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# FCC Test Report

**Shanghai Jianrong Intelligent Information Applicant** 

Technology Co., Ltd.

Room 201, Unit 6, No. 159, Tianzhou Road, Xuhui District, Shanghai, China Address

**Product Name D5 Data Collector** 

: Apr. 26, 2024 **Report Date** 

Shenzhen Anbotek Con Anbotek



ce Laboratory Limited









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## **TEST REPORT**

Applicant : Shanghai Jianrong Intelligent Information Technology Co., Ltd.

Manufacturer : Shanghai Jianrong Intelligent Information Technology Co., Ltd.

Product Name : D5 Data Collector

Test Model No. : D5

D5pro, H8, H10, H10pro, H11, H11pro, H12, H12pro, R60, R60pro, R70,

Reference Model No. : R70pro, UC12, UC12pro, UC13, UC13pro, HC8, HC8pro, iHand60pro,

DP0041, DP0041pro, PCR500, PCR500pro, GEOMATE FC3

Trade Mark : N/A

Date of Receipt:

Rating(s) Input: 5V=3A, 9V=2A

Capacity: Lithium-ion: DC 3.8V, 9000mAh

47 CFR Part 15E ANSI C63.10-2020

Test Standard(s) KDB 789033 D02 General UNII Test Procedures New Rules v02r01

KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

Feb. 22, 2024

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with above listed standard(s) requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

| Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek |
|---|
| Date of Test: Feb. 22, 2024 to Mar. 30, 2024                    |
| Jorek Anborek Anborek Anborek Anborek Turk Jang                 |
| Ella Liang  |
| Prepared By:  |
| Anborek Anborek Anborek Anborek Anborek Anborek Anborek Anborek |
| Idward pan  |
| Approved & Authorized Signer:                                   |
| (Edward Pan)  |







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## **Revision History**

|    | Report Version       | Description             | Issued Date         |  |  |
|----|----------------------|-------------------------|---------------------|--|--|
|    | Anbore R00 potek Ant | Original Issue.         | Mar. 30, 2024       |  |  |
| 9, | Anbotek Anbotek      | Anbotek Anbotek Anbotek | Anbotek Anbotek Ant |  |  |
| 10 | ore Ambotek Anbotek  | Anbotek Anbotek Anbot   | tek Anbotek Anbotek |  |  |





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## 1. General Information

## 1.1. Client Information

|         | Applicant    | :  | Shanghai Jianrong Intelligent Information Technology Co., Ltd.                                  |
|---------|--------------|--|---|
| X6      | Address      | Room 201, Unit 6, No. 159, Tianzhou Road, Xuhui District, Shanghai,<br>China |   |
| .70     | Manufacturer | :  | Shanghai Jianrong Intelligent Information Technology Co., Ltd.                                  |
|         | Address      | :  | Room 201, Unit 6, No. 159, Tianzhou Road, Xuhui District, Shanghai,<br>China                    |
|         | Factory      | :  | SHENZHEN 3NOD ELECTRONICS CO., LTD  |
| Address |              |  | 2F, No.74 , Yangchong Road, Tangxiachong Community, Yanluo Street,<br>Bao'an District, Shenzhen |

## 1.2. Description of Device (EUT)

| Product Name           |   | D5_Data Collector   |
|------------------------|---|---|
| Test Model No.         | : | DDS Anborek Anborek Anborek Anborek Anborek   |
| Reference Model<br>No. | : | D5pro, H8, H10, H10pro, H11, H11pro, H12, H12pro, R60, R60pro, R70, R70pro, UC12, UC12pro, UC13, UC13pro, HC8, HC8pro, iHand60pro, DP0041, DP0041pro, PCR500, PCR500pro, GEOMATE FC3 (Note: All examples are the same except for colors, local reserved interfaces, and names. Therefore, we prepared "D5" for testing purposes only.)  |
| Trade Mark             | : | N/Ak Anbores Anborek Anborek Anborek  |
| Test Power Supply      | : | DC 5V from adapter input AC 120V/60Hz; DC 3.8V battery inside   |
| Test Sample No.        | : | 1-2-1(Normal Sample), 1-2-2(Engineering Sample)   |
| Adapter                | : | Manufacturer: Shenzhen ABP Technology Co., Ltd. Model No.: QC0181A Input: 100-240V~ 50-60Hz 0.5A Max Output: 5.0V 3.0A 15.0W/ 9.0V 2.0A 18.0W/ 12.0V 1.5A 18.0W   |
| RF Specification       |   |   |
| Operation<br>Frequency | : | 802.11a/n(HT20)/ac(VHT20): U-NII Band 1: 5180MHz to 5240MHz; U-NII Band 2A: 5260MHz to 5320MHz; U-NII Band 2C: 5500MHz to 5700MHz; U-NII Band 3: 5745MHz to 5825MHz;  802.11n(HT40)/ac(VHT40): U-NII Band 1: 5190MHz to 5230MHz; U-NII Band 2A: 5270MHz to 5310MHz; U-NII Band 2C: 5510MHz to 5670MHz; U-NII Band 3: 5755MHz to 5795MHz;  802.11ac(VHT80): U-NII Band 1: 5210MHz; U-NII Band 2A: 5290MHz; |







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| ofe And                                 |   | otek Aupo II. Tok Spole Aus II. Stek  |
|---|---|---|
|   |   | U-NII Band 2C: 5530MHz to 5610MHz;<br>U-NII Band 3: 5775MHz   |
| Number of Channel                       | · | 802.11a/n(HT20)/ac(VHT20): U-NII Band 1: 4; U-NII Band 2A: 4; U-NII Band 2C: 11; U-NII Band 3: 5;  802.11n(HT40)/ac(VHT40): U-NII Band 1: 2; U-NII Band 2A: 2; U-NII Band 2C: 5; U-NII Band 3: 2;  802.11ac(VHT80): U-NII Band 1: 1; U-NII Band 2A: 1; U-NII Band 2A: 1; U-NII Band 3: 1; |
| Modulation Type                         | : | 802.11a: OFDM(BPSK, QPSK, 16QAM, 64QAM);<br>802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM);<br>802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM);   |
| Antenna Type                            | : | FPC Antenna   |
| Antenna Gain(Peak)                      | : | WIFI 5.2G: 0.66dBi<br>WIFI 5.3G: 0.66dBi<br>WIFI 5.6G: 0.13dBi<br>WIFI 5.8G: 0.7dBi   |
| Device Type                             |   | Outdoor AP  |
| .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |   | ⊠ Client  |
| TPC Function                            | : | ☐ With TPC ⊠ Without TPC  |
| DFS Type                                | : | <ul><li>Slave without radar detection</li><li>☐ Slave with radar detection</li><li>☐ Master</li></ul>   |
|   |   | ation are provided by customer. eatures description, please refer to the manufacturer's specifications or the   |

User's Manual.



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#### 1.3. Auxiliary Equipment Used During Test

| Title                                   | Manufacturer            | Model No.   | Serial No.      |
|---|-------------------------|---|-----------------|
| ROG Rapture Quad-<br>band Gaming Router | ASUSTeK<br>Computer Inc | GT-AXE16000<br>(FCC ID: MSQ-RTAX5D00<br>IC: 3568A-RTAX5D00) | RAIG5D2020695NL |





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#### 1.4. Operation channel list

Operation Band: U-NII Band 1

| Bandwidth:       | 20MHz              | Bandwidth:       | 40MHz              | Bandwidth:      | 80MHz              |
|------------------|--------------------|------------------|--------------------|-----------------|--------------------|
| Channel          | Frequency<br>(MHz) | Channel Channel  | Frequency<br>(MHz) | Channel         | Frequency<br>(MHz) |
| tek 36 botek     | 5180               | Anbotek 38 Anbot | 5190               | 42              | 5210               |
| botek 40 Anbotek | 5200               | 10 46 An         | 5230               | Sk Wpolek       | Vupp Viek          |
| botel44 Anbo     | 5220               | an Brek          | Anbore An          | botek / Anbotek | And                |
| 48               | 5240               | ek Inbotek       | Vupor V            | abotek / Anbote | Augusta            |

Operation Band: U-NII Band 2A

| Bandwidth: | 20MHz              | Bandwidth: | 40MHz                                      | Bandwidth:   | 80MHz              |
|------------|--------------------|------------|--|--------------|--------------------|
| Channel    | Frequency<br>(MHz) | Channel    | Frequency<br>(MHz)                         | Channel      | Frequency<br>(MHz) |
| 52         | 5260               | 54         | 5270                                       | tek 58 mbote | 5290               |
| 56         | 5280               | 62         | 5310                                       | and and      | otek \Aupot        |
| 60         | 5300               | or I pore  | K Woole                                    | Aug          | hotek / Anbore     |
| 64         | 5320               | Auport Am  | otek \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | And          | Anbotek/ Anb       |

Operation Band: U-NII Band 2C

| Operation band.   | O-IVII Dana 20     | VUD.                | d. You             | O. D.          | 2,61               |
|-------------------|--------------------|---------------------|--------------------|----------------|--------------------|
| Bandwidth:        | 20MHz              | Bandwidth:          | 40MHz              | Bandwidth:     | 80MHz              |
| Channel           | Frequency<br>(MHz) | Channel             | Frequency<br>(MHz) | Channel Mark   | Frequency<br>(MHz) |
| 100               | 5500               | 102                 | 5510               | 106            | 100 5530 Anb       |
| 104 nbo           | 5520               | Anbort 110          | 5550 Anbore        | 122            | 5610               |
| inbotek 108 Anbot | 5540               | 118                 | 5590               | yek Aupo       | Borek              |
| 112 And           | 5560               | 126                 | 5630               | hotek / Anbo   | ek Inbotek         |
| 116               | 5580               | 134 <sup>5001</sup> | 5670               | Anbotek / Anbo | otek / Anbotek     |
| 120               | 5600               | upotek / Aupote     | ok potek           | Aupoten An     | po grek / Aupo     |
| 124 O             | 5620               | Anbotek / Anbo      | rek Andorek        | Aug ter        | And word           |
| botek 128 Moote   | 5640               | Anboisk Ar          | port / All Sho     | ick Yupoles    | Andhorek           |
| 132 Anb           | 5660               | AnVoick             | Yupo,              | botek / Anbote | K Wotek            |
| 136               | 5680               | tek Aupotek         | Anbo / sek         | upotek / Aubor | An botek           |
| 140               | 5700               | botek / Anbotek     | Ando               | Anboret An     | DOLD Y WILL STORY  |
|                   | - 07°              | W                   | 00                 | T              | P/1.               |









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Operation Band: U-NII Band 3

| Bandwidth:        | 20MHz              | Bandwidth:        | 40MHz              | Bandwidth:      | 80MHz              |
|-------------------|--------------------|-------------------|--------------------|-----------------|--------------------|
| Channel           | Frequency<br>(MHz) | Channel           | Frequency<br>(MHz) | Channel         | Frequency<br>(MHz) |
| 149               | 5745               | botek 151 Anboten | 5755               | 155 An          | 5775               |
| 15300°            | 5765               | Note 159 Anbo     | 5795               | Aup\tek         | Anbo stell         |
| botek 157 Anbotek | 5785               | anbotek Ar        | port / All         | sk Whotek       | Anbo               |
| hotel161 Anb      | 5805               | anbbiek           | Auport Air         | potek / Anboten | And Josek          |
| 165               | 5825               | ek Inbotek        | Vupo, 1            | botek / Anbote  | Andarok            |

## 1.5. Description of Test Modes

| Pretest Modes                               | Descriptions   |
|---|--|
| nbotek Anbote Anbotel Anbotek TM1ek Anbotel | Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case.  Only the data of worst case is recorded in the report.              |
| Anbotek TM2 Anbotek                         | Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.  |
| Anbotek Anbotek Anbotek  TM3 k Anbotek      | Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report. |
| Anborek TM4                                 | Keep the EUT works in normal operating mode and connect to companion device  |

## 1.6. Measurement Uncertainty

| Parameter                                | Uncertainty   |
|--|---|
| Conducted emissions (AMN 150kHz~30MHz)   | 3.4dB Anbore Anbore An                                    |
| Conducted Output Power                   | 0.76dB  |
| Power Spectral Density                   | 0.76dB  |
| Occupied Bandwidth                       | 925Hz 10018 Arthurstek Arthurstek                         |
| Radiated spurious emissions (above 1GHz) | 1G-6GHz: 4.78dB;<br>6G-18GHz: 4.88dB<br>18G-40GHz: 5.68dB |
| Radiated emissions (Below 30MHz)         | 3.53dB  |
| Radiated spurious emissions (30MHz~1GHz) | Horizontal: 3.92dB; Vertical: 4.52dB                      |

The measurement uncertainty and decision risk evaluated according to AB/WI-RF-F-032.

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









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#### 1.7. Test Summary

| Test Items   | Test Modes      | Status     |
|--|-----------------|------------|
| Conducted Emission at AC power line                  | Mode1,2,3       | Ant Potek  |
| Duty Cycle   | Mode1,2,3       | P          |
| Maximum conducted output power                       | Mode1,2,3       | P P        |
| Power spectral density                               | Mode1,2,3       | P          |
| Emission bandwidth and occupied bandwidth            | Mode1,2,3       | inport Pk  |
| Channel Move Time, Channel Closing Transmission Time | Mode4           | Anbo Prick |
| DFS Detection Thresholds                             | Mode4           | P P        |
| Band edge emissions (Radiated)                       | Mode1,2,3       | Panba      |
| Undesirable emission limits (below 1GHz)             | Mode1,2,3       | P An       |
| Undesirable emission limits (above 1GHz)             | Mode1,2,3       | nbotte P   |
| Note: P: Pass N: N/A pot applicable                  | Anbotek Anbotek | Anbotek    |

N: N/A, not applicable





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#### 1.8. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

#### FCC-Registration No.:434132

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 434132.

#### ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A.

#### **Test Location**

Shenzhen Anbotek Compliance Laboratory Limited.

1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

#### 1.9. Disclaimer

- The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- 2. The test report is invalid if there is any evidence and/or falsification.
- 3. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- 4. This document may not be altered or revised in any way unless done so by Anbotek and all revisions are duly noted in the revisions section.
- 5. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- 6. The authenticity of the information provided by the customer is the responsibility of the customer and the laboratory is not responsible for its authenticity.

The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.





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#### 1.10. Test Equipment List

| Cond      | ucted Emission at A                                | C power line     | Aupo      | k hotel          | Anbore     | Andrek       |
|-----------|--|------------------|-----------|------------------|------------|--------------|
| Item      | Equipment  | Manufacturer     | Model No. | Serial No.       | Last Cal.  | Cal.Due Date |
| . 1       | L.I.S.N. Artificial<br>Mains Network               | Rohde & Schwarz  | ENV216    | 100055           | 2024-01-18 | 2025-01-17   |
| otek<br>2 | Three Phase V-<br>type Artificial<br>Power Network | CYBERTEK         | EM5040DT  | E215040D<br>T001 | 2024-01-17 | 2025-01-16   |
| 30t       | Software Name<br>EZ-EMC                            | Farad Technology | ANB-03A   | N/A              | Alooiek    | Anborek      |
| 4         | EMI Test Receiver                                  | Rohde & Schwarz  | ESPI3     | 100926           | 2023-10-12 | 2024-10-11   |

**Duty Cycle** 

Maximum conducted output power

Power spectral density

Emission bandwidth and occupied bandwidth

Channel Move Time, Channel Closing Transmission Time

**DFS Detection Thresholds** 

| Item         | Equipment                                   | Manufacturer    | Model No.      | Serial No.            | Last Cal.  | Cal.Due Date |
|--------------|---|-----------------|----------------|-----------------------|------------|--------------|
| 1            | Constant<br>Temperature<br>Humidity Chamber | ZHONGJIAN       | ZJ-<br>KHWS80B | oo <sup>tek</sup> N/A | 2023-10-16 | 2024-10-15   |
| 2            | DC Power Supply                             | IVYTECH         | IV3605         | 1804D360<br>510       | 2023-10-20 | 2024-10-19   |
| An3ote       | Spectrum<br>Analyzer                        | Rohde & Schwarz | FSV40-N        | 101792                | 2023-05-26 | 2024-05-25   |
| <b>4</b> .nb | MXA Spectrum<br>Analysis                    | KEYSIGHT        | N9020A         | MY505318<br>23        | 2023-10-12 | 2024-10-11   |
| 5            | Oscilloscope                                | Tektronix       | MDO3012        | C020298               | 2023-10-12 | 2024-10-11   |
| 6            | MXG RF Vector<br>Signal Generator           | Agilent         | N5182A         | MY474206<br>47        | 2024-02-04 | 2025-02-03   |



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| 040.           | An Chi                                      | neiek hupo,      | N. Stok              | - nbois.        | Ann        | -bolok A     |
|----------------|---|------------------|----------------------|-----------------|------------|--------------|
|                | edge emissions (Ra<br>sirable emission limi |                  | Anburatek            | Anborek         | Aupole     | Ans          |
| Item           | Equipment                                   | Manufacturer     | Model No.            | Serial No.      | Last Cal.  | Cal.Due Date |
| 1 00           | EMI Test Receiver                           | Rohde & Schwarz  | ESR26                | 101481          | 2024-01-23 | 2025-01-22   |
| 2              | EMI Preamplifier                            | SKET Electronic  | LNPA-<br>0118G-45    | SKET-PA-<br>002 | 2024-01-17 | 2025-01-16   |
| 3              | Double Ridged<br>Horn Antenna               | SCHWARZBECK      | BBHA<br>9120D        | 02555           | 2022-10-16 | 2025-10-15   |
| nbote 4        | EMI Test Software<br>EZ-EMC                 | SHURPLE          | N/A                  | N/A             | Anbotek    | Aupolek      |
| 5              | Horn Antenna                                | A-INFO           | LB-180400-<br>KF     | J21106062<br>8  | 2023-10-12 | 2024-10-11   |
| 6              | Spectrum<br>Analyzer                        | Rohde & Schwarz  | FSV40-N              | 101792          | 2023-05-26 | 2024-05-25   |
| <sup>1</sup> 2 | Amplifier                                   | Talent Microwave | TLLA18G40<br>G-50-30 | 23022802        | 2023-05-25 | 2024-05-24   |

| Unde  | sirable emission limit     | ts (below 1GHz) |               |            |            |              |
|-------|----------------------------|-----------------|---------------|------------|------------|--------------|
| Item  | Equipment                  | Manufacturer    | Model No.     | Serial No. | Last Cal.  | Cal.Due Date |
| 1     | EMI Test Receiver          | Rohde & Schwarz | ESR26         | 101481     | 2024-01-23 | 2025-01-22   |
| 2     | Pre-amplifier              | SONOMA          | 310N          | 186860     | 2024-01-17 | 2025-01-16   |
| 34    | Bilog Broadband<br>Antenna | Schwarzbeck     | VULB9163      | 345        | 2022-10-23 | 2025-10-22   |
| 40tel | Loop Antenna (9K-<br>30M)  | Schwarzbeck     | FMZB1519<br>B | 00053      | 2023-10-12 | 2024-10-11   |
| 5.nb  | EMI Test Software EZ-EMC   | SHURPLE         | N/A nbor      | N/A door   | V Vupo     | k Anbotek    |





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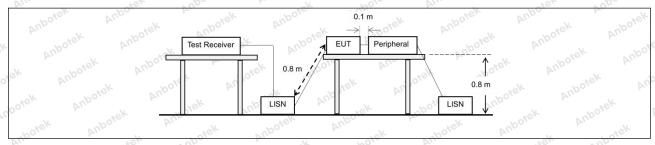
## 2. Conducted Emission at AC power line

| Test Requirement: | 47 CFR Part 15.207(a)                | ek hotek Ant          | Jose Aug Stek |
|-------------------|--------------------------------------|-----------------------|---------------|
| Yun Volek         | Frequency of emission (MHz)          | Conducted limit (dBµV | ) bojek Anbo  |
|                   | And Andrew And                       | Quasi-peak            | Average       |
| K- botek Anbo     | 0.15-0.5                             | 66 to 56*             | 56 to 46*     |
| Test Limit:       | 0.5-5 And                            | 56                    | 46 20010      |
|                   | 5-30 And And                         | 60 Potek Wupo,        | 50            |
| otek Anbotek      | *Decreases with the logarithm of the | ne frequency.         | V Vupo        |
| Test Method:      | ANSI C63.10-2020 section 6.2         | Aug.                  | otek Anbote   |

## 2.1. EUT Operation

| Operating Env | ironment: And tek noote And  |
|---------------|--|
| otek Anbotek  | 1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.                |
| Test mode:    | 2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.   |
| otek Anbotek  | 3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report. |

## 2.2. Test Setup



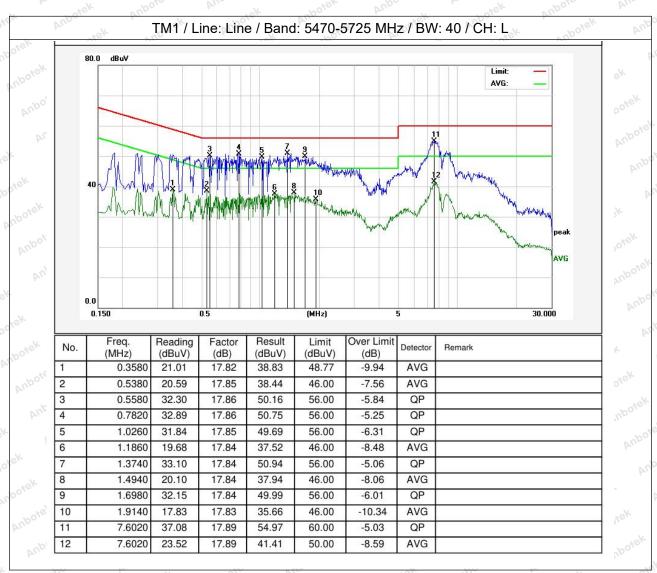




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#### 2.3. Test Data

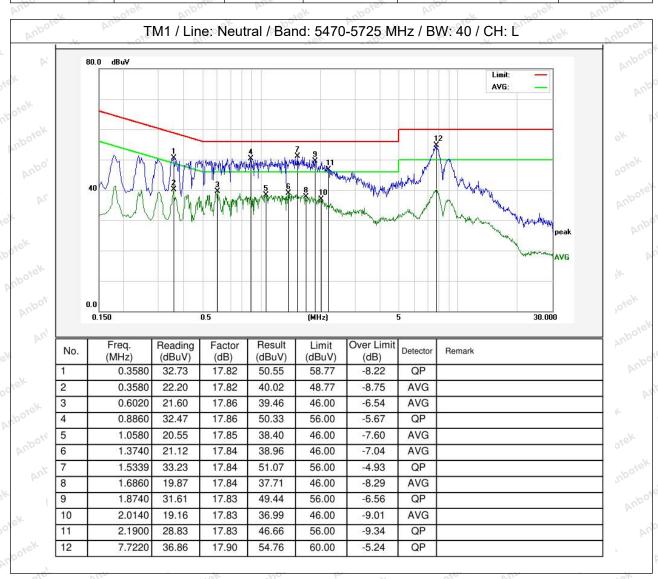
| Temperature: | 20.8 °C | Humidity: 52 % |  | Atmospheric Pressure: | 101 kPa | 0 |
|--------------|---------|----------------|--|-----------------------|---------|---|
|--------------|---------|----------------|--|-----------------------|---------|---|





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Temperature: 20.8 °C Humidity: 52 % Atmospheric Pressure: 101 kPa



Note:Only record the worst data 802.11n(HT40) in the report.







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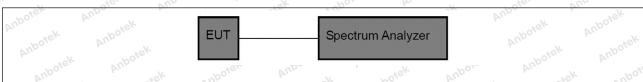
## 3. Duty Cycle

| Test Requirement: | All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximum-power transmission duration, T, are required for each tested mode of operation. |
|-------------------|--|
| Test Limit:       | No limits, only for report use.  |
| Test Method:      | ANSI C63.10-2020 section 12.2 (b)  |
| Anbotek Anbotek   | <ul> <li>i) Set the center frequency of the instrument to the center frequency of the transmission.</li> <li>ii) Set RBW &gt;= EBW if possible; otherwise, set RBW to the largest available value.</li> </ul>  |
| Procedure:        | iii) Set VBW >= RBW. iv) Set detector = peak.  |
| otek Anbotek Anb  | v) The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T, where T is defined in item a1) of 12.2, and the number of sweep points across duration T exceeds 100.  |

## 3.1. EUT Operation

| Operating Envi | ronment: Anborek Anborek Anborek Anborek Anborek Anborek  |
|----------------|---|
| Test mode:     | 1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.  2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report. |
| ek Anbotek     | 3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.  |

### 3.2. Test Setup



#### 3.3. Test Data

| Temperature: 25.3 | 3 °C Humidity: | 49 % | Atmospheric Pressure: | 101 kPa |
|-------------------|----------------|------|-----------------------|---------|
|-------------------|----------------|------|-----------------------|---------|

Please Refer to Appendix for Details.







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## 4. Maximum conducted output power

| upo, bi   | Vipoles Tup, of Polek Supo, by tek Vipoles,  |
|---|--|
| Test Requirement:   | 47 CFR Part 15.407(a)(1)(iv)<br>47 CFR Part 15.407(a)(2)   |
| Aupole Aus  | 47 CFR Part 15.407(a)(3)(i)  |
| Anbotek | For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.  For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission |
|   | bandwidth in megahertz.  If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.   |
| Test Limit:   | For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.  |
|   | If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB tha  |
|   | the directional gain of the antenna exceeds 6 dBi.  However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without   |
|   | any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems  |
| k Aupotek Aupo  | employing high gain directional antennas are used exclusively for fixed, point-to-point operations.  |
| Test Method:  | ANSI C63.10-2013, section 12.4   |
| Procedure:  | Refer to ANSI C63.10-2020 section 12.4   |

## 4.1. EUT Operation

| Operating Envi | onment: Anbores Andrew Anbores Anbores   |
|----------------|--|
| ek Anbotek     | 1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.              |
| Test mode:     | 2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report. |
| k Aupotek      | 3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only   |



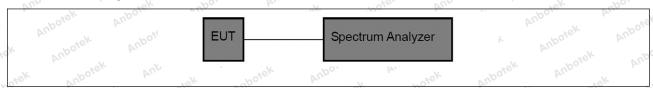




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the data of worst case is recorded in the report.

#### 4.2. Test Setup



#### 4.3. Test Data

| -V 40, 12, 12, 12, 12, 13, 14, 15, 15, 15, 15, 15, 15, 15, 15, 15, 15 |                         |
|---|-------------------------|
|   | 1 - 30°   101° - 1      |
| Temperature:   25.3 °C   Humidity:   49 %   Atmosphe                  | ic Pressure:  │ 101 kPa |

Please Refer to Appendix for Details.





