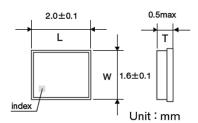
Spec Sheet

FBAR/SAW Devices (SAW Duplexers)

D5PF876M5M3U9



Features

- Item Summary
 SAW, Duplexer, 2.0x1.6x0.5mm
 Band26
- Lifecycle Stage
 Mass Production
- Standard packaging quantity (minimum)
 Taping Embossed 3000, 15000pcs

■ Products characteristics table

| System | LTE |
|---|--------------|
| Туре | SAW |
| Function | Duplexer |
| band | Band26 |
| Insertion Loss (typ) (Tx-ANT/ANT-Rx) | 2.0/1.9 dB |
| Isolation (typ) | 56/49 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 | $1.6 \pm 0.10 \; mm$ |
| Dimension T | Max 0.5 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.

2017.05.01





| Customer Name | Standard | TAIYO YUDEN Mobil | e Technology Co.,Ltd. |
|---------------|------------------|-------------------|-----------------------|
| System | Band 26 Duplexer | Date | November 28, 2013 |
| Part Number | D5PF876M5M3U9 | Version 3.1dbB | Final |

Table 1. Electrical Specification

| ltem | | Condition (MHz) | | Specificatio | | Unit | Remarks | |
|--|-----------------------|--------------------|-----------------|-----------------|-----------------------|-------|---------|--------------|
| Тх | | | 815~845 | IVIIII | Тур 2.0 | 2.6 | | |
| to | Insertion I | 000 | 814~815 | - | 2.0 | 3.0 | dB (*1) | |
| ANT | msertion | 055 | 845~849 | - | 2.0 | 3.0 | ub (1) | |
| ANT | Ripple | | 814~849 | - | 1.2 | 2.8 | dB | |
| | Тарріс | Tx | 814~849 | _ | 2.1 | 2.5 | QD. | |
| | VSWR | Ant | 814~849 | | 2.0 | 2.3 | - | |
| | Power Du | <u>'</u> | 814~849 | | Bm, Ta=+ 5000h, CV | -50°C | - | |
| | Absolute a | attenuation | 420~764 | 30 | 33 | - | dB | |
| | | | 764~804 | 30 | 35 | - | dB | |
| | | | 859~894 | 42 | 47 | - | dB | |
| | | | 1565~1606 | 37 | 40 | - | dB | |
| | | | 1930~1995 | 44 | 47 | - | dB | |
| | | | 2110~2170 | 44 | 50 | - | dB | |
| | | | 2400~2690 | 44 | 48 | - | dB | |
| ANT | Insertion I | oss | 859~894 | - | 1.9 | 2.8 | dB (*1) | |
| to | Ripple | | 859~894 | - | 0.7 | 2.0 | dB | |
| Rx | VCMD | Ant | 859~894 | - | 1.8 | 2.2 | | |
| | VSWR | Rx | 859~894 | - | 1.9 | 2.4 | - | |
| | Absolute a | attenuation | 814~849 | 52 | 56 | - | dB | |
| | | | 2400~2500 | 45 | 50 | - | dB | |
| Tx to Rx | Isolation | | 814~849 | 53 | 56 | - | dB | |
| | | | 859~894 | 45 | 49 | - | dB | |
| Terminating | Terminating Impedance | | Tx port | | 50 | | Ohm | Single-ended |
| | | | Rx port | | 50 | | Ohm | Single-ended |
| | | | Ant port | 50 / | / 8.2nH (Q | (=∞) | Ohm | Single-ended |
| Operating 7 | Operating Temperature | | | | -20 to +85 | | ۰C | |
| Device size (L typ. x W typ. x H max.) | |) | 2.0 x 1.6 x 0.5 | | mm | | | |

