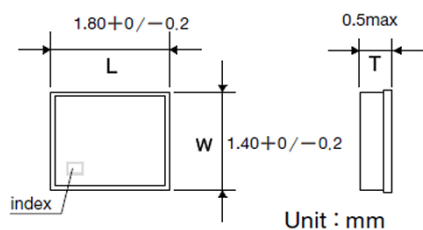


FBAR/SAW Devices (SAW Duplexers)

D6DA2G140K2A7



■ Features

- Item Summary
SAW, Duplexer, 1.8x1.4x0.5mm
Band 1 / BC 6
- 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 1 / BC 6
Insertion Loss (typ) (Tx-ANT/ANT-Rx)	1.6/1.7 dB
Isolation (typ)	58/59 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 1 Duplexer	Date	Oct.15, 2015
Part Number	D6DA2G140K2A7	Ver.1.1ghE	Final

Table 1. Electrical Specification

Item		Condition (MHz)	Specification			Unit	Remarks	
			Min	Typ	Max			
Tx to ANT	Insertion loss	1920.48~1979.52	-	1.6	2.2	dB (*1)		
	Ripple	1920.48~1979.52	-	0.7	1.4	dB		
	VSWR	Tx	1920.48~1979.52	-	1.6	2.1	-	
		ANT		-	1.4	2.0	-	
	Input power	1920.48~1979.52	29dBm, Ta+50deg.C, 10000h,CW			-		
	Absolute attenuation	1559~1563	37	41	-	dB		
		1565~1606	37	40	-	dB		
1805~1880		10	25	-	dB			
2110~2170		44	58	-	dB			
2400~2500		33	38	-	dB			
3840~3960	25	34	-	dB				
ANT to Rx	Insertion loss	2110.48~2169.52	-	1.7	2.2	dB (*1)		
	Ripple	2110.48~2169.52	-	0.6	1.4	dB		
	VSWR	ANT	2110.48~2169.52	-	1.6	2.0	-	
		Rx		-	1.7	2.2	-	
	Absolute attenuation	190	50	81	-	dB	Rx-Tx	
		1730~1790	40	46	-	dB	2Tx -Rx	
		1920~1980	45	55	-	dB		
		1980~2015	15	50	-	dB		
2015~2075		18	26	-	dB	(Rx+Tx)/2		
2400~2500		35	44	-	dB			
4030~4150	40	51	-	dB	Rx+Tx			
5950~6130	33	41	-	dB	Rx+2Tx			
Tx to Rx	Isolation	1920.48~1979.52	54	58	-	dB		
	2110.48~2169.52	55	59	-	dB			
Terminating Impedance	Tx port	50 // 15nH			Ω			
	Rx port	50			Ω			
	Ant port	50 // 2.7nH			Ω			
Operating Temperature	-20 to +85			°C				
Maximum DC in all ports	-	-	3	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 0.5			mm				

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

TAIYO YUDEN



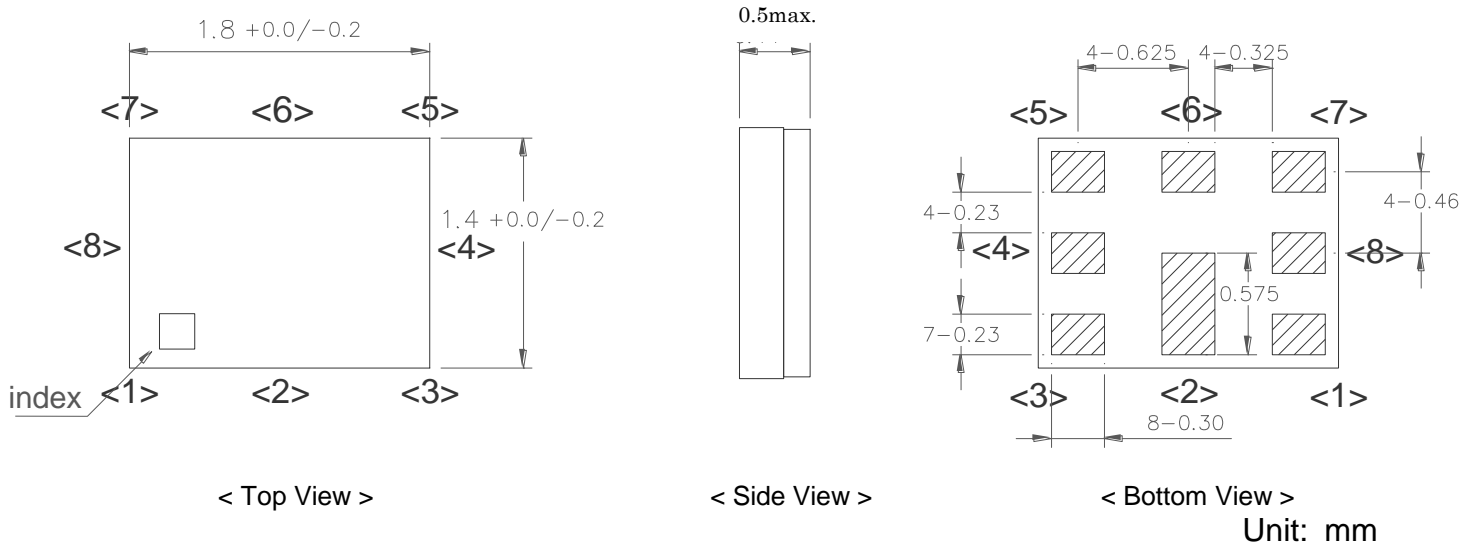
* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 1 Duplexer	Date	Oct.15, 2015
Part Number	D6DA2G140K2A7	Ver.1.1ghE	Final

