



DATASHEET -Preliminary-

Surface Acoustic Wave Filter

- **Application : LTE Band 8**
- **Model : SFX897BYF02**
- **Center Frequency : 897.5 / 942.5 [MHz]**



WISOL CO., LTD.

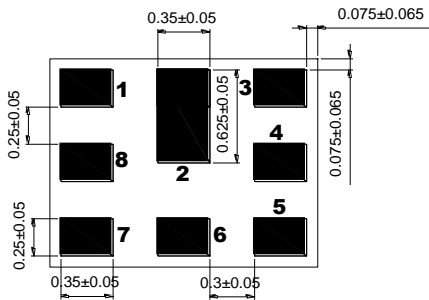
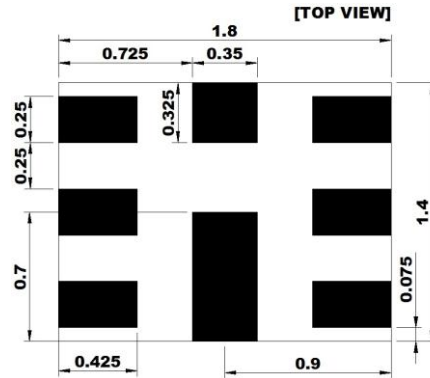
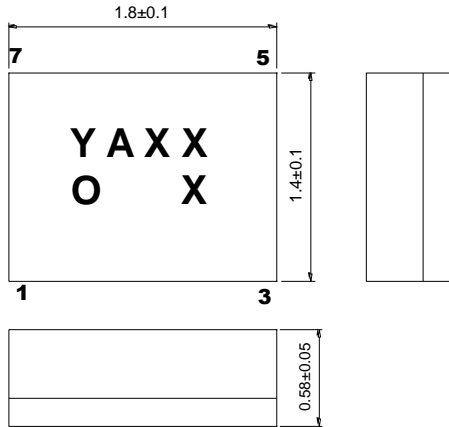
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GYUNGGI-DO, KOREA, 447-210

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E-mail: sales@wisol.co.kr

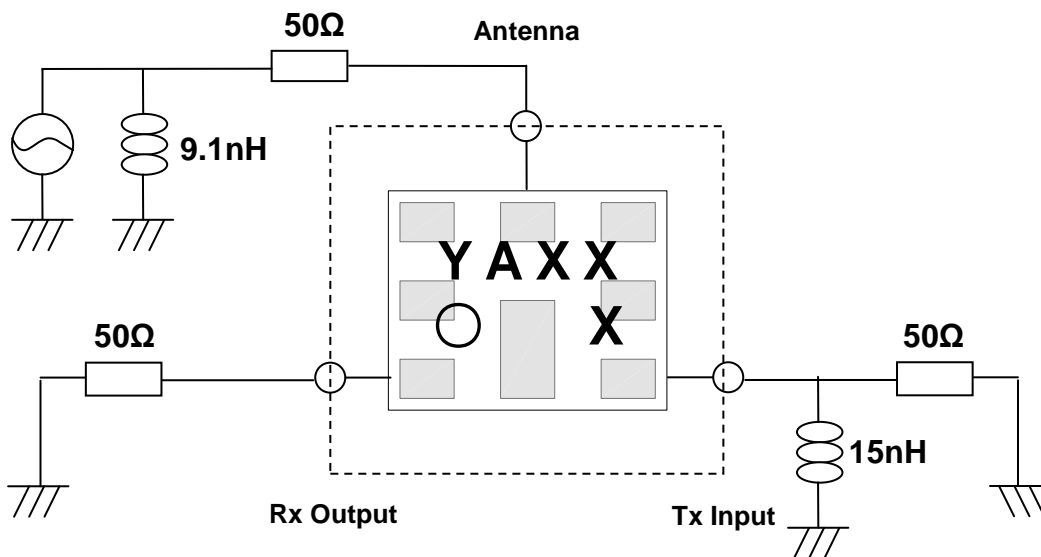
1. OUTLINE DRAWING & RECOMMENDED PCB

[Unit: mm]



| No. | Function |
|---------------|-----------|
| 1 | Rx Output |
| 3 | Tx Input |
| 6 | Antenna |
| 2, 4, 5, 7, 8 | GND |

