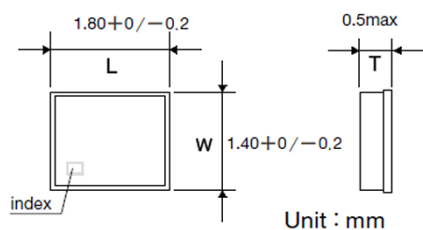


FBAR/SAW Devices (SAW Duplexers)

D5DA782M0K2J6



■ Features

- Item Summary
SAW, Duplexer, 1.8x1.4x0.5mm
Band13
- Lifecycle Stage
Mass Production
- Standard packaging quantity (minimum)
Taping Embossed 3000 , 15000pcs

■ Products characteristics table

System	LTE
Type	SAW
Function	Duplexer
band	Band13
Insertion Loss (typ) (Tx-ANT/ANT-Rx)	1.9/1.7 dB
Isolation (typ)	58/61 dB
Operating Temp. Range	-20 to +85 °C
RoHS2 Compliance (10 subst.)	Yes
REACH Compliance (168 subst.)	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

2017.02.10

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.



MSL1

* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 13 Duplexer	DATE	Jun.11, 2015
Part Number	D5DA782M0K2J6	Version 2.1igC	Final

Table 1. Electrical Specification

Item	Condition (MHz)	Specification			Unit	Remarks		
		Min	Typ	Max				
Tx to ANT	Insertion loss	777 - 787	-	1.9	2.5	dB (*1)		
	Ripple	777 - 787	-	0.8	1.6	dB		
	VSWR	Tx	777 - 787	-	1.6	2.0	-	
		Ant	777 - 787	-	1.6	2.0		
	Input Power	777 - 787	+29dBm Ta=+50deg.C ,50kh,CW			-		
	Absolute attenuation	746 - 756	44	51	-	dB		
		758 - 768	10	32	-	dB		
		768 - 775	1	2.5	-	dB		
		1554 - 1565	41	46	-	dB		
		1565 - 1607	41	46	-	dB		
2331 - 2361		35	53	-	dB			
2400 - 2484		40	50	-	dB			
3108 - 3148	23	28	-	dB				
4900 - 5950	8	12	-	dB				
ANT to Rx	Insertion loss	746 - 756	-	1.7	2.3	dB (*1)		
	Ripple	746 - 756	-	0.4	1.0	dB		
	VSWR	Ant	746 - 756	-	1.4	2.0	-	
		Rx	746 - 756	-	1.5	2.0	-	
	Absolute attenuation	777 - 787	50	62	-	dB		
		2400 - 2500	40	45	-	dB		
787 - 6000		23	28	-	dB			
Tx to Rx	Isolation	746 - 756	52	58	-	dB		
		777 - 787	56	61	-	dB		
Terminating Impedance	Tx port	50			Ohm	Single-ended		
	Rx port	50			Ohm	Single-ended		
	Ant port	50 // 12nH (Q=∞)			Ohm	Single-ended		
Operating Temperature		-20 to +85			°C			
Device size (L max. x W max. x H max.)		1.8 x 1.4 x 0.5			mm			

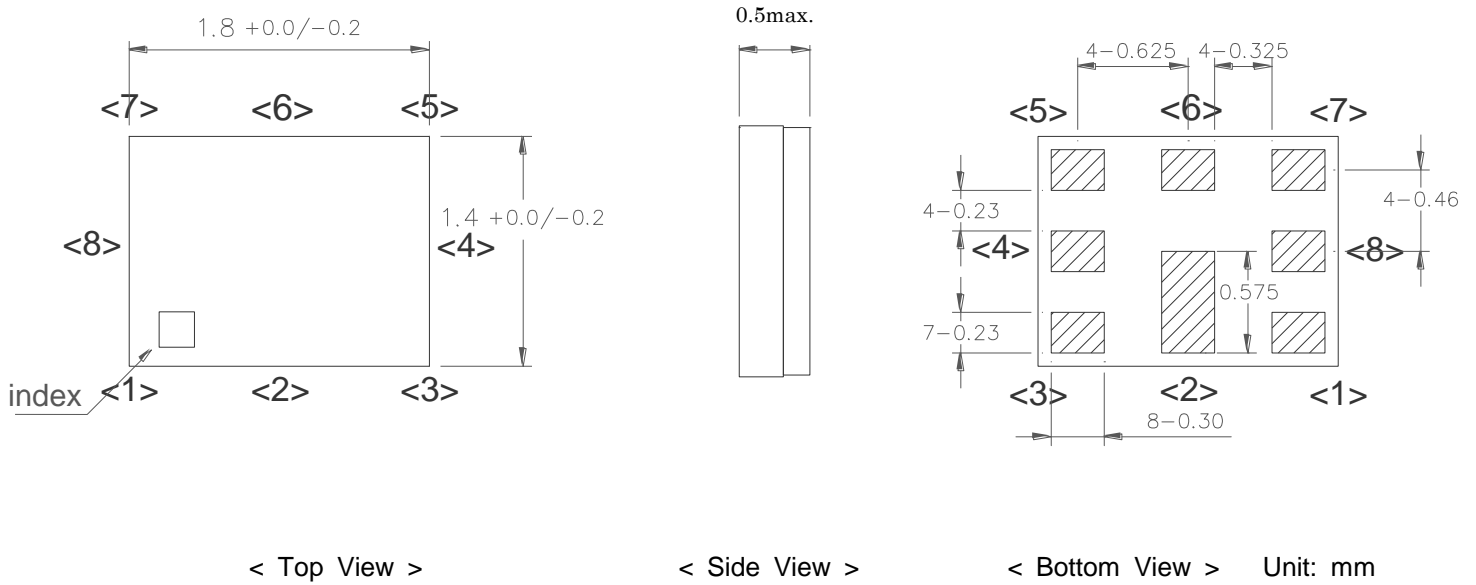
(*1) Specification of insertion loss excludes loss that comes from the test board.