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



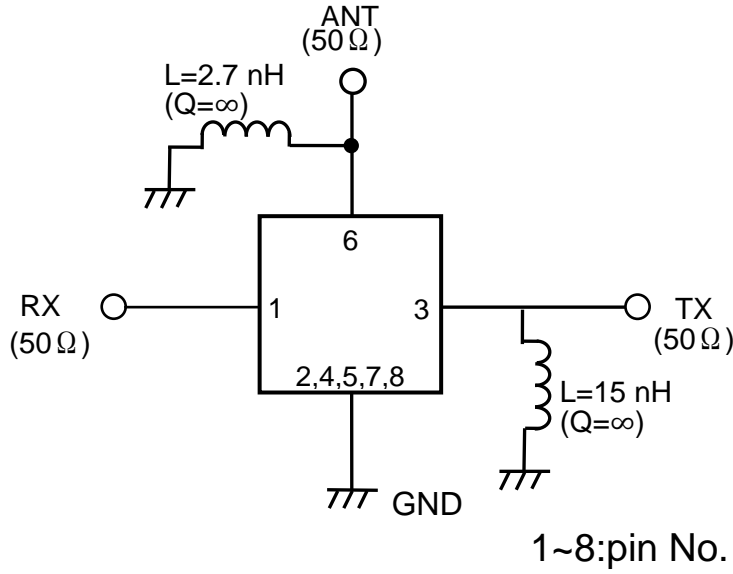
* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
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Part Number	D6DA2G140K2A7	Ver.1.1ghE	Final

