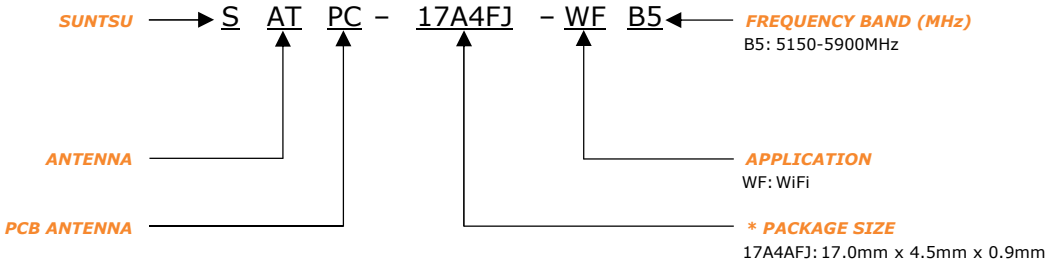
# SATPC-17A4FJ-WFB5

**17.0mm x 4.5mm x 0.9mm PCB ANTENNA**

| FEATURES | APPLICATIONS |
|---|---|
| - WiFi | - IEEE802.11a |
| - PCB Type | - HDMI 5GHz Band |
| - Stable And Reliable Performance | - Portable Devices |
| - 5150-5900MHz | - Network Devices |
| - Compact Size With Efficient Reception | - Machine To Machine Wireless |

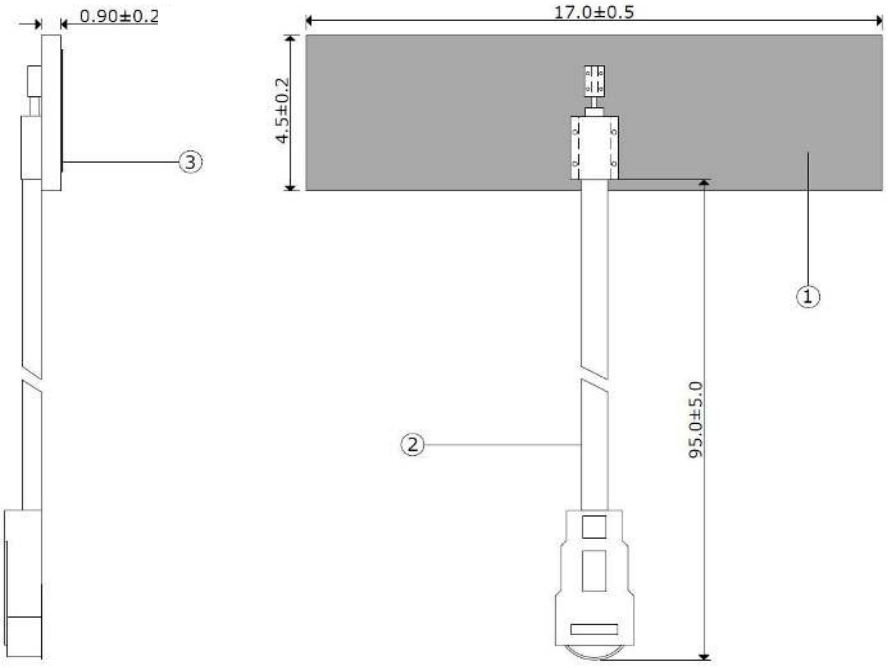
## PART NUMBERING GUIDE




* Where letters denote decimal location A=.0, B=.1, C=.2, etc. Ex: B5=0.15, 3A5=3.05, 9A=9.0
To customize your parameters, contact a Suntsu representative.

| ELECTRICAL PARAMETERS (At 25ºC) | UNITS | MIN. | TYP. | MAX | REMARKS |
|---|---|---|---|---|---|
| Frequency Band | MHz | 5150 | | 5900 | |
| Impedance | Ω | | 50 | | |
| Polarization | | | Linear | | |
| Peak Gain | dBi | | 2.8 | | At 5350MHz |
| Efficiency | % | | 82 | | At 5350MHz |
| VSWR | | | | 2 | At Center Frequency |
| Operating Temperature | ºC | -40 | | 85 | |