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## 5. Power spectral density

| 10° K  | work All the stell appear to ak hore  |
|--|---|
| Test Requirement:                                | 47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(2) 47 CFR Part 15.407(a)(3)(i)   |
| ek Anbotek Anbotek botek Anbotek Anbotek Anbotek | For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.                   |
| Anbotek Anbotek Anbotek Anbote                   | For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.                 |
| Test Limit:                                      | For the band 5.725-5.850 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.  If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that   |
|  | the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power.  Fixed, point-to-point operations exclude the use of point-to-multipoint                  |
| Otek Anbotek Anbotek Anbotek                     | systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations. |
| Test Method:                                     | ANSI C63.10-2020, section 12.6  |
| Procedure:                                       | Refer to ANSI C63.10-2020, section 12.6   |

## 5.1. EUT Operation

| isotek p   | 1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously  |
|------------|---|
| VUD.       | transmitting mode with 802.11a modulation type. All data rates has been tested and  |
| Anboten    | found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.   |
| -sk And    | 2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has |
| Test mode: | been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.  |
| Anbotek A  | 3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and              |
| Anbotek    | data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.                               |

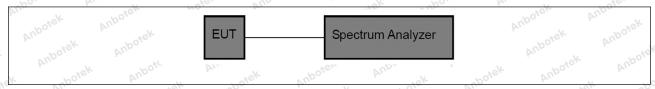






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#### 5.2. Test Setup



#### 5.3. Test Data

| Temperature:              | 25.3 °C | Humidity: | 49 %    | Atmospheric Pressure: | 101 kPa |
|---------------------------|---------|-----------|---------|-----------------------|---------|
| . 2/0.12 2 : 2:12:12.12.1 | _0.0    |           | 10 1/10 | , m                   | 10.111  |

Please Refer to Appendix for Details.





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## 6. Emission bandwidth and occupied bandwidth

| Tabolek Anbole    | U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use.   |
|-------------------|--|
| Test Requirement: | U-NII 3, U-NII 4: 47 CFR Part 15.407(e)  |
| Anbotek Anbot     | U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use.   |
| Test Limit:       | U-NII 3, U-NII 4: Within the 5.725-5.850 GHz and 5.850-5.895 GHz bands, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.   |
| Test Method:      | ANSI C63.10-2020, section 6.9 & 12.5<br>KDB 789033 D02, Clause C.2   |
| Anbotek Anbote    | Emission bandwidth: a) Set RBW = approximately 1% of the emission bandwidth. b) Set the VBW > RBW. c) Detector = peak.   |
|                   | d) Trace mode = max hold. e) Measure the maximum width of the emission that is 26 dB down from the peak of the emission.   |
|                   | Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.  |
|                   | Occupied bandwidth:  a) The instrument center frequency is set to the nominal EUT channel center frequency. The  |
|                   | frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW. b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, |
| Procedure:        | and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.  |
|                   | c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the            |
|                   | spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.  |
|                   | d) Step a) through step c) might require iteration to adjust within the specified range. e) Video averaging is not permitted. Where practical, a sample detection and                  |
|                   | single sweep mode<br>shall be used. Otherwise, peak detection and max hold mode (until the trace<br>stabilizes) shall be   |
|                   | used. f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.  |
|                   | g) If the instrument does not have a 99% power bandwidth function, then the trace data points are  |









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recovered and directly summed in linear power terms. The recovered amplitude data points,

beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached:

that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the

total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is

the difference between these two frequencies.

h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument

display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may

be reported in addition to the plot(s).

6 dB emission bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) ≥ 3 >= RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) 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.

#### 6.1. EUT Operation

#### Operating Environment:

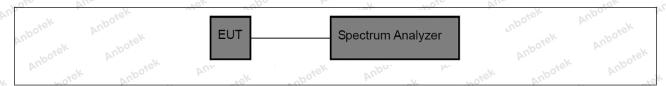
1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

#### Test mode:

2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

#### 6.2. Test Setup









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#### 6.3. Test Data

| Temperature: 25.3 °C Humidity: 49 % Atmospheric Pressure: 10     |         |  |
|--|---------|--|
| Temperature. P23.3 C Prumultutv. 49 % Palmospheric Fressure. 110 | 101 kDa |  |
|  | IUIKFA  |  |

Please Refer to Appendix for Details.





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## 7. Channel Move Time, Channel Closing Transmission Time

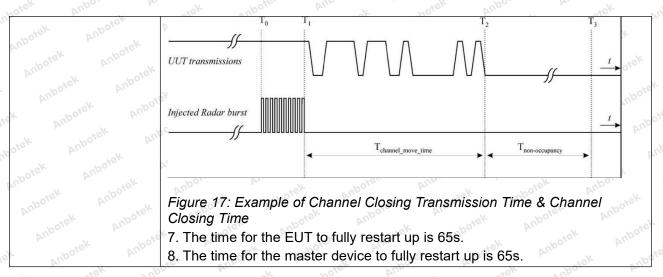
| Test Requirement:   | 47 CFR Part 15.407(h)(2)(iii)  |
|---|--|
| Test Limit:  Anbotek  Anbotek  Anbotek  Anbotek  Anbotek  Anbotek   | Channel Move Time: within 10 seconds Channel Closing Transmission Time: 200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. (The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.)  |
| Test Method:  | KDB 905462 D02, Clause 7.8.3   |
| Anbotek | The steps below define the procedure to determine the above-mentioned parameters when a radar <i>Burst</i> with a level equal to the <i>DFS Detection Threshold</i> + 1dB is generated on the <i>Operating Channel</i> of the U-NII device ( <i>In- Service Monitoring</i> ).  1. One frequency will be chosen from the <i>Operating Channels</i> of the UUT within the 5250-5350 MHz or 5470-5725 MHz bands. For 802.11 devices, the test frequency must contain control signals. This can be verified by disabling channel loading and monitoring the spectrum analyzer. If no control signals are detected, another frequency must be selected within the emission bandwidth where control signals are detected.  2. In case the UUT is a U-NII device operating as a <i>Client Device</i> (with or without DFS), a U-NII device operating as a <i>Master Device</i> will be used to allow the UUT (Client device) to <i>Associate</i> with the <i>Master Device</i> . In case the UUT is a <i>Master Device</i> , a U-NII device operating as a <i>Client Device</i> will be used and it is assumed that the Client will <i>Associate</i> with the UUT (Master). In both cases for conducted tests, the <i>Radar Waveform</i> generator will be connected to the <i>Master Device</i> . For radiated tests, the emissions of the <i>Radar Waveform</i> generator will be directed towards the <i>Master Device</i> . |
| Procedure:  | the <i>Master Device</i> has antenna gain, the main beam of the antenna will be directed toward the radar emitter. Vertical polarization is used for testing.  3. Stream the channel loading test file from the <i>Master Device</i> to the <i>Client</i>  |
|   | Device on the test Channel for the entire period of the test.  4. At time T0 the Radar Waveform generator sends a Burst of pulses for one of the Radar Type 0 in <b>Table 5</b> at levels defined in <b>Table 3</b> , on the Operating Channel. An additional 1 dB is added to the radar test signal to ensure it is a or above the DFS Detection Threshold, accounting for equipment  |
|   | variations/errors.  5. Observe the transmissions of the UUT at the end of the radar <i>Burst</i> on the  |
|   | Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). Measure and record the Channel Move Time and Channel  |
| Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek   | <ul> <li>Move Time). Measure and record the Channel Move Time and Channel Closing Transmission Time if radar detection occurs. Figure 17 illustrates Channel Closing Transmission Time.</li> <li>6. When operating as a Master Device, monitor the UUT for more than 30 minutes following instant T2 to verify that the UUT does not resume any transmissions on this Channel. Perform this test once and record the measurement result.</li> <li>7. In case the UUT is a U-NII device operating as a Client Device with In-Service Monitoring, perform steps 1 to 6.</li> </ul>   |







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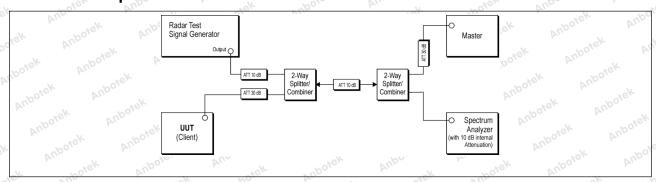
#### 7.1. EUT Operation

Operating Environment:

Test mode:

4: Normal Operating: Keep the EUT works in normal operating mode and connect to companion device

#### 7.2. Test Setup



#### 7.3. Test Data

| Temperature:            | 25.3 °C | Humidity: | 49 %  | Atmospheric Pressure: | 101 kPa   |
|-------------------------|---------|-----------|-------|-----------------------|-----------|
| . 51,40 51 511511 5 1/0 | _0.0    |           | 10 12 | , m                   | 101111111 |

Please Refer to Appendix for Details.





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## 8. DFS Detection Thresholds

| Test Requirement:  | KDB 905462 D02, Clause 5.2 Table 3   |  |
|--|--|--|
| Aupotek Aupotek  | Table 3: DFS Detection Thresholds for Master I with Radar Detection  | ipo, Air wek wup   |
|  | Table 3: DFS Detection Thresholds for Ma<br>and Client Devices with Radar De   |  |
|  | Maximum Transmit Power   | Value<br>(See Notes 1, 2, and 3)   |
|  | EIRP ≥ 200 milliwatt   | -64 dBm  |
| Test Limit:  | EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz   | -62 dBm  |
|  | EIRP < 200 milliwatt that do not meet the power spectral density requirement   | -64 dBm  |
|  | Note 1: This is the level at the input of the receiver assuming a 0 dl Note 2: Throughout these test procedures an additional 1 dB has be test transmission waveforms to account for variations in measurement the test signal is at or above the detection threshold level to trigger Note3: EIRP is based on the highest antenna gain. For MIMO devi   | en added to the amplitude of the ent equipment. This will ensure that a DFS response.  |
| Test Method:   | KDB 905462 D02, Clause 7.4.1.1  1) A 50 ohm load is connected in place of the specific connected connected in place of the specific connected conn | acotrum analyzor and the   |
|  |  |  |
|  | spectrum analyzer is connected to place of the 2) The interference Radar Detection Threshold   | Level is TH+ 0dBi +1dB that  |
|  |  | Level is TH+ 0dBi +1dB that<br>ange and antenna gain.  |
|  | <ul> <li>2) The interference Radar Detection Threshold<br/>had been taken into account the output power r</li> <li>3) The following equipment setup was used to of<br/>waveform. A vector signal generator was utilized</li> </ul>   | Level is TH+ 0dBi +1dB that<br>ange and antenna gain.<br>calibrate the conducted radar<br>d to establish the test signal   |
| Anborek<br>Anborek<br>Anborek<br>Procedure:  | 2) The interference Radar Detection Threshold had been taken into account the output power r 3) The following equipment setup was used to waveform. A vector signal generator was utilized level for radar type 0. During this process, there either the master or client device. The spectrum   | Level is TH+ 0dBi +1dB that ange and antenna gain. calibrate the conducted radard to establish the test signal were no transmissions by analyzer was switched to   |
| Procedure:   | 2) The interference Radar Detection Threshold had been taken into account the output power r 3) The following equipment setup was used to a waveform. A vector signal generator was utilized level for radar type 0. During this process, there either the master or client device. The spectrum the zero spans (time domain) at the frequency of generator. Peak detection was used. The spectrum   | Level is TH+ 0dBi +1dB that ange and antenna gain. calibrate the conducted radard to establish the test signal were no transmissions by analyzer was switched to of the radar waveform rum analyzer resolution   |
| Anbotek Anbotek Anbotek Anbotek Anbotek Procedure: Anbotek Anbotek Anbotek Anbotek | 2) The interference Radar Detection Threshold had been taken into account the output power r 3) The following equipment setup was used to a waveform. A vector signal generator was utilized level for radar type 0. During this process, there either the master or client device. The spectrum the zero spans (time domain) at the frequency of generator. Peak detection was used. The spect bandwidth (RBW) and video bandwidth (VBW)  | Level is TH+ 0dBi +1dB that ange and antenna gain. calibrate the conducted radard to establish the test signal were no transmissions by analyzer was switched to of the radar waveform rum analyzer resolution were set to 3 MHz. The  |
| Anborek Anborek Anborek Anborek Anborek Anborek Anborek Anborek Anborek            | 2) The interference Radar Detection Threshold had been taken into account the output power r 3) The following equipment setup was used to a waveform. A vector signal generator was utilized level for radar type 0. During this process, there either the master or client device. The spectrum the zero spans (time domain) at the frequency of generator. Peak detection was used. The spect bandwidth (RBW) and video bandwidth (VBW) spectrum analyzer had offset -1.0dB to compensation.   | Level is TH+ 0dBi +1dB that ange and antenna gain. calibrate the conducted radar d to establish the test signal were no transmissions by a analyzer was switched to of the radar waveform rum analyzer resolution were set to 3 MHz. The sate RF cable loss 1.0dB. et so that the power level                          |
| Procedure:  Anborek  Anborek  Anborek  Anborek  Anborek                            | 2) The interference Radar Detection Threshold had been taken into account the output power r 3) The following equipment setup was used to a waveform. A vector signal generator was utilized level for radar type 0. During this process, there either the master or client device. The spectrum the zero spans (time domain) at the frequency of generator. Peak detection was used. The spect bandwidth (RBW) and video bandwidth (VBW) spectrum analyzer had offset -1.0dB to compens   | Level is TH+ 0dBi +1dB that ange and antenna gain. calibrate the conducted radar d to establish the test signal were no transmissions by analyzer was switched to of the radar waveform rum analyzer resolution were set to 3 MHz. The sate RF cable loss 1.0dB. et so that the power level dBi +1dB = -63dBm. Capture |

## 8.1. EUT Operation

| Operating Env | ironment:           |                |             |                |            | And        |
|---------------|---------------------|----------------|-------------|----------------|------------|------------|
| Test mode:    | 4: Normal Operating | : Keep the EUT | works in no | rmal operating | mode and o | connect to |
| rest mode.    | companion device    | VUD.           | "otek       | Vupo,          | bi.        | r upore    |

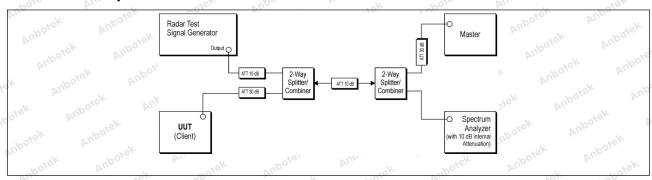






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#### 8.2. Test Setup



#### 8.3. Test Data

| e) | Temperature: | 25.3 °C | Humidity:   | 49 %  | Atmospheric Pressure: | 101 kPa |
|----|--------------|---------|-------------|-------|-----------------------|---------|
|    |              | _0.0    | Diaminanty: | 10 70 | 100mm                 | 13.64 2 |

Please Refer to Appendix for Details.





