

# Supplemental “Transmit Simultaneously” Test Report

**REPORT NO.:** RF991126E02N-2

**MODEL NO.:** AR5B225

**FCC ID:** PPD-AR5B225

**RECEIVED:** June 29, 2012

**TESTED:** July 12, 2012

**ISSUED:** July 24, 2012

**APPLICANT:** Qualcomm Atheros, Inc.

**ADDRESS:** 1700 Technology Drive, San Jose, CA 95110

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

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## RELEASE CONTROL RECORD

| ISSUE NO.      | REASON FOR CHANGE | DATE ISSUED   |
|----------------|-------------------|---------------|
| RF991126E02N-2 | Original release  | July 24, 2012 |



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## 1. CERTIFICATION

**PRODUCT :** 1X1 802.11b/g/n - BT Combo PCIe minicard  
**BRAND NAME :** Atheros  
**MODEL NO. :** AR5B225  
**TEST SAMPLE:** ENGINEERING SAMPLE  
**APPLICANT :** Atheros Communications, Inc.  
**TESTED:** July 12, 2012  
**STANDARDS :** FCC Part 15, Subpart C (Section 15.247),  
ANSI C63.10-2009

The above equipment (Model: AR5B225) 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 :** Lori Chung , **DATE:** July 24, 2012  
( Lori Chung, Specialist )

**APPROVED BY :** May Chen , **DATE:** July 24, 2012  
( May Chen, Deputy Manager )

## 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247) |                    |        |  |
|---|--------------------|--------|--|
| STANDARD SECTION  | TEST TYPE          | RESULT | REMARK   |
| 15.247(d)<br>15.209                                       | Radiated Emissions | PASS   | Meet the requirement of limit.<br>Minimum passing margin is<br>-1.2dB at 499.81MHz |

### 2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

| Measurement                       | Value   |
|-----------------------------------|---------|
| Radiated emissions (30MHz-1GHz)   | 5.59 dB |
| Radiated emissions (1GHz -6GHz)   | 3.84 dB |
| Radiated emissions (6GHz -18GHz)  | 4.09 dB |
| Radiated emissions (18GHz -40GHz) | 4.24 dB |

### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

|                              |   |
|------------------------------|---|
| <b>PRODUCT</b>               | Mobile Computer   |
| <b>MODEL NO.</b>             | MC92N0  |
| <b>POWER SUPPLY</b>          | DC 7.4V from battery<br>DC 12V from direct charging   |
| <b>MODULATION TYPE</b>       | <b>For WLAN</b><br>CCK, DQPSK, DBPSK for DSSS<br>64QAM, 16QAM, QPSK, BPSK for OFDM                                      |
|                              | <b>For BT</b><br>GFSK, $\pi/4$ -DQPSK, 8DPSK  |
| <b>MODULATION TECHNOLOGY</b> | <b>For WLAN</b> : DSSS, OFDM  |
|                              | For BT : FHSS   |
| <b>TRANSFER RATE</b>         | <b>For WLAN</b><br>802.11b: Up to 11Mbps<br>802.11g: Up to 54Mbps<br>802.11n: Up to 150Mbps                             |
|                              | <b>For BT</b><br>Up to 3Mbps  |
| <b>OPERATING FREQUENCY</b>   | <b>For WLAN</b><br>2.4GHz: 2.412 ~ 2.462GHz   |
|                              | <b>For BT</b><br>2402MHz ~ 2480MHz  |
| <b>NUMBER OF CHANNEL</b>     | <b>For WLAN</b><br>11 for 802.11b, 802.11g, 802.11n (20MHz)<br>7 for 802.11n (40MHz)                                    |
|                              | <b>For BT</b><br>79   |
| <b>MAXIMUM OUTPUT POWER</b>  | <b>For WLAN</b><br>802.11b: 109.648mW<br>802.11g: 169.824mW<br>802.11n (20MHz): 151.356mW<br>802.11n (40MHz): 117.490mW |
|                              | <b>For BT</b><br>GFSK: 12.359 mW<br>8DPSK: 17.061 mW<br>GFSK(LE mode): 17.061 mW  |
| <b>ANTENNA TYPE</b>          | See item 3.2  |



|                           |              |
|---------------------------|--------------|
| <b>ANTENNA CONNECTOR</b>  | See item 3.2 |
| <b>DATA CABLE</b>         | NA           |
| <b>I/O PORTS</b>          | NA           |
| <b>ASSOCIATED DEVICES</b> | NA           |