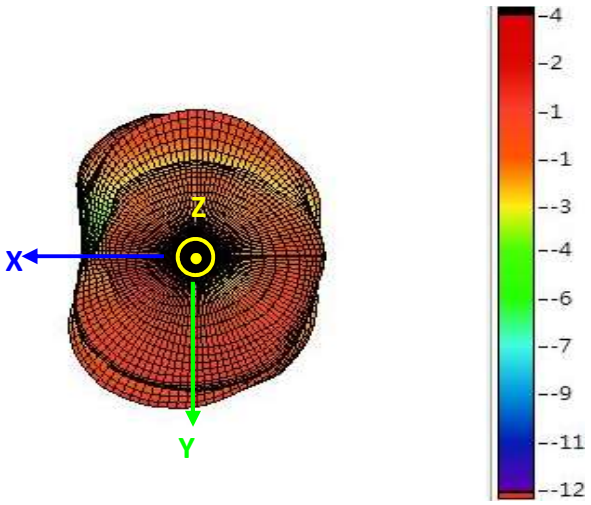
## OUTLINE DRAWING (NOTE: All dimensions are in millimeters [mm], unless otherwise noted. Drawings are not to scale.)



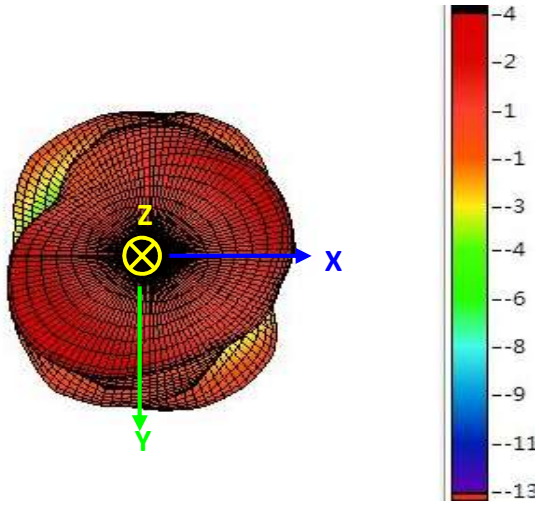

| Item | Material |
|---|---|
| 1 | FR4 PCB |
| 2 | IPEX Connector and Cable with OD of 1.13 |
| 3 | Adhesive Tape |

