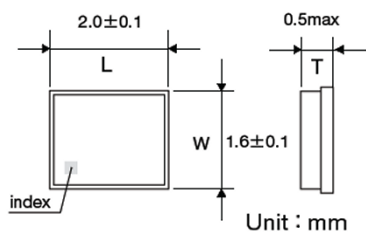


FBAR/SAW Devices (SAW Duplexers)

D5PE942M5P3GT



■ Features

- Item Summary
SAW, Duplexer, 2.0x1.6x0.5mm
Band 8
- Lifecycle Stage
Mass Production
- Standard packaging quantity (minimum)
Taping Embossed 3000 , 15000pcs

■ Products characteristics table

System	W-CDMA
Type	SAW
Function	Duplexer
band	Band 8
Insertion Loss (typ) (Tx-ANT/ANT-Rx)	1.8/2.2 dB
Isolation (typ)	60/55 dB
Operating Temp. Range	-20 to +85 °C
RoHS2 Compliance (10 subst.)	Yes
REACH Compliance (168 subst.)	Yes
Soldering	Reflow

■ External Dimensions

Dimension L	2.0 ± 0.10 mm
Dimension W	1.6 ± 0.10 mm
Dimension T	Max 0.5 mm

2016.12.30

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

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band VIII Duplexer	Date	March. 14, 2013
Part Number	D5PE942M5P3GT	Version 4.2cc	Final

Table 1. Electrical Specification

Item		Condition (MHz)	Specification			Unit	Remarks	
			Min	Typ	Max			
Tx to ANT	Insertion loss	882.4~912.6	-	1.8	2.6 (*2)	dB (*1)		
	Ripple	882.4~912.6	-	0.8	1.9	dB		
	VSWR	880.4~914.6	Tx	-	1.9	2.2	-	
			Ant	-	1.7	2.0	-	
	Input Power	880.4~914.6	29dBm, Ta=+50°C 10000h, WCDMA modulation			-		
	Absolute attenuation	10~821	33	38	-	dB		
		927.4~957.6	44(*2)	53	-	dB		
		1565.4~1605.9	45	50	-	dB		
		1760~1880	40	49	-	dB		
		1880~2500	33	39	-	dB		
2620~2745		30	36	-	dB			
3520~3660		20	31	-	dB			
4400~4575		15	24	-	dB			
5150~5850	10	25	-	dB				
ANT to Rx	Insertion loss	927.4~957.6	-	2.2	2.6 (*2)	dB		
		925~960	-	2.3	3.3	(*1)		
	Ripple	925~960	-	0.8	2.2	dB		
	Amplitude balance	925~960	-0.7	-0.3/+0.2	+0.7	dB		
	Phase balance	925~960	-7	-2/+3	+7	deg		
	VSWR	925~960	Ant	-	1.8	2.1	-	
			Rx	-	2.0	2.3	-	
	Absolute attenuation	10~880	35	58	-	dB		
882.4~912.6		48(*2)	58	-	dB			
1045~4810		35	48	-	dB			
Tx to Rx	Isolation	882.4~912.6	56(*2)	60	-	dB		
		927.4~957.6	50(*2)	55	-	dB		
Terminating Impedance	Tx port	50			Ohm	Single-ended		
	Rx port	100			Ohm	Differential		
	Ant port	50 // 7.5nH			Ohm	Single-ended		
Maximum DC Voltage	Tx,Rx port	+/- 5			V			
	ANT port	0			V			
Operating Temperature		-20 to +85			°C			
Device size (LxWxH)		2.0 x 1.6 x 0.5max.			mm			

(*1) Specification of insertion loss excludes loss that comes from the test board. (Approximately 0.05dB)

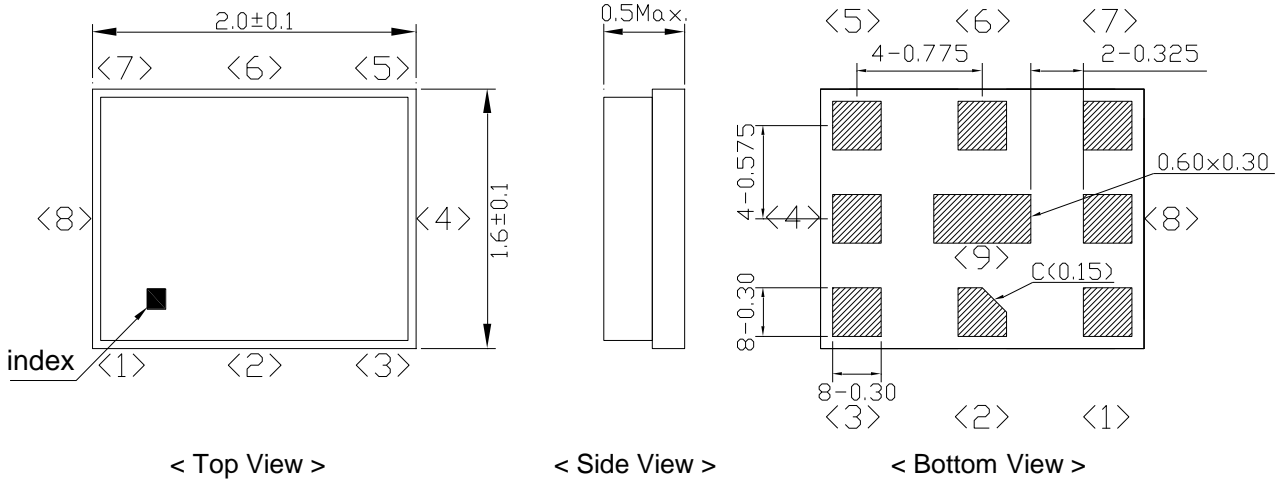
(*2) Integrated over +/-1.92MHz around the WCDMA channel center frequency



