

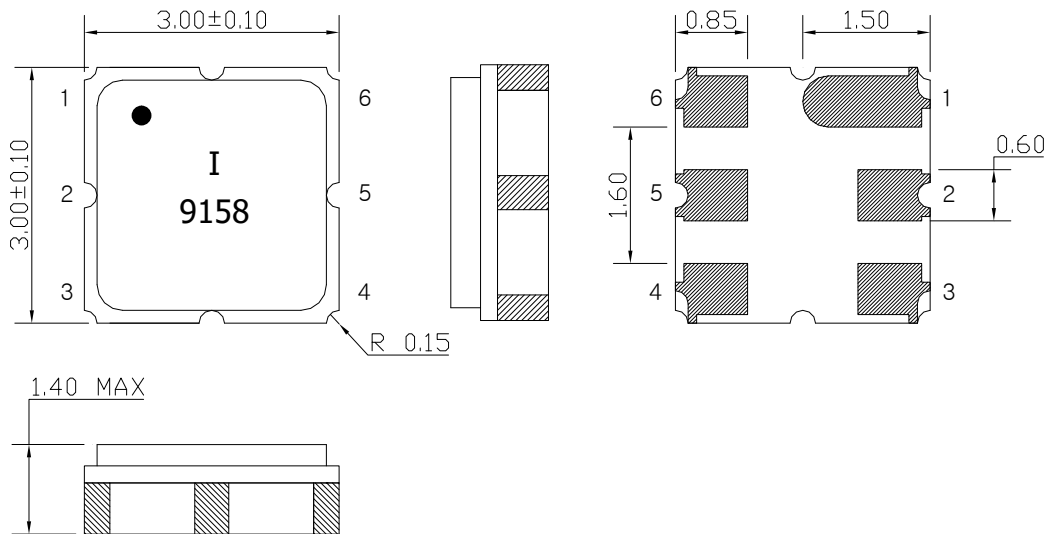
SAW Bandpass Filter F9158



Features

- RF SAW Bandpass filter
- Usable bandwidth 6.55MHz
- Ceramic Surface Mounted Device (SMD) Package (3.0mm × 3.0mm)
- RoHS/RoHS2 (2015/863/EU) Compliant

Package Dimensions



Dimensions shown are nominal in millimeters

Body : Al_2O_3 Ceramic

Lid : Kovar, Ni Plated

Terminations : Au plating 0.3 ~ 1.0 μm , Over a 1.27 ~ 8.89 μm
Ni Plating


Pin Configuration

| Pin Configuration | |
|-------------------|--------|
| 2 | Input |
| 5 | Output |
| 1, 3, 4, 6 | Ground |

Maximum Ratings

| Parameter | Unit | Minimum | Typical | Maximum |
|-----------------------------|--------------------|---------|---------|---------|
| Operating Temperature Range | $^{\circ}\text{C}$ | - | 25 | - |
| Storage Temperature Range | $^{\circ}\text{C}$ | -45 | - | 85 |
| Power Handling Capability | dBm | - | - | - |

Electrostatics Sensitive Device (ESD)

| | | | | |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------|------------|-----|
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| | | Rev. Date | 2021-11-24 | |
| | | Rev. | AS03 | 1/7 |

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Specifications

$F_c = 915.925 \text{ MHz}$

| | | Minimum | Typical | Maximum |
|------------------------------------------------|-------------------------|---------|---------|---------|
| Resonance Frequency (F_c) | MHz | - | 915.925 | - |
| Insertion Loss ($F_c \pm 3.275\text{MHz}$) | dB | - | 1.6 | 2.5 |
| Amplitude Ripple ($F_c \pm 3.275\text{MHz}$) | dB | - | 0.3 | 1.0 |
| VSWR ($F_c \pm 3.275\text{MHz}$) | | - | 1.5 | 2.0 |
| Absolute Attenuation | | | | |
| ~ 865.925 | | 25 | 30 | - |
| 865.925 ~ 895.925 MHz | dB | 20 | 25 | - |
| 935.925 ~ 965.925 MHz | | 22 | 27 | - |
| 965.925 ~ | | 27 | 35 | - |
| Temperature Coefficient | ppm/ $^{\circ}\text{C}$ | - | -40 | - |

Notes :

- 1) All specifications are based on the matching schematic shown below, measured by Agilent Network analyzer and full 2 port calibration.
- 2) Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances

| | | | | |
|--|-----------------------------------------------------------------------------------------------------|-----------|------------|-----|
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Matching Schematic

(Actual matching values may vary due to PCB layout and parasitics)