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 13 Duplexer	DATE	Jun.11, 2015
Part Number	D5DA782M0K2J6	Version 2.1igC	Final

Dimensions



Pin Configuration

Pin No.	Pin name	Description
1	Rx	Receiver Pin
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	GND	Ground Pin

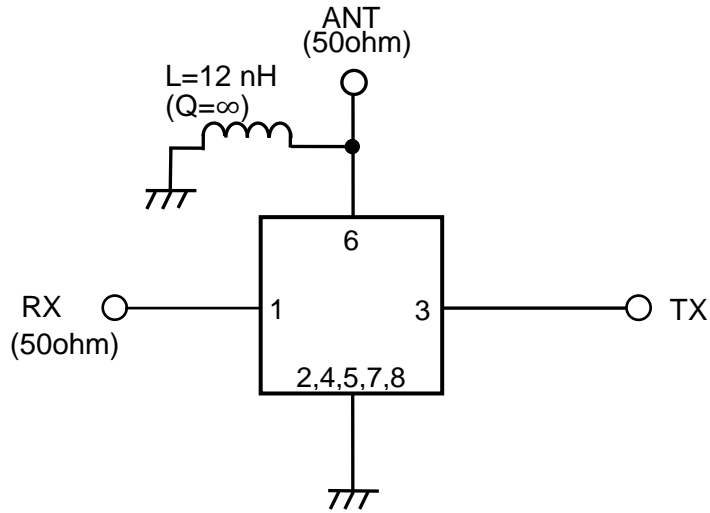
Figure 1. Dimensions and Pin assignment



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 13 Duplexer	DATE	Jun.11, 2015
Part Number	D5DA782M0K2J6	Version 2.1igC	Final