Evaluation Circuit



Recommended foot print pattern

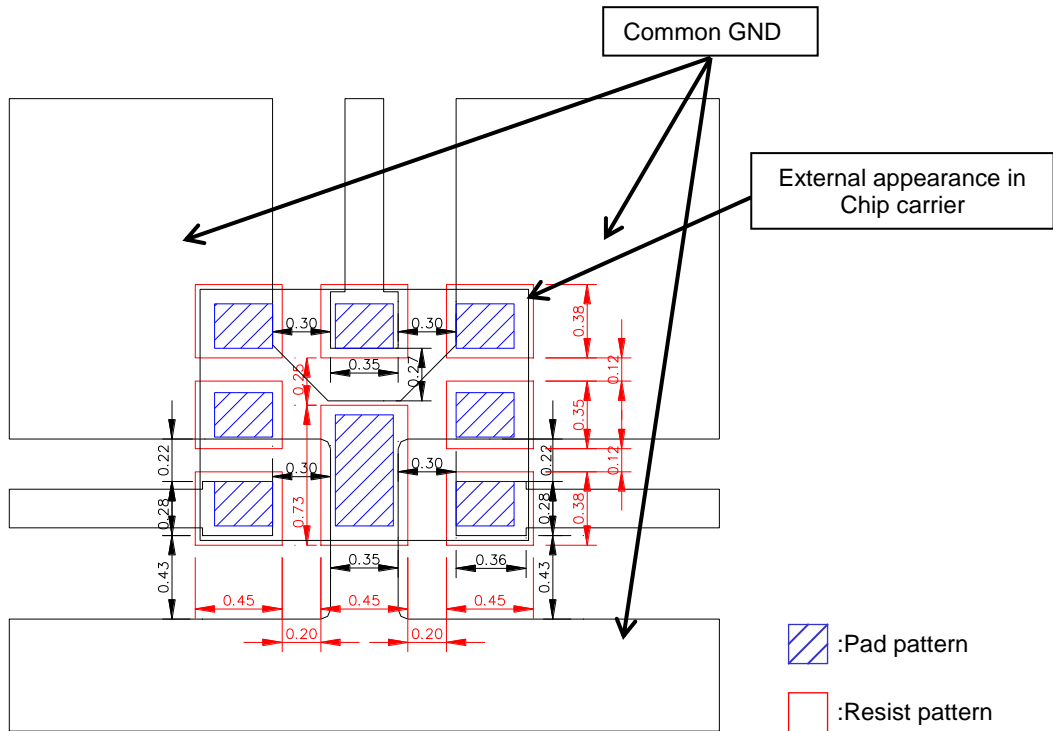


Figure 2. Recommended foot print pattern



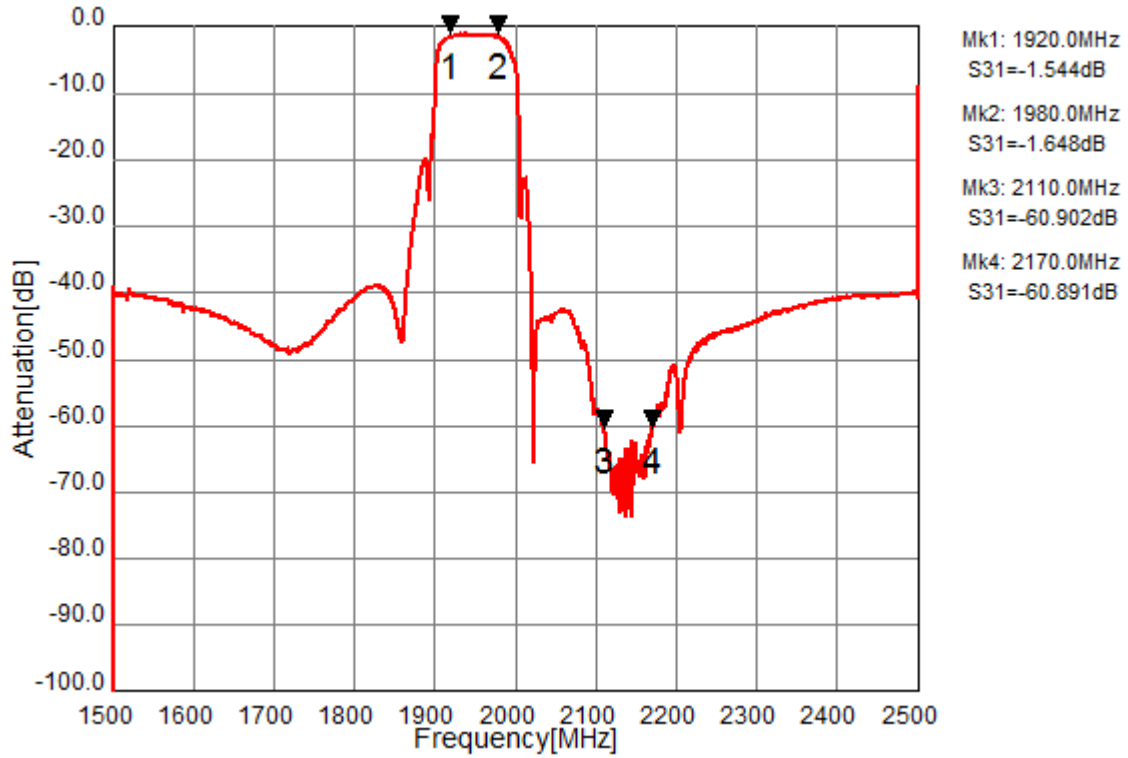
* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 1 Duplexer	Date	Oct.15, 2015
Part Number	D6DA2G140K2A7	Ver.1.1ghE	Final