Marking Configuration

●¹⁾
I²⁾
9158³⁾

1) Pad Number 1 Index

2) Manufacturer name

3) Marking Number

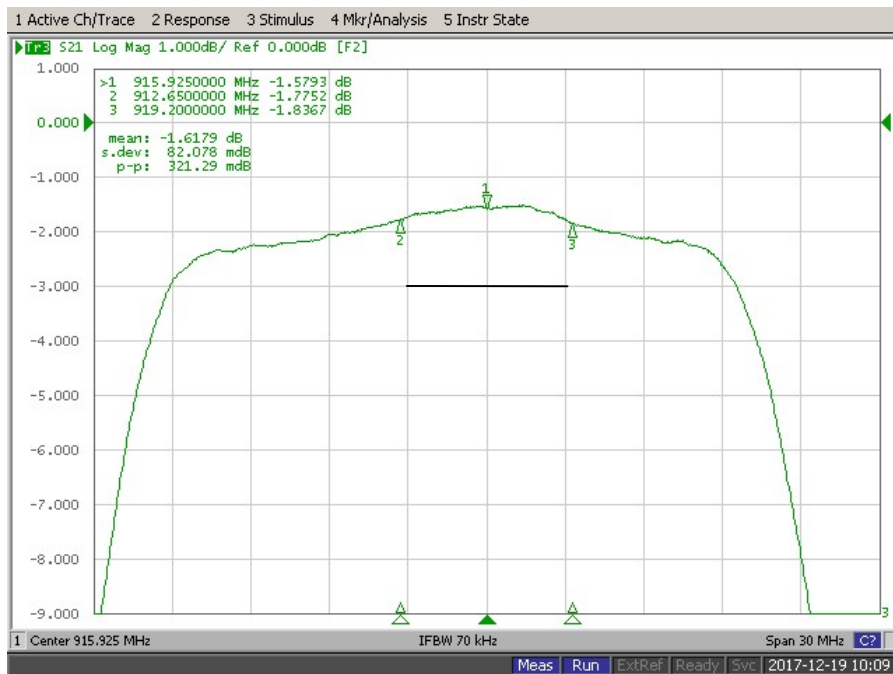
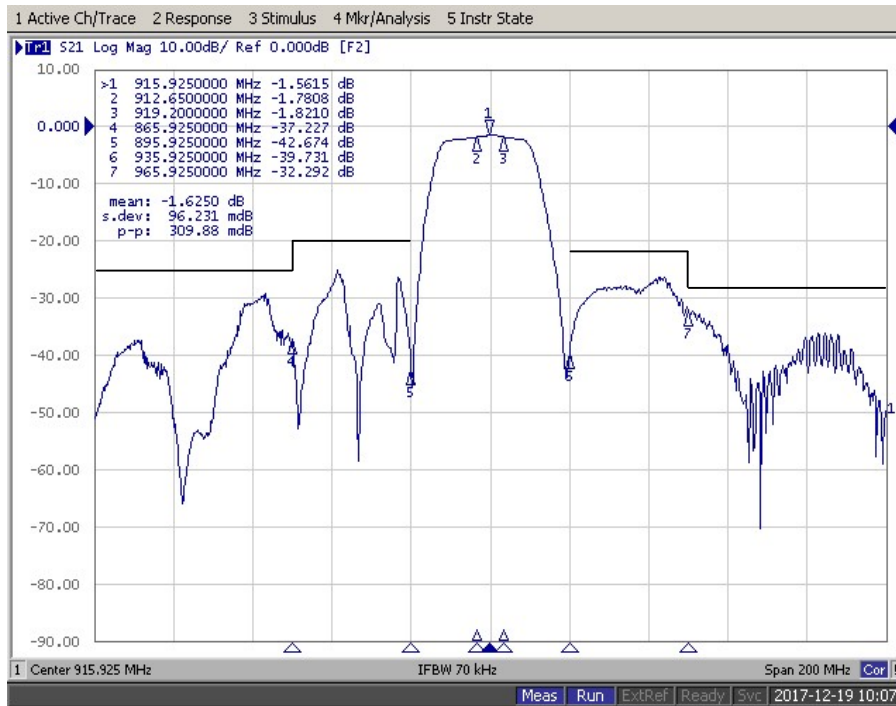
* Ink or Laser Marking available


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Typical Performance (at 25°C)

