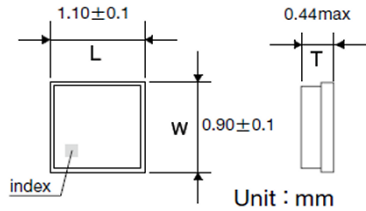


## FBAR/SAW Devices (SAW Type)

## F5BA722M5M6UW



## ■ Features

- Item Summary  
SAW, Rx Type, 1.1x0.9x0.44mm  
Band29
- Lifecycle Stage  
Mass Production
- Standard packaging quantity (minimum)  
Taping Embossed 5000 , 15000pcs

## ■ Products characteristics table

|                               |               |
|-------------------------------|---------------|
| System                        | LTE           |
| Type                          | SAW           |
| Function                      | Rx Type       |
| band                          | Band29        |
| Insertion Loss (typ)          | 1.6 dB        |
| Attenuation (typ)             | 38 dB         |
| Operating Temp. Range         | -30 to +85 °C |
| RoHS2 Compliance (10 subst.)  | Yes           |
| REACH Compliance (173 subst.) | Yes           |
| Halogen Free                  | Yes           |
| Soldering                     | Reflow        |

## ■ External Dimensions

|             |               |
|-------------|---------------|
| Dimension L | 1.1 ± 0.10 mm |
| Dimension W | 0.9 ± 0.10 mm |
| Dimension T | Max 0.44 mm   |

2017.09.07

The data is reference only. Electrical characteristics vary depending on environment or measurement condition.  
 TAIYO YUDEN reserves the right to make change to the data 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 29 Rx    | DATE                                   | Nov. 5, 2015 |
| Part Number   | F5BA722M5M6UW | Version 2.0bA                          | Final        |

**Table 1. Electrical specifications**

| Item                                 | Condition (MHz)  | Specifications               |      |      | Unit        | Remarks |  |
|--------------------------------------|------------------|------------------------------|------|------|-------------|---------|--|
|                                      |                  | Min.                         | Typ. | Max. |             |         |  |
| Insertion Loss                       | 717-728          | -                            | 1.6  | 2.5  | dB(*1)      |         |  |
| Ripple                               | 717-728          | -                            | 0.5  | 1.8  | dB          |         |  |
| VSWR                                 | Input            | 717-728                      | -    | 1.5  | 2.5         | -       |  |
|                                      | Output           | 717-728                      | -    | 1.5  | 2.5         | -       |  |
| Input Power                          | 717-728          | +10dBm Ta=+50°C<br>5000h, CW |      |      |             |         |  |
| Absolute attenuation                 | 50-698           | 30                           | 40   | -    | dB          |         |  |
|                                      | 698-704          | 30                           | 38   | -    | dB          |         |  |
|                                      | 739-746          | 10                           | 20   | -    | dB          |         |  |
|                                      | 1710-1755        | 40                           | 46   | -    | dB          |         |  |
|                                      | 1850-1910        | 40                           | 45   | -    | dB          |         |  |
|                                      | 2400-2500        | 35                           | 42   | -    | dB          |         |  |
|                                      | 4900-6000        | 30                           | 36   | -    | dB          |         |  |
| Terminating Impedance                | Input port       | 50                           |      |      | Ω           |         |  |
|                                      | Output port      | 50                           |      |      | Ω           |         |  |
| Operating Temperature                | -30 to +85       |                              |      | °C   |             |         |  |
| Maximum DC in all ports              | -                | -                            | 3    | VDC  | Device only |         |  |
| DC impedance to ground               | 100              |                              |      |      | Device only |         |  |
| Device size (L typ.x W typ.x H max.) | 1.1 x 0.9 x 0.44 |                              |      | mm   |             |         |  |

