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## Radio Spectrum TEST REPORT

Report No.: 170300545 TWN-001
Model No.: RW8300M-a, RW8300M-c, RW8300M-NW, RW8300M-a-NL, RW8300NE-a, RW8300NE-c, RW8300NE-NW, RW8300NE-a-NL, RW8300NE-c-NL
Issued Date: Mar. 06, 2018

| Applicant: | Radicom Research Inc. <br> 2148 Bering Drive San Jose, CA 95131 |
| :--- | :--- |
| Test Method/ Standard: | 47 CFR FCC Part 15.247 \& ANSI C63.10 2013 <br> KDB 558074 D01 v04 <br> KDB 662911 D01 v02r01 |
| Registration No.: | 960839 |
| Test By: | Intertek Testing Services Taiwan Ltd., <br>  <br>  <br> Hsinchu Laboratory <br> No. 11, Lane 275, Ko-Nan 1 Street, Chia-Tung Li, <br> Shiang-Shan District, Hsinchu City, Taiwan |

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The test report was prepared by:


These measurements were taken by:


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The test report was reviewed by:


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## Revision History

| Report No. | Issue Date | Revision Summary |
| :---: | :---: | :--- |
| 170300545 TWN-001 | Mar. 06, 2018 | Original report |

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## Summary of Test Data

| Test Requirement | Applicable Rule <br> (Section 15.247) | Result |
| :--- | :---: | :---: |
| Minimum 6 dB Bandwidth | $15.247(\mathrm{a})(2)$ | Pass |
| Maximum Peak Conducted Output Power | $15.247(\mathrm{~b})(3)$ | Pass |
| Power Spectral Density | $15.247(\mathrm{e})$ | Pass |
| Emissions In Non-Restricted Frequency Bands | $15.247(\mathrm{~d})$ | Pass |
| Emissions In Restricted Frequency Bands <br> (Radiated emission measurements) | $15.247(\mathrm{~d}), 15.205,15.209$ | Pass |
| Emission On The Band Edge | 15.207 | Pass |
| AC Power Line Conducted Emission | 15.203 | Pass |
| Antenna Requirement | Pass |  |

## 1. General information

### 1.1. Identification of the EUT

| Product: | 2.4G wifi +BT4.2(BLE) Module |
| :---: | :---: |
| Model No.: | RW8300NE-c, RW8300M-a |
| Operating Frequency: | 1. 2412 MHz ~ 2462 MHz for 802.11b, 802.11g, 802.11n HT2O <br> 2. $2422 \mathrm{MHz} \sim 2452 \mathrm{MHz}$ for 802.11 nHT 40 |
| Channel Number: | 1. 11 channels for $2412 \mathrm{MHz} \sim 2462 \mathrm{MHz}$ <br> 2. 9 channels for $2422 \mathrm{MHz} \sim 2452 \mathrm{MHz}$ |
| Frequency of Each Channel: | 1. $2412+5 \mathrm{k}, \mathrm{k}=0 \sim 10$ for $802.11 \mathrm{~b}, 802.11 \mathrm{~g}, 802.11 \mathrm{n}$ HT20 <br> 2. $2422+5 \mathrm{k}, \mathrm{k}=0 \sim 6$ for $802.11 \mathrm{~b}, 802.11 \mathrm{~g}, 802.11 \mathrm{n}$ HT40 |
| Access scheme: | DSSS, OFDM |
| Rated Power: | DC 5V |
| Power Cord: | N/A |
| Sample Received: | Workable |
| Test Date(s): | Mar. 1, 2018 ~ Mar. 9, 2018 |
| Note: | The BT4.2(BLE) module has been granted under the FCC ID: K7T-RB8762 |
| Note 1: The test report only allows to be rev Note 2: When determining the test conclusion, Note 3: Except where explicitly agreed in writ http://www.intertek-twn.com/term <br> This report is made solely on the ba sample source. The report is not int under no obligation to refer to or re the issue of the report, for any matt You are the only one authorized to the report solely at their own risk. | within three years from its original issued date unless further standard or the requirement was noticed. <br> he Measurement Uncertainty of test has been considered. <br> all work and services performed by Intertek is subject to our standard Terms and Conditions which can be obtained at our website: Intertek's responsibility and liability are limited to the terms and conditions of the agreement. <br> f your instructions and / or information and materials supplied by you and provide no warranty on the tested sample(s) be truly representative of the ed to be a recommendation for any particular course of action, you are responsible for acting as you see fit on the basis of the report results. Intertek is upon any facts or circumstances which are outside the specific instructions received and accepts no responsibility to any parties whatsoever, following arising outside the agreed scope of the works. This report does not discharge or release you from your legal obligations and duties to any other person. it copying or distribution of this report (and then only in its entirety). Any such third parties to whom this report may be circulated rely on the content of |

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### 1.2. Description of the EUT

| Modulation mode | Transmit path |  |
| :---: | :---: | :---: |
|  | Chain 0 | Chain 1 |
| 802.11 b | V | V |
| 802.11 g | V | V |
| $802.11 \mathrm{n}(\mathrm{HT} 20)$ | V | V |
| $802.11 \mathrm{n}(\mathrm{HT} 40)$ | V | V |


| Classification | Model name | Different |
| :---: | :---: | :---: |
| Pin header | RW8300M-a | module with PIFA antenna |
|  | RW8300M-c | module with IPEX connector |
|  | RW8300M-NW | module, no WLAN(w/o PIFA and IPEX) |
|  | RW8300M-a-NL | module with PIFA antenna, no LAN(w/o RJ45 jack and 10/100 base transformer) |
| $\begin{aligned} & \text { mini USB, RJ45 } \\ & \text { jack } \\ & \text { w/o enclosure } \end{aligned}$ | RW8300NE-a | PCBA w/o enclosure, with PIFA antenna |
|  | RW8300NE-c | PCBA w/o enclosure, with IPEX connector |
|  | RW8300NE-NW | PCBA w/o enclosure, w/o PIFA and IPEX |
|  | RW8300NE-a-NL | PCBA w/o enclosure, with PIFA , no LAN(w/o RJ45 jack and 10/100 base transformer) |
|  | RW8300NE-c-NL | PCBA w/o enclosure, with IPEX , no LAN(w/o RJ45 jack and 10/100 base transformer) |

[^0]
### 1.3. Antenna description

## For RW8300NE-c

The antenna is affixed to the EUT using a unique connector, which allows for replacement of a broken antenna, but DOES NOT use a standard antenna jack or electrical connector.

| Antenna Gain | $: 2 \mathrm{dBi}$ |
| :--- | :--- |
| Antenna Type | $:$ Dipole antenna |
| Connector Type | $:$ I-PEX |

## For RW8300M-a

The EUT uses a permanently connected antenna.

| Antenna Gain | $: 2 \mathrm{dBi}$ |
| :--- | :--- |
| Antenna Type | $:$ PIFA antenna |
| Connector Type | $:$ Fixed |

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### 1.4. Operation mode

The EUT was supplied with DC 5.0 V from Notebook PC.
TX-MODE is based on a specific test program "RTL819x 3.3 ", and the program can select different frequency and modulation.

## For RW8300NE

The signal is maximized through rotation and placement in the two orthogonal axes.


After verifying three axes, we found the maximum electromagnetic field was occurred at $Y$ axis. The final test data was executed under this configuration.

## For RW8300M

The signal is maximized through rotation and placement in the three orthogonal axes.


After verifying three axes, we found the maximum electromagnetic field was occurred at Z axis. The final test data was executed under this configuration.

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With individual verifying, the maximum output power were found out 1 Mbps data rate for 802.11b mode, 6 Mbps data rate for 802.11 g mode, 6.5 Mbps data rate for $802.11 \mathrm{n}(\mathrm{HT} 20)$ mode and, 13.5 Mbps data rate for $802.11 \mathrm{n}(\mathrm{HT} 40)$ mode the final tests were executed under these conditions recorded in this report individually.

| Mode | Channel | Data rate | $\begin{aligned} & \text { Chain0 AV } \\ & (\mathrm{dBm}) \end{aligned}$ | Chain1 AV <br> (dBm) |
| :---: | :---: | :---: | :---: | :---: |
| 802.11b | ch6 | 1 | 14.49 | 15.45 |
| 802.11b | ch6 | 2 | 14.37 | 15.38 |
| 802.11b | ch6 | 5.5 | 14.31 | 15.33 |
| 802.11b | ch6 | 11 | 14.25 | 15.24 |
| 802.11g | ch6 | 6 | 2.16 | 6.86 |
| 802.11g | ch6 | 9 | 2.09 | 6.82 |
| 802.11g | ch6 | 12 | 2.03 | 6.74 |
| 802.11g | ch6 | 18 | 1.99 | 6.71 |
| 802.11g | ch6 | 24 | 1.92 | 6.65 |
| 802.11g | ch6 | 36 | 1.88 | 6.62 |
| 802.11g | ch6 | 48 | 1.86 | 6.58 |
| 802.11g | ch6 | 54 | 1.77 | 6.54 |
| 802.11n(HT20) | ch6 | MCSO | 2.29 | 6.88 |
| 802.11n(HT20) | ch6 | MCS1 | 2.24 | 6.84 |
| 802.11n(HT20) | ch6 | MCS2 | 2.20 | 6.79 |
| 802.11n(HT20) | ch6 | MCS3 | 2.17 | 6.77 |
| 802.11n(HT20) | ch6 | MCS4 | 2.12 | 6.71 |
| 802.11n(HT20) | ch6 | MCS5 | 2.09 | 6.64 |
| 802.11n(HT20) | ch6 | MCS6 | 2.03 | 6.60 |
| 802.11n(HT20) | ch6 | MCS7 | 1.99 | 6.52 |
| 802.11n(HT40) | ch6 | MCSO | 9.29 | 14.13 |
| 802.11n(HT40) | ch6 | MCS1 | 9.22 | 14.03 |
| 802.11n(HT40) | ch6 | MCS2 | 9.18 | 13.98 |
| 802.11n(HT40) | ch6 | MCS3 | 9.15 | 13.94 |
| 802.11n(HT40) | ch6 | MCS4 | 9.09 | 13.89 |
| 802.11n(HT40) | ch6 | MCS5 | 9.04 | 13.86 |
| 802.11n(HT40) | ch6 | MCS6 | 9.01 | 13.81 |
| 802.11n(HT40) | ch6 | MCS7 | 8.95 | 13.77 |

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### 1.5. Applied test modes and channels

| Test items | Mode | Data Rate (Mbps) | Channel | Antenna |
| :---: | :---: | :---: | :---: | :---: |
| Maximum Conducted Output Power | 802.11b | 1 | 1,6,11 | Chain0/Chain1 |
|  | 802.11g | 6 | 1,6,11 | Chain0/Chain1 |
|  | $\begin{gathered} 802.11 n \\ \text { (HT20) } \end{gathered}$ | 6.5 | 1,6,11 | Chain0/Chain1 |
|  | $\begin{gathered} 802.11 n \\ (H T 40) \end{gathered}$ | 13.5 | 3,6,9 | Chain0/Chain1 |
| Power Spectrum Density | 802.11b | 1 | 1,6,11 | Chain0/Chain1 |
|  | 802.11g | 6 | 1,6,11 | Chain0/Chain1 |
|  | $\begin{gathered} 802.11 n \\ \text { (HT20) } \end{gathered}$ | 6.5 | 1,6,11 | Chain0/Chain1 |
|  | $\begin{gathered} 802.11 n \\ (H T 40) \end{gathered}$ | 13.5 | 3,6,9 | Chain0/Chain1 |
| Emission BW | 802.11b | 1 | 1,6,11 | Chain0/Chain1 |
|  | 802.11g | 6 | 1,6,11 | Chain0/Chain1 |
|  | $\begin{gathered} 802.11 n \\ \text { (HT20) } \end{gathered}$ | 6.5 | 1,6,11 | Chain0/Chain1 |
|  | $\begin{gathered} 802.11 n \\ (H T 40) \end{gathered}$ | 13.5 | 3,6,9 | Chain0/Chain1 |
| Radiated spurious Emission $9 \mathrm{kHz} \sim 1 \mathrm{GHz}$ | Worst case |  |  |  |
| Emissions In Restricted Frequency Bands (Radiated emission measurements) | 802.11b | 1 | 1,6,11 | Chain0/Chain1 |
|  | 802.11g | 6 | 1,6,11 | Chain0/Chain1 |
|  | $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{gathered}$ | 6.5 | 1,6,11 | Chain0/Chain1 |
|  | $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 40) \\ \hline \end{gathered}$ | 13.5 | 3,6,9 | Chain0/Chain1 |
| Emission on The Band Edge | 802.11b | 1 | 1,6,11 | Chain0/Chain1 |
|  | 802.11g | 6 | 1,6,11 | Chain0/Chain1 |
|  | $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 20) \end{gathered}$ | 6.5 | 1,6,11 | Chain0/Chain1 |
|  | $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 40) \end{gathered}$ | 13.5 | 3,6,9 | Chain0/Chain1 |
| AC Line Conducted Emission | Normal Link |  |  |  |

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### 1.6. Power setting of test software

Channels \& power setting software provided by the client was used to change the operating channels as well as the output power level and is going to be installed in the final end product.

| Mode | Channel | Frequency | Power setting (Chain0) | Power setting (Chain1) |
| :---: | :---: | :---: | :---: | :---: |
| 802.11b | 1 | 2412 | 38 | 38 |
|  | 6 | 2437 | 38 | 37 |
|  | 11 | 2462 | 37 | 38 |
| 802.11g | 1 | 2412 | 37 | 44 |
|  | 6 | 2437 | 21 | 28 |
|  | 11 | 2462 | 23 | 28 |
| 802.11n(HT 20) | 1 | 2412 | 37 | 44 |
|  | 6 | 2437 | 21 | 28 |
|  | 11 | 2462 | 23 | 28 |
| 802.11n(HT40) | 3 | 2422 | 38 | 45 |
|  | 6 | 2437 | 38 | 45 |
|  | 9 | 2452 | 39 | 44 |

Note: The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than $98 \%$.

| Mode | Chain | Channel | Frequency <br> (MHz) | Data rate <br> (Mbps) | Signal on <br> time(s) | Total <br> signal <br> transmit <br> time(s) | Duty <br> cycle | Duty <br> Cycle <br> factor |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11b | Chain 0 | 6 | 2437 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| 802.11 g | Chain 0 | 6 | 2437 | 6.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| 802.11 n <br> (HT20) | Chain 0 | 6 | 2437 | 6.50 | 1.00 | 1.00 | 1.00 | 0.00 |
| 802.11 n <br> (HT40) | Chain 0 | 6 | 2437 | 13.50 | 1.00 | 1.00 | 1.00 | 0.00 |
| 802.11 b | Chain 1 | 6 | 2437 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| 802.11 g | Chain 1 | 6 | 2437 | 6.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| 802.11 n <br> (HT20) | Chain 1 | 6 | 2437 | 6.50 | 1.00 | 1.00 | 1.00 | 0.00 |
| 802.11 n <br> (HT40) | Chain 1 | 6 | 2437 | 13.50 | 1.00 | 1.00 | 1.00 | 0.00 |

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Chain0 : Ducty Cycle @ 802.11b Mode


Chain1 : Ducty Cycle @ 802.11b Mode


Chain0 : Ducty Cycle @ 802.11g Mode


Chain1 : Ducty Cycle @ 802.11g Mode


Chain0 : Ducty Cycle @ 802.11n(HT20) Mode


Chain1 : Ducty Cycle @ 802.11n(HT20) Mode


Chain0 : Ducty Cycle @ 802.11n(HT40) Mode


Chain1 : Ducty Cycle @ 802.11n(HT40) Mode


### 1.7. Peripherals equipment

| Peripherals | Brand | Model No. | Serial No. | Data cable |
| :---: | :---: | :---: | :---: | :--- |
| Notebook PC | ASUS | UL20A | N/A | 1. RJ-45 STP Cat.5 1meter $\times 1$ <br> 2. USB shielded cable 1 meter $\times 1$ <br> 3. Mini USB 1 meter $\times 1$ |

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## 2. Minimum 6 dB Bandwidth

### 2.1. Instrument Setting

| Spectrum Parameter | Setting |
| :---: | :---: |
| Detector | Peak |
| RBW | 100 kHz |
| VBW | $\geqq 3 \times$ RBW |
| Sweep | Auto couple |
| Trace | Allow the trace to stabilize. |
| Span | Between two times and five times the occupied bandwidth |
| Attenuation | Auto |

### 2.2. Test Procedure

Step 1 The transmitter output was connected to the spectrum analyzer.
Step 2 Test was performed in accordance with clause 8.1 option1 of KDB 558074 D01.

Step 3 Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

### 2.3. Test Diagram



### 2.4. Limit

The minimum 6 dB bandwidth shall be at least 500 kHz .

