

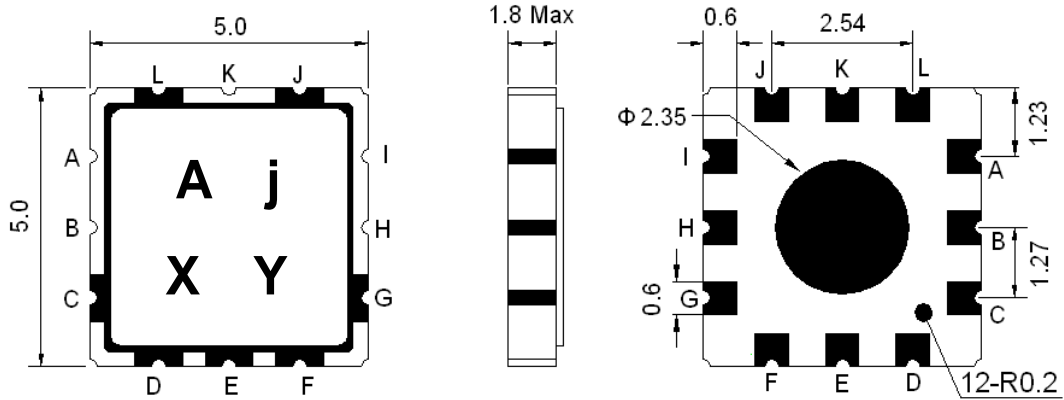
- CDMA450 E-Band, SAW Duplexer
- Revision 1: August 2006

## Electrical Characteristics

| MAXIMUM RATING                                 |                 |                                         |           |         |
|------------------------------------------------|-----------------|-----------------------------------------|-----------|---------|
| PARAMETERS DESCRIPTION                         | UNIT            | MINIMUM                                 | TYPICAL   | MAXIMUM |
| Operating Temperature Range                    | °C              | -30                                     | -         | +80     |
| Storage Temperature Range                      | °C              | -40                                     | -         | +85     |
| Maximum DC Voltage                             | V               | -                                       | 0         | -       |
| Maximum Input Power                            | W               | 1.0 W > 50000 Hours, CW tone(Ta= +50°C) |           |         |
| Source Impedance (single ended) <sup>(1)</sup> | Ω               | -                                       | 50        | -       |
| Load Impedance (single ended) <sup>(1)</sup>   | Ω               | -                                       | 50        | -       |
| Package type & size                            | K2              |                                         |           |         |
| Length x Width                                 | mm <sup>2</sup> | -                                       | 5.0 x 5.0 | -       |
| Height                                         | mm              | -                                       | -         | 1.8     |

| ELECTRICAL SPECIFICATION |                 |                       |         |         |         |
|--------------------------|-----------------|-----------------------|---------|---------|---------|
| PARAMETERS               | CONDITION [MHZ] | UNIT                  | MINIMUM | TYPICAL | MAXIMUM |
| <b>Tx → Ant</b>          |                 | <b>Specifications</b> |         |         |         |
| Insertion Loss           | 415.5 ~ 420.0   | dB                    | -       | 2.4     | 2.8     |
| VSWR                     | 415.5 ~ 420.0   | -                     | -       | 1.4     | 2.1     |
| Absolute Attenuation     | 0.3 ~ 400.0     | dB                    | 23      | 26      | -       |
|                          | 425.5 ~ 430.0   | dB                    | 30      | 50      | -       |
|                          | 430.0 ~ 1700.0  | dB                    | 18      | 23      | -       |
|                          | 1700.0 ~ 2000.0 | dB                    | 10      | 17      | -       |
| <b>Ant → Rx</b>          |                 | <b>Specifications</b> |         |         |         |
| Insertion Loss           | 425.5 ~ 430.0   | dB                    | -       | 3.2     | 4.8     |
| VSWR                     | 425.5 ~ 430.0   | -                     | -       | 1.5     | 2.2     |
| Absolute Attenuation     | 0.3 ~ 415.5     | dB                    | 20      | 24      | -       |
|                          | 415.5 ~ 420.0   | dB                    | 33      | 51      | -       |
|                          | 460.0 ~ 600.0   | dB                    | 20      | 27      | -       |
|                          | 600.0 ~ 1200.0  | dB                    | 20      | 28      | -       |
|                          | 1200.0 ~ 2000.0 | dB                    | 25      | 38      | -       |
| <b>Tx → Rx</b>           |                 | <b>Specifications</b> |         |         |         |
| Isolation                | 415.5 ~ 420.0   | dB                    | 32      | 49      | -       |
|                          | 425.5 ~ 430.0   | dB                    | 35      | 52      | -       |