Evaluation Circuit



Recommended foot print pattern

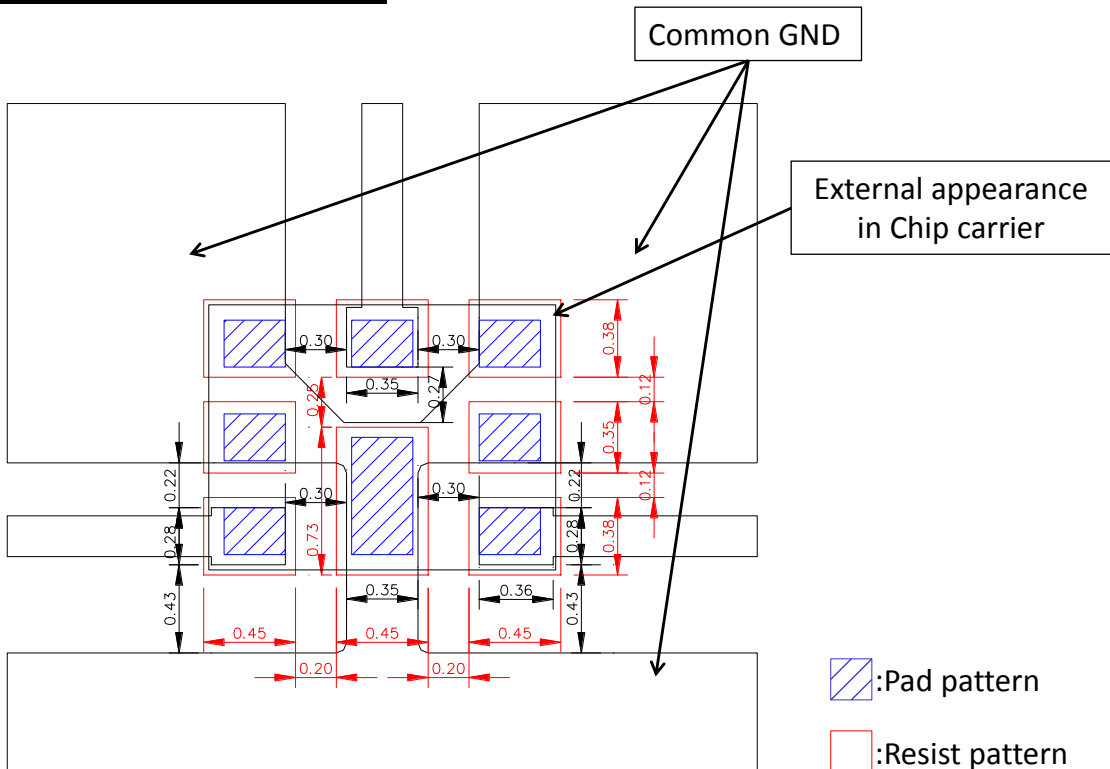


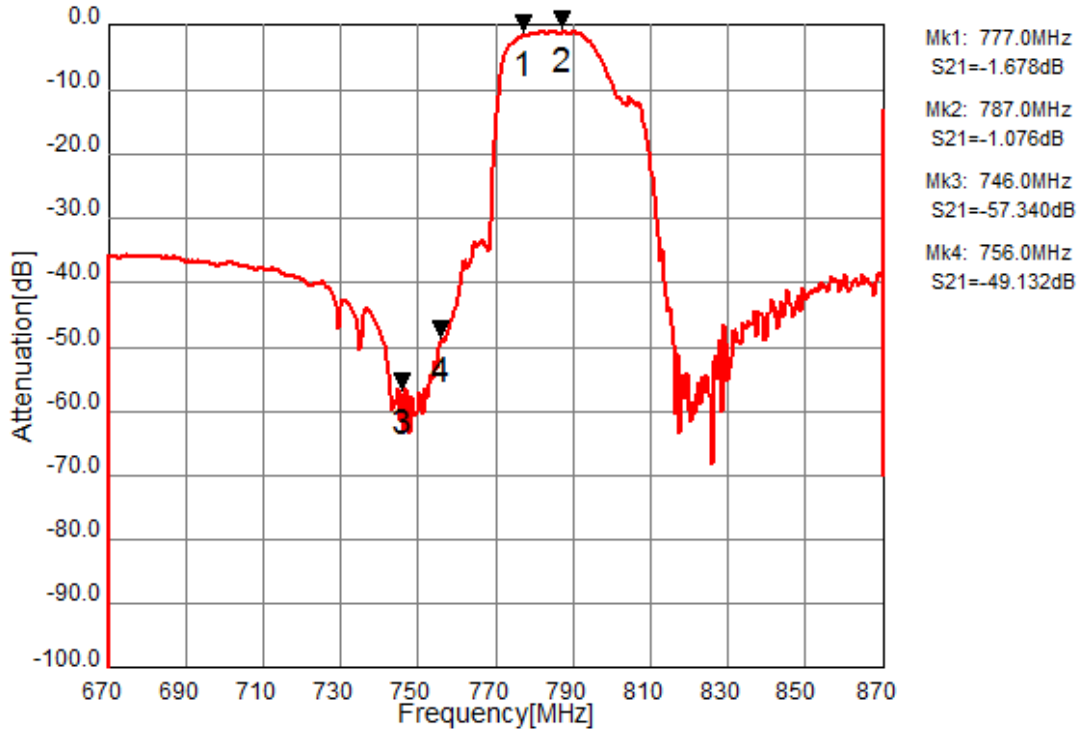
Figure 2. Recommended foot print pattern



* Pb Free Part

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System	Band 13 Duplexer	DATE	Jun.11, 2015
Part Number	D5DA782M0K2J6	Version 2.1igC	Final