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#### 9. Band edge emissions (Radiated)

|   | , N - K           | 70. N.                    | _XO.     | V Ula   | ~V~     | VVV .   |
|---|-------------------|---------------------------|----------|---------|---------|---------|
|   | anbore.           | 47 CFR Part 15.407(b)(1)  | Aupo.    | k. otek | Anbois  | Vur Fek |
|   |                   | 47 CFR Part 15.407(b)(2)  | aboten   |         |         | Anbo.   |
|   | Test Requirement: | 47 CFR Part 15.407(b)(3)  |          |         |         | hote    |
|   |                   | 47 CFR Part 15.407(b)(4)  |          |         |         | AUC     |
| 6 | K Anbo. K         | 47 CFR Part 15.407(b)(10) | ek abote | Anbo.   | -K hote | k aup   |
|   |                   |                           |          |         |         |         |

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating solely in the 5.725-5.850 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

| Toct | ı | imit: |  |
|------|---|-------|--|

| MHz                      | MHz                     | MHz               | GHz         |
|--------------------------|-------------------------|-------------------|-------------|
| 0.090-0.110              | 16.42-16.423            | 399.9-410         | 4.5-5.15    |
| <sup>1</sup> 0.495-0.505 | 16.69475-<br>16.69525   | 608-614           | 5.35-5.46   |
| 2.1735-2.1905            | 16.80425-<br>16.80475   | 960-1240          | 7.25-7.75   |
| 4.125-4.128              | 25.5-25.67              | 1300-1427         | 8.025-8.5   |
| 4.17725-4.17775          | 37.5-38.25              | 1435-1626.5       | 9.0-9.2     |
| 4.20725-4.20775          | 73-74.6                 | 1645.5-<br>1646.5 | 9.3-9.5     |
| 6.215-6.218              | 74.8-75.2               | 1660-1710         | 10.6-12.7   |
| 6.26775-6.26825          | 108-121.94              | 1718.8-<br>1722.2 | 13.25-13.4  |
| 6.31175-6.31225          | 123-138                 | 2200-2300         | 14.47-14.5  |
| 8.291-8.294              | 149.9-150.05            | 2310-2390         | 15.35-16.2  |
| 8.362-8.366              | 156.52475-<br>156.52525 | 2483.5-2500       | 17.7-21.4   |
| 8.37625-8.38675          | 156.7-156.9             | 2690-2900         | 22.01-23.12 |
| 8.41425-8.41475          | 162.0125-167.17         | 3260-3267         | 23.6-24.0   |
| 12.29-12.293             | 167.72-173.2            | 3332-3339         | 31.2-31.8   |
| 12.51975-12.52025        | 240-285                 | 3345.8-3358       | 36.43-36.5  |
| 12.57675-12.57725        | 322-335.4               | 3600-4400         | (2) sorek   |
| 13.36-13.41              | Aupor Air               | de Yes            | V. V.       |

<sup>&</sup>lt;sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.



<sup>&</sup>lt;sup>2</sup>Above 38.6



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| otek Anbore A |                                  | ok botek Ar                     | upor A. Stek              |
|---------------|----------------------------------|---------------------------------|---------------------------|
| abotek Alex   | The field strength of emiss      | sions appearing within thes     | se frequency bands shall  |
| Anbore All.   | not exceed the limits show       | vn in § 15.209. At frequenc     | ies equal to or less than |
|               | 1000 MHz, compliance wi          | th the limits in § 15.209sha    | all be demonstrated       |
|               | using measurement instru         | mentation employing a CIS       | SPR quasi-peak            |
|               | detector. Above 1000 MHz         | z, compliance with the emis     | ssion limits in §         |
| A. Stek Anbo  | 15.209shall be demonstra         | ted based on the average        | value of the measured     |
|               | emissions. The provisions        | in § 15.35apply to these n      | neasurements.             |
|               | " " ciek Ant                     |                                 | botek Anb                 |
|               |                                  | here in this subpart, the en    |                           |
| hotek Anbo    |                                  | ot exceed the field strength    | n levels specified in the |
|               | following table:                 |                                 | shorek Anbo               |
|               | Frequency (MHz)                  | Field strength                  | Measurement               |
| botek Anbord  | Al abover                        | (microvolts/meter)              | distance                  |
| And           | ek Anbor Arr                     | k Spoten And                    | (meters)                  |
|               | 0.009-0.490                      | 2400/F(kHz)                     | 300                       |
|               | 0.490-1.705                      | 24000/F(kHz)                    | 30 months                 |
|               | 1.705-30.0                       | 30                              | 30                        |
|               | 30-88                            | 100 **                          | aboter 3 Ambo             |
|               | 88-216                           | 150 **                          | Pos 3 Opolok              |
|               | 216-960                          | 200 **                          | Anbo 3                    |
|               | Above 960                        | 500                             | 3 Anbort                  |
|               |                                  | aragraph (g), fundamental       | No.                       |
|               |                                  | iting under this section sha    |                           |
|               |                                  | Hz, 76-88 MHz, 174-216 M        |                           |
|               |                                  | these frequency bands is        |                           |
|               | sections of this part, e.g.,     |                                 | permitted under other     |
|               |                                  | ve, the tighter limit applies a | at the hand edges         |
|               |                                  | in the above table are bas      |                           |
|               | -20.                             | -peak detector except for t     | _ XO                      |
|               |                                  | above 1000 MHz. Radiate         |                           |
|               |                                  | sed on measurements emp         |                           |
|               | detector.                        | V solek Anbor                   | All All Sol               |
| Test Method:  | ANSI C63.10-2020, section        | on 12 7 4 12 7 6 12 7 7         | otek Pupo, Y              |
| Tool Manous   | MOTO AM                          | hotek Arbos, Z. Arr             | atek anboten An           |
|               | Above 1GHz:                      | 117 ok 1 1/20 <sup>t</sup> ek   | -6 - u-t-tiu u t-bl- 4 5  |
|               |                                  | UT was placed on the top        |                           |
|               |                                  | at a 3 meter fully-anechoic     |                           |
|               |                                  | termine the position of the     |                           |
|               |                                  | ters away from the interference |                           |
|               |                                  | e top of a variable-height a    |                           |
|               |                                  | aried from one meter to for     |                           |
|               |                                  | naximum value of the field      |                           |
| Procedure:    |                                  | of the antenna are set to m     |                           |
|               |                                  | ission, the EUT was arrang      |                           |
|               |                                  | tuned to heights from 1 m       |                           |
| in wotek      |                                  | MHz, the antenna was tur        |                           |
|               | 6/1/2                            | s turned from 0 degrees to      | 300 degrees to find the   |
|               | maximum reading.                 | m was set to Book Detact        | Function and Specified    |
|               | Bandwidth with Maximum           | m was set to Peak Detect F      | -unclion and Specified    |
| . aboiek Anbo |                                  |                                 | 10dR lower than the       |
|               |                                  | he EUT in peak mode was         |                           |
| tek por Ar    | I IIIIII speciliea, then testing | g could be stopped and the      | peak values of the EUT    |









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would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.

- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case
- i. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
- 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

#### 9.1. EUT Operation

#### Operating Environment:

1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

Test mode:

- 2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
- 3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.



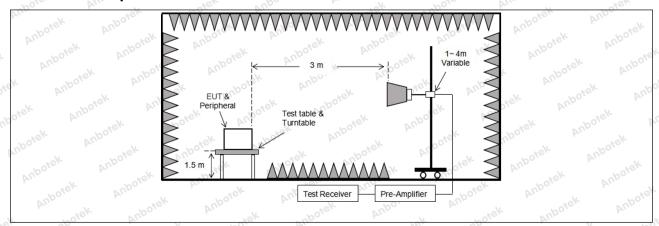






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#### 9.2. Test Setup







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#### 9.3. Test Data

|                    |                   | TM1 / B          | and: 5150-5        | 350 MHz / BV      | N: 20 / L          |                 |          |
|--------------------|-------------------|------------------|--------------------|-------------------|--------------------|-----------------|----------|
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol. | Detector |
| 5150.00            | 37.05             | 15.99 And        | 53.04              | 68.20             | -15.16             | workH A         | Peak     |
| 5150.00            | 39.14             | 15.99            | 55.13              | 68.20             | -13.07             | V.              | Peak     |
| 5150.00            | 26.97             | 15.99            | 42.96              | 54.00             | -11.04             | Anto Hick       | AVG      |
| 5150.00            | 29.04             | 15.99            | 45.03              | 54.00             | -8.97              | Vub.            | AVG      |
|                    |                   | TM1 / B          | and: 5150-53       | 350 MHz / BV      | V: 20 / H          |                 |          |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB)    | Antenna<br>Pol. | Detector |
| 5350.00            | 37.48             | 16.43            | 53.91              | 68.20             | -14.29             | H               | Peak     |
| 5350.00            | 40.47             | 16.43            | 56.90              | 68.20             | -11.30             | And Vick        | Peak     |
| 5350.00            | 28.83             | 16.43            | 45.26              | 54.00             | -8.74              | PUB.            | AVG      |
| 5350.00            | 29.70             | 16.43            | 46.13              | 54.00             | -7.87              | Kpoter          | AVG      |

Remark: 1. Result=Reading + Factor

|                    |                   | TM2 / B          | and: 5150-5        | 350 MHz / BV      | V: 20 / L          |                 |          |
|--------------------|-------------------|------------------|--------------------|-------------------|--------------------|-----------------|----------|
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol. | Detector |
| 5150.00            | 35.97             | 15.99            | 51.96              | 68.20             | -16.24             | Hootek          | Peak     |
| 5150.00            | 37.38             | 15.99            | 53.37              | 68.20             | -14.83             | ek V abote      | Peak     |
| 5150.00            | 26.69             | 15.99 nbot       | 42.68              | 54.00 NO          | -11.32             | ek H            | AVG ANG  |
| 5150.00            | 27.67             | ote 15.99 An     | 43.66              | 54.00             | -10.34 h           | V               | AVG      |
|                    |                   | TM2 / B          | and: 5150-5        | 350 MHz / BV      | V: 20 / H          |                 |          |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB)    | Antenna<br>Pol. | Detector |
| 5350.00            | 37.81             | 16.43            | 54.24              | 68.20             | -13.96             | k Habotel       | Peak     |
| 5350.00            | 38.83             | 16.43            | 55.26              | 68.20             | -12.94             | V               | Peak, No |
| 5350.00            | 27.84             | 16.43            | 44.27              | 54.00             | 9.73               | H And           | AVG      |
| 5350.00            | 29.32             | 16.43            | 45.75              | 54.00             | -8.25              | nbotek A        | AVG      |

Remark: 1. Result=Reading + Factor





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|                    |                   |                  |                    | Up                      |                 |   | 1,       |
|--------------------|-------------------|------------------|--------------------|-------------------------|-----------------|---|----------|
|                    |                   | TM2 / B          | and: 5150-53       | 350 MHz / BV            | V: 40 / L       |   |          |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m)       | Over limit (dB) | Antenna<br>Pol.                         | Detector |
| 5150.00            | 36.55             | 15.99            | 52.54              | 68.20                   | -15.66          | k Hupote                                | Peak     |
| 5150.00            | 38.39             | 15.99            | 54.38              | 68.20 (b <sup>0</sup> ) | -13.82          | otek V Anbo                             | Peak     |
| 5150.00            | 27.13             | 15.99            | 43.12              | 54.00 pm                | -10.88          | Harorek                                 | AVG      |
| 5150.00            | 28.78             | 15.99            | 44.77              | 54.00                   | -9.23           | V.                                      | AVG      |
| VA.                |                   | TM2 / B          | and: 5150-53       | 350 MHz / BV            | V: 40 / H       | , |          |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m)       | Over limit (dB) | Antenna<br>Pol.                         | Detector |
| 5350.00            | 38.13             | 16.43            | 54.56              | 68.20                   | -13.64          | tek H anbo                              | Peak     |
| 5350.00            | 36.98             | 16.43            | 53.41              | 68.20                   | -14.79          | V V                                     | Peak M   |
| 5350.00            | 28.38             | 16.43            | 44.81              | 54.00                   | 9.19            | Vpc. H                                  | AVG      |
| 5350.00            | 29.59             | 16.43            | 46.02              | 54.00                   | -7.98           | Anbord                                  | AVG      |

Remark: 1. Result=Reading + Factor

|                    | 87.               | 194              |                    |                   | V ~ ~ ~ ~               | D1.             | 26       |
|--------------------|-------------------|------------------|--------------------|-------------------|-------------------------|-----------------|----------|
|                    |                   | TM3 / E          | Band: 5150-5       | 350 MHz / BV      | V: 20 / L               |                 |          |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB)      | Antenna<br>Pol. | Detector |
| 5150.00            | 37.02             | 15.99            | 53.01              | 68.20             | -15.19                  | Anbore H        | Peak     |
| 5150.00            | 38.78             | 15.99            | 54.77              | 68.20             | -13.43                  | No Nok          | Peak     |
| 5150.00            | 26.60             | 15.99            | 42.59              | 54.00             | -11.41                  | Horek           | AVG      |
| 5150.00            | 28.82             | 15.99            | 44.81              | 54.00             | -9.19                   | y V pote        | AVG      |
|                    |                   | TM3 / B          | and: 5150-5        | 350 MHz / BV      | V: 20 / H               |                 |          |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result (dBuV/m)    | Limit<br>(dBuV/m) | Over limit (dB)         | Antenna<br>Pol. | Detector |
| 5350.00            | 37.92             | 16.43            | 54.35              | 68.20             | -13.85                  | NO HER          | Peak     |
| 5350.00            | 38.16             | 16.43            | 54.59              | 68.20             | -13.61                  | Votek           | Peak     |
| 5350.00            | 27.85             | 16.43            | 44.28              | 54.00             | -9.72                   | H H             | AVG      |
| 5350.00            | 28.44             | 16.43            | 44.87              | 54.00             | -9.13 <sub>0</sub> 0000 | VARRE           | AVG      |