2. TEST FIXTURE



3. PERFORMANCE

3-1. MAXIMUM RATINGS

| CHARACTERISTICS | RATINGS | UNITS |
|-----------------------------|-------------|-------|
| DC Permissive Voltage | 5 | V |
| Maximum Input Power | 0.8 | W |
| Operating Temperature Range | - 20 ~ + 85 | °C |
| Storage Temperature Range | - 40 ~ + 85 | °C |

3-2. ELECTRICAL CHARACTERISTICS

3-2-1. TABLE

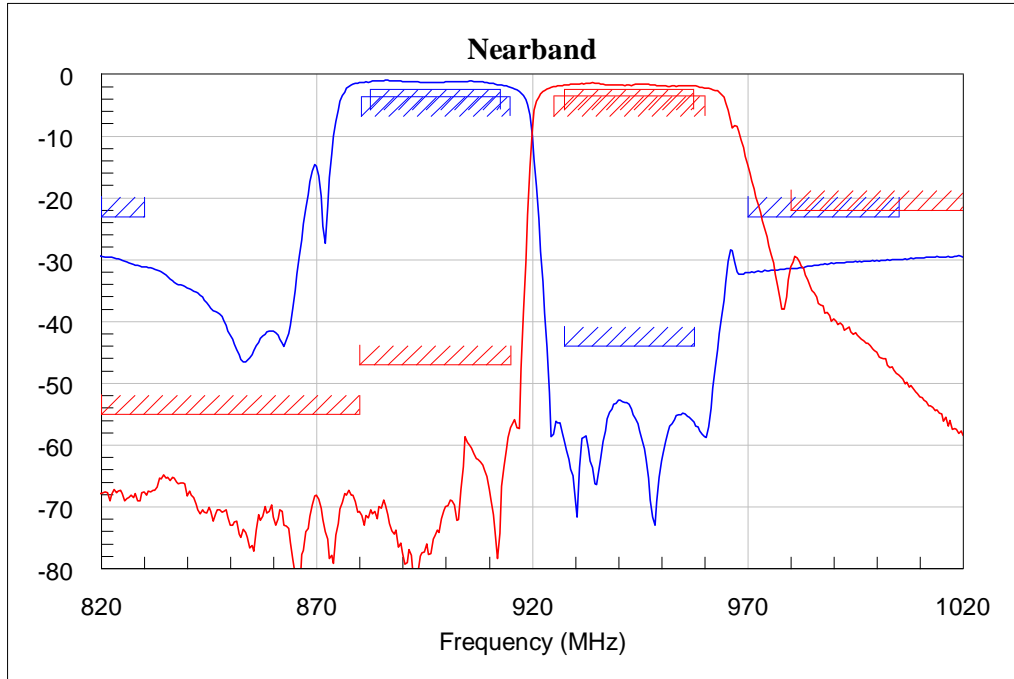
Ta = - 20 ~ + 85 °C

| Item | CONDITION [MHz] | UNIT | RATING | | |
|---|--------------------|----------------------------------|--------|-------------|------|
| | | | Min. | Typ.(25 °C) | Max. |
| TX → ANTENNA | | | | | |
| Insertion Loss | 880.24 ~ 914.76 | dB | - | 2.1 | 3.6 |
| | 882.4 ~ 912.6 | dB | - | 1.8 | 2.5 |
| Inband Ripple | 880.24 ~ 914.76 | dB | - | 1.1 | 2.8 |
| | 882.4 ~ 912.6 | dB | - | 0.8 | 1.7 |
| VSWR | 880 ~ 915 | - | - | 1.9 | 2.3 |
| Absolute Attenuation | 10 ~ 830 | dB | 23 | 27 | - |
| | 927.4 ~ 957.6 | dB | 44 | 53 | - |
| | 970~1005 | dB | 23 | 30 | - |
| | 1572 ~1579 | dB | 31 | 36 | - |
| | 2110~2170 | dB | 33 | 38 | - |
| | 2400~2500 | dB | 28 | 33 | - |
| | 2640~2745 | dB | 20 | 27 | - |
| 4400~4575 | dB | 5 | 13 | - | |
| Termination Impedance : INPUT / ANTENNA | | 50Ω // 15[nH] /50Ω // 9.1[nH] | | | |
| ANTENNA → RX | | | | | |
| Insertion Loss | 925 ~ 960 | dB | - | 2.3 | 3.5 |
| | 927.4 ~ 957.6 | dB | - | 2.0 | 2.5 |
| Inband Ripple | 925 ~ 960 | dB | - | 0.9 | 2.3 |
| | 927.4 ~ 957.6 | dB | - | 0.6 | 1.3 |
| VSWR | 925 ~ 960 | - | - | 1.8 | 2.2 |

