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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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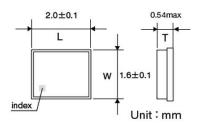




#### **Spec Sheet**

# FBAR/SAW Devices (FBAR Duplexers)

# D6HL2G655DL06



#### Features

- Item Summary
   FBAR, Duplexer, 2.0x1.6x0.54mm

  Band 7
- Lifecycle Stage
   Mass Production
- Standard packaging quantity (minimum)
   Taping Embossed 3000, 15000pcs

#### Products characteristics table

System	LTE
Туре	FBAR
Function	Duplexer
band	Band 7
Insertion Loss (typ) (Tx-ANT/ANT-Rx)	2.1/2.3 dB
Isolation (typ)	53/57 dB
Operating Temp. Range	-20 to +85 ℃
RoHS2 Compliance (10 subst.)	Yes
REACH Compliance (173 subst.)	Yes
Halogen Free	Yes
Soldering	Reflow

#### ■ External Dimensions

Dimension L	2.0 ±0.10 mm
Dimension W	1.6 ±0.10 mm
Dimension T	Max 0.54 mm

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.

Customer Name	Standard	TAIYO YUDEN Mob	oile Technology Co.,Ltd.
System	Band 7 Duplexer	Date	Feb. 17, 2014
Part Number	D6HL2G655DL06	Version 1.0edC	Final

### Table 1-1. Electrical Specification

			Condition	Sp	ecificati	ion		Б
	ltem		(MHz)	Min	Тур	Max	Unit	Remarks
Tx	Insertion loss		2500 ~ 2510	1	2.1	3.0	ID (#4)	
to			2510 ~ 2570	-	1.6	2.4	dB (*1)	
ANT	Ripple		2500 ~ 2570	-	1.2	2.3	dB	
	VSWR	ANT	0500 0570	-	1.7	2.1	-	
		Tx	2500 ~ 2570	-	1.8	2.3	-	
	Input Power		2500 ~ 2570		dBm, +5 khours, (		dBm	
	Absolute atte	enuation	10~1565.42	30	41	-	dB	
			1565.42~1573.374	35	41	-	dB	
			1573.374~1577.466	35	41	-	dB	
			1577.466~1585.42	35	41	-	dB	
			1597.5515~1605.886	35	40	-	dB	
			1605.886~1680	25	40	-	dB	
			1805 ~ 1880	30	38	-	dB	
			1900 ~ 1920	30	38	-	dB	
			2010 ~ 2025	30	37	-	dB	
			2110 ~ 2170	30	37	-	dB	
			2401 ~ 2473	35	45	-	dB(*2)	
			2456 ~ 2478	30	45	-	dB(*2)	
			2461 ~ 2483	20	40	-	dB(*2)	
			2474 ~ 2500	1	2	-	dB	
			2590 ~ 2620	1	6	-	dB	
			2620 ~ 2690	45	55	-	dB	
			4900 ~ 5950	20	49	-	dB	
			5000 ~ 5140	25	50	-	dB	
			5100 ~ 5280	35	51	-	dB	
			7500 ~ 7710	25	40	-	dB	

<sup>(\*1)</sup> Specification of insertion loss excludes loss that comes from the test board.

<sup>(\*2)</sup> Integrated attenuation over 22MHz BW.

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., L		
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### **Table 1-2. Electrical Specification**

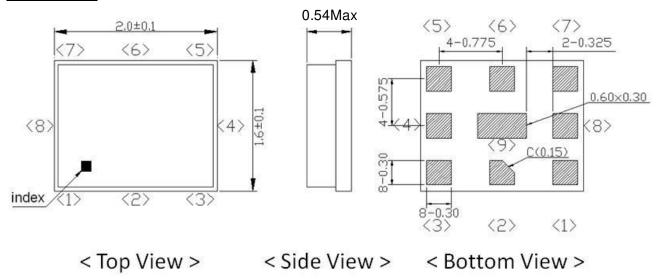
Item			Condition	Sp	ecificati	ion	11.2	D I .
	item		(MHz)	Min	Тур	Max	Unit	Remarks
ANT	Insertion loss		2620 ~ 2690	-	2.3	2.9	dB (*1)	
to	VSWR	ANT	0000 0000	-	1.9	2.3	-	
Rx		Rx	2620 ~ 2690	-	1.9	2.3	-	
	Absolute atte	nuation	1 ~ 2500	40	48	-	dB	
			45	50	100	-	dB	
			832 ~ 862	40	65	-	dB	
			1710 ~ 1785	40	57	-	dB	
			2500 ~ 2570	42	48	-	dB	
			2775 ~ 6000	30	50	-	dB	
			2400 ~ 2500	40	48	-	dB	
			4950 ~ 5950	40	58	-	dB	
			7620 ~ 7830	40	55	-	dB	
			7860 ~ 8070	40	55	-	dB	
Tx to	Isolation		2500 ~ 2570	50	53	-	dB	
Rx			2620 ~ 2690	50	57	-	dB	
			1574 ~ 1577	40	62	-	dB	
			5000 ~ 5140	30	44	-	dB	
			7500 ~ 7710	30	40	-	dB	
Termina	Terminating Impedance		Tx port		50		Ohm	Single-ended
			Rx port		50		Ohm	Single-ended
		Ant port	50	) // 2.7 r	ıΗ	Ohm	Single-ended	
Operatir	ng Temperature	)		-:	20 to +8	5	۰C	
Device s	size (L typ. x W	typ. <b>x</b> H ma	x.)	2.0	x 1.6 x (	0.54	mm	

