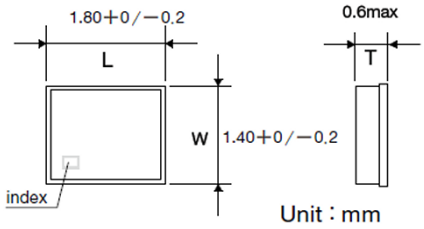
**Spec Sheet**

# FBAR/SAW Devices (SAW Duplexers)

# D5DA876M5K2P6




## Features

- Item Summary

  SAW, Duplexer, 1.8x1.4x0.6mm

  Band26
- Lifecycle Stage

  Mass Production
- Standard packaging quantity (minimum)

  Taping Embossed 3000 , 15000pcs

## Products characteristics table

| | |
|---|---|
| System | LTE |
| Type | SAW |
| Function | Duplexer |
| band | Band26 |
| Insertion Loss (typ)<br>(Tx-ANT/ANT-Rx) | 1.3/2.0 dB |
| Isolation (typ) | 60/57 dB |
| Operating Temp. Range | -20 to +85 ℃ |
| 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 0.6 mm |

2016.11.21

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

RoHS MSL1

* Pb Free Part

| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co.,Ltd. | |
|---|---|---|---|
| System | Band 26 Duplexer | Date | Mar. 22, 2016 |
| Part Number | D5DA876M5K2P6 | Version 2.2fhD | Final |

## Table 1-1. Electrical Specification

| Item | | | Condition (MHz) | Specification (Ver.2.2fhD) | | | Unit | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | Min | Typ | Max | | |
| Tx to Ant | Insertion loss | | 815~845 | - | 1.3 | 2.2 | dB(*1) | |
| | | | 814.24~815 | - | 1.4 | 2.4 | dB(*1) | |
| | | | 845~848.76 | - | 1.9 | 2.9 | dB(*1) | |
| | Amplitude Ripple | | 814.24~848.76 | - | 1.2 | 2.2 | dB | |
| | VSWR | Tx | 814.24~848.76 | - | 1.6 | 2.0 | - | |
| | | Ant | 814.24~848.76 | - | 1.5 | 2.0 | - | |
| | Input Power | | 814.24~848.76 | 29dBm,50 °C,5000h,CW | | | - | |
| | Absolute attenuation | | 10~494 | 35 | 41 | - | dB | |
| | | | 494~804 | 32 | 37 | - | dB | |
| | | | 859.24~893.76 | 44 | 56 | - | dB | |
| | | | 1475.9~1698 | 35 | 40 | - | dB | |
| | | | 1710~2494 | 30 | 35 | - | dB | |
| | | | 3256~4245 | 20 | 27 | - | dB | |
| | | | 4884~6000 | 35 | 44 | - | dB | |
| | | | 6512~6792 | 15 | 28 | - | dB | |
| | | | 7326~7641 | 12 | 26 | - | dB | |

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

Pb-free

RoHS MSL1

* Pb Free Part

| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co.,Ltd. | |
|---|---|---|---|
| System | Band 26 Duplexer | Date | Mar. 22, 2016 |
| Part Number | D5DA876M5K2P6 | Version 2.2fhD | Final |

**Table 1-2. Electrical Specification**

| Item | | | Condition (MHz) | Specification (Ver.2.2fhD) | | | Unit | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | Min | Typ | Max | | |
| Ant to Rx | Insertion loss | | 859.24~893.76 | - | 2.0 | 3.1 | dB(*1) | |
| | Amplitude Ripple | | 859.24~893.76 | - | 1.0 | 2.2 | dB | |
| | VSWR | Ant | 859.24~893.76 | - | 1.8 | 2.2 | - | |
| | | Rx | 859.24~893.76 | - | 1.8 | 2.2 | | |
| | Absolute attenuation | | 1~447 | 50 | 75 | - | dB | |
| | | | 814.24~848.76 | 45 | 55 | - | dB | |
| | | | 909~979 | 10 | 22 | - | dB | |
| | | | 1427~2500 | 45 | 50 | - | dB | |
| | | | 2577~6000 | 38 | 47 | - | dB | |
| | | | 6013~6258 | 20 | 44 | - | dB | |
| Tx To Rx | Isolation | | 814.24~848.76 | 55 | 60 | - | dB | |
| | | | 859.24~893.76 | 52 | 57 | - | dB | |
| Terminating Impedance | | | Tx port | 50 + 5.1nH | | | Ω | |
| | | | Rx port | 50 | | | Ω | |
| | | | Ant port | 50 // 8.2nH | | | Ω | |
| Operating Temperature | | | | -20 to +85 | | | °C | |
| Device size (L typ. x W typ. x H max.) | | | | 1.8 x 1.4 x 0.60 | | | mm | |

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

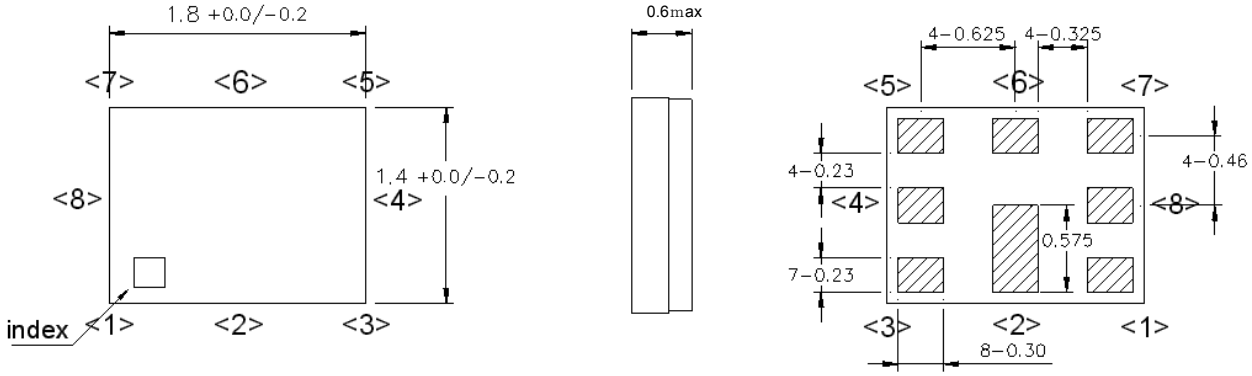
Pb-free

RoHS MSL1

* Pb Free Part

| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co.,Ltd. | |
|---|---|---|---|
| System | Band 26 Duplexer | Date | Mar. 22, 2016 |
| Part Number | D5DA876M5K2P6 | Version 2.2fhD | Final |

