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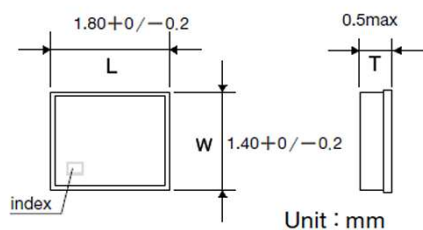
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

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# FBAR/SAW Devices (SAW Duplexers)

## D6DA2G132K2D9



### ■ Features

- Item Summary  
SAW, Duplexer, 1.8x1.4x0.5mm  
Band 4 / BC15
- Lifecycle Stage  
Mass Production
- Standard packaging quantity (minimum)  
Taping Embossed 3000 , 15000pcs

### ■ Products characteristics table

System	W-CDMA / CDMA / LTE
Type	SAW
Function	Duplexer
band	Band 4 / BC15
Insertion Loss (typ) (Tx-ANT/ANT-Rx)	1.6/1.8 dB
Isolation (typ)	60/56 dB
Operating Temp. Range	-20 to +85 °C
RoHS2 Compliance (10 subst.)	Yes
REACH Compliance (173 subst.)	Yes
Halogen Free	Yes
Soldering	Reflow

### ■ External Dimensions

Dimension L	1.8 + 0/- 0.20 mm
Dimension W	1.4 + 0/- 0.20 mm
Dimension T	Max 0.5 mm

2017.04.30

The data is reference only. Electrical characteristics vary depending on environment or measurement condition.  
 TAIYO YUDEN reserves the right to make change to the Date at any time without notice.  
 Before making final selection, please check product specification.



\* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 4 Duplexer	Date	Feb. 16, 2016
Part Number	D6DA2G132K2D9	Version 1.0fgE	Final

**Table 1. Electrical Specification**

Item		Condition (MHz)	Specification			Unit	Remarks	
			Min	Typ	Max			
Tx to Ant	Insertion loss	1710~1755	-	1.6	2.0	dB (*1)		
	Ripple	1710~1755	-	0.6	1.2	dB		
	VSWR	Tx Ant	1710~1755	-	1.4	2.0	-	
				-	1.5	2.0	-	
	Input power	1710~1755	+29dBm, Ta=+50°C 50kh, CW			dBm	Support LTE	
	Absolute attenuation	1559~1585.42	38	42	-	dB		
		2110~2155	45	50	-	dB		
2400~2500		35	43	-	dB			
3420~3510		30	38	-	dB			
5130~5265		15	28	-	dB			
Ant to Rx	Insertion loss	2110~2155	-	1.8	2.2	dB (*1)		
	Ripple	2110~2155	-	0.5	1.0	dB		
	VSWR	Ant Rx	2110~2155	-	1.5	2.0	-	
				-	1.6	2.0	-	
	Absolute attenuation	1710~1755	45	56	-	dB		
		2400~2500	35	44	-	dB		
3820~3910		40	49	-	dB			
Tx to Rx	Isolation	1710~1755	55	60	-	dB		
		2110~2155	50	56	-	dB		
Terminating Impedance		Tx port	50 // 9.1nH			Ω		
		Rx port	50			Ω		
		Ant port	50 // 3.3nH			Ω		
Operating Temperature		-20 to +85			°C			
Maximum DC in all ports		-	-	3	VDC			
DC impedance to ground		100			MΩ	Device only		
Device size (L typ.x W typ.x H max.)		1.8 x 1.4 x 0.5			mm			

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



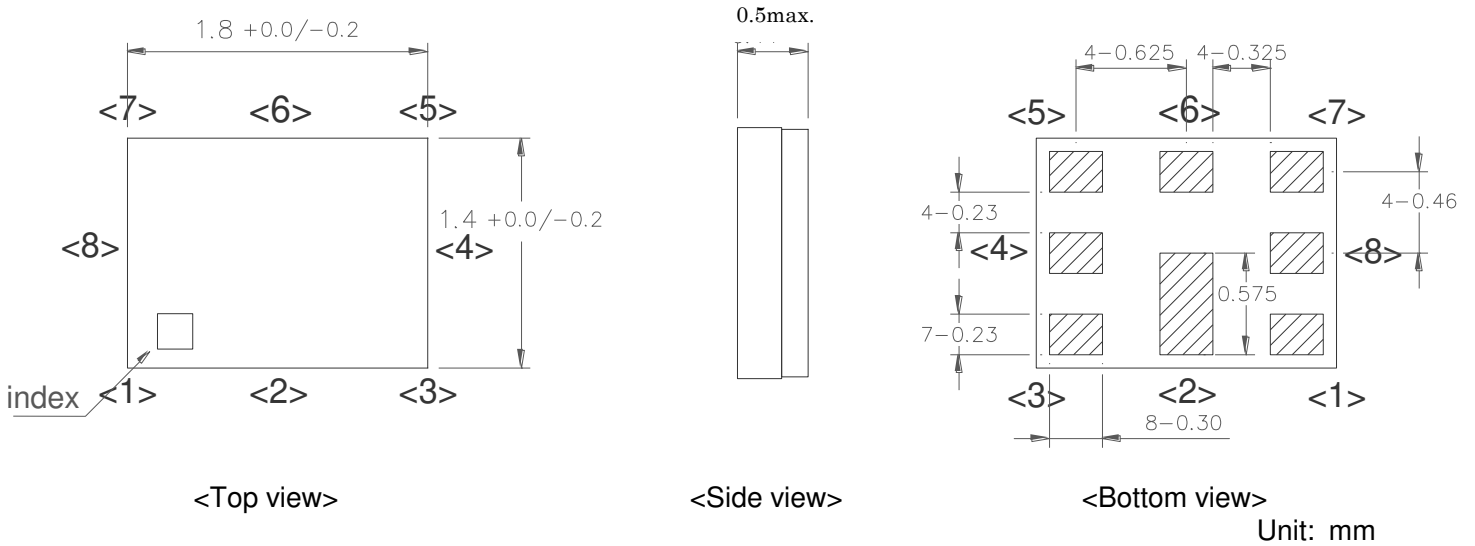
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### Dimensions