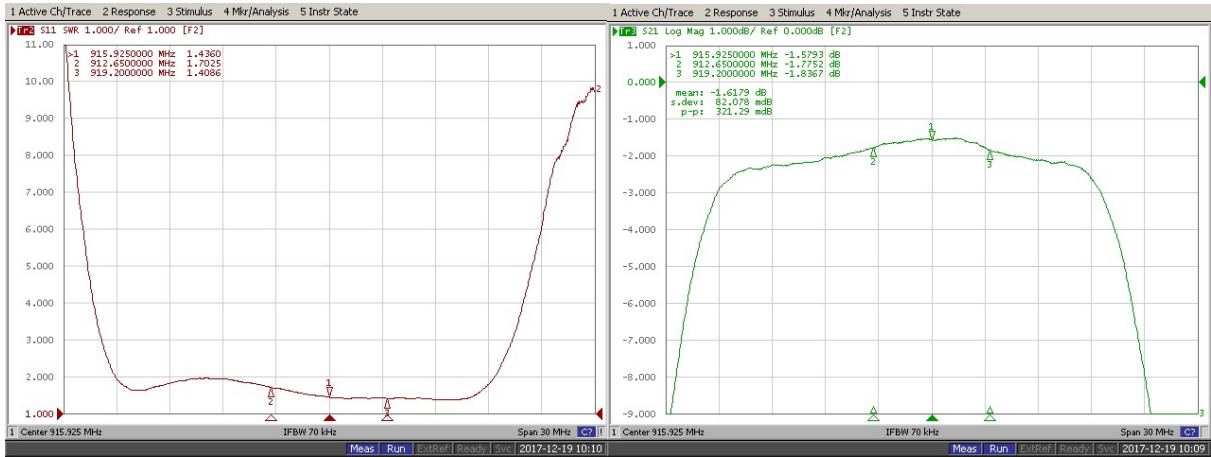


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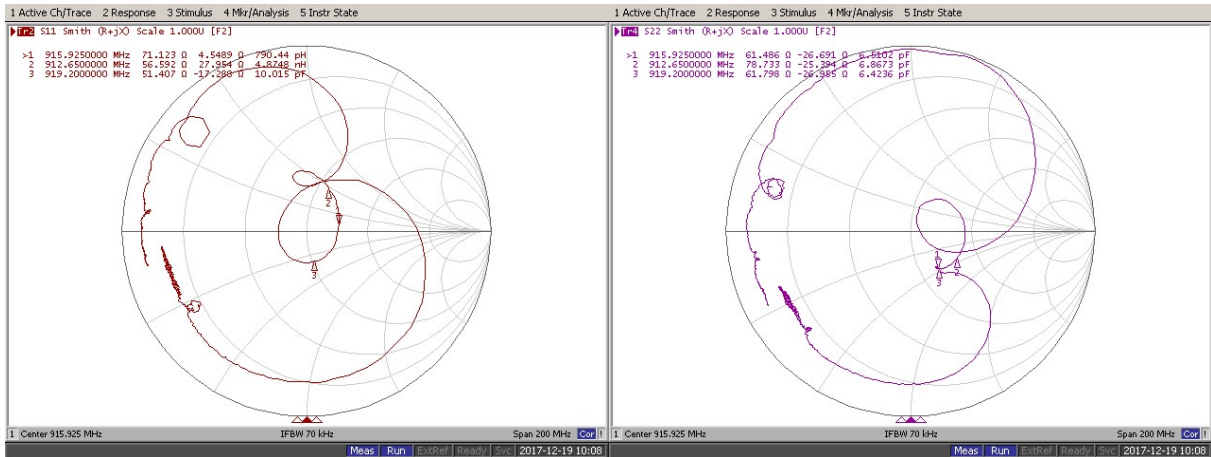
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Input / Output VSWR Charts



Input / Output Smith Charts



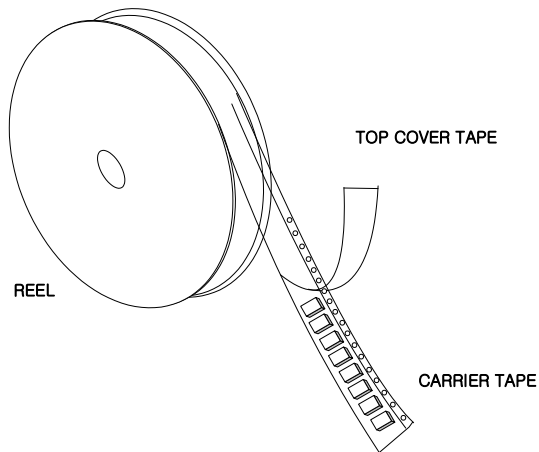
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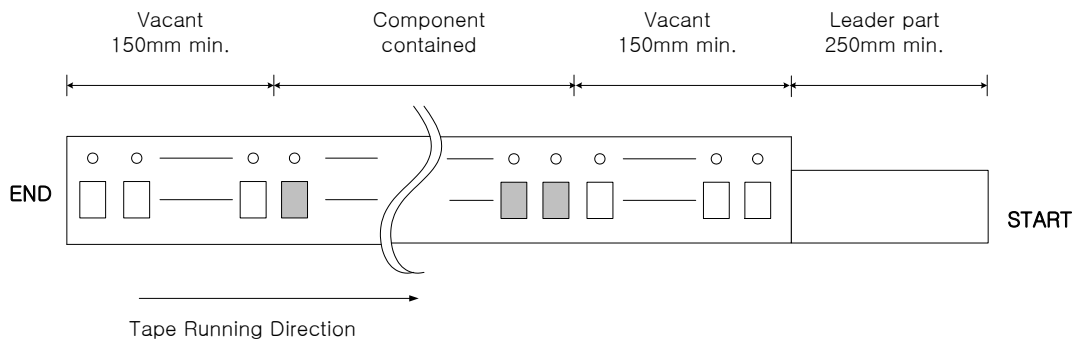
Packing Specification

1. Reeling Quantity : 1000 pcs / reel
2. Taping Structure : The tape shall be wound around the reel in the direction shown below.