**NOTE:**

1. This report is prepared for FCC class II permissive change and IC reassessment change. The difference compared with the Report No.: RF991126E02-2 design is as the following information:
  - u BOM change –  
Chain(0): add external LNA(Rx only) and SPDT  
Chain(1): only add external LNA (Rx only)
  - u H/W version is AW-NB126H.
2. Only radiated spurious emissions were re-evaluated to confirm that the new switch and LNA did not introduce intermodulation issues and the switch did not affect the radiated spurious signal levels. The proposed changes do not affect output power and as the new component locations are not close to the antenna, and power remains the same, RF exposure was also not re-evaluated
3. The test mode was reference to the worst case in the original test report. Therefore only the test data of the mode was recorded in this report individually
4. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

### 3.2 DESCRIPTION OF ANTENNA

There are five sets of antennas provided to this EUT, please refer to the following table:

| No. | Brand            | Model           | Gain(dBi)<br>(included cable loss) | Antenna<br>Type | Connector      | Cable<br>Loss(dB) | Cable<br>Length |
|-----|------------------|-----------------|------------------------------------|-----------------|----------------|-------------------|-----------------|
| 1   | WNC              | 81-EBJ15.005    | 3.62                               | PIFA            | IPEX           | 1.15              | 300mm           |
| 2   | INPAQ            | DAMA1BM30000402 | 3.2                                | Dipole          | SMA<br>Reverse | 0.5               | N.A.            |
| 3   | Tyco             | TBN009          | 2.06                               | PIFA            | U.FL           | 0.96              | 300mm           |
| 4   | Tyco             | TBN010          | 2.64                               | PIFA            | U.FL           | 0.95              | 300mm           |
| 5   | Hitachi<br>Cable | HBV17           | 1.97                               | PIFA            | IPEX           | 0.99              | 306mm           |

Note: 1. Main – Wireless / Aux – BT

2. Antenna (model: 81-EBJ15.005 and DAMA1BM30000402) were chosen for final test.



### 3.3 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

| EUT configure mode | Applicable to |                    | Description |
|--------------------|---------------|--------------------|-------------|
|                    | RE<1G         | RE <sup>≥</sup> 1G |             |
| -                  | √             | √                  | -           |

Where RE < 1G: Radiated Emission below 1GHz

RE <sup>≥</sup> 1G: Radiated Emission above 1GHz

#### Radiated Emission Test:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| Mode             | Available Channel | Tested Channel | Modulation Technology | Modulation Type | Data Rate (Mbps) |
|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| WLAN + Bluetooth | 1 to 11           | 6              | OFDM                  | BPSK            | 6                |
|                  | 0 to 78           | 39             | FHSS                  | 8DPSK           | DH5              |

#### TEST CONDITION:

| APPLICABLE TO      | ENVIRONMENTAL CONDITIONS | INPUT POWER  | TESTED BY   |
|--------------------|--------------------------|--------------|-------------|
| RE<1G              | 25deg. C, 65%RH          | 120Vac, 60Hz | Nelson Teng |
| RE <sup>≥</sup> 1G | 25deg. C, 65%RH          | 120Vac, 60Hz | Nelson Teng |

### 3.4 DESCRIPTION OF SUPPORT UNITS

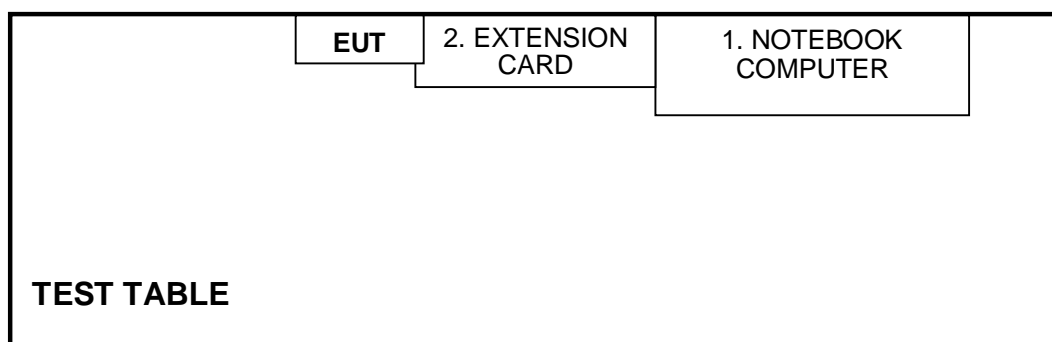
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| NO. | PRODUCT           | BRAND   | MODEL NO. | SERIAL NO. | FCC ID |
|-----|-------------------|---------|-----------|------------|--------|
| 1   | NOTEBOOK COMPUTER | Lenovo  | 3000 N200 | NA         | NA     |
| 2   | EXTENSION CARD    | Atheros | NA        | NA         | NA     |

| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|-----|---|
| 1   | NA  |
| 2   | NA  |

