



* Pb Free Part



MSL1

| | | | |
|---------------|------------------|---|---------------|
| Customer Name | Standard | TAIYO YUDEN Mobile Technology Co., Ltd. | |
| System | Band 12 Duplexer | Date | Dec. 19, 2018 |
| Part Number | D5DA737M5K2H2 | Version 3.4caB | Final |

Electrical Specification**Table-1**

| Item | | | Condition (MHz) | Specification | | | Unit | Remarks |
|-----------|----------------------|-----|--------------------|--|------|------|------|---------|
| | | | | Min. | Typ. | Max. | | |
| Tx to Ant | Insertion loss (*1) | | 699 - 716 | - | 1.65 | 2.35 | dB | |
| | Ripple | | 699 - 716 | - | 0.8 | 1.5 | dB | |
| | VSWR | Tx | 699 - 716 | - | 1.9 | 2.2 | - | |
| | | Ant | 699 - 716 | - | 1.8 | 2.1 | - | |
| | Input Power | | 699 - 716 | +29 dBm, CW, +50°C,50000h | | | - | |
| | | | | +29 dBm, LTE 1.4MHz 1RB, +50°C,50000h | | | - | |
| | | | | +29.5 dBm, CW, +50°C,5000h | | | - | |
| | | | | +29.5 dBm, LTE 1.4MHz 1RB, +50°C,5000h | | | - | |
| | Absolute attenuation | | 729 - 746 | 45 | 54 | - | dB | |
| | | | 746 - 768 | 30 | 46 | - | dB | |
| | | | 768 - 805 | 25 | 41 | - | dB | |
| | | | 869 - 894 | 35 | 44 | - | dB | |
| | | | 1398 - 1432 | 30 | 46 | - | dB | |
| | | | 1559 - 1606 | 40 | 46 | - | dB | |
| | | | 2097 - 2155 | 35 | 43 | - | dB | |
| | | | 2400 - 2484 | 30 | 55 | - | dB | |
| | | | 2796 - 2864 | 15 | 41 | - | dB | |
| | | | 4900 - 5850 | 5 | 12 | - | dB | |
| Ant to Rx | Insertion loss (*1) | | 729 - 746 | - | 1.65 | 2.35 | dB | |
| | Ripple | | 729 - 746 | - | 0.5 | 1.5 | dB | |
| | VSWR | Ant | 729 - 746 | - | 1.6 | 2.0 | - | |
| | | Rx | 729 - 746 | - | 1.9 | 2.2 | - | |
| | Absolute attenuation | | 699 - 716 | 55 | 62 | - | dB | |
| | | | 776 - 805 | 35 | 40 | - | dB | |
| | | | 814 - 960 | 40 | 55 | - | dB | |
| | | | 1710 - 1755 | 40 | 54 | - | dB | |



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|--|----------------------|--------------------|-----------------|------|------|------|-------------|
| | | | Min. | Typ. | Max. | | |
| Ant to Rx | Absolute attenuation | 1850 - 1920 | 40 | 52 | - | dB | |
| | | 2187 - 2238 | 40 | 51 | - | dB | |
| | | 2400 - 2500 | 40 | 49 | - | dB | |
| | | 4900 - 5950 | 35 | 46 | - | dB | |
| Tx to Rx | Isolation | 699 - 716 | 60 | 63 | - | dB | |
| | | 729 - 746 | 55 | 58 | - | dB | |
| Terminating Impedance | | Tx port | 50 | | | Ω | |
| | | Rx port | 50 | | | Ω | |
| | | Ant port | 50//12nH | | | Ω | |
| Operating Temperature | | | -30 to +85 | | | °C | |
| Maximum DC in all ports | | | - | - | 5 | VDC | Device only |
| DC impedance to ground | | | 100 | | | MΩ | Device only |
| Device size (L max. x W max. x H max.) | | | 1.8 x 1.4 x 0.5 | | | mm | |

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



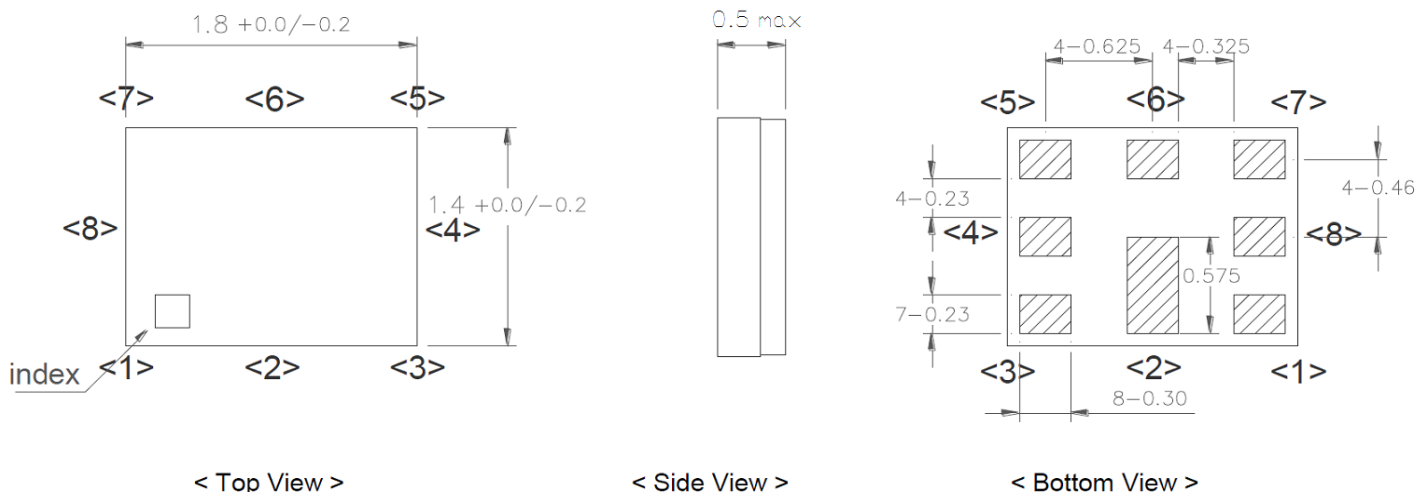
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Dimensions



