# SK3010RB

**MSL 3 Device**

**Band1&4, RF-Rx Balance SAW Filter**
**Revision 0: August 2016**

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- ❒ Testing Environment
- ❒ Frequency Characteristics

## ❒ Electrical Characteristics

**Maximum Ratings**

| Parameters Description | Unit | Minimum | Typical | Maximum |
|---|---|---|---|---|
| **Operating Temperature Range** | ℃ | -30 | - | +85 |
| **Storage Temperature Range** | ℃ | -40 | - | +85 |
| **Maximum DC Voltage** | V | - | - | - |
| **Maximum Input Power** | dBm | - | - | 15 |
| **Source Impedance (unbalance)(1)** | □ | - | 50 | - |
| **Load Impedance (balance)(1)** | □ | - | 100 | - |
| **Package type & size** | C14 | | | |
| **Length x Width** | mm² | - | 1.1 x 0.9 | - |
| **Height** | mm | - | - | 0.55 |

## Electrical Specification

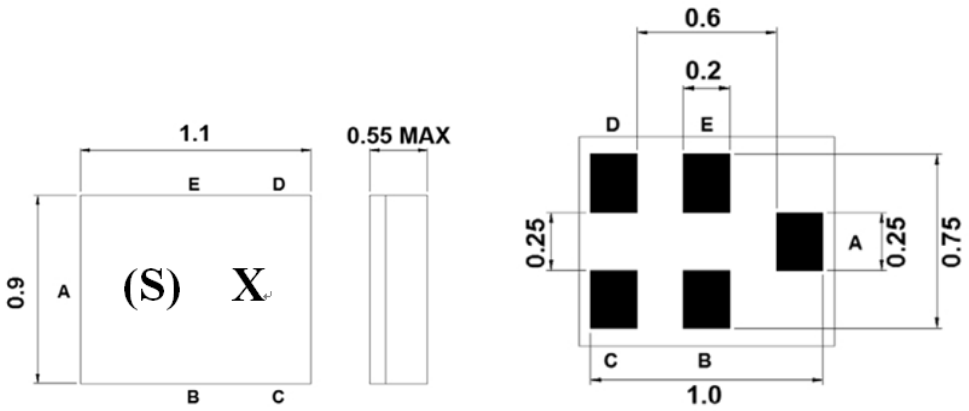
| Parameters Description (Band 1) | Unit | Minimum | Typical @+25°C | Maximum |
|---|---|---|---|---|
| **Center Frequency (Fo)** | MHz | - | 2140.0 | - |
| **Insertion Loss within 2110.0 ~ 2170.0 MHz** | dB | - | 2.0 | 2.4 |
| **Amplitude Ripple within 2110.0 ~ 2170.0 MHz** | $dB_{p-p}$ | - | 0.7 | 1.5 |
| **VSWR within 2110.0 ~ 2170.0 MHz** | - | - | 1.9 | 2.2 |
| **Amplitude balance within 2110.0 ~ 2170.0 MHz** | dB | -1.5 | -0.9 ~ +0.4 | +1.5 |
| **Phase balance within 2110.0 ~ 2170.0 MHz** | deg | -10 | -3.0 ~ +2.8 | +10 |

| Parameters Description (Band 4) | Unit | Minimum | Typical @+25°C | Maximum |
|---|---|---|---|---|
| **Center Frequency (Fo)** | MHz | - | 2132.0 | - |
| **Insertion Loss within 2110.0 ~ 2155.0 MHz** | dB | - | 1.8 | 2.2 |
| **Amplitude Ripple within 2110.0 ~ 2155.0 MHz** | $dB_{p-p}$ | - | 0.5 | 1.5 |
| **VSWR within 2110.0 ~ 2155.0 MHz** | - | - | 1.6 | 2.2 |
| **Amplitude balance within 2110.0 ~ 2155.0 MHz** | dB | -1.5 | -0.9 ~ +0.2 | +1.5 |
| **Phase balance within 2110.0 ~ 2155.0 MHz** | deg | -10 | -2.4 ~ +2.8 | +10 |

| Parameters Description | Unit | Minimum | Typical @+25°C | Maximum |
|---|---|---|---|---|
| **Attenuation:** | | | | |
| **10.0 ~ 1920.0 MHz** | dB | 40 | 48 | - |
| **824.0 ~ 849.0 MHz** | dB | 50 | 58 | - |
| **1710.0 ~ 1755.0 MHz** | dB | 45 | 52 | - |
| **1920.0 ~ 1980.0 MHz** | dB | 50 | 54 | - |
| **2300.0 ~ 2500.0 MHz** | dB | 25 | 33 | - |
| **4220.0 ~ 4340.0 MHz** | dB | 35 | 51 | - |