Tx to Ant



Ant to Rx

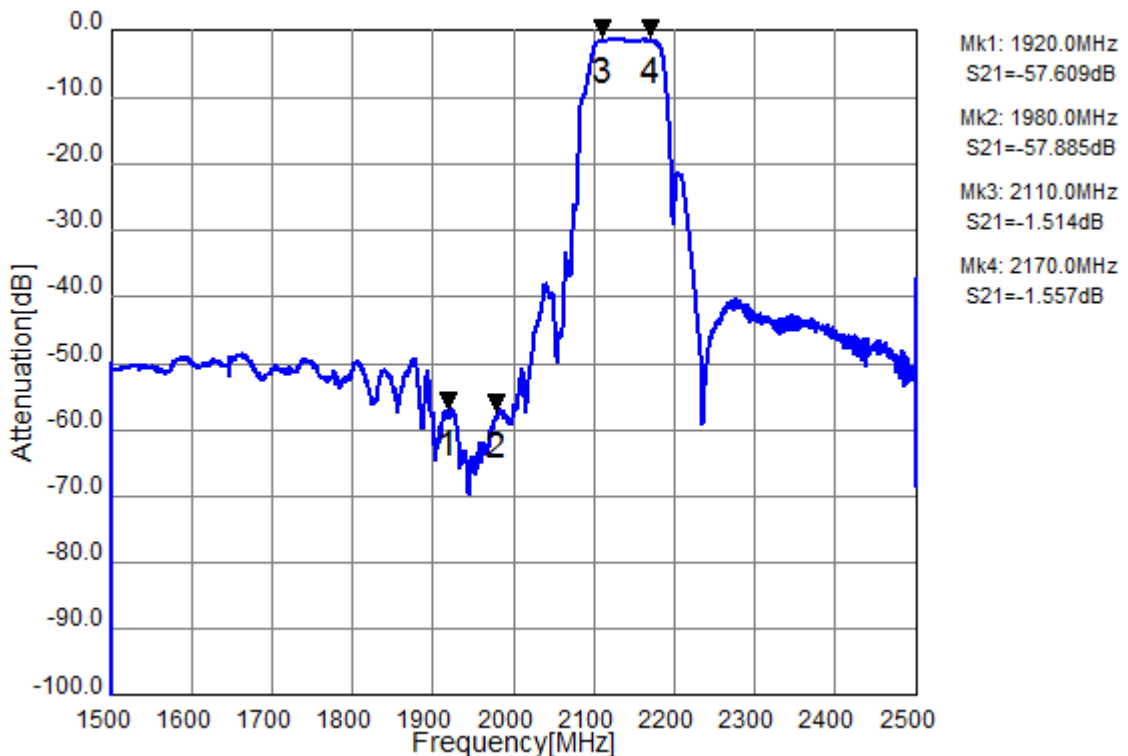


Figure 3-1. Electrical Characteristics

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



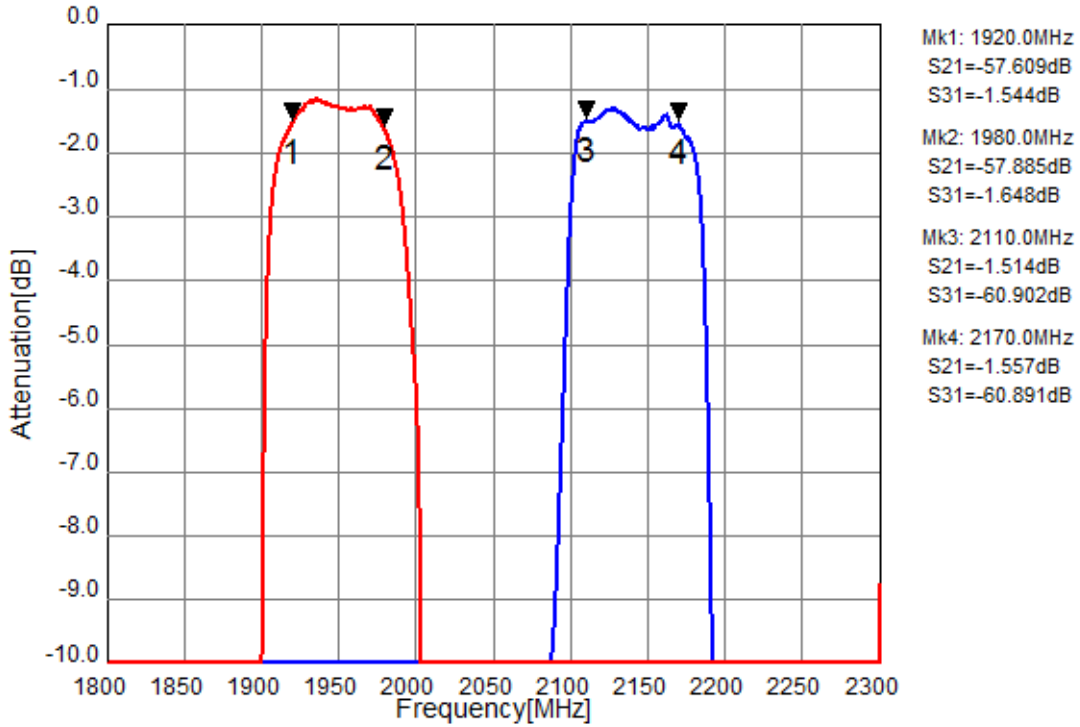
* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 1 Duplexer	Date	Oct.15, 2015
Part Number	D6DA2G140K2A7	Ver.1.1ghE	Final

Tx to Ant, Ant to Rx



Tx to Rx Isolation

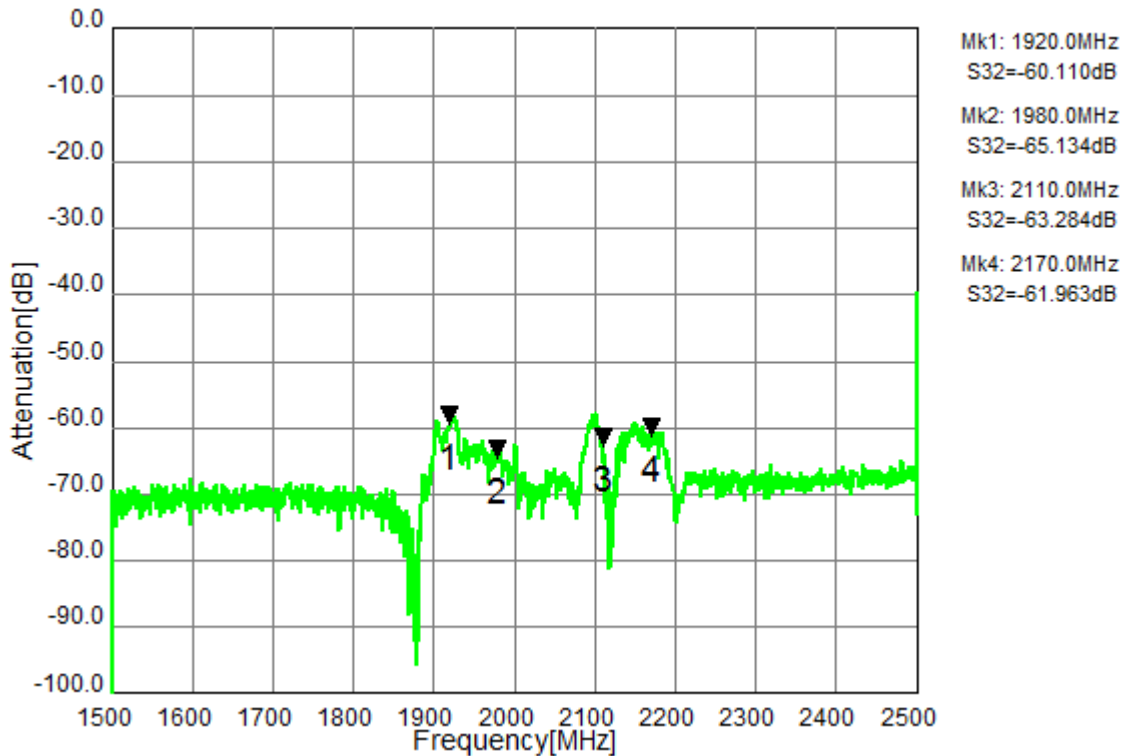


Figure 3-2. Electrical Characteristics

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



* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 1 Duplexer	Date	Oct.15, 2015
Part Number	D6DA2G140K2A7	Ver.1.1ghE	Final

