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# FCC Test Report

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Report No.: AGC01612220501FE04

**FCC ID** : WRAWPM-300TX

**APPLICATION PURPOSE** : Original Equipment

**PRODUCT DESIGNATION** : Wireless Monitoring System

**BRAND NAME** : TAKSTAR

**MODEL NAME** : WPM-300

**APPLICANT** : GUANGDONG TAKSTAR ELECTRONIC CO., LTD.

**DATE OF ISSUE** : Jun. 09, 2022

**STANDARD(S)** : FCC Part 15.236

**REPORT VERSION** : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd



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**Report Revise Record**

| Report Version | Revise Time | Issued Date   | Valid Version | Notes           |
|----------------|-------------|---------------|---------------|-----------------|
| V1.0           | /           | Jun. 09, 2022 | Valid         | Initial Release |

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**1. VERIFICATION OF CONFORMITY**

|                                 |   |
|---------------------------------|---|
| <b>Applicant</b>                | GUANGDONG TAKSTAR ELECTRONIC CO., LTD.  |
| <b>Address</b>                  | DINGGANG, NO.5 TEAM, XIALIAO VILLAGE, LONGXI TOWN, BOLUO COUNTY, HUIZHOU CITY, GUANGDONG, CHINA |
| <b>Manufacturer</b>             | GUANGDONG TAKSTAR ELECTRONIC CO., LTD.  |
| <b>Address</b>                  | DINGGANG, NO.5 TEAM, XIALIAO VILLAGE, LONGXI TOWN, BOLUO COUNTY, HUIZHOU CITY, GUANGDONG, CHINA |
| <b>Factory</b>                  | GUANGDONG TAKSTAR ELECTRONIC CO., LTD.  |
| <b>Address</b>                  | DINGGANG, NO.5 TEAM, XIALIAO VILLAGE, LONGXI TOWN, BOLUO COUNTY, HUIZHOU CITY, GUANGDONG, CHINA |
| <b>Product Designation</b>      | Wireless Monitoring System  |
| <b>Brand Name</b>               | TAKSTAR   |
| <b>Test Model</b>               | WPM-300   |
| <b>Date of test</b>             | May 10, 2022 to Jun. 07, 2022   |
| <b>Deviation</b>                | No any deviation from the test method   |
| <b>Condition of Test Sample</b> | Normal  |
| <b>Test Result</b>              | Pass  |
| <b>Report Template</b>          | AGCRT-US-LPAS/RF  |

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10:2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with radiated emission limits of FCC Part 15.236.

Prepared By



Eder Zhan  
(Project Engineer)

Jun. 08, 2022

Reviewed By



Calvin Liu  
(Reviewer)

Jun. 09, 2022

Approved By



Max Zhang  
(Authorized Officer)

Jun. 09, 2022

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## 2. GENERAL INFORMATION

### 2.1. PRODUCT DESCRIPTION

|                                |   |
|--------------------------------|---|
| <b>Operation Frequency</b>     | 533.3MHz -591MHz                              |
| <b>Maximum Conducted Power</b> | 12.765dBm                                     |
| <b>Modulation</b>              | FM  |
| <b>Number of channels</b>      | 10  |
| <b>Antenna Gain</b>            | 5dBi  |
| <b>Antenna Designation</b>     | Wire Antenna (Met 15.203 Antenna requirement) |
| <b>Hardware Version</b>        | WPM300RX_V1                                   |
| <b>Software Version</b>        | WPM300RX_V1_104                               |
| <b>Power Supply</b>            | DC 12V by adapter                             |

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**Channel list:**

| <b>Channel Number</b> | <b>Frequency<br/>(MHz)</b> |
|-----------------------|----------------------------|
| 1                     | 533.30                     |
| 2                     | 533.80                     |
| 3                     | 536.50                     |
| 4                     | 542.80                     |
| 5                     | 550.40                     |
| 6                     | 556.90                     |
| 7                     | 574.50                     |
| 8                     | 576.10                     |
| 9                     | 583.0                      |
| 10                    | 591.0                      |

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## 2.2. TEST METHODOLOGY

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 (2013). Radiated testing was performed at an antenna to EUT distance 3 meters.

## 2.3. SPECIAL ACCESSORIES

Refer to section 5.2.

## 2.4. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

## 2.5. ANTENNA REQUIREMENT

This intentional radiator is designed with a permanently attached antenna of an antenna to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

For more information of the antenna, please refer to the APPENDIX B: PHOTOGRAPHS OF EUT.