Unit: mm

Figure-1

Pin Configuration

Table-2

| Pin No. | Symbol | Function |
|---------|--------|-------------|
| 1 | Rx | Receiver |
| 2 | GND | Ground |
| 3 | Tx | Transmitter |
| 4 | GND | Ground |
| 5 | GND | Ground |
| 6 | ANT | Antenna |
| 7 | GND | Ground |
| 8 | GND | Ground |



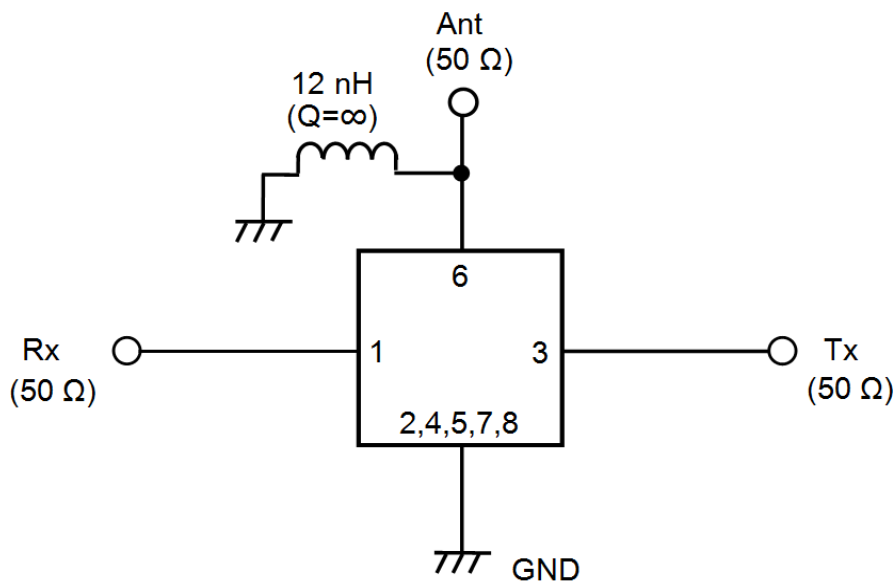
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Evaluation Circuit



1 to 8: Pin No.