* Pb Free Part

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Dimensions



Unit: mm

Pin Configuration

Pin No.	Pin name	Description
1	Rx	Receiver Pin (balanced)
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	Rx	Receiver Pin (balanced)
9	GND	Ground Pin

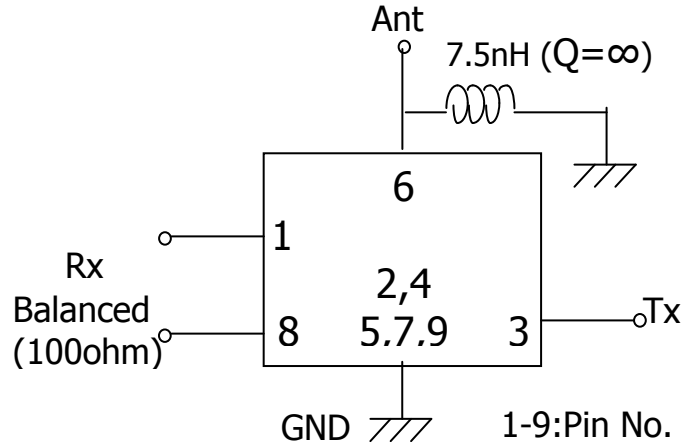
Figure 1. Dimensions and Pin assignment



* Pb Free Part

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Evaluation Circuit



Recommended foot print pattern

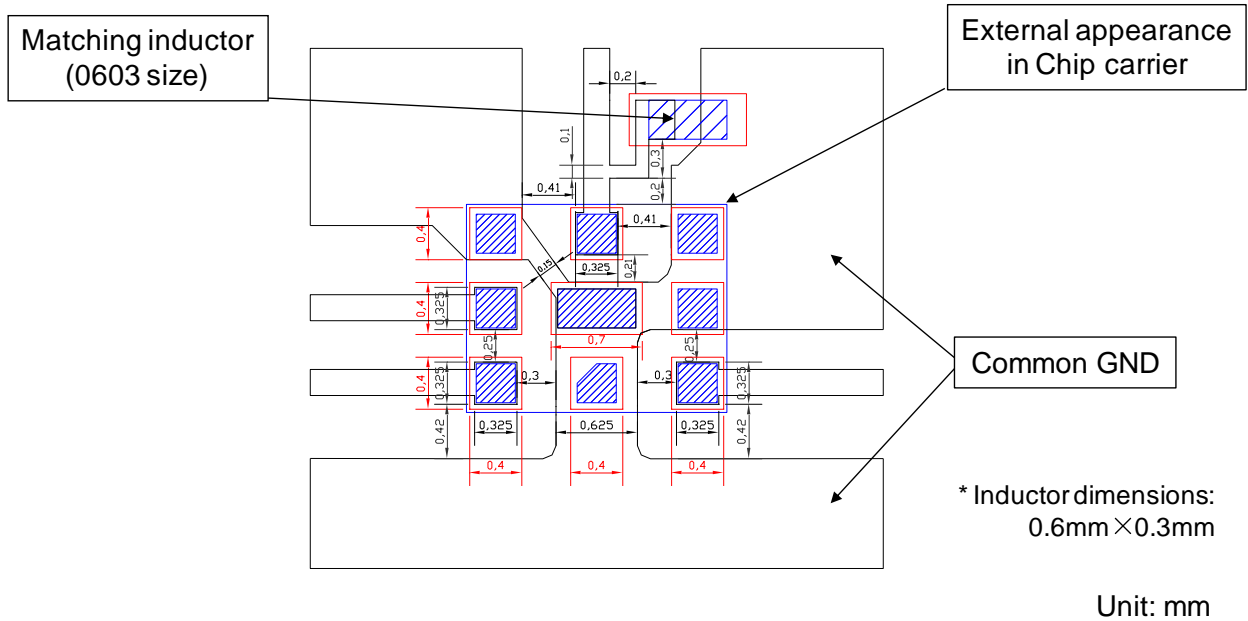