**NOTE:** All power cords of the above support units are non shielded (1.8m).

### 3.5 CONFIGURATION OF SYSTEM UNDER TEST



## 4. TEST TYPES AND RESULTS

### 4.1 RADIATED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

| Frequencies (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) |
|-------------------|-----------------------------------|-------------------------------|
| 0.009-0.490       | $2400/F(\text{kHz})$              | 300                           |
| 0.490-1.705       | $24000/F(\text{kHz})$             | 30                            |
| 1.705-30.0        | 30                                | 30                            |
| 30-88             | 100                               | 3                             |
| 88-216            | 150                               | 3                             |
| 216-960           | 200                               | 3                             |
| Above 960         | 500                               | 3                             |

**NOTE:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) =  $20 \log$  Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

#### 4.1.2 TEST INSTRUMENTS

For below 1GHz:

| DESCRIPTION & MANUFACTURER           | MODEL NO.            | SERIAL NO.                          | CALIBRATED DATE | CALIBRATED UNTIL |
|--------------------------------------|----------------------|-------------------------------------|-----------------|------------------|
| Agilent Spectrum Analyzer            | E4446A               | MY48250254                          | July 09, 2012   | July 08, 2013    |
| Agilent Pre-Selector                 | N9039A               | MY46520311                          | July 09, 2012   | July 08, 2013    |
| Agilent Signal Generator             | N5181A               | MY49060517                          | July 09, 2012   | July 08, 2013    |
| Mini-Circuits Pre-Amplifier          | ZFL-1000VH2B         | AMP-ZFL-03                          | Nov. 15, 2011   | Nov. 14, 2012    |
| Agilent Pre-Amplifier                | 8449B                | 3008A02578                          | June 26, 2012   | June 25, 2013    |
| SPACEK LABS                          | SLKKa-48-6           | 9K16                                | Nov. 15, 2011   | Nov. 14, 2012    |
| SCHWARZBECK Trilog Broadband Antenna | VULB 9168            | 9168-360                            | Apr. 09, 2012   | Apr. 08, 2013    |
| AISI Horn_Antenna                    | AIH.8018             | 0000320091110                       | Nov. 14, 2011   | Nov. 13, 2012    |
| SCHWARZBECK Horn_Antenna             | BBHA 9170            | 9170-424                            | Oct. 07, 2011   | Oct. 06, 2012    |
| RF CABLE                             | NA                   | RF104-201<br>RF104-203<br>RF104-204 | Dec. 26, 2011   | Dec. 25, 2012    |
| RF Cable                             | NA                   | CHGCAB_001                          | Oct. 07, 2011   | Oct. 06, 2012    |
| Software                             | ADT_Radiated_V8.7.05 | NA                                  | NA              | NA               |
| CT Antenna Tower & Turn Table        | NA                   | NA                                  | NA              | NA               |

**Note:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in 966 Chamber No. G.
4. The FCC Site Registration No. is 966073.
5. The VCCI Site Registration No. is G-137.
6. The CANADA Site Registration No. is IC 7450H-2.
7. Tested Date: July 12, 2012

