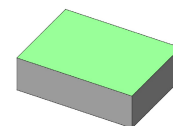


**SF2579JM**

## MAXIMUM RATING

1. Input power : 10 dBm
2. Maximum DC Voltage: 5V
3. Operating temperature range: -30 °C to +85 °C
4. Storage temperature range: -30 °C to +85 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)
6. ESD 50V(MM) 100V(HBM)

**1842.5/2140 MHz  
Dual Filter Band**



SM1511

## ELECTRICAL CHARACTERISTICS

(Filter1) ( $f_{T0}=1842.5$  MHz)

| Parameters Description     |                | Unit | Minimum | Typical | Maximum | Note           |
|----------------------------|----------------|------|---------|---------|---------|----------------|
| Insertion Loss(*1)         | 1805~ 1880 MHz | dB   | -       | 2.4     | 3.6     |                |
| Ripple                     | 1805~ 1880 MHz | dB   |         | 0.8     | 2.0     |                |
| VSWR                       | Input          | -    | -       | 1.6     | 2.0     |                |
|                            | Output         | -    | -       | 1.9     | 2.3     |                |
| <b>Attenuation:</b>        |                |      |         |         |         |                |
| <b>1 ~ 1710 MHz</b>        |                | dB   | 15      | 24      | -       | -              |
| <b>95 MHz</b>              |                | dB   | 50      | 89      | -       | -              |
| <b>824 ~ 849 MHz</b>       |                | dB   | 39      | 52      | -       | -              |
| <b>832 ~ 862 MHz</b>       |                | dB   | 38      | 52      | -       | -              |
| <b>880 ~ 915 MHz</b>       |                | dB   | 37      | 50      | -       | -              |
| <b>1615 ~ 1690 MHz</b>     |                | dB   | 15      | 24      | -       | -              |
| <b>1710 ~ 1785 MHz</b>     |                | dB   | 15      | 34      | -       | -              |
|                            |                | dB   | 28      | -       | -       | @ 23 to 27 ° C |
| <b>1712.5 ~ 1782.5 MHz</b> |                | dB   | 20      | 35      | -       | -              |
| <b>1785 ~ 1790 MHz</b>     |                | dB   | 1       | 25      | -       | -              |
| <b>1920 ~ 1980 MHz</b>     |                | dB   | 34      | 37      | -       | -              |
| <b>1920 ~ 6000 MHz</b>     |                | dB   | 12      | 27      | -       | -              |
| <b>2400 ~ 2500 MHz</b>     |                | dB   | 32      | 48      | -       | -              |
| <b>2500 ~ 2570 MHz</b>     |                | dB   | 28      | 47      | -       | -              |
| <b>3515 ~ 3610 MHz</b>     |                | dB   | 28      | 42      | -       | -              |
| <b>3610 ~ 3760 MHz</b>     |                | dB   | 28      | 42      | -       | -              |
| <b>3760 ~ 6000 MHz</b>     |                | dB   | 12      | 27      | -       | -              |

|                        |    |    |    |   |   |
|------------------------|----|----|----|---|---|
| <b>4900 ~ 5950 MHz</b> | dB | 12 | 28 | - | - |
| <b>5225 ~ 5415 MHz</b> | dB | 18 | 35 | - | - |
| <b>5415 ~ 5640 MHz</b> | dB | 14 | 32 | - | - |