**Notes :** (1) With Matching Network

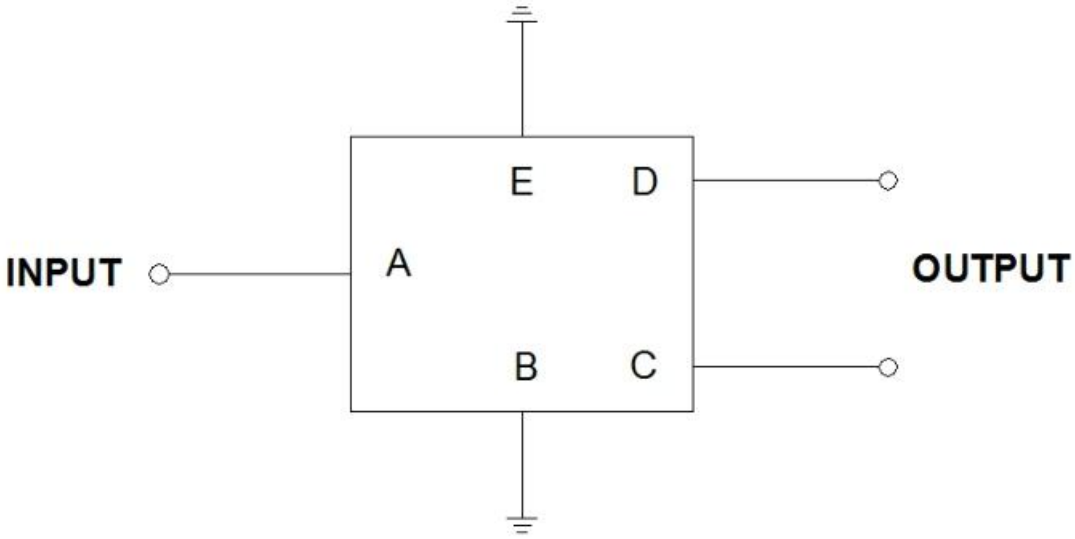
## ❒Package Dimensions




| Marking Descriptions | |
|---|---|
| (S) | Series Number |
| X | Date Code(Year+Month) |

| Pin Description | |
|---|---|
| B, E | Ground |
| A | Input |
| C,D | Balanced Output |