### 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

**Figure 1. Dimensions and Pin assignment**



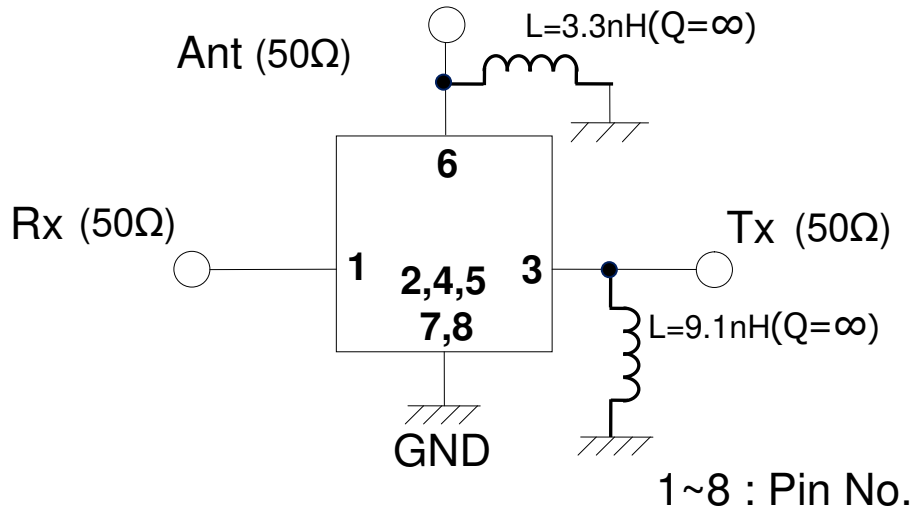
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### Evaluation Circuit