Remark: 1. Result=Reading + Factor



Hotline



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|                   | 184  | ,   | - alt   | Po, by   |  | yer.  |
|-------------------|--|---|---|--|--|---|
|                   | TM3 / B  | and: 5150-53  | 350 MHz / BV  | V: 40 / L  |  |   |
| Reading<br>(dBuV) | Factor<br>(dB/m)   | Result<br>(dBuV/m)  | Limit<br>(dBuV/m)   | Over limit<br>(dB)   | Antenna<br>Pol.  | Detector  |
| 35.96             | 15.99  | 51.95   | 68.20   | -16.25   | PH   | Peak  |
| 36.38             | 15.99  | 52.37   | 68.20   | -15.83   | Nupo,  | Peak  |
| 26.18             | 15.99  | 42.17 A   | 54.00   | 11.83 NO   | otek H Anbo  | AVG   |
| 26.88 An          | 15.99  | 42.87   | 54.00   | -11.13   | nbotek V A   | AVG   |
|                   | TM3 / B  | and: 5150-53  | 350 MHz / BV  | V: 40 / H  |  |   |
| Reading<br>(dBuV) | Factor<br>(dB/m)   | Result<br>(dBuV/m)  | Limit<br>(dBuV/m)   | Over limit (dB)  | Antenna<br>Pol.  | Detector  |
| 38.09             | 16.43  | 54.52   | 68.20   | -13.68   | H <sup>nb</sup>  | Peak  |
| 37.22             | 16.43  | 53.65 noot  | 68.20   | -14.55   | tek A Vupo,  | Peak  |
| 27.53 And         | 16.43  | 43.96   | 54.00   | -10.04   | hotek H An   | AVG   |
| 27.57             | 16.43  | 44.00   | 54.00   | -10.00   | V  | AVG   |
|                   | (dBuV) 35.96 36.38 26.18 26.88  Reading (dBuV) 38.09 37.22 27.53 | Reading (dBuV) (dB/m) 35.96 15.99 36.38 15.99 26.18 15.99 26.88 15.99  TM3 / B  Reading (dBuV) (dB/m) 38.09 16.43 37.22 16.43 27.53 16.43 | Reading (dBuV)         Factor (dB/m)         Result (dBuV/m)           35.96         15.99         51.95           36.38         15.99         52.37           26.18         15.99         42.17           26.88         15.99         42.87           TM3 / Band: 5150-53           Reading (dBuV)         Factor (dB/m)         Result (dBuV/m)           38.09         16.43         54.52           37.22         16.43         53.65           27.53         16.43         43.96 | Reading (dBuV)         Factor (dB/m)         Result (dBuV/m)         Limit (dBuV/m)           35.96         15.99         51.95         68.20           36.38         15.99         52.37         68.20           26.18         15.99         42.17         54.00           26.88         15.99         42.87         54.00           TM3 / Band: 5150-5350 MHz / BV           Reading (dBuV)         Result (dBuV/m)         Limit (dBuV/m)           38.09         16.43         54.52         68.20           37.22         16.43         53.65         68.20           27.53         16.43         43.96         54.00 | (dBuV)         (dB/m)         (dBuV/m)         (dBuV/m)         (dBuV/m)         (dB)           35.96         15.99         51.95         68.20         -16.25           36.38         15.99         52.37         68.20         -15.83           26.18         15.99         42.17         54.00         -11.83           26.88         15.99         42.87         54.00         -11.13           TM3 / Band: 5150-5350 MHz / BW: 40 / H           Reading (dBuV)         Factor (dBw')         Result (dBuV/m)         Cover limit (dBwV/m)           (dBuV)         (dBh/m)         54.52         68.20         -13.68           37.22         16.43         53.65         68.20         -14.55           27.53         16.43         43.96         54.00         -10.04 | Reading (dBuV)         Factor (dB/m)         Result (dBuV/m)         Limit (dBuV/m)         Over limit (dB)         Antenna Pol.           35.96         15.99         51.95         68.20         -16.25         H           36.38         15.99         52.37         68.20         -15.83         V           26.18         15.99         42.17         54.00         -11.83         H           26.88         15.99         42.87         54.00         -11.13         V           TM3 / Band: 5150-5350 MHz / BW: 40 / H           Reading (dBuV) (dB/m) (dB/m) (dB/m) (dBuV/m) (dBuV/m) (dB)         Over limit (dBuV/m) (dB)         Antenna Pol.           38.09         16.43         54.52         68.20         -13.68         H           37.22         16.43         53.65         68.20         -14.55         V           27.53         16.43         43.96         54.00         -10.04         H |

Remark: 1. Result=Reading + Factor

| TM3 / Band: 5150-5350 MHz / BW: 80 / L |                   |                  |                    |                   |                 |                      |          |
|--|-------------------|------------------|--------------------|-------------------|-----------------|----------------------|----------|
| Frequency<br>(MHz)                     | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB) | Antenna<br>Pol.      | Detector |
| 5150.00                                | 36.06 M           | 15.99            | 52.05              | 68.20 And         | -16.15          | botek H Ani          | Peak     |
| 5150.00                                | 36.52             | 15.99            | 52.51              | 68.20             | -15.69          | Votodo               | Peak     |
| 5150.00                                | 26.67             | 15.99            | 42.66              | 54.00             | -11.34          | Hek                  | AVG      |
| 5150.00                                | 26.90             | 15.99            | 42.89              | 54.00             | -11.11          | Vootek               | AVG      |
|  |                   | TM3 / E          | Band: 5150-53      | 350 MHz / BV      | V: 80 / H       |                      |          |
| Frequency<br>(MHz)                     | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB) | Antenna<br>Pol.      | Detector |
| 5350.00                                | 38.38             | 16.43            | 54.81              | 68.20             | -13.39          | n H <sup>arodo</sup> | Peak     |
| 5350.00                                | 37.51             | 16.43            | 53.94              | 68.20             | -14.26          | N. V.                | Peak     |
| 5350.00                                | 28.89             | 16.43            | 45.32              | 54.00             | -8.68           | AUR H JOK            | AVG      |
| 5350.00                                | 28.17             | 16.43            | 44.60              | 54.00             | -9.40           | AV <sup>2</sup>      | AVG      |

Remark: 1. Result=Reading + Factor





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|                    |                   | TM1 / B          | and: 5470-58       | 350 MHz / BV      | V: 20 / L          |                    |            |
|--------------------|-------------------|------------------|--------------------|-------------------|--------------------|--------------------|------------|
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol.    | Detector   |
| 5460.00            | 38.31             | 16.37            | 54.68              | 68.20             | -13.52             | "Ho <sub>ter</sub> | Peak       |
| 5460.00            | 39.74             | 16.37            | 56.11              | 68.20             | -12.09             | k V spotek         | Peak       |
| 5470.00            | 39.24             | 16.70            | 55.94              | 68.20             | -12.26             | H                  | e Peak, ⊳° |
| 5470.00            | 40.03             | 16.70            | 56.73 m            | 68.20             | 364-11.47 M        | oter A Vupe        | Peak       |
| 5460.00            | 28.86             | 16.37            | 45.23              | 54.00             | -8.77              | botek H Ar         | AVG        |
| 5460.00            | 28.75             | 16.37            | 45.12              | 54.00             | -8.88              | V                  | AVG        |
| 5470.00            | 29.13             | 16.70            | 45.83              | 54.00             | -8.17              | Aup H              | AVG        |
| 5470.00            | 30.26             | 16.70            | 46.96              | 54.00             | -7.04              | PUA.               | AVG        |
|                    |                   | TM1 / B          | and: 5470-58       | 350 MHz / BV      | V: 20 / H          |                    |            |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol.    | Detector   |
| 5850.00            | 39.28             | 17.21            | 56.49              | 68.20             | -11.71             | otek H an          | Peak       |
| 5850.00            | 39.67             | 17.21            | 56.88              | 68.20             | -11.32             | V                  | Peak       |
| 5850.00            | 29.24             | 17.21            | 46.45              | 54.00             | -7.55              | Anbort H           | AVG        |
| 5850.00            | 29.23             | 17.21            | 46.44              | 54.00             | -7.56              | N/View             | AVG        |

Remark: 1. Result=Reading + Factor

|                    | 3/2 AD -          | *                           | -\L \_ \_\_\_\            | D1.               |                    | 191             | *        |
|--------------------|-------------------|-----------------------------|---------------------------|-------------------|--------------------|-----------------|----------|
|                    |                   | TM2 / B                     | and: 5470-58              | 350 MHz / BV      | V: 20 / L          |                 |          |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m)            | Result<br>(dBuV/m)        | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol. | Detector |
| 5460.00            | 38.30             | 16.37                       | 54.67                     | 68.20             | -13.53             | Pupe H          | Peak     |
| 5460.00            | 38.91             | 16.37                       | 55.28                     | 68.20             | -12.92             | An'OP           | Peak     |
| 5470.00            | 38.41             | 16.70                       | 55.11                     | 68.20             | -13.09             | Hotel           | Peak     |
| 5470.00            | 38.86             | 16.70                       | 55.56                     | 68.20             | -12.64             | V Note          | Peak     |
| 5460.00            | 27.23             | 16.37                       | 43.60                     | 54.00             | -10.40             | HAM             | AVG NO   |
| 5460.00            | 27.70             | 16.37                       | 44.07                     | 54.00             | -9.93              | potek V Ano     | AVG      |
| 5470.00            | 27.67             | 16.70                       | 44.37                     | 54.00             | -9.63              | , Horo          | AVG      |
| 5470.00            | 28.24             | 16.70                       | 44.94                     | 54.00             | -9.06              | N.K             | AVG      |
|                    |                   | TM2 / B                     | and: 5470-58              | 350 MHz / BV      | V: 20 / H          |                 |          |
| Frequency (MHz)    | Reading<br>(dBuV) | Factor<br>(dB/m)            | Result<br>(dBuV/m)        | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol. | Detector |
| 5850.00            | 37.52             | 17.21                       | 54.73                     | 68.20             | -13.47             | Harrie          | Peak     |
| 5850.00            | 38.10 m           | 17.21                       | , 6 55.31 mb <sup>c</sup> | 68.20             | -12.90             | otek V Anb      | Peak     |
| 5850.00            | 27.83             | o <sup>te 1</sup> 17.21 Ant | 45.04                     | 54.00             | -8.96              | HYST            | AVG      |
| 5850.00            | 28.61             | 17.21                       | 45.82                     | 54.00             | -8.18              | rups Ar         | AVG      |

Remark: 1. Result=Reading + Factor





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| - 61               | -100 h            | TM2 / E              | and: 5470-58       | 850 MHz / BV      | V: 40 / L          | -\0\'\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | ·        |
|--------------------|-------------------|----------------------|--------------------|-------------------|--------------------|---|----------|
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m)     | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB)    | Antenna<br>Pol.                         | Detector |
| 5460.00            | 37.88             | 16.37                | 54.25              | 68.20             | -13.95             | H note                                  | Peak     |
| 5460.00            | 38.79             | 16.37                | 55.16              | 68.20             | -13.04             | A.u.                                    | Peak     |
| 5470.00            | 38.71             | 16.70                | 55.41 NO           | 68.20             | -12.79             | otek H Anbo                             | Peak     |
| 5470.00            | 39.40             | 16.70 <sup>MAN</sup> | 56.10              | 68.20             | -12.10             | V <sub>Aster</sub> V                    | Peak     |
| 5460.00            | 26.96             | 16.37                | 43.33              | 54.00             | -10.67             | Th.                                     | AVG      |
| 5460.00            | 28.79             | 16.37                | 45.16              | 54.00             | -8.84              | Anbov                                   | AVG      |
| 5470.00            | 27.16             | 16.70                | 43.86              | 54.00             | -10.14             | ~ Hotel                                 | AVG      |
| 5470.00            | 28.47             | 16.70                | 45.17              | 54.00             | -8.83              | Votek                                   | AVG      |
| 0.01-              |                   | TM2 / B              | and: 5470-58       | 350 MHz / BV      | V: 40 / H          |   | '        |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m)     | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol.                         | Detector |
| 5850.00            | 38.24             | 17.21                | 55.45 AT           | 68.20             | -12.75             | H                                       | Peak     |
| 5850.00            | 38.58             | 17.21                | 55.79              | 68.20             | -12.41             | Anboro                                  | Peak     |
| 5850.00            | 28.42             | 17.21                | 45.63              | 54.00             | -8.37              | Hren.                                   | AVG      |
| 5850.00            | 29.48             | 17.21                | 46.69              | 54.00             | -7.32              | Votek                                   | AVG      |