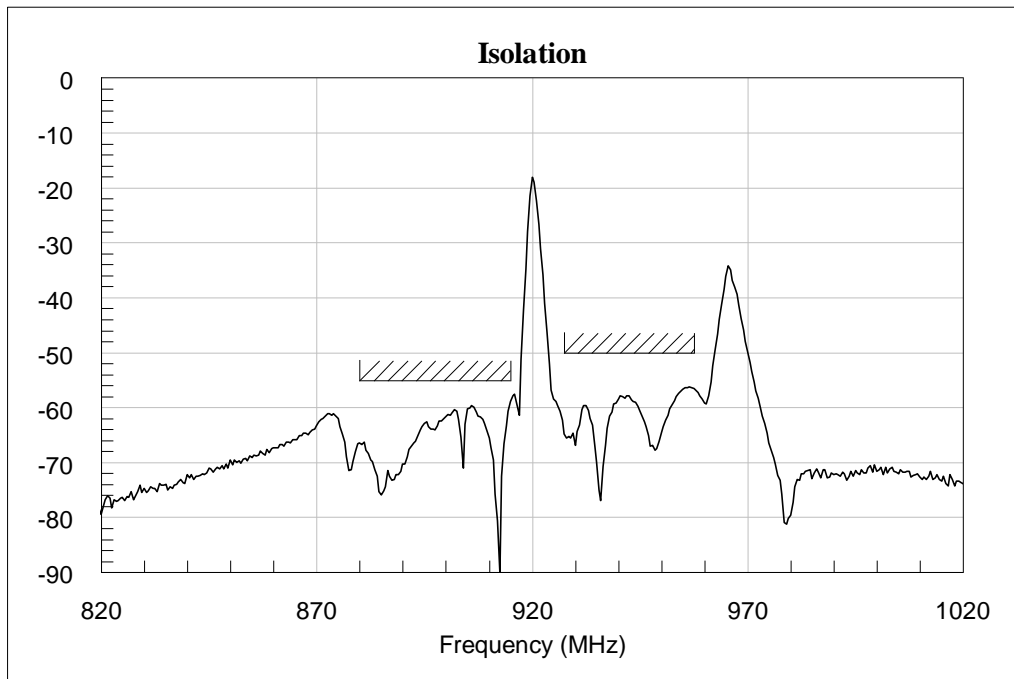
| | | | | | |
|--------------------------------------|---------------|----|---------------------|----|---|
| Absolute Attenuation | 10~880 | dB | 55 | 62 | - |
| | 880 ~ 915 | dB | 47 | 57 | - |
| | 980~1785 | dB | 22 | 30 | - |
| | 1805~1920 | dB | 50 | 61 | - |
| | 1980~3000 | dB | 45 | 52 | - |
| | 3000~6000 | dB | 28 | 35 | - |
| Termination Impedance : ANT / OUTPUT | | | 50Ω // 9.1[nH] /50Ω | | |
| TX → RX | | | | | |
| Isolation between Rx and Tx | 880 ~ 915 | dB | 55 | 60 | - |
| | 927.4 ~ 957.6 | dB | 50 | 56 | - |

