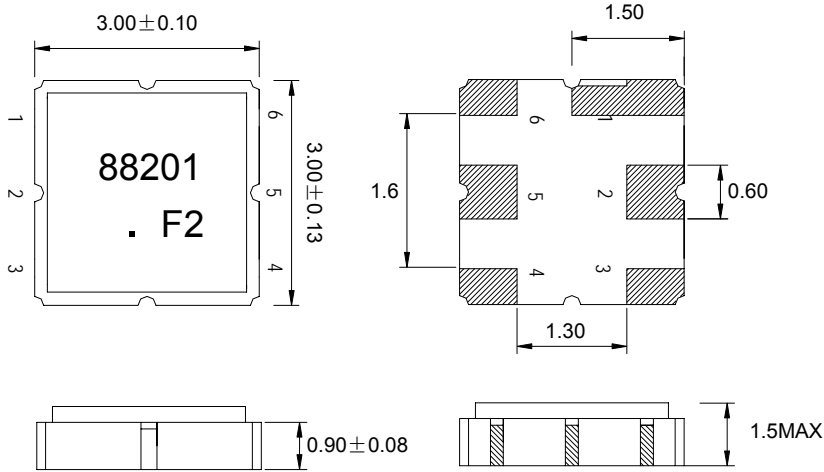


1. Package Dimension

(S22)



Unit: mm

| Pin No. | Function |
|---------|----------|
| 1. | Ground |
| 2. | Signal |
| 3. | Ground |
| 4. | Ground |
| 5. | Signal |
| 6. | Ground |

2. Marking

88201

Part Number

(1) Ink Marking or Laser Marking

(2) 01: Model code

(3) .: Pin 1 Identifier

(4) F2: Date code


.F2

F
Month code

2
Last figure of year

| Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------------|---|---|---|---|---|---|---|---|---|----|----|----|
| Month code | A | B | C | D | E | F | G | H | I | J | K | L |

e.g.: "F2" means June of 2002

| | | | | |
|--|---|-------------|----------|------|
|  | SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060 | Part Number | SP88201 | |
| | | Rev. Date | 2006-8-9 | |
| | | Rev. | 1.0 | Page |

3. Performance

3.1 Application


RF SAW filter for cellular telephone.
Center frequency: 881.5MHz

3.2 Maximum Rating

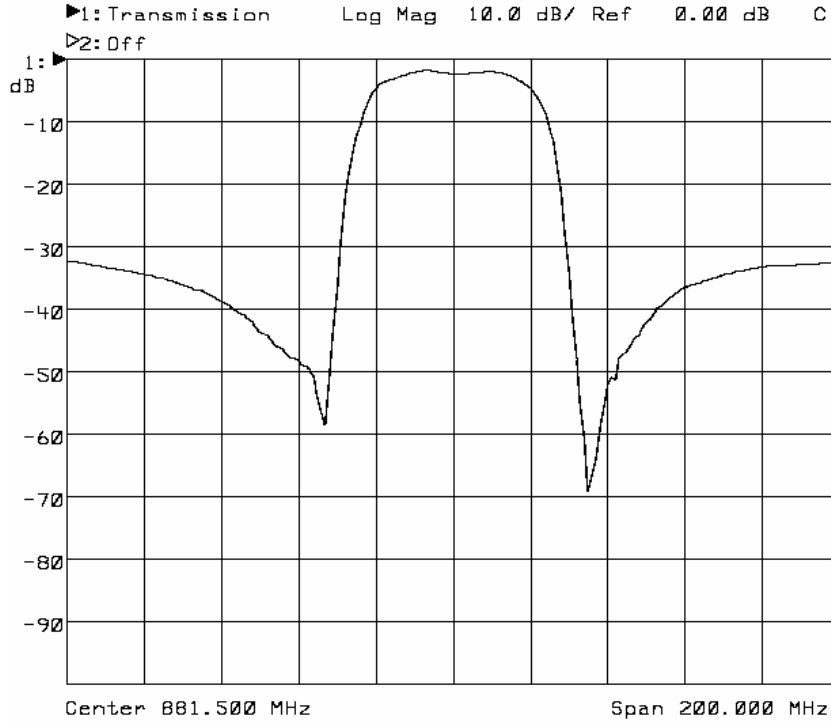
| | |
|-----------------------------|----------------|
| Operation Temperature Range | -30°C to +80°C |
| Storage Temperature Range | -40°C to +85°C |
| DC Permissive Voltage | 10V DC max. |
| Maximum Input Power | 23 dBm |