## 3D RADIATION PATTERN (UNIT: dBi) AND EFFICIENCY vs FREQUENCY

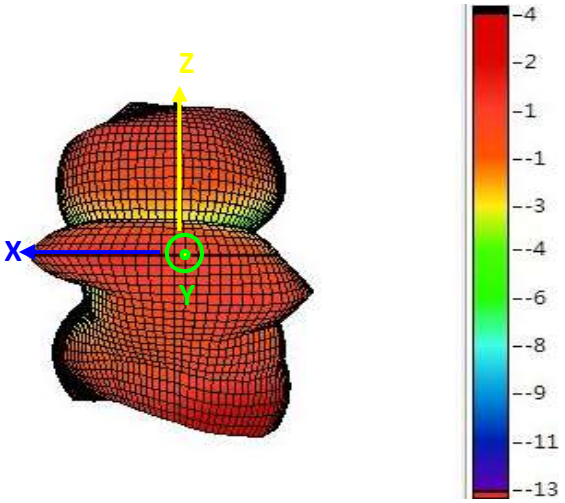
**5150MHz**



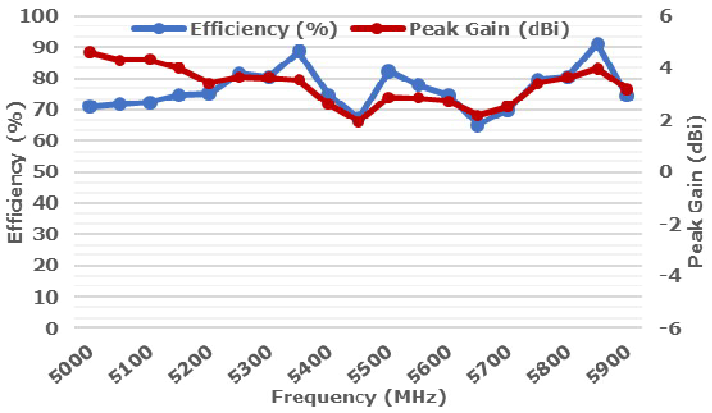

**5150MHz**




**5150MHz**

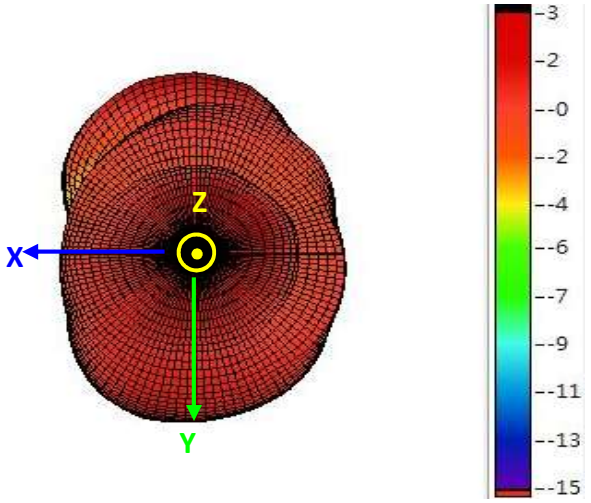



**5150MHz**

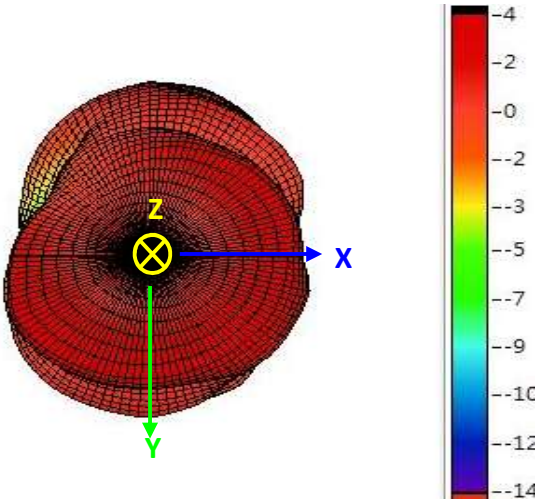



| Freq. | 5000 | 5050 | 5100 | 5150 | 5200 | 5250 | 5300 | 5350 | 5400 | 5450 | 5500 | 5550 | 5600 | 5650 | 5700 | 5750 | 5800 | 5850 | 5900 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eff. (%) | 71 | 71.8 | 72.3 | 74.6 | 75.2 | 81.5 | 80.35 | 88.72 | 74.6 | 67.1 | 82.4 | 78 | 74.6 | 65 | 70 | 79.6 | 80.4 | 91.2 | 74.5 |
| P.G. | 4.59 | 4.29 | 4.32 | 4 | 3.42 | 3.65 | 3.62 | 3.53 | 2.61 | 1.94 | 2.87 | 2.84 | 2.72 | 2.18 | 2.51 | 3.42 | 3.63 | 3.98 | 3.18 |

**5350MHz**




**5350MHz**



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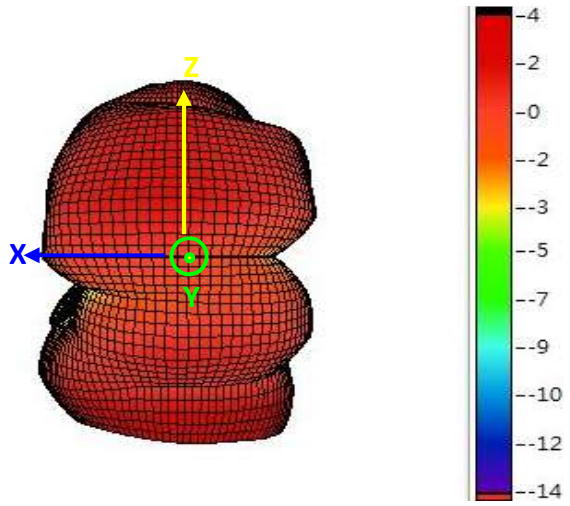
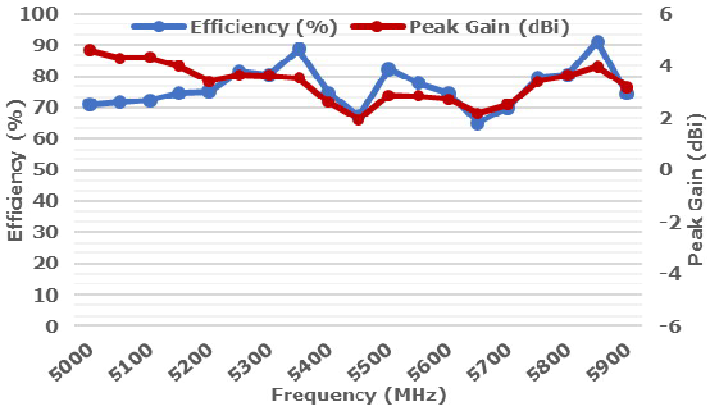
**5350MHz**