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### 3. MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95%.

| Item  | Measurement Uncertainty    |
|---|----------------------------|
| Uncertainty of Conducted Emission for AC Port | $U_c = \pm 3.1 \text{ dB}$ |
| Uncertainty of Radiated Emission below 1GHz   | $U_c = \pm 4.0 \text{ dB}$ |
| Uncertainty of Radiated Emission above 1GHz   | $U_c = \pm 4.8 \text{ dB}$ |
| Uncertainty of total RF power, conducted      | $U_c = \pm 0.8 \text{ dB}$ |
| Uncertainty of spurious emissions, conducted  | $U_c = \pm 2 \%$           |
| Uncertainty of Occupied Channel Bandwidth     | $U_c = \pm 2 \%$           |

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**4. DESCRIPTION OF TEST MODES**

| NO. | TEST MODE DESCRIPTION                |
|-----|--------------------------------------|
| 1   | TX mode at Low channel (533.3MHz)    |
| 2   | TX mode at Middle channel (550.4MHz) |
| 3   | TX mode at High channel (591MHz)     |

Note:

1. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
2. For Conducted Test method, a temporary antenna connector is provided by the manufacturer.
3. All the requirements have been tested by modulating the transmitter with a 1khz tone at a fixed level which set to the manufacturer's maximum rated input to the modulator.

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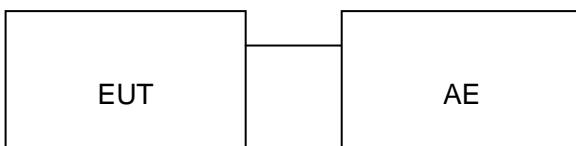
## 5. SYSTEM TEST CONFIGURATION

### 5.1. CONFIGURATION OF EUT SYSTEM

Radiated Emission Configure:



Conducted Emission Configure:



### 5.2 EQUIPMENT USED IN TESTED SYSTEM

| Item | Equipment                  | Model No.       | ID or Specification | Remark |
|------|----------------------------|-----------------|---------------------|--------|
| 1    | Wireless Monitoring System | WPM-300         | WRAWPM-300TX        | EUT    |
| 2    | Adapter                    | FD00SC-120-0800 | --                  | AE     |

### 5.3. SUMMARY OF TEST RESULTS

| FCC RULES     | DESCRIPTION OF TEST            | RESULT    |
|---------------|--------------------------------|-----------|
| §15.203       | Antenna requirement            | Compliant |
| §15.236(d)(1) | Maximum radiated power         | Compliant |
| §15.236(f)(2) | Occupied bandwidth             | Compliant |
| §15.236(f)(3) | Frequency stability            | Compliant |
| §15.236(g)    | Emissions within the band      | Compliant |
| §15.236(g)    | Emissions outside of this band | Compliant |
| 15.207        | Line Conducted Emission        | Compliant |

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## 6. TEST FACILITY

|  |  |
|--|--|
| <b>Test Site</b>                         | Attestation of Global Compliance (Shenzhen) Co., Ltd   |
| <b>Location</b>                          | 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China |
| <b>Designation Number</b>                | CN1259   |
| <b>FCC Test Firm Registration Number</b> | 975832   |
| <b>A2LA Cert. No.</b>                    | 5054.02  |
| <b>Description</b>                       | Attestation of Global Compliance (Shenzhen) Co., Ltd is accredited by A2LA   |

### TEST EQUIPMENT OF CONDUCTED EMISSION TEST

| Equipment     | Manufacturer | Model            | S/N    | Cal. Date     | Cal. Due      |
|---------------|--------------|------------------|--------|---------------|---------------|
| TEST RECEIVER | R&S          | ESPI             | 101206 | Mar. 28, 2022 | Mar. 27, 2023 |
| LISN          | R&S          | ESH2-Z5          | 100086 | Jun. 09, 2021 | Jun. 08, 2022 |
| Test software | R&S          | ES-K1(Ver.V1.71) | N/A    | N/A           | N/A           |

### TEST EQUIPMENT OF RADIATED EMISSION TEST

| Equipment                      | Manufacturer | Model              | S/N        | Cal. Date     | Cal. Due      |
|--------------------------------|--------------|--------------------|------------|---------------|---------------|
| TEST RECEIVER                  | R&S          | ESCI               | 10096      | Mar. 28, 2022 | Mar. 27, 2023 |
| EXA Signal Analyzer            | Aglient      | N9020A             | MY52090123 | Nov. 17, 2021 | Nov. 16, 2022 |
| Attenuator                     | Wariors      | W13                | 11324      | Sep. 03, 2020 | Sep. 02, 2022 |
| Horn antenna                   | ETS-LINDGREN | 3117               | 00154520   | Oct. 31, 2021 | Oct. 30, 2023 |
| Active loop antenna (9K-30MHz) | ZHINAN       | ZN30900C           | 18051      | Mar. 12, 2022 | Mar. 21, 2024 |
| Double-Ridged Waveguide Horn   | ETS-LINDGREN | 3117               | 00034609   | Apr. 23, 2021 | Apr. 22, 2023 |
| Broadband Preamplifier         | ETS-LINDGREN | 3117PA             | 00225134   | Sep. 03, 2020 | Sep. 02, 2022 |
| ANTENNA                        | SCHWARZBECK  | VULB9168           | 494        | Jan. 08, 2020 | Jan. 07, 2023 |
| Wireless communication tester  | HP           | 8920B              | US35010161 | Sep. 06, 2021 | Sep. 05, 2022 |
| Test software                  | Tonscend     | JS32-RE (Ver. 2.5) | N/A        | N/A           | N/A           |

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## 7. OUTPUT POWER

### 7.1. TEST LIMIT

The power may not exceed the following values.