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

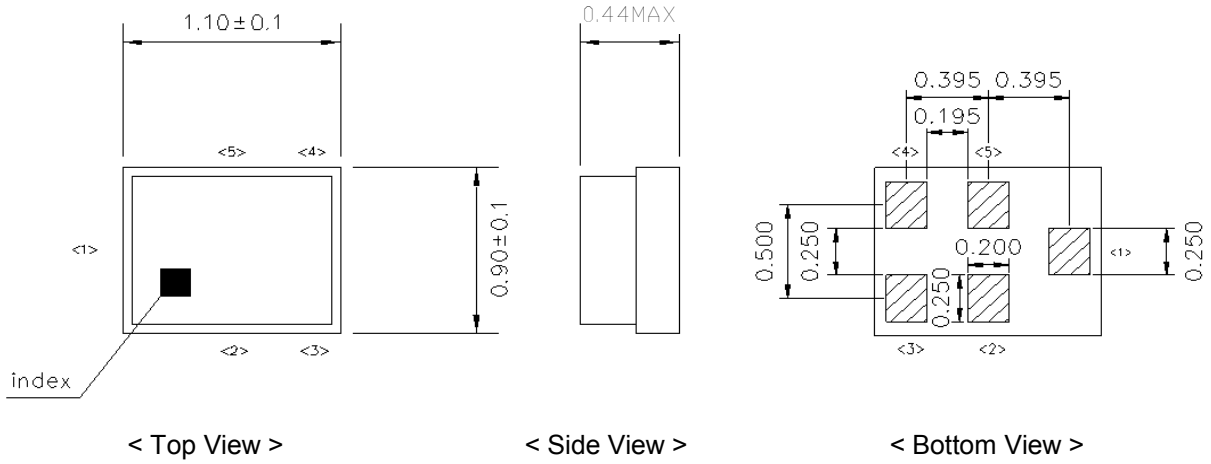


MSL1

\*Pb Free part

|               |                 |  |              |
|---------------|-----------------|--|--------------|
| Customer Name | <b>Standard</b> | TAIYO YUDEN Mobile Technology Co.,Ltd. |              |
| System        | Band 29 Rx      | DATE                                   | Nov. 5, 2015 |
| Part Number   | F5BA722M5M6UW   | Version 2.0bA                          | <b>Final</b> |

**Dimensions**



Unit: mm

**Pin assignment**

| Pin No. | Symbol | Function |
|---------|--------|----------|
| 1       | In     | Input    |
| 2       | GND    | Ground   |
| 3       | GND    | Ground   |
| 4       | Out    | Output   |
| 5       | GND    | Ground   |

**Figure 1. Dimensions and Pin assignment**

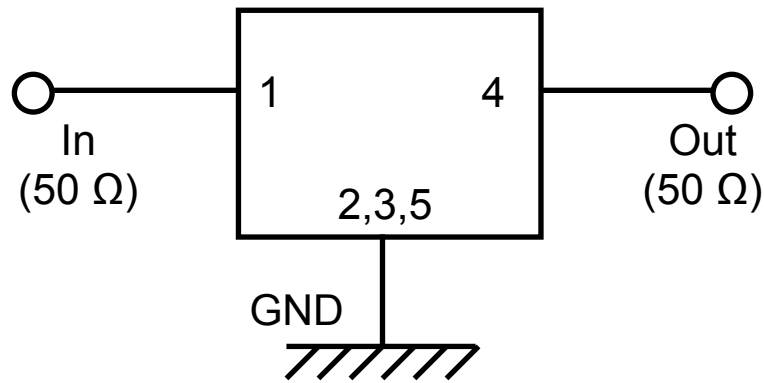


MSL1

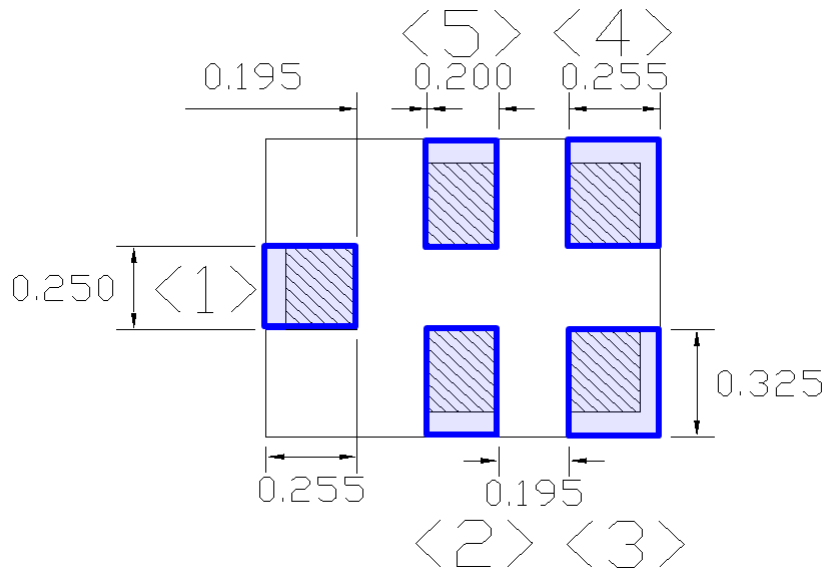
\*Pb Free part

|               |               |  |              |
|---------------|---------------|--|--------------|
| Customer Name | Standard      | TAIYO YUDEN Mobile Technology Co.,Ltd. |              |
| System        | Band 29 Rx    | DATE                                   | Nov. 5, 2015 |
| Part Number   | F5BA722M5M6UW | Version 2.0bA                          | Final        |