Tx to Ant



Ant to Rx

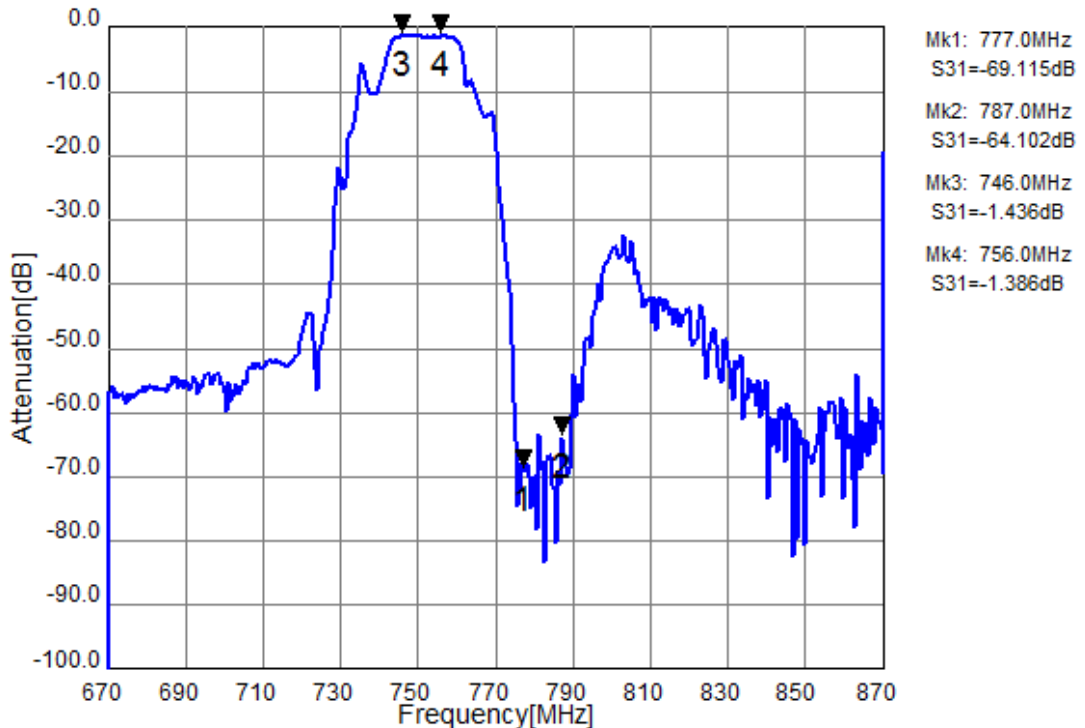


Figure 3-1. Electrical Characteristics

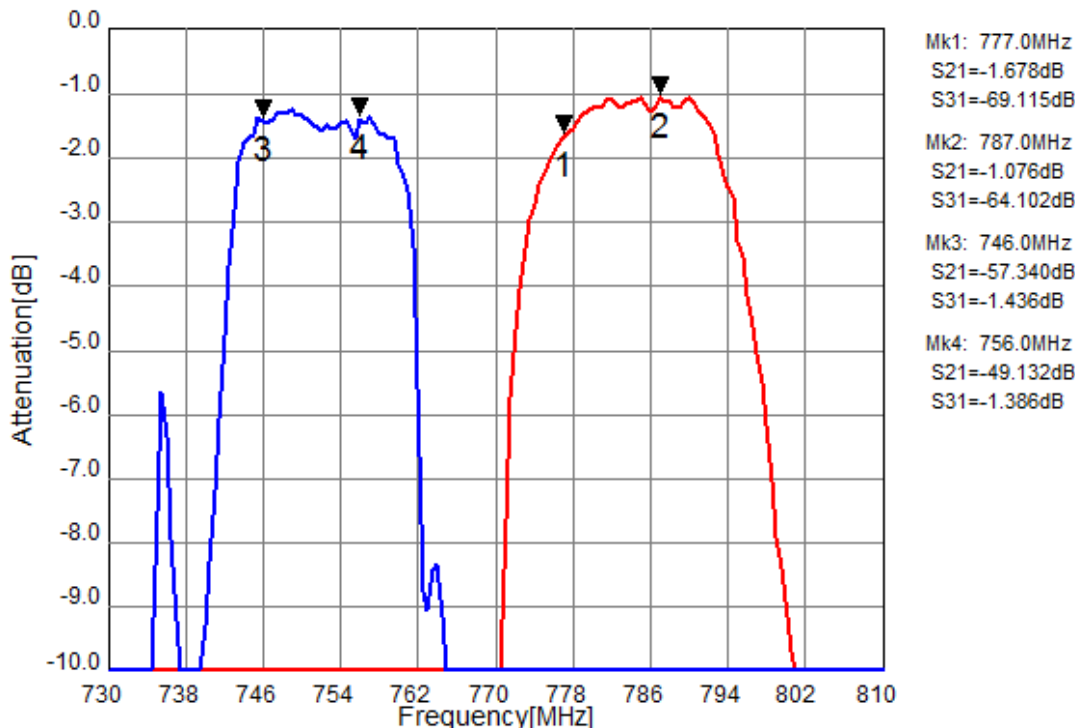
These data **exclude** loss that comes from the test board.



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 13 Duplexer	DATE	Jun.11, 2015
Part Number	D5DA782M0K2J6	Version 2.1igC	Final

Tx to Ant, Ant to Rx



Tx to Rx Isolation

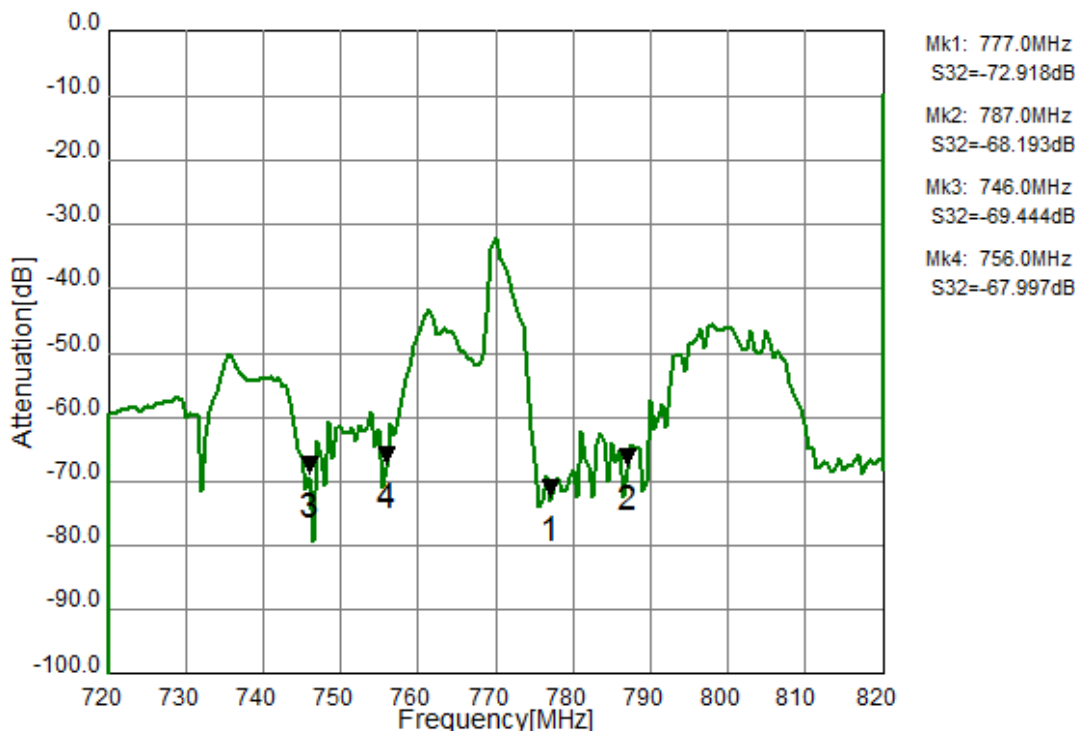


Figure 3-2. Electrical Characteristics

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



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 13 Duplexer	DATE	Jun.11, 2015
Part Number	D5DA782M0K2J6	Version 2.1igC	Final

