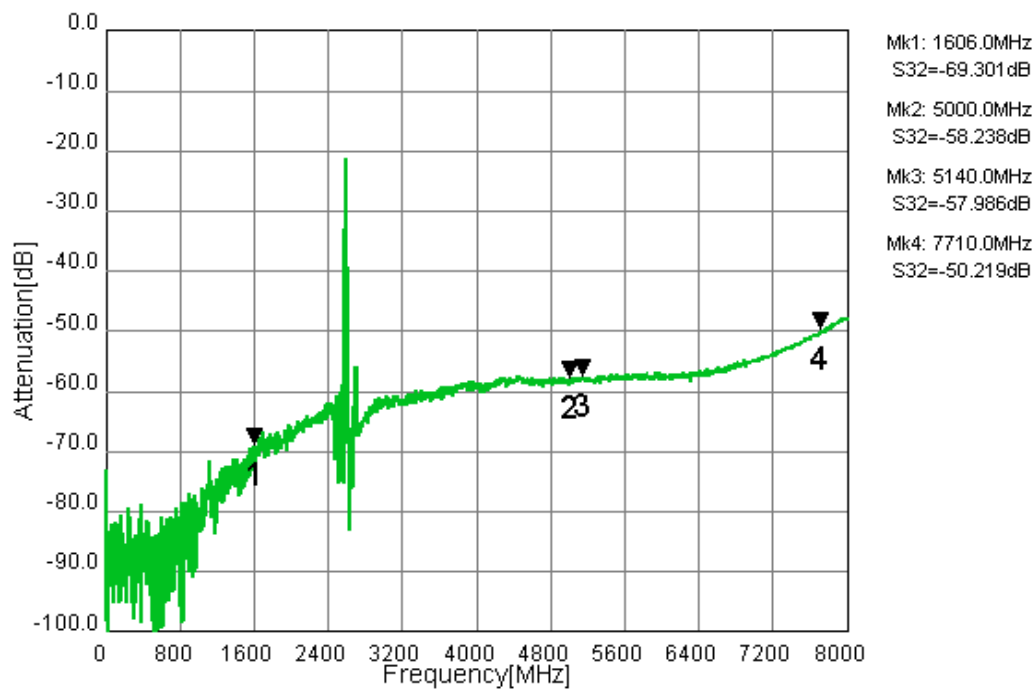


Figure 4-7. Electrical Characteristics



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Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
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Ordering Code

Ordering Code	Packing	Reel size	Status
D6DA2G655K2F1-Z	Tape & Reel	3,000 pcs.	MP
D6DA2G655K2F1-ZA	Tape & Reel	less than 3,000 pcs.	MP
D6DA2G655K2F1-Y	Tape & Reel	15,000 pcs.	MP
D6DA2G655K2F1-YA	Tape & Reel	less than 15,000 pcs.	MP
D6DA2G655K2F1-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 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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