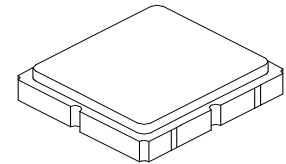


**SF1192B**

**1842.5 MHz  
SAW Filter**



**SM3030-6**

- *RF Filter for Mobile Communication Applications*
- *No Matching Circuit Required*
- *3.0 x 3.0 x 1.3 mm Package*
- *Complies with Directive 2011/65/EU (RoHS)*
- *Moisture Sensitivity Level: 1*

**Absolute Maximum Ratings**

| Rating   | Value          | Units |
|--|----------------|-------|
| Maximum Input Power  | +10            | dBm   |
| DC voltage between Terminals                                 | 0              | VDC   |
| Operable Temperature Range                                   | -45 to +125    | °C    |
| Storage Temperature  | -40 to +85     | °C    |
| Suitable for lead-free soldering - Max Soldering Temperature | 260°C for 30 s |       |

**Electrical Characteristics**

| Characteristic                  | Sym                                      | Notes  | Min  | Typ    | Max | Units    |
|---------------------------------|--|--|------|--------|-----|----------|
| Nominal Operating Frequency     | $f_c$                                    |  |      | 1842.5 |     | MHz      |
| Passband                        | Insertion Loss across $f_c \pm 37.5$ MHz |  |      | 2.2    | 3.8 | dB       |
|                                 |  | Amplitude Ripple p-p across $f_c \pm 37.5$ MHz |      | 1.3    | 2.3 | dB       |
| Attenuation                     |  | 1542.5 ~ 1600 MHz                              | 20.0 | 24.5   |     | dB       |
|                                 |  | 1600 ~ 1710 MHz                                | 22.0 | 25.0   |     | dB       |
|                                 |  | 1710 ~ 1785 MHz                                | 10.0 | 23.5   |     | dB       |
|                                 |  | 1920 ~ 2142.5 MHz                              | 25.0 | 28.0   |     | dB       |
| VSWR across $f_c \pm 37.5$ MHz  |  |  |      | 1.9    | 2.6 |          |
| Source impedance                | $Z_s$                                    |  |      | 50     |     | $\Omega$ |
| Load impedance                  | $Z_L$                                    |  |      | 50     |     | $\Omega$ |
| Specification Temperature Range | $T_A$                                    |  | -30  |        | +85 | °C       |

|  |                                     |
|--|-------------------------------------|
| Case Style                                   | SM3030-6 3 x 3 mm Nominal Footprint |
| Lid Symbolization (Y=year, WW=week, S=Shift) | 454 <u>YWWS</u>                     |
| Standard Reel Quantity                       | 500 Pieces Per Reel                 |
| Reel Size 7 Inch                             |                                     |
| Reel Size 13 Inch                            | 3000 Pieces Per Reel                |