Tx Port

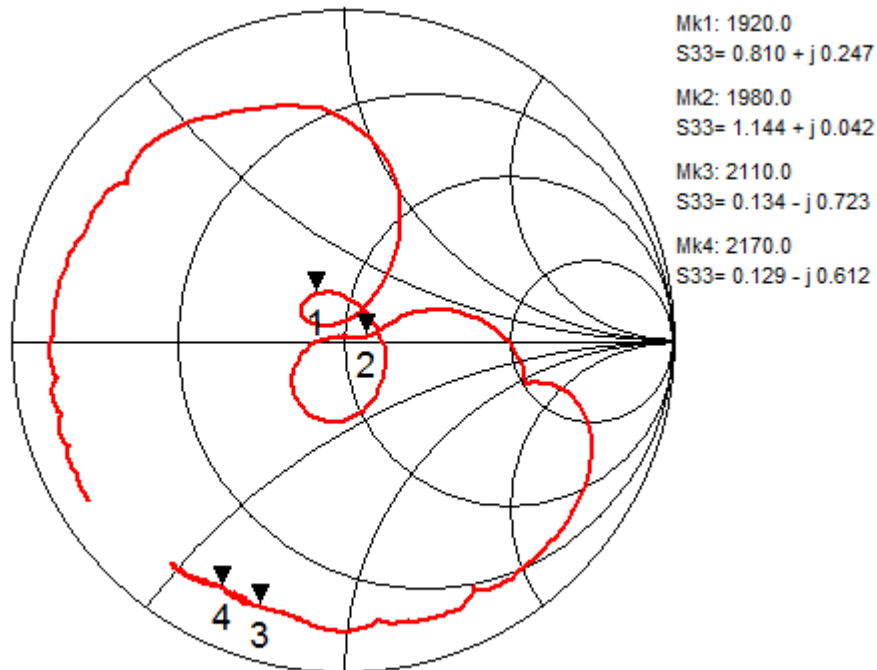
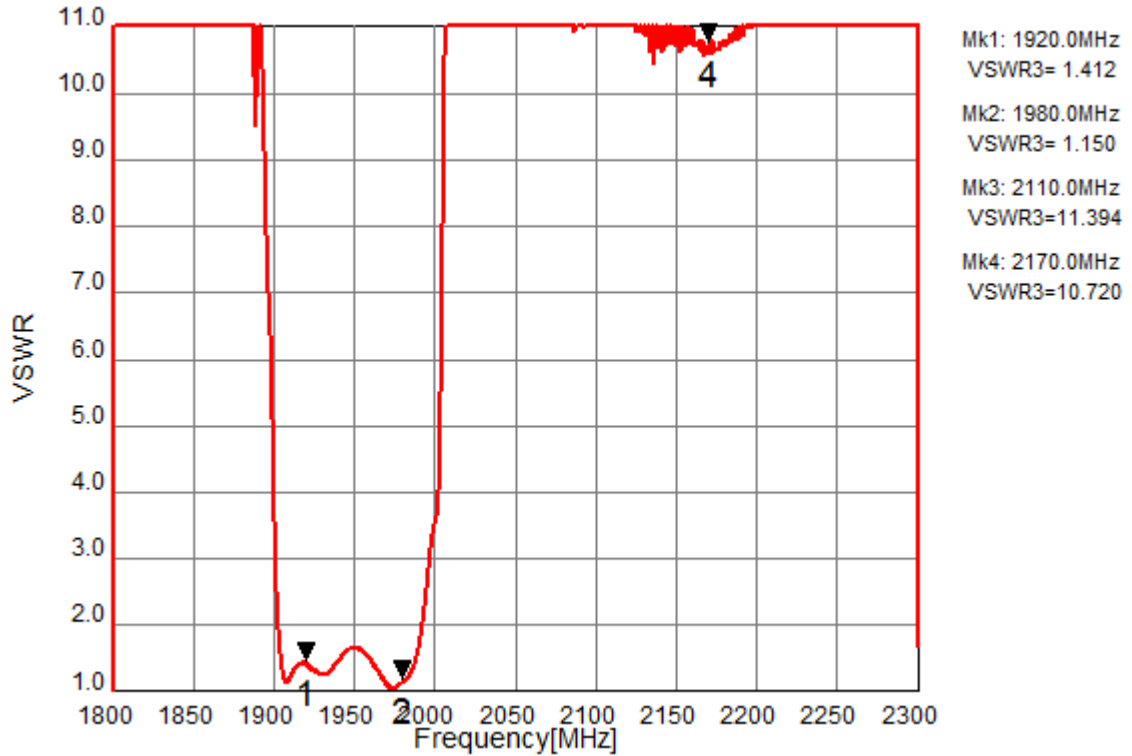


Figure 3-3. Electrical Characteristics



* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 1 Duplexer	Date	Oct.15, 2015
Part Number	D6DA2G140K2A7	Ver.1.1ghE	Final