### Evaluation Circuit



### Recommended foot print pattern



**Figure 2. Recommended foot print pattern**

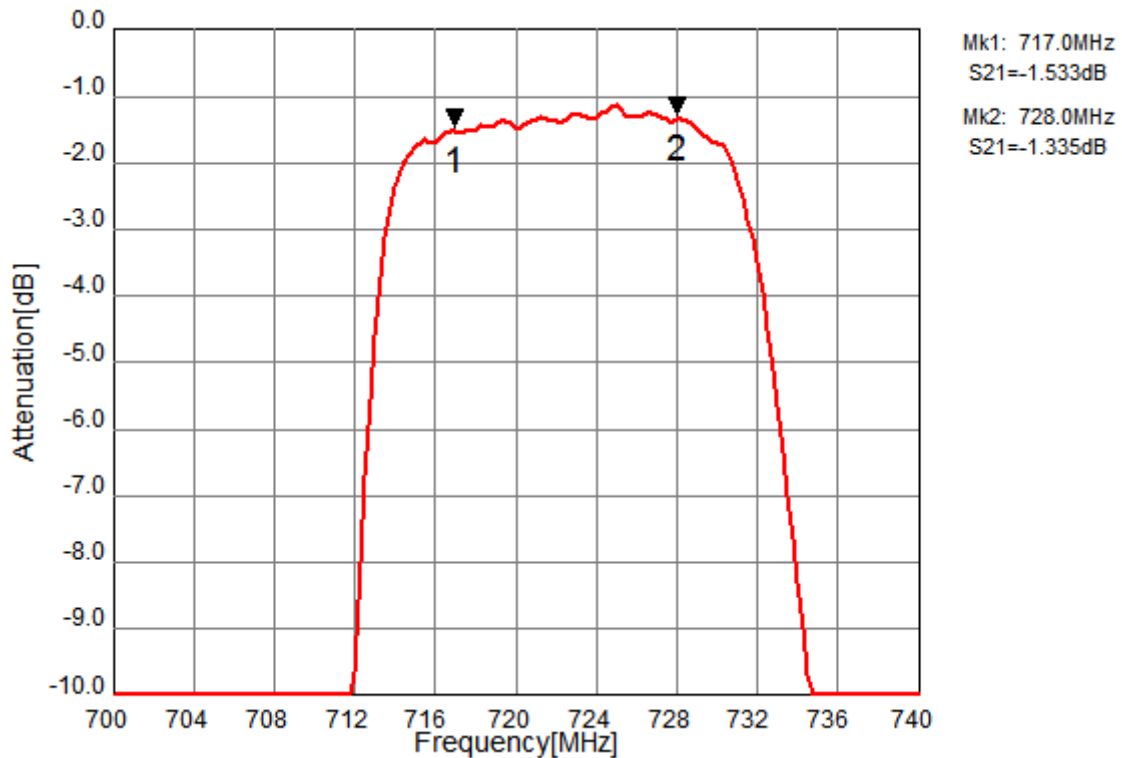
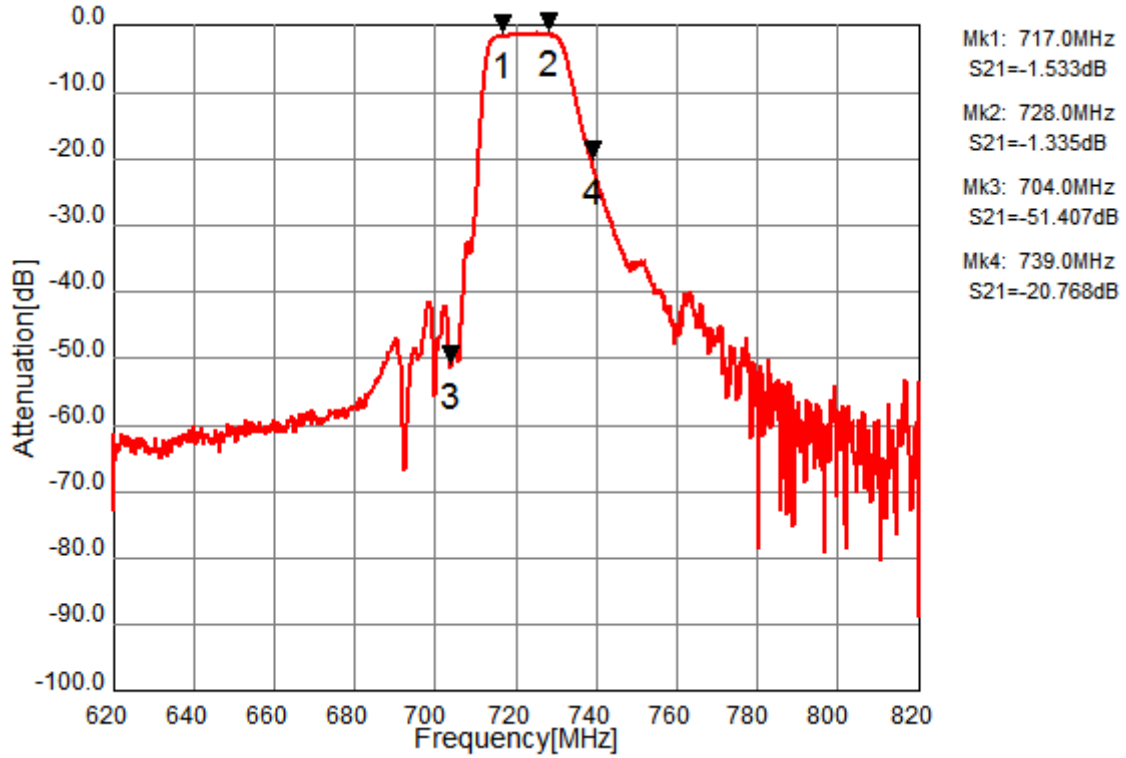