**Electrical Connections**

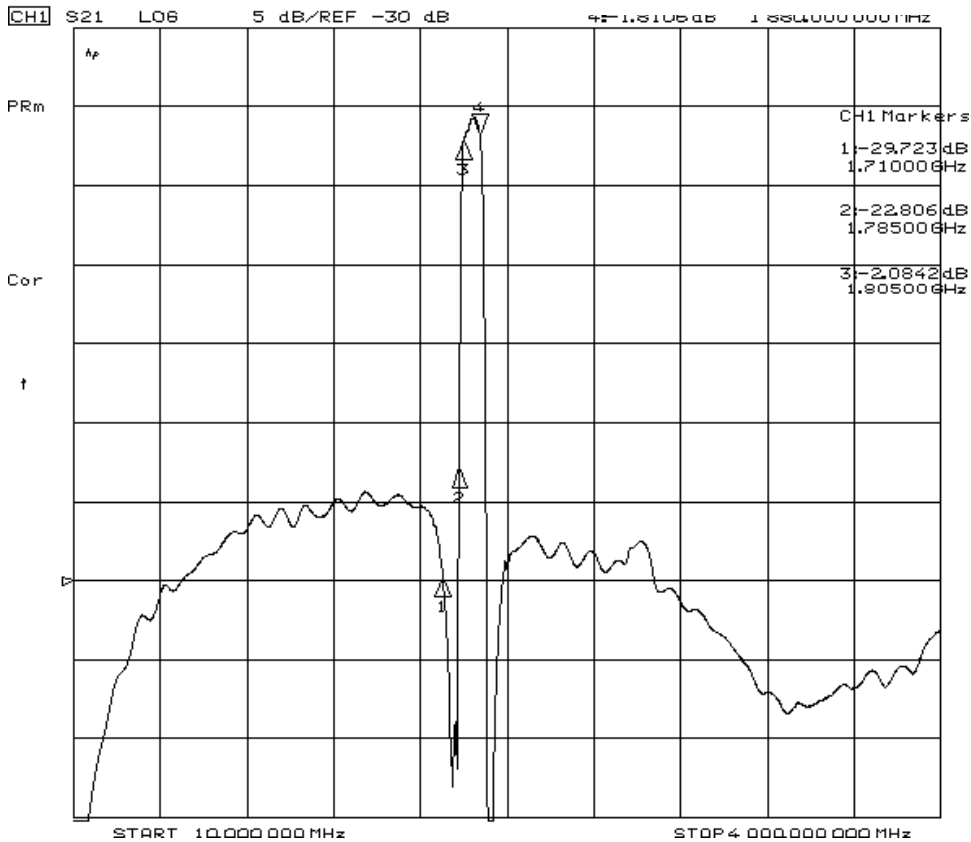
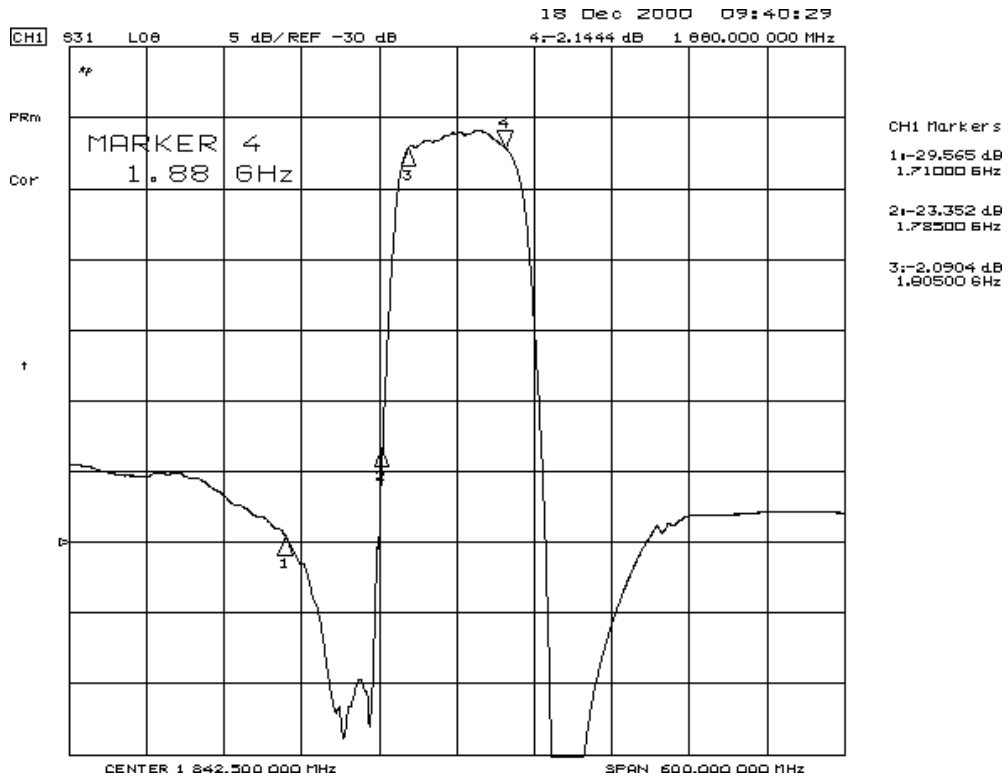
| Connection | Terminals  |
|------------|------------|
| Input      | 2          |
| Output     | 5          |
| Ground     | All others |

 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

**NOTES:**

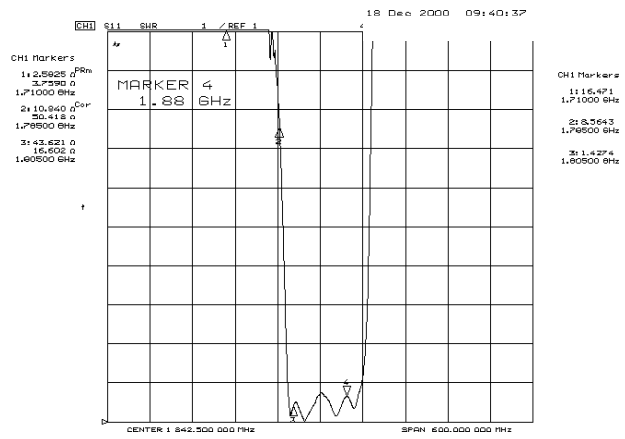
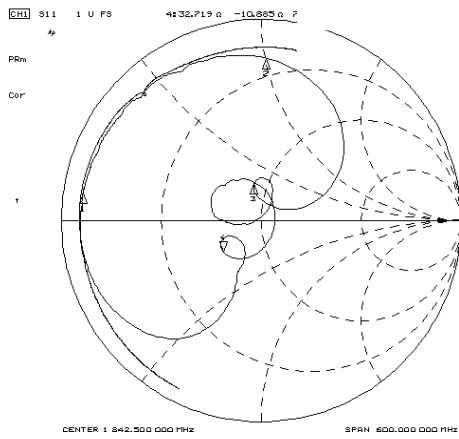
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