Tx Port

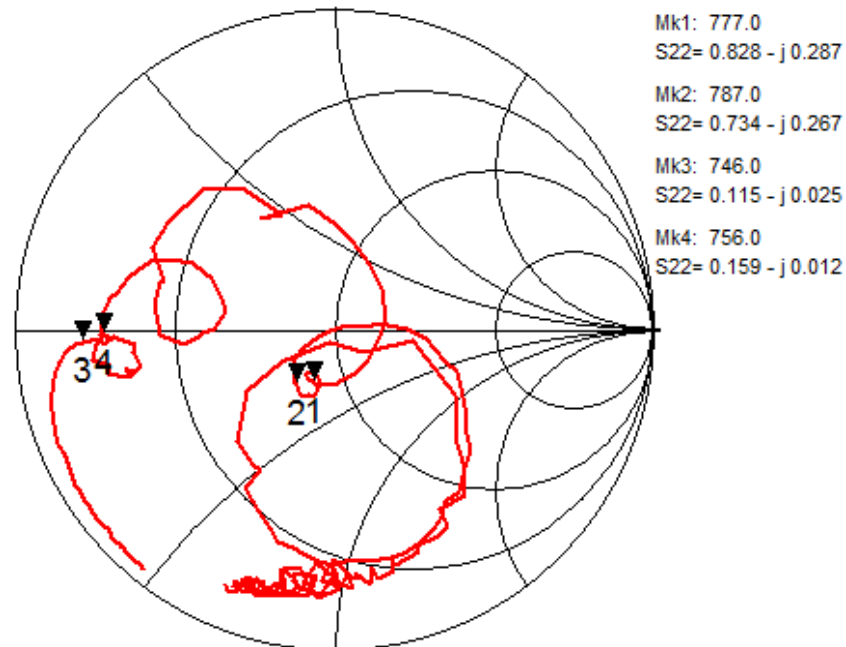
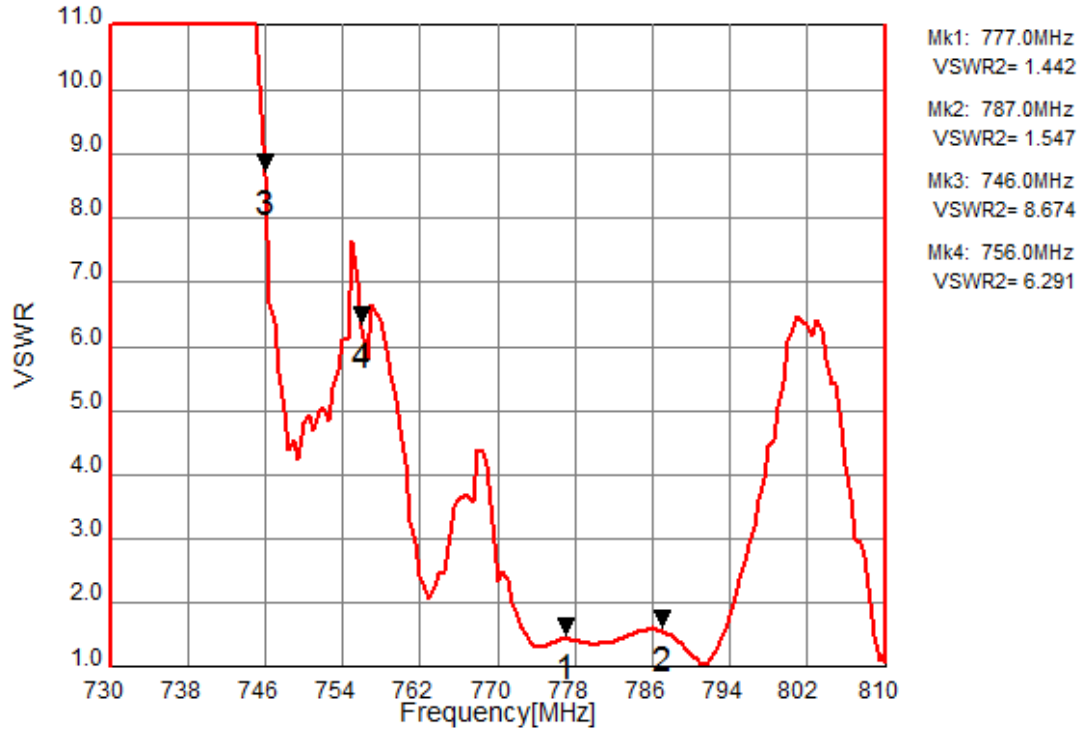