**A D T****For above 1GHz:**

| DESCRIPTION & MANUFACTURER           | MODEL NO.            | SERIAL NO.                          | CALIBRATED DATE | CALIBRATED UNTIL |
|--------------------------------------|----------------------|-------------------------------------|-----------------|------------------|
| Spectrum Analyzer Agilent            | E4446A               | MY48250253                          | Aug. 29, 2011   | Aug. 28, 2012    |
| Pre-Selector Agilent                 | N9039A               | MY46520310                          | Aug. 29, 2011   | Aug. 28, 2012    |
| Signal Generator Agilent             | N5181A               | MY49060347                          | July 25, 2011   | July 24, 2012    |
| Pre-Amplifier Mini-Circuits          | ZFL-1000VH2 B        | AMP-ZFL-04                          | Nov. 15, 2011   | Nov. 14, 2012    |
| Pre-Amplifier Agilent                | 8449B                | 3008A02465                          | Feb. 27, 2012   | Feb. 26, 2013    |
| SPACEK LABS                          | SLKKa-48-6           | 9K16                                | Nov. 15, 2011   | Nov. 14, 2012    |
| Trilog Broadband Antenna SCHWARZBECK | VULB 9168            | 9168-361                            | Apr. 06, 2012   | Apr. 05, 2013    |
| Horn_Antenna AISI                    | AIH.8018             | 0000220091110                       | Nov. 23, 2011   | Nov. 22, 2012    |
| Horn_Antenna SCHWARZBECK             | BBHA 9170            | 9170-424                            | Oct. 07, 2011   | Oct. 06, 2012    |
| RF Cable                             | NA                   | RF104-205<br>RF104-207<br>RF104-202 | Dec. 27, 2011   | Dec. 26, 2012    |
| RF Cable                             | NA                   | CHHCAB_001                          | Oct. 08, 2011   | Oct. 07, 2012    |
| Software                             | ADT_Radiated_V8.7.05 | NA                                  | NA              | NA               |
| Antenna Tower & Turn Table CT        | NA                   | NA                                  | NA              | NA               |

**Note:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. H.
3. The FCC Site Registration No. is 797305.
4. The CANADA Site Registration No. is IC 7450H-3.
5. Tested Date: July 12, 2012

#### 4.1.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

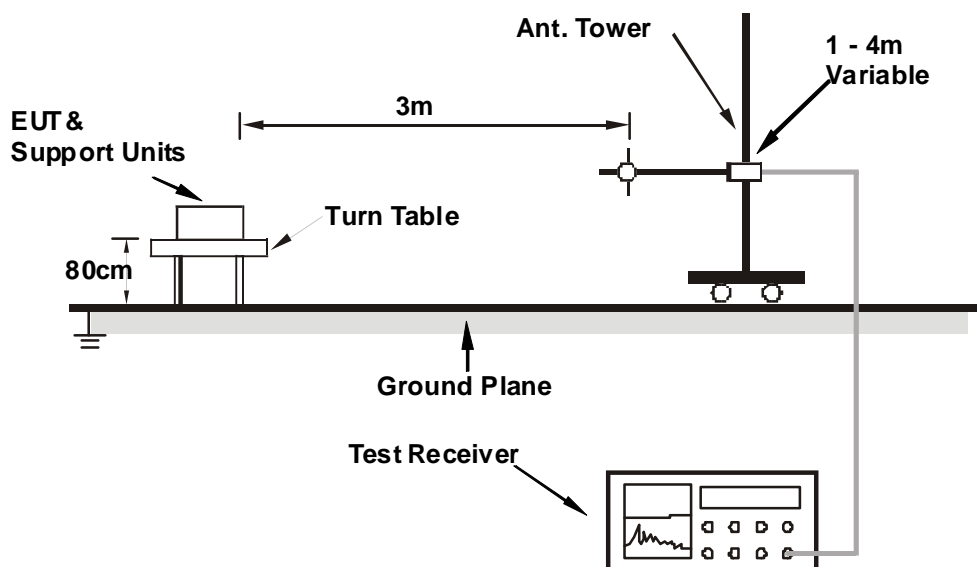
**NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

#### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.1.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

#### 4.1.6 EUT OPERATING CONDITIONS

1. Connect the EUT with the support unit 1 (Notebook Computer) which is placed on a testing table.
2. The communication partner run test program “ArcMfgTool 2.0.0.9” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

## 4.1.7 TEST RESULTS

### BELOW 1GHz DATA :

|                        |            |                          |                 |
|------------------------|------------|--------------------------|-----------------|
| <b>FREQUENCY RANGE</b> | Below 1GHz | <b>DETECTOR FUNCTION</b> | Quasi-Peak (QP) |
|------------------------|------------|--------------------------|-----------------|