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

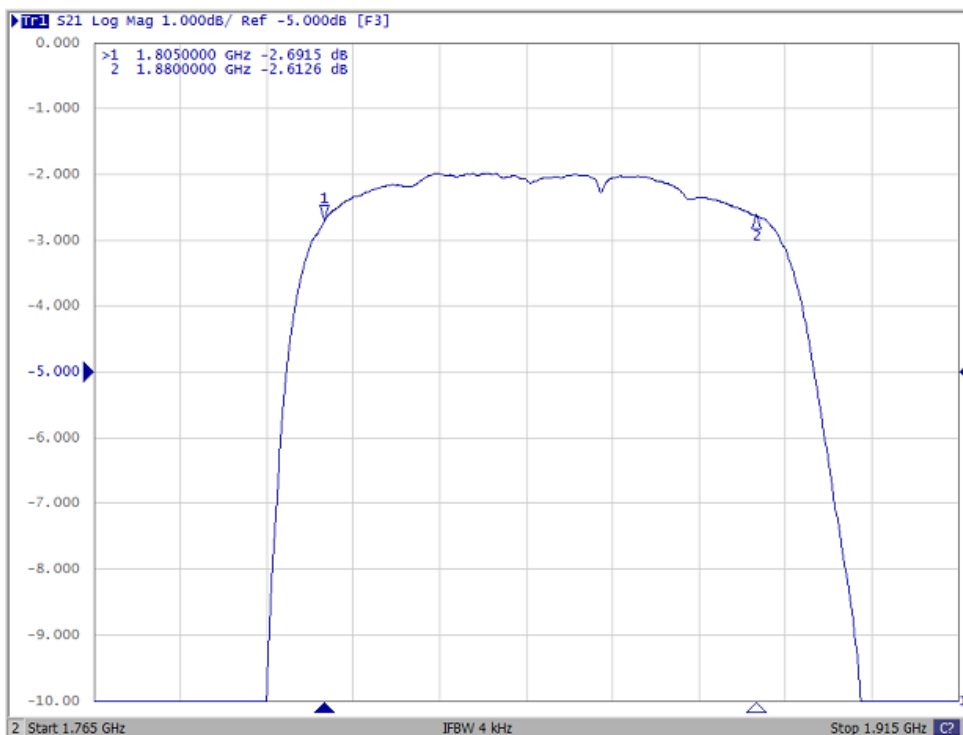
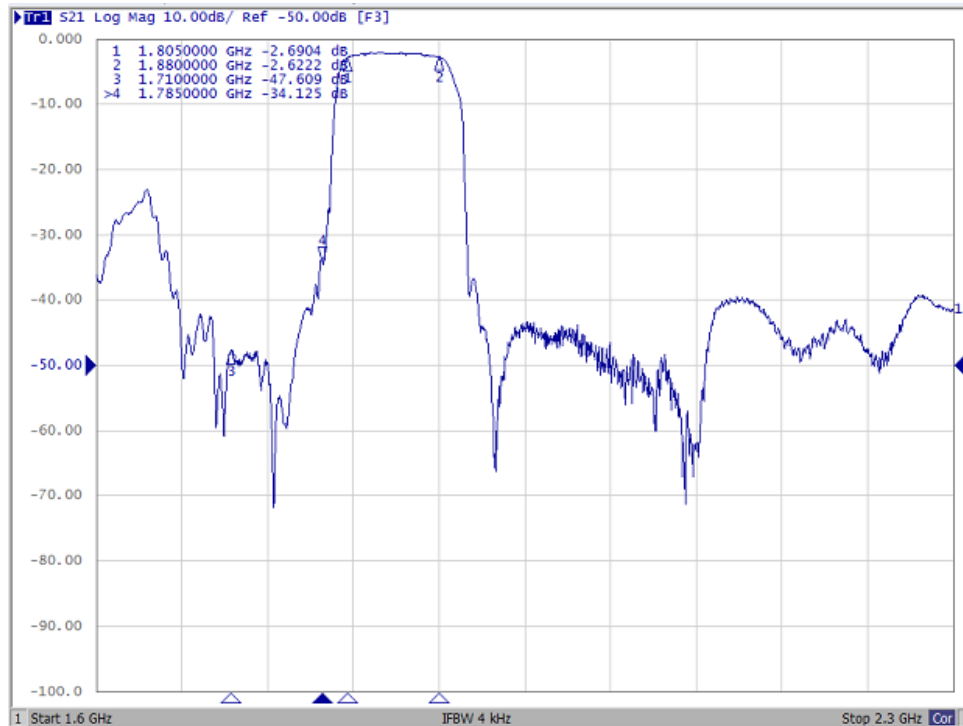
**(Filter2) (f<sub>T0</sub>=2140 MHz)**

| Parameters Description |                 | Unit | Minimum | Typical | Maximum | Note |
|------------------------|-----------------|------|---------|---------|---------|------|
| Insertion Loss(*1)     | 2110 ~ 2170 MHz | dB   | -       | 2.4     | 3.0     |      |
| Ripple                 | 2110 ~ 2170 MHz | dB   | -       | 0.7     | 1.8     |      |
| VSWR                   | Input           | -    | -       | 1.7     | 2.2     |      |
|                        | Output          | -    | -       | 1.8     | 2.2     |      |
| <b>Attenuation:</b>    |                 |      |         |         |         |      |
| <b>10 ~ 1920 MHz</b>   |                 | dB   | 24      | 34      | -       | -    |
| <b>190 MHz</b>         |                 | dB   | 50      | 82      | -       | -    |
| <b>400 MHz</b>         |                 | dB   | 50      | 69      | -       | -    |
| <b>699 ~ 716 MHz</b>   |                 | dB   | 48      | 59      | -       |      |
| <b>777 ~ 787 MHz</b>   |                 | dB   | 40      | 56      | -       | -    |
| <b>810 ~ 830 MHz</b>   |                 | dB   | 45      | 56      | -       | -    |
| <b>814 ~ 849 MHz</b>   |                 | dB   | 40      | 56      | -       | -    |
| <b>824 ~ 849 MHz</b>   |                 | dB   | 44      | 56      | -       | -    |
| <b>880 ~ 915 MHz</b>   |                 | dB   | 40      | 54      |         |      |
| <b>898 ~ 925 MHz</b>   |                 | dB   | 43      | 54      |         |      |
| <b>1710 ~ 1785 MHz</b> |                 | dB   | 35      | 40      | -       | -    |
| <b>1730 ~ 1920 MHz</b> |                 | dB   | 28      | 35      | -       | -    |
| <b>1920 ~ 1980 MHz</b> |                 | dB   | 35      | 38      | -       | -    |
| <b>2015 ~ 2075 MHz</b> |                 | dB   | 10      | 14      | -       |      |
| <b>2185 ~ 6000 MHz</b> |                 | dB   | 1       | 3       | -       | -    |
| <b>2400 ~ 2500 MHz</b> |                 | dB   | 33      | 42      | -       | -    |
| <b>4030 ~ 4150 MHz</b> |                 | dB   | 26      | 36      | -       | -    |
| <b>4220 ~ 4340 MHz</b> |                 | dB   | 26      | 35      | -       | -    |
| <b>4340 ~ 6000 MHz</b> |                 | dB   | 15      | 23      |         |      |
| <b>4900 ~ 5950 MHz</b> |                 | dB   | 15      | 24      |         |      |