### 2.5. Operating Environment Condition

Temperature $\left({ }^{\circ} \mathrm{C}\right): \quad 25$
Relative Humidity (\%) : 50
Atmospheric Pressure (hPa) : 1008
Test Date: 2018/3/6

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### 2.6. Test Results

| Mode | Chain | Channel | Frequency (MHz) | 6dB BW <br> (MHz) | $\begin{aligned} & \text { Limit } \\ & (\mathrm{MHz}) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11b | Chain0 | 1 | 2412 | 10.027 | >0.5 |
| 802.11 b | Chain0 | 6 | 2437 | 10.023 | >0.5 |
| 802.11b | Chain0 | 11 | 2462 | 10.032 | >0.5 |
| 802.11b | Chain1 | 1 | 2412 | 10.047 | >0.5 |
| 802.11b | Chain1 | 6 | 2437 | 10.073 | >0.5 |
| 802.11b | Chain1 | 11 | 2462 | 10.051 | >0.5 |
| 802.11g | Chain0 | 1 | 2412 | 16.580 | >0.5 |
| 802.11g | Chain0 | 6 | 2437 | 16.554 | $>0.5$ |
| 802.11 g | Chain0 | 11 | 2462 | 16.558 | $>0.5$ |
| 802.11g | Chain1 | 1 | 2412 | 16.595 | >0.5 |
| 802.11g | Chain1 | 6 | 2437 | 16.563 | >0.5 |
| 802.11 g | Chain1 | 11 | 2462 | 16.584 | >0.5 |
| 802.11n(HT20) | Chain0 | 1 | 2412 | 17.792 | >0.5 |
| 802.11n(HT20) | Chain0 | 6 | 2437 | 17.784 | >0.5 |
| 802.11n(HT20) | Chain0 | 11 | 2462 | 17.828 | >0.5 |
| 802.11n(HT20) | Chain1 | 1 | 2412 | 17.715 | >0.5 |
| 802.11n(HT20) | Chain1 | 6 | 2437 | 17.733 | $>0.5$ |
| 802.11n(HT20) | Chain1 | 11 | 2462 | 17.792 | >0.5 |
| 802.11n(HT40) | Chain0 | 3 | 2422 | 36.432 | >0.5 |
| 802.11n(HT40) | Chain0 | 6 | 2437 | 36.405 | $>0.5$ |
| 802.11n(HT40) | Chain0 | 9 | 2452 | 36.386 | >0.5 |
| 802.11n(HT40) | Chain1 | 3 | 2422 | 36.429 | $>0.5$ |
| 802.11n(HT40) | Chain1 | 6 | 2437 | 36.401 | $>0.5$ |
| 802.11n(HT40) | Chain1 | 9 | 2452 | 36.372 | >0.5 |

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Chain0 : 6dB Bandwidth @ 802.11b Mode Ch 1


Chain0 : 6dB Bandwidth @ 802.11b Mode Ch 6


Chain0 : 6dB Bandwidth @ 802.11b Mode Ch11


Total Quality. Assured.

Chain1 : 6dB Bandwidth @ 802.11b Mode Ch 1


Chain1 : 6dB Bandwidth @ 802.11b Mode Ch 6


Chain1: 6dB Bandwidth @ 802.11b Mode Ch11


Total Quality. Assured.

Chain0 : 6dB Bandwidth @ 802.11g Mode Ch 1


Chain0 : 6dB Bandwidth @ 802.11g Mode Ch 6


Chain0 : 6dB Bandwidth @ 802.11g Mode Ch11


Total Quality. Assured.

Chain1 : 6dB Bandwidth @ 802.11g Mode Ch 1


Chain1 : 6dB Bandwidth @ 802.11g Mode Ch 6


Chain1: 6dB Bandwidth @ 802.11g Mode Ch11


Total Quality. Assured.

Chain0 : 6dB Bandwidth @ 802.11n(HT20) Mode Ch 1


Chain0 : 6dB Bandwidth @ 802.11n(HT20) Mode Ch 6


Chain0 : 6dB Bandwidth @ 802.11n(HT20) Mode Ch11


Total Quality. Assured.

Chain1: 6dB Bandwidth @ 802.11n(HT20) Mode Ch 1


Chain1 : 6dB Bandwidth @ 802.11n(HT20) Mode Ch 6


Chain1 : 6dB Bandwidth @ 802.11n(HT20) Mode Ch11


Total Quality. Assured.

Chain0 : 6dB Bandwidth @ 802.11n(HT40) Mode Ch 3


Chain0 : 6dB Bandwidth @ 802.11n(HT40) Mode Ch 6


Chain0 : 6dB Bandwidth @ 802.11n(HT40) Mode Ch 9


Total Quality. Assured.

Chain1 : 6dB Bandwidth @ 802.11n(HT40) Mode Ch 3


Chain1 : 6dB Bandwidth @ 802.11n(HT40) Mode Ch 6


Chain1 : 6dB Bandwidth @ 802.11n(HT40) Mode Ch 9


## 3. Maximum Peak Conducted Output Power

### 3.1. Instrument Setting

| Power Meter Parameter | Setting |
| :---: | :---: |
| Bandwidth | 65 MHz bandwidth is greater than the EUT emission bandwidth |
| Detector | Peak \& Average |

### 3.2. Test Procedure

Test procedures refer to clause 9.1.3 peak power meter method and clause 9.2.3.2 measurement using a gated RF average power meter of KDB 558074 D01.

### 3.3. Test Diagram



### 3.4. Limit

For systems using digital modulation in the $2400-2483.5 \mathrm{MHz}$ : 1 Watt ( 30 dBm )

### 3.5. Operating Environment Condition

```
Temperature ( }\mp@subsup{}{}{\circ}\textrm{C}) 25
Relative Humidity (\%) : 50
Atmospheric Pressure (hPa) : 1008
Test Date : 2018/3/9
```

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### 3.6. Test Results

## Single Tx

Chain 0

| Mode | Channel | Frequency (MHz) | Output <br> Power (AV) <br> (dBm) | Total Power (AV) (mW) | Maximun power (PK) (dBm) | Maximun power (PK) (mW) | Limit (dBm) | Margin <br> (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11b | 1 | 2412 | 14.15 | 26.00 | 16.40 | 43.65 | 30 | -13.60 |
|  | 6 | 2437 | 14.49 | 28.12 | 16.65 | 46.24 | 30 | -13.35 |
|  | 11 | 2462 | 13.65 | 23.17 | 15.65 | 36.73 | 30 | -14.35 |
| 802.11g | 1 | 2412 | 9.64 | 9.20 | 19.87 | 97.05 | 30 | -10.13 |
|  | 6 | 2437 | 2.16 | 1.64 | 11.42 | 13.87 | 30 | -18.58 |
|  | 11 | 2462 | 3.02 | 2.00 | 12.20 | 16.60 | 30 | -17.80 |

Chain 1

| Mode | Channel | Frequency <br> $(\mathbf{M H z})$ | Output <br> Power (AV) <br> $(\mathbf{d B m})$ | Total <br> Power <br> $(\mathbf{A V})$ <br> $(\mathbf{m W})$ | Maximun <br> power <br> $(\mathbf{P K})$ <br> $(\mathbf{d B m})$ | Maximun <br> power <br> $(\mathbf{P K})$ <br> $(\mathbf{m W})$ | Limit <br> $(\mathrm{dBm})$ | Margin <br> $(\mathrm{dB})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2412 | 14.85 | 30.55 | 16.91 | 49.09 | 30 | -13.09 |
|  | 6 | 2437 | 15.45 | 35.08 | 17.48 | 55.98 | 30 | -12.52 |
|  | 11 | 2462 | 16.38 | 43.45 | 18.46 | 70.15 | 30 | -11.54 |
| 802.11 g | 1 | 2412 | 13.66 | 23.23 | 23.01 | 199.99 | 30 | -6.99 |
|  | 6 | 2437 | 6.86 | 4.85 | 16.61 | 45.81 | 30 | -13.39 |
|  | 11 | 2462 | 7.72 | 5.92 | 17.65 | 58.21 | 30 | -12.35 |


| Mode | Ch | Freq. <br> (MHz) | Output Power (dBm) |  |  |  | Output Power (mW) |  |  |  | Total Power (dBm) |  |  |  | Limit (dBm) | Margin <br> (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Chian 0 |  | Chain 1 |  | Chain 0 |  | Chian 1 |  | AV |  | PK |  |  |  |
|  |  |  | AV | PK | AV | PK | AV | PK | AV | PK | $\begin{gathered} 0+1 \\ (\mathrm{~mW}) \end{gathered}$ | $\begin{gathered} 0+1 \\ (\mathrm{dBm}) \end{gathered}$ | $\begin{gathered} 0+1 \\ (\mathrm{~mW}) \end{gathered}$ | $\begin{gathered} 0+1 \\ (\mathrm{dBm}) \end{gathered}$ |  |  |
| $\begin{gathered} 802.11 n \\ (H T 20) \end{gathered}$ | 1 | 2412 | 10.07 | 19.05 | 13.72 | 22.89 | 10.16 | 80.35 | 23.55 | 194.54 | 33.71 | 15.28 | 274.89 | 24.39 | 30 | -5.61 |
|  | 6 | 2437 | 2.29 | 9.97 | 6.88 | 15.82 | 1.69 | 9.93 | 4.88 | 38.19 | 6.57 | 8.18 | 48.13 | 16.82 | 30 | -13.18 |
|  | 11 | 2462 | 3.11 | 11.38 | 7.62 | 17.4 | 2.05 | 13.74 | 5.78 | 54.95 | 7.83 | 8.94 | 68.69 | 18.37 | 30 | -11.63 |
| $\begin{gathered} 802.11 n \\ (\mathrm{HT} 40) \end{gathered}$ | 3 | 2422 | 9.27 | 18.10 | 13.56 | 21.27 | 8.45 | 64.57 | 22.70 | 133.97 | 31.15 | 14.93 | 198.53 | 22.98 | 30 | -7.02 |
|  | 6 | 2437 | 9.29 | 17.99 | 14.13 | 21.96 | 8.49 | 62.95 | 25.88 | 157.04 | 34.37 | 15.36 | 219.99 | 23.42 | 30 | -6.58 |
|  | 9 | 2452 | 9.62 | 18.49 | 14.05 | 22.18 | 9.16 | 70.63 | 25.41 | 165.20 | 34.57 | 15.39 | 235.83 | 23.73 | 30 | -6.27 |

Total Quality. Assured.

## 4. Power Spectral Density

### 4.1. Instrument Setting

| Spectrum Function | Setting |
| :---: | :---: |
| Detector | Peak |
| RBW | $\geqq 3 \mathrm{kHz}$ |
| VBW | $\geqq 3 \times$ RBW |
| Sweep | Auto couple |
| Trace | Max hold |
| Span | 1.5 times $\times 6 \mathrm{~dB}$ bandwidth |
| Attenuation | Auto |

### 4.2. Test Procedure

Step 1 Test procedure refer to clause 10.2 method PKPSD (peak PSD) of KDB 558074 D01 and clause E) 2) c) of KDB 662911 D01 measure and sum spectral maxima across the outputs.
Step 2 Using the maximum conducted output power in the fundamental emission demonstrates compliance. The EUT must be configured to transmit continuously at full power over the measurement duration.
Step 3 Use the peak marker function to determine the maximum amplitude level within the RBW.

### 4.3. Test Diagram



### 4.4. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission

### 4.5. Operating Environment Condition

Temperature $\left({ }^{\circ} \mathrm{C}\right): \quad 25$

Relative Humidity (\%) : 50
Atmospheric Pressure (hPa) : 1008
Test Date :

Total Quality. Assured.

### 4.6. Test Results

Note1: RBW Correction $=10 * \log (10 \mathrm{kHz} / 3 \mathrm{kHz})=5.229$
Note2: PSD in $3 \mathrm{kHz}=$ PSD in 10 kHz - RBW Correction
Note3: Because using KDB 662911 v02r01 D01 E) 2) c), we found the peak PSD and add 10 $\log \left(N_{A N T}\right) d B$, where $N_{\text {ANT }}$ is the number of outputs. Before adding $10 \log \left(N_{\text {ANT }}\right)$, each PSD was subtracted by RBW factor.

## Single TX

Chain 0

| Mode | Channel | Frequency (MHz) | RBW factor | PSD in <br> 10kHz | PSD in 3kHz |  | Limit (dBm) | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | (dBm) | (mw) |  |  |
| 802.11b (chain0) | 1 | 2412 | 5.23 | -2.77 | -8.00 | 0.16 | 8 | -16.00 |
|  | 6 | 2437 | 5.23 | -2.82 | -8.05 | 0.16 | 8 | -16.05 |
|  | 11 | 2462 | 5.23 | -3.36 | -8.59 | 0.14 | 8 | -16.59 |
| 802.11g <br> (chain0) | 1 | 2412 | 5.23 | -9.22 | -14.45 | 0.04 | 8 | -22.45 |
|  | 6 | 2437 | 5.23 | -17.34 | -22.57 | 0.01 | 8 | -30.57 |
|  | 11 | 2462 | 5.23 | -16.39 | -21.62 | 0.01 | 8 | -29.62 |

Chain 1

| Mode | Channel | Frequency (MHz) | RBW factor | PSD in <br> 10kHz | PSD in 3kHz |  | Limit (dBm) | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | (dBm) | (mw) |  |  |
| $\begin{aligned} & 802.11 \mathrm{~b} \\ & \text { (chain1) } \end{aligned}$ | 1 | 2412 | 5.23 | -1.87 | -7.10 | 0.20 | 8 | -15.10 |
|  | 6 | 2437 | 5.23 | -1.75 | -6.98 | 0.20 | 8 | -14.98 |
|  | 11 | 2462 | 5.23 | -0.69 | -5.92 | 0.26 | 8 | -13.92 |
| 802.11 g(chain1) | 1 | 2412 | 5.23 | -5.44 | -10.67 | 0.09 | 8 | -18.67 |
|  | 6 | 2437 | 5.23 | -12.29 | -17.52 | 0.02 | 8 | -25.52 |
|  | 11 | 2462 | 5.23 | -11.21 | -16.44 | 0.02 | 8 | -24.44 |

MIMO

| Mode | Channel | Freq. <br> (MHz) | Correction Factor | $\begin{gathered} \hline \text { PSD }(\mathrm{dBm}) \text { in } \\ 10 \mathrm{kHz} \end{gathered}$ |  | $\begin{gathered} \hline \text { PSD }(\mathrm{dBm}) \text { in } \\ 3 \mathrm{kHz} \end{gathered}$ |  | Total PSD |  | MIMO <br> Corr.n | Result | Limit (dBm) | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | chain0 | chain1 | chain0 | chain1 | mW | dBm |  |  |  |  |
| $\begin{gathered} 802.11 n \\ \text { (HT20) } \end{gathered}$ | 1 | 2412 | 5.23 | -8.74 | -5.03 | -13.97 | -10.26 | 0.13 | -8.72 | 3.00 | -5.71 | 8 | -13.71 |
|  | 6 | 2437 | 5.23 | -16.78 | -11.77 | -22.01 | -17.00 | 0.03 | -15.81 | 3.00 | -12.80 | 8 | -20.80 |
|  | 11 | 2462 | 5.23 | -15.15 | -10.8 | -20.38 | -16.03 | 0.03 | -14.67 | 3.00 | -11.66 | 8 | -19.66 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | 3 | 2422 | 5.23 | -10.63 | -6.2 | -15.86 | -11.43 | 0.10 | -10.09 | 3.00 | -7.08 | 8 | -15.08 |
|  | 6 | 2437 | 5.23 | -11.27 | -5.95 | -16.50 | -11.18 | 0.10 | -10.06 | 3.00 | -7.05 | 8 | -15.05 |
|  | 9 | 2452 | 5.23 | -10.13 | -6.83 | -15.36 | -12.06 | 0.09 | -10.39 | 3.00 | -7.38 | 8 | -15.38 |

Note: MIMO Correction: 10log(Nant)=10log(2) = 3
Correction Factor $=10 \log (10 \mathrm{kHz} / 3 \mathrm{kHz})$

Chain0 : Power Spectral Density @ 802.11b Mode Ch 1


Chain0 : Power Spectral Density @ 802.11b Mode Ch 6


Chain0 : Power Spectral Density @ 802.11b Mode Ch11


Chain1 : Power Spectral Density @ 802.11b Mode Ch 1


Chain1 : Power Spectral Density @ 802.11b Mode Ch 6


Chain1 : Power Spectral Density @ 802.11b Mode Ch11


Chain0 : Power Spectral Density @ 802.11g Mode Ch 1


Chain0 : Power Spectral Density @ 802.11g Mode Ch 6


Chain0 : Power Spectral Density @ 802.11g Mode Ch11


Chain1 : Power Spectral Density @ 802.11g Mode Ch 1


Chain1 : Power Spectral Density @ 802.11g Mode Ch 6


Chain1 : Power Spectral Density @ 802.11g Mode Ch11


Chain0 : Power Spectral Density @ 802.11n(HT20) Mode Ch 1


Chain0 : Power Spectral Density @ 802.11n(HT20) Mode Ch 6


Chain0 : Power Spectral Density @ 802.11n(HT20) Mode Ch11


Chain1 : Power Spectral Density @ 802.11n(HT20) Mode Ch 1


Chain1 : Power Spectral Density @ 802.11n(HT20) Mode Ch 6


Chain1 : Power Spectral Density @ 802.11n(HT20) Mode Ch11


Chain0 : Power Spectral Density @ 802.11n(HT40) Mode Ch 3


Chain0 : Power Spectral Density @ 802.11n(HT40) Mode Ch 6


Chain0 : Power Spectral Density @ 802.11n(HT40) Mode Ch 9


Chain1 : Power Spectral Density @ 802.11n(HT40) Mode Ch 3


Chain1 : Power Spectral Density @ 802.11n(HT40) Mode Ch 6


Chain1 : Power Spectral Density @ 802.11n(HT40) Mode Ch 9


Total Quality. Assured.

## 5. Emissions in Non-Restricted Frequency Bands

### 5.1. Instruments Setting

| Spectrum Function | Setting <br> (Reference Level) | Setting <br> (Emission Level) |
| :---: | :---: | :---: |
| Detector | Peak | Peak |
| RBW | $\geqq 100 \mathrm{kHz}$ | $\geqq 100 \mathrm{kHz}$ |
| VBW | $\geqq 3 \times \mathrm{RBW}$ | $\geqq 3 \times \mathrm{RBW}$ |
| Sweep | Auto couple | Auto couple |
| Trace | Max hold | Max hold |
| Span | $\geqq 1.5$ time 6 dB bandwidth | Auto |
| Attenuation | Auto | A |

### 5.2. Test Procedure

Step 1 The procedure was used in antenna-port conducted and connected to the spectrum analyzer.
Step 2 Set instrument center frequency to center frequency.
Step 3 Use the parameter configured in clause 5.1 to measure.
Step 4 Use the peak marker function to determine the maximum amplitude level.