3-2-2. GRAPH

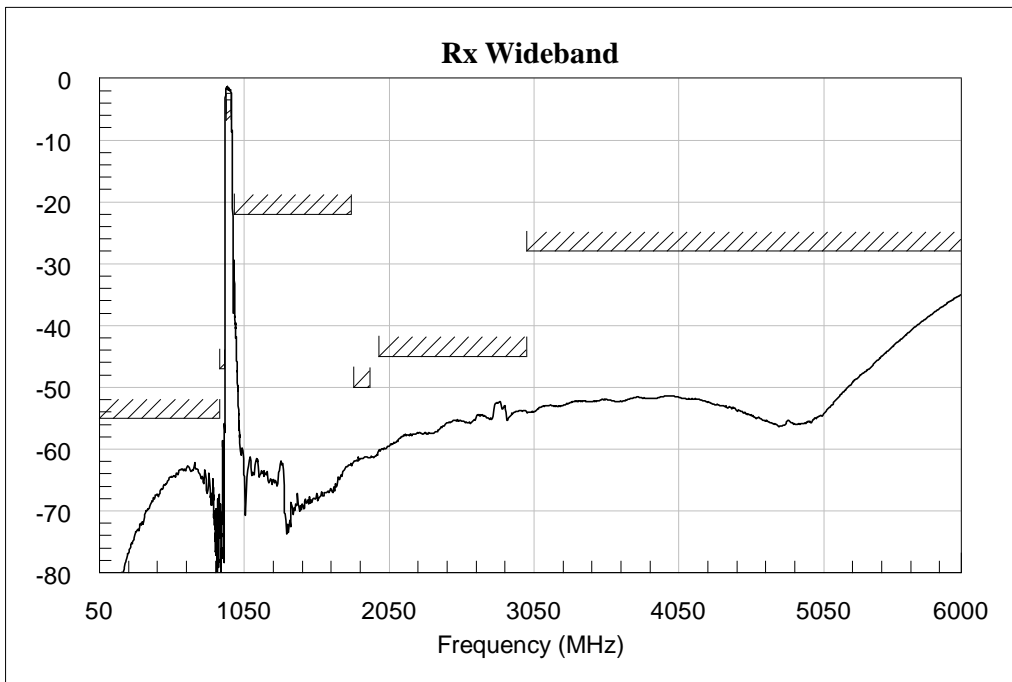
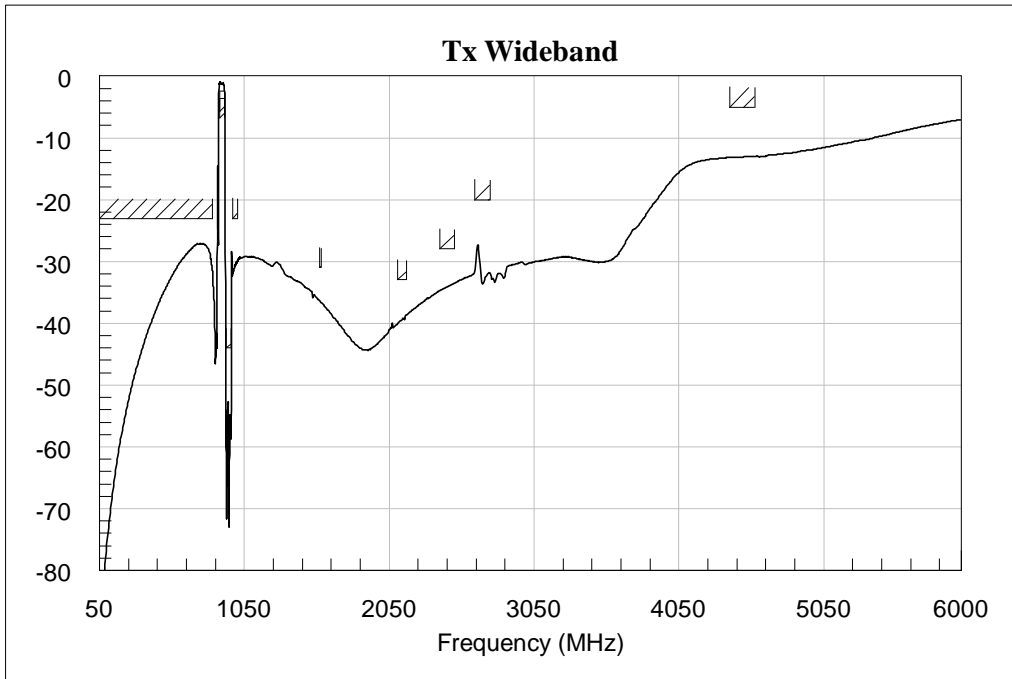
3-2-2-1. Tx→Ant, Ant→Rx Transmission Characteristics