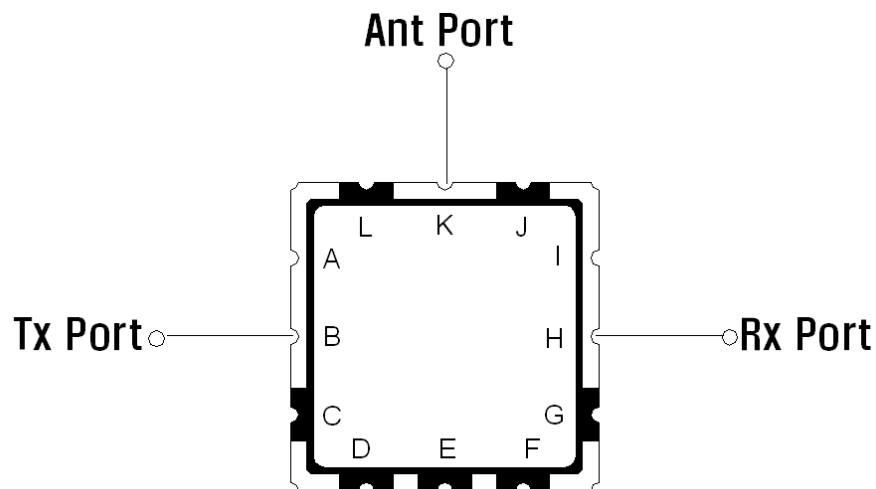
## Package Dimensions



| Marking Descriptions |                   |
|----------------------|-------------------|
| A                    | Application       |
| j                    | Series Number     |
| X                    | Date Code (Year)  |
| Y                    | Date Code (Month) |

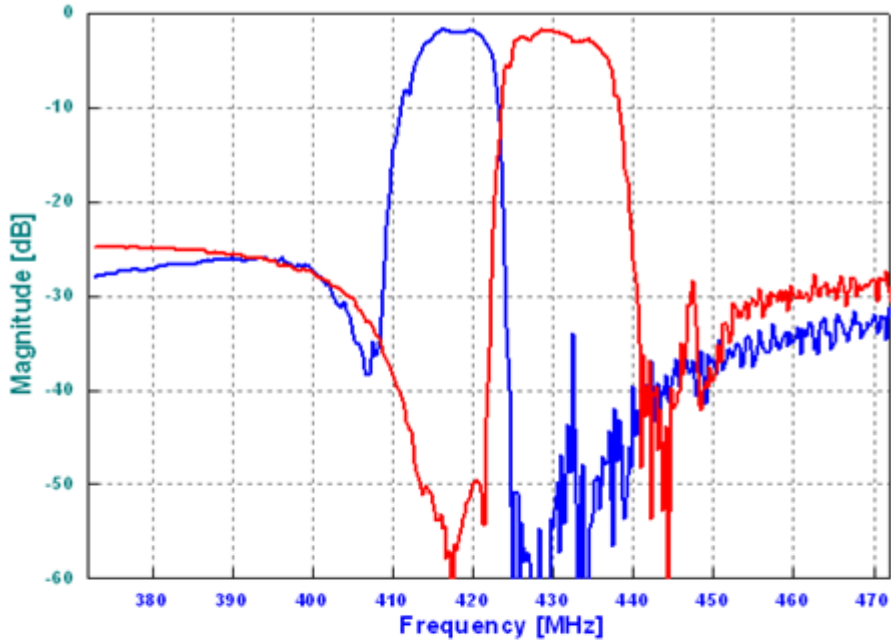
| Pin Description           |             |
|---------------------------|-------------|
| A, C, D, E, F, G, I, J, L | Ground      |
| H                         | Receiver    |
| K                         | Antenna     |
| B                         | Transmitter |