### 5.3. Test Diagram



### 5.4. Limit

The peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz

### 5.5. Operating Environment Condition

Temperature $\left({ }^{\circ} \mathrm{C}\right): \quad 25$

Relative Humidity (\%) : 50
Atmospheric Pressure (hPa) : 1008
Test Date :

Total Quality. Assured.

### 5.6. Test Results

Chain0 : Conducted Spurious @ 802.11b Mode Ch 1


Chain0 : Conducted Spurious @ 802.11b Mode Ch 1


Chain0 : Conducted Spurious @ 802.11b Mode Ch 6


Total Quality. Assured.

Chain0 : Conducted Spurious @ 802.11b Mode Ch 6


Chain0 : Conducted Spurious @ 802.11b Mode Ch11


Chain0 : Conducted Spurious @ 802.11b Mode Ch11


Chain1 : Conducted Spurious @ 802.11b Mode Ch 1


Chain1 : Conducted Spurious @ 802.11b Mode Ch 1


Chain1 : Conducted Spurious @ 802.11b Mode Ch 6


Total Quality. Assured.

Chain1 : Conducted Spurious @ 802.11b Mode Ch 6


Chain1 : Conducted Spurious @ 802.11b Mode Ch11


Chain1 : Conducted Spurious @ 802.11b Mode Ch11


Chain0 : Conducted Spurious @ 802.11g Mode Ch 1


Chain0 : Conducted Spurious @ 802.11g Mode Ch 1


Chain0 : Conducted Spurious @ 802.11g Mode Ch 6


Total Quality. Assured.

Chain0 : Conducted Spurious @ 802.11g Mode Ch 6


Chain0 : Conducted Spurious @ 802.11g Mode Ch11


Chain0 : Conducted Spurious @ 802.11g Mode Ch11

| Mather 12.455211280000 GHz |  |  |  |  |  |  |  |  |  | 7045x |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | $\square$ | nevand | WW0 | Amaneme | amamer | new | moumen | andill | Wetemer | - |
| $1$ |  |  |  |  |  |  |  |  |  |  |
| Start 30 MHz FRes BW 100 kHz |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | W 300 kHz |  |  |  |  | 25.00 CHz $(40001 \mathrm{pts})$ |
| - |  |  |  |  |  | mamax | masara |  | (exatimer |  |
|  |  |  | 24552 CHz | 2 11962 | dem |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 2 3 4 6 7 |  |  |  |  |  |  |  |  |  |  |
| ? |  |  |  |  |  |  |  |  |  |  |
| \% |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 |  |  |  |  |  |  | Hume |  |  |  |

Total Quality. Assured.

Chain1 : Conducted Spurious @ 802.11g Mode Ch 1


Chain1 : Conducted Spurious @ 802.11g Mode Ch 1


Chain1 : Conducted Spurious @ 802.11g Mode Ch 6


Chain1 : Conducted Spurious @ 802.11g Mode Ch 6


Chain1 : Conducted Spurious @ 802.11g Mode Ch11


Chain1 : Conducted Spurious @ 802.11g Mode Ch11


Total Quality. Assured.

Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch 1


Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch 1


Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch 6


Total Quality. Assured.

Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch 6


Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch11


Chain0 : Conducted Spurious @ 802.11n(HT20) Mode Ch11


Total Quality. Assured.

Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch 1


Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch 1


Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch 6


Total Quality. Assured.

Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch 6


Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch11


Chain1 : Conducted Spurious @ 802.11n(HT20) Mode Ch11


Total Quality. Assured.

Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch 3


Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch 3


Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch 6


Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch 6


Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch 9


Chain0 : Conducted Spurious @ 802.11n(HT40) Mode Ch 9


Total Quality. Assured.

Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch 3


Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch 3


Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch 6


Total Quality. Assured.

Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch 6


Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch 9


Chain1 : Conducted Spurious @ 802.11n(HT40) Mode Ch 9


## 6. Emissions in Restricted Frequency Bands (Radiated emission measurements)

### 6.1. Instrument Setting

| Receiver Function | Setting (Below 1GHz) | Setting (Above 1GHz) |
| :---: | :---: | :---: |
| Detector | QP | Peak and Average |
| RBW | $9-150 \mathrm{kHz} ; 200-300 \mathrm{~Hz}$ | 1 MHz |
|  | $0.15-30 \mathrm{MHz} ; 9-10 \mathrm{kHz}$ |  |
| $30-1000 \mathrm{MHz} ; 100-120 \mathrm{kHz}$ |  |  |
| VBW | $\geqq 3 \times$ RBW | 3 MHz |
| Sweep | Auto couple | Auto couple |
| Start Frequency | 9 kHz | 1 GHz |
| Stop Frequency | 1 GHz | Tenth harmonic |
| Attenuation | Auto | Auto |

### 6.2. Test Procedure

Step 1 Configure the EUT according to ANSI C63.10:2013. The EUT was placed on the top of the turntable 0.8 meter (below 1 GHz ) and 1.5 meter (above 1 GHz ) above ground. The center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
Step 2 Power on the EUT and all the companion devices. The turntable was rotated by 360 degree to find the position of the maximum emission level.
Step 3 The height of the receiving antenna was varied between one meter and four meters above ground to find the maximum emission field strength of the both horizontal and vertical polarization.
Step 4 If find the frequencies above the limit or below within 3 dB , the antenna tower was scan (from 1 m to 4 m ) and then the turntable was rotated to find the maximum reading.
Step 5 Set the test-receiver system to peak or CISPR quasi-peak detector with specified bandwidth under maximum hold mode.
Step 6 For emissions above 1 GHz , use 1 MHz VBW and 3 MHz RBW for reading in spectrum analyzer.
Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.
Step 7 If the emissions level of the EUT in peak mode was 3dB lower than the average limit specified then testing will be stopped and peak values of the EUT will be reported. Otherwise, the emissions which do not have 3 dB margin will be measured using the quasi-peak method for below 1 GHz .
Step 8 For testing above 1 GHz , The emissions level of the EUT in peak mode was lower than average limit, then testing will be stopped and peak values of the EUT will be reported, otherwise, the emission will be measured in average mode again and reported.
Step 9 In case the emission is lower than 30 MHz , loop antenna has to be used for measurement and the recorded data should be quasi-peak measured by receiver.

## intertek

Total Quality. Assured.

### 6.3. Test Diagram

6.3.1. Radiated emission from 9 kHz to 30 MHz uses Loop Antenna:

6.3.2. Radiated emission below 1 GHz using Bilog Antenna


Total Quality. Assured.

### 6.3.3. Radiated emission above 1 GHz using Horn Antenna


6.4. Limit

| Frequency(MHz) | Field Strength(uV/m) | Measurement distance $(\mathbf{m})$ |
| :---: | :---: | :---: |
| $0.009^{\sim} 0.490$ | $2400 / \mathrm{F}(\mathrm{kHz})$ | 300 |
| $0.490^{\sim} 1.705$ | $24000 / \mathrm{F}(\mathrm{kHz})$ | 30 |
| $1.705^{\sim 30}$ | 30 | 30 |
| $30-88$ | 100 | 3 |
| $88-216$ | 150 | 3 |
| $216-960$ | 200 | 3 |
| Above 960 | 500 | 3 |

Remark:

1. In the above table, the tighter limit applies at the band edges.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

### 6.5. Operating Environment Condition

| Temperature $\left({ }^{\circ} \mathrm{C}\right):$ | 25 |
| :--- | :--- |
| Relative Humidity $(\%):$ | 50 |
| Atmospheric Pressure (hPa) : | 1008 |
| Test Date : | $2018 / 3 / 1 \sim 2018 / 3 / 5$ |

Total Quality. Assured.

### 6.6. Test Result

### 6.6.1. Measurement results: frequencies 9 kHz to 30 MHz

The test was performed on EUT under $802.11 \mathrm{~b} / \mathrm{g} / \mathrm{n}$ continuously transmitting mode. The worst case occurred at 802.11 b ch1

EUT: RW8300NE-C

| Mode | Chain | Channel | Detector | Frequency <br> $(\mathbf{M H z})$ | Factor <br> $(\mathbf{d B} / \mathbf{m})$ | Reading <br> $(\mathrm{dBuV})$ | Corrected <br> Reading <br> $(\mathrm{dBuV} / \mathbf{m})$ | Limit <br> $(\mathrm{dB} \mu \mathrm{V} /$ <br> $\mathbf{m})$ | Margin <br> $(\mathrm{dB})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11 b | Chain1 | 11 | PK | 0.01 | 20.28 | 23.77 | 44.04 | 127.6 | -83.56 |
| 802.11 b | Chain1 | 11 | PK | 0.02 | 20.35 | 23.23 | 43.58 | 121.58 | -78 |
| 802.11 b | Chain1 | 11 | PK | 0.05 | 19.82 | 22.74 | 42.56 | 113.62 | -71.06 |
| 802.11 b | Chain1 | 11 | PK | 0.06 | 19.57 | 25.48 | 45.05 | 112.04 | -66.99 |
| 802.11 b | Chain1 | 11 | QP | 0.10 | 19.18 | 25.51 | 44.68 | 107.6 | -62.92 |
| 802.11 b | Chain1 | 11 | PK | 0.11 | 19.13 | 24.34 | 43.47 | 106.78 | -63.31 |

Remark: Corr. Factor $=$ Antenna Factor + Cable Loss


EUT: RW8300NE-C

| Mode | Chain | Channel | Detector | Frequency <br> $(\mathbf{M H z})$ | Factor <br> $(\mathbf{d B} / \mathbf{m})$ | Reading <br> $(\mathbf{d B u V})$ | Corrected <br> Reading <br> $(\mathbf{d B u V} / \mathbf{m})$ | Limit <br> $(\mathbf{d B} \mu \mathbf{V} /$ <br> $\mathbf{m})$ | Margin <br> $(\mathrm{dB})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11 b | Chain1 | 11 | PK | 0.15 | 19.09 | 28.67 | 47.76 | 104.08 | -56.32 |
| 802.11 b | Chain1 | 11 | PK | 0.27 | 18.99 | 29.25 | 48.24 | 98.98 | -50.74 |
| 802.11 b | Chain1 | 11 | PK | 0.45 | 18.95 | 24.38 | 43.32 | 94.54 | -51.22 |
| 802.11 b | Chain1 | 11 | QP | 0.69 | 18.99 | 26.12 | 45.1 | 70.83 | -25.73 |
| 802.11 b | Chain1 | 11 | QP | 1.05 | 19.1 | 18.84 | 37.94 | 67.18 | -29.24 |
| 802.11 b | Chain1 | 11 | QP | 1.34 | 19.03 | 18.03 | 37.05 | 65.06 | -28.01 |

Remark: Corr. Factor $=$ Antenna Factor + Cable Loss


## EUT: RW8300M-a

| Mode | Chain | Channel | Detector | Frequency <br> $(\mathbf{M H z})$ | Factor <br> $(\mathbf{d B} / \mathbf{m})$ | Reading <br> $(\mathbf{d B u V})$ | Corrected <br> Reading <br> $(\mathbf{d B u V} / \mathbf{m})$ | Limit <br> $(\mathbf{d B} \boldsymbol{\mu V} / \mathbf{m})$ | Margin <br> $(\mathbf{d B})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11b | Chain0 | 1 | QP | 0.03 | 20.4 | 20.53 | 40.92 | 118.06 | -77.14 |
| $802.11 b$ | Chain0 | 1 | QP | 0.05 | 19.86 | 22.19 | 42.05 | 113.62 | -71.57 |
| $802.11 b$ | Chain0 | 1 | QP | 0.07 | 19.55 | 23.39 | 42.94 | 110.7 | -67.76 |
| $802.11 b$ | Chain0 | 1 | QP | 0.09 | 19.2 | 24.38 | 43.58 | 108.52 | -64.94 |
| $802.11 b$ | Chain0 | 1 | QP | 0.12 | 19.11 | 21.97 | 41.09 | 106.02 | -64.93 |
| $802.11 b$ | Chain0 | 1 | QP | 0.13 | 19.1 | 19.67 | 38.77 | 105.33 | -66.56 |

Remark: Corr. Factor = Antenna Factor + Cable Loss


Total Quality. Assured.

## EUT: RW8300M-a

| Mode | Chain | Channel | Detector | Frequency <br> $(\mathbf{M H z})$ | Factor <br> $(\mathbf{d B} / \mathbf{m})$ | Reading <br> $(\mathbf{d B u V})$ | Corrected <br> Reading <br> $(\mathbf{d B u V} / \mathbf{m})$ | Limit <br> $(\mathbf{d B} \boldsymbol{\mu V} / \mathbf{m})$ | Margin <br> $(\mathbf{d B})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11 b | Chain0 | 1 | QP | 0.15 | 19.09 | 29.09 | 48.18 | 104.08 | -55.9 |
| 802.11 b | Chain0 | 1 | QP | 0.39 | 18.95 | 23.33 | 42.28 | 95.78 | -53.5 |
| 802.11 b | Chain0 | 1 | QP | 0.69 | 18.99 | 25.53 | 44.52 | 70.83 | -26.31 |
| $802.11 b$ | Chain0 | 1 | QP | 1.16 | 19.07 | 16.97 | 36.04 | 66.32 | -30.28 |
| $802.11 b$ | Chain0 | 1 | QP | 2.00 | 18.87 | 15.55 | 34.42 | 70 | -35.58 |
| $802.11 b$ | Chain0 | 1 | QP | 4.45 | 19.83 | 9.75 | 29.58 | 70 | -40.42 |

Remark: Corr. Factor $=$ Antenna Factor + Cable Loss


Total Quality. Assured.

### 6.6.2. Measurement results: frequencies below 1 GHz

The test was performed on EUT under $802.11 \mathrm{~b} / \mathrm{g} / \mathrm{n}$ continuously transmitting mode. The worst case occurred at 802.11 b ch1

EUT: RW8300NE-c

| Mode | Chain | Channel | Ant Polarity | Detector | Frequency (MHz) | Factor (dB/m) | Reading (dBuV) | Corrected Reading (dBuV/m) | Limit <br> ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11b | Chain1 | 11 | H | QP | 97.9 | 15.12 | 20.18 | 35.3 | 43.5 | -8.2 |
| 802.11b | Chain1 | 11 | H | QP | 150.12 | 20.55 | 14.55 | 35.1 | 43.5 | -8.4 |
| 802.11b | Chain1 | 11 | H | QP | 206.78 | 18.27 | 17.63 | 35.9 | 43.5 | -7.6 |
| 802.11b | Chain1 | 11 | H | QP | 224 | 18.85 | 21.75 | 40.6 | 46 | -5.4 |
| 802.11b | Chain1 | 11 | H | QP | 297.72 | 21.7 | 15.5 | 37.2 | 46 | -8.8 |
| 802.11b | Chain1 | 11 | H | QP | 412.18 | 24.71 | 10.59 | 35.3 | 46 | -10.7 |

Remark: Corr. Factor $=$ Antenna Factor + Cable Loss


Total Quality. Assured.

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EUT: RW8300NE-C

| Mode | Chain | Channel | Ant <br> Polarity | Detector | Frequency <br> $(\mathbf{M H z})$ | Factor <br> $(\mathbf{d B} / \mathbf{m})$ | Reading <br> $(\mathbf{d B u V})$ | Corrected <br> Reading <br> $(\mathbf{d B u V} / \mathrm{m})$ | Limit <br> $(\mathbf{d B} \mu \mathrm{V} / \mathrm{m})$ | Margin <br> $(\mathbf{d B})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11 b | Chain1 | 11 | V | QP | 97.9 | 15.12 | 24.18 | 39.3 | 43.5 | -4.2 |
| 802.11 b | Chain1 | 11 | V | QP | 150.28 | 20.55 | 12.85 | 33.4 | 43.5 | -10.1 |
| 802.11b | Chain1 | 11 | V | QP | 204.6 | 18.17 | 11.83 | 30 | 43.5 | -13.5 |
| 802.11 b | Chain1 | 11 | V | QP | 224 | 18.85 | 14.35 | 33.2 | 46 | -12.8 |
| 802.11 b | Chain1 | 11 | V | QP | 522.76 | 27.45 | 10.05 | 37.5 | 46 | -8.5 |
| 802.11 b | Chain1 | 11 | V | QP | 825.4 | 32.43 | 4.17 | 36.6 | 46 | -9.4 |

Remark: Corr. Factor $=$ Antenna Factor + Cable Loss


## EUT: RW8300M-a

| Mode | Chain | Channel | Ant <br> Polarity | Detector | Frequency <br> $(\mathbf{M H z})$ | Factor <br> $(\mathbf{d B} / \mathbf{m})$ | Reading <br> $(\mathbf{d B u V})$ | Corrected <br> Reading <br> $(\mathbf{d B u V} / \mathbf{m})$ | Limit <br> $(\mathbf{d B} \boldsymbol{\mu V} / \mathrm{m})$ | Margin <br> $(\mathbf{d B})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11 b | Chain0 | 1 | H | QP | 97.9 | 15.12 | 20.98 | 36.1 | 43.5 | -7.4 |
| 802.11 b | Chain0 | 1 | H | QP | 145.82 | 20.45 | 13.85 | 34.3 | 43.5 | -9.2 |
| 802.11 b | Chain0 | 1 | H | QP | 208.48 | 18.36 | 21.64 | 40 | 43.5 | -3.5 |
| 802.11 b | Chain0 | 1 | H | QP | 224 | 18.85 | 19.95 | 38.8 | 46 | -7.2 |
| 802.11 b | Chain0 | 1 | H | QP | 297.72 | 21.7 | 15.2 | 36.9 | 46 | -9.1 |
| 802.11 b | Chain0 | 1 | H | QP | 522.76 | 27.45 | 11.25 | 38.7 | 46 | -7.3 |

Remark: Corr. Factor = Antenna Factor + Cable Loss


Total Quality. Assured.