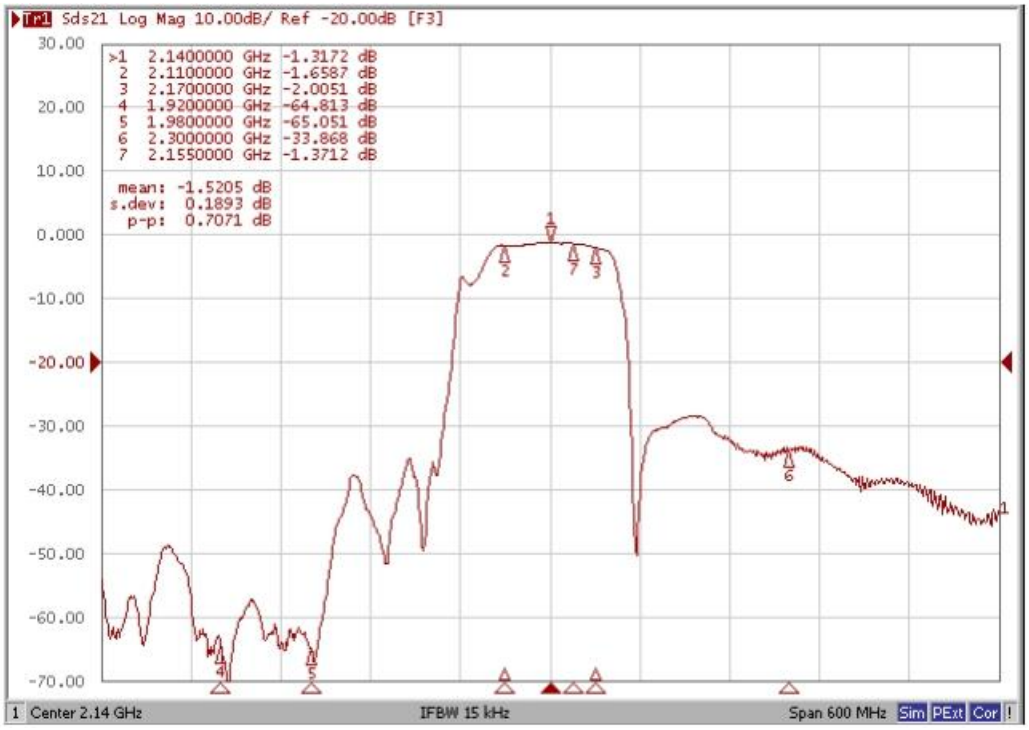
## ❒ Testing Environment

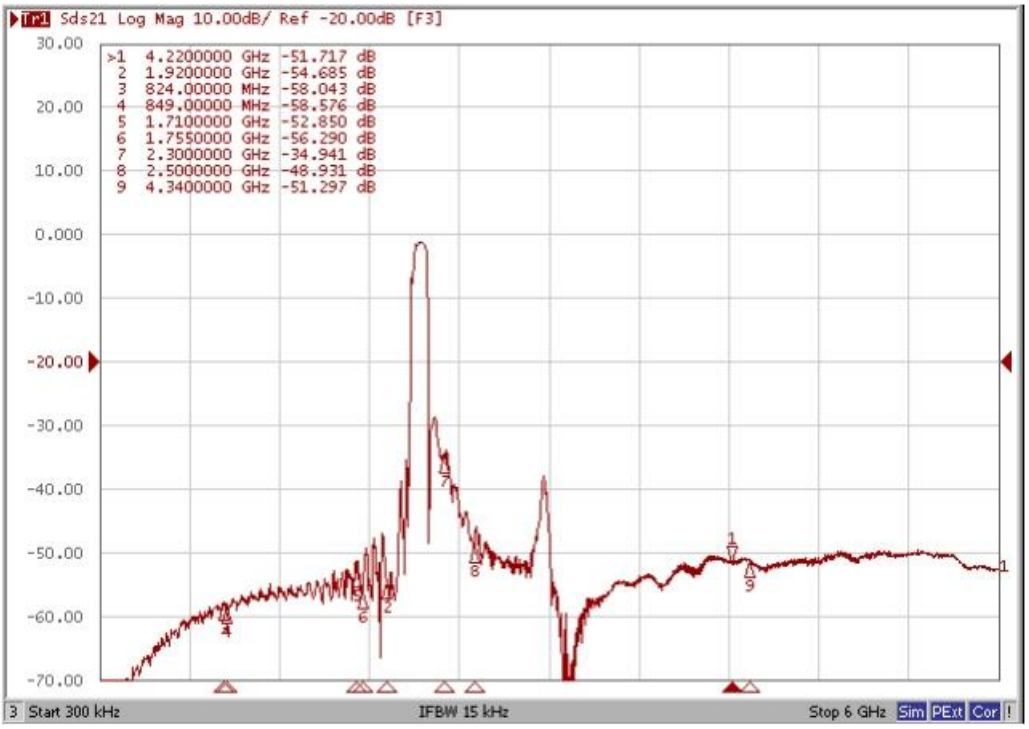



Source Impedance: 50
Load Impedance: 100