## Dimensions




< Top View > < Side View > < Bottom View >

**Unit : mm**

## 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 |

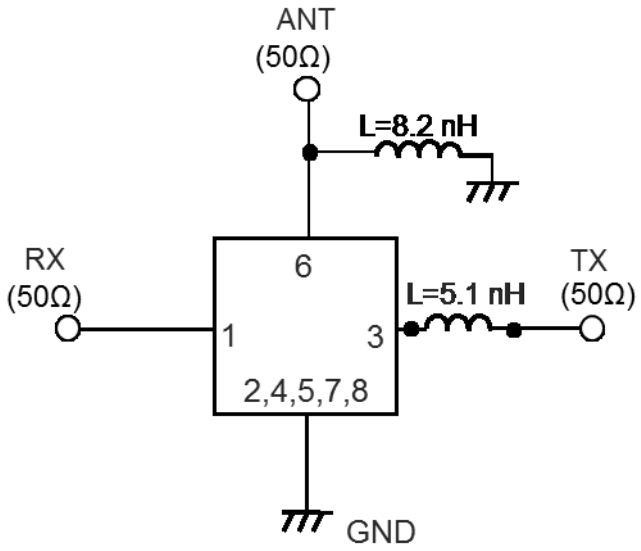
**Figure 1. Dimensions and Pin assignment**

Pb-free
* Pb Free Part

RoHS MSL1

| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co.,Ltd. | |
|---|---|---|---|
| System | Band 26 Duplexer | Date | Mar. 22, 2016 |
| Part Number | D5DA876M5K2P6 | Version 2.2fhD | Final |

## Evaluation Circuit




1-8:Pin No.