MSL1

\*Pb Free part

|               |               |  |              |
|---------------|---------------|--|--------------|
| Customer Name | Standard      | TAIYO YUDEN Mobile Technology Co.,Ltd. |              |
| System        | Band 29 Rx    | DATE                                   | Nov. 5, 2015 |
| Part Number   | F5BA722M5M6UW | Version 2.0bA                          | Final        |

## Passband



**Figure 3-1. Electrical Characteristics**

These data excludes loss that comes from the test board.



MSL1

\*Pb Free part

|               |               |  |              |
|---------------|---------------|--|--------------|
| Customer Name | Standard      | TAIYO YUDEN Mobile Technology Co.,Ltd. |              |
| System        | Band 29 Rx    | DATE                                   | Nov. 5, 2015 |
| Part Number   | F5BA722M5M6UW | Version 2.0bA                          | Final        |

## Input Port

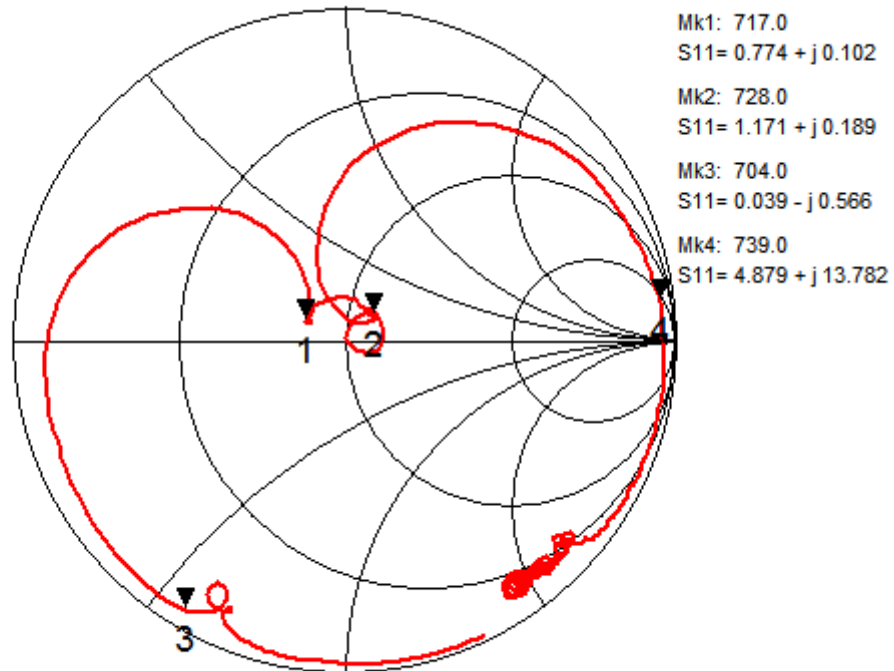
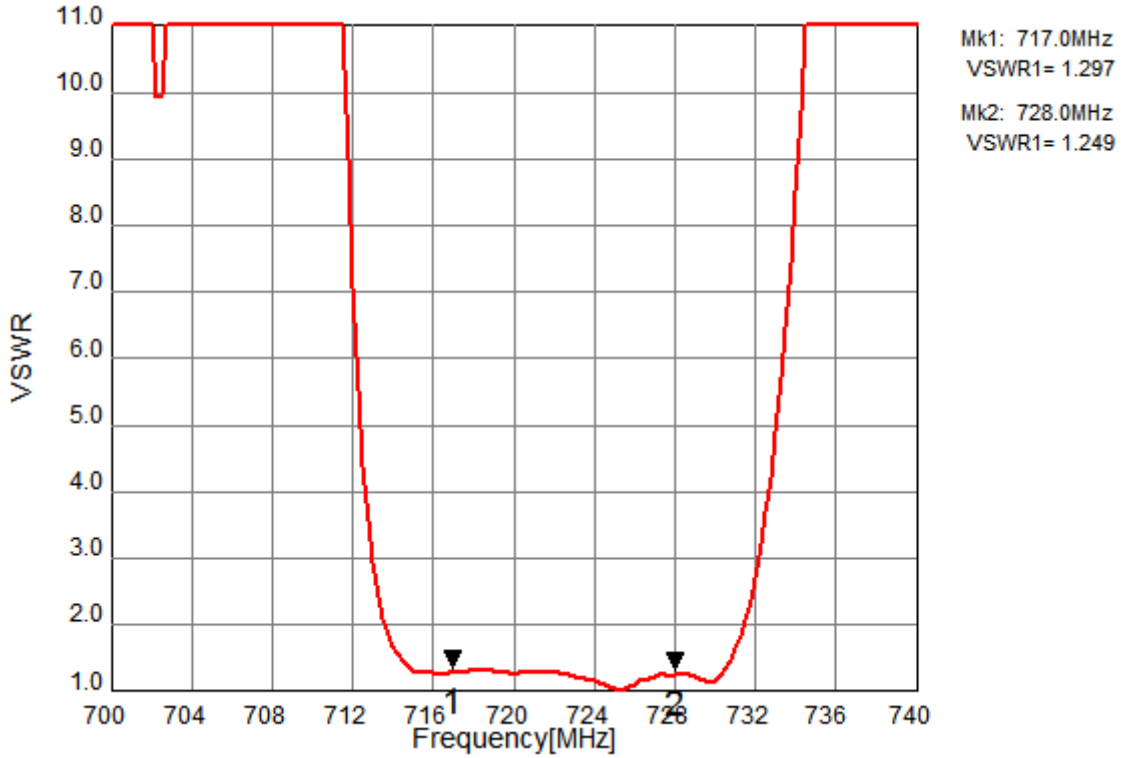


Figure 3-2. Electrical Characteristics



MSL1

\*Pb Free part

|               |               |  |              |
|---------------|---------------|--|--------------|
| Customer Name | Standard      | TAIYO YUDEN Mobile Technology Co.,Ltd. |              |
| System        | Band 29 Rx    | DATE                                   | Nov. 5, 2015 |
| Part Number   | F5BA722M5M6UW | Version 2.0bA                          | Final        |