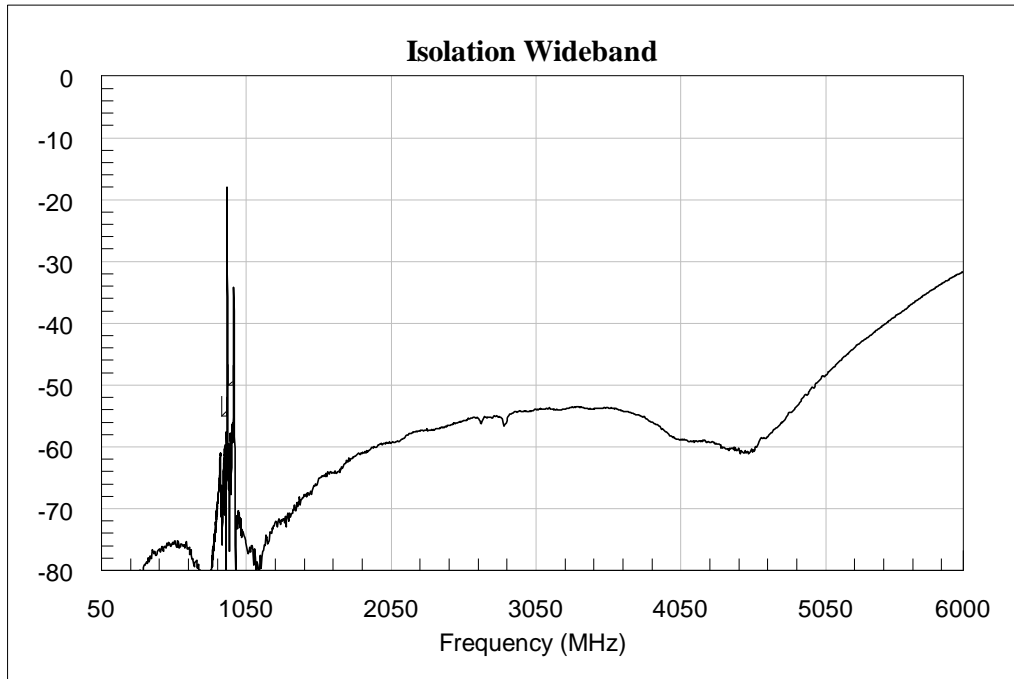
3-2-2-2. Tx→Rx Isolation Characteristics