3.3 Electronic Characteristics

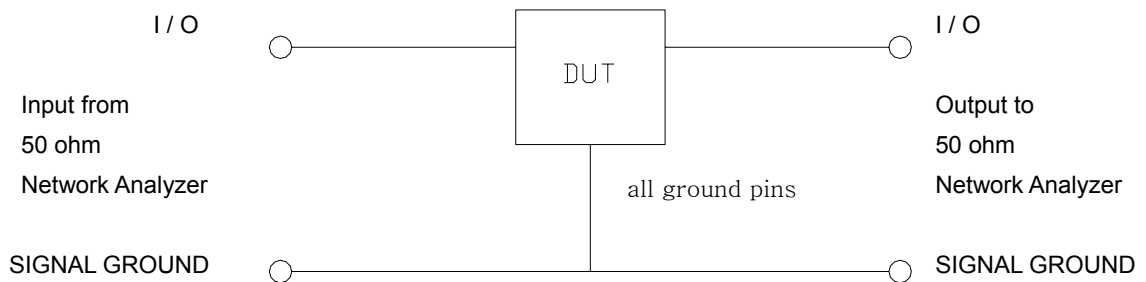
| Item | Frequency (MHz) | Specification |
|-----------------------|-----------------|---------------|
| Center Frequency (fo) | 881.5 | |
| Pass-band Width | 25 | |
| Insertion Loss | 869 ~ 894 | 3.0 dB max. |
| Pass-band Ripple | 869 ~ 894 | 1.8 dB max. |
| Return Loss | 869 ~ 894 | 10.0 dB min. |
| Stop-band Attenuation | DC ~ 800 | 20 dB min. |
| | 824 ~ 849 | 35 dB min. |
| | 978 ~ 1006 | 25 dB min. |
| | 1088 ~ 1119 | 30 dB min. |
| | 1119 ~ 2600 | 20 dB min. |


| | | | | |
|--|---|-------------|----------|------|
|  | SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060 | Part Number | SP88201 | |
| | | Rev. Date | 2006-8-9 | |
| | | Rev. | 1.0 | Page |

3.4 Frequency Characteristics



3.5 Test Circuit



| | | | | |
|--|---|-------------|----------|------|
|  | SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060 | Part Number | SP88201 | |
| | | Rev. Date | 2006-8-9 | |
| | | Rev. | 1.0 | Page |