### Recommended foot print pattern

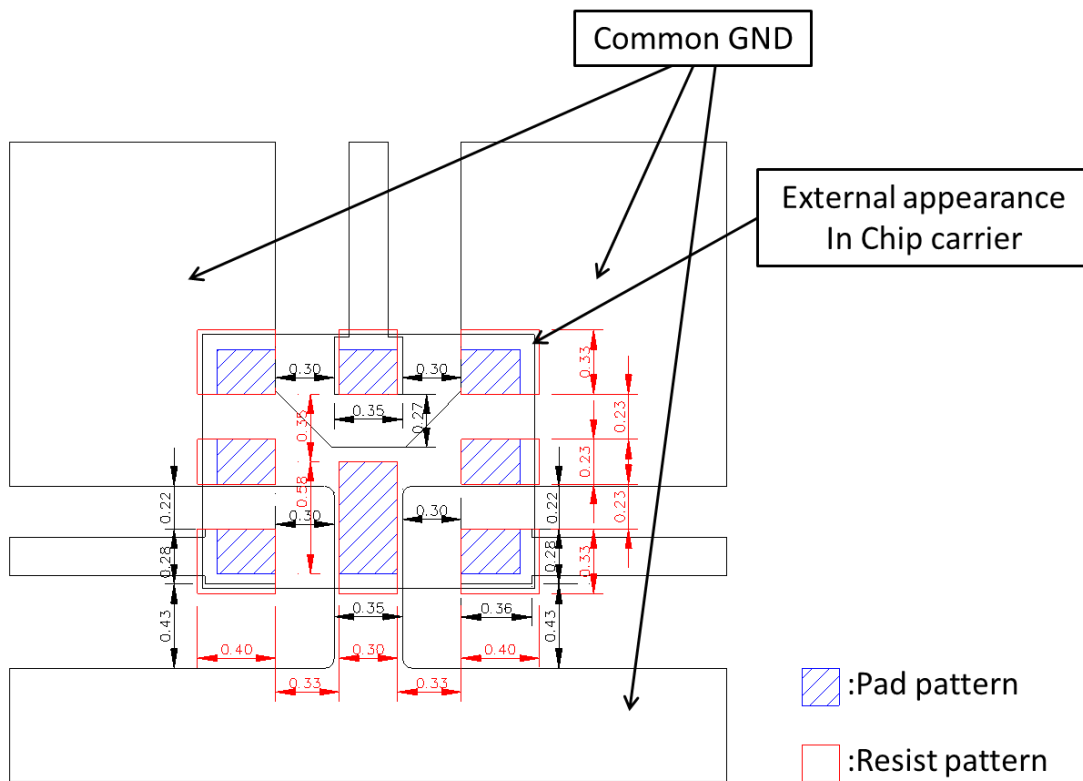


Figure 2. Recommended foot print pattern



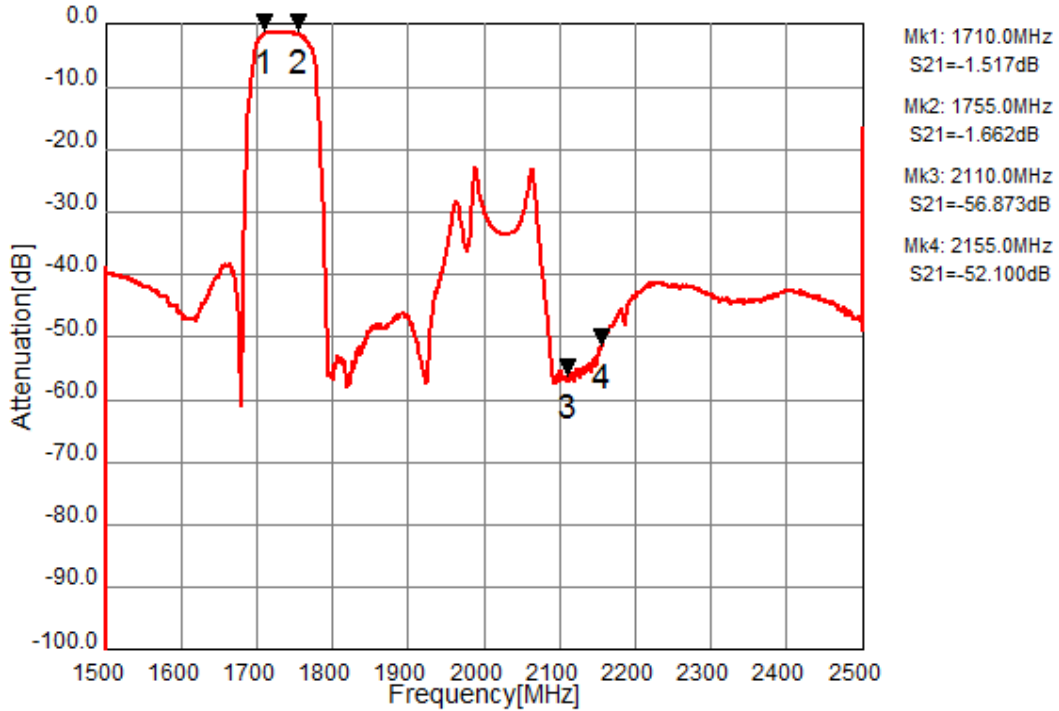
\* Pb Free Part



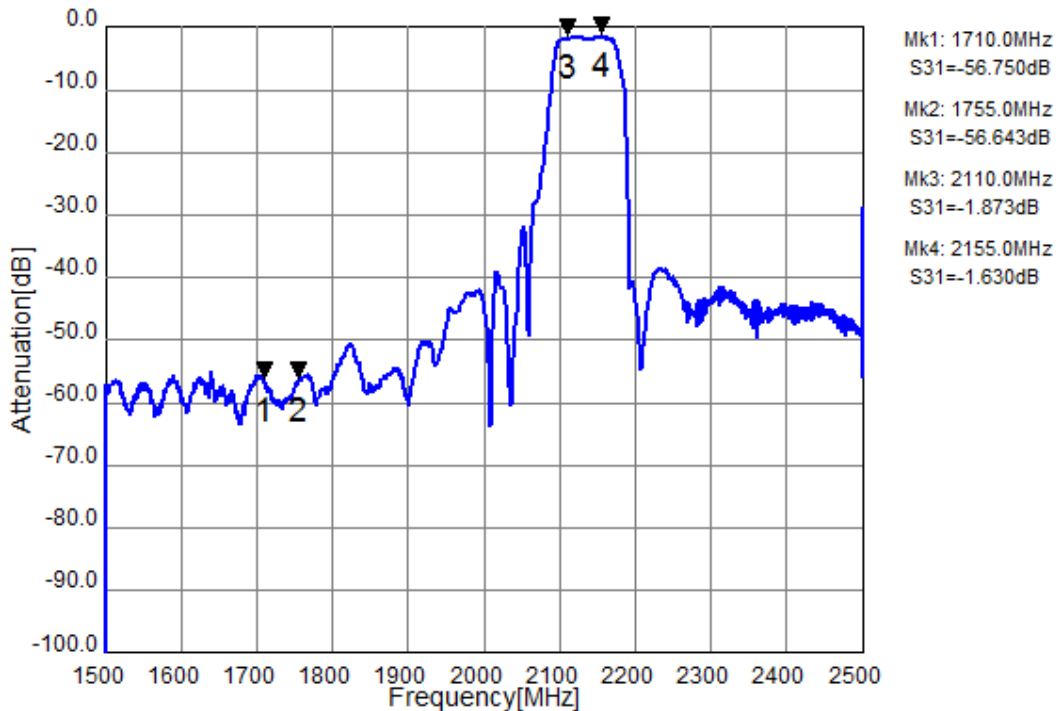
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### Tx to Ant



### Ant to Rx



**Figure 3-1. Electrical Characteristics**

These data **exclude** loss that comes from the test board.