Remark: 1. Result=Reading + Factor

|                    |                   | TM3 / B          | and: 5470-58       | 850 MHz / BV      | V: 20 / L              |                  |          |
|--------------------|-------------------|------------------|--------------------|-------------------|------------------------|------------------|----------|
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB)     | Antenna<br>Pol.  | Detector |
| 5460.00            | 37.50             | 16.37            | 53.87              | 68.20             | -14.34                 | noH <sup>e</sup> | Peak     |
| 5460.00            | 37.59             | 16.37            | 53.96              | 68.20             | -14.24                 | Vhotek           | Peak     |
| 5470.00            | 38.08             | 16.70            | 54.78              | 68.20             | -13.43                 | H                | Peak     |
| 5470.00            | 38.39             | 16.70            | 55.09              | 68.20             | -13.11 <sub>00</sub> 0 | VANDO            | Peak     |
| 5460.00            | 28.10             | 16.37            | 44.47              | 54.00             | -9.53                  | notek H Anb      | AVG      |
| 5460.00            | 28.79             | 16.37            | 45.16              | 54.00             | -8.84                  | Ver              | AVG      |
| 5470.00            | 28.38             | 16.70            | 45.08              | 54.00             | -8.92                  | Anbo H.          | AVG      |
| 5470.00            | 29.25             | 16.70            | 45.95              | 54.00             | -8.05                  | Anb              | AVG      |
|                    |                   | TM3 / B          | and: 5470-58       | 350 MHz / BV      | V: 20 / H              |                  |          |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB)     | Antenna<br>Pol.  | Detector |
| 5850.00            | 38.24             | 17.21            | 55.45              | 68.20             | -12.76                 | otek H anbo      | Peak     |
| 5850.00            | 39.09             | otel 17.21 And   | 56.30              | 68.20             | -11.90 Ani             | V                | Peak     |
| 5850.00            | 28.08             | 17.21            | 45.29              | 54.00             | -8.71                  | Mupou H          | AVG      |
| 5850.00            | 29.21             | 17.21            | 46.42              | 54.00             | -7.58                  | Np∘V.            | AVG      |

Remark: 1. Result=Reading + Factor







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|                    |                   | TM3 / B          | and: 5470-58       | 850 MHz / BV      | V: 40 / L          |                    |           |
|--------------------|-------------------|------------------|--------------------|-------------------|--------------------|--------------------|-----------|
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol.    | Detector  |
| 5460.00            | 36.43             | 16.37            | 52.80              | 68.20             | -15.40             | "Ho <sub>ter</sub> | Peak      |
| 5460.00            | 37.91             | 16.37            | 54.28              | 68.20             | -13.92             | k V botek          | Peak      |
| 5470.00            | 36.86             | 16.70            | 53.56              | 68.20             | -14.64             | H                  | Peak Peak |
| 5470.00            | 38.25             | 16.70            | 54.95              | 68.20             | 13.25              | oter A Vupe        | Peak      |
| 5460.00            | 27.41             | 16.37            | 43.78              | 54.00             | -10.22             | botek H Ar         | AVG       |
| 5460.00            | 27.52             | 16.37            | 43.89              | 54.00             | -10.11             | V                  | AVG       |
| 5470.00            | 27.66             | 16.70            | 44.36              | 54.00             | -9.64              | Pup H K            | AVG       |
| 5470.00            | 28.33             | 16.70            | 45.03              | 54.00             | -8.97              | PUA.               | AVG       |
|                    |                   | TM3 / B          | and: 5470-58       | 350 MHz / BV      | V: 40 / H          |                    |           |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol.    | Detector  |
| 5850.00            | 37.76             | 17.21            | 54.97              | 68.20             | -13.23             | otek H an          | Peak N    |
| 5850.00            | 38.65             | 17.21            | 55.86              | 68.20             | -12.34             | V                  | Peak      |
| 5850.00            | 27.78             | 17.21            | 44.99              | 54.00             | -9.01              | Anbort H           | AVG       |
| 5850.00            | 27.44             | 17.21            | 44.65              | 54.00             | -9.35              | N/View             | AVG       |

Remark: 1. Result=Reading + Factor

|                    |                   | TM3 / B          | and: 5470-58       | 850 MHz / BV      | V: 80 / L          |                 |          |
|--------------------|-------------------|------------------|--------------------|-------------------|--------------------|-----------------|----------|
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol. | Detector |
| 5460.00            | 35.69             | 16.37            | 52.06              | 68.20             | -16.14             | nboteH          | Peak     |
| 5460.00            | 37.26             | 16.37            | 53.63              | 68.20             | -14.57             | Nek             | Peak     |
| 5470.00            | 36.05             | 16.70            | 52.75              | 68.20             | -15.45             | H H             | Peak     |
| 5470.00            | 38.21             | 16.70            | 54.91              | 68.20             | -13.29             | V               | Peak     |
| 5460.00            | 26.02             | 16.37            | 42.39              | 54.00             | -11.61             | ek Hanbott      | AVG      |
| 5460.00            | 27.07             | 16.37            | 43.44              | 54.00             | -10.56             | Jek V           | AVG MID  |
| 5470.00            | 26.77             | 16.70            | 43.47              | 54.00             | -10.53             | Н               | AVG      |
| 5470.00            | 27.28             | 16.70            | 43.98              | 54.00             | -10.02             | Vupose A        | AVG      |
|                    |                   | TM3 / B          | and: 5470-58       | 350 MHz / BW      | V: 80 / H          |                 |          |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol. | Detector |
| 5850.00            | 37.82             | 17.21            | 55.03              | 68.20             | -13.17             | k Hupote        | Peak     |
| 5850.00            | 38.07             | 17.21            | 55.28              | 68.20             | -12.92             | V V             | Peak no  |
| 5850.00            | 28.28             | 3×17.21          | 45.49              | 54.00             | otel -8.51 An      | H               | AVG      |
| 5850.00            | 28.43             | 17.21            | 45.64              | 54.00             | -8.36              | abotek P        | AVG      |

Remark: 1. Result=Reading + Factor





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# 10. Undesirable emission limits (below 1GHz)

| Test Requirement:   | 47 CFR Part 15.407(b)(9)   | Anbo Lok Anb   | or An-   |
|---|--|--|--|
| Anborek Anbore  | Unwanted emissions below strength limits set forth in §  | w 1 GHz must comply with the get \$ 15.209.  | eneral field   |
|   |  | nere in this subpart, the emission<br>of exceed the field strength levels  |  |
|   | following table:   |  |  |
|   | Frequency (MHz)  | Field strength (microvolts/meter)  | Measurement distance (meters)  |
| hotek Anbore  | 0.009-0.490  | 2400/F(kHz)  | 300  |
|   | 0.490-1.705  | 24000/F(kHz)   | 30   |
|   | 1.705-30.0   | 30   | 30   |
| ok hotek A  | 30-88  | 100 **   | 3 Ambore   |
| Test Limit:   | 88-216   | 150 **   | 3 mbotek   |
| otek anbore   | 216-960  | 200 **   | 3 Artis  |
|   | Above 960  | 500  | 3 Anbore   |
|   | -104 - 104   | aragraph (g), fundamental emiss  | -30%   |
|   | intentional radiators operating frequency bands 54-72 MH   | ting under this section shall not b<br>Hz, 76-88 MHz, 174-216 MHz or<br>these frequency bands is permit  | e located in the 470-806 MHz.  |
| Se Aupa K   |  | e, the tighter limit applies at the t  | oand edges.  |
|   |  | in the above table are based on  |  |
|   | amploying a CISPP guasi  | neak dataster execut for the free  |  |
|   |  | peak detector except for the free  | uency bands 9–   |
|   | 90 kHz, 110–490 kHz and  | above 1000 MHz. Radiated emis  | uency bands 9–<br>ssion limits in  |
|   | 90 kHz, 110–490 kHz and these three bands are bas  |  | uency bands 9–<br>ssion limits in  |
| Test Method:  | 90 kHz, 110–490 kHz and  | above 1000 MHz. Radiated emised on measurements employing  | uency bands 9–<br>ssion limits in  |
| Test Method:  | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section   | above 1000 MHz. Radiated emised on measurements employing  | uency bands 9–<br>ssion limits in  |
| Test Method:  | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz:   | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5   | uency bands 9–<br>ssion limits in<br>an average  |
| Test Method:  | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU   | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rot  | puency bands 9–<br>ssion limits in<br>an average<br>ating table 0.8  |
| Test Method:  | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU meters above the ground a   | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rotat a 3 meter semi-anechoic cham   | puency bands 9–ssion limits in an average ating table 0.8 aber. The table  |
| Test Method:  | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EL meters above the ground a was rotated 360 degrees to  | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rotat a 3 meter semi-anechoic chamo determine the position of the him.   | puency bands 9–ssion limits in an average ating table 0.8 aber. The table ighest radiation.  |
| Test Method:  | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 or 10   | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rote at a 3 meter semi-anechoic chamo determine the position of the hid meters away from the interfere   | puency bands 9–ssion limits in an average ating table 0.8 aber. The table ghest radiation. nce-receiving   |
| Test Method:  | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount  | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rote at a 3 meter semi-anechoic cham o determine the position of the high meters away from the interferented on the top of a variable-height   | ating table 0.8 aber. The table ighest radiation. nce-receiving at antenna tower.  |
| Test Method:  | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mound c. The antenna height is varieties.  | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rote at a 3 meter semi-anechoic chamo determine the position of the high meters away from the interfere ted on the top of a variable-heigh aried from one meter to four meters.  | ating table 0.8 aber. The table ighest radiation. nce-receiving at antenna tower. ers above the  |
| Test Method:  | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mound c. The antenna height is variety ground to determine the meters and series and series and series are series.   | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rotat a 3 meter semi-anechoic chamo determine the position of the hid meters away from the interferented on the top of a variable-heigh aried from one meter to four meters aximum value of the field strength.  | ating table 0.8 aber. The table ighest radiation. nce-receiving at antenna tower. ers above the th. Both horizonta   |
| otek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbote             | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mound c. The antenna height is variety ground to determine the mand vertical polarizations of  | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rotat a 3 meter semi-anechoic chamo determine the position of the high meters away from the interferented on the top of a variable-heigh aried from one meter to four meters aximum value of the field strengt of the antenna are set to make the  | ating table 0.8 aber. The table ighest radiation. nce-receiving at an analyse at the table ighest radiation. In the table is above the the measurement.  |
| Test Method:  | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mound c. The antenna height is varied ground to determine the mand vertical polarizations of d. For each suspected emissions of these three bands are the section of the sec | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rote at a 3 meter semi-anechoic chamo determine the position of the high meters away from the interferented on the top of a variable-heigh aried from one meter to four meters aximum value of the field strength of the antenna are set to make the ission, the EUT was arranged to   | ating table 0.8 aber. The table ighest radiation. Ince-receiving at an analyse above the incers above the in |
| otek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek            | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mound c. The antenna height is varied ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was  | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rote at a 3 meter semi-anechoic champ of determine the position of the high of the top of a variable-height aried from one meter to four meters away from the field strength of the antenna are set to make the ission, the EUT was arranged to tuned to heights from 1 meter to   | ating table 0.8 aber. The table ighest radiation. Ince-receiving at antenna tower. It above the measurement. Its worst case 4 meters (for the  |
| Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek         | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mound c. The antenna height is varied ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 30   | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rote at a 3 meter semi-anechoic champo determine the position of the high of the top of a variable-height aried from one meter to four meters away from the field strength of the antenna are set to make the ission, the EUT was arranged to tuned to heights from 1 meter to MHz, the antenna was tuned to I   | ating table 0.8 aber. The table ighest radiation. Ince-receiving at antenna tower. It above the measurement its worst case 4 meters (for the neights 1 meter)  |
| Anbotek | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EL meters above the ground a was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mound c. The antenna height is varied ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 30 and the rotatable table was   | above 1000 MHz. Radiated emised on measurements employing n 12.7.4, 12.7.5  JT was placed on the top of a rote at a 3 meter semi-anechoic champ of determine the position of the high of the top of a variable-height aried from one meter to four meters away from the field strength of the antenna are set to make the ission, the EUT was arranged to tuned to heights from 1 meter to   | ating table 0.8 aber. The table ighest radiation. Ince-receiving at antenna tower. It above the measurement its worst case 4 meters (for the neights 1 meter)  |
| Anbotek | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU meters above the ground a was rotated 360 degrees the b. The EUT was set 3 or 10 antenna, which was mound c. The antenna height is varying ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 30 and the rotatable table was maximum reading.  | above 1000 MHz. Radiated emised on measurements employing in 12.7.4, 12.7.5  JT was placed on the top of a rotat a 3 meter semi-anechoic chamo determine the position of the high meters away from the interfere ted on the top of a variable-heigh aried from one meter to four meters aximum value of the field strength of the antenna are set to make the ission, the EUT was arranged to tuned to heights from 1 meter to MHz, the antenna was tuned to les turned from 0 degrees to 360 degrees  | ating table 0.8 aber. The table ighest radiation. Ince-receiving at antenna tower. The table is above the ince-receiving at antenna tower. The measurement its worst case 4 meters (for the ineights 1 meter) egrees to find the issue is the incerval of the incident of the incident is the incident of the incident is the incident of the incident is incident |
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| Anbotek | 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section Below 1GHz: a. For below 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mound c. The antenna height is varying ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 30 and the rotatable table was maximum reading. e. The test-receiver system Bandwidth with Maximum f. If the emission level of the limit specified, then testing  | above 1000 MHz. Radiated emised on measurements employing in 12.7.4, 12.7.5  JT was placed on the top of a rotat a 3 meter semi-anechoic chamo determine the position of the high meters away from the interferented on the top of a variable-heigh aried from one meter to four meters aximum value of the field strength of the antenna are set to make the dission, the EUT was arranged to tuned to heights from 1 meter to MHz, the antenna was tuned to less turned from 0 degrees to 360 degrees to 360 degrees to Peak Detect Function   | ating table 0.8 aber. The table ighest radiation. Ince-receiving at antenna tower. Its worst case 4 meters (for the neights 1 meter) egrees to find the on and Specified lower than the values of the EU   |









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would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.

- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

#### Above 1GHz:

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case
- i. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB









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below the limit need not be reported.

- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
- 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

## 10.1. EUT Operation

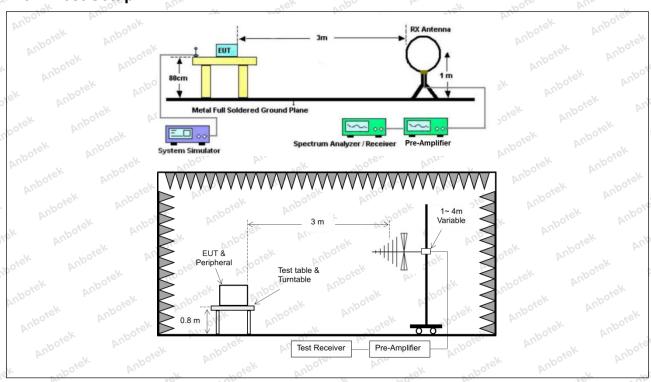
#### Operating Environment:

1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

### Test mode:

- 2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
- 3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

#### 10.2. Test Setup











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## 10.3. Test Data

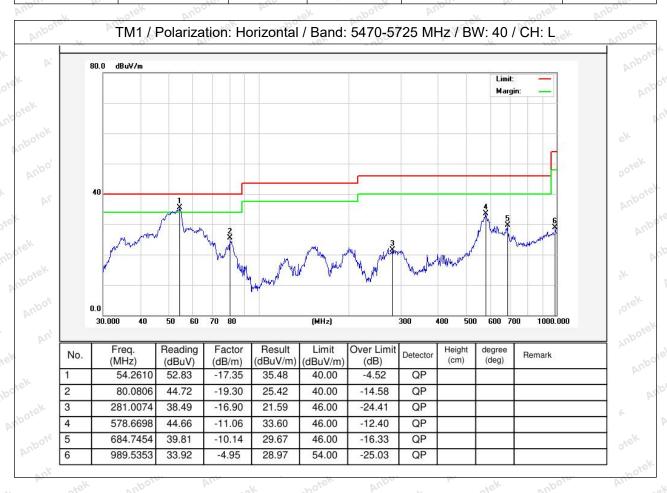
The test results of 9kHz-30MHz was attenuated more than 20dB below the permissible limits, so the results don't record in the report.





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Temperature: 25.3 °C Humidity: 49 % Atmospheric Pressure: 101 kPa

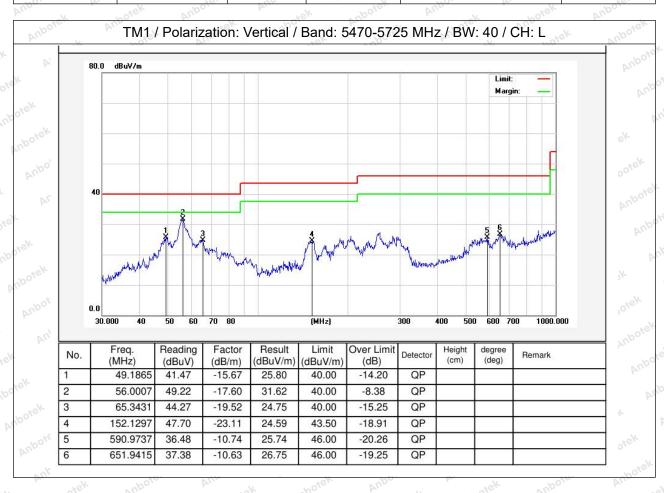






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Temperature: 25.3 °C Humidity: 49 % Atmospheric Pressure: 101 kPa



Note:Only record the worst data 802.11n(HT40) in the report.







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## 11. Undesirable emission limits (above 1GHz)

| " otek Anbore.    | 47 CFR Part 15.407(b)(1)  | Anbo   | "otek  | Anbore   | Vur Fek  |
|-------------------|---------------------------|--|--|--|--|
|                   | 47 CFR Part 15.407(b)(2)  | aboles   |  |  | Aupo,  |
| Test Requirement: | 47 CFR Part 15.407(b)(3)  |  |  |  | hote   |
|                   | 47 CFR Part 15.407(b)(4)  |  |  |  | And  |
| Aupo, K           | 47 CFR Part 15.407(b)(10) | ek abote   | anbo.  | -k 2018  | ik anb   |
|                   | Test Requirement:         | Test Requirement: 47 CFR Part 15.407(b)(2)<br>47 CFR Part 15.407(b)(3)<br>47 CFR Part 15.407(b)(4) | 47 CFR Part 15.407(b)(2) 47 CFR Part 15.407(b)(3) 47 CFR Part 15.407(b)(4) | 47 CFR Part 15.407(b)(2) 47 CFR Part 15.407(b)(3) 47 CFR Part 15.407(b)(4) | 47 CFR Part 15.407(b)(2) 47 CFR Part 15.407(b)(3) 47 CFR Part 15.407(b)(4) |

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating solely in the 5.725-5.850 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

| Toet | ı | im | it٠ |
|------|---|----|-----|

| MHz MHz           | MHz                     | MHz               | GHz         |
|-------------------|-------------------------|-------------------|-------------|
| 0.090-0.110       | 16.42-16.423            | 399.9-410         | 4.5-5.15    |
| 10.495-0.505      | 16.69475-<br>16.69525   | 608-614           | 5.35-5.46   |
| 2.1735-2.1905     | 16.80425-<br>16.80475   | 960-1240          | 7.25-7.75   |
| 4.125-4.128       | 25.5-25.67              | 1300-1427         | 8.025-8.5   |
| 4.17725-4.17775   | 37.5-38.25              | 1435-1626.5       | 9.0-9.2     |
| 4.20725-4.20775   | 73-74.6                 | 1645.5-<br>1646.5 | 9.3-9.5     |
| 6.215-6.218       | 74.8-75.2               | 1660-1710         | 10.6-12.7   |
| 6.26775-6.26825   | 108-121.94              | 1718.8-<br>1722.2 | 13.25-13.4  |
| 6.31175-6.31225   | 123-138                 | 2200-2300         | 14.47-14.5  |
| 8.291-8.294       | 149.9-150.05            | 2310-2390         | 15.35-16.2  |
| 8.362-8.366       | 156.52475-<br>156.52525 | 2483.5-2500       | 17.7-21.4   |
| 8.37625-8.38675   | 156.7-156.9             | 2690-2900         | 22.01-23.12 |
| 8.41425-8.41475   | 162.0125-167.17         | 3260-3267         | 23.6-24.0   |
| 12.29-12.293      | 167.72-173.2            | 3332-3339         | 31.2-31.8   |
| 12.51975-12.52025 | 240-285                 | 3345.8-3358       | 36.43-36.5  |
| 12.57675-12.57725 | 322-335.4               | 3600-4400         | (2) (2)     |
| 13.36-13.41       | Vupore Viv              | ode Yes           | Vie. Vup    |

<sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

<sup>2</sup>Above 38.6









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| nbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek  | not exceed the limits show 1000 MHz, compliance wi using measurement instru detector. Above 1000 MHz 15.209shall be demonstra emissions. The provisions  | sions appearing within these to in § 15.209. At frequencies the the limits in § 15.209 shall be mentation employing a CISP of the compliance with the emissisted based on the average value in § 15.35 apply to these means there in this subpart, the emissister in this subpart, the emissister is the compliance with the emissister in this subpart, the emissister is the complex to the complex that th | s equal to or less than<br>be demonstrated<br>R quasi-peak<br>on limits in §<br>lue of the measured<br>asurements.   |
|---|--|--|--|
| ipotek Aupo   | intentional radiator shall not following table:  | ot exceed the field strength le  | evels specified in the   |
|   | Frequency (MHz)  | Field strength (microvolts/meter)  | Measurement distance   |
|   | tek Aupo, Ai.  | K anborer And  | (meters)   |
|   | 0.009-0.490  | 2400/F(kHz)  | 300  |
| ok botek A  | 0.490-1.705  | 24000/F(kHz)   | sk 30 upo, b   |
|   | 1.705-30.0   | 30 And   | 30 morek   |
|   | 30-88  | 100 **   | oote, 3 Mus  |
|   | 88-216   | 150 **   | notel3 Anbore  |
|   | 216-960  | 200 **   | And 3  |
|   | Above 960  | 500  | And And  |
|   | frequency bands 54-72 M<br>However, operation within<br>sections of this part, e.g.,<br>In the emission table abov   | e, the tighter limit applies at t  | z or 470-806 MHz.<br>rmitted under other<br>the band edges.  |
| otek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek  | frequency bands 54-72 M<br>However, operation within<br>sections of this part, e.g.,<br>In the emission table above<br>The emission limits shown<br>employing a CISPR quasi<br>90 kHz, 110–490 kHz and   | Hz, 76-88 MHz, 174-216 MHz<br>these frequency bands is pe<br>§§ 15.231 and 15.241.   | z or 470-806 MHz. rmitted under other the band edges. d on measurements frequency bands 9–emission limits in   |
| nbotek<br>Anbotek<br>Anbotek<br>Anbotek<br>Anbotek<br>Anbotek   | frequency bands 54-72 MI However, operation within sections of this part, e.g., In the emission table above The emission limits shown employing a CISPR quasi 90 kHz, 110–490 kHz and these three bands are bas detector.  ANSI C63.10-2020, section   | Hz, 76-88 MHz, 174-216 MHz, these frequency bands is pe §§ 15.231 and 15.241. We, the tighter limit applies at the in the above table are based-peak detector except for the above 1000 MHz. Radiated as sed on measurements employ  | z or 470-806 MHz. rmitted under other the band edges. d on measurements frequency bands 9–emission limits in   |
| Test Method:  Anborek  Anborek | frequency bands 54-72 MI However, operation within sections of this part, e.g., In the emission table above The emission limits shown employing a CISPR quasi 90 kHz, 110–490 kHz and these three bands are base detector.  ANSI C63.10-2020, section Above 1GHz: a. For above 1GHz, the Elemeters above the ground rotated 360 degrees to de b. The EUT was set 3 met which was mounted on the c. The antenna height is very ground to determine the meand vertical polarizations of d. For each suspected emiand then the antenna was test frequency of below 30 and the rotatable table was maximum reading.  | Hz, 76-88 MHz, 174-216 MHz, these frequency bands is pe §§ 15.231 and 15.241. The tighter limit applies at the interpretation in the above table are based-peak detector except for the above 1000 MHz. Radiated as ded on measurements employed at a 3 meter fully-anechoic character and from one meter to four the aximum value of the field stroof the antenna are set to make its interpretation, the EUT was arranged tuned to heights from 1 meters turned from 0 degrees to 36 meters and 15 meters are set to make its interpretation.  | z or 470-806 MHz. rmitted under other the band edges. d on measurements frequency bands 9–emission limits in ying an average a rotating table 1.5 namber. The table waghest radiation. De-receiving antenna, enna tower. The table waghest radiation are the measurement of to its worst case for the discondition of the discondition |
| nbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbote Anbotek Anbote  | frequency bands 54-72 Mi However, operation within sections of this part, e.g., In the emission table above The emission limits shown employing a CISPR quasi 90 kHz, 110–490 kHz and these three bands are based detector.  ANSI C63.10-2020, section Above 1GHz: a. For above 1GHz, the Elemeters above the ground rotated 360 degrees to dear but be a section of the control of the contr | Hz, 76-88 MHz, 174-216 MHz, these frequency bands is pe §§ 15.231 and 15.241. The tighter limit applies at the interpretation in the above table are based peak detector except for the above 1000 MHz. Radiated as ded on measurements employ an 12.7.4, 12.7.6, 12.7.7  UT was placed on the top of a lat a 3 meter fully-anechoic charmine the position of the highest away from the interference to pof a variable-height anterpretation of the antenna are set to make its instituted to heights from 1 meters away from 0 degrees to 36 m was set to Peak Detect Furmine was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees to 36 m was set to Peak Detect Furmine was turned from 0 degrees  | z or 470-806 MHz. rmitted under other the band edges. d on measurements frequency bands 9-emission limits in ying an average a rotating table 1.5 namber. The table war ghest radiation. be-receiving antenna, enna tower. In the measurement of the measurement of the its worst case for the discontinuous table and the meters and Specified and Specified the measurement of the meters of the discontinuous table and Specified and Specified   |









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would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.

- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case
- i. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
- 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

## 11.1. EUT Operation

## Operating Environment:

1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

#### Test mode:

- 2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
- 3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.