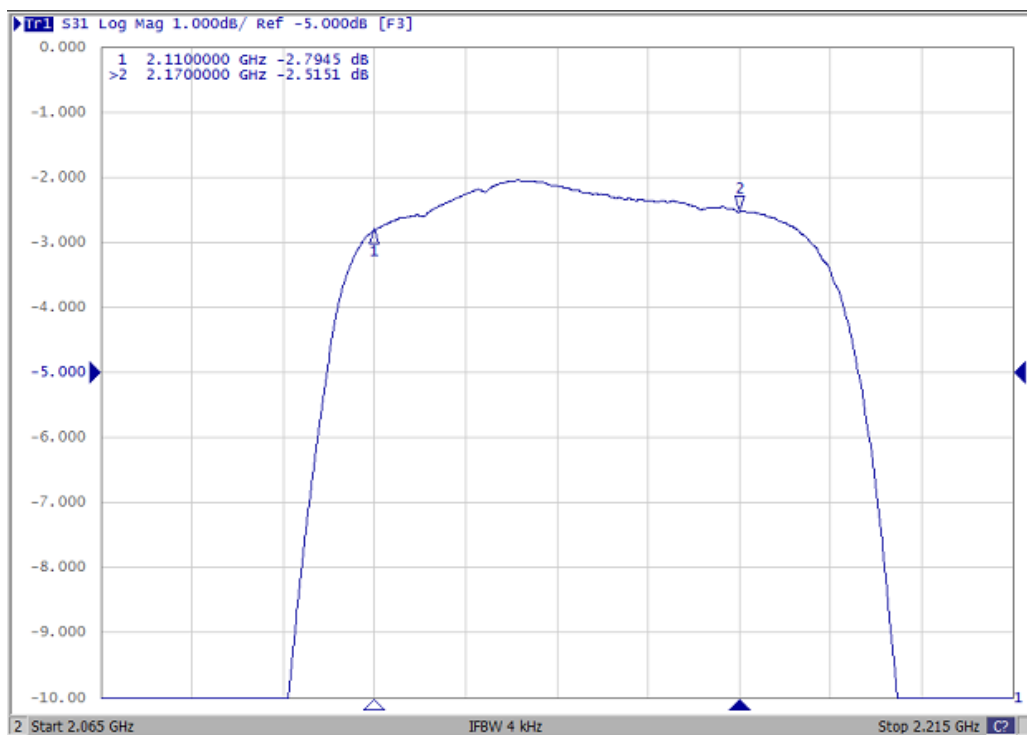
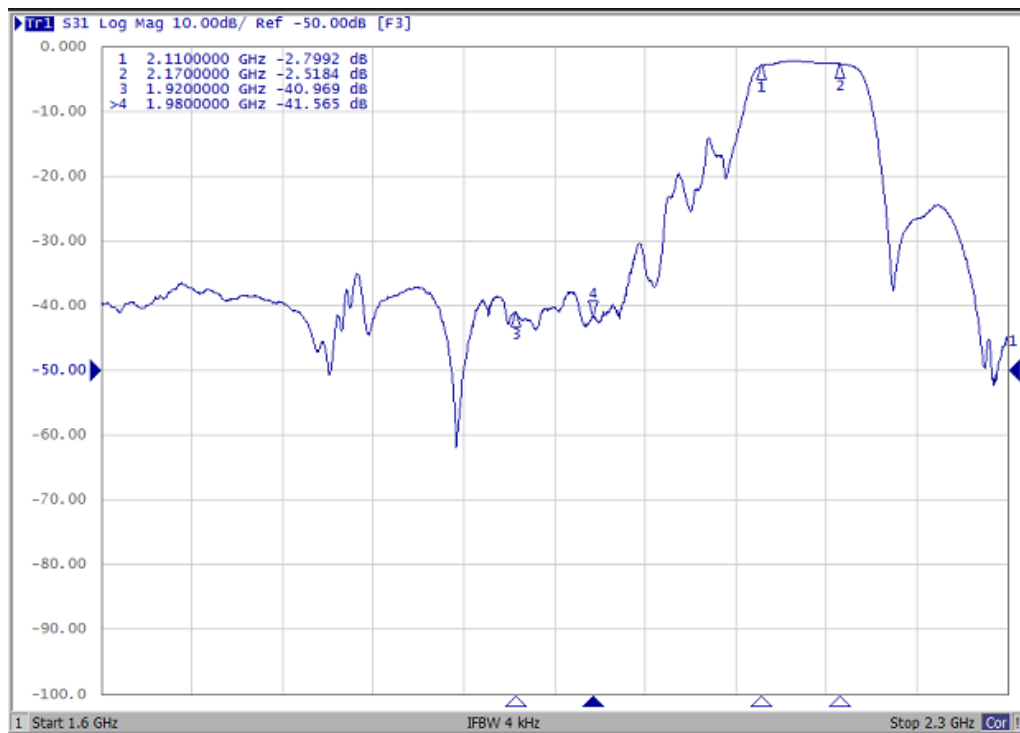
(\*1) Specification of insertion loss excludes loss that comes from the test board.