470-608 MHz bands: 50 mW EIRP

### 7.2. MEASUREMENT PROCEDURE

#### EIRP Test Method

1. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6.  $EIRP [dBm] = E[dB(\mu V)/m] - 95.3$

4.7dB shall be added as an upper bound on the field strength that would be observed on a test range with a ground plane for frequencies between 30MHz and 1000MHz, or an additional 6dB shall be added for frequencies below 30 MHz.

#### Conducted Power Test Method

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2.  $RBW \geq OBW$ .
3.  $VBW \geq 3 \times RBW$ .
4.  $Span \geq 2 \times OBW$ .
5. Sweep time  $\geq 10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})$
6. Detector function: Peak.
7. Trace: Max hold.
8. Allow trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power, after any corrections for external attenuators and cables.

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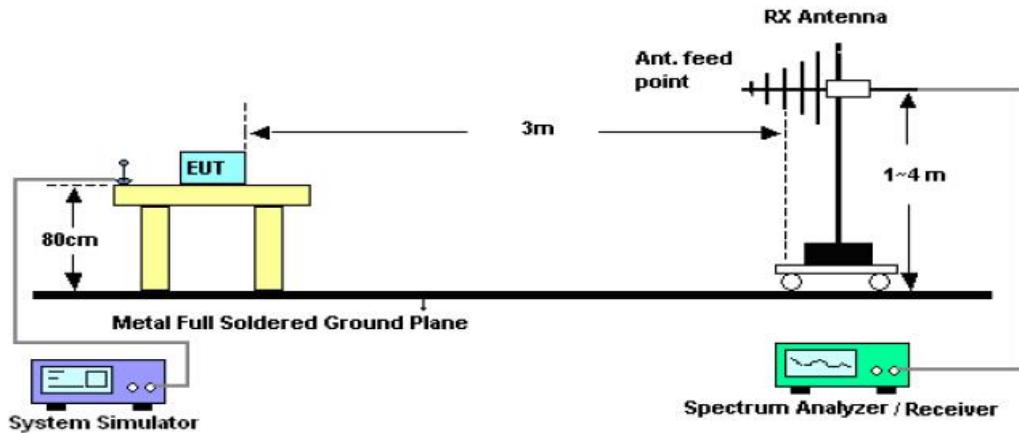
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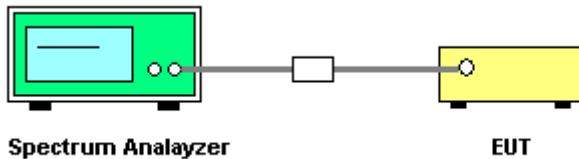
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### 7.3. TEST SETUP

EIRP Test Method



Conducted Power Test Method



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**7.4. TEST RESULT**

| Test Channel | Peak Power | Limit |
|--------------|------------|-------|
| (MHz)        | (dBm)      | (dBm) |
| 533.3        | 11.900     | 17    |
| 550.4        | 12.765     | 17    |
| 591.0        | 11.824     | 17    |

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## 8. OCCUPIED BANDWIDTH

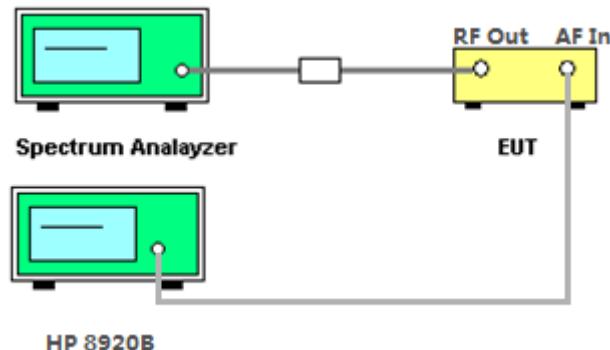
### 8.1. TEST LIMIT

The operating bandwidth shall not exceed 200 kHz.

### 8.2. MEASUREMENT PROCEDURE

1. For the occupied bandwidth measurements, the input signal shall be a 1 kHz tone. The level of the tone shall be set to the manufacturer's maximum rated input to the modulator.
2. Set the EUT Work on operation frequency.
3. Set Span = approximately 1.5 times the occupied bandwidth, centered on a channel  
The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW; Sweep = auto; Detector function = peak
4. Set SPA Trace 1 Max hold, then View.