## EUT: RW8300M-a

| Mode | Chain | Channel | Ant <br> Polarity | Detector | Frequency <br> $(\mathbf{M H z})$ | Factor <br> $(\mathbf{d B} / \mathbf{m})$ | Reading <br> $(\mathbf{d B u V})$ | Corrected <br> Reading <br> $(\mathbf{d B u V} / \mathbf{m})$ | Limit <br> $(\mathbf{d B} \mu \mathrm{V} / \mathrm{m})$ | Margin <br> $(\mathrm{dB})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11 b | Chain0 | 1 | V | QP | 148.34 | 20.51 | 11.59 | 32.1 | 43.5 | -11.4 |
| 802.11 b | Chain0 | 1 | V | QP | 224 | 18.85 | 19.45 | 38.3 | 46 | -7.7 |
| 802.11 b | Chain0 | 1 | V | QP | 299.39 | 21.74 | 13.76 | 35.5 | 46 | -10.5 |
| 802.11 b | Chain0 | 1 | V | QP | 375.32 | 23.69 | 9.91 | 33.6 | 46 | -12.4 |
| 802.11 b | Chain0 | 1 | V | QP | 522.76 | 27.45 | 12.05 | 39.5 | 46 | -6.5 |
| 802.11 b | Chain0 | 1 | V | QP | 625.58 | 29.48 | 8.12 | 37.6 | 46 | -8.4 |

Remark: Corr. Factor = Antenna Factor + Cable Loss


## intertek

Total Quality. Assured.

### 6.6.3. Measurement results: frequency above 1 GHz to 25 GHz

EUT: RW8300NE-c

| Mode | Chain | Channel | Ant Polarity | Detector | $\begin{aligned} & \text { Frequency } \\ & \text { (MHz) } \end{aligned}$ | $\begin{aligned} & \text { Preamp } \\ & \text { (dB) } \end{aligned}$ | Factor (dB/m) | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | $\begin{gathered} \text { Corrected } \\ \text { Reading } \\ (\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Limit } \\ & (\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}) \end{aligned}$ | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11b | Chain0 | 1 | H | PK | 4824 | 37.14 | 5.76 | 45.8 | 51.56 | 74 | -22.44 |
| 802.11b | Chain0 | 1 | H | PK | 7236 | 36.5 | 12.36 | 43.08 | 55.44 | 74 | -18.56 |
| 802.11b | Chain0 | 1 | H | AV | 7236 | 36.5 | 12.36 | 40.71 | 53.07 | 54 | -0.93 |
| 802.11b | Chain0 | 1 | H | PK | 9648 | 35.93 | 16.74 | 29.48 | 46.21 | 74 | -27.79 |
| 802.11b | Chain0 | 1 | V | PK | 1080 | 37.26 | 29.23 | 14.34 | 43.56 | 74 | -30.44 |
| 802.11b | Chain0 | 1 | V | PK | 1216 | 37.3 | 29.47 | 15.2 | 44.68 | 74 | -29.32 |
| 802.11b | Chain0 | 1 | V | PK | 1236 | 37.3 | 29.51 | 20.05 | 49.56 | 74 | -24.44 |
| 802.11b | Chain0 | 1 | V | PK | 1648 | 37.37 | 31.75 | 16.07 | 47.83 | 74 | -26.17 |
| 802.11 b | Chain0 | 1 | V | PK | 4824 | 37.14 | 5.76 | 48.04 | 53.79 | 74 | -20.21 |
| 802.11 b | Chain0 | 1 | V | AV | 4824 | 37.14 | 5.76 | 46.69 | 52.45 | 54 | -1.55 |
| 802.11b | Chain0 | 1 | V | PK | 7236 | 36.5 | 12.36 | 42.9 | 55.26 | 74 | -18.74 |
| 802.11b | Chain0 | 1 | V | AV | 7236 | 36.5 | 12.36 | 41.1 | 53.46 | 54 | -0.54 |
| 802.11b | Chain0 | 6 | H | PK | 1236 | 37.3 | 29.51 | 12.68 | 42.19 | 74 | -31.81 |
| 802.11b | Chain0 | 6 | H | PK | 4874 | 37.12 | 5.97 | 46.49 | 52.46 | 74 | -21.54 |
| 802.11b | Chain0 | 6 | H | PK | 7311 | 36.47 | 12.65 | 41.68 | 54.33 | 74 | -19.67 |
| 802.11b | Chain0 | 6 | H | AV | 7311 | 36.47 | 12.65 | 40.04 | 52.69 | 54 | -1.31 |
| 802.11b | Chain0 | 6 | V | PK | 1232 | 37.3 | 29.5 | 20.89 | 50.4 | 74 | -23.6 |
| 802.11b | Chain0 | 6 | V | PK | 1652 | 37.37 | 31.8 | 15.98 | 47.78 | 74 | -26.22 |
| 802.11b | Chain0 | 6 | V | PK | 4874 | 37.12 | 5.97 | 49.55 | 55.52 | 74 | -18.48 |
| 802.11b | Chain0 | 6 | V | AV | 4874 | 37.12 | 5.97 | 47.46 | 53.43 | 54 | -0.57 |
| 802.11b | Chain0 | 6 | V | PK | 7311 | 36.47 | 12.65 | 41.49 | 54.14 | 74 | -19.86 |
| 802.11b | Chain0 | 6 | V | AV | 7311 | 36.47 | 12.65 | 40.31 | 52.96 | 54 | -1.04 |
| 802.11b | Chain0 | 11 | H | PK | 4924 | 37.1 | 6.18 | 46.35 | 52.52 | 74 | -21.48 |
| 802.11b | Chain0 | 11 | H | PK | 7386 | 36.44 | 12.94 | 39.02 | 51.95 | 74 | -22.05 |
| 802.11b | Chain0 | 11 | H | PK | 9848 | 35.94 | 17.25 | 30.59 | 47.84 | 74 | -26.16 |
| 802.11b | Chain0 | 11 | V | PK | 1212 | 37.3 | 29.47 | 13.54 | 43.01 | 74 | -30.99 |
| 802.11b | Chain0 | 11 | V | PK | 1236 | 37.3 | 29.51 | 20.02 | 49.53 | 74 | -24.47 |
| 802.11b | Chain0 | 11 | V | PK | 1644 | 37.37 | 31.7 | 13.73 | 45.44 | 74 | -28.56 |
| 802.11b | Chain0 | 11 | V | PK | 1652 | 37.37 | 31.8 | 13.61 | 45.41 | 74 | -28.59 |
| 802.11b | Chain0 | 11 | V | PK | 4924 | 37.1 | 6.18 | 48.72 | 54.89 | 74 | -19.11 |
| 802.11b | Chain0 | 11 | V | AV | 4924 | 37.1 | 6.18 | 47.27 | 53.45 | 54 | -0.55 |
| 802.11b | Chain0 | 11 | V | PK | 7386 | 36.44 | 12.94 | 37.29 | 50.23 | 74 | -23.77 |
| 802.11b | Chain1 | 1 | H | PK | 4824 | 37.14 | 5.76 | 35.85 | 41.6 | 74 | -32.4 |
| 802.11b | Chain1 | 1 | H | PK | 7236 | 36.5 | 12.36 | 37.51 | 49.87 | 74 | -24.13 |
| 802.11b | Chain1 | 1 | H | PK | 9648 | 35.93 | 16.74 | 28.58 | 45.32 | 74 | -28.68 |
| 802.11b | Chain1 | 1 | V | PK | 1232 | 37.3 | 29.5 | 22.08 | 51.58 | 74 | -22.42 |
| 802.11b | Chain1 | 1 | V | PK | 1644 | 37.37 | 31.7 | 16.05 | 47.75 | 74 | -26.25 |
| 802.11b | Chain1 | 1 | V | PK | 4824 | 37.14 | 5.76 | 39.44 | 45.19 | 74 | -28.81 |

Total Quality. Assured.

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| Mode | Chain | Channel | Ant Polarity | Detector | Frequency (MHz) | Preamp (dB) | $\begin{aligned} & \text { Factor } \\ & (\mathrm{dB} / \mathrm{m}) \end{aligned}$ | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | Corrected Reading ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | Limit ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11b | Chain1 | 1 | V | PK | 4980 | 37.09 | 6.41 | 34.44 | 40.85 | 74 | -33.15 |
| 802.11b | Chain1 | 1 | V | PK | 7236 | 36.5 | 12.36 | 41.59 | 53.95 | 74 | -20.05 |
| 802.11b | Chain1 | 1 | V | AV | 7236 | 36.5 | 12.36 | 39.81 | 52.17 | 54 | -1.83 |
| 802.11b | Chain1 | 6 | H | PK | 1236 | 37.3 | 29.51 | 13.31 | 42.82 | 74 | -31.18 |
| 802.11b | Chain1 | 6 | H | PK | 4874 | 37.12 | 5.97 | 35.04 | 41.01 | 74 | -32.99 |
| 802.11b | Chain1 | 6 | H | PK | 7311 | 36.47 | 12.65 | 37.88 | 50.53 | 74 | -23.47 |
| 802.11b | Chain1 | 6 | H | PK | 9748 | 35.93 | 16.99 | 28.71 | 45.7 | 74 | -28.3 |
| 802.11b | Chain1 | 6 | V | PK | 1232 | 37.3 | 29.5 | 19.91 | 49.41 | 74 | -24.59 |
| 802.11b | Chain1 | 6 | V | PK | 1652 | 37.37 | 31.8 | 18.67 | 50.47 | 74 | -23.53 |
| 802.11b | Chain1 | 6 | V | PK | 4874 | 37.12 | 5.97 | 39.01 | 44.97 | 74 | -29.03 |
| 802.11b | Chain1 | 6 | V | PK | 7311 | 36.47 | 12.65 | 43.59 | 56.24 | 74 | -17.76 |
| 802.11b | Chain1 | 6 | V | AV | 7311 | 36.47 | 12.65 | 40.89 | 53.54 | 54 | -0.46 |
| 802.11b | Chain1 | 6 | V | PK | 9748 | 35.93 | 16.99 | 29.18 | 46.17 | 74 | -27.83 |
| 802.11b | Chain1 | 11 | H | PK | 1232 | 37.3 | 29.5 | 13.17 | 42.67 | 74 | -31.33 |
| 802.11b | Chain1 | 11 | H | PK | 4924 | 37.1 | 6.18 | 34.19 | 40.36 | 74 | -33.64 |
| 802.11b | Chain1 | 11 | H | PK | 7386 | 36.44 | 12.94 | 38.66 | 51.6 | 74 | -22.4 |
| 802.11b | Chain1 | 11 | H | PK | 9848 | 35.94 | 17.25 | 29.63 | 46.88 | 74 | -27.12 |
| 802.11b | Chain1 | 11 | V | PK | 1236 | 37.3 | 29.51 | 22.16 | 51.67 | 74 | -22.33 |
| 802.11b | Chain1 | 11 | V | PK | 1644 | 37.37 | 31.7 | 17.06 | 48.77 | 74 | -25.23 |
| 802.11b | Chain1 | 11 | V | PK | 4924 | 37.1 | 6.18 | 39.11 | 45.29 | 74 | -28.71 |
| 802.11b | Chain1 | 11 | V | PK | 7386 | 36.44 | 12.94 | 42.12 | 55.05 | 74 | -18.95 |
| 802.11b | Chain1 | 11 | V | AV | 7386 | 36.44 | 12.94 | 39.94 | 52.88 | 54 | -1.12 |
| 802.11b | Chain1 | 11 | V | PK | 9848 | 35.94 | 17.25 | 28.28 | 45.53 | 74 | -28.47 |
| 802.11 g | Chain0 | 1 | H | PK | 1232 | 37.3 | 29.5 | 12.93 | 42.43 | 74 | -31.57 |
| 802.11g | Chain0 | 1 | H | PK | 4824 | 37.14 | 5.76 | 38.22 | 43.98 | 74 | -30.02 |
| 802.11g | Chain0 | 1 | H | PK | 7236 | 36.5 | 12.36 | 41.65 | 54.01 | 74 | -19.99 |
| 802.11g | Chain0 | 1 | H | AV | 7236 | 36.5 | 12.36 | 39.79 | 52.15 | 54 | -1.85 |
| 802.11g | Chain0 | 1 | V | PK | 1100 | 37.27 | 29.26 | 13.71 | 42.98 | 74 | -31.02 |
| 802.11 g | Chain0 | 1 | V | PK | 1236 | 37.3 | 29.51 | 22.19 | 51.7 | 74 | -22.3 |
| 802.11g | Chain0 | 1 | V | PK | 1644 | 37.37 | 31.7 | 17.86 | 49.56 | 74 | -24.44 |
| 802.11g | Chain0 | 1 | V | PK | 4824 | 37.14 | 5.76 | 41.71 | 47.47 | 74 | -26.53 |
| 802.11 g | Chain0 | 1 | V | PK | 7236 | 36.5 | 12.36 | 43.79 | 56.15 | 74 | -17.85 |
| 802.11g | Chain0 | 1 | V | AV | 7236 | 36.5 | 12.36 | 41.21 | 53.57 | 54 | -0.43 |
| 802.11g | Chain0 | 6 | V | PK | 1236 | 37.3 | 29.51 | 20.53 | 50.04 | 74 | -23.96 |
| 802.11g | Chain0 | 6 | V | PK | 1648 | 37.37 | 31.75 | 15.57 | 47.32 | 74 | -26.68 |
| 802.11g | Chain0 | 6 | V | PK | 4874 | 37.12 | 5.97 | 41.59 | 47.56 | 74 | -26.44 |
| 802.11g | Chain0 | 6 | V | PK | 7311 | 36.47 | 12.65 | 34.39 | 47.04 | 74 | -26.96 |
| 802.11g | Chain0 | 6 | V | PK | 9748 | 35.93 | 16.99 | 28.91 | 45.9 | 74 | -28.1 |
| 802.11g | Chain0 | 11 | H | PK | 4800 | 37.14 | 5.66 | 36.12 | 41.78 | 74 | -32.22 |
| 802.11g | Chain0 | 11 | H | PK | 4924 | 37.1 | 6.18 | 33.8 | 39.97 | 74 | -34.03 |
| 802.11 g | Chain0 | 11 | H | PK | 7386 | 36.44 | 12.94 | 29.06 | 42 | 74 | -32 |
| 802.11 g | Chain0 | 11 | H | PK | 9848 | 35.94 | 17.25 | 29.48 | 46.73 | 74 | -27.27 |
| 802.11 g | Chain0 | 11 | V | PK | 1072 | 37.26 | 29.21 | 13.7 | 42.91 | 74 | -31.09 |


| Mode | Chain | Channel | Ant Polarity | Detector | Frequency (MHz) | Preamp (dB) | Factor (dB/m) | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | Corrected Reading ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | Limit ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11g | Chain0 | 11 | V | PK | 1236 | 37.3 | 29.51 | 15.33 | 44.84 | 74 | -29.16 |
| 802.11g | Chain0 | 11 | V | PK | 4924 | 37.1 | 6.18 | 39.1 | 45.28 | 74 | -28.72 |
| 802.11g | Chain0 | 11 | V | PK | 7386 | 36.44 | 12.94 | 29.62 | 42.56 | 74 | -31.44 |
| 802.11 g | Chain0 | 11 | V | PK | 9848 | 35.94 | 17.25 | 29.27 | 46.52 | 74 | -27.48 |
| 802.11g | Chain1 | 1 | H | PK | 4824 | 37.14 | 5.76 | 33.27 | 39.03 | 74 | -34.97 |
| 802.11g | Chain1 | 1 | H | PK | 7236 | 36.5 | 12.36 | 35.29 | 47.65 | 74 | -26.35 |
| 802.11g | Chain1 | 1 | V | PK | 1080 | 37.26 | 29.23 | 11.87 | 41.1 | 74 | -32.9 |
| 802.11 g | Chain1 | 1 | V | PK | 1140 | 37.28 | 29.34 | 12.37 | 41.71 | 74 | -32.29 |
| 802.11g | Chain1 | 1 | V | PK | 1236 | 37.3 | 29.51 | 15.6 | 45.11 | 74 | -28.89 |
| 802.11 g | Chain1 | 1 | V | PK | 1648 | 37.37 | 31.75 | 15.08 | 46.83 | 74 | -27.17 |
| 802.11 g | Chain1 | 1 | V | PK | 4824 | 37.14 | 5.76 | 34 | 39.76 | 74 | -34.24 |
| 802.11g | Chain1 | 1 | V | PK | 7236 | 36.5 | 12.36 | 41.16 | 53.52 | 74 | -20.48 |
| 802.11g | Chain1 | 6 | H | PK | 1236 | 37.3 | 29.51 | 14.44 | 43.95 | 74 | -30.05 |
| 802.11 g | Chain1 | 6 | H | PK | 4874 | 37.12 | 5.97 | 33.71 | 39.68 | 74 | -34.32 |
| 802.11g | Chain1 | 6 | H | PK | 7311 | 36.47 | 12.65 | 29.32 | 41.96 | 74 | -32.04 |
| 802.11g | Chain1 | 6 | H | PK | 9748 | 35.93 | 16.99 | 29.02 | 46.02 | 74 | -27.98 |
| 802.11g | Chain1 | 6 | V | PK | 1236 | 37.3 | 29.51 | 21.83 | 51.34 | 74 | -22.66 |
| 802.11 g | Chain1 | 6 | V | PK | 1644 | 37.37 | 31.7 | 16.28 | 47.99 | 74 | -26.01 |
| 802.11g | Chain1 | 6 | V | PK | 4874 | 37.12 | 5.97 | 33.69 | 39.66 | 74 | -34.34 |
| 802.11g | Chain1 | 6 | V | PK | 7311 | 36.47 | 12.65 | 33.39 | 46.04 | 74 | -27.96 |
| 802.11g | Chain1 | 6 | V | PK | 9748 | 35.93 | 16.99 | 28.79 | 45.78 | 74 | -28.22 |
| 802.11g | Chain1 | 11 | H | PK | 4924 | 37.1 | 6.18 | 32.38 | 38.55 | 74 | -35.45 |
| 802.11g | Chain1 | 11 | H | PK | 7386 | 36.44 | 12.94 | 31.17 | 44.1 | 74 | -29.9 |
| 802.11 g | Chain1 | 11 | H | PK | 9848 | 35.94 | 17.25 | 30.09 | 47.34 | 74 | -26.66 |
| 802.11g | Chain1 | 11 | V | PK | 1232 | 37.3 | 29.5 | 21.86 | 51.36 | 74 | -22.64 |
| 802.11g | Chain1 | 11 | V | PK | 1648 | 37.37 | 31.75 | 14.75 | 46.5 | 74 | -27.5 |
| 802.11 g | Chain1 | 11 | V | PK | 4924 | 37.1 | 6.18 | 35.67 | 41.84 | 74 | -32.16 |
| 802.11g | Chain1 | 11 | V | PK | 7386 | 36.44 | 12.94 | 39.23 | 52.16 | 74 | -21.84 |
| 802.11 g | Chain1 | 11 | V | PK | 9848 | 35.94 | 17.25 | 30.47 | 47.72 | 74 | -26.28 |
| $\begin{gathered} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{gathered}$ | Chain0 | 1 | H | PK | 4824 | 37.14 | 5.76 | 36.7 | 42.46 | 74 | -31.54 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{array}$ | Chain0 | 1 | H | PK | 7236 | 36.5 | 12.36 | 38.3 | 50.66 | 74 | -23.34 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{gathered}$ | Chain0 | 1 | V | PK | 4824 | 37.14 | 5.76 | 41.38 | 47.14 | 74 | -26.86 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0 | 1 | V | PK | 7236 | 36.5 | 12.36 | 41.8 | 54.16 | 74 | -19.84 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{gathered}$ | Chain0 | 1 | V | AV | 7236 | 36.5 | 12.36 | 39.86 | 52.22 | 54 | -1.78 |
| $\begin{array}{\|c} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \end{array}$ | Chain0 | 6 | H | PK | 4874 | 37.12 | 5.97 | 33.74 | 39.71 | 74 | -34.29 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0 | 6 | H | PK | 7311 | 36.47 | 12.65 | 31.88 | 44.53 | 74 | -29.47 |