## Output Port

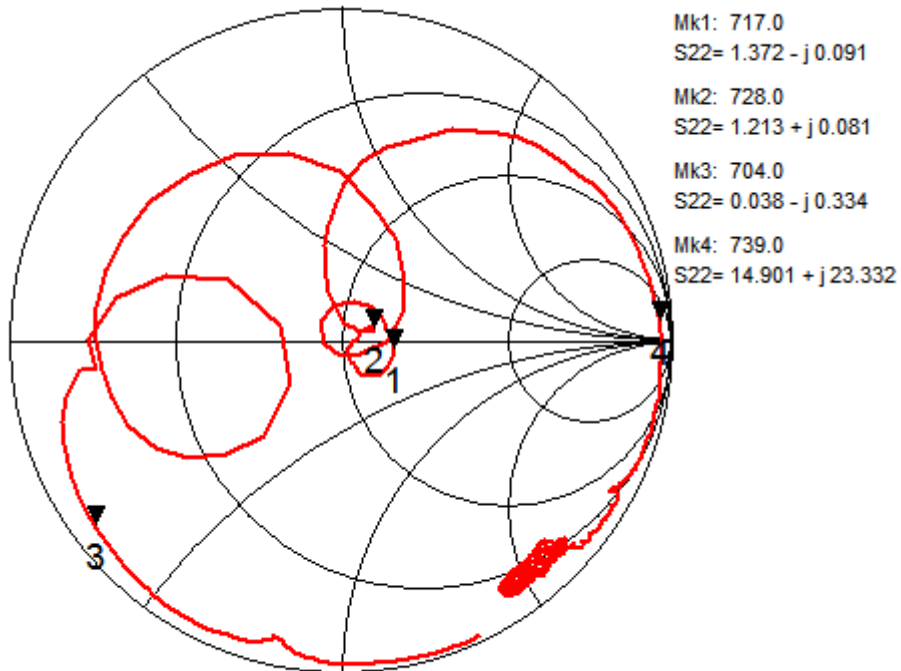
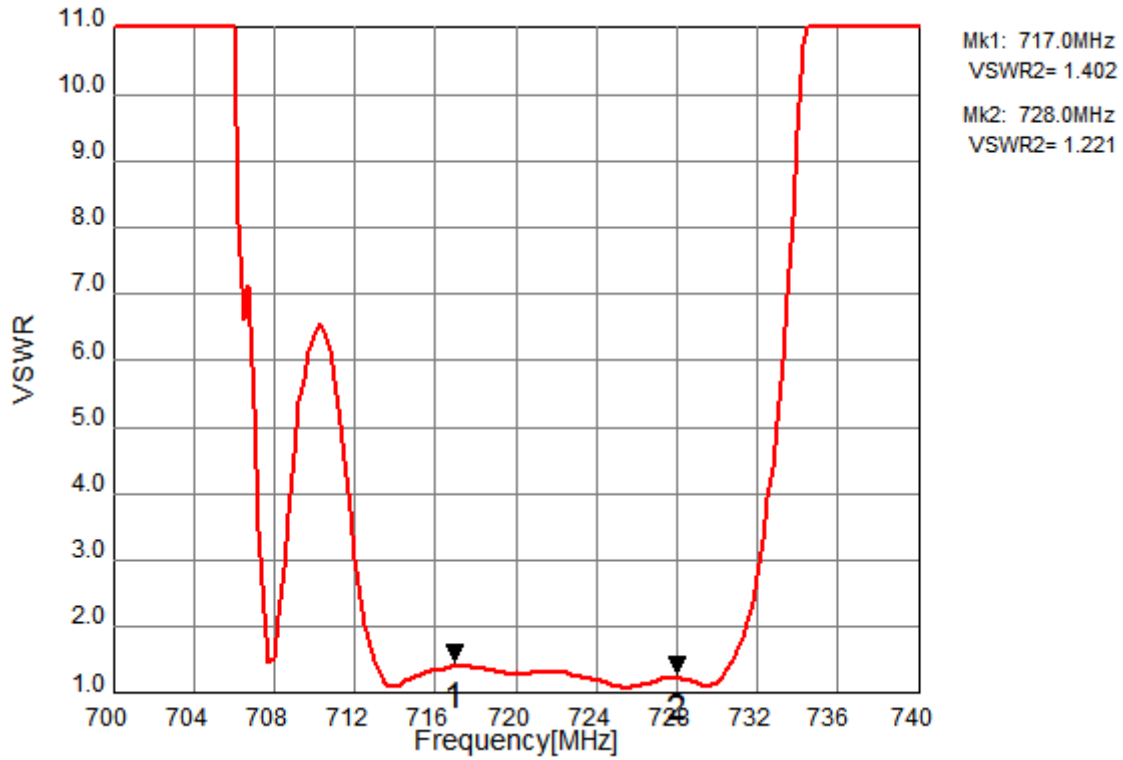