Figure-2

Recommended Foot Print Pattern

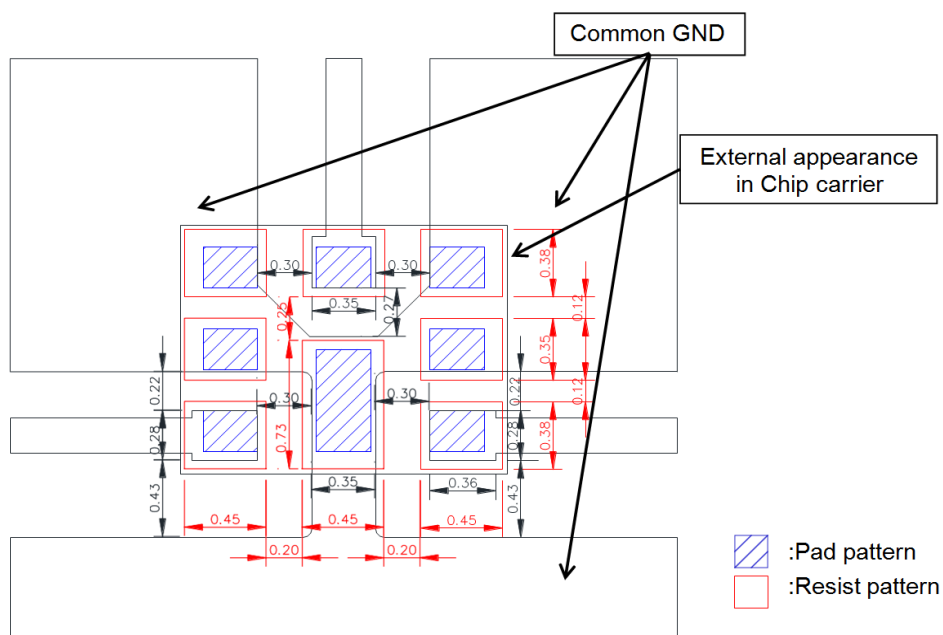


Figure-3



* Pb Free Part

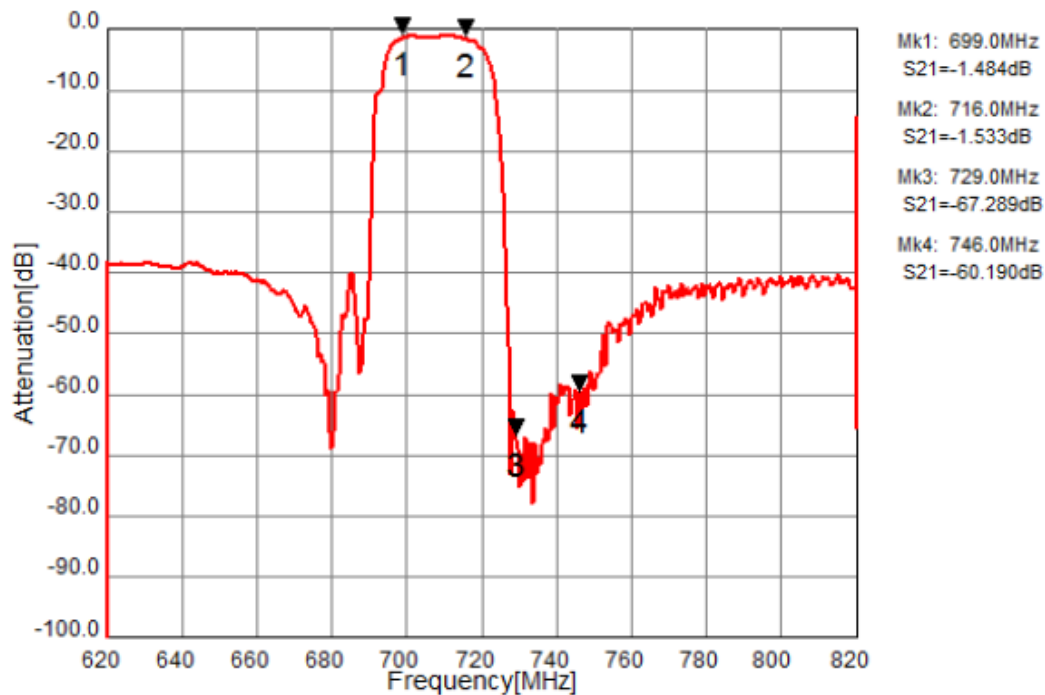


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Electrical Characteristics

Tx to Ant



Ant to Rx

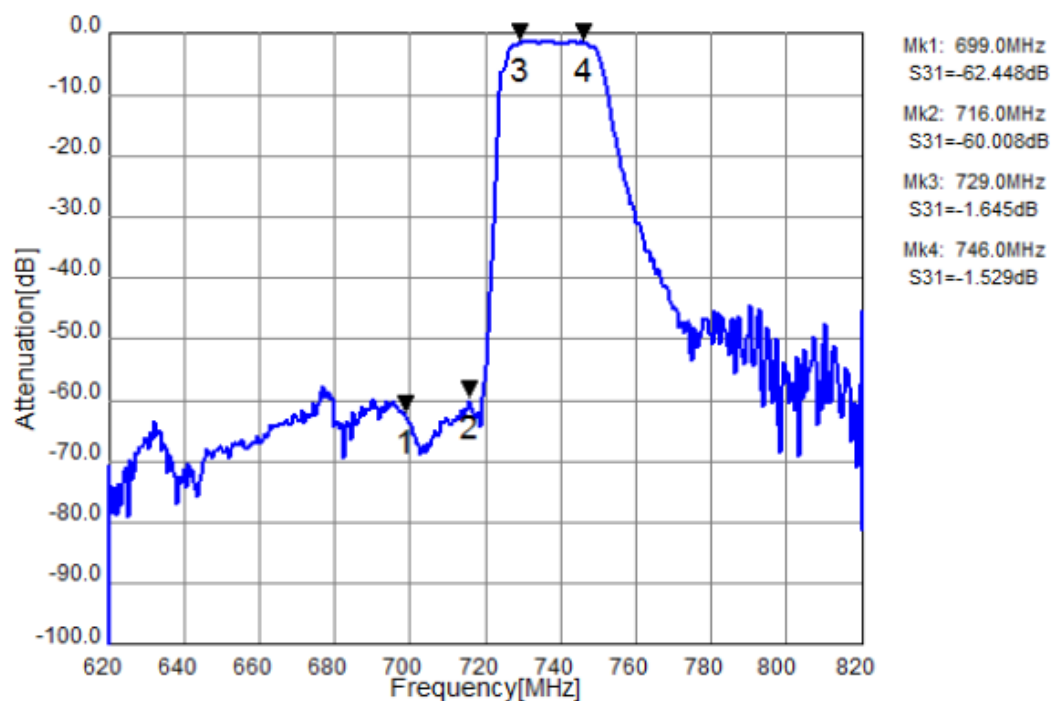


Figure-4-1

These data exclude loss that comes from the test board.