Figure 3-3. Electrical Characteristics



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 13 Duplexer	DATE	Jun.11, 2015
Part Number	D5DA782M0K2J6	Version 2.1igC	Final

Rx Port

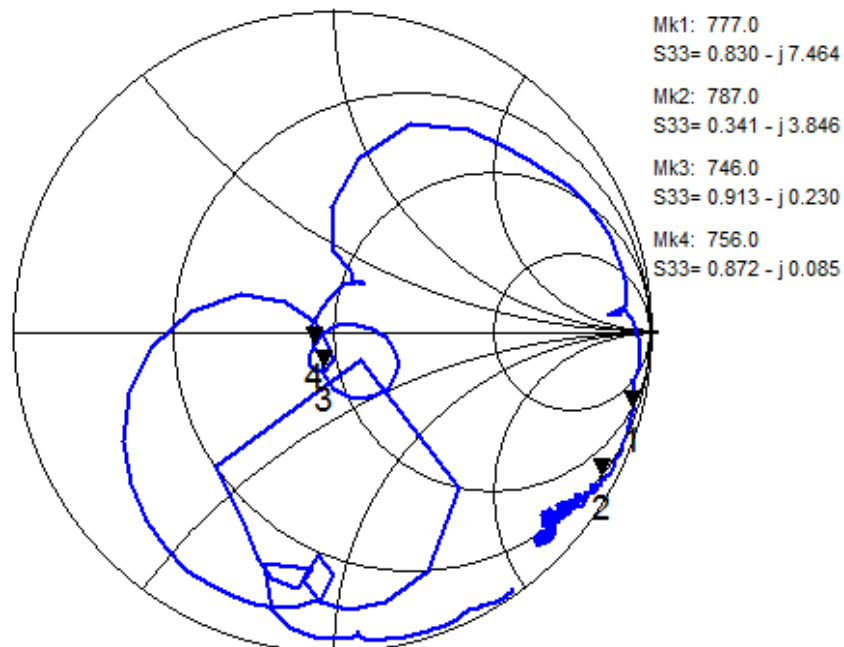
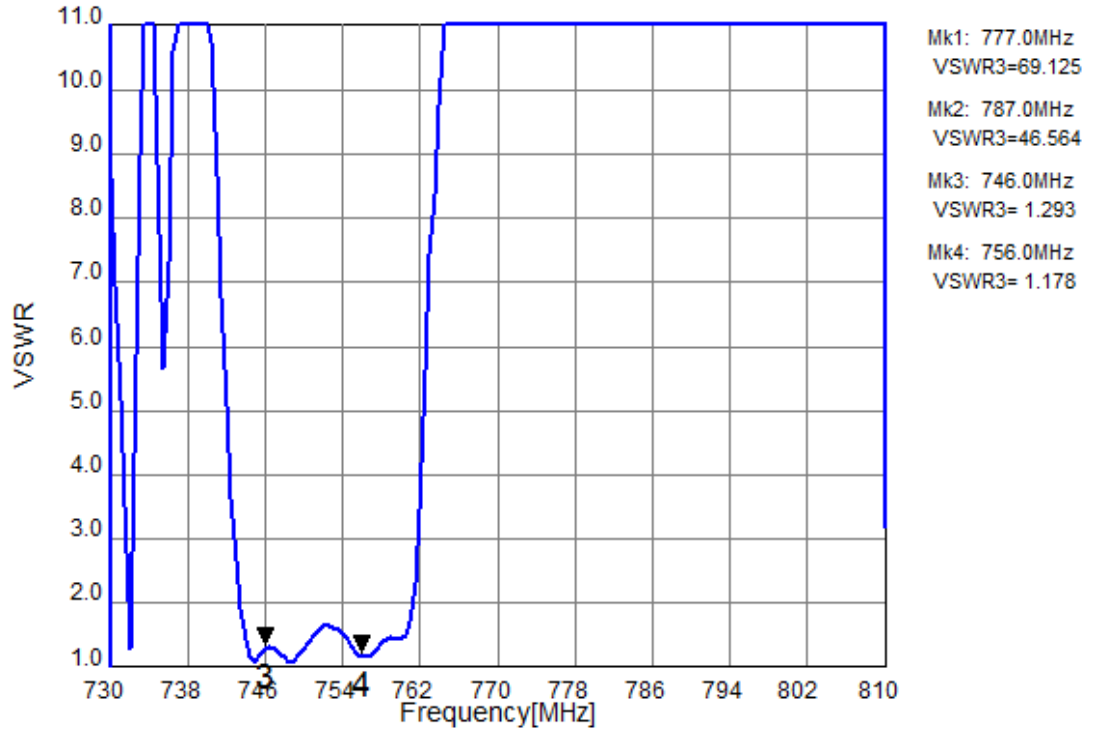


Figure 3-4. Electrical Characteristics



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 13 Duplexer	DATE	Jun.11, 2015
Part Number	D5DA782M0K2J6	Version 2.1igC	Final