### 8.3. TEST SET-UP



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## 8.4. MEASUREMENT RESULTS

| Test Channel | -20dBc EBW (kHz) | 99% OBW (kHz) | Limit (kHz) |
|--------------|------------------|---------------|-------------|
| 533.3        | 58.35            | 54.980        | 200         |
| 550.4        | 58.08            | 54.543        | 200         |
| 591.0        | 84.16            | 77.826        | 200         |

TEST PLOT OF BANDWIDTH FOR 533.3MHz



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## TEST PLOT OF BANDWIDTH FOR 550.4MHz



## TEST PLOT OF BANDWIDTH FOR 591MHz



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## 9. FREQUENCY STABILITY

### 9.1. TEST LIMIT

The frequency tolerance of the carrier signal shall be maintained within  $\pm 0.005\%$  of the operating frequency over a temperature variation of  $-30$  degrees to  $+50$  degrees C at normal supply voltage, and for a variation in the primary supply voltage from  $85\%$  to  $115\%$  of the rated supply voltage at a temperature of  $20$  degrees C.

### 9.2. MEASUREMENT PROCEDURE

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on the operation frequency.
3. Set SPA Centre Frequency = Operation Frequency, RBW= 1 KHz, VBW  $\geq 3 \times$  RBW.
4. Set SPA Trace 1 Max hold, then View.
5. The test extreme voltage is to change the primary supply voltage from  $85$  to  $115$  percent of the nominal value
6. Extreme temperature rule is  $-30^{\circ}\text{C}$ ~ $50^{\circ}\text{C}$ .

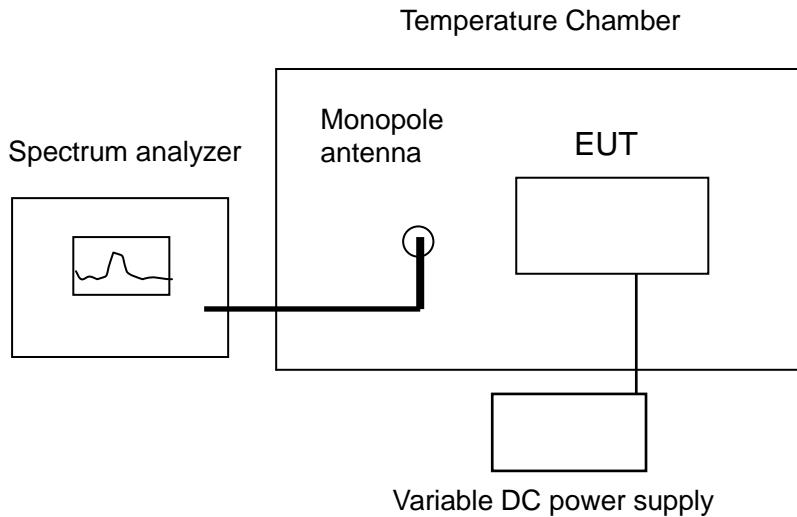
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### 9.3. TEST SET-UP



### 9.4. TEST RESULT

Test frequency: 533.3MHz

Voltage vs. Frequency Stability (Test Temperature: 20°C)

| Voltage(V) | Measurement Frequency (MHz) | Max. Deviation (MHz) | Limit (MHz) | Conclusion |
|------------|-----------------------------|----------------------|-------------|------------|
| 10.2       | 533.312                     | 0.017                | 0.03        | PASS       |
| 12.0       | 533.316                     |                      |             |            |
| 13.8       | 533.317                     |                      |             |            |

Temperature vs. Frequency Stability (Test Voltage: 12V)

| Temperature | Measurement Frequency (MHz) | Max. Deviation (MHz) | Limit (MHz) | Conclusion |
|-------------|-----------------------------|----------------------|-------------|------------|
| -30°C       | 533.311                     | 0.018                | 0.03        | PASS       |
| -20°C       | 533.315                     |                      |             |            |
| -10°C       | 533.316                     |                      |             |            |
| 0°C         | 533.318                     |                      |             |            |
| 10°C        | 533.314                     |                      |             |            |
| 20°C        | 533.315                     |                      |             |            |
| 30°C        | 533.315                     |                      |             |            |
| 40°C        | 533.313                     |                      |             |            |
| 50°C        | 533.318                     |                      |             |            |

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Test frequency: 550.4MHz

Voltage vs. Frequency Stability (Test Temperature: 20°C)

| Voltage(V) | Measurement Frequency (MHz) | Max. Deviation (MHz) | Limit (MHz) | Conclusion |
|------------|-----------------------------|----------------------|-------------|------------|
| 10.2       | 550.402                     | 0.005                | 0.03        | PASS       |
| 12.0       | 550.405                     |                      |             |            |
| 13.8       | 550.401                     |                      |             |            |