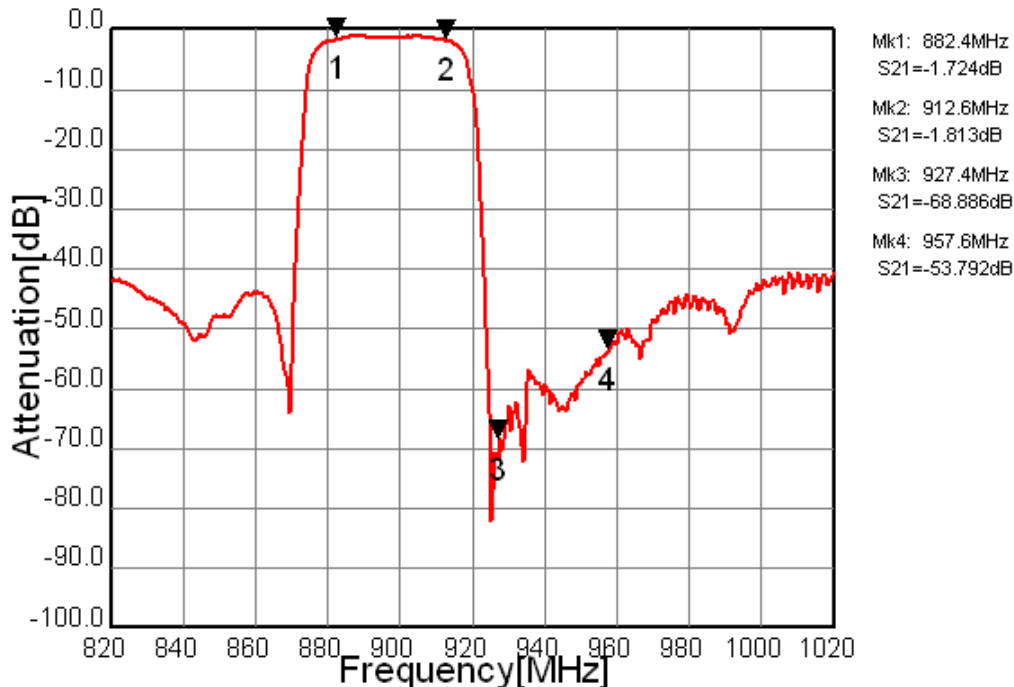
Figure 2. Recommended foot print pattern



* Pb Free Part

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System	Band VIII Duplexer	Date	March. 14, 2013
Part Number	D5PE942M5P3GT	Version 4.2cc	Final

Tx to Ant



Ant to Rx

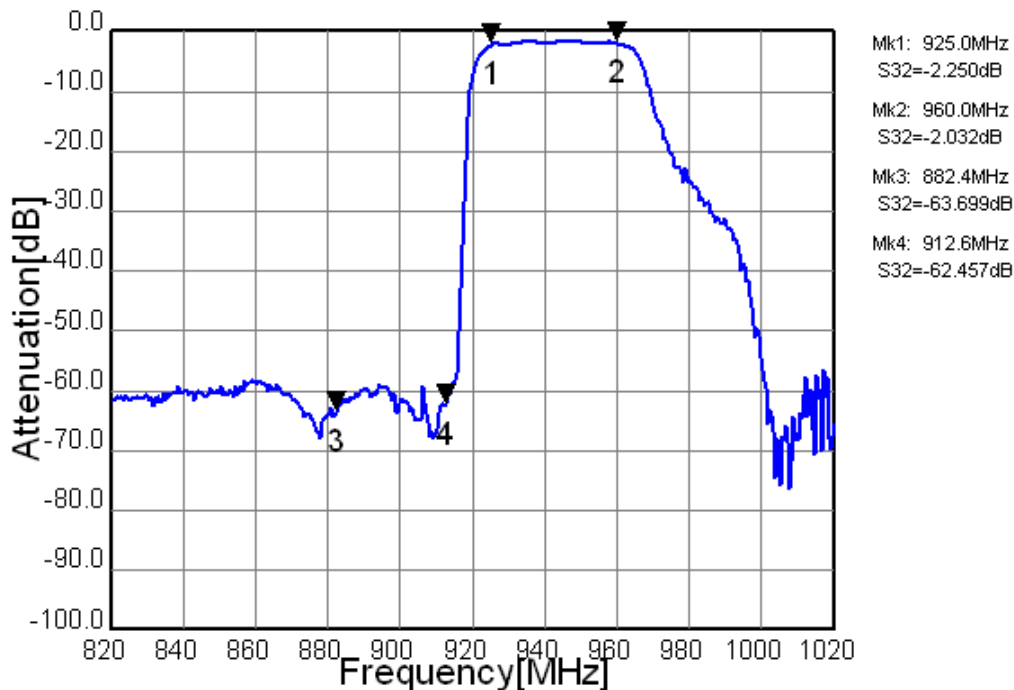


Figure 3-1. Electrical Characteristics

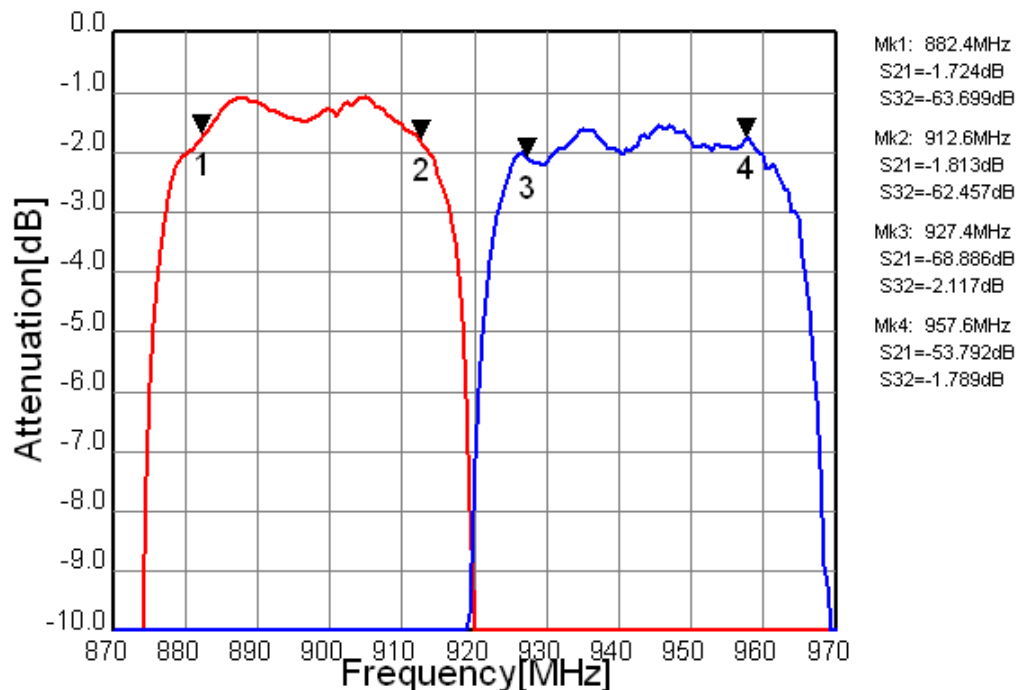
These data **include** loss that comes from the test board. (Approximately 0.05dB)