Ant Port

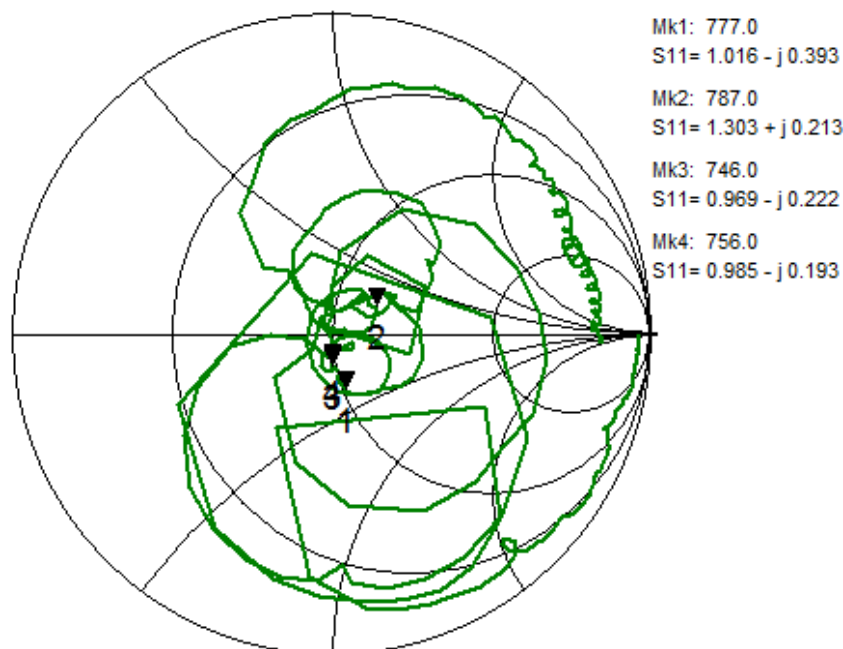
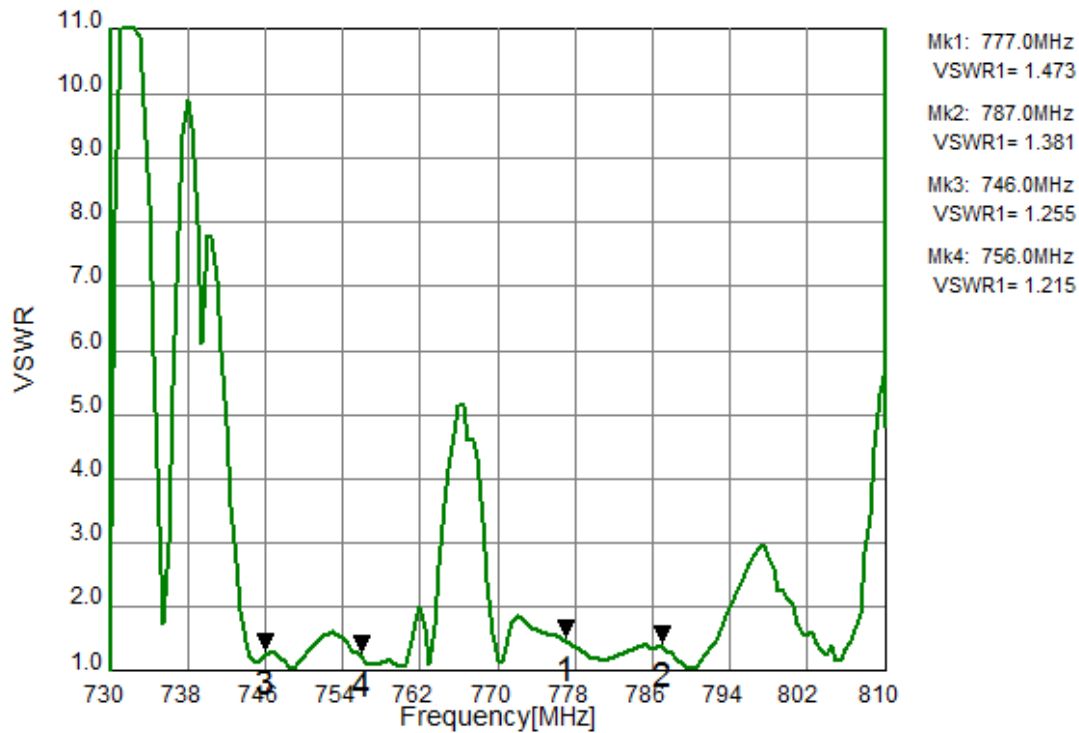