| Mode | Chain | Channel | Ant Polarity | Detector | Frequency (MHz) | Preamp (dB) | Factor ( $\mathrm{dB} / \mathrm{m}$ ) | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | Corrected Reading ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | $\begin{gathered} \text { Limit } \\ (\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}) \end{gathered}$ | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0 | 6 | H | PK | 9748 | 35.93 | 16.99 | 28.73 | 45.72 | 74 | -28.28 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \end{array}$ | Chain0 | 6 | V | PK | 4874 | 37.12 | 5.97 | 39.43 | 45.4 | 74 | -28.6 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0 | 6 | V | PK | 7311 | 36.47 | 12.65 | 35.99 | 48.64 | 74 | -25.36 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 20) \end{gathered}$ | Chain0 | 6 | V | PK | 9748 | 35.93 | 16.99 | 28.42 | 45.41 | 74 | -28.59 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 20) \end{gathered}$ | Chain0 | 11 | H | PK | 4924 | 37.1 | 6.18 | 34.03 | 40.2 | 74 | -33.8 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \end{array}$ | Chain0 | 11 | H | PK | 7386 | 36.44 | 12.94 | 29.43 | 42.36 | 74 | -31.64 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 20) \end{gathered}$ | Chain0 | 11 | H | PK | 9848 | 35.94 | 17.25 | 29.52 | 46.77 | 74 | -27.23 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0 | 11 | V | PK | 4924 | 37.1 | 6.18 | 39.33 | 45.51 | 74 | -28.49 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{gathered}$ | Chain0 | 11 | V | PK | 7386 | 36.44 | 12.94 | 37.96 | 50.9 | 74 | -23.1 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0 | 11 | V | PK | 9848 | 35.94 | 17.25 | 28.28 | 45.53 | 74 | -28.47 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 20) \end{gathered}$ | Chain0+1 | 1 | H | PK | 1232 | 37.3 | 29.5 | 12.87 | 42.37 | 74 | -31.63 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \end{array}$ | Chain0+1 | 1 | V | PK | 1232 | 37.3 | 29.5 | 21.64 | 51.14 | 74 | -22.86 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 20) \end{gathered}$ | Chain0+1 | 1 | V | PK | 1644 | 37.37 | 31.7 | 16.3 | 48 | 74 | -26 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 1 | V | PK | 2500 | 37.37 | 35.2 | 18.7 | 53.9 | 74 | -20.1 |
| $\begin{array}{\|c} 802.11 \mathrm{n} \\ \text { (HT20) } \end{array}$ | Chain0+1 | 1 | V | AV | 2500 | 37.37 | 35.2 | 8.62 | 43.82 | 54 | -10.18 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 6 | H | PK | 1236 | 37.3 | 29.51 | 13.19 | 42.7 | 74 | -31.3 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 20) \end{gathered}$ | Chain0+1 | 6 | V | PK | 1236 | 37.3 | 29.51 | 20.28 | 49.79 | 74 | -24.21 |
| $\begin{array}{\|c} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \end{array}$ | Chain0+1 | 6 | V | PK | 1644 | 37.37 | 31.7 | 18.26 | 49.96 | 74 | -24.04 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 1652 | 37.37 | 31.8 | 18.65 | 50.45 | 74 | -23.55 |
| $\begin{array}{\|c} 802.11 n \\ \text { (HT20) } \end{array}$ | Chain0+1 | 11 | H | PK | 2462 | 37.37 | 35.26 | 59.53 | 94.79 | 74 | 20.79 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 11 | V | PK | 1080 | 37.26 | 29.23 | 14.26 | 43.49 | 74 | -30.51 |


| Mode | Chain | Channel | Ant Polarity | Detector | Frequency (MHz) | Preamp (dB) | Factor (dB/m) | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | Corrected Reading ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | $\begin{aligned} & \text { Limit } \\ & (\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}) \end{aligned}$ | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 11 | V | PK | 1232 | 37.3 | 29.5 | 18.82 | 48.33 | 74 | -25.67 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 11 | V | PK | 1644 | 37.37 | 31.7 | 12.45 | 44.15 | 74 | -29.85 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 3 | H | PK | 4844 | 37.13 | 5.84 | 34.67 | 40.51 | 74 | -33.49 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 3 | H | PK | 7266 | 36.49 | 12.48 | 34.08 | 46.56 | 74 | -27.44 |
| $\begin{gathered} \hline 802.11 \mathrm{n} \\ \text { (HT40) } \\ \hline \end{gathered}$ | Chain0 | 3 | V | PK | 4844 | 37.13 | 5.84 | 38.75 | 44.59 | 74 | -29.41 |
| $\begin{array}{\|c} \hline 802.11 \mathrm{n} \\ \text { (HT40) } \\ \hline \end{array}$ | Chain0 | 3 | V | PK | 7266 | 36.49 | 12.48 | 37.63 | 50.1 | 74 | -23.9 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 6 | H | PK | 4874 | 37.12 | 5.97 | 34.35 | 40.32 | 74 | -33.68 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 6 | H | PK | 7311 | 36.47 | 12.65 | 33.87 | 46.51 | 74 | -27.49 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 6 | H | PK | 9748 | 35.93 | 16.99 | 27.59 | 44.58 | 74 | -29.42 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 6 | V | PK | 4874 | 37.12 | 5.97 | 39.2 | 45.17 | 74 | -28.83 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 6 | V | PK | 7311 | 36.47 | 12.65 | 38.83 | 51.48 | 74 | -22.52 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 9 | H | PK | 4904 | 37.11 | 6.09 | 34.89 | 40.98 | 74 | -33.02 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 9 | H | PK | 7356 | 36.45 | 12.82 | 34.87 | 47.69 | 74 | -26.31 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 9 | H | PK | 9808 | 35.94 | 17.15 | 28.14 | 45.29 | 74 | -28.71 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 9 | V | PK | 4904 | 37.11 | 6.09 | 41.32 | 47.41 | 74 | -26.59 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0 | 9 | V | PK | 7356 | 36.45 | 12.82 | 39.43 | 52.25 | 74 | -21.75 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \\ \hline \end{gathered}$ | Chain0 | 9 | V | PK | 9808 | 35.94 | 17.15 | 28.13 | 45.27 | 74 | -28.73 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 3 | H | PK | 1236 | 37.3 | 29.51 | 13.69 | 43.2 | 74 | -30.8 |
| $\begin{array}{\|c} \hline 802.11 \mathrm{n} \\ \text { (HT40) } \\ \hline \end{array}$ | Chain0+1 | 3 | V | PK | 1236 | 37.3 | 29.51 | 21.21 | 50.72 | 74 | -23.28 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 3 | V | PK | 1652 | 37.37 | 31.8 | 17.31 | 49.11 | 74 | -24.89 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 1164 | 37.28 | 29.38 | 12.54 | 41.92 | 74 | -32.08 |

intertek
Total Quality. Assured.

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Report No.: 170300545TWN-001
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| Mode | Chain | Channel | Ant <br> Polarity | Detector | Frequency <br> $(\mathrm{MHz})$ | Preamp <br> $(\mathrm{dB})$ | Factor <br> $(\mathrm{dB} / \mathrm{m})$ | Reading <br> $(\mathrm{dB} \mu \mathrm{V})$ | Corrected <br> Reading <br> $(\mathrm{dB} \mu \mathrm{V} / \mathrm{m})$ | Limit <br> $(\mathrm{dB} \mu \mathrm{V} / \mathrm{m})$ | Margin <br> $(\mathrm{dB})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11n <br> (HT40) | Chain0+1 | 6 | V | PK | 1236 | 37.3 | 29.51 | 21.65 | 51.16 | 74 | -22.84 |
| 802.11n <br> (HT40) | Chain0+1 | 6 | V | PK | 1644 | 37.37 | 31.7 | 11.27 | 42.98 | 74 | -31.02 |
| 802.11n <br> (HT40) | Chain0+1 | 6 | V | PK | 2532 | 37.38 | 35.31 | 15.37 | 50.68 | 74 | -23.32 |
| 802.11n <br> (HT40) | Chain0+1 | 9 | V | PK | 1236 | 37.3 | 29.51 | 20.04 | 49.56 | 74 | -24.44 |
| 802.11n <br> (HT40) | Chain0+1 | 9 | V | PK | 1648 | 37.37 | 31.75 | 16.04 | 47.8 | 74 | -26.2 |

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Pre_Amplifier Gain

# intertek <br> Total Quality. Assured. 

EUT: RW8300M-a

| Mode | Chain | Channel | Ant Polarity | Detector | Frequency (MHz) | Preamp (dB) | Factor <br> (dB/m) | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | Corrected Reading ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | $\begin{gathered} \text { Limit } \\ (\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}) \end{gathered}$ | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11b | Chain0 | 1 | H | PK | 1232 | 37.3 | 29.5 | 14.12 | 43.62 | 74 | -30.38 |
| 802.11b | Chain0 | 1 | H | PK | 4824 | 37.14 | 5.76 | 48.55 | 54.31 | 74 | -19.69 |
| 802.11b | Chain0 | 1 | H | AV | 4824 | 37.14 | 5.76 | 46.69 | 52.45 | 54 | -1.55 |
| 802.11b | Chain0 | 1 | H | PK | 4995 | 37.08 | 6.47 | 38.75 | 45.22 | 74 | -28.78 |
| 802.11b | Chain0 | 1 | H | PK | 7236 | 36.5 | 12.36 | 36.45 | 48.81 | 74 | -25.19 |
| 802.11b | Chain0 | 1 | V | PK | 1028 | 37.25 | 29.13 | 13.92 | 43.05 | 74 | -30.95 |
| 802.11b | Chain0 | 1 | V | PK | 1200 | 37.29 | 29.44 | 15.86 | 45.31 | 74 | -28.69 |
| 802.11b | Chain0 | 1 | V | PK | 1232 | 37.3 | 29.5 | 20.56 | 50.06 | 74 | -23.94 |
| 802.11b | Chain0 | 1 | V | PK | 1652 | 37.37 | 31.8 | 14.87 | 46.66 | 74 | -27.34 |
| 802.11b | Chain0 | 1 | V | PK | 4824 | 37.14 | 5.76 | 48.98 | 54.74 | 74 | -19.26 |
| 802.11b | Chain0 | 1 | V | AV | 4824 | 37.14 | 5.76 | 46.9 | 52.66 | 54 | -1.34 |
| 802.11b | Chain0 | 1 | V | PK | 7236 | 36.5 | 12.36 | 38.62 | 50.98 | 74 | -23.02 |
| 802.11b | Chain0 | 1 | V | PK | 9648 | 35.93 | 16.74 | 30.17 | 46.91 | 74 | -27.09 |
| 802.11b | Chain0 | 6 | H | PK | 1236 | 37.3 | 29.51 | 15.23 | 44.74 | 74 | -29.26 |
| 802.11b | Chain0 | 6 | H | PK | 4874 | 37.12 | 5.97 | 51.6 | 57.57 | 74 | -16.43 |
| 802.11b | Chain0 | 6 | H | AV | 4874 | 37.12 | 5.97 | 47.36 | 53.33 | 54 | -0.67 |
| 802.11b | Chain0 | 6 | H | PK | 4995 | 37.08 | 6.47 | 37.64 | 44.11 | 74 | -29.89 |
| 802.11 b | Chain0 | 6 | H | PK | 7311 | 36.47 | 12.65 | 38.02 | 50.66 | 74 | -23.34 |
| 802.11b | Chain0 | 6 | V | PK | 1168 | 37.28 | 29.39 | 12.53 | 41.92 | 74 | -32.08 |
| 802.11b | Chain0 | 6 | V | PK | 1208 | 37.29 | 29.46 | 15.87 | 45.33 | 74 | -28.67 |
| 802.11b | Chain0 | 6 | V | PK | 1232 | 37.3 | 29.5 | 21.96 | 51.46 | 74 | -22.54 |
| 802.11b | Chain0 | 6 | V | PK | 1644 | 37.37 | 31.7 | 15.98 | 47.69 | 74 | -26.31 |
| 802.11b | Chain0 | 6 | V | PK | 4874 | 37.12 | 5.97 | 51 | 56.97 | 74 | -17.03 |
| 802.11b | Chain0 | 6 | V | AV | 4874 | 37.12 | 5.97 | 47.28 | 53.25 | 54 | -0.75 |
| 802.11b | Chain0 | 6 | V | PK | 4995 | 37.08 | 6.47 | 38.3 | 44.77 | 74 | -29.23 |
| 802.11b | Chain0 | 6 | V | PK | 7311 | 36.47 | 12.65 | 40.35 | 53 | 74 | -21 |
| 802.11b | Chain0 | 11 | H | PK | 1236 | 37.3 | 29.51 | 15.13 | 44.64 | 74 | -29.36 |
| 802.11b | Chain0 | 11 | H | PK | 4924 | 37.1 | 6.18 | 49.63 | 55.81 | 74 | -18.19 |
| 802.11b | Chain0 | 11 | H | AV | 4924 | 37.1 | 6.18 | 46.54 | 52.72 | 54 | -1.28 |
| 802.11b | Chain0 | 11 | H | PK | 4995 | 37.08 | 6.47 | 37.43 | 43.9 | 74 | -30.1 |
| 802.11b | Chain0 | 11 | H | PK | 7386 | 36.44 | 12.94 | 37.18 | 50.11 | 74 | -23.89 |
| 802.11b | Chain0 | 11 | V | PK | 1212 | 37.3 | 29.47 | 12.99 | 42.46 | 74 | -31.54 |
| 802.11b | Chain0 | 11 | V | PK | 1236 | 37.3 | 29.51 | 20.9 | 50.41 | 74 | -23.59 |
| 802.11b | Chain0 | 11 | V | PK | 1300 | 37.32 | 29.63 | 11.87 | 41.5 | 74 | -32.5 |
| 802.11b | Chain0 | 11 | V | PK | 1648 | 37.37 | 31.75 | 15.74 | 47.49 | 74 | -26.51 |
| 802.11b | Chain0 | 11 | V | PK | 4924 | 37.1 | 6.18 | 47.08 | 53.25 | 74 | -20.75 |
| 802.11b | Chain0 | 11 | V | PK | 7386 | 36.44 | 12.94 | 37.83 | 50.76 | 74 | -23.24 |
| 802.11b | Chain0 | 11 | V | PK | 9848 | 35.94 | 17.25 | 29.4 | 46.65 | 74 | -27.35 |

Total Quality. Assured.