Tape Specification

1. Leader part and vacant position specification

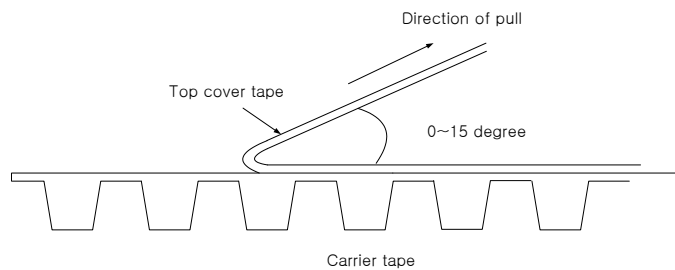


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

- 1) pull off angle : 0~15°
- 2) speed : 300mm/min
- 3) force : 20~70g

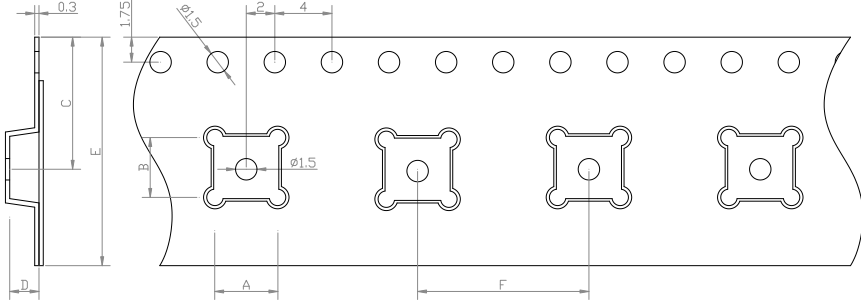


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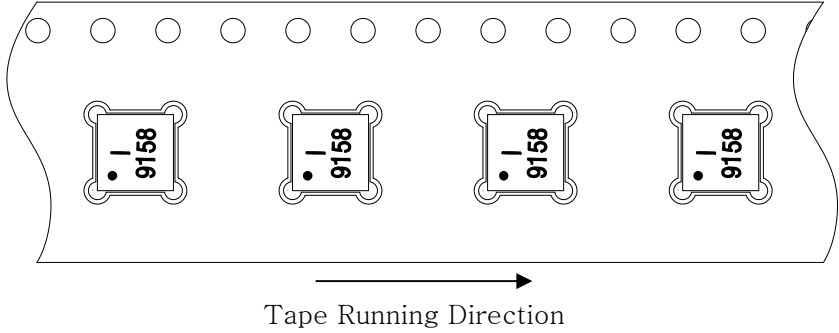


Carrier Tape Dimensions [unit : mm]

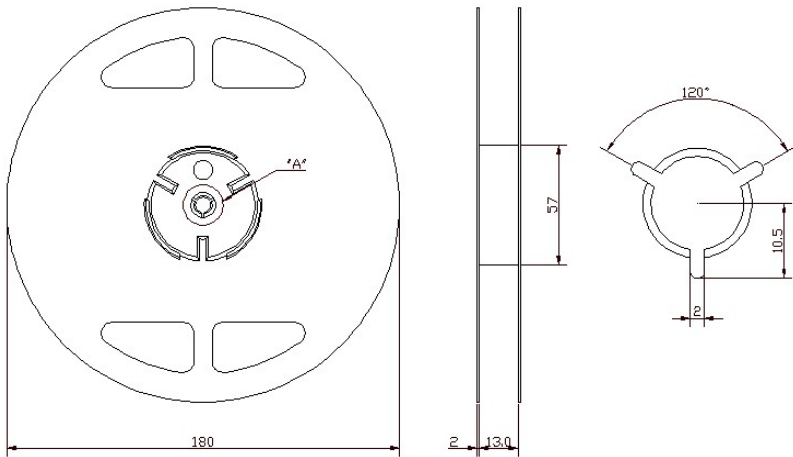


| | |
|---|-----------------|
| A | 3.40 ± 0.1 |
| B | 3.40 ± 0.1 |
| C | 7.25 ± 0.1 |
| D | 1.70 ± 0.1 |
| E | 12.00 ± 0.1 |
| F | 8.00 ± 0.1 |

Part Direction



Reel Dimensions [unit : mm]



| | | | |
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