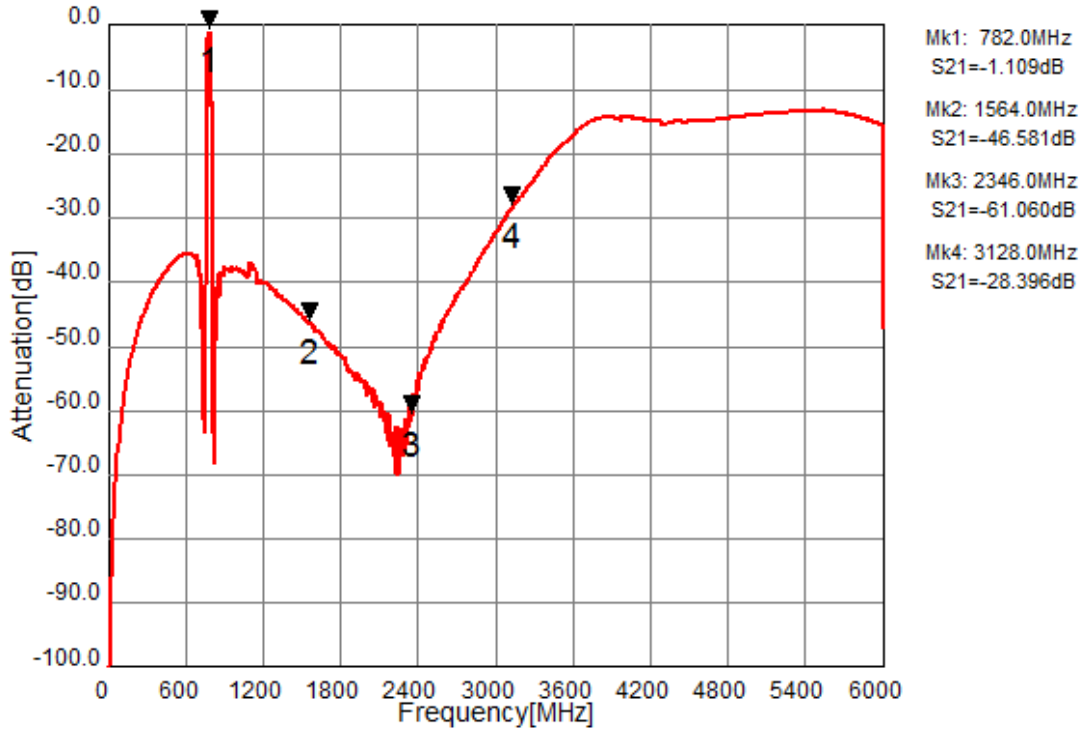
Figure 3-5. Electrical Characteristics



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 13 Duplexer	DATE	Jun.11, 2015
Part Number	D5DA782M0K2J6	Version 2.1igC	Final

Tx to Ant (Wide span)



Ant to Rx (Wide span)

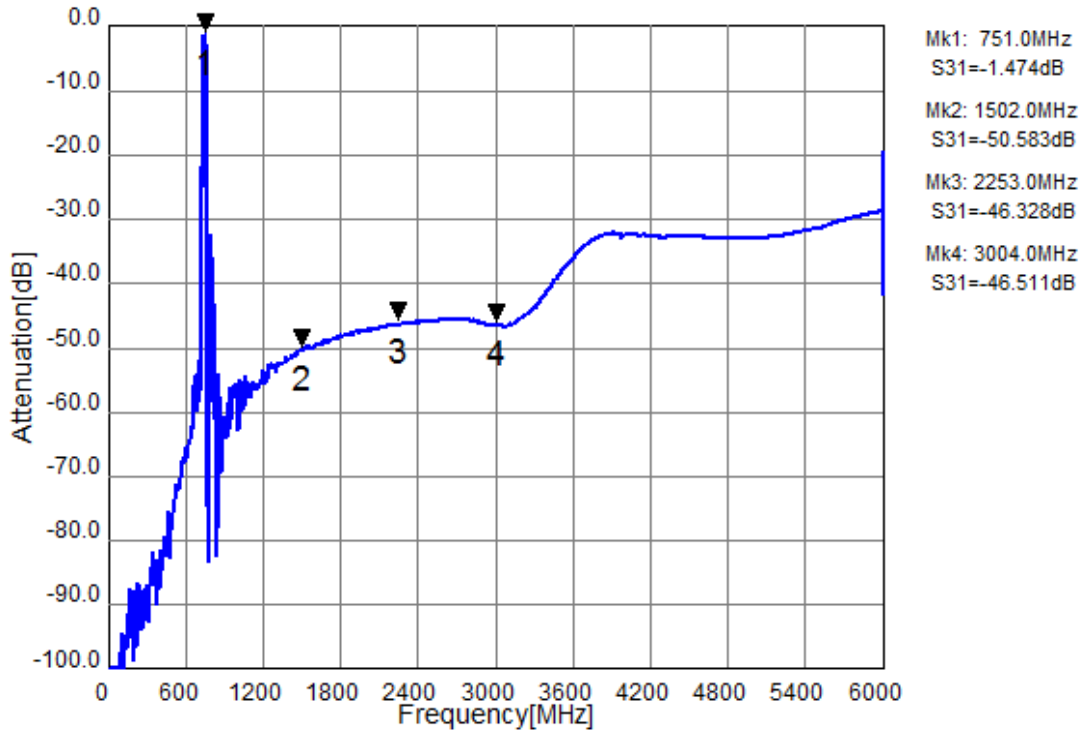


Figure 3-6. Electrical Characteristics



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 13 Duplexer	DATE	Jun.11, 2015
Part Number	D5DA782M0K2J6	Version 2.1igC	Final

Ordering Code

Ordering Code	Packing	Reel size	Status
D5DA782M0K2J6- Z	Tape & Reel	3,000 pcs.	MP
D5DA782M0K2J6- ZA	Tape & Reel	less than 3,000 pcs.	MP
D5DA782M0K2J6- Y	Tape & Reel	15,000 pcs.	MP
D5DA782M0K2J6- YA	Tape & Reel	less than 15,000 pcs.	MP
D5DA782M0K2J6- 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.