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

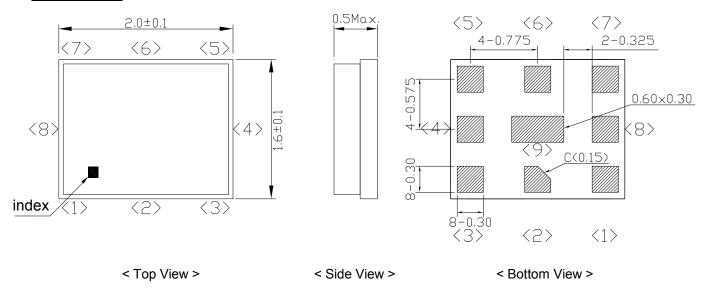






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Dimensions



Unit: mm

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 |

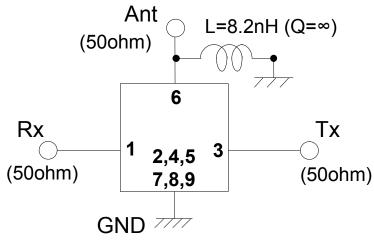
Figure 1. Dimensions and Pin assignment





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Evaluation Circuit



1~9: Pin No.

Recommended foot print pattern

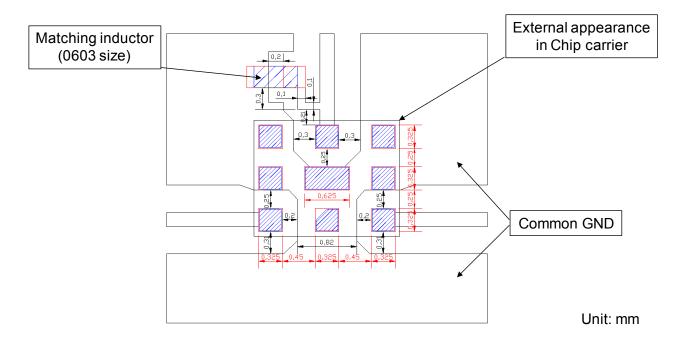


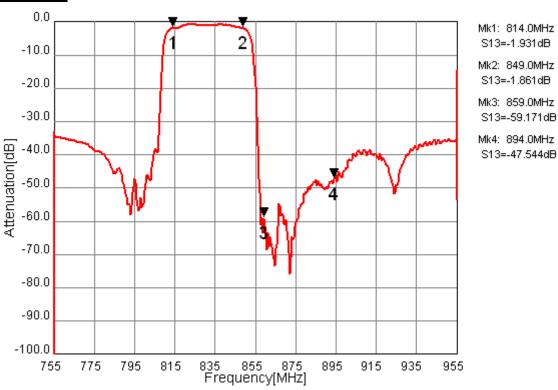
Figure 2. Recommended foot print pattern





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Tx to Ant



Ant to Rx

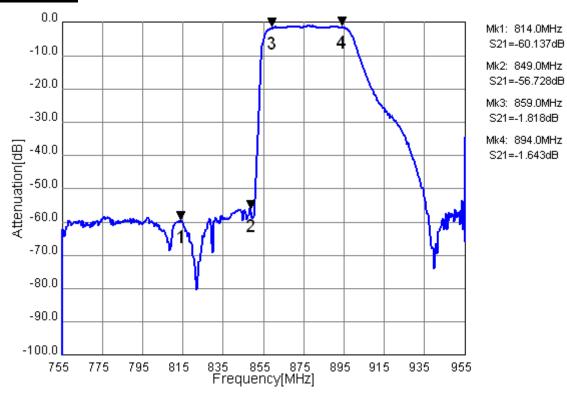


Figure 3-1. Electrical Characteristics

These data exclude loss that comes from the test board.