| Mode | Chain | Channel | Ant Polarity | Detector | Frequency (MHz) | $\begin{gathered} \text { Preamp } \\ \text { (dB) } \end{gathered}$ | Factor <br> (dB/m) | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | Corrected <br> Reading <br> ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | $\begin{gathered} \text { Limit } \\ (\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}) \end{gathered}$ | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11b | Chain1 | 1 | H | PK | 1236 | 37.3 | 29.51 | 13.63 | 43.14 | 74 | -30.86 |
| 802.11b | Chain1 | 1 | H | PK | 4824 | 37.14 | 5.76 | 41.77 | 47.53 | 74 | -26.47 |
| 802.11b | Chain1 | 1 | H | PK | 4995 | 37.08 | 6.47 | 37.32 | 43.79 | 74 | -30.21 |
| 802.11b | Chain1 | 1 | H | PK | 7236 | 36.5 | 12.36 | 38.57 | 50.93 | 74 | -23.07 |
| 802.11b | Chain1 | 1 | V | PK | 1032 | 37.25 | 29.14 | 12.63 | 41.76 | 74 | -32.24 |
| 802.11b | Chain1 | 1 | V | PK | 1212 | 37.3 | 29.47 | 14.32 | 43.79 | 74 | -30.21 |
| 802.11b | Chain1 | 1 | V | PK | 1236 | 37.3 | 29.51 | 21.1 | 50.61 | 74 | -23.39 |
| 802.11b | Chain1 | 1 | V | PK | 1644 | 37.37 | 31.7 | 14.27 | 45.98 | 74 | -28.02 |
| 802.11b | Chain1 | 1 | V | PK | 4824 | 37.14 | 5.76 | 44.74 | 50.5 | 74 | -23.5 |
| 802.11b | Chain1 | 1 | V | PK | 4995 | 37.08 | 6.47 | 37.06 | 43.53 | 74 | -30.47 |
| 802.11b | Chain1 | 1 | V | PK | 7236 | 36.5 | 12.36 | 44.14 | 56.5 | 74 | -17.5 |
| 802.11b | Chain1 | 1 | V | AV | 7236 | 36.5 | 12.36 | 41.07 | 53.43 | 54 | -0.57 |
| 802.11b | Chain1 | 6 | H | PK | 1236 | 37.3 | 29.51 | 15.67 | 45.18 | 74 | -28.82 |
| 802.11b | Chain1 | 6 | H | PK | 4874 | 37.12 | 5.97 | 45.39 | 51.36 | 74 | -22.64 |
| 802.11b | Chain1 | 6 | H | PK | 4995 | 37.08 | 6.47 | 37.63 | 44.1 | 74 | -29.9 |
| 802.11b | Chain1 | 6 | H | PK | 7311 | 36.47 | 12.65 | 38.14 | 50.78 | 74 | -23.22 |
| 802.11b | Chain1 | 6 | V | PK | 1024 | 37.25 | 29.12 | 16.19 | 45.32 | 74 | -28.68 |
| 802.11b | Chain1 | 6 | V | PK | 1232 | 37.3 | 29.5 | 22.06 | 51.56 | 74 | -22.44 |
| 802.11b | Chain1 | 6 | V | PK | 1644 | 37.37 | 31.7 | 15.33 | 47.03 | 74 | -26.97 |
| 802.11b | Chain1 | 6 | V | PK | 4874 | 37.12 | 5.97 | 45.16 | 51.12 | 74 | -22.88 |
| 802.11b | Chain1 | 6 | V | PK | 4995 | 37.08 | 6.47 | 35.82 | 42.29 | 74 | -31.71 |
| 802.11b | Chain1 | 6 | V | PK | 7311 | 36.47 | 12.65 | 42.63 | 55.28 | 74 | -18.72 |
| 802.11b | Chain1 | 6 | V | AV | 7311 | 36.47 | 12.65 | 40.3 | 52.95 | 54 | -1.05 |
| 802.11b | Chain1 | 11 | H | PK | 1172 | 37.28 | 29.39 | 12.52 | 41.91 | 74 | -32.09 |
| 802.11b | Chain1 | 11 | H | PK | 1232 | 37.3 | 29.5 | 14.2 | 43.7 | 74 | -30.3 |
| 802.11b | Chain1 | 11 | H | PK | 4924 | 37.1 | 6.18 | 44.7 | 50.88 | 74 | -23.12 |
| 802.11b | Chain1 | 11 | H | PK | 4995 | 37.08 | 6.47 | 37.28 | 43.75 | 74 | -30.25 |
| 802.11b | Chain1 | 11 | H | PK | 7386 | 36.44 | 12.94 | 39.18 | 52.12 | 74 | -21.88 |
| 802.11b | Chain1 | 11 | V | PK | 1236 | 37.3 | 29.51 | 22.34 | 51.85 | 74 | -22.15 |
| 802.11b | Chain1 | 11 | V | PK | 1644 | 37.37 | 31.7 | 14.36 | 46.06 | 74 | -27.94 |
| 802.11b | Chain1 | 11 | V | PK | 4924 | 37.1 | 6.18 | 45.6 | 51.77 | 74 | -22.23 |
| 802.11b | Chain1 | 11 | V | PK | 4995 | 37.08 | 6.47 | 36.16 | 42.63 | 74 | -31.37 |
| 802.11b | Chain1 | 11 | V | PK | 7386 | 36.44 | 12.94 | 41.38 | 54.31 | 74 | -19.69 |
| 802.11g | Chain0 | 1 | H | PK | 1236 | 37.3 | 29.51 | 15.02 | 44.53 | 74 | -29.47 |
| 802.11g | Chain0 | 1 | H | PK | 4824 | 37.14 | 5.76 | 39.56 | 45.32 | 74 | -28.68 |
| 802.11g | Chain0 | 1 | H | PK | 4995 | 37.08 | 6.47 | 38.26 | 44.73 | 74 | -29.27 |
| 802.11g | Chain0 | 1 | H | PK | 7236 | 36.5 | 12.36 | 34.95 | 47.31 | 74 | -26.69 |
| 802.11g | Chain0 | 1 | V | PK | 1120 | 37.27 | 29.3 | 13.21 | 42.51 | 74 | -31.49 |
| 802.11g | Chain0 | 1 | V | PK | 1236 | 37.3 | 29.51 | 20.97 | 50.48 | 74 | -23.52 |
| 802.11 g | Chain0 | 1 | V | PK | 1500 | 37.37 | 29.99 | 11.45 | 41.44 | 74 | -32.56 |
| 802.11g | Chain0 | 1 | V | PK | 1652 | 37.37 | 31.8 | 16.31 | 48.11 | 74 | -25.89 |
| 802.11 g | Chain0 | 1 | V | PK | 4824 | 37.14 | 5.76 | 40.95 | 46.71 | 74 | -27.29 |
| 802.11g | Chain0 | 1 | V | PK | 4995 | 37.08 | 6.47 | 36.19 | 42.66 | 74 | -31.34 |

Total Quality. Assured.

| Mode | Chain | Channel | Ant Polarity | Detector | $\begin{aligned} & \text { Frequency } \\ & \text { (MHz) } \end{aligned}$ | $\begin{aligned} & \text { Preamp } \\ & \text { (dB) } \end{aligned}$ | Factor (dB/m) | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | Corrected Reading ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | $\begin{aligned} & \text { Limit } \\ & (\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}) \end{aligned}$ | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11g | Chain0 | 1 | V | PK | 7236 | 36.5 | 12.36 | 34.21 | 46.57 | 74 | -27.43 |
| 802.11g | Chain0 | 1 | V | PK | 9648 | 35.93 | 16.74 | 29.81 | 46.55 | 74 | -27.45 |
| 802.11g | Chain0 | 6 | H | PK | 1168 | 37.28 | 29.39 | 13.65 | 43.04 | 74 | -30.96 |
| 802.11 g | Chain0 | 6 | H | PK | 1236 | 37.3 | 29.51 | 14.84 | 44.35 | 74 | -29.65 |
| 802.11g | Chain0 | 6 | H | PK | 4874 | 37.12 | 5.97 | 43.49 | 49.45 | 74 | -24.55 |
| 802.11 g | Chain0 | 6 | H | PK | 4995 | 37.08 | 6.47 | 38.38 | 44.85 | 74 | -29.15 |
| 802.11g | Chain0 | 6 | H | PK | 7311 | 36.47 | 12.65 | 36.09 | 48.73 | 74 | -25.27 |
| 802.11 g | Chain0 | 6 | V | PK | 1056 | 37.25 | 29.18 | 12.75 | 41.93 | 74 | -32.07 |
| 802.11g | Chain0 | 6 | V | PK | 1236 | 37.3 | 29.51 | 22.38 | 51.89 | 74 | -22.11 |
| 802.11g | Chain0 | 6 | V | PK | 1264 | 37.31 | 29.56 | 13.02 | 42.58 | 74 | -31.42 |
| 802.11g | Chain0 | 6 | V | PK | 1648 | 37.37 | 31.75 | 15.58 | 47.34 | 74 | -26.66 |
| 802.11g | Chain0 | 6 | V | PK | 4874 | 37.12 | 5.97 | 44.17 | 50.14 | 74 | -23.86 |
| 802.11 g | Chain0 | 6 | V | PK | 4995 | 37.08 | 6.47 | 37.41 | 43.88 | 74 | -30.12 |
| 802.11 g | Chain0 | 6 | V | PK | 7311 | 36.47 | 12.65 | 35.62 | 48.27 | 74 | -25.73 |
| 802.11 g | Chain0 | 11 | H | PK | 1236 | 37.3 | 29.51 | 15.14 | 44.65 | 74 | -29.35 |
| 802.11g | Chain0 | 11 | H | PK | 4924 | 37.1 | 6.18 | 42.23 | 48.4 | 74 | -25.6 |
| 802.11g | Chain0 | 11 | H | PK | 4995 | 37.08 | 6.47 | 38.21 | 44.68 | 74 | -29.32 |
| 802.11g | Chain0 | 11 | H | PK | 7386 | 36.44 | 12.94 | 34.05 | 46.98 | 74 | -27.02 |
| 802.11 g | Chain0 | 11 | V | PK | 1056 | 37.25 | 29.18 | 12.35 | 41.53 | 74 | -32.47 |
| 802.11g | Chain0 | 11 | V | PK | 1196 | 37.29 | 29.44 | 13 | 42.44 | 74 | -31.56 |
| 802.11g | Chain0 | 11 | V | PK | 1236 | 37.3 | 29.51 | 21.5 | 51.01 | 74 | -22.99 |
| 802.11g | Chain0 | 11 | V | PK | 1648 | 37.37 | 31.75 | 15.19 | 46.94 | 74 | -27.06 |
| 802.11 g | Chain0 | 11 | V | PK | 4924 | 37.1 | 6.18 | 41.75 | 47.92 | 74 | -26.08 |
| 802.11 g | Chain0 | 11 | V | PK | 4995 | 37.08 | 6.47 | 36.82 | 43.29 | 74 | -30.71 |
| 802.11g | Chain0 | 11 | V | PK | 7386 | 36.44 | 12.94 | 35.32 | 48.25 | 74 | -25.75 |
| 802.11g | Chain1 | 1 | H | PK | 1236 | 37.3 | 29.51 | 15.16 | 44.67 | 74 | -29.33 |
| 802.11 g | Chain1 | 1 | H | PK | 4824 | 37.14 | 5.76 | 36.07 | 41.83 | 74 | -32.17 |
| 802.11 g | Chain1 | 1 | H | PK | 4995 | 37.08 | 6.47 | 38.03 | 44.5 | 74 | -29.5 |
| 802.11 g | Chain1 | 1 | H | PK | 7236 | 36.5 | 12.36 | 34 | 46.36 | 74 | -27.64 |
| 802.11g | Chain1 | 1 | V | PK | 1164 | 37.28 | 29.38 | 13.89 | 43.27 | 74 | -30.73 |
| 802.11g | Chain1 | 1 | V | PK | 1216 | 37.3 | 29.47 | 17.43 | 46.9 | 74 | -27.1 |
| 802.11g | Chain1 | 1 | V | PK | 1236 | 37.3 | 29.51 | 21.73 | 51.24 | 74 | -22.76 |
| 802.11g | Chain1 | 1 | V | PK | 1652 | 37.37 | 31.8 | 18.06 | 49.86 | 74 | -24.14 |
| 802.11g | Chain1 | 1 | V | PK | 4824 | 37.14 | 5.76 | 39.75 | 45.51 | 74 | -28.49 |
| 802.11 g | Chain1 | 1 | V | PK | 4995 | 37.08 | 6.47 | 35.63 | 42.1 | 74 | -31.9 |
| 802.11 g | Chain1 | 1 | V | PK | 7236 | 36.5 | 12.36 | 42.42 | 54.78 | 74 | -19.22 |
| 802.11 g | Chain1 | 1 | V | AV | 7236 | 36.5 | 12.36 | 39.75 | 52.11 | 54 | -1.89 |
| 802.11 g | Chain1 | 6 | H | PK | 1236 | 37.3 | 29.51 | 13.78 | 43.29 | 74 | -30.71 |
| 802.11g | Chain1 | 6 | H | PK | 4874 | 37.12 | 5.97 | 35.11 | 41.08 | 74 | -32.92 |
| 802.11g | Chain1 | 6 | H | PK | 4995 | 37.08 | 6.47 | 39.11 | 45.58 | 74 | -28.42 |
| 802.11g | Chain1 | 6 | H | PK | 7311 | 36.47 | 12.65 | 29.98 | 42.63 | 74 | -31.37 |
| 802.11g | Chain1 | 6 | V | PK | 1032 | 37.25 | 29.14 | 13.84 | 42.98 | 74 | -31.02 |
| 802.11g | Chain1 | 6 | V | PK | 1236 | 37.3 | 29.51 | 21.09 | 50.61 | 74 | -23.39 |


| Mode | Chain | Channel | Ant Polarity | Detector | Frequency (MHz) | Preamp (dB) | $\begin{aligned} & \text { Factor } \\ & (\mathrm{dB} / \mathrm{m}) \end{aligned}$ | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | Corrected Reading ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | $\begin{aligned} & \text { Limit } \\ & (\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}) \end{aligned}$ | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11 g | Chain1 | 6 | V | PK | 1648 | 37.37 | 31.75 | 14.3 | 46.05 | 74 | -27.95 |
| 802.11g | Chain1 | 6 | V | PK | 4874 | 37.12 | 5.97 | 35.63 | 41.59 | 74 | -32.41 |
| 802.11g | Chain1 | 6 | V | PK | 4995 | 37.08 | 6.47 | 37.1 | 43.57 | 74 | -30.43 |
| 802.11 g | Chain1 | 6 | V | PK | 7311 | 36.47 | 12.65 | 32.39 | 45.04 | 74 | -28.96 |
| 802.11g | Chain1 | 11 | H | PK | 1236 | 37.3 | 29.51 | 13.17 | 42.68 | 74 | -31.32 |
| 802.11g | Chain1 | 11 | H | PK | 4924 | 37.1 | 6.18 | 34.67 | 40.85 | 74 | -33.15 |
| 802.11 g | Chain1 | 11 | H | PK | 4995 | 37.08 | 6.47 | 37.4 | 43.87 | 74 | -30.13 |
| 802.11g | Chain1 | 11 | H | PK | 7386 | 36.44 | 12.94 | 29.81 | 42.74 | 74 | -31.26 |
| 802.11g | Chain1 | 11 | V | PK | 1080 | 37.26 | 29.23 | 12.92 | 42.15 | 74 | -31.85 |
| 802.11 g | Chain1 | 11 | V | PK | 1236 | 37.3 | 29.51 | 21.19 | 50.7 | 74 | -23.3 |
| 802.11g | Chain1 | 11 | V | PK | 1648 | 37.37 | 31.75 | 16.97 | 48.72 | 74 | -25.28 |
| 802.11g | Chain1 | 11 | V | PK | 4924 | 37.1 | 6.18 | 35.13 | 41.31 | 74 | -32.69 |
| 802.11g | Chain1 | 11 | V | PK | 4995 | 37.08 | 6.47 | 37.03 | 43.5 | 74 | -30.5 |
| 802.11 g | Chain1 | 11 | V | PK | 7386 | 36.44 | 12.94 | 30.71 | 43.64 | 74 | -30.36 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 1 | H | PK | 1236 | 37.3 | 29.51 | 14.63 | 44.14 | 74 | -29.86 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{gathered}$ | Chain0+1 | 1 | H | PK | 4824 | 37.14 | 5.76 | 38.79 | 44.55 | 74 | -29.45 |
| $\begin{array}{\|c} 802.11 \mathrm{n} \\ \text { (HT20) } \end{array}$ | Chain0+1 | 1 | H | PK | 4995 | 37.08 | 6.47 | 37.95 | 44.42 | 74 | -29.58 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{gathered}$ | Chain0+1 | 1 | H | PK | 7236 | 36.5 | 12.36 | 36.33 | 48.69 | 74 | -25.31 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 20) \end{gathered}$ | Chain0+1 | 1 | V | PK | 1236 | 37.3 | 29.51 | 20.13 | 49.64 | 74 | -24.36 |
| $\begin{array}{\|c} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{array}$ | Chain0+1 | 1 | V | PK | 1648 | 37.37 | 31.75 | 17.71 | 49.46 | 74 | -24.54 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 20) \\ \hline \end{gathered}$ | Chain0+1 | 1 | V | PK | 4824 | 37.14 | 5.76 | 41.12 | 46.88 | 74 | -27.12 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{gathered}$ | Chain0+1 | 1 | V | PK | 4995 | 37.08 | 6.47 | 36.68 | 43.15 | 74 | -30.85 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 20) \end{gathered}$ | Chain0+1 | 1 | V | PK | 7236 | 36.5 | 12.36 | 41.33 | 53.69 | 74 | -20.31 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 1 | V | AV | 7236 | 36.5 | 12.36 | 39.48 | 51.84 | 54 | -2.16 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 6 | H | PK | 1232 | 37.3 | 29.5 | 13.06 | 42.56 | 74 | -31.44 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 6 | H | PK | 4874 | 37.12 | 5.97 | 35.88 | 41.85 | 74 | -32.15 |
| $\begin{aligned} & 802.11 n \\ & \text { (HT20) } \end{aligned}$ | Chain0+1 | 6 | H | PK | 4995 | 37.08 | 6.47 | 37.32 | 43.79 | 74 | -30.21 |
| $\begin{gathered} 802.11 n \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 6 | H | PK | 7311 | 36.47 | 12.65 | 29.8 | 42.45 | 74 | -31.55 |