## Frequency Characteristics

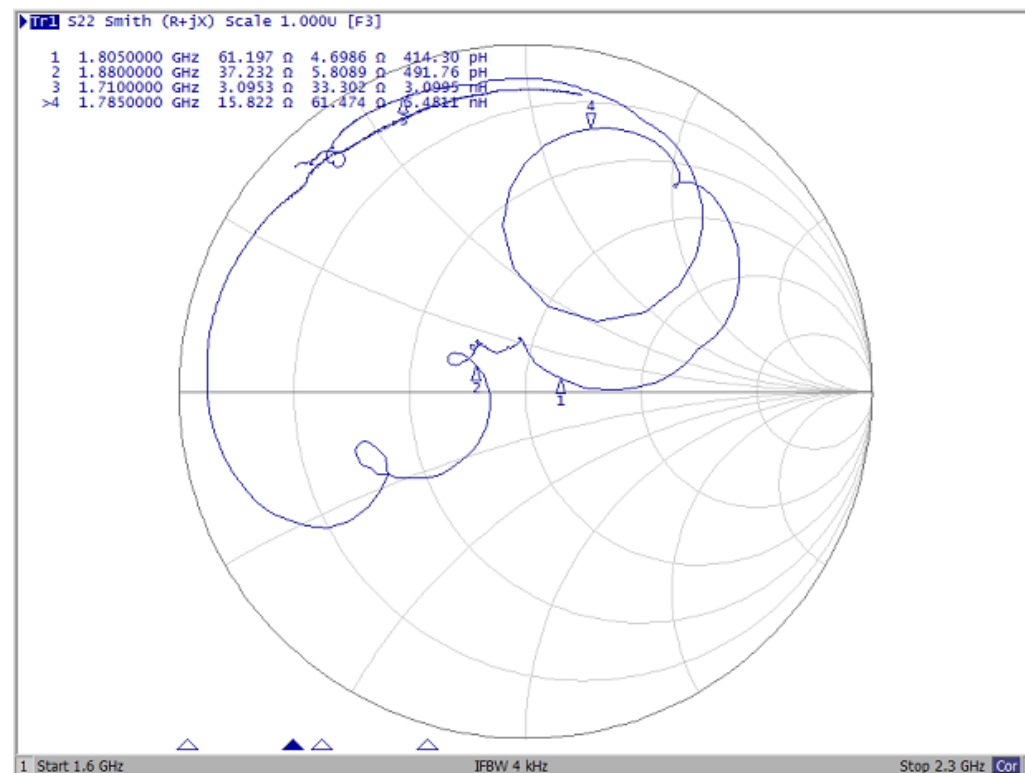
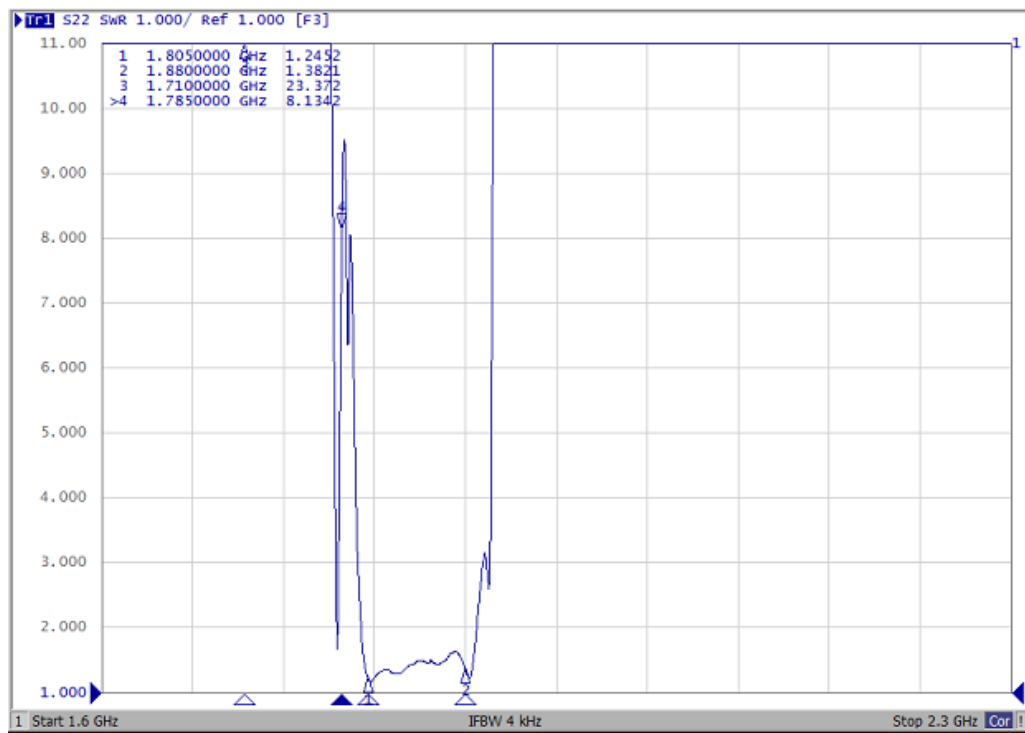
### Passband (Filter1)