## Recommended foot print pattern

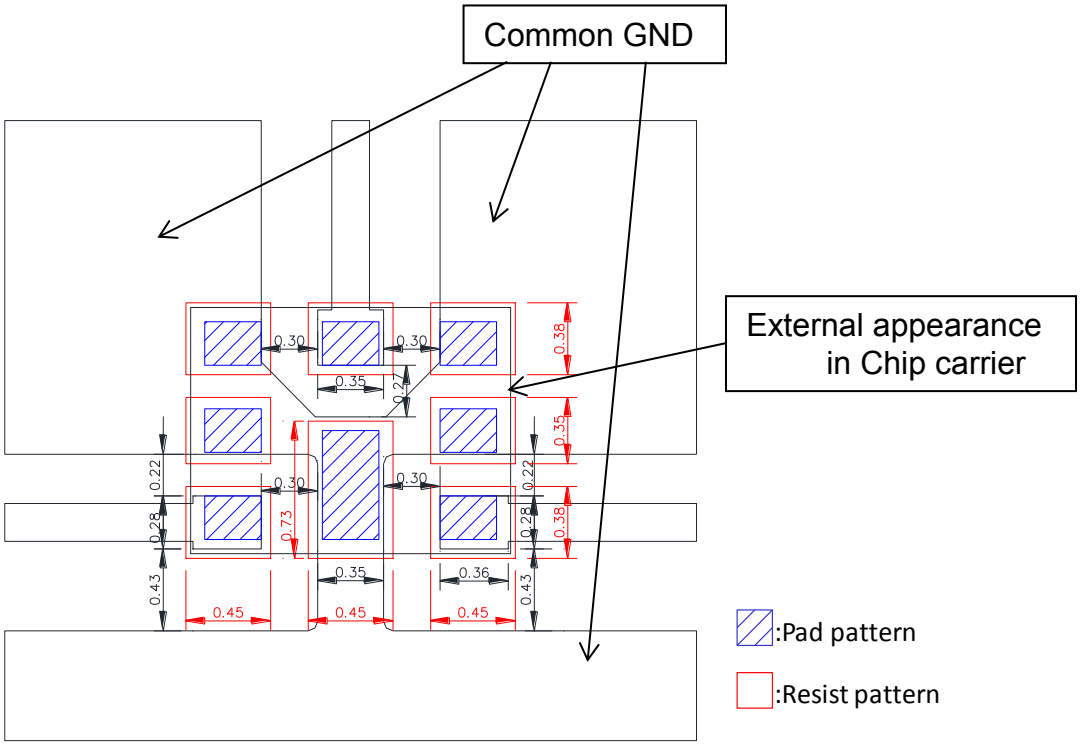


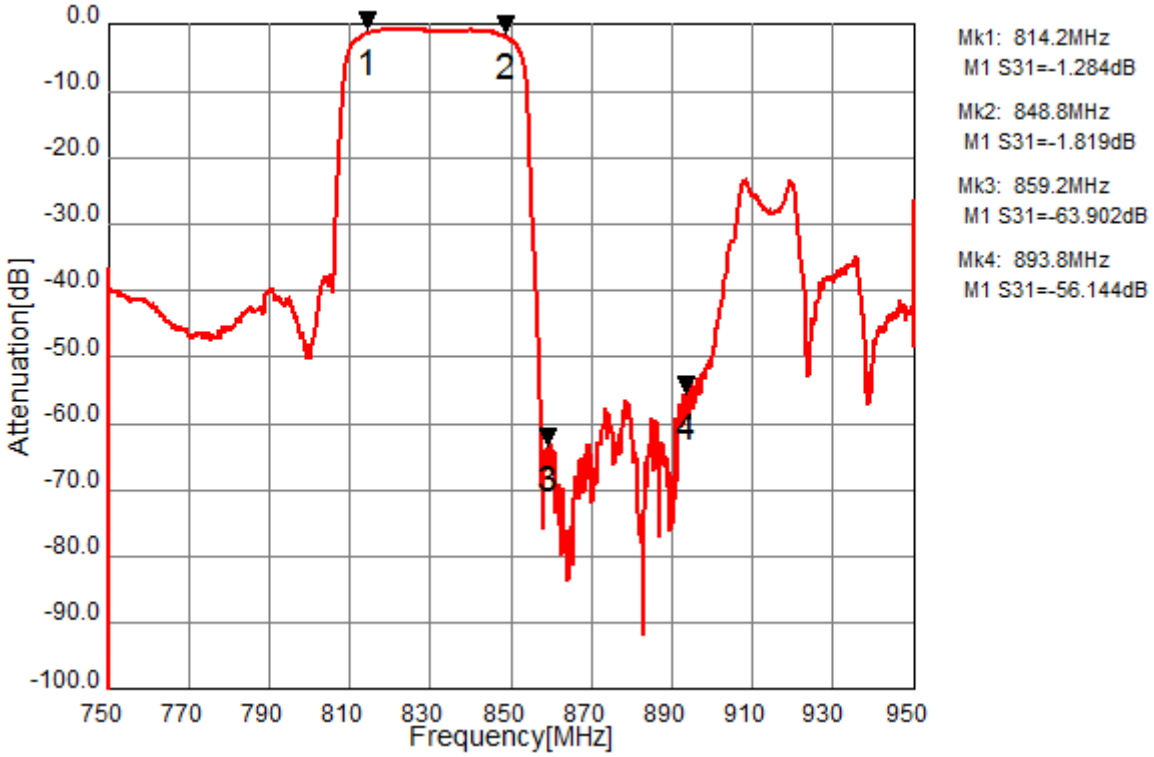

**Figure 2. Recommended foot print pattern**

Pb-free
* Pb Free Part

RoHS MSL1

| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co.,Ltd. | |
|---|---|---|---|
| System | Band 26 Duplexer | Date | Mar. 22, 2016 |
| Part Number | D5DA876M5K2P6 | Version 2.2fhD | Final |