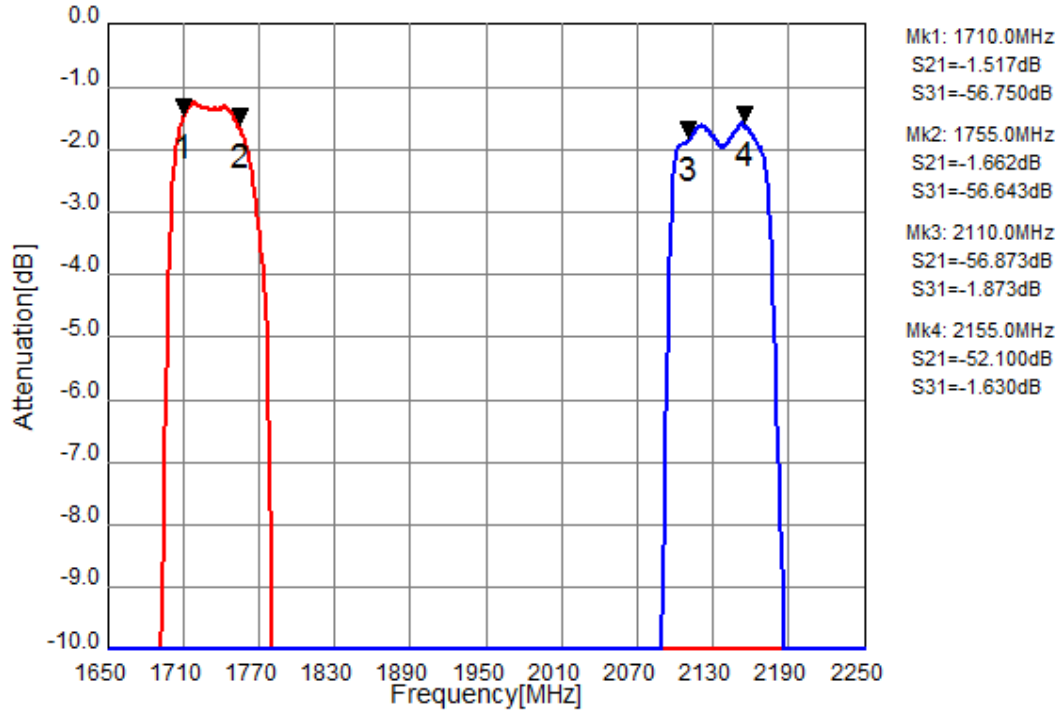
\* Pb Free Part



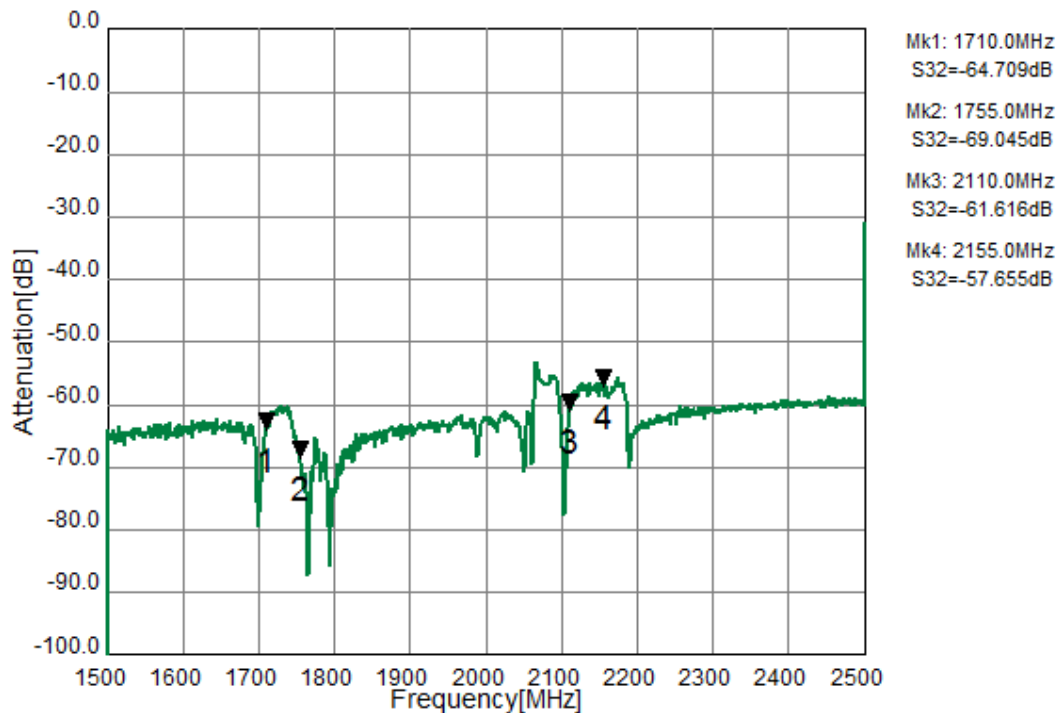
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## Tx to Ant, Ant to Rx



## Tx to Rx Isolation



**Figure 3-2. Electrical Characteristics**

These data **exclude** loss that comes from the test board.