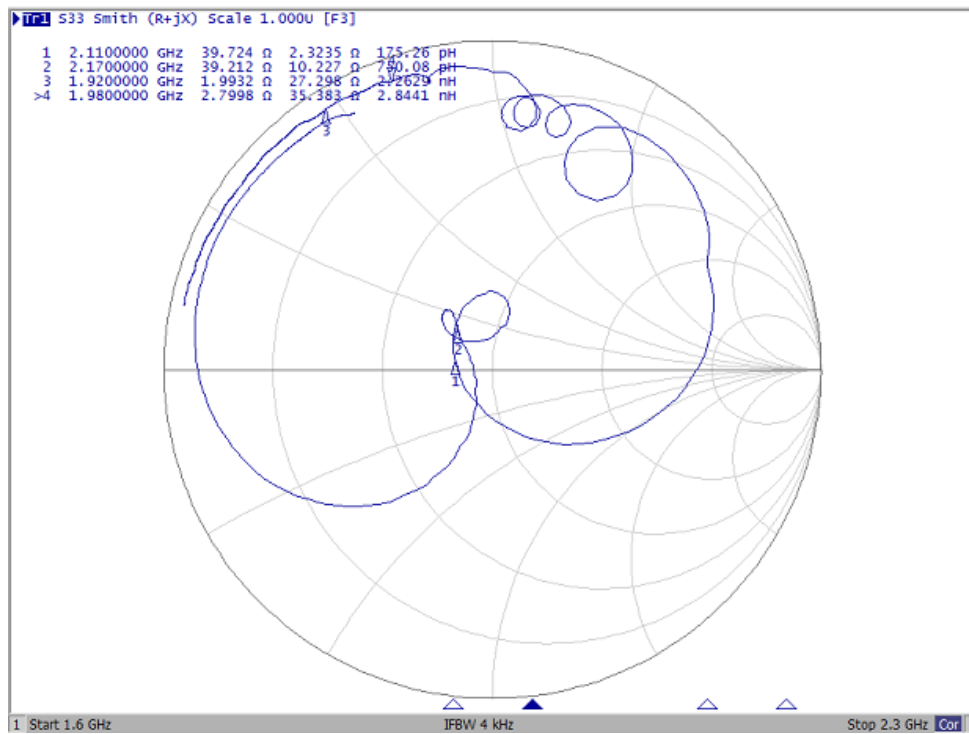
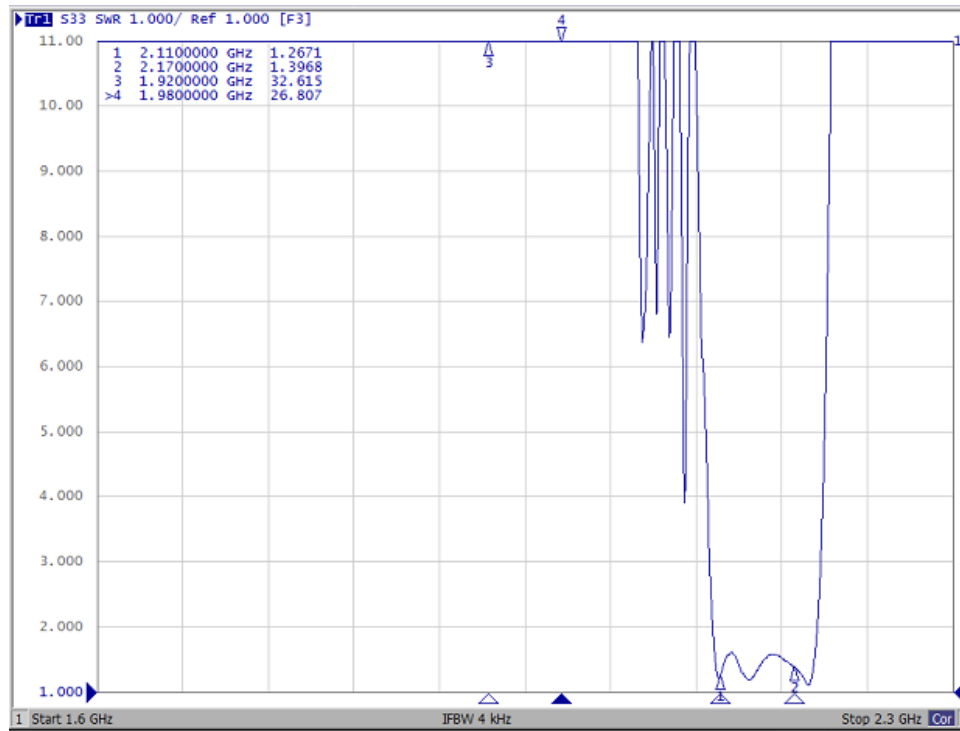
## Passband (Filter2)



