SPECIFICATION

OF PRODUCTS

| CUSTOMER : <u>MICROS</u> |
|--|
| PRODUCT NAME: DIELECTRIC ANTENNA ELEMENT |
| PART NUMBER : <u>DAE1575R1240A</u> |
| CUSTOMER P/N : <u>ANT1575-1240A</u> |

| Approved by | Checked by | Drawn by |
|-------------|------------|----------|
| | | |
| | | |

| Approval Sheet | | |
|----------------|---------------|--|
| Customer | MICROS | |
| Supplier P/N | DAE1575R1240A | |
| Customer P/N | ANT1575-1240A | |

| Custome | er's Approval Certificate |
|--------------------------|---------------------------|
| Checked & Approval by | |
| Date | |

Please return this copy as a certification of your approval.

1 SCOPE

This specification shall cover the characteristics of the dielectric antenna element with the type DAE1575R1240A.

2 PART NO.

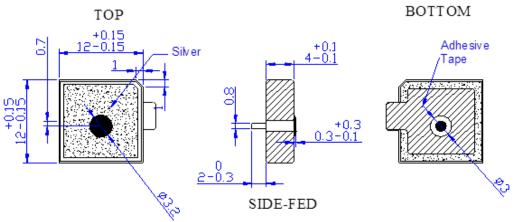
| PART NUMBER | CUSTOMER PART NO | SPECIFICATION NO |
|---------------|------------------|------------------|
| DAE1575R1240A | ANT15751240A | |

3 OUTLINE DRAWING AND DIMENSIONS

3.1 Appearance: No visible damage and dirt.

3.2 The products conform to the RoHS directive and national environment protection law.

3.3 Dimensions

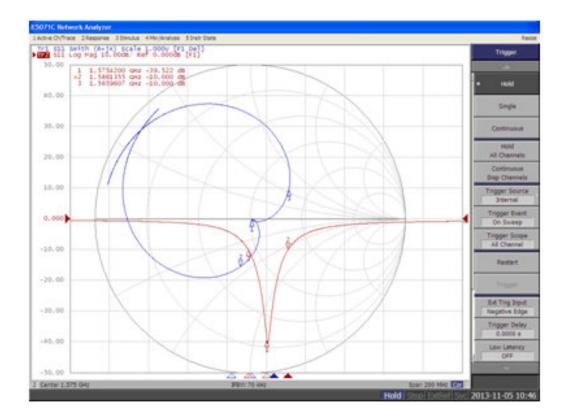


4 ELECTRICAL SPECIFICATIONS

4.1 Performance Characteristics

| Items | Content |
|--|------------------|
| Nominal frequency | 1575±1 (MHz) |
| Center frequency (with adhesive tape on 22 square ground Plane) | 1575±2 (MHz) |
| -10dB Bandwidth min | 10 (MHz) |
| VSWR at CF max | 1.5 |
| Polarization Model | RHCP |
| Impedance | 50 (Ω) |
| Frequency Temperature Coefficient max | 20 (ppm/deg. °C) |

4.2 Impedance Characteristic



5 TEST

5.1 Test Conditions

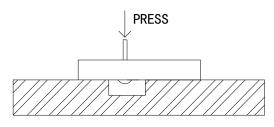
Parts shall be measured under a condition (Temp.:20 $^\circ\!C\pm15\,^\circ\!C$, Humidity : 65%±20% R.H.).

| No. | Item | Test Condition | Remark |
|-----|---------------------------------|---|--|
| 6.1 | Humidity Test | The device is subjected to 90%~95% relative humidity $60^{\circ}C \pm 3^{\circ}C$ for 96h~98h,then dry out at 25 $^{\circ}C \pm 5^{\circ}C$ and less than 65% relative humidity for 2h~4h. After dry out the device shall satisfy the specification in table 1. | It shall fulfill the specifications in Table 1. |
| 6.2 | High Temperature Exposure | The device shall satisfy the specification in table 1 after leaving at $105 ^{\circ}$ C for 96h~98h,provided it would be measured after 2h~4h leaving in 25 $^{\circ}$ C \pm 5 $^{\circ}$ C and less than 65% relative humidity. | It shall fulfill the specifications in Table 1. |
| 6.3 | Low Temperature | The device shall satisfy the specification in table 1 after leaving at -40° C for 96h~98h,provided it | It shall fulfill the |

6 ENVIRONMENTAL TEST

| | | would be measured after 2h~4h leaving in 25 $^\circ\!\!\!\mathbb{C}$ | specifications |
|-----|----------------------------------|---|---|
| | | ± 5 °C and less than 65% relative humidity. | in Table 1. |
| 6.4 | Temperature Cycle | Subject the device to -40 $^{\circ}$ C for 30 min. followed by a high temperature of 105 $^{\circ}$ C for 30 min cycling shall be repeated 5 times. At the room temperature for 1h prior to the measurement. | It shall fulfill the specifications in Table 1. |
| 6.5 | Vibration | Subject the device to vibration for 2h each in $x y$ and z axis with the amplitude of 1.5mm, the frequency shall be varied uniformly between the limits of 10Hz~55Hz. | It shall fulfill the specifications in Table 1. |
| 6.6 | Soldering Test | Lead terminals are heated up to $350 \degree C \pm 10 \degree C$ for $5s \pm 0.5$ s with brand iron and then element shall be measured after being placed in natural conditions for 1 h. No visible damage and it shall fulfill the specifications in Table 1 | It shall fulfill the specifications in Table 1. |
| 6.7 | Solder ability | Lead terminals are immersed in soldering bath of $260^{\circ}C \sim 290^{\circ}C$ for $3s \pm 0.5s$. More than 95% of the terminal surface of the device shall be covered with fresh solder. | The terminals shall be at least 95% covered by solder. |
| 6.8 | Terminal Pressure Strength | Force of 2kg is applied to each lead in axial direction for $10s \pm 1$ s (see drawing). No visible damage and it shall fulfill the specifications in Fig 1 | Mechanical damage such as breaks shall not occur. |





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|---------|----|----|---|---|

| Item | Specification After Test (MHz) |
|-------------------------|--------------------------------|
| Center Frequency change | ±2.0 |
| -10dB Bandwidth Change | ±2.0 |