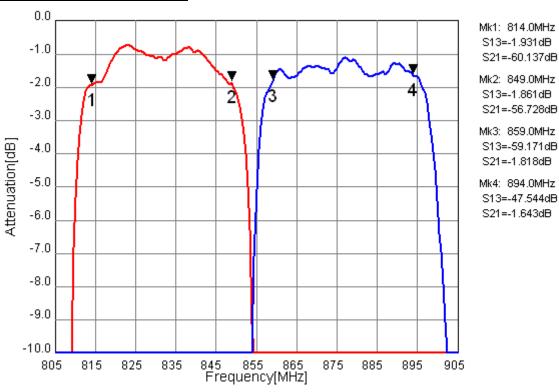






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| System | Band 26 Duplexer | Date | November 28, 2013 |
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Tx to Ant, Ant to Rx



Tx to Rx Isolation

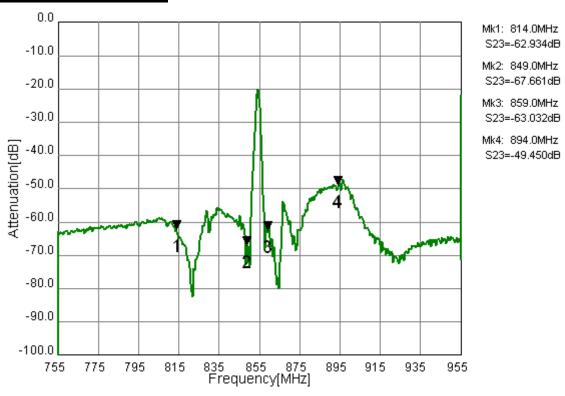


Figure 3-2. Electrical Characteristics

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

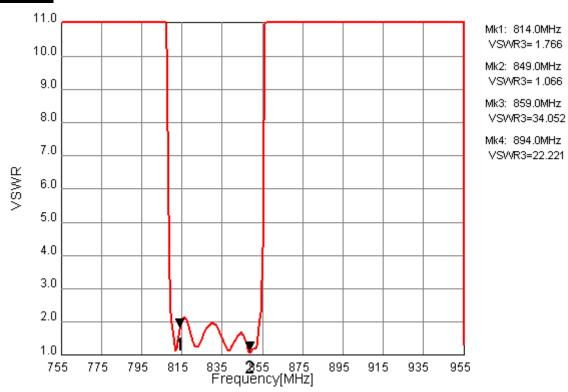






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Tx Port



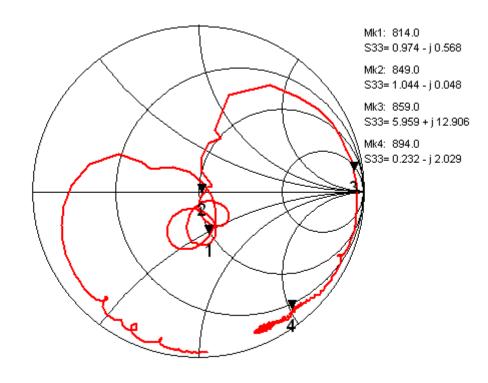


Figure 3-3. Electrical Characteristics

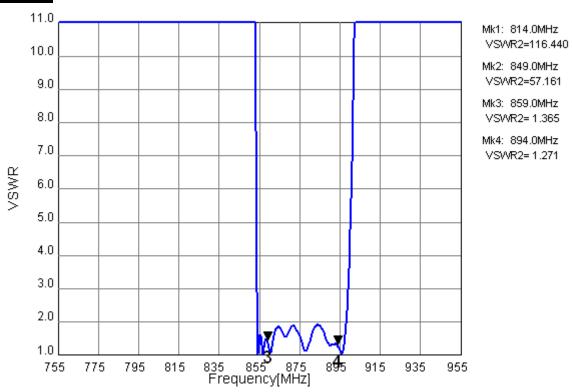






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| System | Band 26 Duplexer | Date | November 28, 2013 |
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Rx Port



