# RF EXPOSURE REPORT

**REPORT NO.:** SA130814C33

**MODEL NO.:** NeverLost® 6 Tablet

**FCC ID:** 2AA4L-HTZNLTABLET

**RECEIVED:** Aug. 14, 2013

**ISSUED:** Sep. 11, 2013

**APPLICANT:** MiTAC International Corp.

**ADDRESS:** Building B, No. 209, Sec. 1, Nan Gang Rd., Nan Gang Dist., Taipei 11568, Taiwan, R.O.C.

**ISSUED BY:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

**LAB ADDRESS:** No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.

**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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# RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|---|---|---|
| SA130814C33 | Original release | Sep. 11, 2013 |

# 1. CERTIFICATION

| | |
|---|---|
| **PRODUCT:** | Automotive Navigation Device |
| **MODEL NO.:** | NeverLost® 6 Tablet |
| **BRAND:** | Hertz |
| **APPLICANT:** | MiTAC International Corp. |
| **TEST SAMPLE:** | Production Unit |
| **STANDARDS:** | **FCC Part 2 (Section 2.1091)** |
| | **FCC OET Bulletin 65, Supplement C (01-01)** |
| | IEEE C95.1 |

The above equipment (model: NeverLost® 6 Tablet) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY :** Vera Huang **, DATE :** Sep. 11, 2013

Vera Huang / Specialist

**APPROVED BY :** Roy Wu **, DATE :** Sep. 11, 2013

Roy Wu / Manager

# 2. RF EXPOSURE

## 2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| FREQUENCY RANGE (MHz) | ELECTRIC FIELD STRENGTH (V/m) | MAGNETIC FIELD STRENGTH (A/m) | POWER DENSITY ($mW/cm^2$) | AVERAGE TIME (minutes) |
|---|---|---|---|---|
| **LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE** | | | | |
| 300-1500 | … | … | F/1500 | 30 |
| 1500-100,000 | … | … | 1.0 | 30 |

F = Frequency in MHz

## 2.2 MPE CALCULATION FORMULA

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in $mW/cm^2$

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

## 2.3 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

## 2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

| Frequency Band (MHz) | Operating Mode | Maximum Conducted (dBm) | | Antenna Gain (dBi) | E.I.R.P. (mW) | Power Density ($mW/cm^2$) | Limit ($mW/cm^2$) |
|---|---|---|---|---|---|---|---|
| | | Burst Avg. Power | Time Avg. Power | | | | |
| GSM850 | GPRS10 | 29.41 | 23.41 | 1 | 276.06 | 0.055 | 0.55 |
| GSM1900 | GPRS8 | 29.35 | 20.35 | 2.5 | 192.75 | 0.038 | 1.00 |

| Frequency band (MHz) | Conducted Avg. power (dBm) | Antenna Gain (dBi) | E.I.R.P. (mW) | Power Density (mW/cm2) | Limit (mW/cm2) |
|---|---|---|---|---|---|
| WCDMA Band II | 22.93 | 2.5 | 349.14 | 0.069 | 1.00 |
| WCDMA Band V | 23.23 | 1 | 264.85 | 0.053 | 0.55 |
| 2402~2480 | 2.37 | 1.5 | 2.44 | 0.0005 | 1.00 |
| 2412~2462 | 16.22 | 4.51 | 118.30 | 0.024 | 1.00 |
| 5180~5240 | 14.89 | 6.31 | 131.83 | 0.026 | 1.00 |
| 5260~5320 | 17.71 | 6.21 | 246.60 | 0.049 | 1.00 |
| 5500~5700 | 15.11 | 6.91 | 159.22 | 0.032 | 1.00 |
| 5745~5825 | 17.83 | 6.11 | 247.74 | 0.049 | 1.00 |

**Note:**

For 2412~2462: Directional gain = 1.5dBi + 10log(2) = 4.51dBi

For 5180~5240: Directional gain = 3.3dBi + 10log(2) = 6.31dBi

For 5260~5320: Directional gain = 3.2dBi + 10log(2) = 6.21dBi

For 5500~5700: Directional gain = 3.9dBi + 10log(2) = 6.91dBi

For 5745~5825: Directional gain = 3.1dBi + 10log(2) = 6.11dBi

## 2.5 Evaluation of Simultaneous transmission

There is one WWAN module and one WLAN/BT module installed in EUT. According to KDB 616217 D03 4) a), the formula is as following and the calculation is listed in below table.

(∑ of the highest MPE / MPE limit) < 1

| Co-transmission Configuration | Highest WLAN | MPE Limitation | Highest WWAN | MPE Limitation | Highest BT MPE | MPE Limitation | Sum of Ratio |
|---|---|---|---|---|---|---|---|
| WLAN + GSM 850 | 0.049 | 1.00 | 0.055 | 0.55 | - | - | **0.149** |
| WLAN + GSM1900 | 0.049 | 1.00 | 0.038 | 1.00 | - | - | **0.087** |
| WLAN + WCDMA Band II | 0.049 | 1.00 | 0.069 | 1.00 | - | - | **0.118** |
| WLAN + WCDMA Band V | 0.049 | 1.00 | 0.053 | 0.55 | - | - | **0.145** |
| WLAN + BT | 0.049 | 1.00 | - | - | 0.0005 | 1.00 | **0.0495** |
| BT + GSM 850 | - | - | 0.055 | 0.55 | 0.0005 | 1.00 | **0.0555** |
| BT + GSM1900 | - | - | 0.038 | 1.00 | 0.0005 | 1.00 | **0.0385** |
| BT + WCDMA Band II | - | - | 0.069 | 1.00 | 0.0005 | 1.00 | **0.0695** |
| BT + WCDMA Band V | - | - | 0.053 | 0.55 | 0.0005 | 1.00 | **0.0535** |