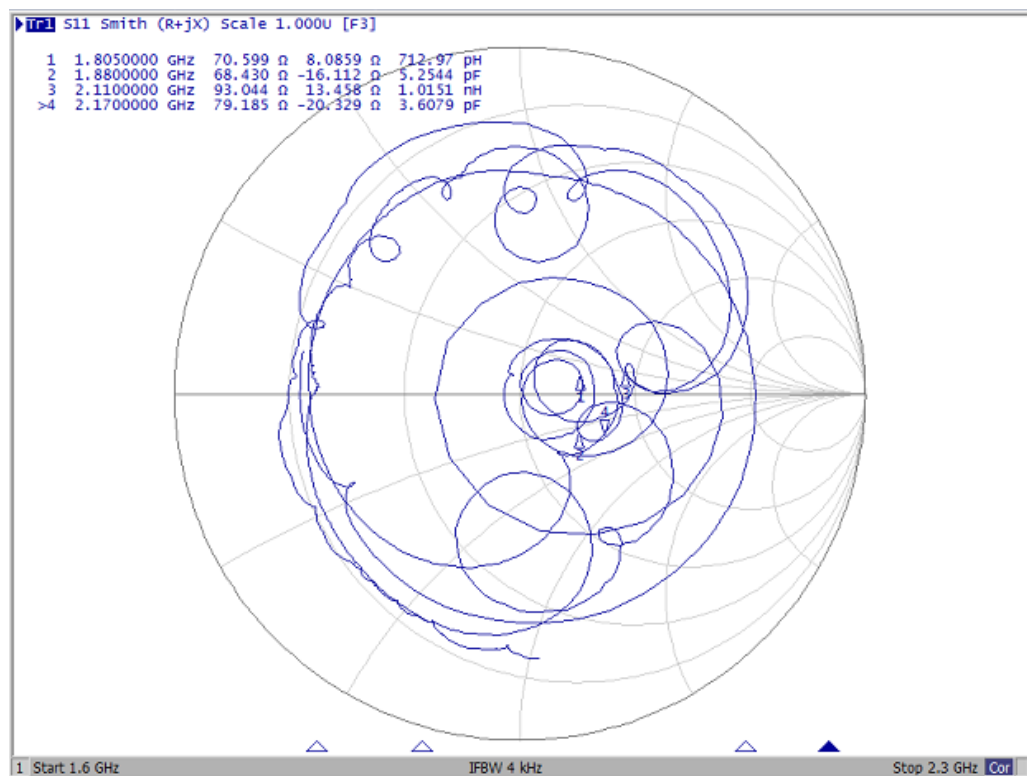
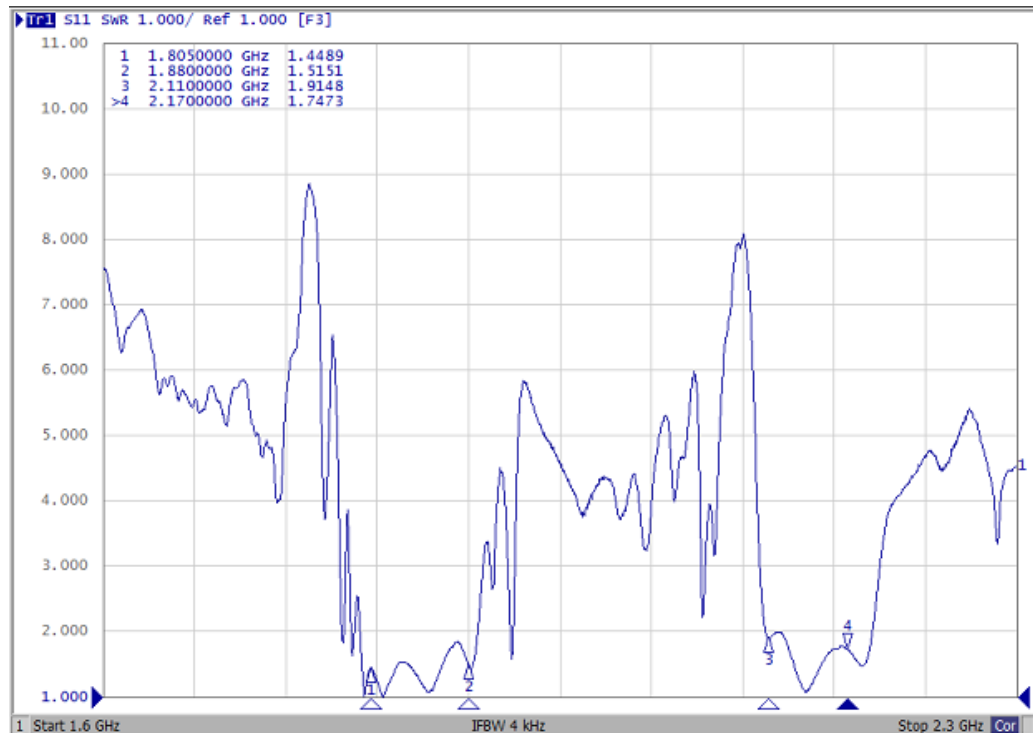
## Output Port (Filter1)



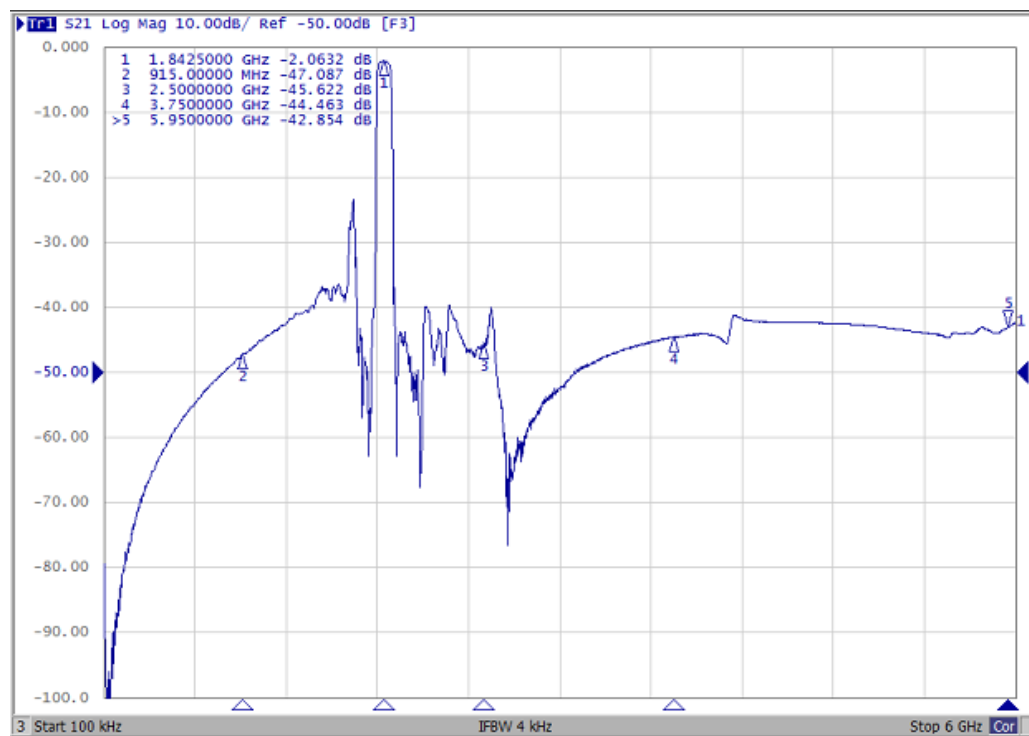
## Output Port (Filter2)