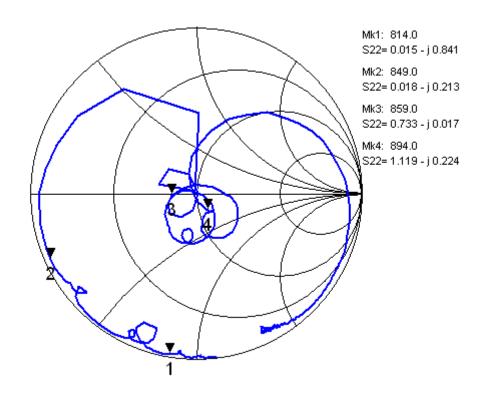


Figure 3-4. Electrical Characteristics

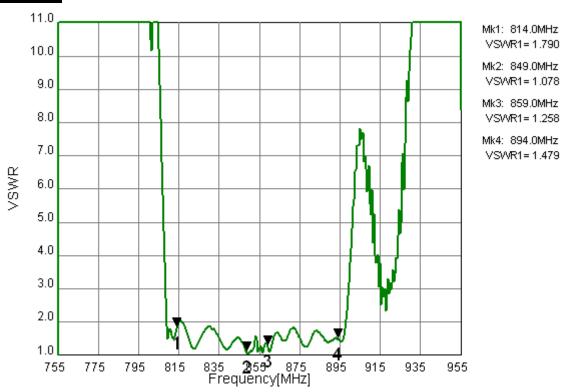
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Ant Port



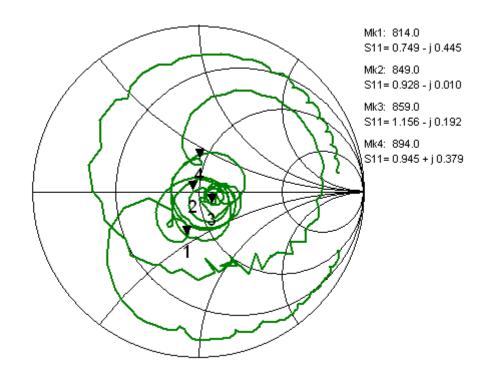


Figure 3-5. Electrical Characteristics

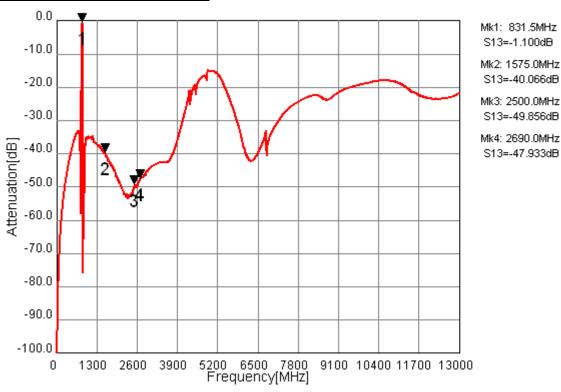






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| System | Band 26 Duplexer | Date | November 28, 2013 |
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Tx to Ant (Wide span)



Ant to Rx (Wide span)

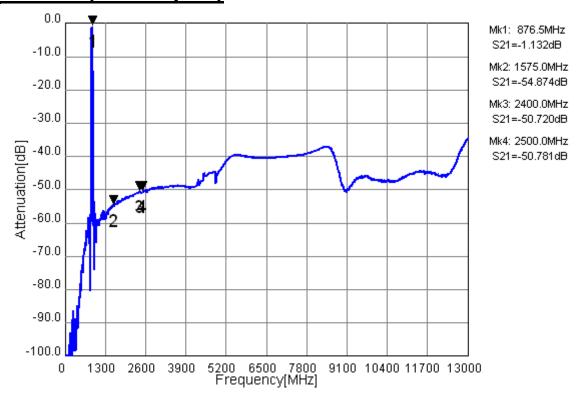


Figure 3-6. Electrical Characteristics





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Ordering Code

| Ordering Code | Packing | Reel size | Status |
|---------------------------|-------------|-----------------------|--------|
| D5PF876M5M3U9-Z | Tape & Reel | 3,000 pcs. | MP |
| D5PF876M5M3U9- Z A | Tape & Reel | less than 3,000 pcs. | MP |
| D5PF876M5M3U9-Y | Tape & Reel | 15,000 pcs. | MP |
| D5PF876M5M3U9-YA | Tape & Reel | less than 15,000 pcs. | MP |
| D5PF876M5M3U9-Q | Bulk | few pcs. | MP |

^{*}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.



^{*}MP: Mass Production