# Tx to Ant




# Ant to Rx

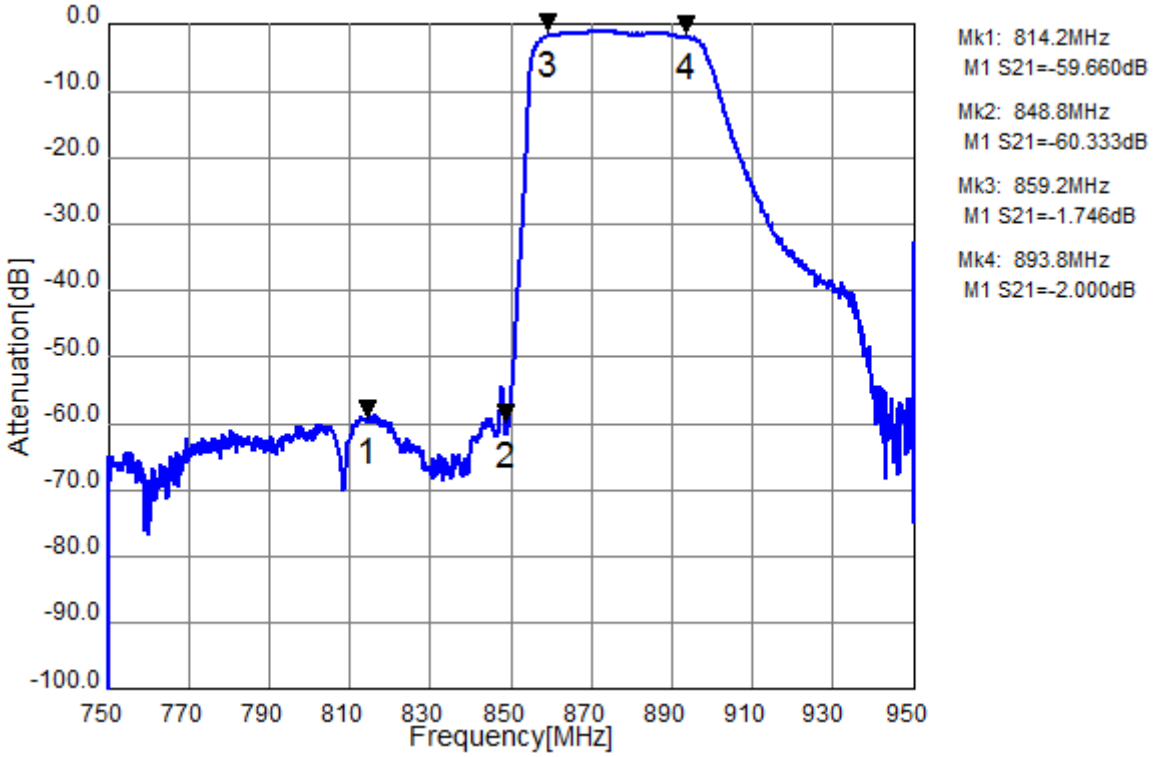


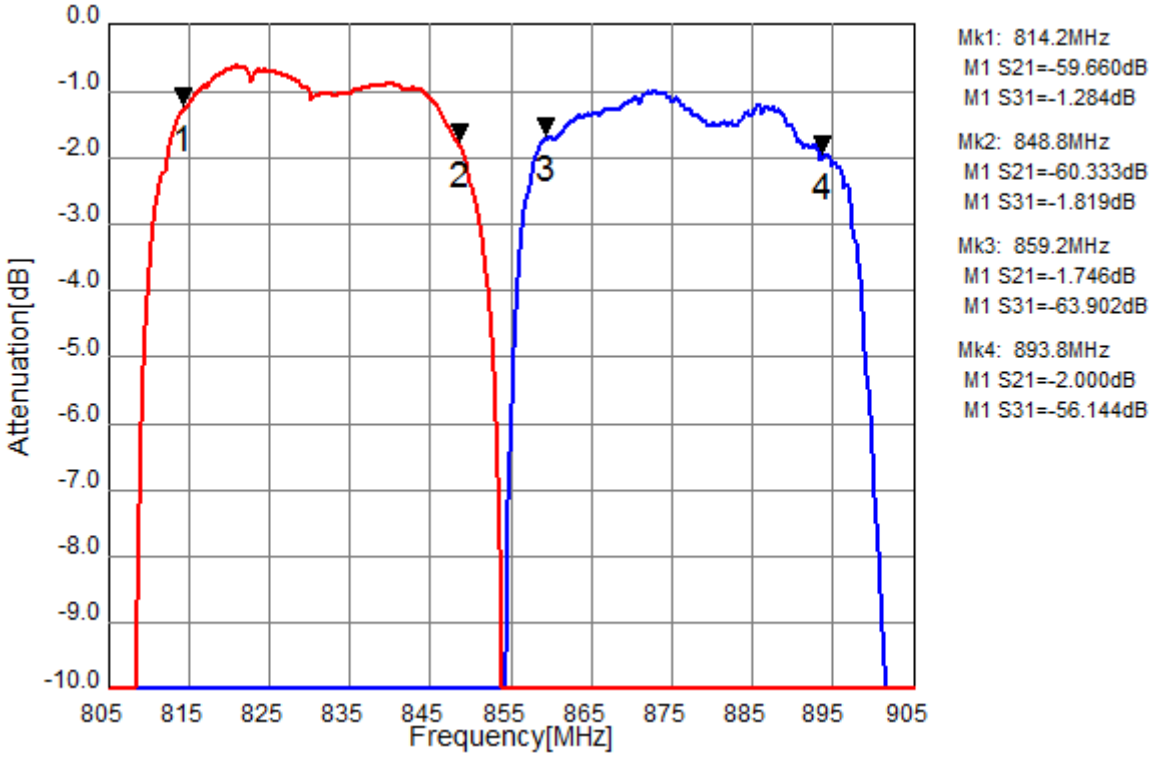

**Figure 3-1. Electrical Characteristics**

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

Pb-free
RoHS MSL1
* Pb Free Part

| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co.,Ltd. | |
|---|---|---|---|
| System | Band 26 Duplexer | Date | Mar. 22, 2016 |
| Part Number | D5DA876M5K2P6 | Version 2.2fhD | Final |