Rx Port

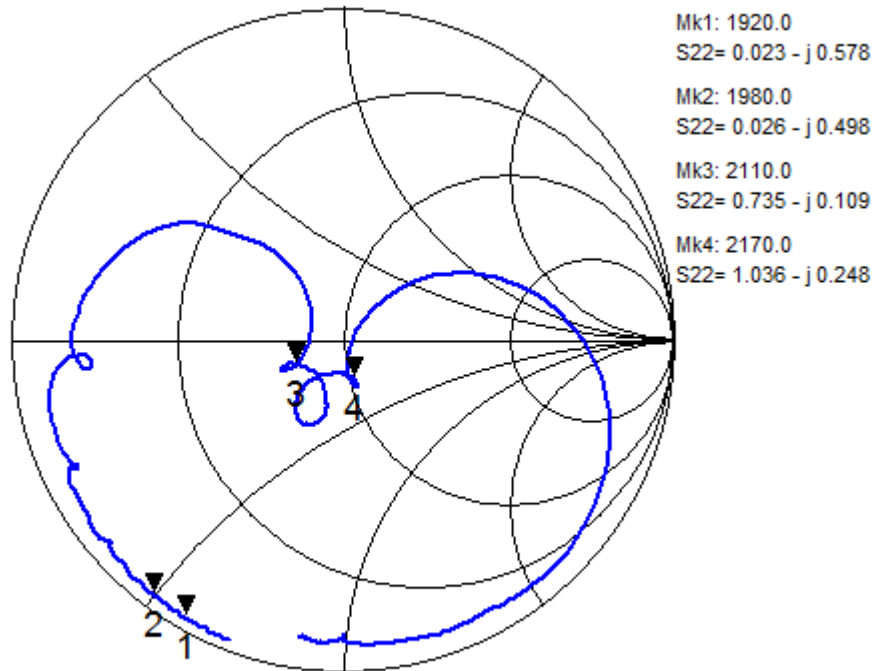
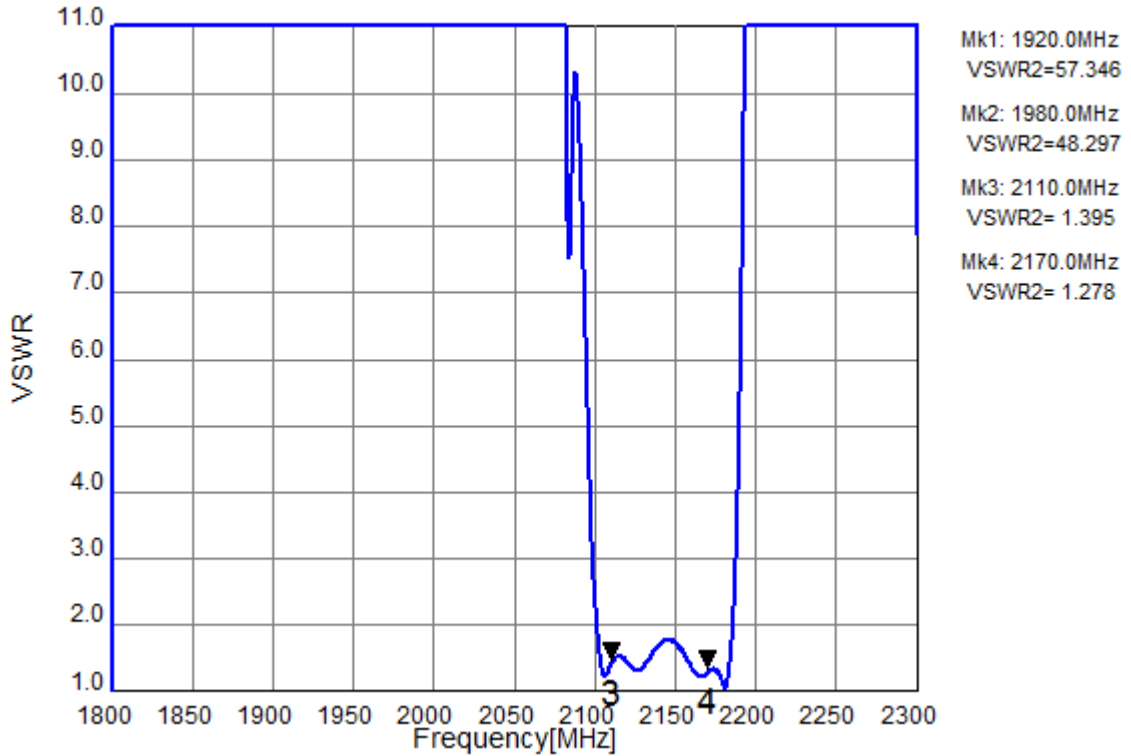


Figure 3-4. Electrical Characteristics



* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 1 Duplexer	Date	Oct.15, 2015
Part Number	D6DA2G140K2A7	Ver.1.1ghE	Final