* Pb Free Part

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System	Band VIII Duplexer	Date	March. 14, 2013
Part Number	D5PE942M5P3GT	Version 4.2cc	Final

Tx to Ant, Ant to Rx



Tx to Rx Isolation

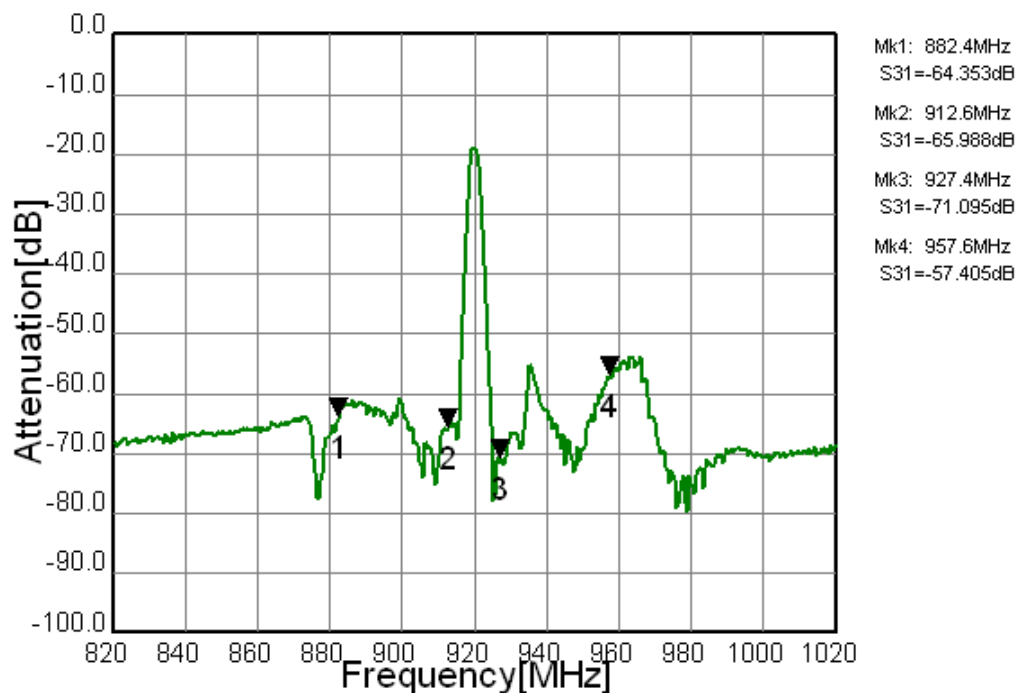


Figure 3-2. Electrical Characteristics

These data **include** loss that comes from the test board. (Approximately 0.05dB)



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band VIII Duplexer	Date	March. 14, 2013
Part Number	D5PE942M5P3GT	Version 4.2cc	Final