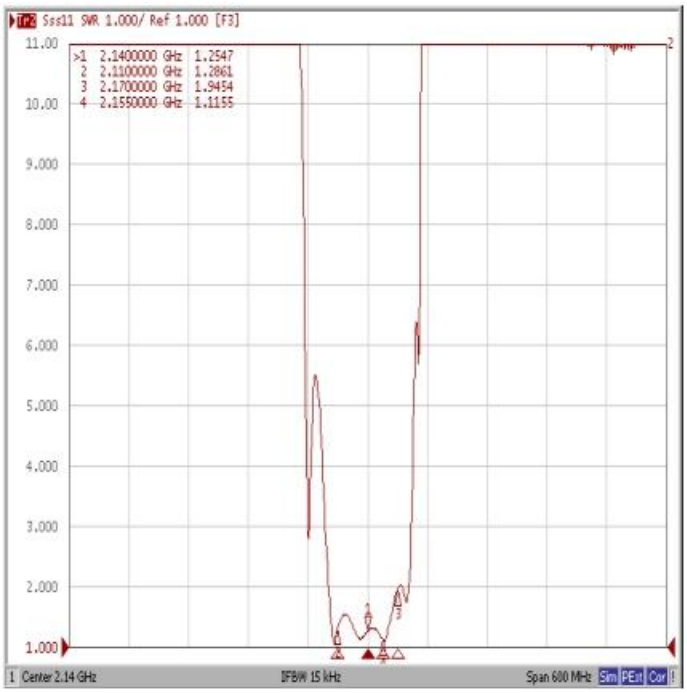
# ❒ Frequency Characteristics

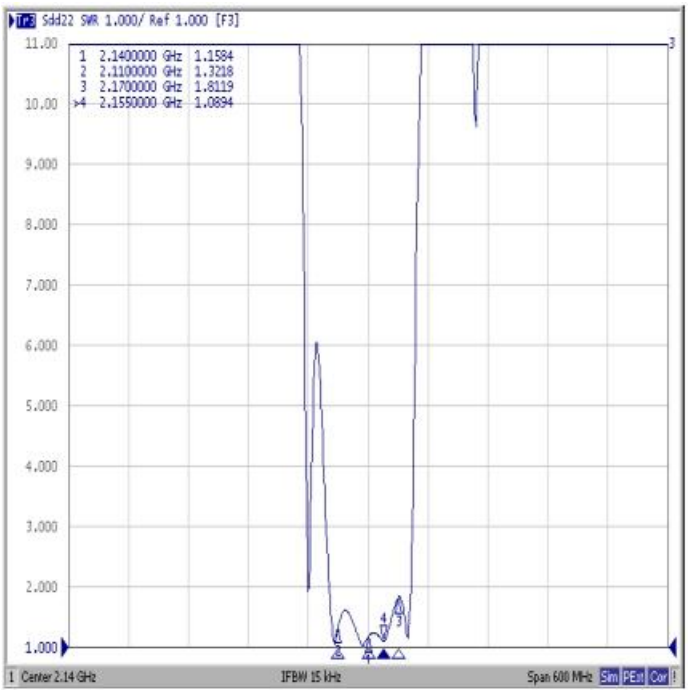
**Frequency Response**



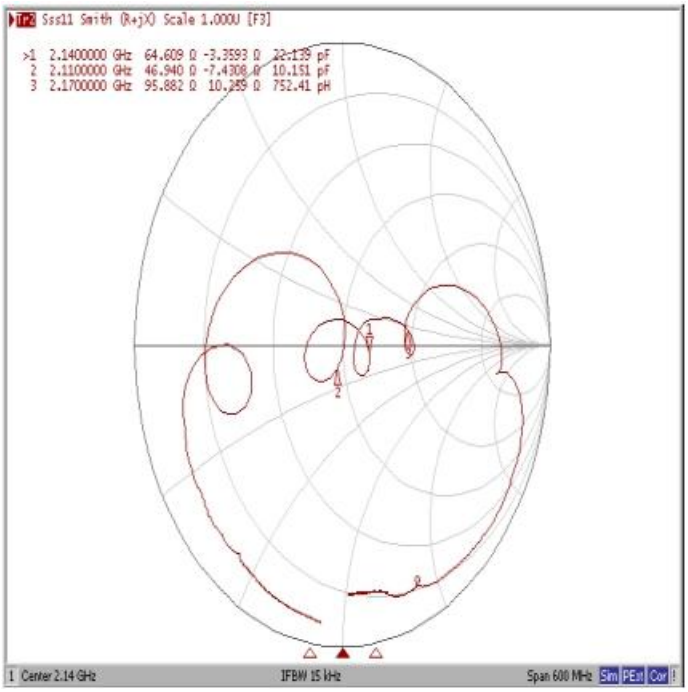