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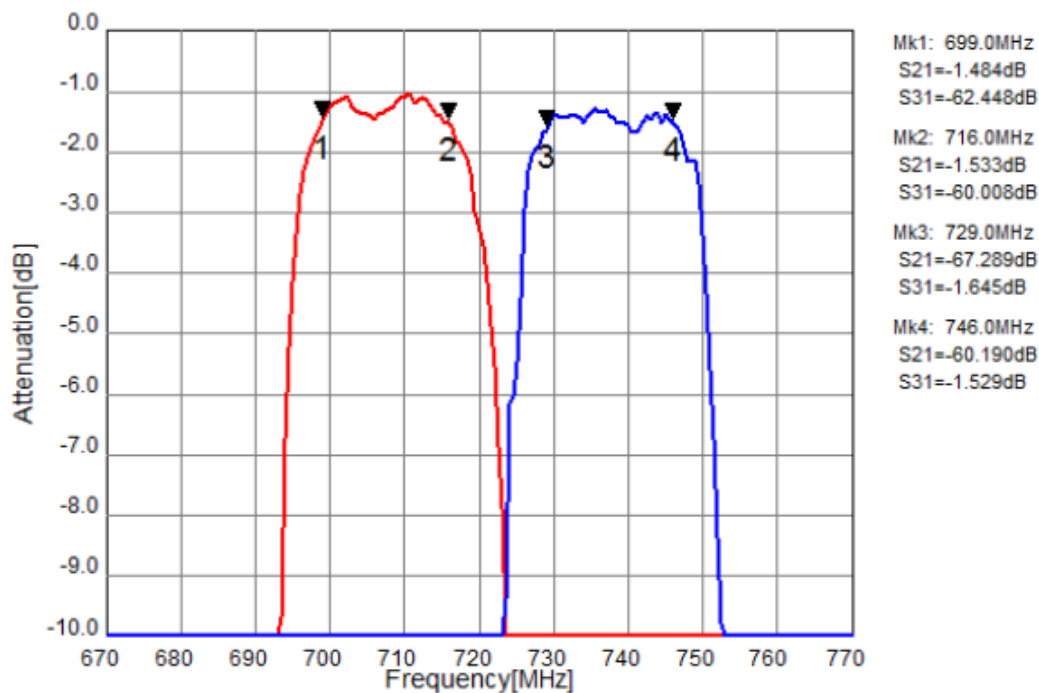
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Tx to Ant, Ant to Rx



Tx to Rx Isolation

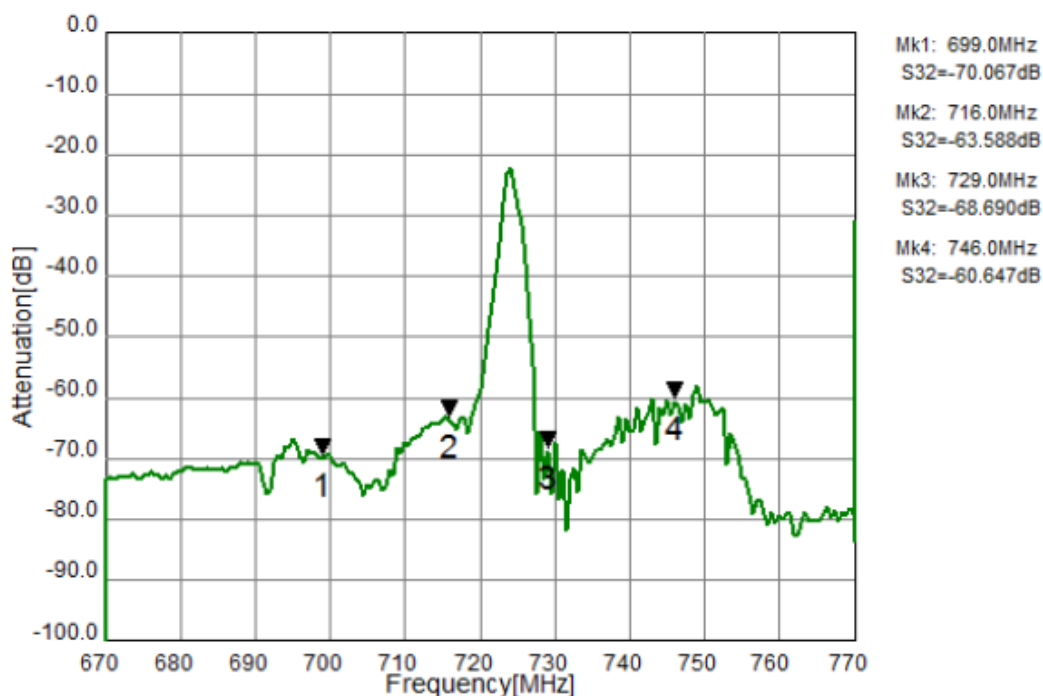


Figure-4-2

These data exclude loss that comes from the test board.