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Total Quality. Assured.

| Mode | Chain | Channel | Ant Polarity | Detector | Frequency (MHz) | $\begin{gathered} \text { Preamp } \\ \text { (dB) } \end{gathered}$ | $\begin{aligned} & \text { Factor } \\ & (\mathrm{dB} / \mathrm{m}) \end{aligned}$ | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | Corrected Reading ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | $\begin{gathered} \text { Limit } \\ (\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}) \end{gathered}$ | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \end{array}$ | Chain0+1 | 6 | V | PK | 1088 | 37.26 | 29.24 | 13.04 | 42.28 | 74 | -31.72 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{array}$ | Chain0+1 | 6 | V | PK | 1212 | 37.3 | 29.47 | 14.75 | 44.22 | 74 | -29.78 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \end{array}$ | Chain0+1 | 6 | V | PK | 1236 | 37.3 | 29.51 | 22.36 | 51.87 | 74 | -22.13 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 1644 | 37.37 | 31.7 | 15.1 | 46.81 | 74 | -27.19 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 4874 | 37.12 | 5.97 | 35.34 | 41.31 | 74 | -32.69 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 4995 | 37.08 | 6.47 | 36.36 | 42.83 | 74 | -31.17 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{array}$ | Chain0+1 | 6 | V | PK | 7311 | 36.47 | 12.65 | 30.15 | 42.79 | 74 | -31.21 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \end{array}$ | Chain0+1 | 11 | H | PK | 1236 | 37.3 | 29.51 | 13.38 | 42.89 | 74 | -31.11 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 20) \end{gathered}$ | Chain0+1 | 11 | H | PK | 4924 | 37.1 | 6.18 | 34.61 | 40.78 | 74 | -33.22 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 11 | H | PK | 4995 | 37.08 | 6.47 | 37.61 | 44.08 | 74 | -29.92 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{array}$ | Chain0+1 | 11 | H | PK | 7386 | 36.44 | 12.94 | 29.01 | 41.95 | 74 | -32.05 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \end{array}$ | Chain0+1 | 11 | V | PK | 1196 | 37.29 | 29.44 | 12.78 | 42.22 | 74 | -31.78 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{array}$ | Chain0+1 | 11 | V | PK | 1216 | 37.3 | 29.47 | 15.43 | 44.9 | 74 | -29.1 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 11 | V | PK | 1236 | 37.3 | 29.51 | 19.4 | 48.91 | 74 | -25.09 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT20) } \end{gathered}$ | Chain0+1 | 11 | V | PK | 1644 | 37.37 | 31.7 | 16.15 | 47.85 | 74 | -26.15 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{array}$ | Chain0+1 | 11 | V | PK | 4924 | 37.1 | 6.18 | 34.71 | 40.89 | 74 | -33.11 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{array}$ | Chain0+1 | 11 | V | PK | 4995 | 37.08 | 6.47 | 36.22 | 42.69 | 74 | -31.31 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ \text { (HT20) } \\ \hline \end{array}$ | Chain0+1 | 11 | V | PK | 7386 | 36.44 | 12.94 | 30.74 | 43.67 | 74 | -30.33 |
| $\begin{gathered} 802.11 n \\ \text { (HT40) } \\ \hline \end{gathered}$ | Chain0+1 | 3 | H | PK | 1232 | 37.3 | 29.5 | 13.63 | 43.13 | 74 | -30.87 |
| $\begin{aligned} & 802.11 \mathrm{n} \\ & \text { (HT40) } \end{aligned}$ | Chain0+1 | 3 | H | PK | 4844 | 37.13 | 5.84 | 39.33 | 45.17 | 74 | -28.83 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 3 | H | PK | 4995 | 37.08 | 6.47 | 38.31 | 44.79 | 74 | -29.21 |


| Mode | Chain | Channel | Ant Polarity | Detector | Frequency (MHz) | Preamp <br> (dB) | $\begin{gathered} \text { Factor } \\ (\mathrm{dB} / \mathrm{m}) \end{gathered}$ | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | Corrected <br> Reading <br> ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | Limit ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|c\|} 802.11 n \\ \text { (HT40) } \end{array}$ | Chain0+1 | 3 | V | PK | 1032 | 37.25 | 29.14 | 13.74 | 42.88 | 74 | -31.12 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain $0+1$ | 3 | V | PK | 1232 | 37.3 | 29.5 | 20.38 | 49.88 | 74 | -24.12 |
| $\begin{gathered} 802.11 n \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 3 | V | PK | 1652 | 37.37 | 31.8 | 17.27 | 49.07 | 74 | -24.93 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 3 | V | PK | 2056 | 37.37 | 35.86 | 11.87 | 47.73 | 74 | -26.27 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 40) \end{gathered}$ | Chain0+1 | 3 | V | PK | 4844 | 37.13 | 5.84 | 37.44 | 43.28 | 74 | -30.72 |
| $\begin{gathered} 802.11 n \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 3 | V | PK | 4995 | 37.08 | 6.47 | 35.44 | 41.91 | 74 | -32.09 |
| $\begin{gathered} 802.11 n \\ (H T 40) \end{gathered}$ | Chain0+1 | 3 | V | PK | 7266 | 36.49 | 12.48 | 38.34 | 50.81 | 74 | -23.19 |
| $\begin{array}{\|c} 802.11 \mathrm{n} \\ \text { (HT40) } \\ \hline \end{array}$ | Chain0+1 | 6 | H | PK | 1236 | 37.3 | 29.51 | 14.32 | 43.83 | 74 | -30.17 |
| $\begin{gathered} 802.11 n \\ (H T 40) \end{gathered}$ | Chain0+1 | 6 | H | PK | 4874 | 37.12 | 5.97 | 38.73 | 44.69 | 74 | -29.31 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 40) \end{gathered}$ | Chain0+1 | 6 | H | PK | 4995 | 37.08 | 6.47 | 38.21 | 44.68 | 74 | -29.32 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 6 | H | PK | 7311 | 36.47 | 12.65 | 34.1 | 46.75 | 74 | -27.25 |
| $\begin{gathered} 802.11 n \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 1032 | 37.25 | 29.14 | 13.41 | 42.55 | 74 | -31.45 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 1232 | 37.3 | 29.5 | 21.24 | 50.75 | 74 | -23.25 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 1652 | 37.37 | 31.8 | 15.9 | 47.7 | 74 | -26.3 |
| $\begin{gathered} 802.11 n \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 1672 | 37.37 | 32.04 | 13.01 | 45.05 | 74 | -28.95 |
| $\begin{gathered} 802.11 n \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 4874 | 37.12 | 5.97 | 37.23 | 43.2 | 74 | -30.8 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 4995 | 37.08 | 6.47 | 37.74 | 44.21 | 74 | -29.79 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 6 | V | PK | 7311 | 36.47 | 12.65 | 36.9 | 49.55 | 74 | -24.45 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (\mathrm{HT} 40) \end{gathered}$ | Chain0+1 | 9 | H | PK | 1232 | 37.3 | 29.5 | 15.04 | 44.54 | 74 | -29.46 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 9 | H | PK | 4904 | 37.11 | 6.09 | 40.03 | 46.12 | 74 | -27.88 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \\ \hline \end{gathered}$ | Chain0+1 | 9 | H | PK | 4995 | 37.08 | 6.47 | 37.86 | 44.33 | 74 | -29.67 |

Total Quality. Assured.

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| Mode | Chain | Channel | Ant Polarity | Detector | Frequency (MHz) | Preamp <br> (dB) | $\begin{aligned} & \text { Factor } \\ & \text { (dB/m) } \end{aligned}$ | Reading ( $\mathrm{dB} \mu \mathrm{V}$ ) | Corrected Reading ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | Limit ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | Margin (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|c} 802.11 n \\ \text { (HT40) } \end{array}$ | Chain0+1 | 3 | H | PK | 7266 | 36.49 | 12.48 | 32.41 | 44.88 | 74 | -29.12 |
| $\begin{gathered} \hline 802.11 \mathrm{n} \\ \text { (HT40) } \\ \hline \end{gathered}$ | Chain0+1 | 9 | H | PK | 7356 | 36.45 | 12.82 | 33.03 | 45.85 | 74 | -28.15 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 9 | V | PK | 1032 | 37.25 | 29.14 | 12.63 | 41.77 | 74 | -32.23 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 9 | V | PK | 1164 | 37.28 | 29.38 | 12.12 | 41.49 | 74 | -32.51 |
| $\begin{array}{\|c} 802.11 n \\ \text { (HT40) } \end{array}$ | Chain0+1 | 9 | V | PK | 1232 | 37.3 | 29.5 | 20.36 | 49.86 | 74 | -24.14 |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \end{gathered}$ | Chain0+1 | 9 | V | PK | 1648 | 37.37 | 31.75 | 14.71 | 46.46 | 74 | -27.54 |
| $\begin{gathered} 802.11 \mathrm{n} \\ (H T 40) \end{gathered}$ | Chain0+1 | 9 | V | PK | 4904 | 37.11 | 6.09 | 38.01 | 44.1 | 74 | -29.9 |
| $\begin{array}{\|c\|} \hline 802.11 \mathrm{n} \\ (\mathrm{HT} 40) \end{array}$ | Chain0+1 | 9 | V | PK | 4995 | 37.08 | 6.47 | 36.12 | 42.59 | 74 | -31.41 |
| $\begin{gathered} 802.11 n \\ (H T 40) \end{gathered}$ | Chain0+1 | 9 | V | PK | 7356 | 36.45 | 12.82 | 34.89 | 47.71 | 74 | -26.29 |

[^1]Total Quality. Assured.

## 7. Emission on Band Edge

### 7.1. Instrument Setting

| Spectrum Function | Setting |
| :---: | :---: |
| Detector | Peak and Average |
| RBW | 1 MHz |
| VBW | 3 MHz |
| Sweep | Auto couple |
| Restrict bands | $2310 \mathrm{MHz} \sim 2390 \mathrm{MHz}$ |
| Attenuation | $2483.5 \mathrm{MHz} \sim 2500 \mathrm{MHz}$ |
|  | Auto |

### 7.2. Test Procedure

The test procedure is the same as Emissions in Restricted Frequency Bands (Radiated emission measurements).

### 7.3. Operating Environment Condition

Temperature $\left({ }^{\circ} \mathrm{C}\right)$ :25
Relative Humidity (\%) : ..... 50
Atmospheric Pressure (hPa) : ..... 1008
Test Date : ..... 2018/3/1~2018/3/9

Total Quality. Assured.

### 7.4. Test Results

EUT: RW8300NE-C

| Mode | Spectrum <br> Analyzer Detector | Ant. Pol. (H/V) | Correction <br> Factor <br> (dB/m) | Reading $(\mathrm{dB} \mu \mathrm{~V})$ | Corrected Reading ( $\mathrm{dB} \mu \mathrm{V} / \mathrm{m}$ ) | $\begin{gathered} \text { Limit } \\ @ 3 \mathrm{~m} \\ (\mathrm{~dB} \mu \mathrm{~V} / \mathrm{m}) \end{gathered}$ | Margin <br> (dB) | Restricted band (MHz) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 802.11b <br> Chain0 | PK | V | 35.38 | 16.08 | 51.46 | 74 | -22.54 | 2310~2390 |
|  | AV | V | 35.37 | 6.32 | 41.69 | 54 | -12.31 |  |
|  | PK | V | 35.22 | 14.92 | 50.14 | 74 | -23.86 | 2483.5~2500 |
|  | AV | V | 35.22 | 2.03 | 37.25 | 54 | -16.75 |  |
| 802.11b <br> Chain1 | PK | V | 35.37 | 15.64 | 51.01 | 74 | -22.99 | 2310~2390 |
|  | AV | V | 35.37 | 3.69 | 39.06 | 54 | -14.94 |  |
|  | PK | V | 35.22 | 15.94 | 51.16 | 74 | -22.84 | $2483.5 \sim 2500$ |
|  | AV | V | 35.22 | 5.49 | 40.71 | 54 | -13.29 |  |
| 802.11g <br> Chain0 | PK | V | 35.36 | 26.37 | 61.73 | 74 | -12.27 | 2310~2390 |
|  | AV | V | 35.36 | 11.33 | 46.69 | 54 | -7.31 |  |
|  | PK | V | 35.22 | 14.60 | 49.82 | 74 | -24.18 | $2483.5^{\sim} 2500$ |
|  | AV | V | 35.23 | 0.82 | 36.05 | 54 | -17.95 |  |
| 802.11g <br> Chain1 | PK | V | 35.23 | 19.32 | 54.55 | 74 | -19.45 | 2310~2390 |
|  | AV | V | 35.36 | 12.56 | 47.92 | 54 | -6.08 |  |
|  | PK | V | 35.36 | 23.35 | 58.71 | 74 | -15.29 | $2483.5^{\sim} 2500$ |
|  | AV | V | 35.23 | 7.27 | 42.50 | 54 | -11.50 |  |
| $\begin{gathered} \text { 802.11n } \\ \text { (HT20) } \\ \text { ChainO+1 } \end{gathered}$ | PK | V | 35.36 | 22.17 | 57.53 | 74 | -16.47 | 2310~2390 |
|  | AV | V | 35.36 | 16.38 | 51.74 | 54 | -2.26 |  |
|  | PK | V | 35.23 | 19.15 | 54.38 | 74 | -19.62 | $2483.5^{\sim} 2500$ |
|  | AV | V | 35.23 | 7.50 | 42.73 | 54 | -11.27 |  |
| $\begin{gathered} 802.11 \mathrm{n} \\ \text { (HT40) } \\ \text { ChainO+1 } \end{gathered}$ | PK | V | 35.36 | 30.57 | 65.93 | 74 | -8.07 | 2310~2390 |
|  | AV | V | 35.36 | 17.31 | 52.67 | 54 | -1.33 |  |
|  | PK | V | 35.23 | 27.12 | 62.35 | 74 | -11.65 | $2483.5 \sim 2500$ |
|  | AV | V | 35.23 | 17.52 | 52.75 | 54 | -1.25 |  |

Remark: Correction Factor = Antenna Factor + Cable Loss

Total Quality. Assured.

EUT: RW8300M-a

| Mode | Spectrum <br> Analyzer <br> Detector | Ant. <br> Pol. <br> (H/V) | Correction <br> Factor <br> (dB/m) | Reading $(\mathrm{dB} \mu \mathrm{~V})$ | Corrected <br> Reading $(\mathrm{dB} \mu \mathrm{~V} / \mathrm{m})$ | $\begin{array}{\|c\|} \hline \text { Limit } \\ @ 3 \mathrm{~m} \\ (\mathrm{~dB} \mu \mathrm{~V} / \mathrm{m}) \\ \hline \end{array}$ | Margin <br> (dB) | Restricted band (MHz) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { 802.11b } \\ \text { Chain0 } \end{gathered}$ | PK | V | 35.38 | 12.52 | 47.90 | 74 | -26.10 | 2310~2390 |
|  | AV | V | 35.37 | -0.26 | 35.11 | 54 | -18.89 |  |
|  | PK | V | 35.21 | 11.20 | 46.41 | 74 | -27.59 | $2483.5 \sim 2500$ |
|  | AV | V | 35.22 | -0.89 | 34.33 | 54 | -19.67 |  |
| 802.11b <br> Chain1 | PK | V | 35.37 | 10.02 | 45.39 | 74 | -28.61 | 2310~2390 |
|  | AV | V | 35.37 | -2.58 | 32.79 | 54 | -21.21 |  |
|  | PK | V | 35.22 | 12.23 | 47.45 | 74 | -26.55 | $2483.5 \sim 2500$ |
|  | AV | V | 35.22 | 0.13 | 35.35 | 54 | -18.65 |  |
| $\begin{aligned} & \text { 802.11g } \\ & \text { Chain0 } \end{aligned}$ | PK | V | 35.36 | 15.31 | 50.67 | 74 | -23.33 | 2310~2390 |
|  | AV | V | 35.36 | 1.56 | 36.92 | 54 | -17.08 |  |
|  | PK | V | 35.22 | 17.17 | 52.39 | 74 | -21.61 | $2483.5 \sim 2500$ |
|  | AV | V | 35.23 | 2.65 | 37.88 | 54 | -16.12 |  |
| $\begin{aligned} & \text { 802.11g } \\ & \text { Chain1 } \end{aligned}$ | PK | V | 35.37 | 15.66 | 51.03 | 74 | -22.97 | 2310~2390 |
|  | AV | V | 35.36 | 2.15 | 37.51 | 54 | -16.49 |  |
|  | PK | V | 35.22 | 13.45 | 48.67 | 74 | -25.33 | $2483.5 \sim 2500$ |
|  | AV | V | 35.23 | 0.49 | 35.72 | 54 | -18.28 |  |
| $\begin{gathered} 802.11 n \\ (\mathrm{HT} 20) \\ \text { ChainO+1 } \end{gathered}$ | PK | V | 35.36 | 15.23 | 50.59 | 74 | -23.41 | 2310~2390 |
|  | AV | V | 35.36 | 3.99 | 39.35 | 54 | -14.65 |  |
|  | PK | V | 35.22 | 11.13 | 46.35 | 74 | -27.65 | $2483.5 \sim 2500$ |
|  | AV | V | 35.23 | -0.43 | 34.80 | 54 | -19.20 |  |
| $\begin{gathered} \text { 802.11n } \\ \text { (HT40) } \\ \text { Chain0+1 } \end{gathered}$ | PK | V | 35.37 | 19.03 | 54.40 | 74 | -19.60 | 2310~2390 |
|  | AV | V | 35.36 | 7.05 | 42.41 | 54 | -11.59 |  |
|  | PK | V | 35.22 | 21.26 | 56.48 | 74 | -17.52 | $2483.5 \sim 2500$ |
|  | AV | V | 35.23 | 7.39 | 42.62 | 54 | -11.38 |  |