# Tx to Ant, Ant to Rx




# Tx to Rx Isolation

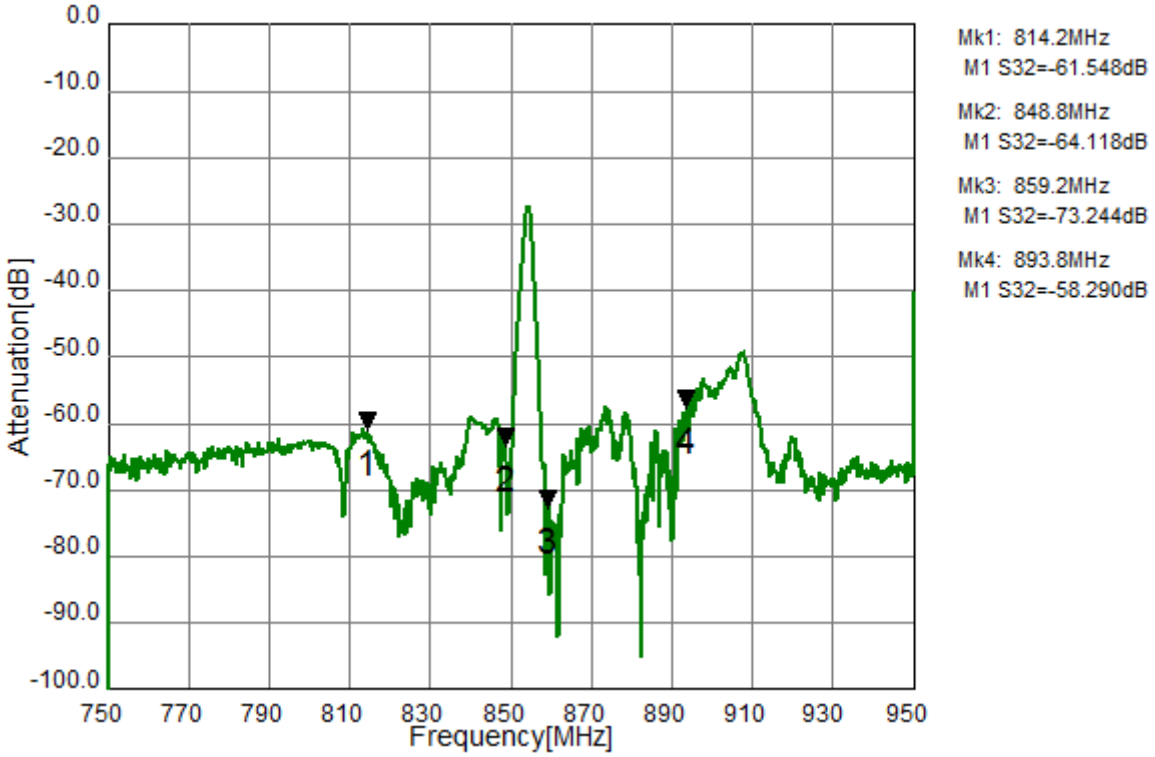



**Figure 3-2. Electrical Characteristics**

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

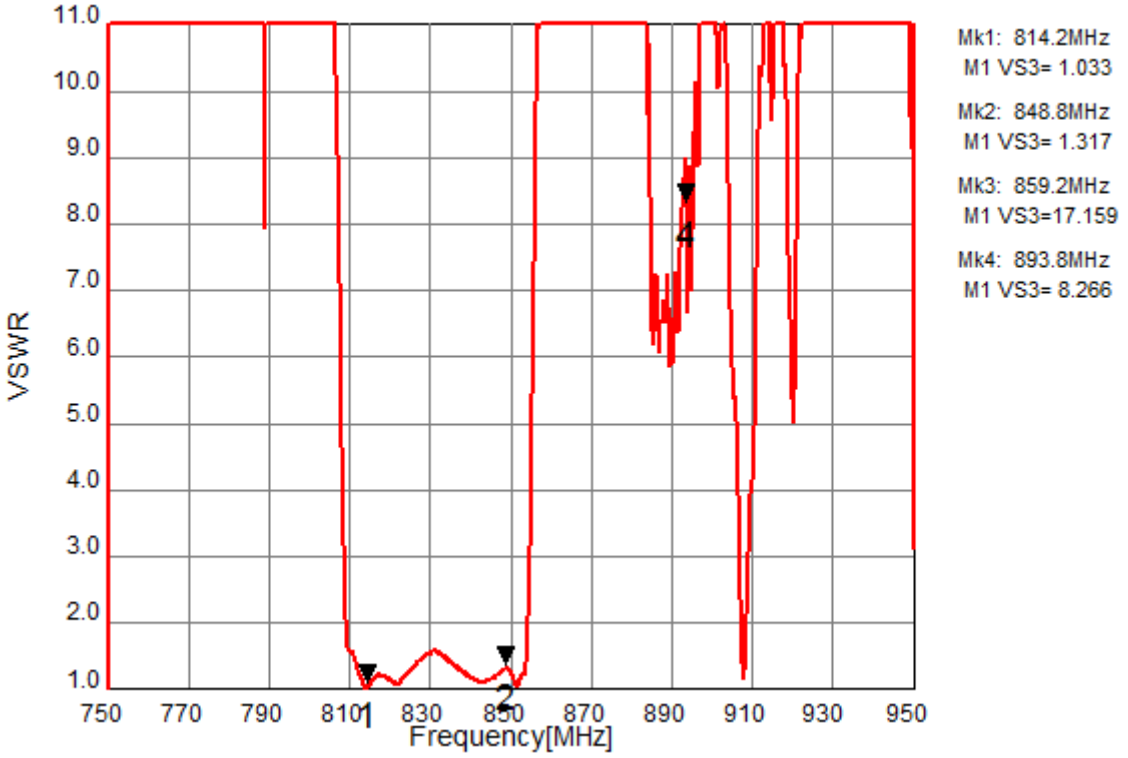
Pb-free

RoHS MSL1

* Pb Free Part

| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co.,Ltd. | |
|---|---|---|---|
| System | Band 26 Duplexer | Date | Mar. 22, 2016 |
| Part Number | D5DA876M5K2P6 | Version 2.2fhD | Final |