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Tx Port

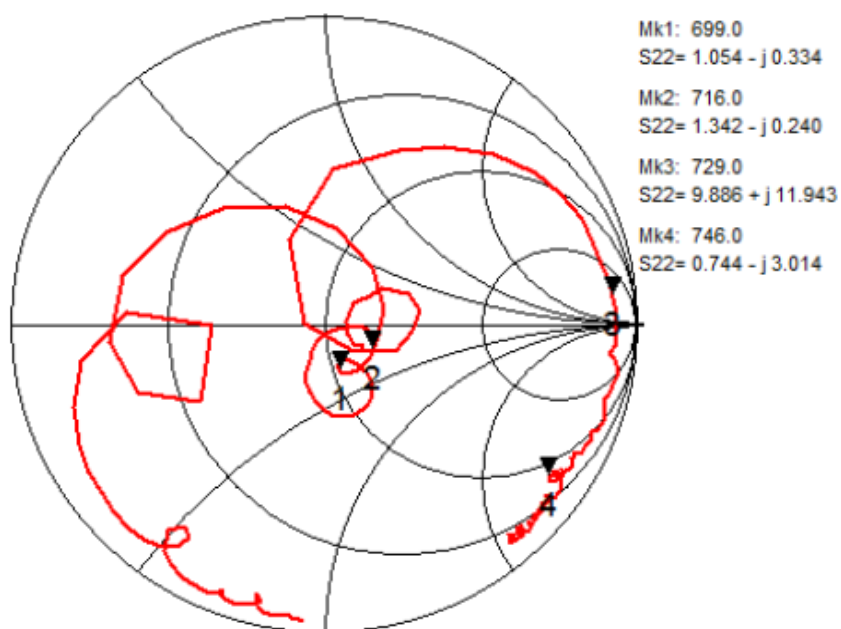
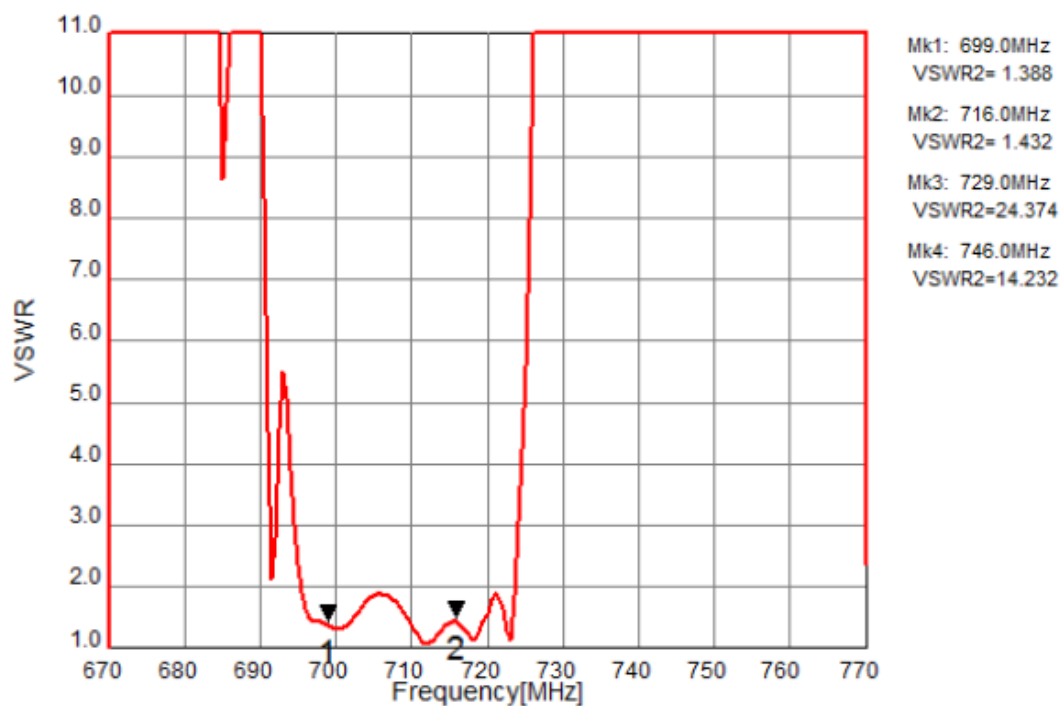


Figure-4-3



* Pb Free Part



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Rx Port

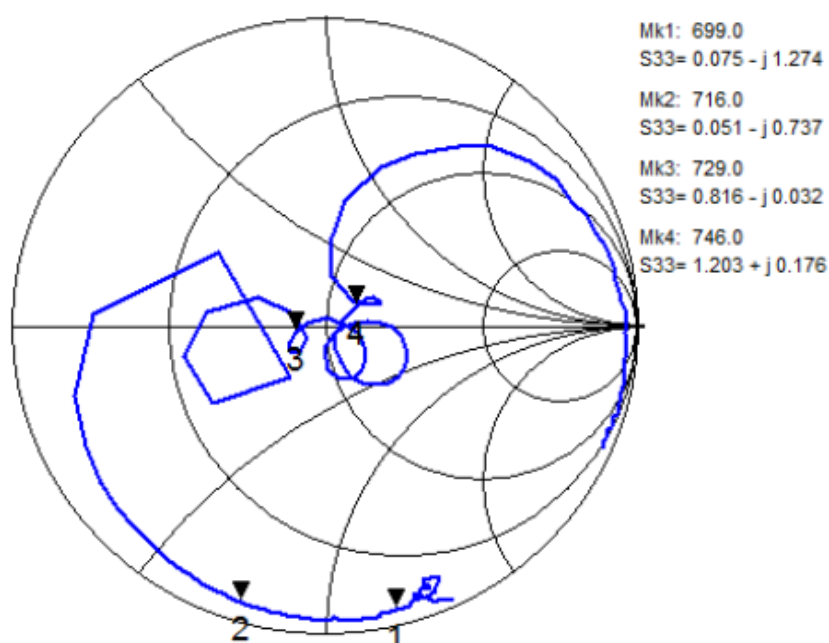
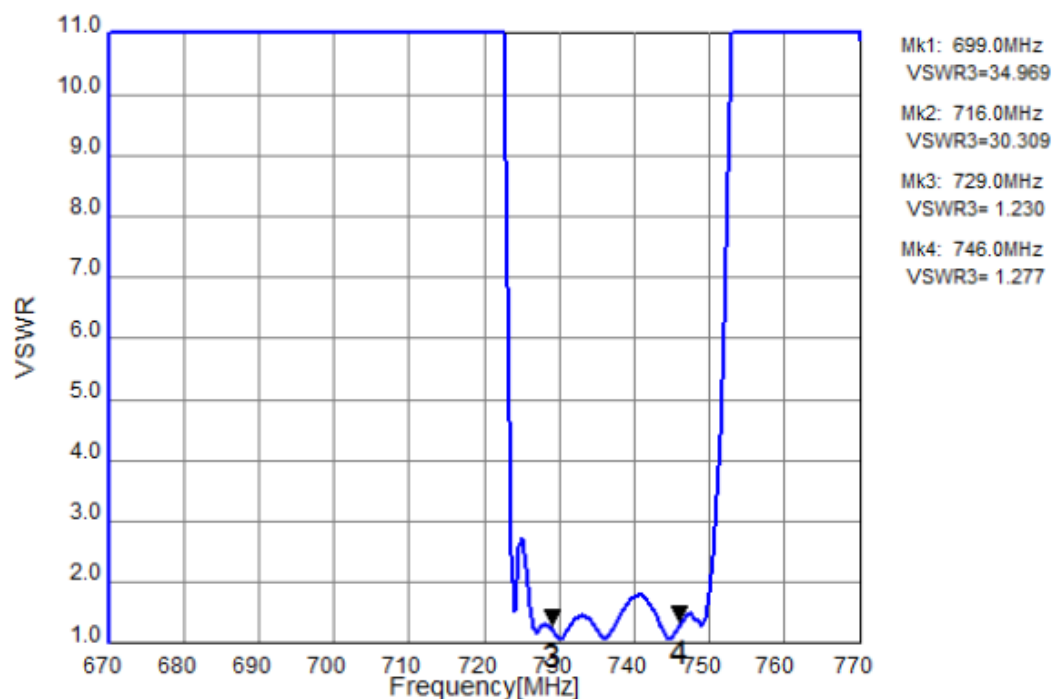