3-2-2-3. Wideband Tx→Ant, Ant→Rx Transmission Characteristics

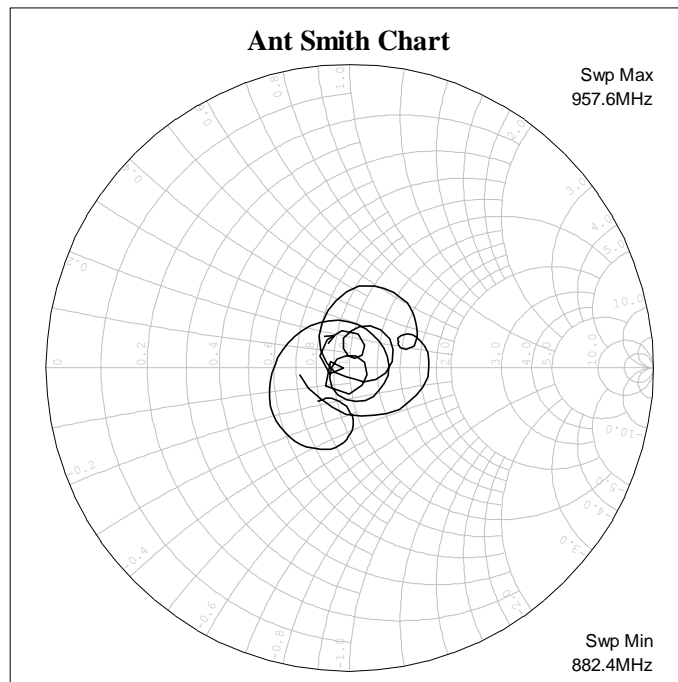


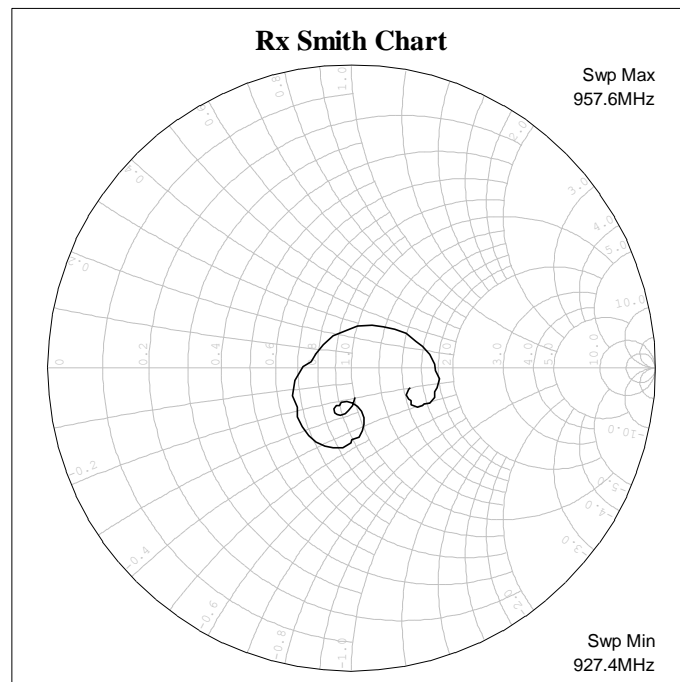
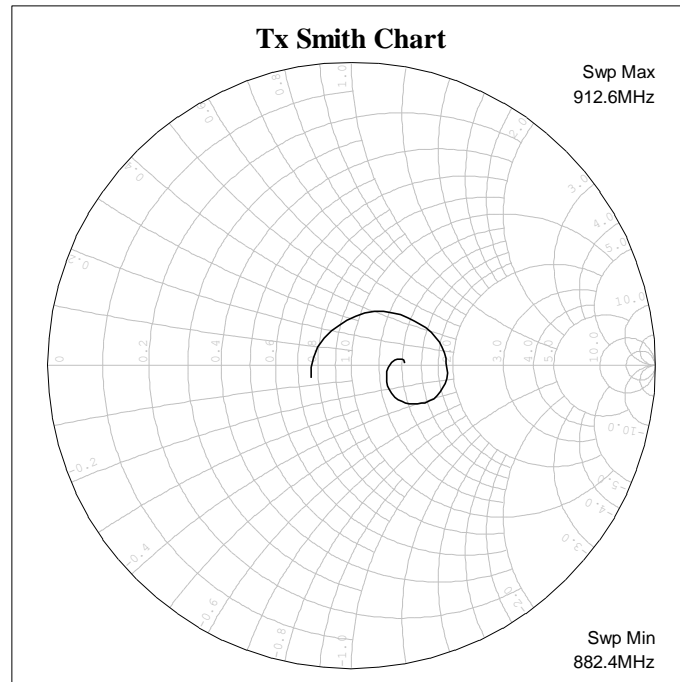
3-2-2-4. Wideband Tx→Rx Transmission Characteristics