**5350MHz**

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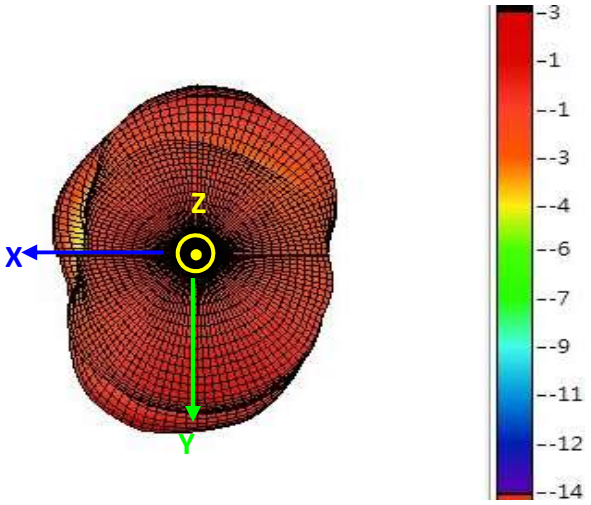
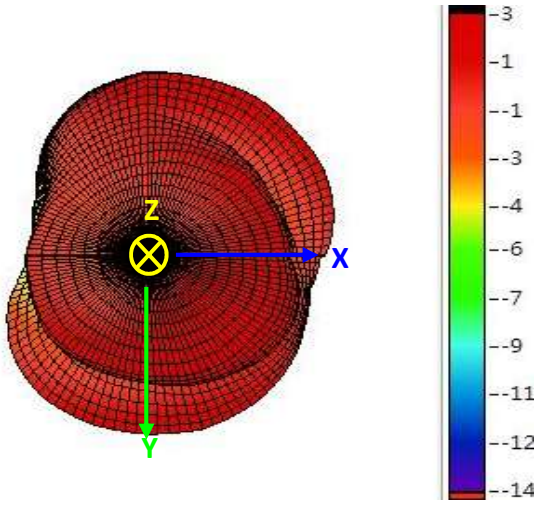
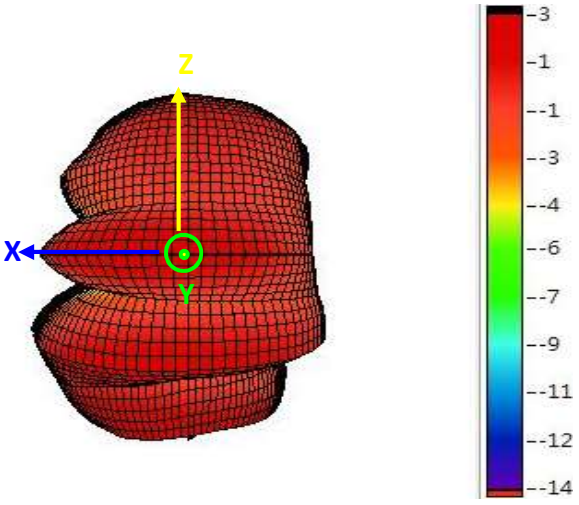
**5700MHz**