Figure-4-4



| | | | |
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Ant Port

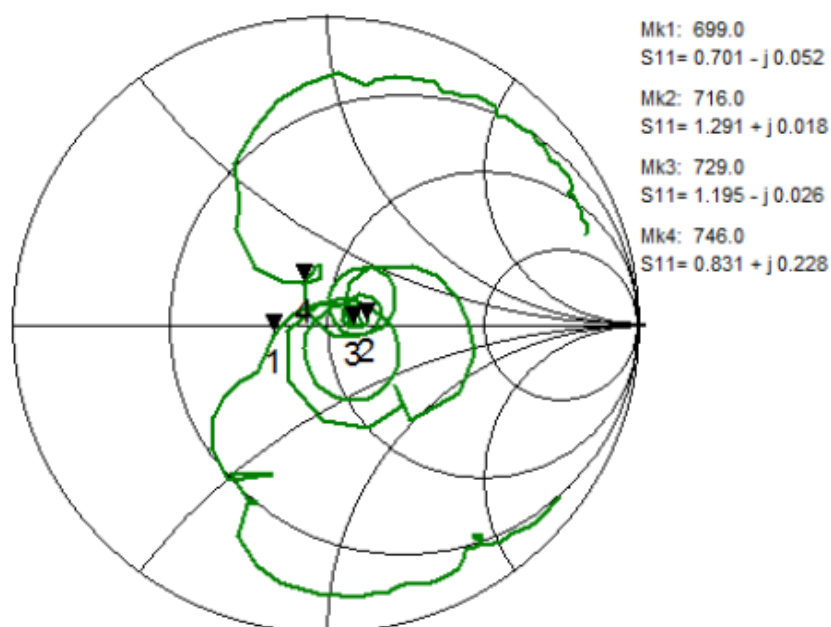
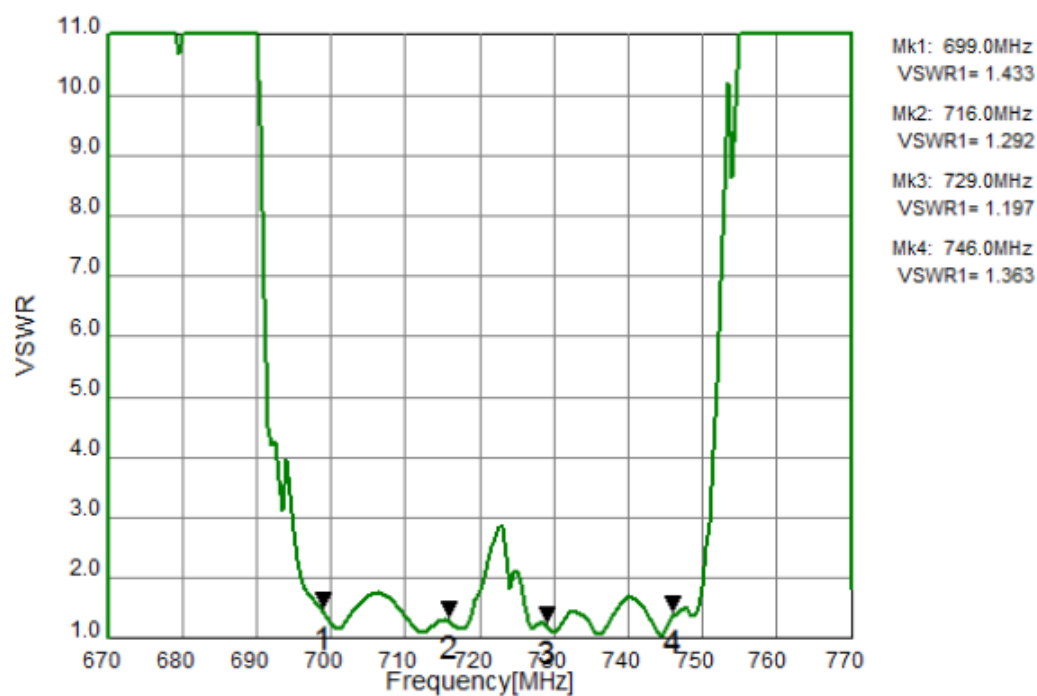