Temperature vs. Frequency Stability (Test Voltage: 12V)

| Temperature | Measurement Frequency (MHz) | Max. Deviation (MHz) | Limit (MHz) | Conclusion |
|-------------|-----------------------------|----------------------|-------------|------------|
| -30°C       | 550.407                     | 0.008                | 0.03        | PASS       |
| -20°C       | 550.405                     |                      |             |            |
| -10°C       | 550.406                     |                      |             |            |
| 0°C         | 550.402                     |                      |             |            |
| 10°C        | 550.408                     |                      |             |            |
| 20°C        | 550.404                     |                      |             |            |
| 30°C        | 550.405                     |                      |             |            |
| 40°C        | 550.401                     |                      |             |            |
| 50°C        | 550.406                     |                      |             |            |

Test frequency: 591MHz

Voltage vs. Frequency Stability (Test Temperature: 20°C)

| Voltage(V) | Measurement Frequency (MHz) | Max. Deviation (MHz) | Limit (MHz) | Conclusion |
|------------|-----------------------------|----------------------|-------------|------------|
| 10.2       | 591.002                     | 0.006                | 0.03        | PASS       |
| 12.0       | 591.003                     |                      |             |            |
| 13.8       | 591.006                     |                      |             |            |

Temperature vs. Frequency Stability (Test Voltage: 12V)

| Temperature | Measurement Frequency (MHz) | Max. Deviation (MHz) | Limit (MHz) | Conclusion |
|-------------|-----------------------------|----------------------|-------------|------------|
| -30°C       | 591.001                     | 0.009                | 0.03        | PASS       |
| -20°C       | 591.005                     |                      |             |            |
| -10°C       | 591.006                     |                      |             |            |
| 0°C         | 591.004                     |                      |             |            |
| 10°C        | 591.002                     |                      |             |            |
| 20°C        | 591.008                     |                      |             |            |
| 30°C        | 591.004                     |                      |             |            |
| 40°C        | 591.009                     |                      |             |            |
| 50°C        | 591.005                     |                      |             |            |

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## 10. EMISSIONS WITHIN THE BAND AND OUTSIDE THE BAND

### 10.1. TEST LIMIT

Emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in §8.3 of ETSI EN 300 422-1 V1.4.2 (2011-08).

Emissions outside of this band shall comply with the limits specified in section 8.4 of ETSI EN 300 422-1 V1.4.2 (2011-08).

### 10.2. MEASUREMENT PROCEDURE

#### Emission outside the band:

1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. EIRP [dBm] = E[dB(μV)/m] – 95.2

The following table is the setting of spectrum analyzer and receiver.

| Spectrum Parameter    | Setting                        |
|-----------------------|--------------------------------|
| Start ~Stop Frequency | 9KHz~150KHz/RB 200Hz for QP    |
| Start ~Stop Frequency | 150KHz~30MHz/RB 9KHz for QP    |
| Start ~Stop Frequency | 30MHz~1000MHz/RB 120KHz for QP |
| Start ~Stop Frequency | 1000MHz~6000MHz/RB 1MHz for QP |

#### Emission within the band:

Method of Measurement for Analogue Systems in ETSI EN 300 422-1 Subclass 8.3.1  
 Method of Measurement for Digital Systems in ETSI EN 300 422-1 Subclass 8.3.2

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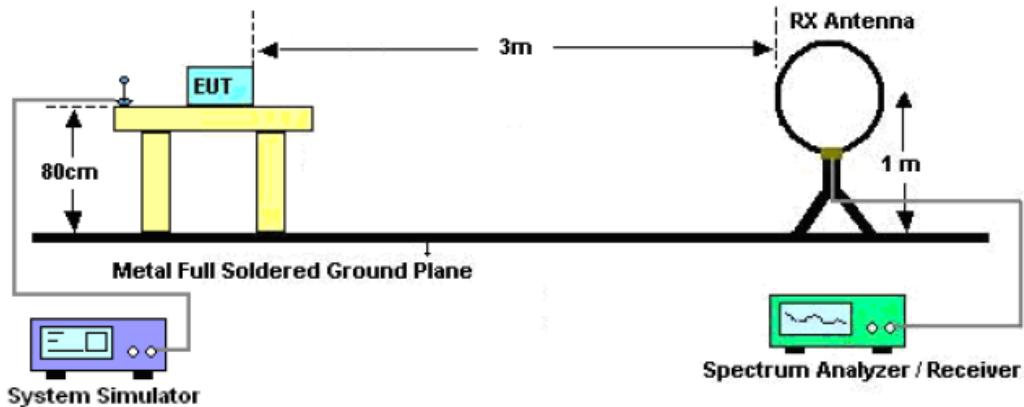
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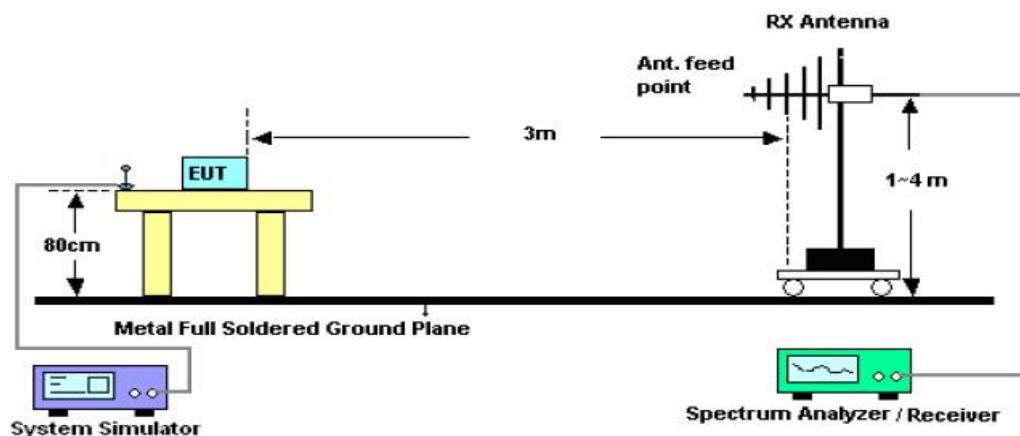
### 10.3. TEST SETUP