<sup>(\*1)</sup> Specification of insertion loss excludes loss that comes from the test board.



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Part Number	D6HL2G655DL06	Version 1.0edC	Final

### **Dimensions**



Unit: mm

0.54mm max height: Include thickness of pads

### **Pin Configuration**

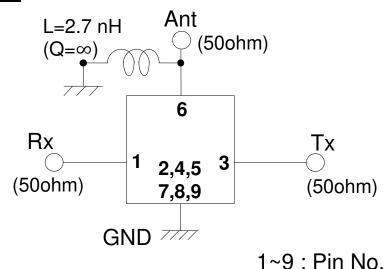
Pin No.	Pin name	Description	
1	Rx	Receiver Pin	
2	GND	Ground Pin	
3	Tx	Transmitter Pin	
4	GND	Ground Pin	
5	GND	Ground Pin	
6	ANT	Antenna Pin	
7	GND	Ground Pin	
8	GND	Ground Pin	
9	GND	Ground Pin	

Figure 1. Dimensions and Pin assignment



	II		
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#### **Evaluation Circuit**



#### Recommended foot print pattern

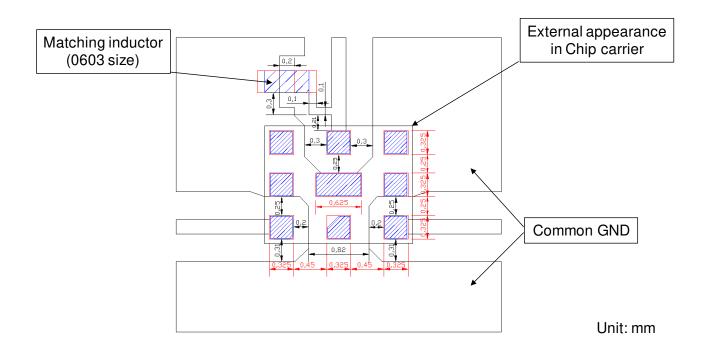


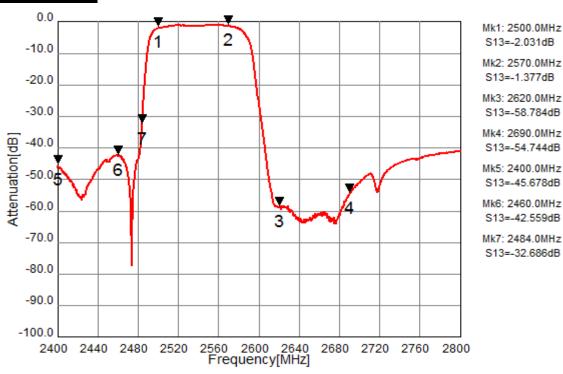
Figure 2. Recommended foot print pattern