Remark: Correction Factor = Antenna Factor + Cable Loss

## EUT:

RW8300NE-c

Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch11 PK


Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch11 AV


Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch1 PK


Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch1 AV


[^2]Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch11 PK


Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch11 AV


Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch1 PK


Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch1 AV


[^3]Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch11 PK


Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch11 AV


[^4]Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch1 PK


Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch1 AV


[^5]Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch11 PK


Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch11 AV

| Spectrum | Receiver © |  |  |  |  |  |  |  |  |  |  |  | $\stackrel{\square}{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { ATt } \\ & \text { PS PA TOF } \end{aligned}$ | 000 | swr | 127 ms | - vew | 10 Hz | Mode | Auto FF |  | pout | 14 C |  |  |  |
| S150 Ha |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60 din |  |  |  |  | \#1 |  | ज27 |  |  |  |  | 47.50 demy |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 4111 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40 dew- |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 cos |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 com- |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 cmu- |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 den- |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $-10 \mathrm{dm}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | Hewn |  |  | tixis | 100 | EMatal |  |

[^6]Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch1 PK


Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch1 AV


[^7]Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch11 PK


Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch11 AV


[^8]Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch1 PK


Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch1 AV


[^9]Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch9 PK


Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch9 AV


[^10]Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch3 PK


Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch3 AV


[^11]
## EUT:

RW8300M-a

Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch11 PK


Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch11 AV

| Spectrum | Receiver (8) |  |  |  |  |  |  |  |  | 맘 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hef Level | depylv | SWT 127 ms |  |  | 1 MHz |  | Auto FFT | tenpet | A 1 AC |  |  |  |
| - Att | 0 do |  |  | - vew | 10 Hz |  |  |  |  |  |  |  |
| OiPk Max |  |  |  |  |  |  |  |  |  |  |  |  |
| $60 \mathrm{dBL} N-$ |  |  |  | 11 |  |  | -M2[1] |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | ${ }^{\text {M1 }} 13$ |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\sim 20$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | * |  |  |
| $30 \mathrm{dBL} / \mathrm{N}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 del |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 dtu N - |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 dB N- |  |  |  |  |  |  |  |  |  |  |  |  |
| -20 Cl |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| -20 cow- |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Start 2.44 GH2 501 pts stap 2.5 G9tz |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | Neaturis | 1 | \%inis | 403 |  |  |

[^12]Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch1 PK


Chain0 : Restricted Band Bandedge @ 802.11b Mode Ch1 AV


[^13]Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch11 PK


Patel +.rus:2018 20123127
Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch11 AV


[^14]Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch1 PK


Chain1 : Restricted Band Bandedge @ 802.11b Mode Ch1 AV


[^15]Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch11 PK


Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch11 AV


[^16]Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch1 PK


Chain0 : Restricted Band Bandedge @ 802.11g Mode Ch1 AV


[^17]Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch11 PK


Detel 1.MN: 2018 20140120
Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch11 AV


[^18]Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch1 PK


Chain1 : Restricted Band Bandedge @ 802.11g Mode Ch1 AV


[^19]Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch11 PK


Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch11 AV


[^20]Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch1 PK


Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch1 AV


[^21]Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch11 PK


Datel 3.008,2018 20103141
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch11 AV


[^22]Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch1 PK


Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch1 AV


[^23]Total Quality. Assured.

Chain0 : Authorized Band Bandedge @ 802.11b Mode High


Chain0 : Authorized Band Bandedge @ 802.11b Mode Low


Chain1 : Authorized Band Bandedge @ 802.11b Mode High


Total Quality. Assured.

Chain1 : Authorized Band Bandedge @ 802.11b Mode Low


Chain0 : Authorized Band Bandedge @ 802.11g Mode High


Chain0 : Authorized Band Bandedge @ 802.11g Mode Low


Total Quality. Assured.

Chain1 : Authorized Band Bandedge @ 802.11g Mode High


Chain1 : Authorized Band Bandedge @ 802.11g Mode Low


Chain0 : Authorized Band Bandedge @ 802.11n(HT20) Mode High


Chain0 : Authorized Band Bandedge @ 802.11n(HT20) Mode Low


Chain1 : Authorized Band Bandedge @ 802.11n(HT20) Mode High


Chain1 : Authorized Band Bandedge @ 802.11n(HT20) Mode Low


Chain0 : Authorized Band Bandedge @ 802.11n(HT40) Mode High


Chain0 : Authorized Band Bandedge @ 802.11n(HT40) Mode Low


Chain1 : Authorized Band Bandedge @ 802.11n(HT40) Mode High


Total Quality. Assured.

Chain1 : Authorized Band Bandedge @ 802.11n(HT40) Mode Low


Total Quality. Assured.

## 8. AC Power Line Conducted Emission

### 8.1. Measuring instrument setting

| Receiver Function | Setting |
| :---: | :---: |
| Detector | QP |
| Start frequency | 0.15 MHz |
| Stop frequency | 30 MHz |
| IF bandwidth | 9 kHz |
| Attenuation | 10 dB |

### 8.2. Test Procedure

Step 1 Configure the EUT according to ANSI C63.10:2013. The EUT or host of EHT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.

Step 2 Connect EUT or host of EUT to the power mains through a line impedance stabilization network.

Step 3 All the companion devices are connected to the other LISN. The LISN should provide 50Uh/50ohms coupling impedance.

Step 4 The frequency range from 150 kHz to 30 MHz was searched.

Step 5 Set the test-receiver system to peak detector and specified bandwidth with maximum hold mode.

Step 6 The measurement has to be done between each power line and ground at the power terminal.

### 8.3. Test Diagram



Total Quality. Assured.
FCC ID: K7T-RW8300
Report No.: 170300545TWN-001

### 8.4. Limit

| Freq. <br> $(\mathrm{MHz})$ | Conducted Limit (dBuV) |  |
| :---: | :---: | :---: |
|  | Q.P. | Ave. |
| $0.15^{\sim} 0.50$ | $66-56$ | $56-46$ |
| $0.50^{\sim} 5.00$ | 56 | 46 |
| $5.00^{\sim} 30.0$ | 60 | 50 |

### 8.5. Operating Environment Condition

Temperature $\left({ }^{\circ} \mathrm{C}\right): \quad 23$
Relative Humidity (\%) : 54
Atmospheric Pressure (hPa) : 1009
Test Date :
2018/3/8

Total Quality. Assured.

### 8.6. Test Results

| Phase: | Live Line |
| :--- | :--- |
| Model No.: | RW8300NE-c |
| Test Condition: | Tx mode |


| Frequency (ME) | Gorr Factor (dB) | $\begin{aligned} & \text { Reading } \\ & \text { QP } \\ & (\mathrm{dB}\lrcorner r) \end{aligned}$ | $\begin{gathered} \text { Level } \\ \text { QP } \\ (\mathrm{dFu} \mathrm{~F}) \end{gathered}$ | $\begin{gathered} \text { Limit } \\ \underline{O P} \\ (\mathrm{dBu} \mathrm{~V}) \end{gathered}$ | $\begin{aligned} & \text { Reading } \\ & \text { Ar } \\ & (\mathrm{dBu} \boldsymbol{H}) \end{aligned}$ | $\begin{gathered} \text { Level } \\ \text { AV } \\ (d \mathrm{BuF}) \end{gathered}$ | $\begin{gathered} \text { Limit } \\ \text { Ar } \\ (d B \Perp V) \end{gathered}$ | ${\underset{Q V}{P}}_{(\mathrm{Margin}}^{(\mathrm{AY}}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.152 | 9.36 | 40.88 | 50.23 | 65.91 | 18.35 | 27. 70 | 55.91 | $-15.68$ | -28.21 |
| 0.167 | 9.36 | 38.68 | 48.04 | 65.12 | 26.10 | 35.46 | 55.12 | -17.08 | -19.66 |
| 0.175 | 9.36 | 37.60 | 46.96 | 64.72 | 19.52 | 28.88 | 54.72 | -17.77 | -25. 84 |
| 2.358 | 9.52 | 22.16 | 31.68 | 56.00 | 16.09 | 25.61 | 46.010 | -24.32 | $-20.39$ |
| 4.478 | 9.54 | 21.78 | 31.33 | 56.00 | 16.27 | 25.81 | 46.00 | -24.67 | -20.19 |
| 17.291 | 9.57 | 24.76 | 34.33 | 60.00 | 19.81 | 29.38 | 50.00 | $-25.67$ | $-20.62$ |

## Remark:

1. Corr. Factor $(\mathrm{dB})=$ LISN Factor (dB) + Cable Loss (dB)
2. Level $(\mathrm{dBuV})=$ Corr. Factor $(\mathrm{dB})+$ Reading (dBuV)
3. Margin (dB) = Level (dBuV) - Limit (dBuV)


| Phase: | Neutral Line |
| :--- | :--- |
| Model No.: | RW8300NE-c |
| Test Condition: | Tx mode |


| Frequency (MEs) | Gorr. Factor (dB) | $\begin{aligned} & \text { Reading } \\ & \text { QF } \\ & \left(d A_{1}\right) \end{aligned}$ | $\begin{gathered} \text { Level } \\ \text { QP } \\ (\mathrm{dBu} \mathrm{~F}) \end{gathered}$ | $\begin{gathered} \operatorname{Limit} \\ \text { QP' } \\ (\mathrm{dB} \perp \nabla) \end{gathered}$ | $\begin{aligned} & \text { Reading } \\ & \text { AY } \\ & (d \mathrm{~F} y) \end{aligned}$ | $\begin{gathered} \text { Level } \\ \text { AN } \\ (\mathrm{dBu}) \end{gathered}$ | $\begin{gathered} \text { Limit } \\ \text { AV } \\ (\mathrm{dB} \perp \mathrm{~F}) \end{gathered}$ | Margin (dB) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.151 | 9.62 | 40.03 | 49.65 | 65.96 | 23.97 | 33.59 | 55.96 | -16.31 | -22.37 |
| 0.155 | 9.62 | 39.84 | 49.46 | 65.74 | 25.35 | 34.97 | 55.74 | -16.28 | -20.77 |
| 0.209 | 9.62 | 31.02 | 40.64 | 63.23 | 21.32 | 30.94 | 53.23 | -22.58 | $-22.28$ |
| 0.369 | 9.63 | 27.92 | 37.55 | 58.52 | 19.03 | 28.65 | 48.52 | -20.97 | -19.87 |
| 4.247 | 9.79 | 22.67 | 32.46 | 56.00 | 17.13 | 26.93 | 46.00 | -23.54 | -19.07 |
| 12.384 | 9.87 | 23.43 | 33.30 | 60.00 | 17.19 | 27.05 | 50.00 | -26.70 | $-22.95$ |

Remark:

1. Corr. Factor $(\mathrm{dB})=$ LISN Factor $(\mathrm{dB})+$ Cable Loss $(\mathrm{dB})$
2. Level (dBuV) = Corr. Factor (dB) + Reading (dBuV)
3. Margin (dB) = Level (dBuV) - Limit (dBuV)


Total Quality. Assured.

## Appendix A: Test equipment list

| Test Equipment/ Test site | Brand | Model No. | Serial No. | Calibration Date | Next Calibration Date |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ESCI EMI Test <br> Receiver | Rohde \& Schwarz | ESCI | 100018 | 2017/11/21 | 2018/11/20 |
| Spectrum <br> Analyzer | Rohde \& Schwarz | FSP30 | 100245 | 2018/02/23 | 2019/02/22 |
| Horn Antenna (1-18G) | SHWARZBECK | BBHA 9120 D | 9120D-456 | 2018/01/23 | 2019/01/22 |
| Horn Antenna (14-42G) | SHWARZBECK | BBHA 9170 | BBHA9170159 | 2017/09/04 | 2020/09/02 |
| Broadband Antenna | SHWARZBECK | VULB 9168 | 9168-172 | 2017/04/05 | 2018/04/04 |
| Pre-Amplifier | EMC Co. | EMC12635SE | 980205 | 2017/11/28 | 2018/11/27 |
| Pre-Amplifier | MITEQ | $\begin{gathered} \text { JS4-26004000--27 } \\ -8 \mathrm{~A} \end{gathered}$ | 828825 | 2017/08/23 | 2018/08/22 |
| Power Meter | Anritsu | ML2495A | 0844001 | 2017/10/18 | 2018/10/17 |
| Power Sensor | Anritsu | MA2411B | 0738452 | 2017/05/23 | 2018/05/22 |
| Signal Analyzer | Agilent | N9030A | MY51380492 | 2017/08/29 | 2018/08/28 |
| 966-2(A) Cable 9kHz~26.5GHz | SUHNER | SMA / EX 100 | N/A | 2017/08/15 | 2018/08/14 |
| 966-2(B) Cable 9kHz~26.5GHz | SUHNER | SUCOFLEX 104P | CB0005 | 2017/08/15 | 2018/08/14 |
| $\begin{gathered} \text { RF Cable } \\ 9 \mathrm{kHz} \sim 26.5 \mathrm{GHz} \end{gathered}$ | SUHNER | SUCOFLEX 102 | CB0006 | 2017/05/04 | 2018/05/03 |
| 966-2_3m <br> Semi-Anechoic Chamber | 966_2 | CEM-966_2 | N/A | 2017/03/29 | 2018/03/28 |
| High Pass Filter | Wainwright | $\begin{gathered} \text { WHKX3.0/ } \\ \text { 18G-12SS } \end{gathered}$ | N/A | 2017/06/02 | 2018/06/01 |
| Active Loop Antenna | SCHWARZBECK MESS-ELEKTRONIC | FMZB1519 | 1519-067 | 2017/03/30 | 2018/03/29 |

Note: No Calibration Required (NCR).

Total Quality. Assured.
FCC ID: K7T-RW8300
Report No.: 170300545TWN-001

| Test Equipment/ <br> Test site | Brand | Model No. | Serial No. | Calibration <br> Date | Next <br> Calibration <br> Date |
| :---: | :---: | :---: | :---: | :---: | :---: |
| EMI Receiver | R\&S | ESCl | 100059 | $2017 / 11 / 13$ | $2018 / 11 / 12$ |
| Two-Line <br> V-Network | R\&S | ENV216 | 101159 | $2017 / 06 / 03$ | $2018 / 06 / 02$ |
| Artificial Mains <br> Network (LISN) | SCHAFFNER | MN2050D | 1586 | $2017 / 05 / 31$ | $2018 / 05 / 30$ |
| CON-1 <br> Shielded Room | N/A | N/A | N/A | NCR | NCR |
| CON-1 Cable | SUHNER | SUCOFLEX-104 | 26438414 | $2017 / 05 / 04$ | $2018 / 05 / 03$ |
| Test software | Audix | e3 | $4.20040112 L$ | NCR | NCR |

Note: No Calibration Required (NCR).

Total Quality. Assured.

## Appendix B: Measurement Uncertainty

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

| Item | Uncertainty |
| :---: | :---: |
| Vertically polarized radiated disturbances from $30 \mathrm{MHz}^{\sim} 1 \mathrm{GHz}$ in a semi-anechoic chamber at a distance of 3 m | 5.14 dB |
| Horizontally polarized radiated disturbances from $30 \mathrm{MHz}^{\sim} 1 \mathrm{GHz}$ in a semi-anechoic chamber at a distance of 3 m | 5.22 dB |
| Vertically polarized Radiated disturbances from $1 \mathrm{GHz} \sim 18 \mathrm{GHz}$ in a semi-anechoic chamber at a distance of 3 m | 3.64 dB |
| Horizontally polarized Radiated disturbances from $1 \mathrm{GHz}^{\sim} 18 \mathrm{GHz}$ in a semi-anechoic chamber at a distance of 3 m | 3.64 dB |
| Vertically polarized Radiated disturbances from $18 \mathrm{GHz} \sim 40 \mathrm{GHz}$ in a semi-anechoic chamber at a distance of 3 m | 2.68 dB |
| Horizontally polarized Radiated disturbances from $18 \mathrm{GHz} \sim 40 \mathrm{GHz}$ in a semi-anechoic chamber at a distance of 3 m | 2.68 dB |
| Radiated disturbances from $9 \mathrm{kHz} \sim 30 \mathrm{MHz}$ in a semi-anechoic chamber at a distance of 3 m | 3.54 dB |
| Emission on the Band Edge Test | 3.64 dB |
| Minimum 6dB Bandwidth | 0.85 dB |
| Maximum Conducted Output Power | 0.42 dB |
| Power Spectral Density | 0.85 dB |
| Emissions In Non-Restricted Frequency Bands | 0.85 dB |
| AC Power Line Conducted Emission | 2.48 dB |


[^0]:    Note: The BT4.2(BLE) module has been granted under the FCC ID: K7T-RB8762

[^1]:    Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Pre_Amplifier Gain

[^2]:    

[^3]:    

[^4]:    

[^5]:    

[^6]:    

[^7]:    

[^8]:    

[^9]:    

[^10]:    

[^11]:    

[^12]:    Datel $1.908,2018$ 18157142

[^13]:    Datel $2.006,2018$ 1912916

[^14]:    Datel $2.00 x, 2018$ 28124104

[^15]:    (intel $2.900,2018$ 281213131

[^16]:    Datel $2.008,2018$ 19123106

[^17]:    (intel $1.900,20181913014$

[^18]:    (intel $2.900,2018$ 20149120

[^19]:    Datel $2.90 x, 2018$ 20125426

[^20]:    (intel $2.900,2018$ 19142136

[^21]:    Datel $3.906,2018$ 19121144

[^22]:    Datel $2.00 x, 2018$ 28105160

[^23]:    Datel $3.90 x, 2018$ 19150410