## Testing Environment

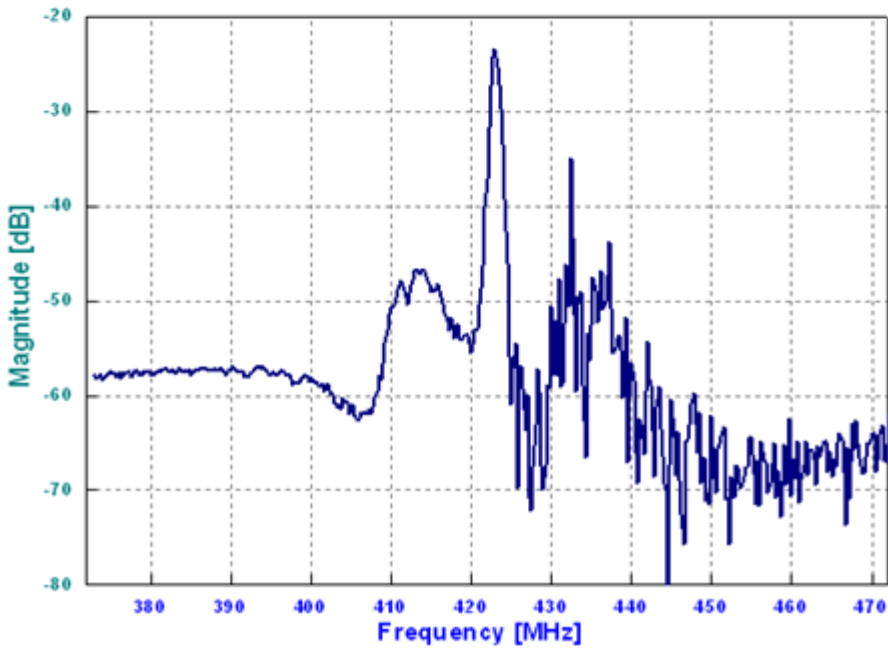


## Frequency Characteristics

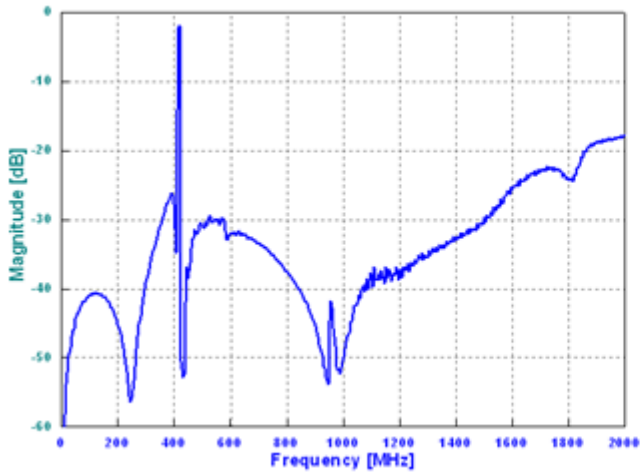
Tx to Ant, Ant to Rx



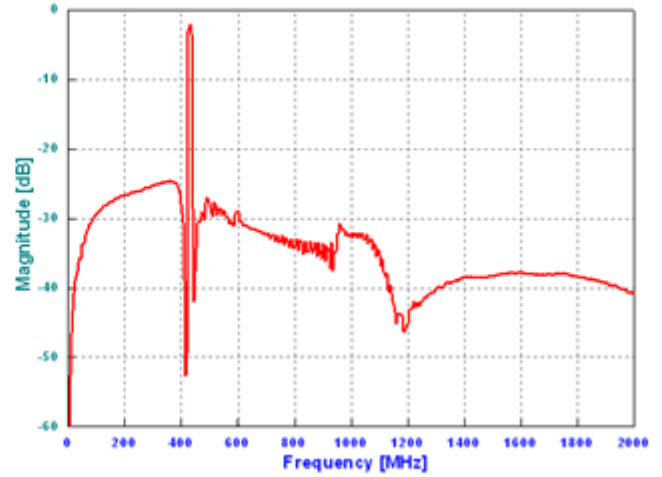
Tx to Rx Isolation



**Tx to Ant**

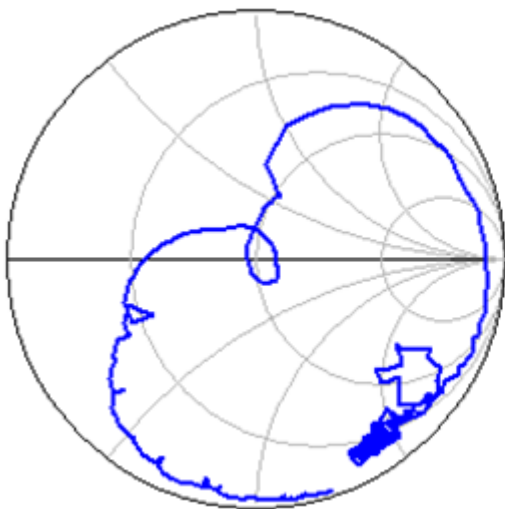