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### Tx to Ant



### **Ant to Rx**

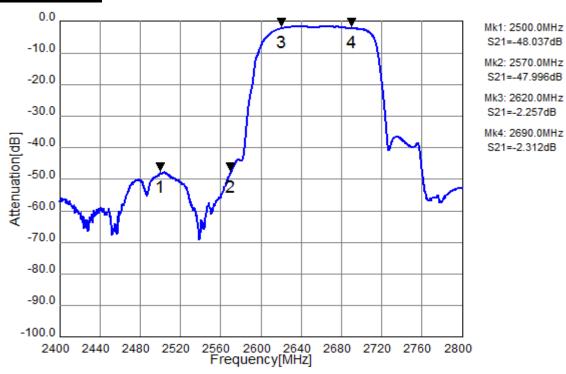


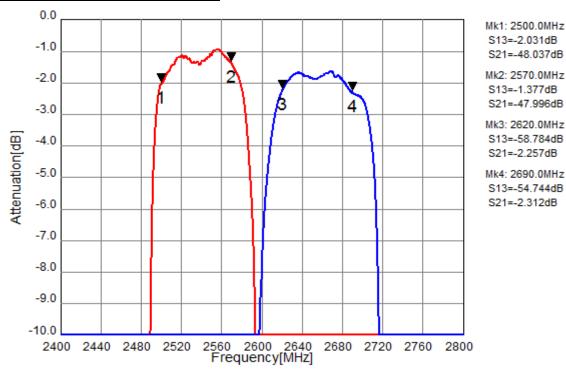
Figure 3-1. Electrical Characteristics

These data exclude loss that comes from the test board.



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Part Number	D6HL2G655DL06	Version 1.0edC	Final	

### Tx to Ant, Ant to Rx



### Tx to Rx Isolation

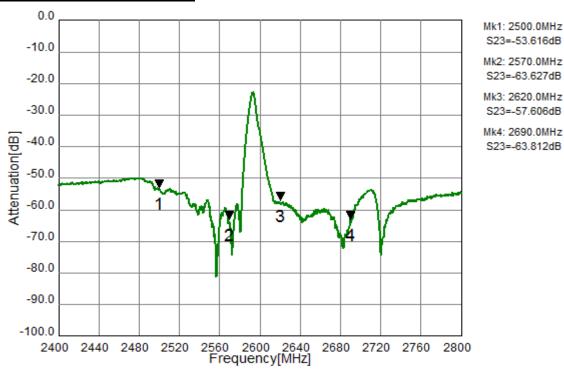


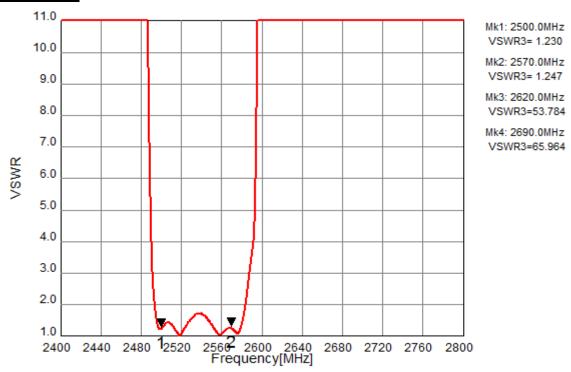
Figure 3-2. Electrical Characteristics

These data exclude loss that comes from the test board.