Ant Port

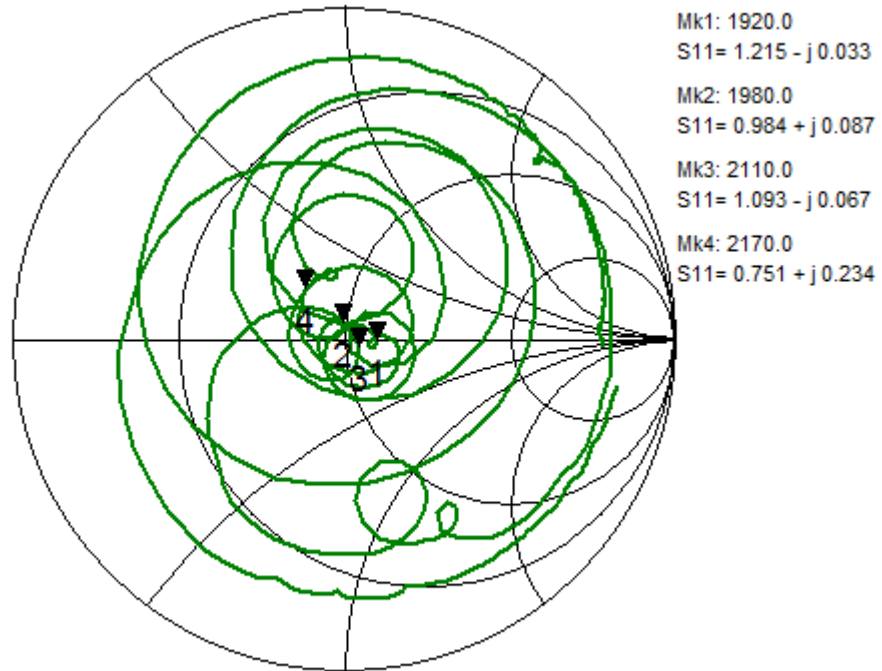
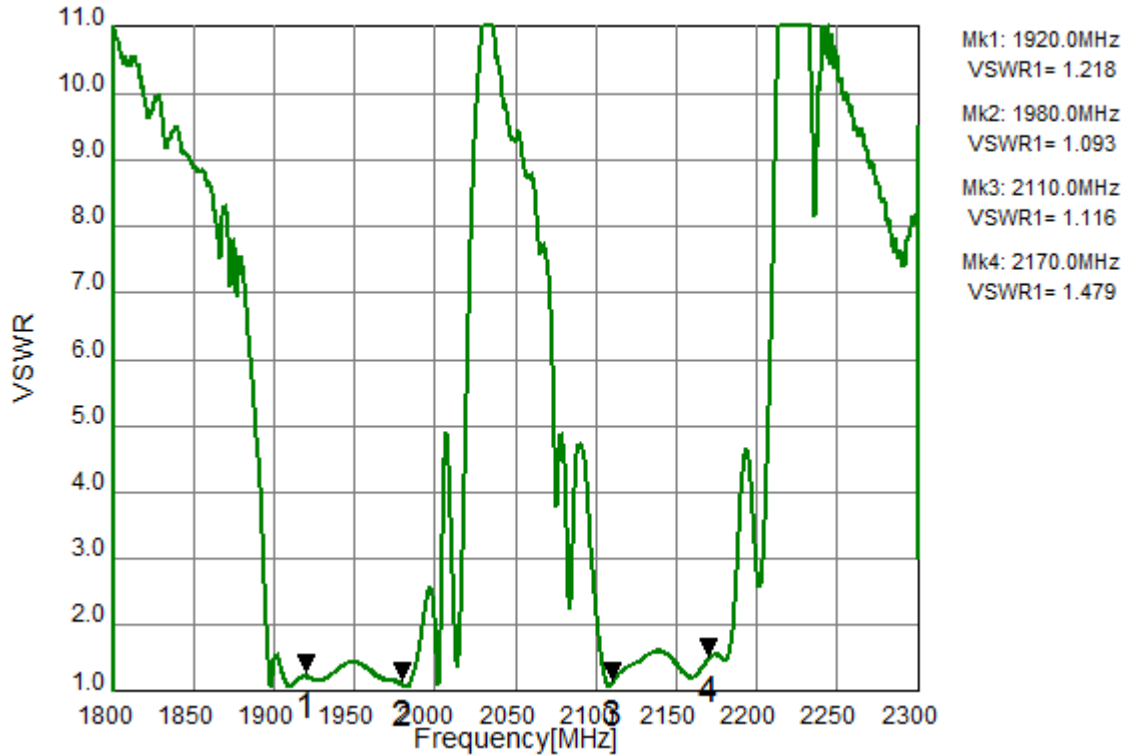