4. Reliability

- 4.1 Mechanical Shock: The components shall remain within the electrical specifications after three one-half sine shock pulses(3000g's for 0.3 ms) in each direction(for six total) along each of the three mutually perpendicular axes for a total of 18 shocks.
- 4.2 Vibration Fatigue: The components shall remain within the electrical specifications after loaded vibration at 20~55Hz, amplitude 1.5mm, X,Y,Z, direction, for 2 hours.
- 4.3 Leak Test
- 4.3.1 Gross Leak Test: Submerge samples into at +85°C water for at least 1 minute. Carefully observe the samples. No bubbles should be seen.
- 4.3.2 Fine Leak Test: Expose samples for testing to 60 PSIG Helium gas for 2 hours. Then transfer the same samples to another chamber and draw a vacuum. Measure the leak rate. Failure is defined if the leak rate exceeds 5×10^{-8} atm cc/sec Helium.
- 4.4 High Temperature Storage: The components shall remain within the electrical specifications after being kept at the $85^\circ\text{C} \pm 2^\circ\text{C}$ for 960 hours, then kept at room temperature for 2 hours.
- 4.5 Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the $-40^\circ\text{C} \pm 2^\circ\text{C}$ for 960 hours, then kept at room temperature for 2 hours.
- 4.6 Temperature Cycle: The components shall remain within the electrical specification after 32 cycles of high and low temperature testing (one cycle: 80°C for 30 minutes → 25°C for 20 seconds → -40°C for 30 minutes) than kept at room temperature for 2 hours.
- 4.7 Humidity Test: The components shall remain within the electrical specifications after being kept at the condition of ambient temperature 70°C , and 90~95% RH for 240 hours, then kept at room temperature and normal humidity for 4 hours.
- 4.8 Solder-heat Resistance: The components shall remain within the electrical specifications after dipped in the solder at $260^\circ\text{C} \pm 5^\circ\text{C}$ for 10 to 11 seconds, then kept at room temperature for 10 minutes.
- 4.9 Solderability: Solderability of terminal shall be kept at more than 80% after dipped in the solder flux at $230^\circ\text{C} \pm 5^\circ\text{C}$ for 5 ± 1 seconds.
- 4.10 Storage: The components shall meet the electrical and mechanical specifications after 5 years storage, if stored within the temperature range of $-40^\circ\text{C} \sim +85^\circ\text{C}$ and in the humidity of 20 to 60% r.h.

5. Remarks

5.1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.

| | | | | |
|--|---|-------------|----------|------|
|  | SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060 | Part Number | SP88201 | |
| | | Rev. Date | 2006-8-9 | |
| | | Rev. | 1.0 | Page |

5.2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning.

5.3 Soldering

Only leads of component may be soldered. Please avoid soldering another part of component.

6. Packing

6.1 Dimensions

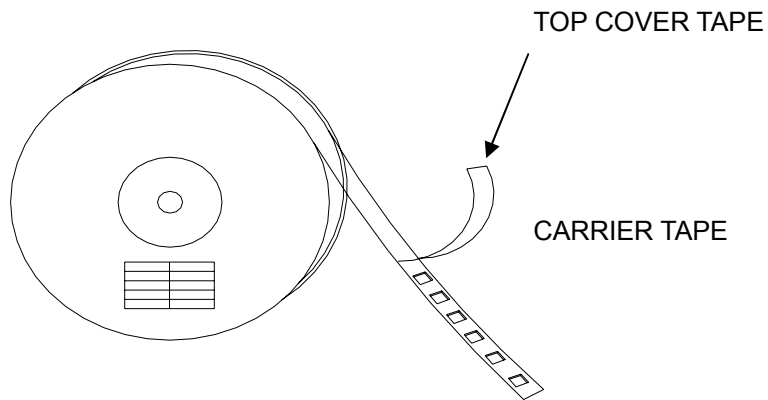
- (1) Carrier Tape: Figure 1
- (2) Reel: Figure 2
- (3) The product shall be packed properly not to be damaged during transportation and storage.

6.2 Reeling Quantity

3,000pcs/reel


6.3 Taping Structure

- (1) The tape shall be wound around the reel in the direction shown below.