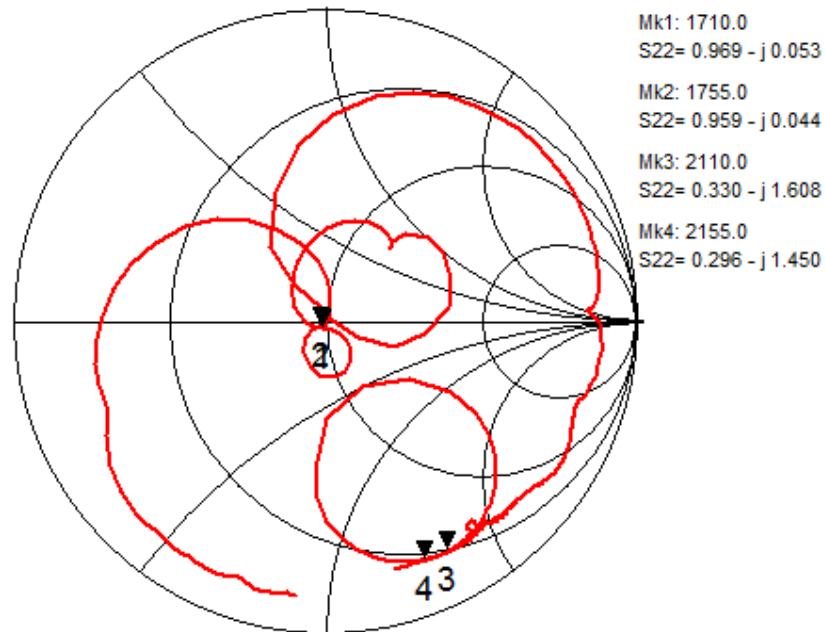
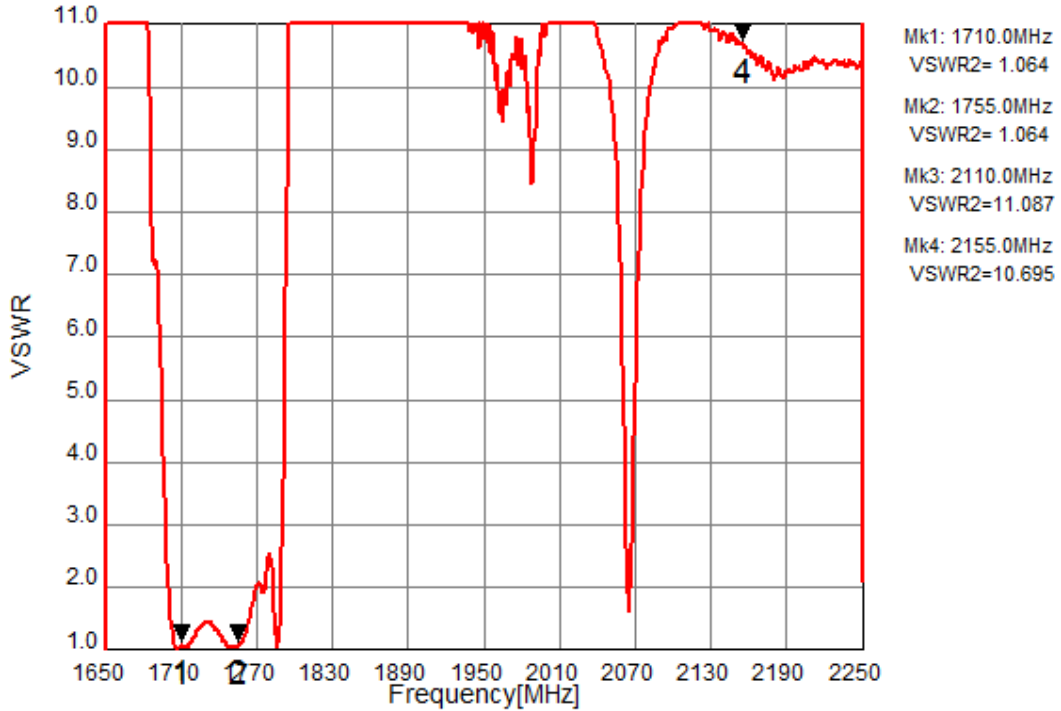
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## Tx Port