Tx Port

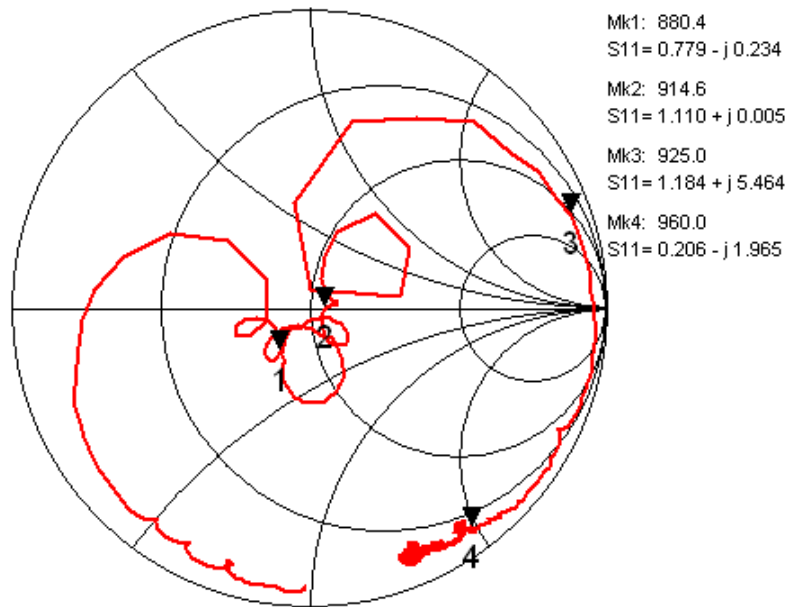
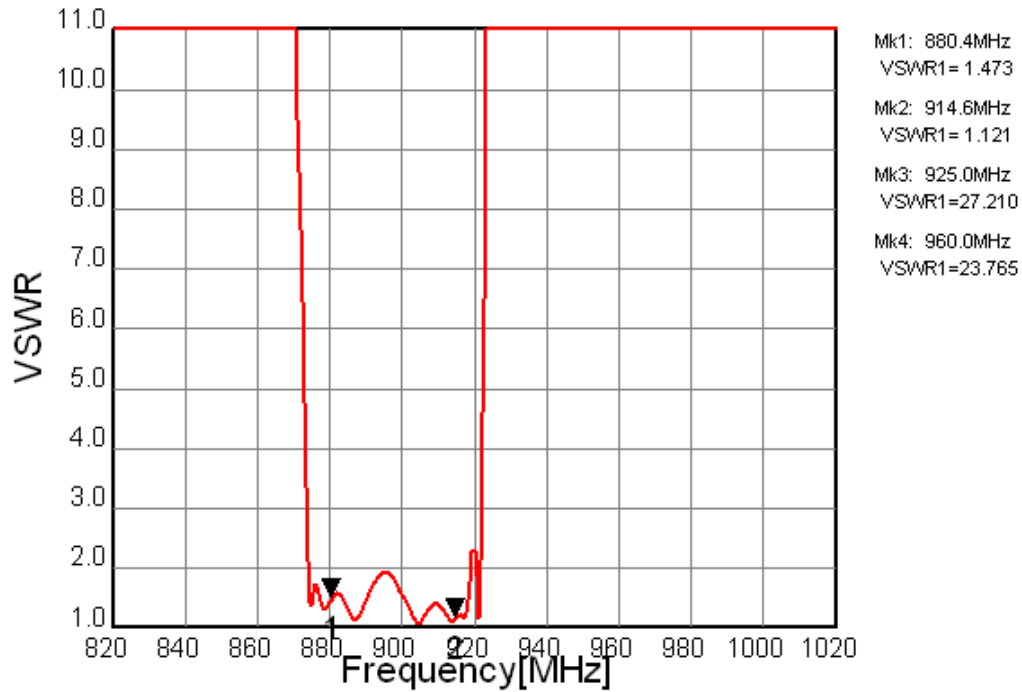


Figure 3-3. Electrical Characteristics



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band VIII Duplexer	Date	March. 14, 2013
Part Number	D5PE942M5P3GT	Version 4.2cc	Final

Rx Port

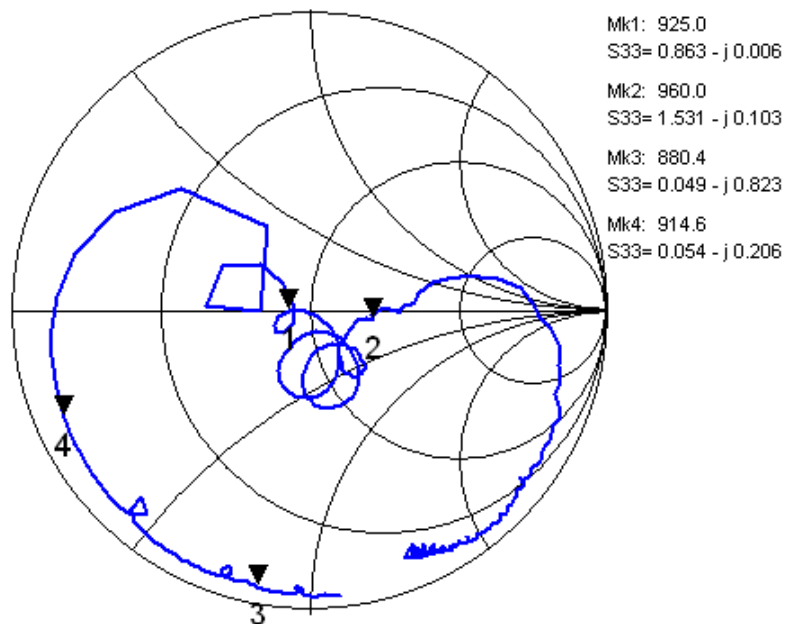
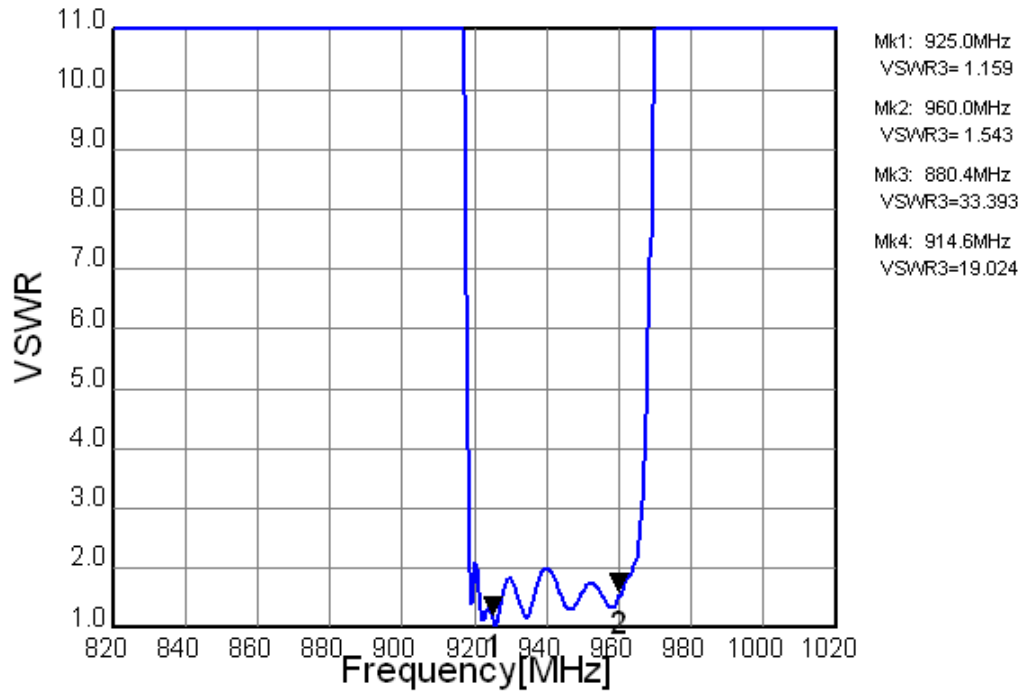