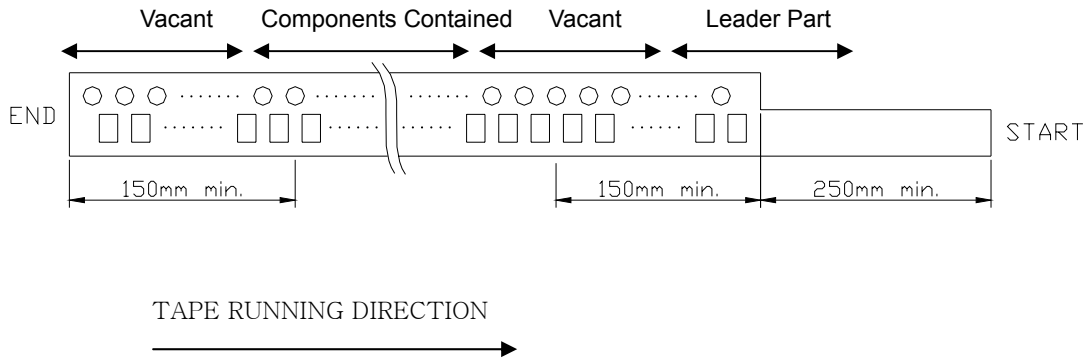


(2) Lable

| | |
|-------------|--|
| Device Name | |
| Type | |
| Quantity | |
| Lot No. | |

| | | | | |
|--|---|-------------|----------|----------|
|  | SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060 | Part Number | SP88201 | |
| | | Rev. Date | 2006-8-9 | |
| | | Rev. | 1.0 | Page 5/8 |

(2) Leader part and vacant position specifications.

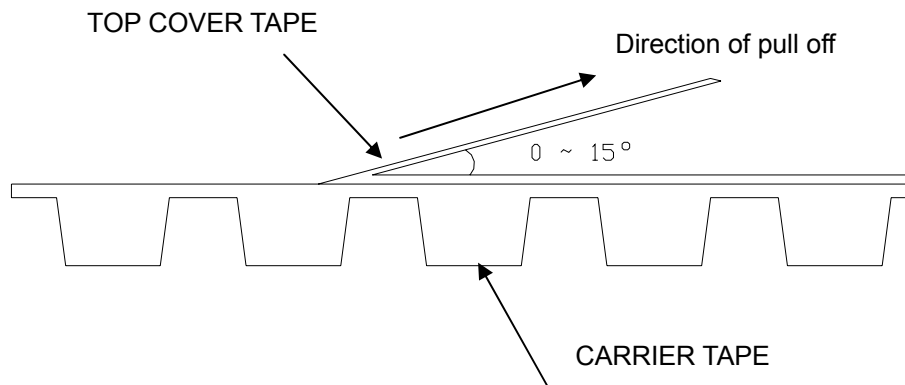



7. Tape Specifications

7.1 Tensile Strength of Carrier Tape: 4.4N/mm width

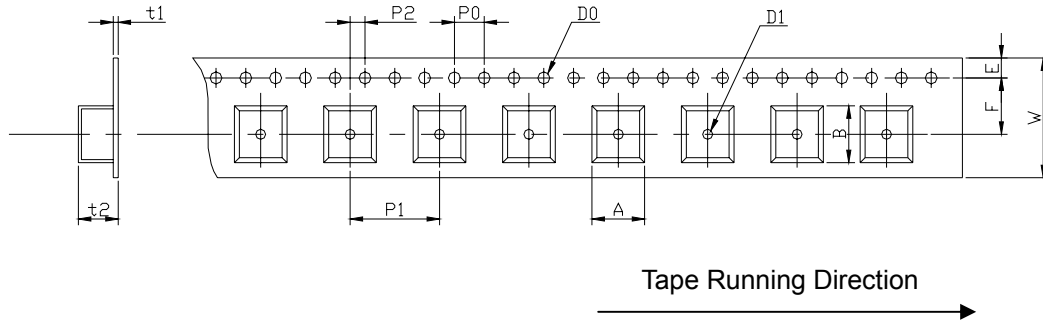
7.2 Top Cover Tape Adhesion (See the below figure)

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



| | | | | |
|--|---|-------------|----------|------|
|  | SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060 | Part Number | SP88201 | |
| | | Rev. Date | 2006-8-9 | |
| | | Rev. | 1.0 | Page |