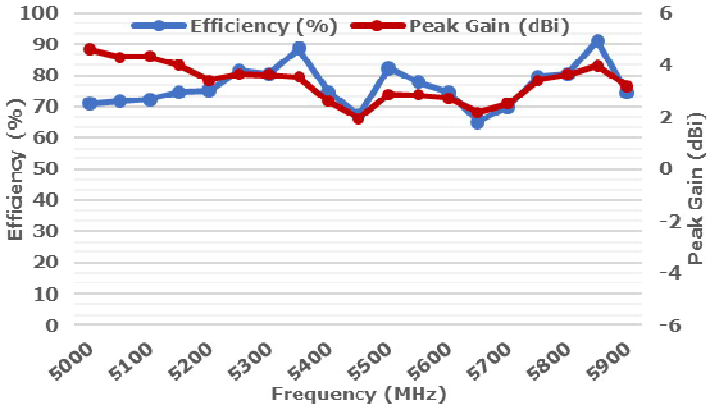

**5700MHz**




**5700MHz**




**5700MHz**

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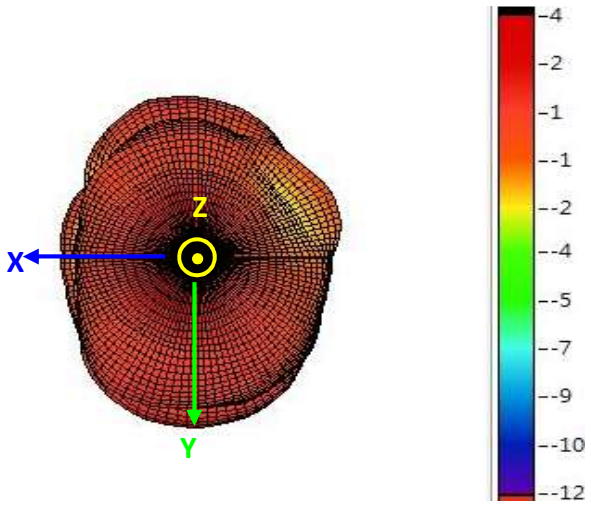
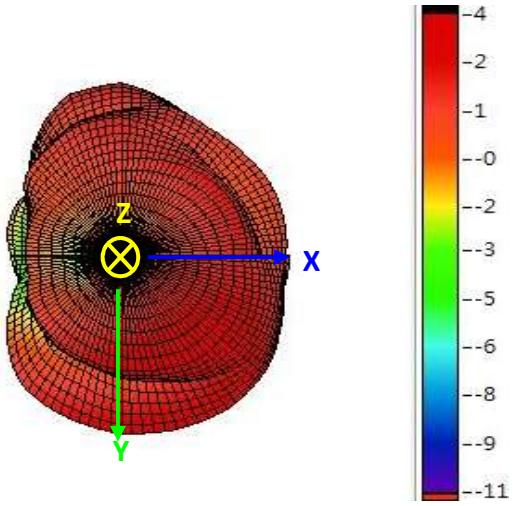
## 3D RADIATION PATTERN (UNIT: dBi) AND EFFICIENCY vs FREQUENCY