## Input Port



## Wide span (Filter1)

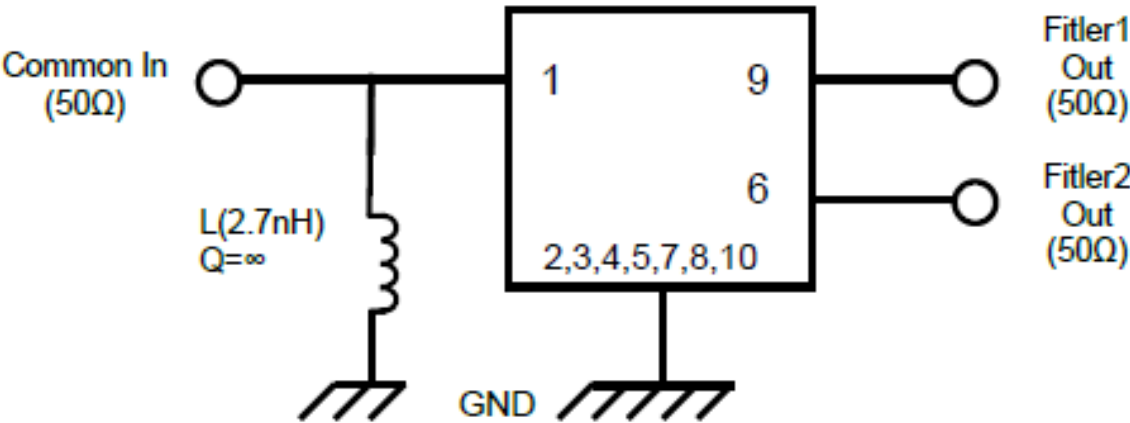


## Wide span (Filter2)

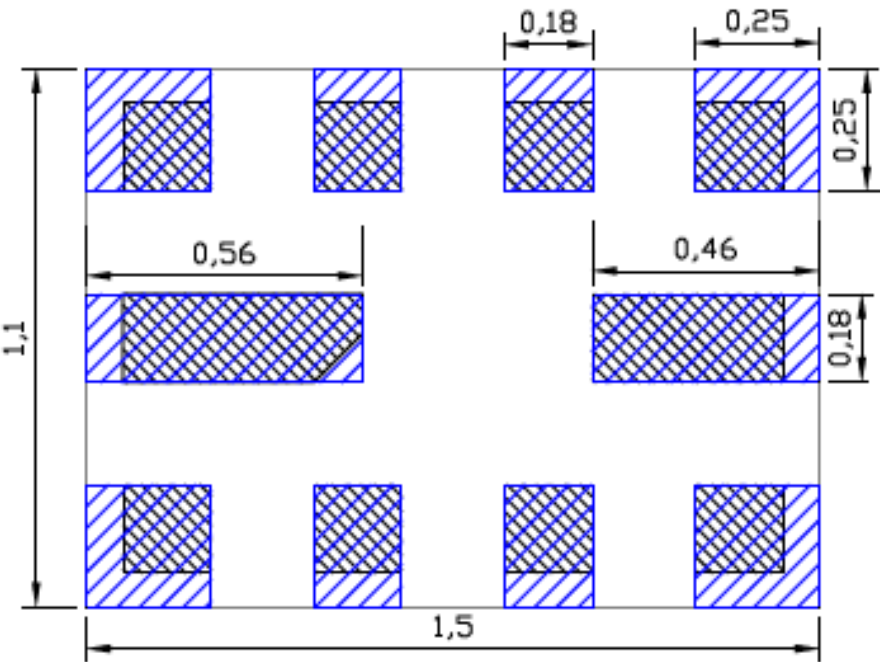




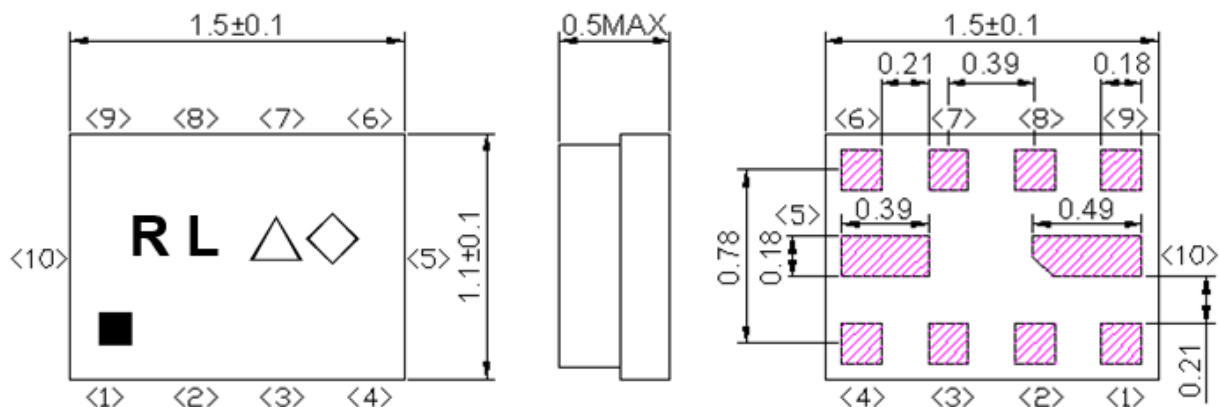
MEASUREMENT CIRCUIT



FOOTPRINT



## OUTLINE DRAWING



Not Specified Tolerance :  $\pm 0.10$  mm

Coplanarity : 0.1 mm max.

A to H : Pin No.

Unit : mm

Marking name : **RL**

△: Date code( 2020 May → s ,....., 2023 Dec→m.)

◇: Lot Code.