Figure 3-4. Electrical Characteristics



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band VIII Duplexer	Date	March. 14, 2013
Part Number	D5PE942M5P3GT	Version 4.2cc	Final

Ant Port

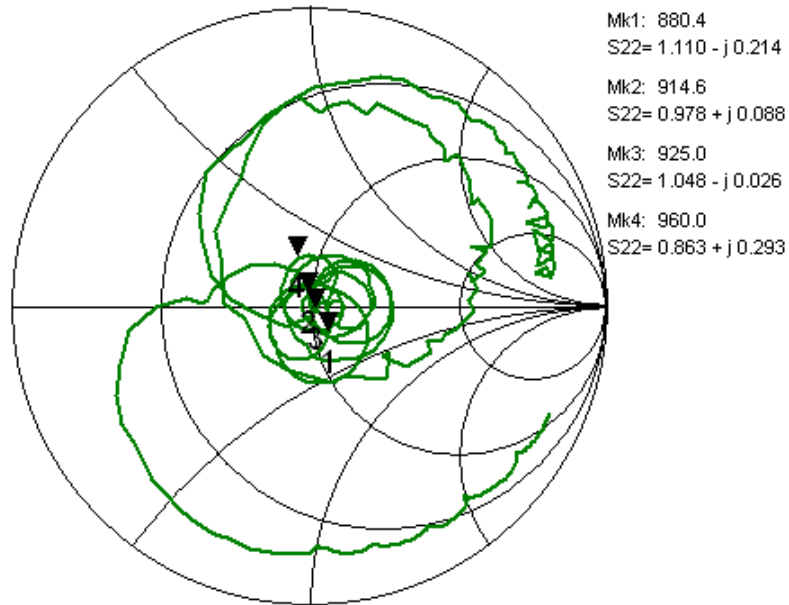
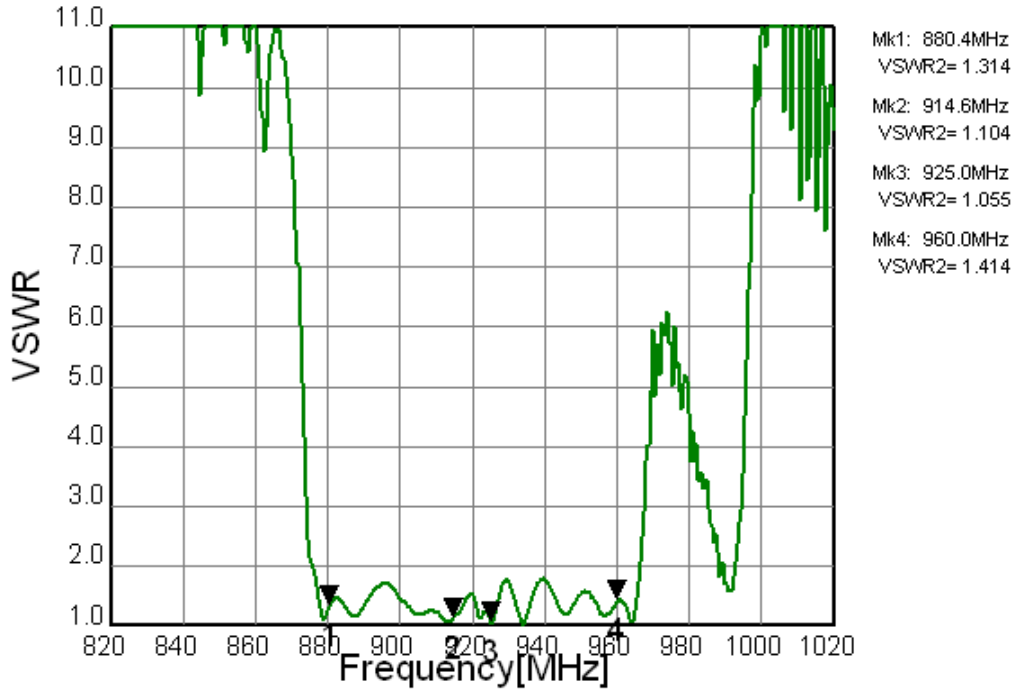