**Frequency Characteristics:  
Transfer Function**

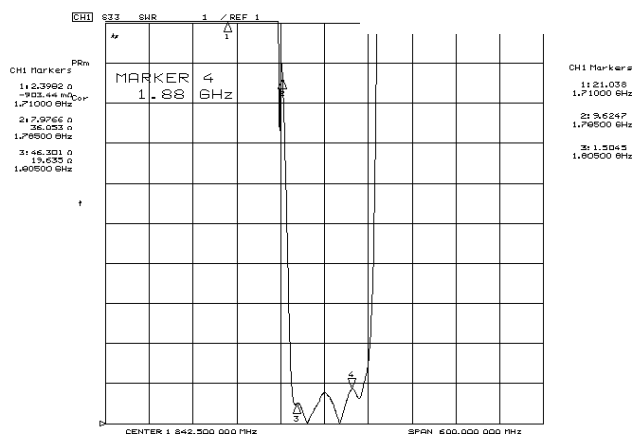
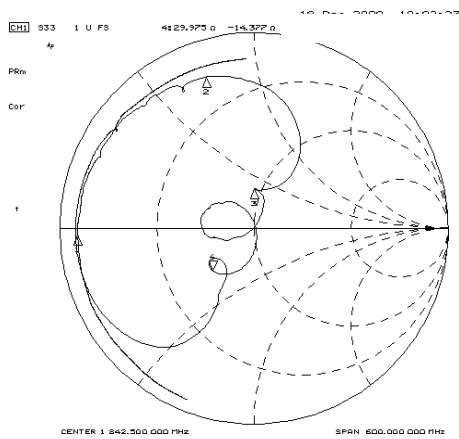


Reflections Functions:

S11 VSWR

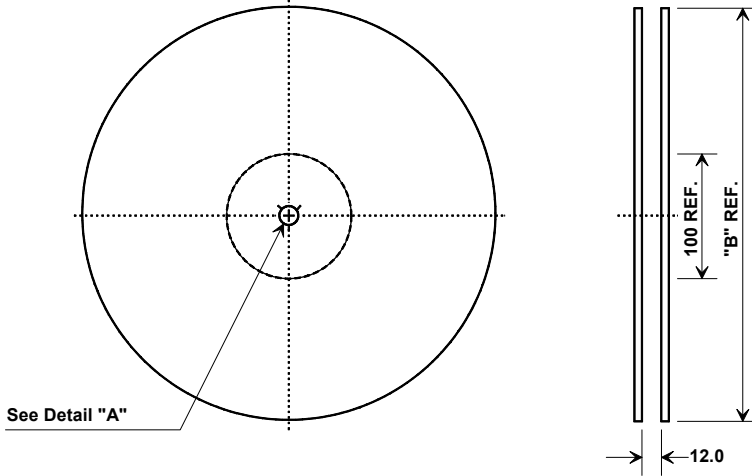


S22 VSWR

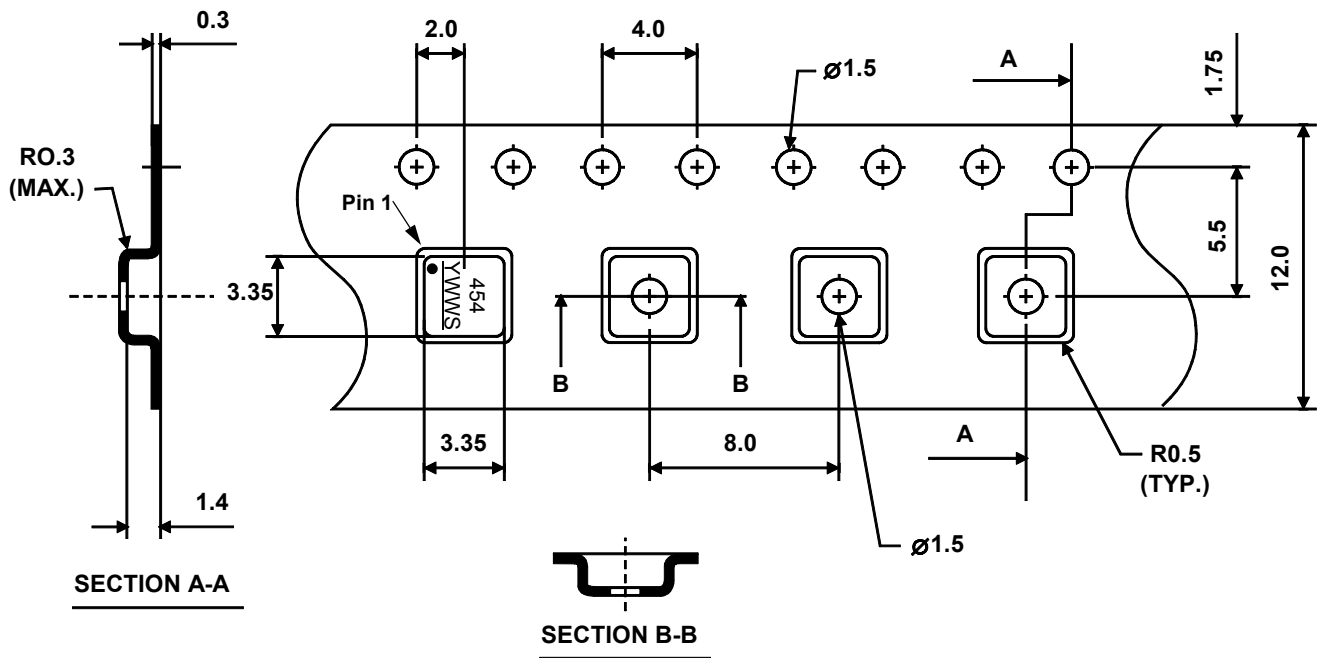
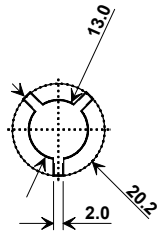


## Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481



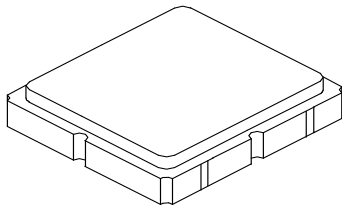
| "B" Nominal Size |             | Quantity Per Reel |
|------------------|-------------|-------------------|
| Inches           | millimeters |                   |
| 7                | 178         | 500               |
| 13               | 330         | 3000              |



# SM3030-6 Case

## 6-Terminal Ceramic Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint

### Case Dimensions

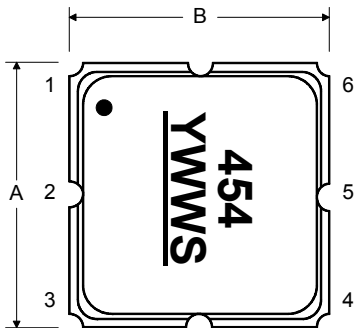


| Dimension | mm   |      |      | Inches |       |       |
|-----------|------|------|------|--------|-------|-------|
|           | Min  | Nom  | Max  | Min    | Nom   | Max   |
| A         | 2.87 | 3.00 | 3.13 | 0.113  | 0.118 | 0.123 |
| B         | 2.87 | 3.00 | 3.13 | 0.113  | 0.118 | 0.123 |
| C         | 1.12 | 1.25 | 1.38 | 0.044  | 0.049 | 0.054 |
| D         | 0.77 | 0.90 | 1.03 | 0.030  | 0.035 | 0.040 |
| E         | 2.67 | 2.80 | 2.93 | 0.105  | 0.110 | 0.115 |
| F         | 1.47 | 1.60 | 1.73 | 0.058  | 0.063 | 0.068 |
| G         | 0.72 | 0.85 | 0.98 | 0.028  | 0.033 | 0.038 |
| H         | 1.37 | 1.50 | 1.63 | 0.054  | 0.059 | 0.064 |
| I         | 0.47 | 0.60 | 0.73 | 0.019  | 0.024 | 0.029 |
| J         | 1.17 | 1.30 | 1.43 | 0.046  | 0.051 | 0.056 |

### Electrical Connections

| Connection                         |                     | Terminals  |
|------------------------------------|---------------------|------------|
| Port 1                             | Single Ended Input  | 2          |
| Port 2                             | Single Ended Output | 5          |
|                                    | Ground              | All others |
| <b>Single Ended Operation Only</b> |                     |            |
| Dot indicates Pin 1                |                     |            |

TOP VIEW



BOTTOM VIEW