# Tx Port



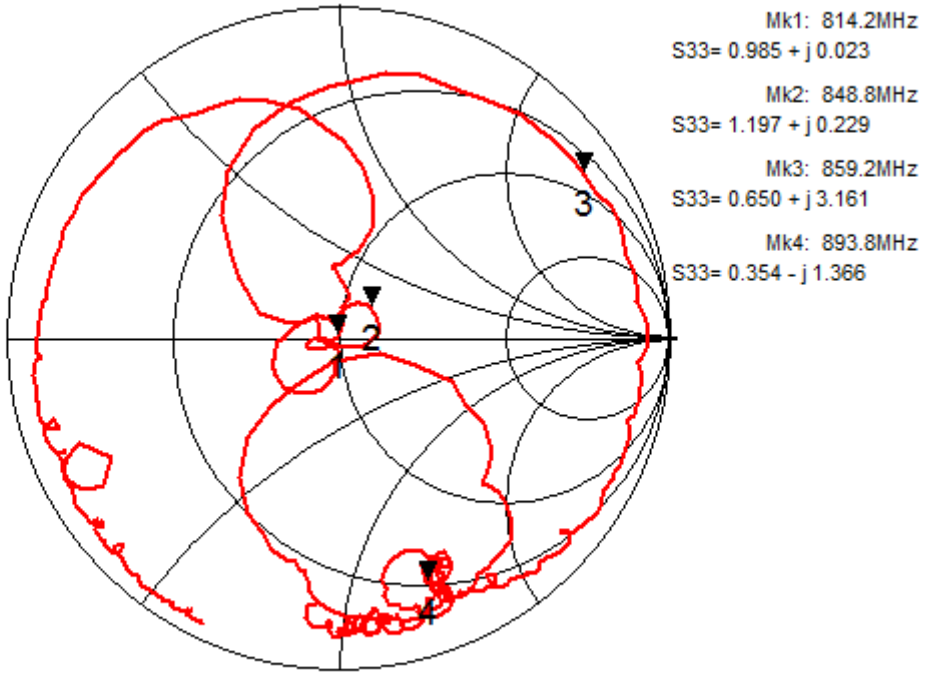
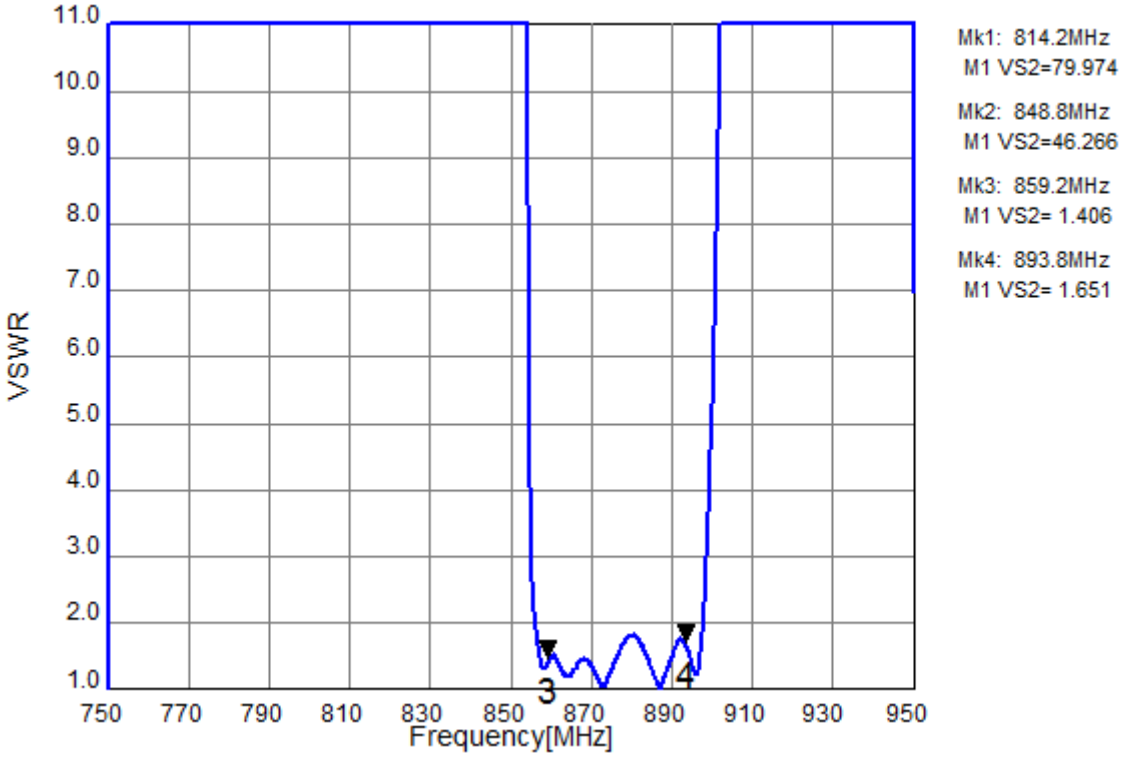




**Figure 3-4. Electrical Characteristics**

| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co.,Ltd. | |
|---|---|---|---|
| System | Band 26 Duplexer | Date | Mar. 22, 2016 |
| Part Number | D5DA876M5K2P6 | Version 2.2fhD | Final |

# Rx Port



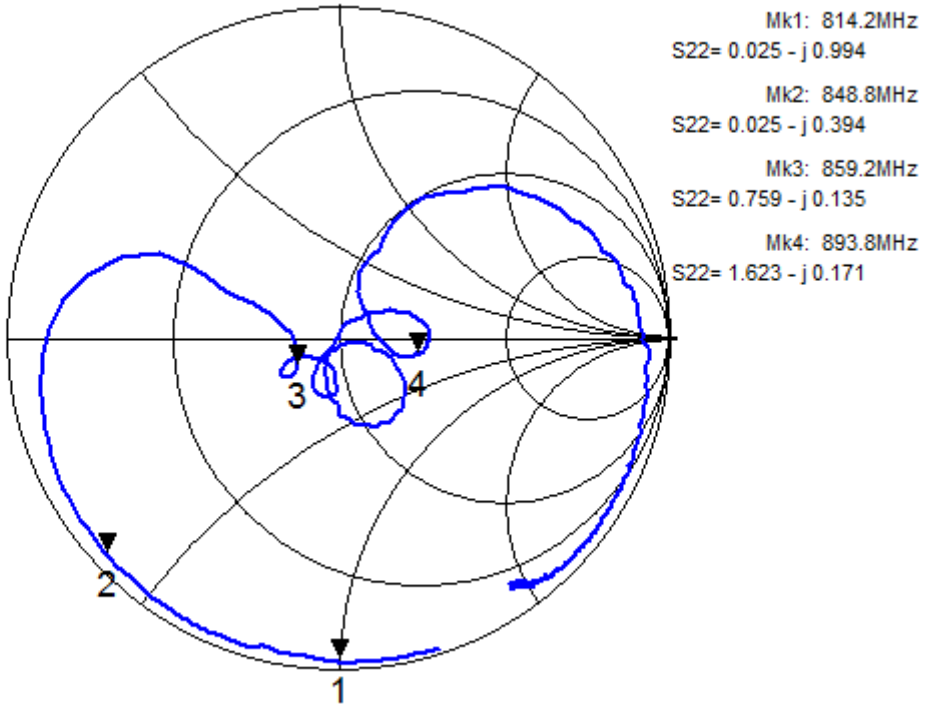
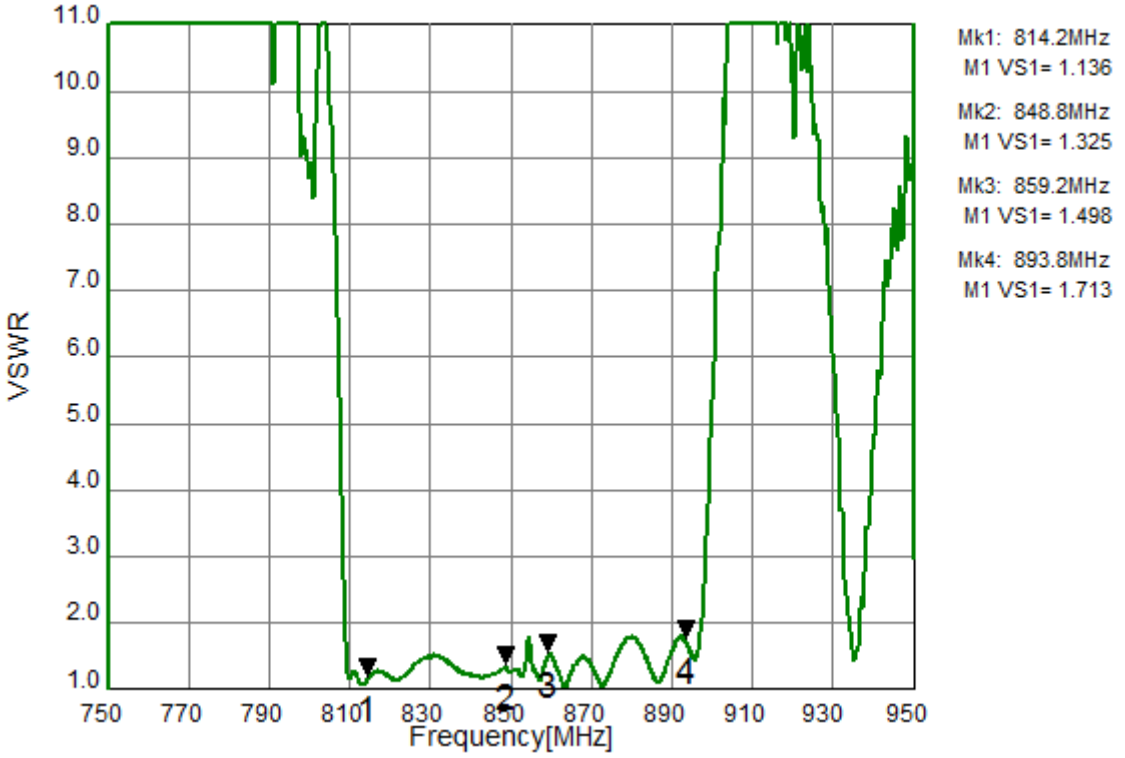