Figure 3-5. Electrical Characteristics



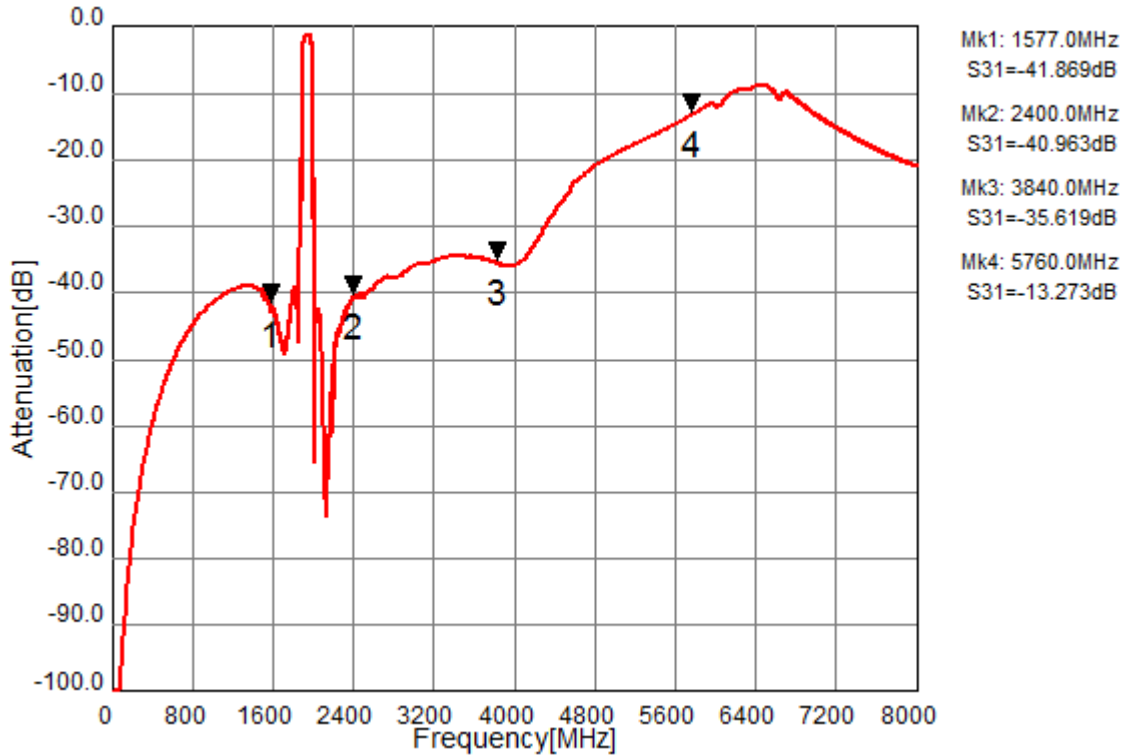
* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 1 Duplexer	Date	Oct.15, 2015
Part Number	D6DA2G140K2A7	Ver.1.1ghE	Final

Tx to Ant (Wide span)



Ant to Rx (Wide span)

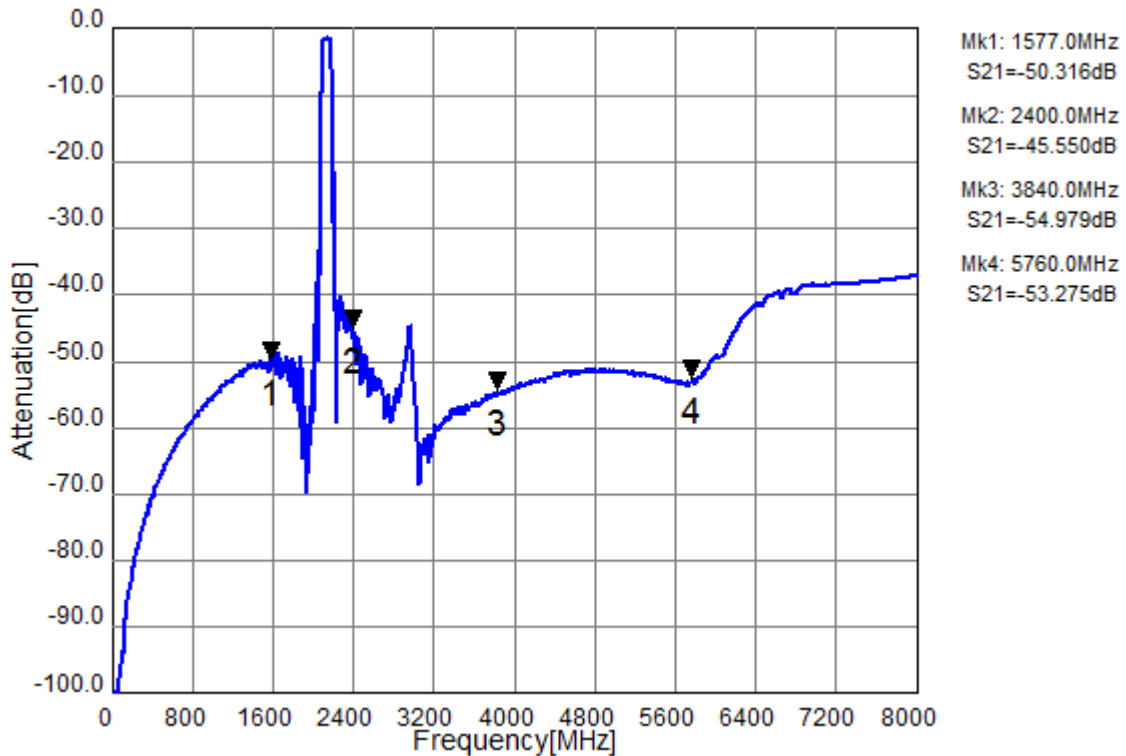


Figure 3-6. Electrical Characteristics



* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 1 Duplexer	Date	Oct.15, 2015
Part Number	D6DA2G140K2A7	Ver.1.1ghE	Final

Ordering Code

Ordering Code	Packing	Reel size	Status
D6DA2G140K2A7-Z	Tape & Reel	3,000 pcs.	MP
D6DA2G140K2A7-ZA	Tape & Reel	less than 3,000 pcs.	MP
D6DA2G140K2A7-Y	Tape & Reel	15,000 pcs.	MP
D6DA2G140K2A7-YA	Tape & Reel	less than 15,000 pcs.	MP
D6DA2G140K2A7-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.