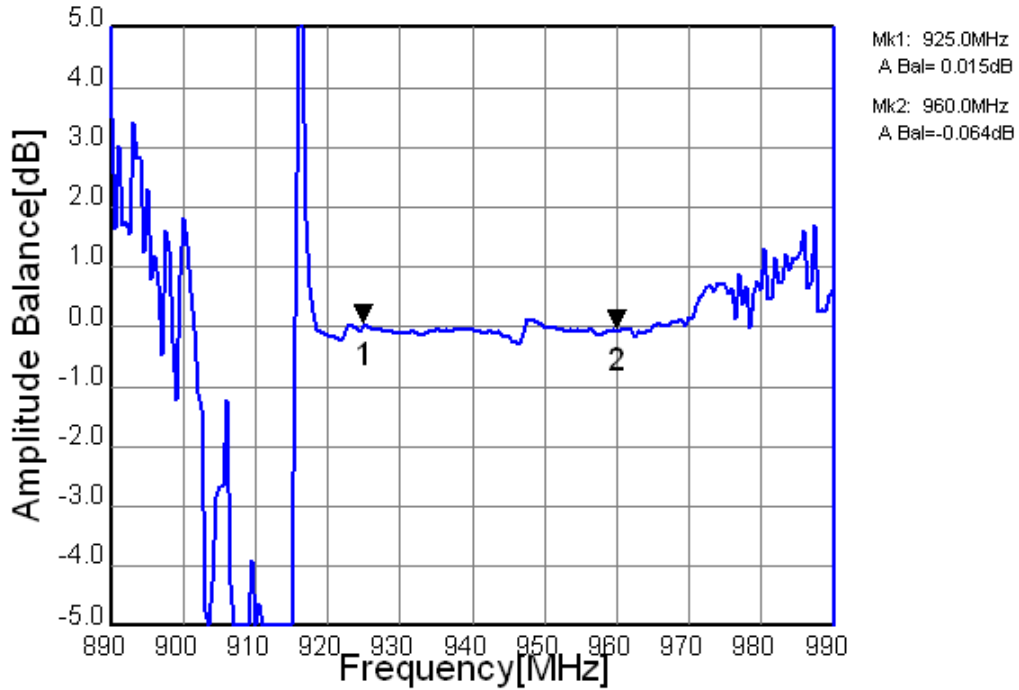
Figure 3-5. Electrical Characteristics



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band VIII Duplexer	Date	March. 14, 2013
Part Number	D5PE942M5P3GT	Version 4.2cc	Final

Ant to Rx (Amplitude balance)



Ant to Rx (Phase balance)