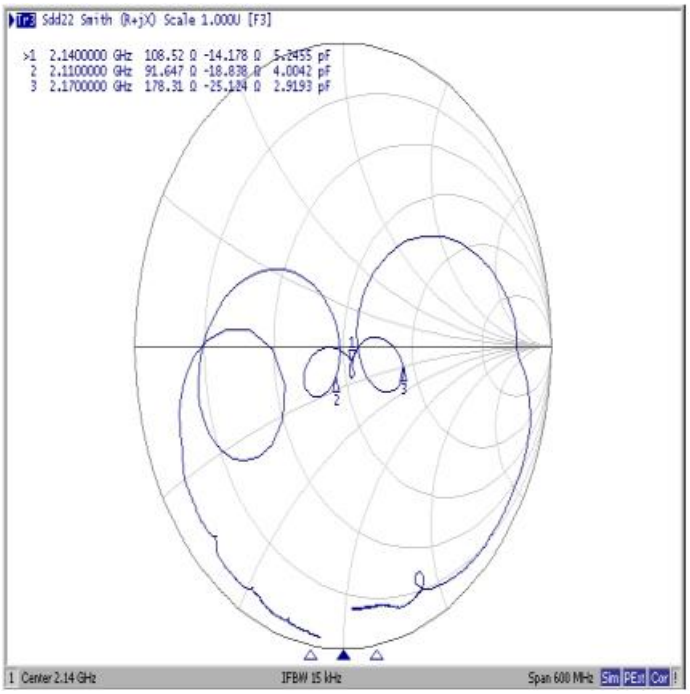
## VSWR



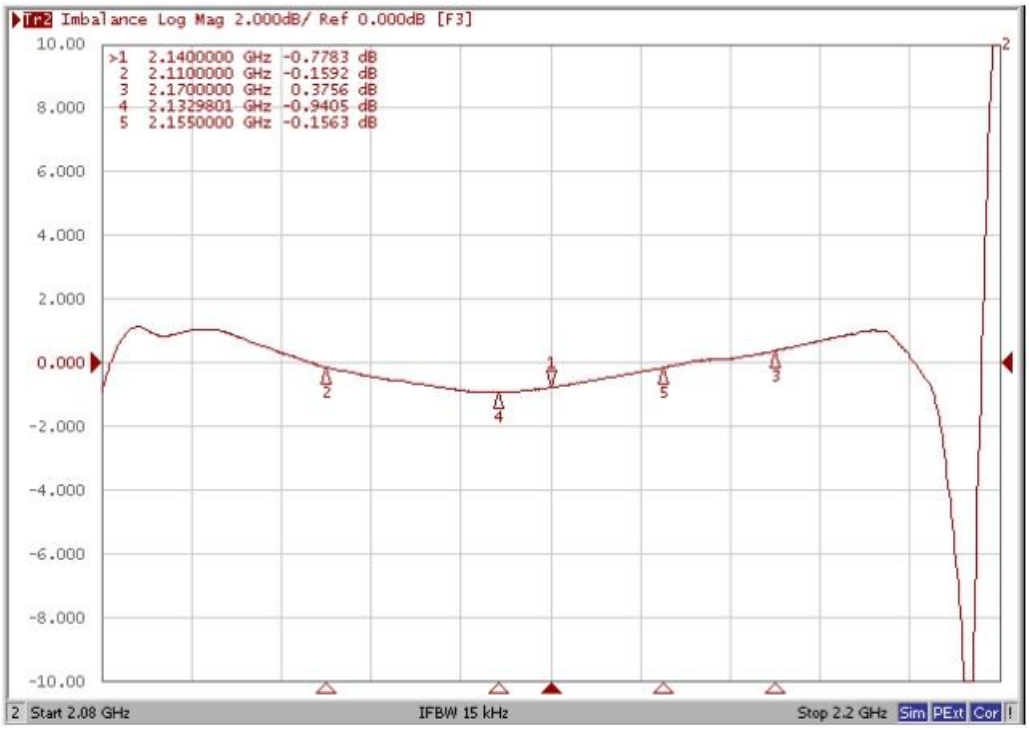




## Smith Chart



**Amplitude balance**




**Phase balance**