[Figure 1] Carrier Tape Dimensions

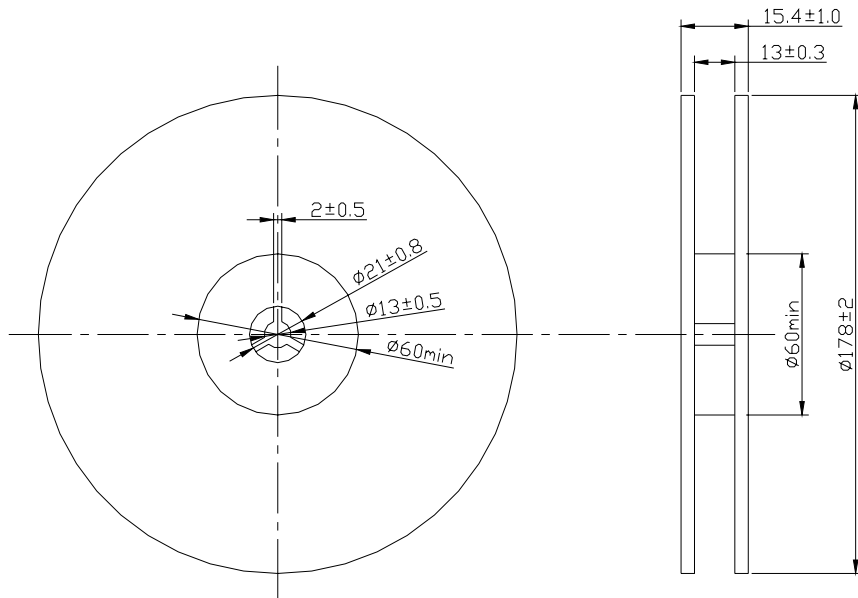


[Unit: mm]

| W | F | E | P0 | P1 | P2 | D0 | D1 | t1 | t2 | A | B |
|------|------|------|------|------|------|------|-------|------|------|------|------|
| 12.0 | 5.5 | 1.75 | 4.0 | 4.0 | 2.0 | Φ1.5 | Φ1.5 | 0.31 | 1.95 | 3.3 | 3.3 |
| ±0.3 | ±0.1 | ±0.1 | ±0.2 | ±0.1 | ±0.2 | ±0.1 | ±0.25 | max. | max. | max. | max. |

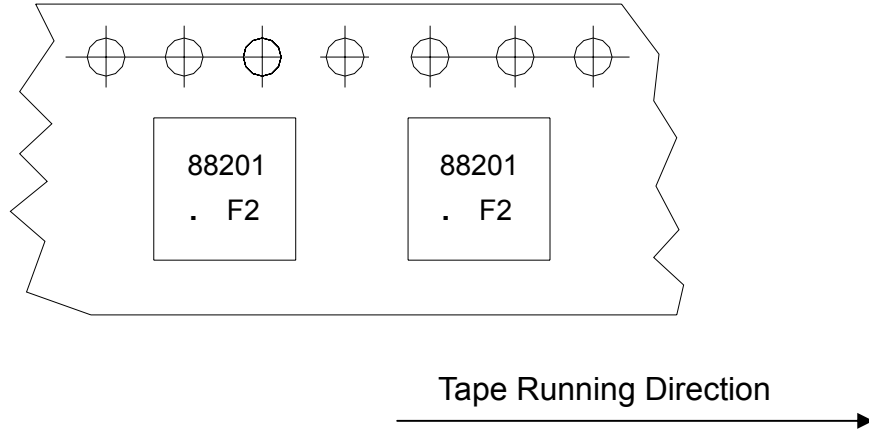
[Figure 2] Reel Dimensions


[Unit: mm]



| | | | | |
|--|---|-------------|----------|------|
| | SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060 | Part Number | SP88201 | |
| | | Rev. Date | 2006-8-9 | |
| | | Rev. | 1.0 | Page |

[Figure 3] Part Direction



| | | | | |
|--|---|-------------|----------|----------|
|  | SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060 | Part Number | SP88201 | |
| | | Rev. Date | 2006-8-9 | |
| | | Rev. | 1.0 | Page 8/8 |