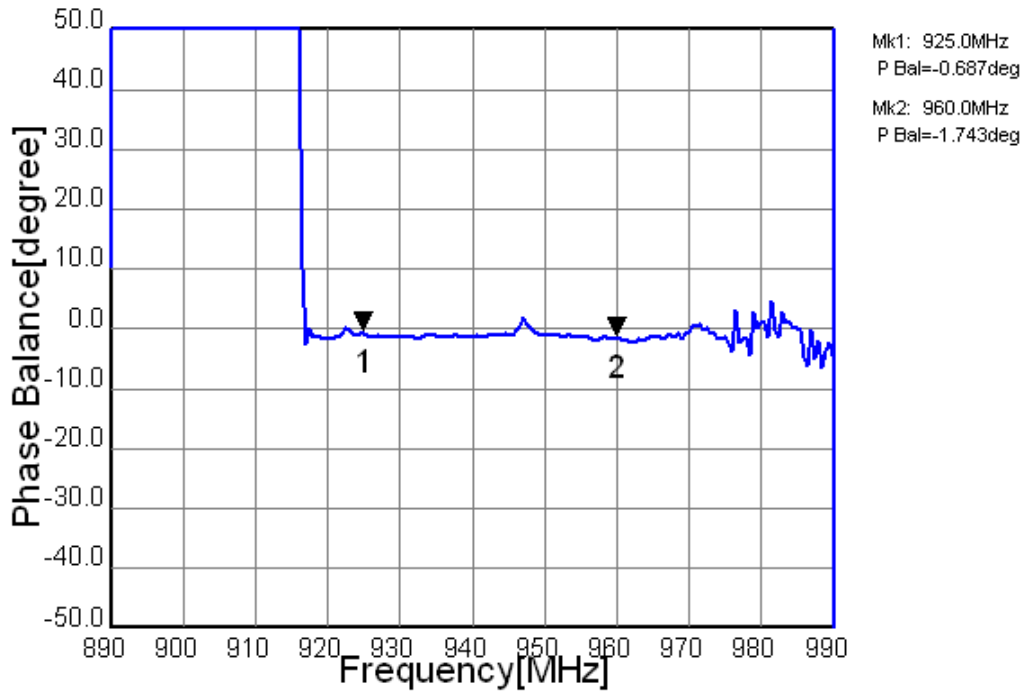


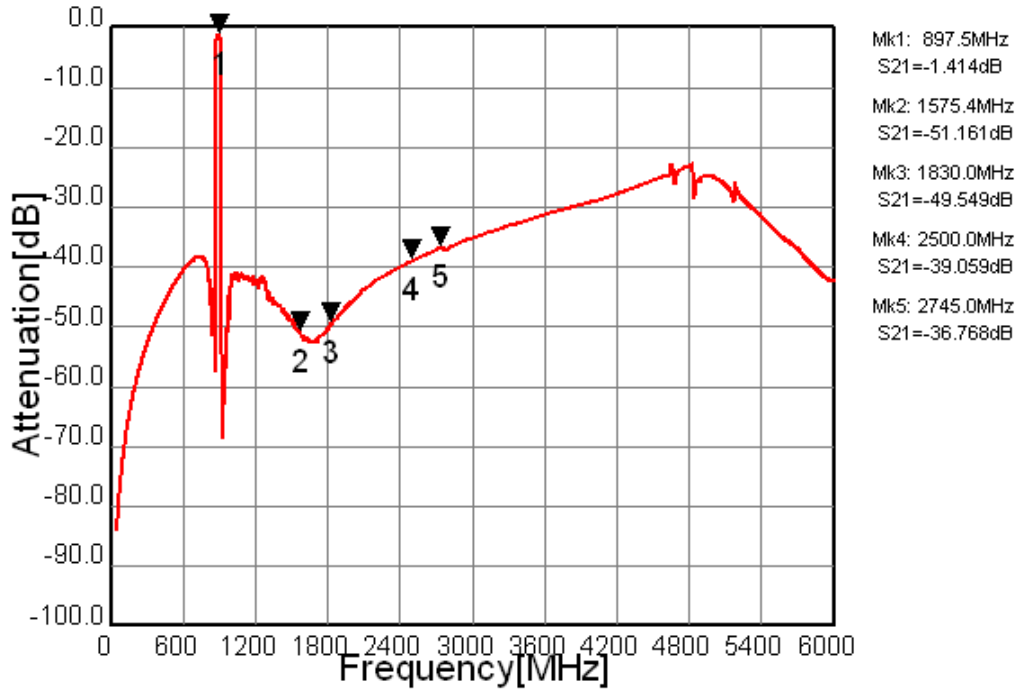
Figure 3-6. Electrical Characteristics



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band VIII Duplexer	Date	March. 14, 2013
Part Number	D5PE942M5P3GT	Version 4.2cc	Final

Tx to Ant (Wide span)



Ant to Rx (Wide span)

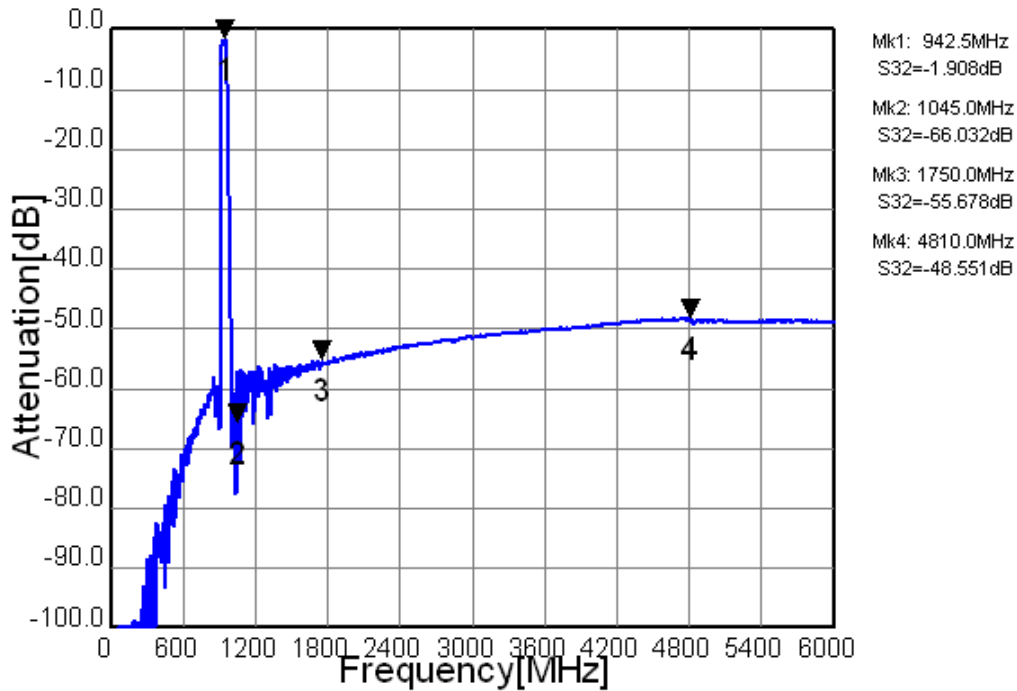


Figure 3-7. Electrical Characteristics



* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band VIII Duplexer	Date	March. 14, 2013
Part Number	D5PE942M5P3GT	Version 4.2cc	Final

Ordering Code

Ordering Code	Packing	Reel size	Status
D5PE942M5P3GT- Z	Tape & Reel	3,000 pcs.	MP
D5PE942M5P3GT- ZA	Tape & Reel	less than 3,000 pcs.	MP
D5PE942M5P3GT- Y	Tape & Reel	15,000 pcs.	MP
D5PE942M5P3GT- YA	Tape & Reel	less than 15,000 pcs.	MP
D5PE942M5P3GT- 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.