b

3-2-2-5. Smithchart

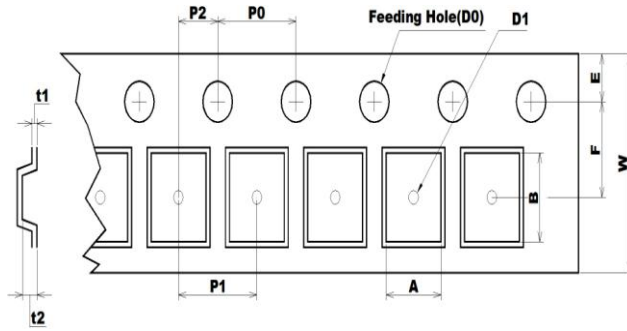




4. PACKING

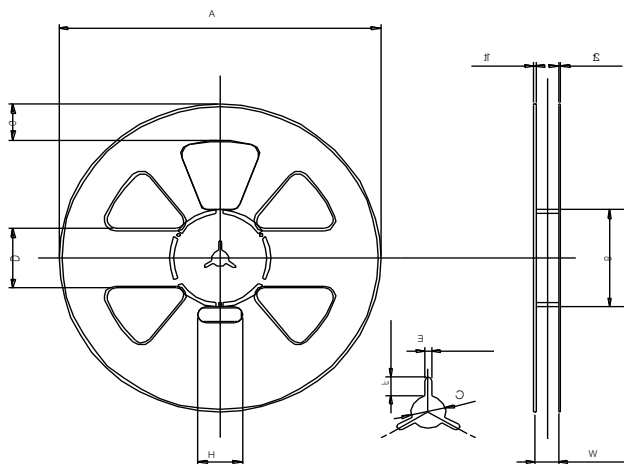
4-1. DIMENSIONS

- Carrier Tape [Unit: mm]



| | | | |
|------------------------|------------------------|-------------------------|---------------------|
| A | B | D0 | D1 |
| 1.70 +0.10 -0.10 | 2.1 +0.10 -0.10 | Ø1.55 +0.05 -0.05 | Ø1.00 MIN |
| E | F | P0 | P1 |
| 1.75 +0.10 -0.10 | 3.5 +0.05 -0.05 | 4 +0.10 -0.10 | 4 +0.10 -0.10 |
| P2 | t1 | t2 | W |
| 2 +0.05 -0.05 | 0.25 +0.05 -0.05 | 0.70 +0.10 -0.10 | 8 +0.30 -0.30 |

- Reel [Unit: mm]



| | | | |
|------------------------|-----------------------|-----------------------|----------------------|
| A | B | C | D |
| Ø258.0 +1.0 -0.5 | Ø81.0 +1.0 -1.0 | Ø13.0 +0.5 -0.5 | 50.0 +0.8 -0.8 |
| E | F | G | H |
| 2.2 +0.3 -0.3 | 7.0 +0.5 -0.5 | 30.0 +0.8 -0.8 | 35.0 +1.0 -1.0 |
| t1 | t2 | W | |
| 1.8 +0.5 -0.5 | 1.5 +0.5 -0.5 | 9.0 +1.0 -0.5 | |

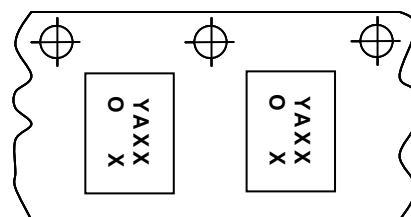
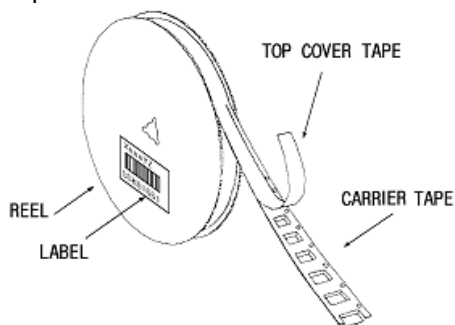
- The product shall be packed properly not to be damaged during transportation and storage.

4-2. REELING QUANTITY

10 inch reel: 8,000 pcs/reel

4-3. TAPING STRUCTURE

The tape shall be wound around the reel in direction shown below.



Tape Running direction



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