Figure-4-5



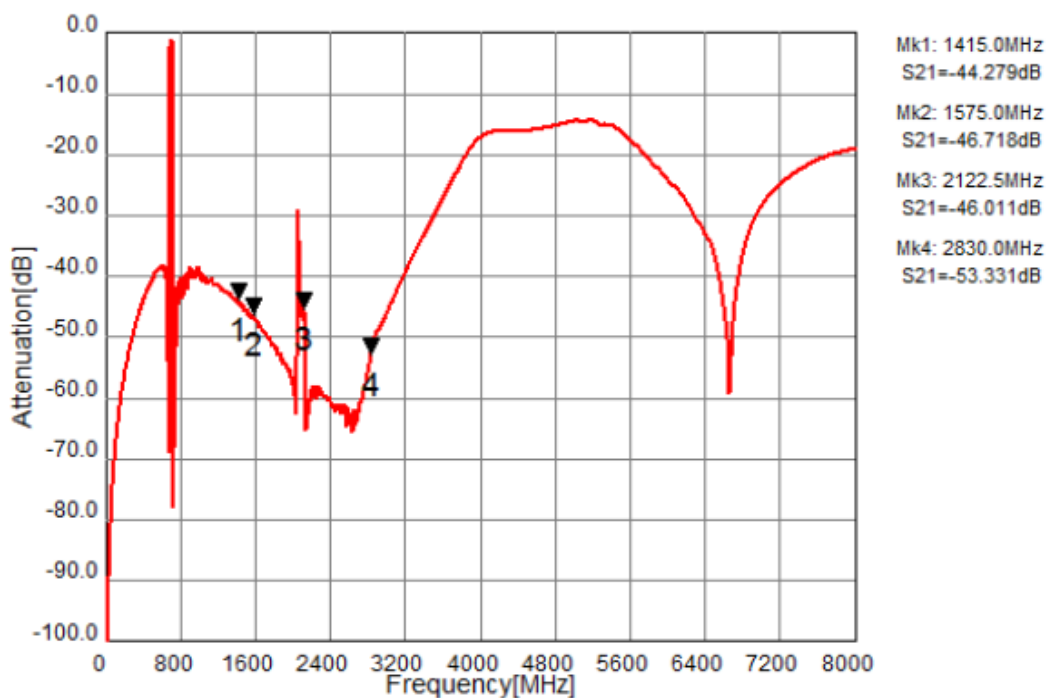
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Tx to Ant(Wide span)



Ant to Rx(Wide span)

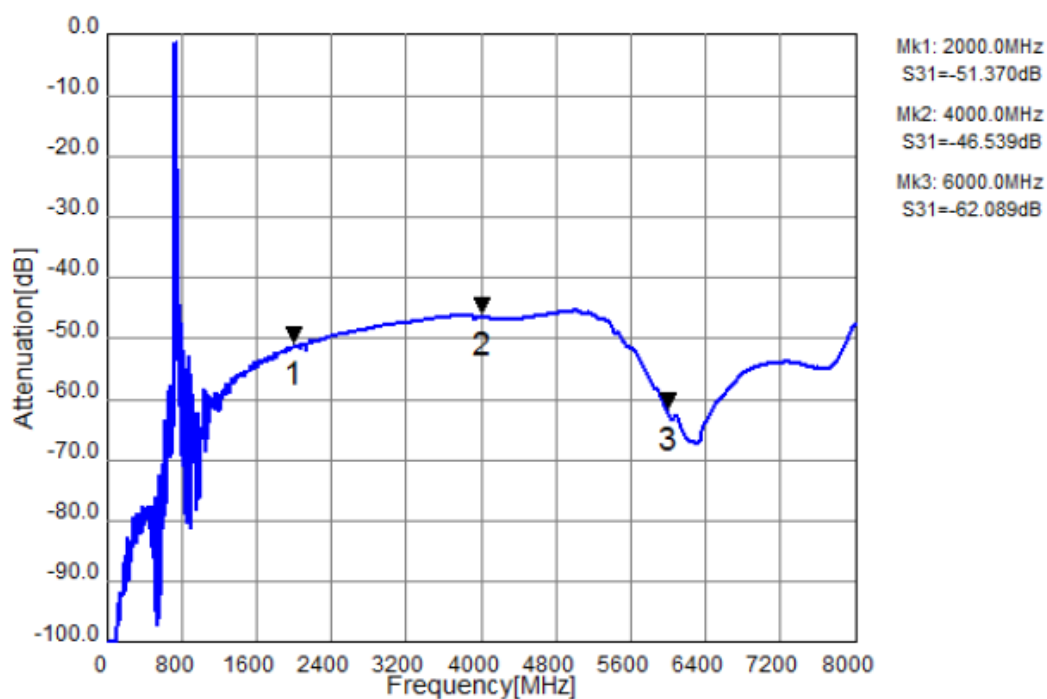


Figure-4-6



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Ordering Code

| Standard Ordering Code | Packing | Reel size | Status |
|------------------------|-------------|-------------|--------|
| D5DA737M5K2H2-Y | Tape & Reel | 15,000 pcs. | MP |