**Figure 3-5. Electrical Characteristics**

| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co.,Ltd. | |
|---|---|---|---|
| System | Band 26 Duplexer | Date | Mar. 22, 2016 |
| Part Number | D5DA876M5K2P6 | Version 2.2fhD | Final |

# Ant Port



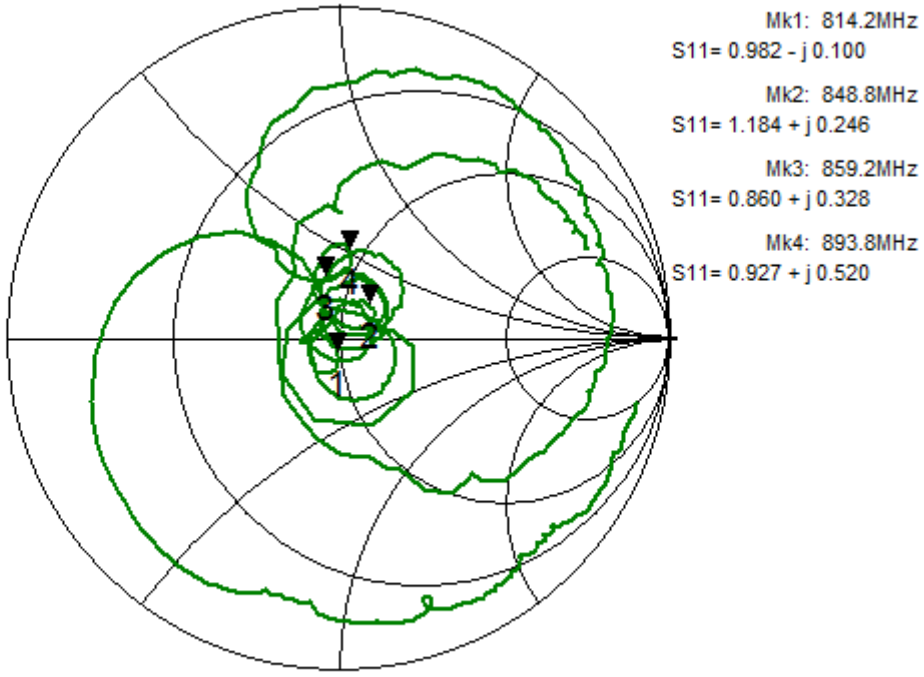
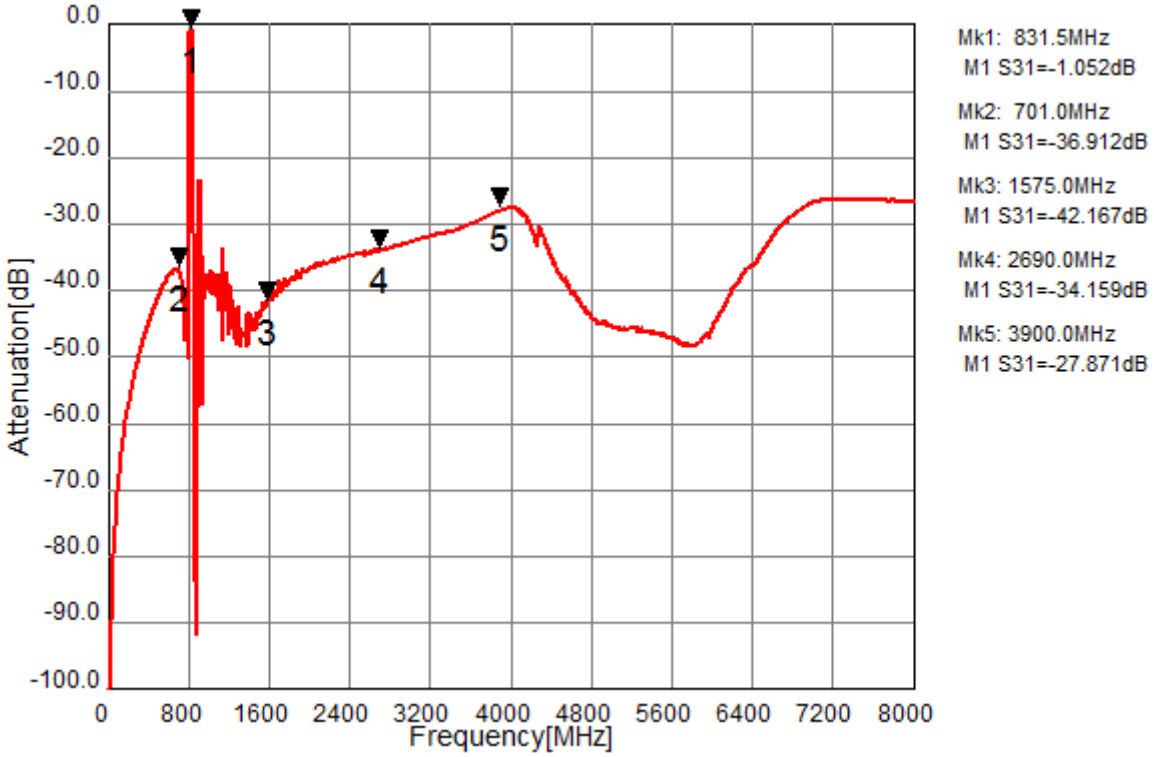