Product Date Code. Follow below table. (4-year cycle)

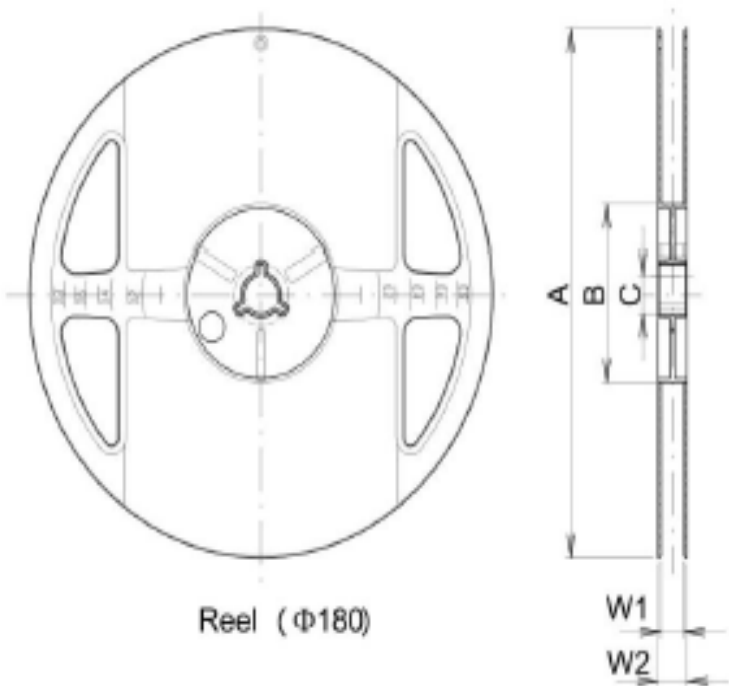
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2020 | n   | p   | q   | r   | s   | t   | u   | v   | w   | x   | y   | z   |
| 2021 | A   | B   | C   | D   | E   | F   | G   | H   | J   | K   | L   | M   |
| 2022 | N   | P   | Q   | R   | S   | T   | U   | V   | W   | X   | Y   | Z   |
| 2023 | a   | b   | c   | d   | e   | f   | g   | h   | j   | k   | l   | m   |

### Pin assignment

| Pin No. | Pin name     | Description    |
|---------|--------------|----------------|
| 1       | In           | Common Input   |
| 2       | GND          | Ground         |
| 3       | GND          | Ground         |
| 4       | GND          | Ground         |
| 5       | GND          | Ground         |
| 6       | Out(Filter2) | Filter2 Output |
| 7       | GND          | Ground         |
| 8       | GND          | Ground         |
| 9       | Out(Filter1) | Filter1 Output |
| 10      | GND          | Ground         |

PACKING

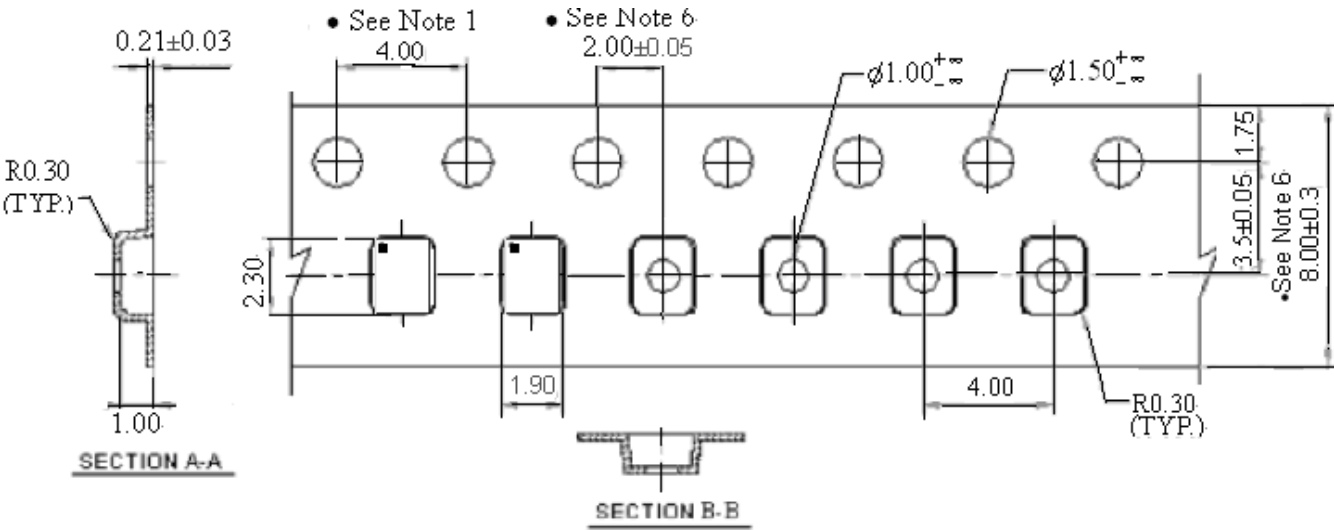
REEL DIMENSION



Unit : mm

| Series   | Code | Quantity | A               | B              | C         | W1            | W2        |
|----------|------|----------|-----------------|----------------|-----------|---------------|-----------|
| CSSD1511 | J    | 5000 pcs | 180.0 +0.0/-1.5 | 60.0 +1.0/-0.0 | 13.0 ±0.2 | 9.0 +1.0/-0.0 | 11.4 ±1.0 |

TAPE DIMENSION



## RECOMMENDED REFLOW PROFILE

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C+0/-5°C peak (20~40sec).
4. Time: 2 times.