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |               |                         |                |             |                    |                      |                  |                          |
|---|---------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| NO.   | FREQ. (MHz)   | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1   | 99.87         | 30.3 QP                 | 43.5           | -13.2       | 1.75 H             | 11                   | 20.40            | 9.86                     |
| 2   | 198.99        | 38.4 QP                 | 43.5           | -5.1        | 1.75 H             | 256                  | 27.18            | 11.25                    |
| 3   | 299.95        | 35.2 QP                 | 46.0           | -10.8       | 1.50 H             | 326                  | 19.95            | 15.29                    |
| 4   | <b>499.81</b> | <b>44.8 QP</b>          | <b>46.0</b>    | <b>-1.2</b> | <b>1.50 H</b>      | <b>227</b>           | <b>24.45</b>     | <b>20.39</b>             |
| 5   | 600.42        | 41.1 QP                 | 46.0           | -4.9        | 1.00 H             | 123                  | 18.45            | 22.67                    |
| 6   | 796.55        | 37.5 QP                 | 46.0           | -8.5        | 2.00 H             | 233                  | 11.68            | 25.85                    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |               |                         |                |             |                    |                      |                  |                          |
| NO.   | FREQ. (MHz)   | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1   | 99.40         | 30.8 QP                 | 43.5           | -12.7       | 1.25 V             | 21                   | 21.04            | 9.80                     |
| 2   | 300.00        | 38.3 QP                 | 46.0           | -7.7        | 1.68 V             | 234                  | 22.97            | 15.29                    |
| 3   | 399.86        | 42.5 QP                 | 46.0           | -3.5        | 1.02 V             | 225                  | 24.68            | 17.86                    |
| 4   | 497.63        | 42.7 QP                 | 46.0           | -3.3        | 1.00 V             | 237                  | 22.33            | 20.33                    |
| 5   | 600.32        | 41.4 QP                 | 46.0           | -4.6        | 1.35 V             | 177                  | 18.71            | 22.66                    |
| 6   | 799.87        | 41.2 QP                 | 46.0           | -4.8        | 1.00 V             | 22                   | 15.24            | 25.92                    |

### REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.





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## ABOVE 1GHz DATA

|                 |              |                   |                           |
|-----------------|--------------|-------------------|---------------------------|
| FREQUENCY RANGE | 1GHz ~ 25GHz | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|-----------------|--------------|-------------------|---------------------------|

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |             |                         |                |             |                    |                      |                  |                          |
|---|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| NO.   | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1   | 4874.00     | 48.3 PK                 | 74.0           | -25.7       | 1.07 H             | 159                  | 6.35             | 41.99                    |
| 2   | 4874.00     | 41.3 AV                 | 54.0           | -12.7       | 1.07 H             | 159                  | -0.73            | 41.99                    |
| 3   | 4882.00     | 52.9 PK                 | 74.0           | -21.1       | 1.00 H             | 56                   | 10.90            | 42.00                    |
| 4   | 4882.00     | 22.8 AV                 | 54.0           | -31.2       | 1.00 H             | 56                   | -19.20           | 42.00                    |
| 5   | 7311.00     | 53.5 PK                 | 74.0           | -20.5       | 1.00 H             | 123                  | 7.01             | 46.53                    |
| 6   | 7311.00     | 40.2 AV                 | 54.0           | -13.8       | 1.00 H             | 123                  | -6.30            | 46.53                    |
| 7   | 7323.00     | 56.7 PK                 | 74.0           | -17.3       | 1.00 H             | 96                   | 10.14            | 46.56                    |
| 8   | 7323.00     | 26.6 AV                 | 54.0           | -27.4       | 1.00 H             | 96                   | -19.96           | 46.56                    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |             |                         |                |             |                    |                      |                  |                          |
| NO.   | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1   | 4874.00     | 47.8 PK                 | 74.0           | -26.2       | 1.07 V             | 124                  | 5.85             | 41.99                    |
| 2   | 4874.00     | 40.7 AV                 | 54.0           | -13.3       | 1.07 V             | 124                  | -1.26            | 41.99                    |
| 3   | 4882.00     | 52.9 PK                 | 74.0           | -21.1       | 1.00 V             | 37                   | 10.90            | 42.00                    |
| 4   | 4882.00     | 22.8 AV                 | 54.0           | -31.2       | 1.00 V             | 37                   | -19.20           | 42.00                    |
| 5   | 7311.00     | 52.3 PK                 | 74.0           | -21.7       | 1.00 V             | 135                  | 5.73             | 46.53                    |
| 6   | 7311.00     | 40.5 AV                 | 54.0           | -13.5       | 1.00 V             | 135                  | -6.04            | 46.53                    |
| 7   | 7323.00     | 54.9 PK                 | 74.0           | -19.1       | 1.00 V             | 73                   | 8.34             | 46.56                    |
| 8   | 7323.00     | 24.8 AV                 | 54.0           | -29.2       | 1.00 V             | 73                   | -21.76           | 46.56                    |

## REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



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## 5. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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The address and road map of all our labs can be found in our web site also.



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## **6. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB**

No modifications were made to the EUT by the lab during the test.

**---END---**