**Figure 3-3. Electrical Characteristics**





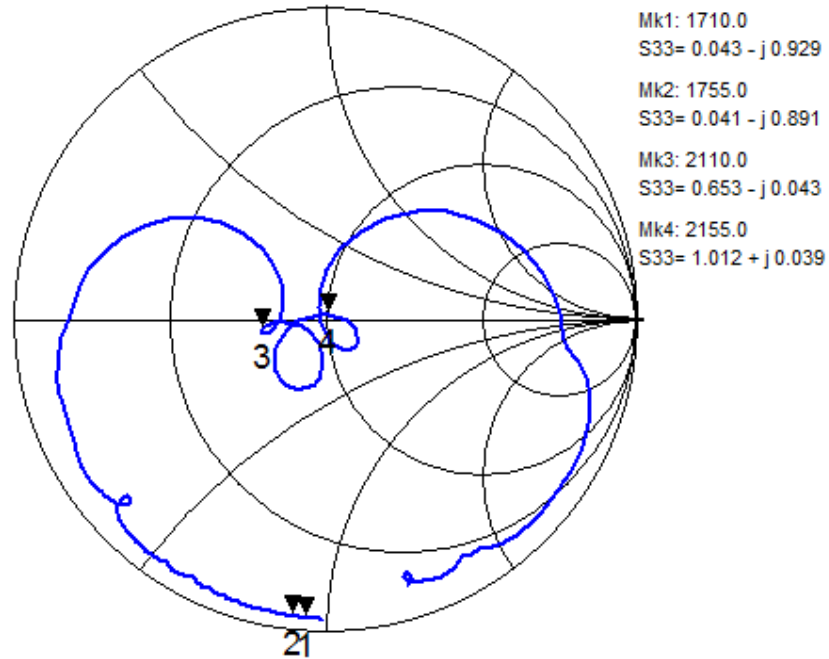
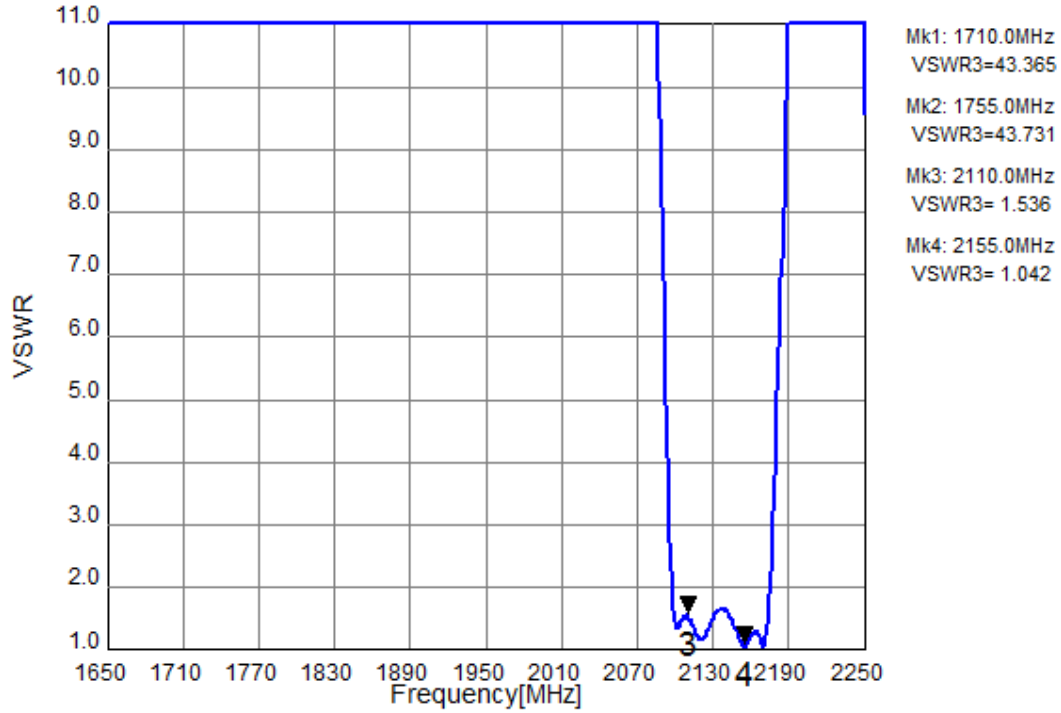
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## Rx Port