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## **Tx Port**



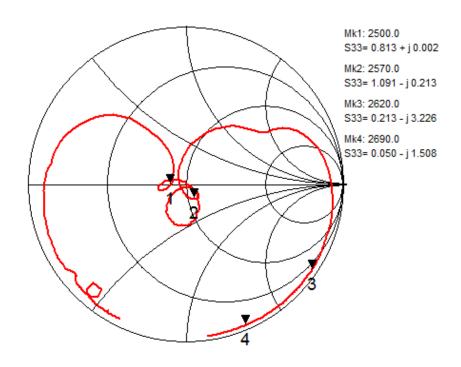


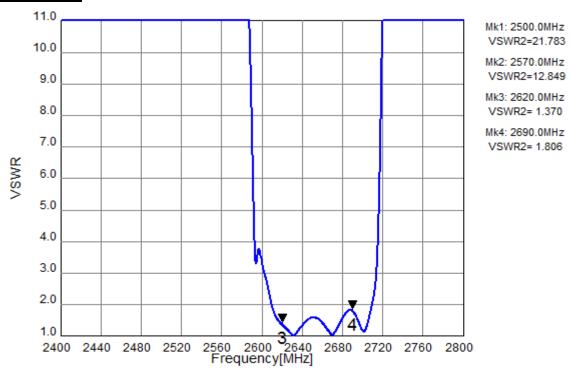
Figure 3-3. Electrical Characteristics





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## **Rx Port**



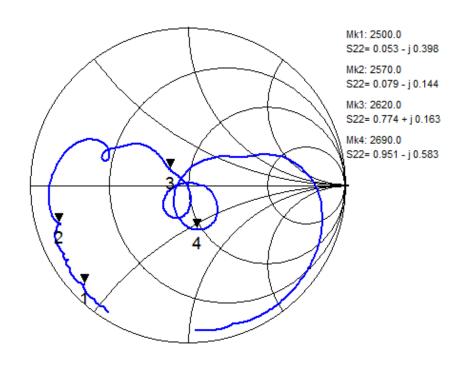
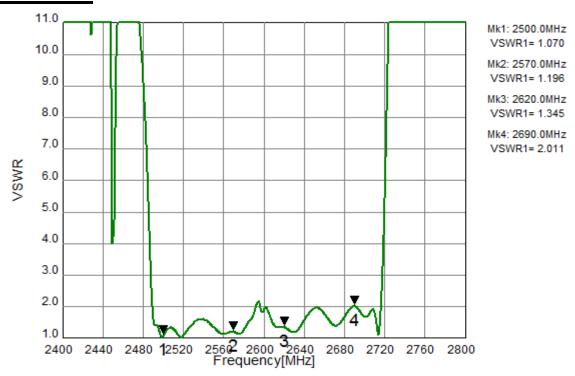


Figure 3-4. Electrical Characteristics



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## **Ant Port**



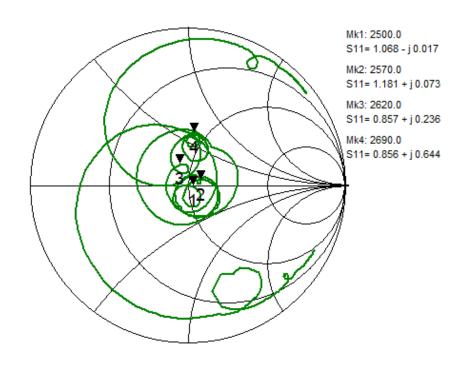


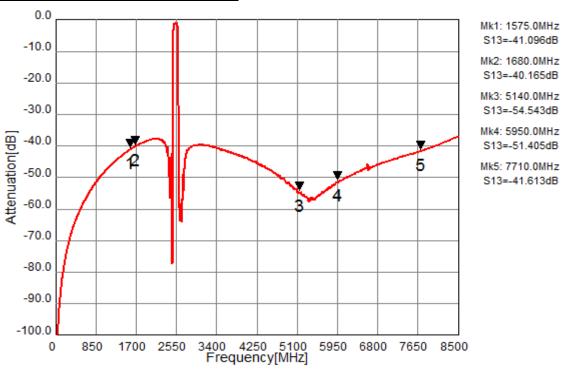
Figure 3-5. Electrical Characteristics





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Part Number	D6HL2G655DL06	Version 1.0edC	Final

## Tx to Ant (Wide span)



# Ant to Rx (Wide span)

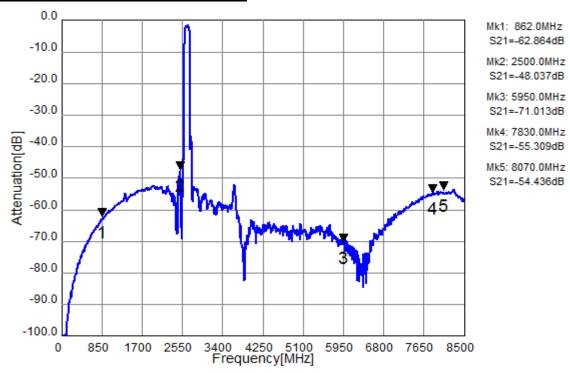


Figure 3-6. Electrical Characteristics





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Part Number	D6HL2G655DL06	Version 1.0edC	Final

# Tx to Rx (Wide span)

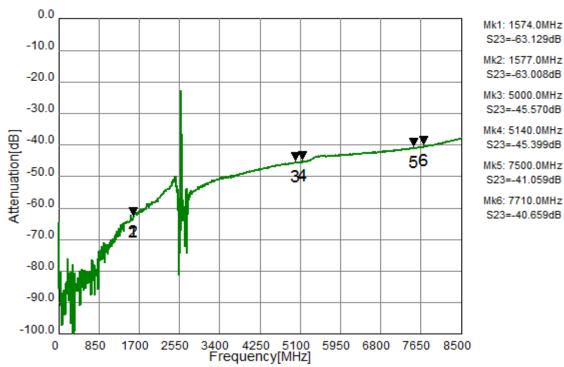


Figure 3-7. Electrical Characteristics





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

Ordering Code	Packing	Reel size	Status
D6HL2G655DL06-Z	Tape & Reel	3,000 pcs.	MP
D6HL2G655DL06-ZA	Tape & Reel	less than 3,000 pcs.	MP
D6HL2G655DL06-Y	Tape & Reel	15,000 pcs.	MP
D6HL2G655DL06-YA	Tape & Reel	less than 15,000 pcs.	MP
D6HL2G655DL06-Q	Bulk	few pcs.	MP

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

#### **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.



<sup>\*</sup>MP: Mass Production