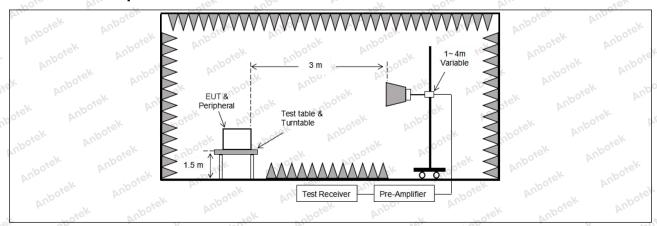






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## 11.2. Test Setup







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# 11.3. Test Data

| Temperature: | 25.3 °C | Humidity:      | 49 %    | Atmospheric Pressure:   | 101 kPa |   |
|--------------|---------|----------------|---------|-------------------------|---------|---|
| Tomperature. | P20.0 0 | i fulfillalty. | TO 70 p | 7 timosphono i ressure. | TOTAL   | 1 |

| - No.              | hore              | Di.              | 76F                | "Up,              | - No.              | -h07            | Dir.                                |
|--------------------|-------------------|------------------|--------------------|-------------------|--------------------|-----------------|-------------------------------------|
|                    |                   | TM3 / Ban        | d: 5150-525        | 0 MHz / BW:       | 20 / CH: L         |                 |                                     |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit<br>(dB) | Antenna<br>Pol. | Detector                            |
| 10360.00           | 31.53             | 23.81 And        | 55.34              | 68.20             | -12.86             | V               | bot Peak                            |
| 15540.00           | 32.90             | 28.68            | 61.58              | 68.20             | -6.62              | rupo, A         | Peak                                |
| 10360.00           | 31.98             | 23.81            | 55.79              | 68.20             | -12.41             | Anbolt          | Peak                                |
| 15540.00           | 32.97             | 28.68            | 61.65              | 68.20             | -6.55              | VIHO46H         | Peak                                |
| 10360.00           | 20.953            | 23.81            | 44.76              | 54.00             | -9.24              | Vootek          | AVG                                 |
| 15540.00           | 22.078            | 28.68            | 50.76              | 54.00             | -3.24              | V V             | e <sup>k</sup> AVG <sub>n</sub> boo |
| 10360.00           | 21.171            | 23.81            | 44.98              | 54.00             | -9.02 M            | H Ann           | AVG                                 |
| 15540.00           | 21.629            | 28.68            | 50.31              | 54.00             | -3.69              | nbotek H A      | AVG                                 |
| -111               |                   | TM3 / Ban        | d: 5150-5250       | MHz / BW:         | 20 / CH: M         | 19              | 30,000 **                           |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB)    | Antenna<br>Pol. | Detector                            |
| 10400.00           | 30.89             | 23.81            | 54.70              | 68.20             | -13.50             | Kupore          | Peak                                |
| 15600.00           | 32.43             | 29.13            | 61.56              | 68.20             | -6.64              | ek V nbo        | Peak                                |
| 10400.00           | 31.47             | 23.81            | 55.28              | 68.20             | -12.92             | Н               | Peak                                |
| 15600.00           | 32.49             | 29.13            | 61.62              | 68.20             | -6.58              | H bu            | Peak                                |
| 10400.00           | 21.223            | 23.81            | 45.03              | 54.00             | -8.97              | AnboreV         | AVG                                 |
| 15600.00           | 22.198            | 29.13            | 51.33              | 54.00             | -2.67              | NO ALEK         | AVG                                 |
| 10400.00           | 21.161            | 23.81            | 44.97              | 54.00             | -9.03              | Hotek           | AVG                                 |
| 15600.00           | 21.709            | 29.13            | 50.84              | 54.00             | -3.16              | H               | AVG of                              |
|                    |                   | TM3 / Ban        | d: 5150-525        | 0 MHz / BW:       | 20 / CH: H         |                 |                                     |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB)    | Antenna<br>Pol. | Detector                            |
| 10480.00           | 30.46             | 23.80            | 54.26              | 68.20             | -13.94             | Aups A          | Peak                                |
| 15720.00           | 31.91             | 30.03            | 61.94              | 68.20             | -6.26              | Anbor           | Peak                                |
| 10480.00           | 31.11             | 23.80            | 54.91              | 68.20             | -13.29             | Hoores          | Peak                                |
| 15720.00           | 31.40             | 30.03            | 61.43              | 68.20             | -6.77              | ek Habote       | Peak                                |
| 10480.00           | 19.89             | 23.80            | 43.69              | 54.00             | -10.31             | V V             | otek AVG MO                         |
| 15720.00           | 20.96             | 30.03            | 50.99              | 54.00             | -3.01 M            | Over Aug        | AVG                                 |
| 10480.00           | 20.37 An          | 23.80            | 44.17              | 54.00             | -9.83              | Anbote H        | AVG                                 |
| 15720.00           | 20.50             | 30.03            | 50.53              | 54.00             | -3.47              | _\oH\           | AVG                                 |

- Result =Reading + Factor
- 2. Only the worst case 802.11ac(VHT20) is recorded in the report.









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| ien Vupa           | *                 | TM2 / Pan        | d: E250 E25        | 0 MHz / BW:       | 20 / CH· I          |                 | nte <sup>k</sup> |
|--------------------|-------------------|------------------|--------------------|-------------------|---------------------|-----------------|------------------|
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit (dBuV/m)    | Over limit (dB)     | Antenna<br>Pol. | Detector         |
| 10520.00           | 27.89             | 23.81            | 51.70              | 68.20             | -16.50              | PA, .           | Peak             |
| 15780.00           | 29.32             | 30.48            | 59.80              | 68.20             | -8.40               | k Nupote        | Peak             |
| 10520.00           | 28.77             | 23.81            | 52.58              | 68.20             | -15.62              | Jok H Joh       | Peak             |
| 15780.00           | 27.83             | 30.48 M          | 58.31              | 68.20             | -9.89 PM            | H               | Peak             |
| 10520.00           | 17.680            | 23.81            | 41.49              | 54.00             | -12.51              | Wpo, A          | AVG              |
| 15780.00           | 19.439            | 30.48            | 49.92              | 54.00             | -4.08               | Vupofo.         | AVG              |
| 10520.00           | 19.210            | 23.81            | 43.02              | 54.00             | -10.98              | Hoiek           | AVG              |
| 15780.00           | 18.537            | 30.48            | 49.02              | 54.00             | -4.98               | Hootek          | AVG              |
| 0.00               |                   | TM3 / Ban        | d: 5250-535        | MHz / BW:         | 20 / CH: M          |                 |                  |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB)     | Antenna<br>Pol. | Detector         |
| 10600.00           | 29.08             | 23.87            | 52.95              | 68.20             | -15.25              | V               | Peak             |
| 15900.00           | 28.37             | 31.38            | 59.75              | 68.20             | -8.45               | Anbo V ok       | Peak             |
| 10600.00           | 28.07             | 23.87            | 51.94              | 68.20             | -16.26              | Anh             | Peak             |
| 15900.00           | 28.25             | 31.38            | 59.63              | 68.20             | -8.57               | Hypoten         | Peak             |
| 10600.00           | 18.350            | 23.87            | 42.22              | 54.00             | -11.78              | ek V nbot       | AVG              |
| 15900.00           | 19.189            | 31.38            | 50.57              | 54.00             | -3.43               | V               | AVG              |
| 10600.00           | 18.490            | 23.87            | 42.36              | 54.00             | -11.64              | Pose, H         | AVG              |
| 15900.00           | 18.687            | 31.38            | 50.07              | 54.00             | -3.93               | Anborek<br>H    | AVG              |
| 0.00               | <u>r</u>          | TM3 / Ban        | d: 5250-535        | 0 MHz / BW:       | 20 / CH: H          |                 |                  |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB)     | Antenna<br>Pol. | Detector         |
| 10640.00           | 28.42             | 23.90            | 52.32              | 68.20             | -15.88              | SK A Vupos      | Peak             |
| 15960.00           | 27.87             | 31.83            | 59.70              | 68.20             | -8.50               | nek V not       | Peak             |
| 10640.00           | 28.44             | 23.90            | 52.34              | 68.20             | -15.86 <sup>M</sup> | H               | Peak             |
| 15960.00           | 27.81             | 31.83            | 59.64              | 68.20             | -8.56               | Pupo, H         | Peak             |
| 10640.00           | 17.09             | 23.90            | 40.99              | 54.00             | -13.01              | Aup Ofer        | AVG              |
| 15960.00           | 18.15             | 31.83            | 49.98              | 54.00             | -4.02               | Morek           | AVG              |
| 10640.00           | 17.66             | 23.90            | 41.56              | 54.00             | -12.44              | H bote          | AVG              |
| 15960.00           | 19.01             | 31.83            | 50.84              | 54.00             | -3.16               | Н               | AVG              |

- 1. Result =Reading + Factor
- 2. Only the worst case 802.11ac(VHT20) is recorded in the report.







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| ien Aug            | *                 | TM4 / Dow        | d. E470 E70        | E MUL / DVA/.     | AO / CH. I      | , , , , , , , , , , , , , , , , , , , | -tek     |
|--------------------|-------------------|------------------|--------------------|-------------------|-----------------|---------------------------------------|----------|
| Frequency          | Reading           | Factor           | Result             | Limit             | Over limit      | Antenna                               | Detector |
| (MHz)              | (dBuV)            | (dB/m)           | (dBuV/m)           | (dBuV/m)          | (dB)            | Pol.                                  | 121.     |
| 11020.000          | 27.63             | 24.12            | 51.75              | 68.20             | -16.45          | V4                                    | Peak     |
| 16530.000          | 27.97             | 32.96            | 60.93              | 68.20             | -7.27           | k N <sup>V</sup> Upo,                 | Peak     |
| 11020.000          | 28.81             | 24.12            | 52.93              | 68.20             | -15.27          | otek H Anbo                           | Peak     |
| 16530.000          | 27.59             | 32.96            | 60.55              | 68.20             | -7.65           | H                                     | Peak     |
| 11020.000          | 17.37             | 24.12            | 41.49              | 54.00             | -12.51          | Wp. A                                 | AVG      |
| 16530.000          | 18.09             | 32.96            | 51.05              | 54.00             | -2.95           | Anbolo                                | AVG      |
| 11020.000          | 17.01             | 24.12            | 41.13              | 54.00             | -12.87          | Moier                                 | AVG      |
| 16530.000          | 17.69             | 32.96            | 50.65              | 54.00             | -3.35           | Horek                                 | AVG      |
|                    |                   | TM1 / Band       | d: 5470-5725       | MHz / BW: 2       | 240 / CH: M     |                                       |          |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB) | Antenna<br>Pol.                       | Detector |
| 11180.000          | 27.01             | 23.86            | 50.87              | 68.20             | -17.33          | V                                     | Peak     |
| 16770.000          | 28.18             | 32.25            | 60.43              | 68.20             | -7.77           | Aupo A                                | Peak     |
| 11180.000          | 27.48             | 23.86            | 51.34              | 68.20             | -16.86          | Anh                                   | Peak     |
| 16770.000          | 27.72             | 32.25            | 59.97              | 68.20             | -8.23           | Hypoten                               | Peak     |
| 11180.000          | 16.65             | 23.86            | 40.51              | 54.00             | -13.49          | ek V noot                             | AVG      |
| 16770.000          | 16.79             | 32.25            | 49.04              | 54.00             | -4.96           | V, V                                  | AVG      |
| 11180.000          | 16.52             | 23.86            | 40.38              | 54.00             | -13.62          | Pose H                                | AVG      |
| 16770.000          | 17.23             | 32.25            | 49.48              | 54.00             | -4.52           | Anborek<br>H                          | AVG      |
|                    |                   | TM1 / Ban        | d: 5470-572        | 5 MHz / BW:       | 40 / CH: H      |                                       | - 40     |
| Frequency<br>(MHz) | Reading<br>(dBuV) | Factor<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB) | Antenna<br>Pol.                       | Detector |
| 11340.000          | 28.01             | 23.60            | 51.61              | 68.20             | -16.59          | SK A Vupos                            | Peak     |
| 17010.000          | 28.18             | 31.58            | 59.76              | 68.20             | -8.44           | stek V not                            | Peak     |
| 11340.000          | 26.48             | 23.60            | 50.08              | 68.20             | -18.12 AT       | H                                     | Peak     |
| 17010.000          | 27.17             | 31.58            | 58.75              | 68.20             | -9.45           | Anbore H                              | Peak     |
| 11340.000          | 17.44             | 23.60            | 41.04              | 54.00             | -12.96          | AUPLOR                                | AVG      |
| 17010.000          | 18.03             | 31.58            | 49.61              | 54.00             | -4.39           | Motel                                 | AVG      |
| 11340.000          | 17.00             | 23.60            | 40.60              | 54.00             | -13.40          | H Pole                                | AVG      |
| 17010.000          | 17.83             | 31.58            | 49.41              | 54.00             | -4.59           | H                                     | AVG      |

- 1. Result =Reading + Factor
- 2. Only record the worst data 802.11n(HT40) in the report.









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| TM3 / Band: 5725-5850 MHz / BW: 80 / CH: L |                   |                              |                 |                   |                 |                 |          |  |
|--|-------------------|------------------------------|-----------------|-------------------|-----------------|-----------------|----------|--|
| Frequency<br>(MHz)                         | Reading<br>(dBuV) | Factor<br>(dB/m)             | Result (dBuV/m) | Limit<br>(dBuV/m) | Over limit (dB) | Antenna<br>Pol. | Detector |  |
| 11550.000                                  | 30.05             | 23.40                        | 53.45           | 68.20             | -14.75          | P.A.            | Peak     |  |
| 17325.000                                  | 30.74             | 32.13                        | 62.87           | 68.20             | -5.33           | k Nupole        | Peak     |  |
| 11550.000                                  | 30.99             | 23.40                        | 54.39           | 68.20             | -13.81          | nek H no        | Peak     |  |
| 17325.000                                  | 31.24             | ote <sup>34</sup> 32.13 poli | 63.37           | 68.20             | -4.83 Ant       | Н               | Peak     |  |
| 11550.000                                  | 17.55             | 23.40                        | 40.95           | 54.00             | -13.05          | Wpo, A          | AVG      |  |
| 17325.000                                  | 18.08             | 32.13                        | 50.21           | 54.00             | -3.79           | Aupolo          | AVG      |  |
| 11550.000                                  | 17.67             | 23.40                        | 41.07           | 54.00             | -12.93          | Hotek           | AVG      |  |
| 17325.000                                  | 18.66             | 32.13                        | 50.79           | 54.00             | -3.21           | H               | AVG      |  |

- 1. Result =Reading + Factor
- 2. Only the worst case 802.11ac(VHT80) is recorded in the report.





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## APPENDIX I -- TEST SETUP PHOTOGRAPH

Please refer to separated files Appendix I -- Test Setup Photograph\_Unlicensed

## APPENDIX II -- EXTERNAL PHOTOGRAPH

Please refer to separated files Appendix II -- External Photograph

## APPENDIX III -- INTERNAL PHOTOGRAPH

Please refer to separated files Appendix III -- Internal Photograph

----- End of Report -----