**Figure 3-4. Electrical Characteristics**



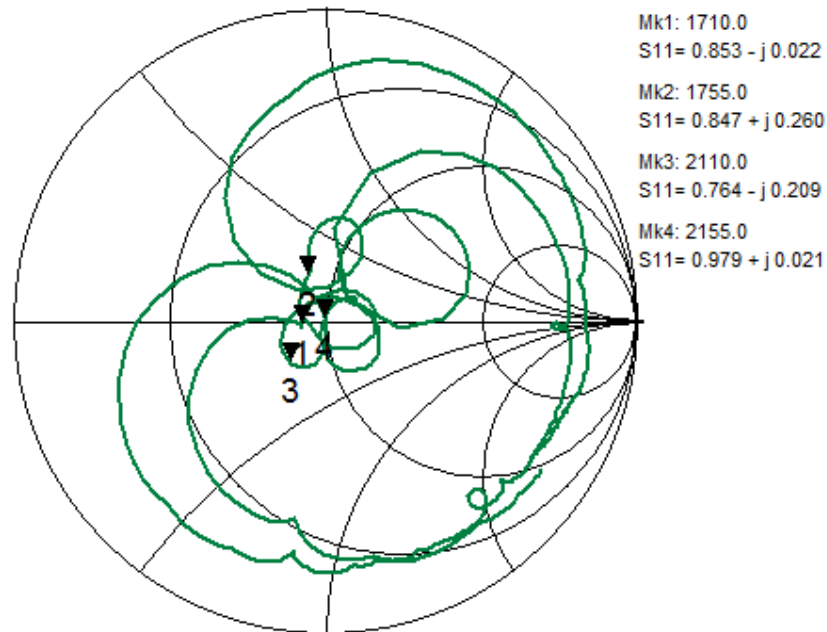
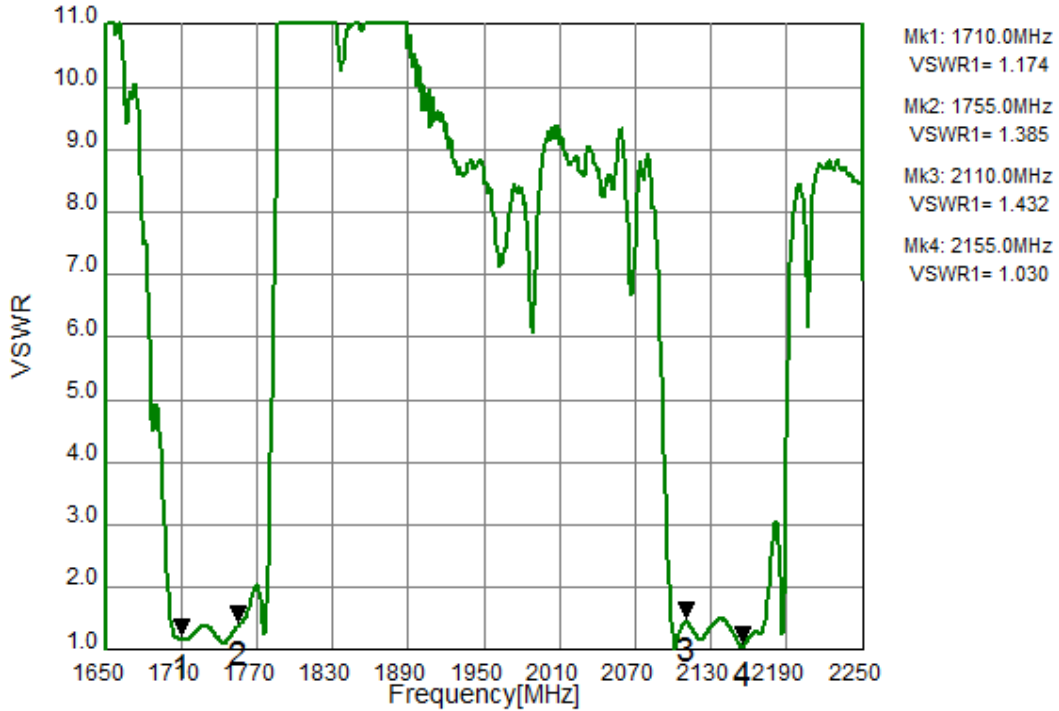
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## Ant Port