#### Emission outside the band

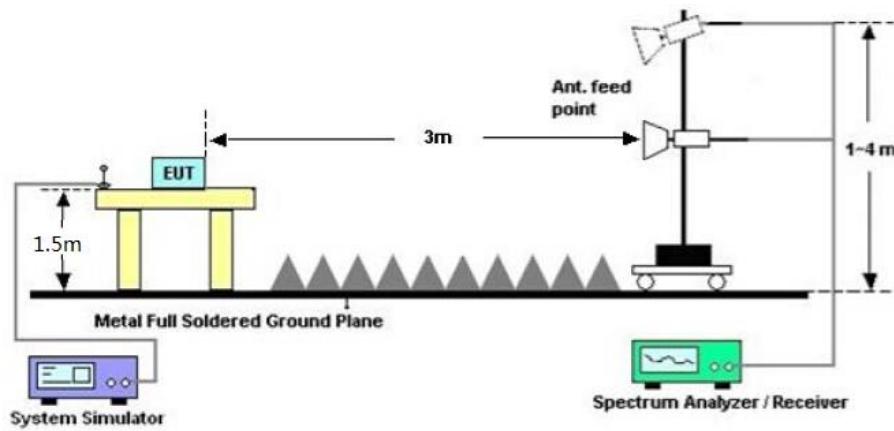
Radiated Emission Test-Setup Frequency Below 30MHz