| Option Ordering Code | Packing | Reel size | Status |
|----------------------|-------------|-----------------------|--------|
| D5DA737M5K2H2-YA | Tape & Reel | less than 15,000 pcs. | MP |
| D5DA737M5K2H2-Z | Tape & Reel | 3,000 pcs. | MP |
| D5DA737M5K2H2-ZA | Tape & Reel | less than 3,000 pcs. | MP |
| D5DA737M5K2H2-Q | Bulk | few pcs. | MP |

*Minimum order quantity (MOQ) is assigned for each inquiry, Please contact to Sales Representatives.

*MP : Mass Production



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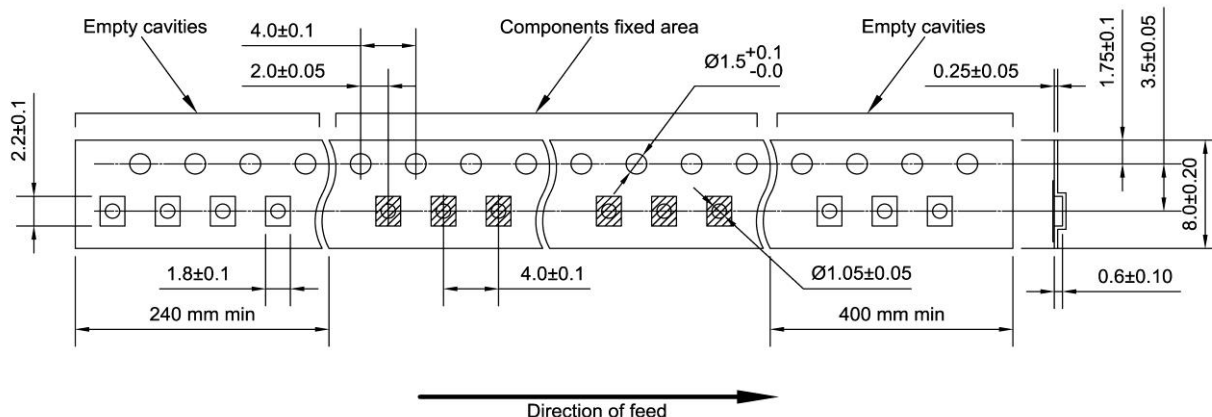


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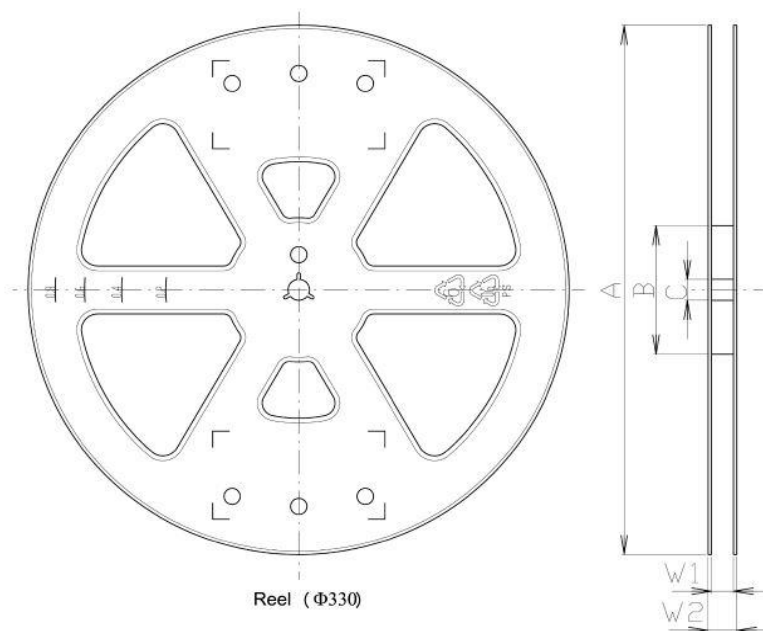
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Tape and Reel Information

Dimensions of Tape (Standard)



Dimensions of Reel



| Order | Code | Quantity (pcs./reel) | A | B | C | W1 | W2 | Tape Pitch |
|----------|------|----------------------|------|------|----------|-------------|-----------|------------|
| Standard | Y | 15,000 | φ330 | φ100 | φ13 ±0.2 | 9.4 ±1.0 | 13.4 ±1.0 | 4.0 ±0.1 |
| Option | Z | 3,000 | φ180 | φ60 | φ13 ±0.2 | 9 +1.0/-0.0 | 11.4 ±1.0 | 4.0 ±0.1 |

Unit:mm



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Please do not incorporate our products into any equipment requiring high levels of safety and/or reliability (e.g., aerospace equipment, aviation equipment, medical equipment classified as Class IV by IMDRF, nuclear control equipment, undersea equipment, military equipment).
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