**Figure 3-5. Electrical Characteristics**



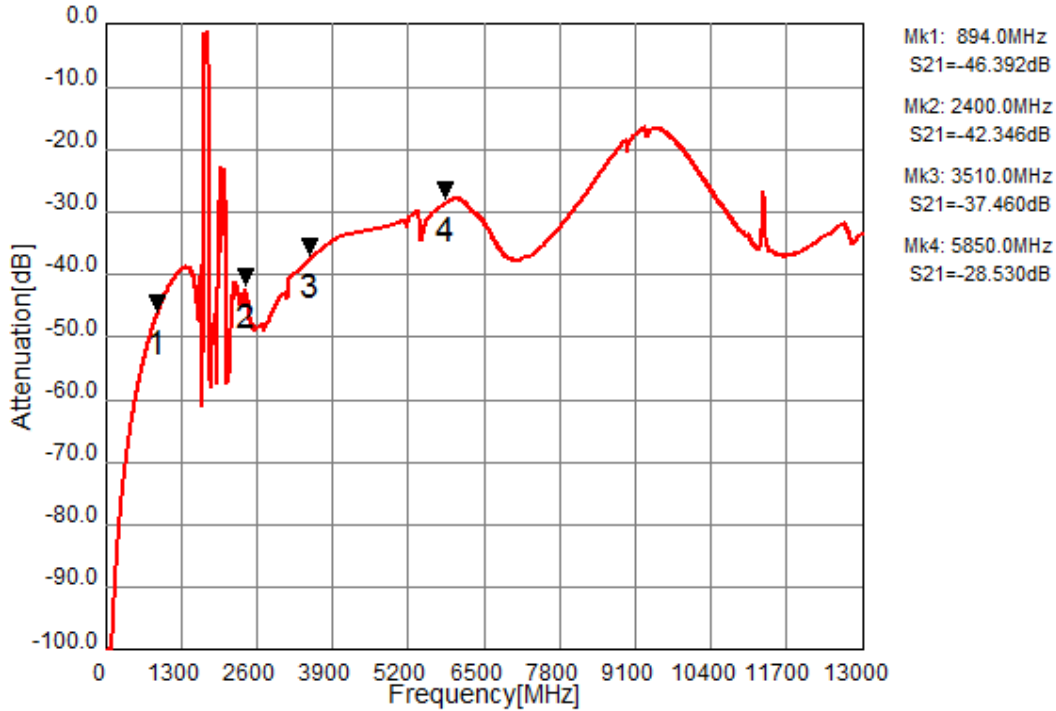
\* Pb Free Part



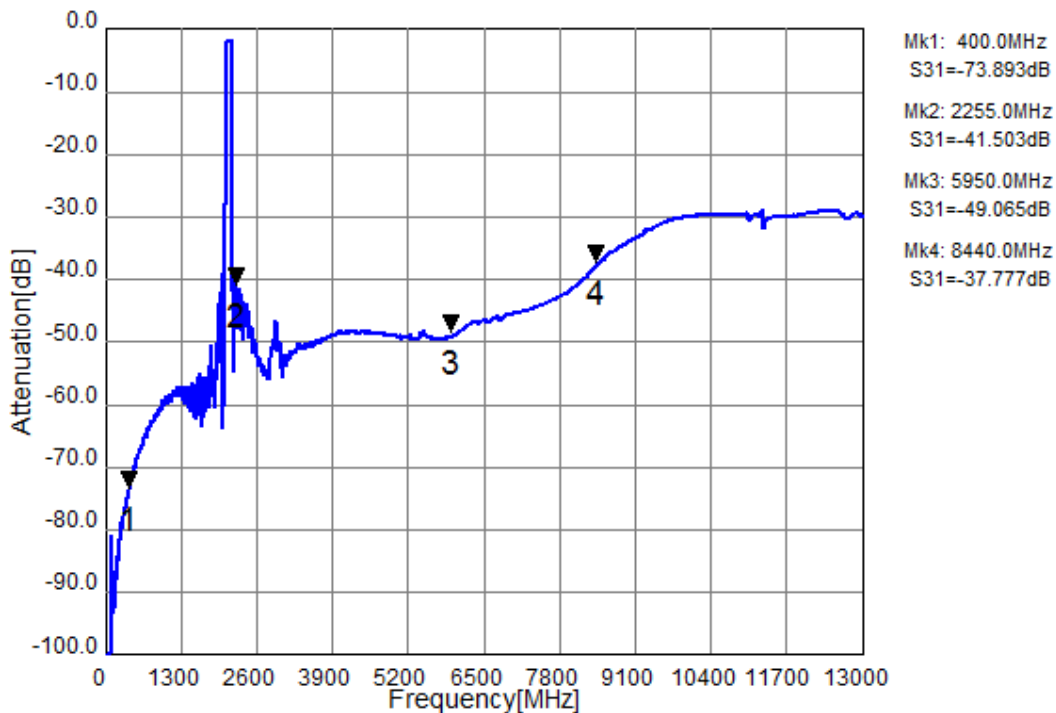
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Part Number	D6DA2G132K2D9	Version 1.0fgE	Final

### Tx to Ant (Wide span)



### Ant to Rx (Wide span)



**Figure 3-6. Electrical Characteristics**

### Ordering Code

**TAIYO YUDEN**



\* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 4 Duplexer	Date	Feb. 16, 2016
Part Number	D6DA2G132K2D9	Version 1.0fgE	<b>Final</b>

Ordering Code	Packing	Reel size	Status
D6DA2G132K2D9-Z	Tape & Reel	3,000 pcs.	MP
D6DA2G132K2D9-ZA	Tape & Reel	less than 3,000 pcs.	MP
D6DA2G132K2D9-Y	Tape & Reel	15,000 pcs.	MP
D6DA2G132K2D9-YA	Tape & Reel	less than 15,000 pcs.	MP
D6DA2G132K2D9-Q	Bulk	few pcs.	MP

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

\*MP : Mass Production

## **Notice**

All of the contents specified herein are subject to change without notice due to technical improvements, etc.

Please contact Taiyo Yuden Co., Ltd. for further details of product specifications.

Please conduct validation and verification of products in actual condition of mounting and operating environment before commercial shipment of the equipment.

This product is for general electronics equipment such as Audio-Visual equipment, household electronics, office supplies, information services and telecommunications; therefore, in case this product is used for any medical equipment, space equipment, nuclear equipment or disaster prevention equipment, please contact Taiyo Yuden in advance.

In case this product is used for general electronics equipment or circuits which require high safety and high reliability, thoroughly evaluate on safety and add a protection circuit if necessary.