#### RADIATED EMISSION TEST SETUP 30MHz-1000MHz



#### RADIATED EMISSION TEST SETUP ABOVE 1000MHz

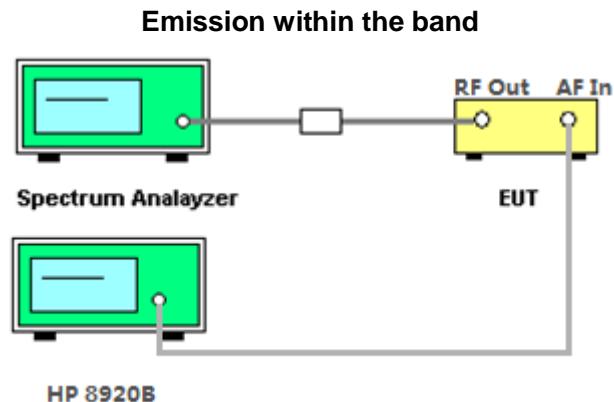


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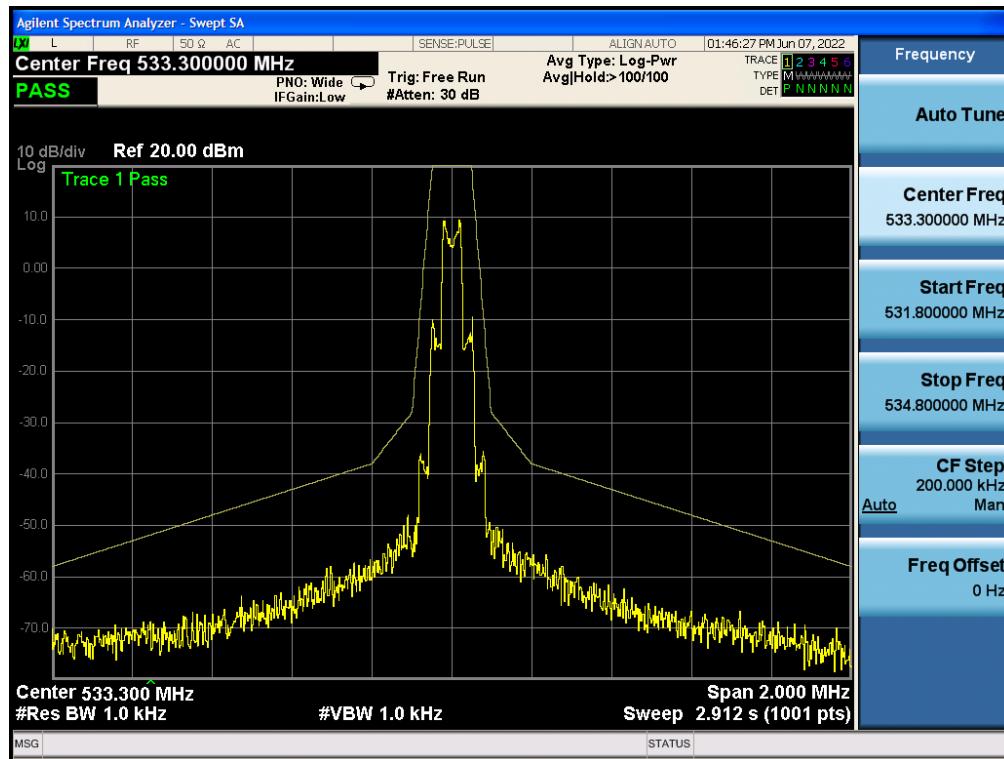
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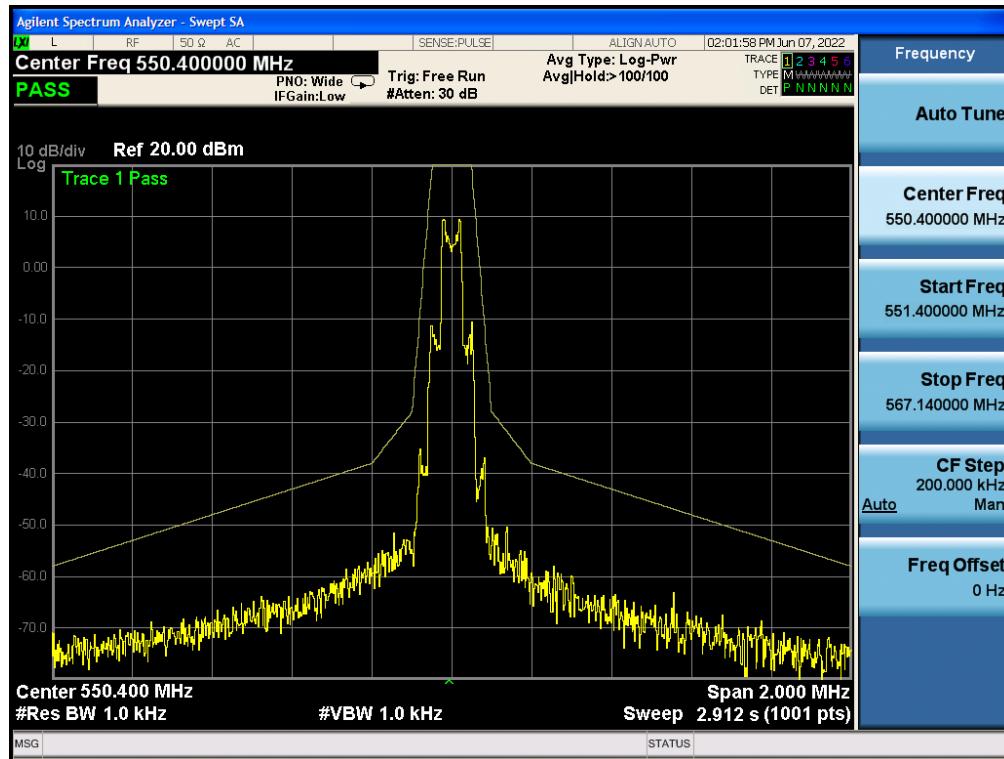
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## 10.4. TEST RESULT