**Figure 3-6. Electrical Characteristics**

| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co.,Ltd. | |
|---|---|---|---|
| System | Band 26 Duplexer | Date | Mar. 22, 2016 |
| Part Number | D5DA876M5K2P6 | Version 2.2fhD | Final |

## Tx to Ant (Wide Span)




## Ant to Rx (Wide Span)

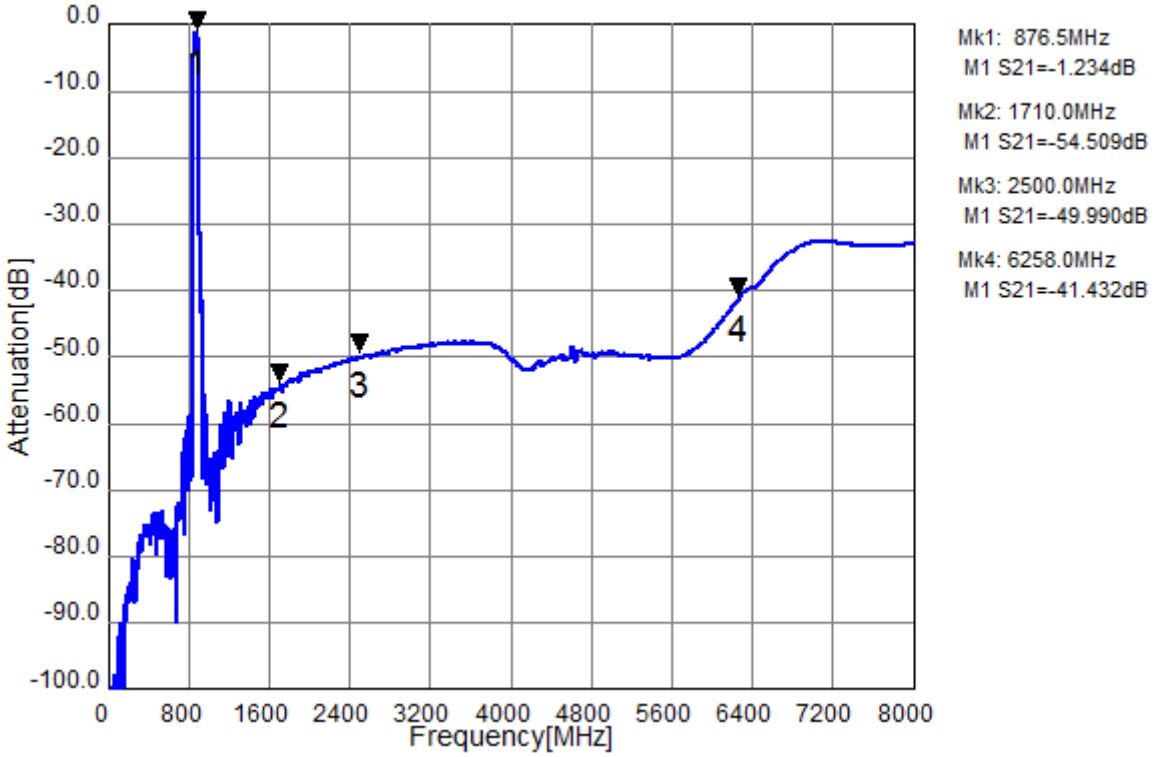



**Figure 3-7. Electrical Characteristics**

Pb-free
RoHS MSL1
* Pb Free Part

| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co.,Ltd. | |
|---|---|---|---|
| System | Band 26 Duplexer | Date | Mar. 22, 2016 |
| Part Number | D5DA876M5K2P6 | Version 2.2fhD | Final |

## Ordering Code

| Ordering Code | Packing | Reel size | Status |
|---|---|---|---|
| D5DA876M5K2P6-Z | Tape & Reel | 3,000 pcs. | MP |
| D5DA876M5K2P6-ZA | Tape & Reel | less than 3,000 pcs. | MP |
| D5DA876M5K2P6-Y | Tape & Reel | 15,000 pcs. | MP |
| D5DA876M5K2P6-YA | Tape & Reel | less than 15,000 pcs. | MP |
| D5DA876M5K2P6-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.