**Ant to Rx**

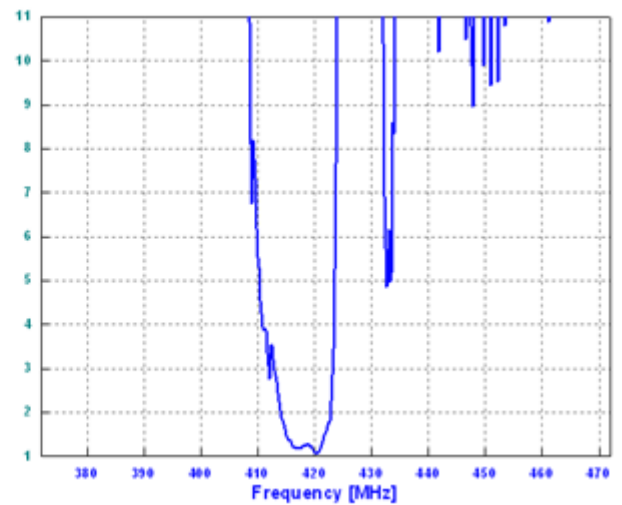


**Tx Port**

**Smith Chart**

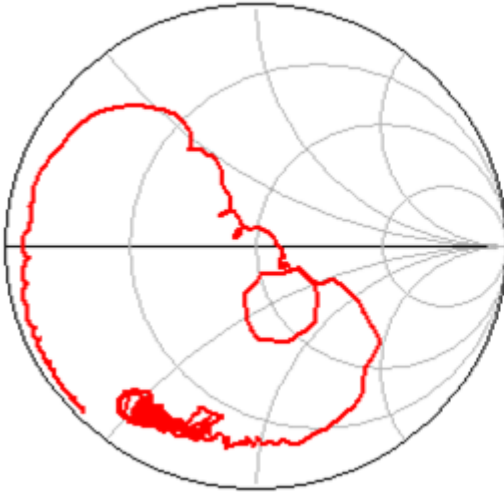


**VSWR**

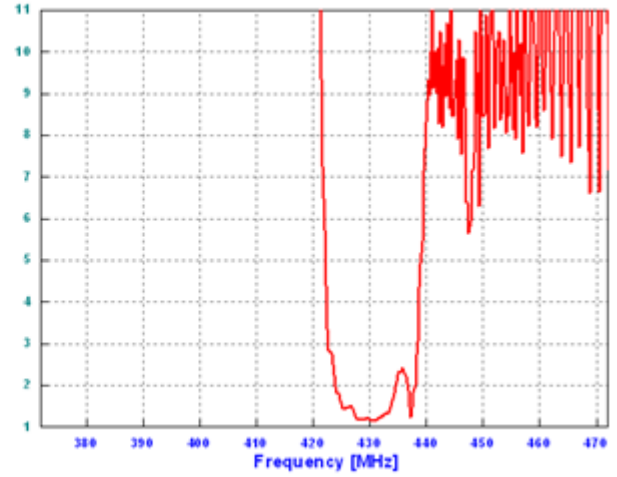


**Rx Port**

Smith Chart

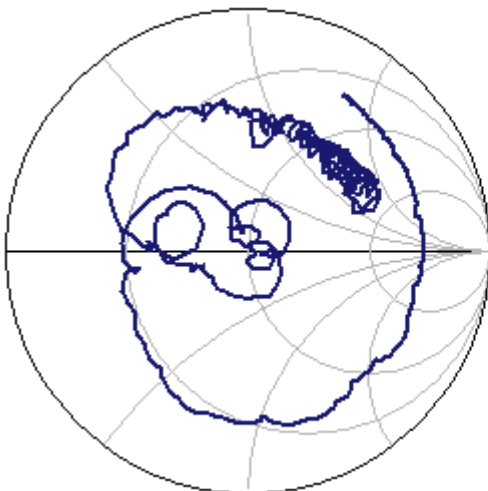


VSWR



**Ant Port**

Smith Chart



VSWR