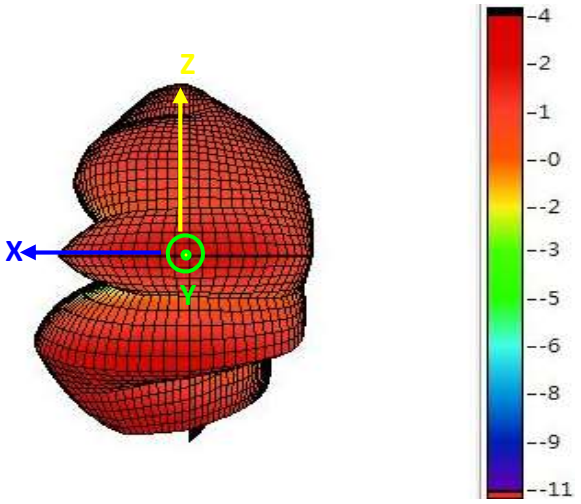
**5850MHz**



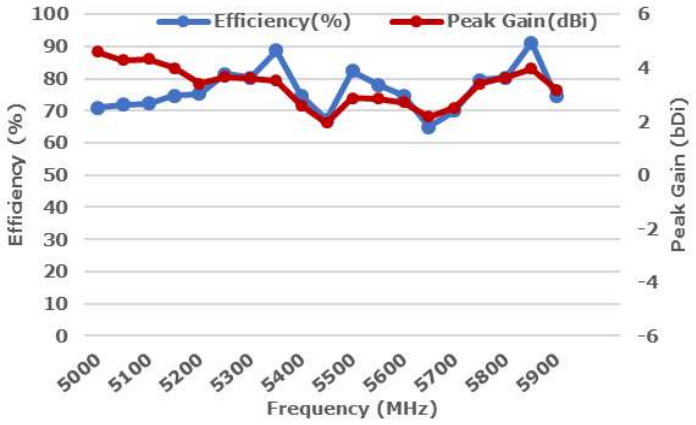

**5850MHz**




**5850MHz**




**5850MHz**




| Freq. | 5000 | 5050 | 5100 | 5150 | 5200 | 5250 | 5300 | 5350 | 5400 | 5450 | 5500 | 5550 | 5600 | 5650 | 5700 | 5750 | 5800 | 5850 | 5900 |
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| Eff. (%) | 71 | 71.8 | 72.3 | 74.6 | 75.2 | 81.5 | 80.35 | 88.72 | 74.6 | 67.1 | 82.4 | 78 | 74.6 | 65 | 70 | 79.6 | 80.4 | 91.2 | 74.5 |
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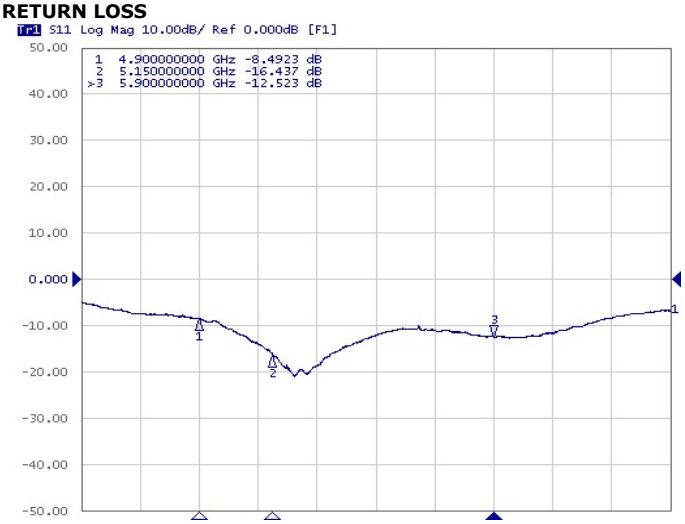
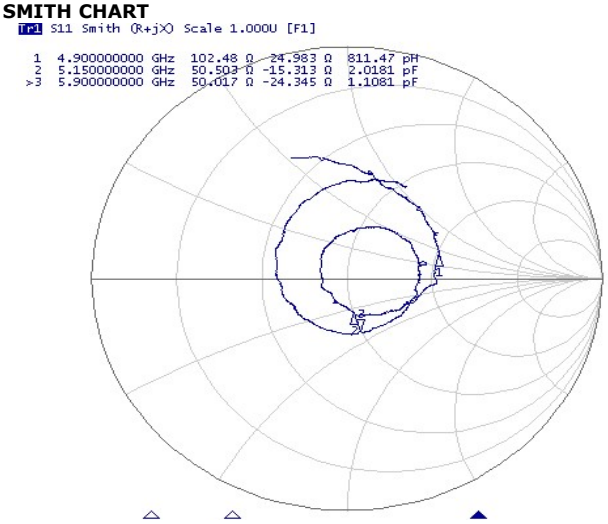
## ELECTRICAL TEST

**RETURN LOSS**




**SMITH CHART**



| ENVIRONMENTAL & MECHANICAL SPECIFICATIONS | |
|---|---|
| High Temperature Test | 85°C for 500 hours, and then to normal temperature/humidity for 24hours. |
| Low Temperature Test | -30°C for 500 hours, and then to normal temperature/humidity for 24hours. |
| Humidity Test | 85°C / 90-95% for 96 hours, and then to normal temperature/humidity for 24hours. |
| Thermal Shock Test | -30°C for 30 min and +85°C for 30 min. 5 cycles, then expose to normal temperature/humidity for 24 hours or more. |
| Vibration Test | 5 to 200 to 5Hz, swept in 10min, 4.5G at max(2mm amplitude), in X and Y directions for 2 hours each and in Z direction for 4 hours. |