Figure 3-3. Electrical Characteristics

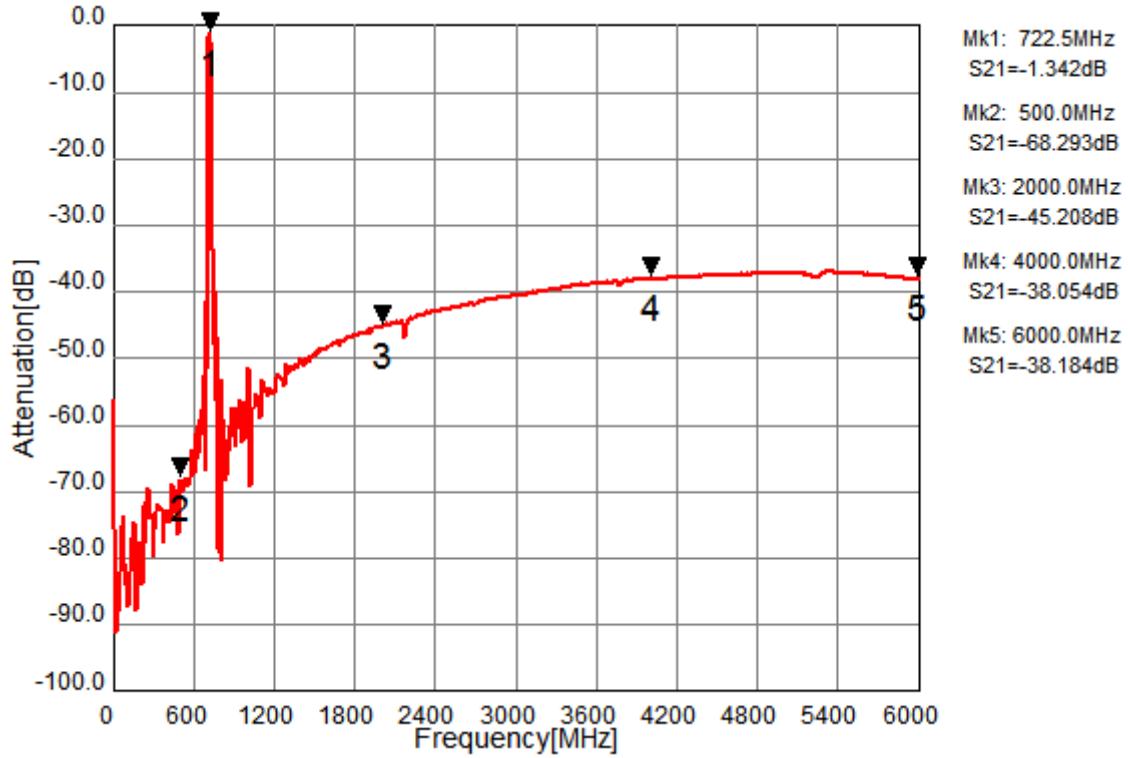


MSL1

\*Pb Free part

|               |               |  |              |
|---------------|---------------|--|--------------|
| Customer Name | Standard      | TAIYO YUDEN Mobile Technology Co.,Ltd. |              |
| System        | Band 29 Rx    | DATE                                   | Nov. 5, 2015 |
| Part Number   | F5BA722M5M6UW | Version 2.0bA                          | Final        |

## Wideband



**Figure 3-4. Electrical Characteristics**





MSL1

\*Pb Free part

|               |                 |  |              |
|---------------|-----------------|--|--------------|
| Customer Name | <b>Standard</b> | TAIYO YUDEN Mobile Technology Co.,Ltd. |              |
| System        | Band 29 Rx      | DATE                                   | Nov. 5, 2015 |
| Part Number   | F5BA722M5M6UW   | Version 2.0bA                          | <b>Final</b> |

## Ordering Code

| Ordering Code    | Packing     | Reel size             | Status |
|------------------|-------------|-----------------------|--------|
| F5BA722M5M6UW-J  | Tape & Reel | 5,000 pcs.            | MP     |
| F5BA722M5M6UW-JA | Tape & Reel | Less than 5,000 pcs.  | MP     |
| F5BA722M5M6UW-Y  | Tape & Reel | 15,000 pcs.           | MP     |
| F5BA722M5M6UW-YA | Tape & Reel | Less than 15,000 pcs. | MP     |
| F5BA722M5M6UW-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.

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