### Emission within the band for 533.3MHz



### Emission within the band for 550.4MHz



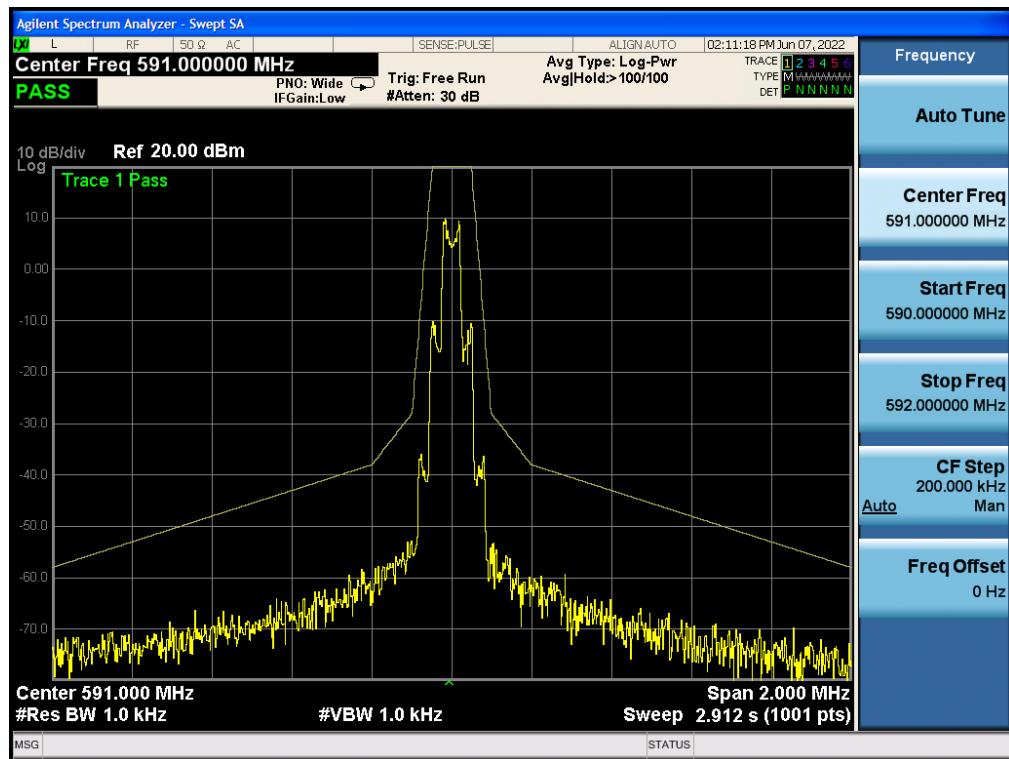
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## Emission within the band for 591MHz



## Note:

1. The manufacturer declared that the channel bandwidth is 200KHz.
2. The carrier power is the ref level, and the factor had been edited in the “Input Correction” of the Spectrum Analyzer.

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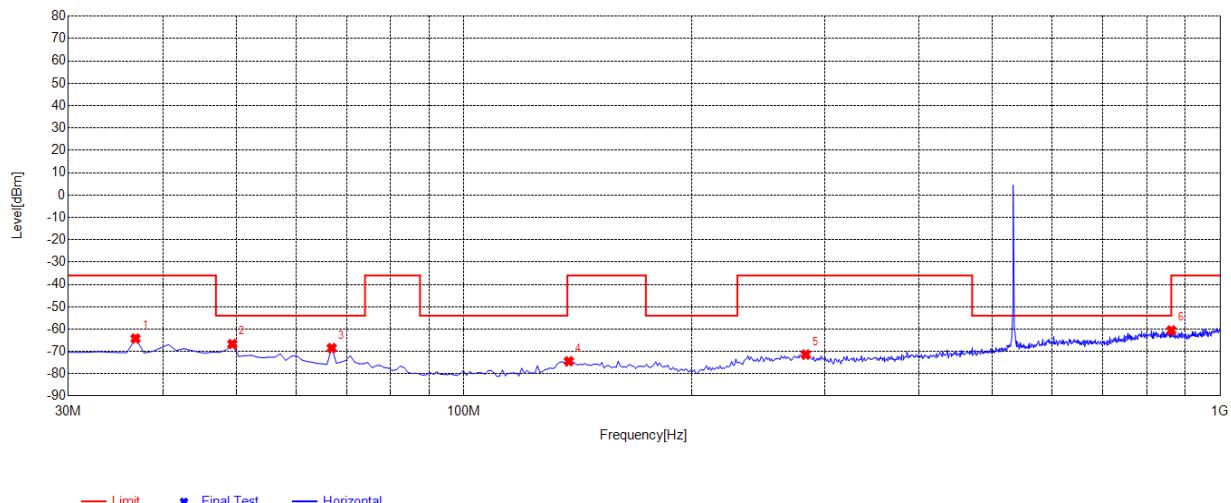
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**Emission outside the band 30-1000MHz**

|              |                            |                    |            |
|--------------|----------------------------|--------------------|------------|
| EUT:         | Wireless Monitoring System | Model Name:        | WPM-300    |
| Temperature: | 25°C                       | Relative Humidity: | 60%        |
| Pressure:    | 986 Pa                     | Test Voltage:      | Normal     |
| Test Mode:   | Mode 1                     | Polarization:      | Horizontal |



| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Angle [°] | Polarity   |
|-----|-------------|---------------|-------------|-------------|-------------|-------------|-----------|------------|
| 1   | 36.79       | -96.07        | -64.22      | -36.00      | 28.22       | 31.85       | 300       | Horizontal |
| 2   | 49.4        | -97.45        | -66.71      | -54.00      | 12.71       | 30.74       | 40        | Horizontal |
| 3   | 66.86       | -94.76        | -68.49      | -54.00      | 14.49       | 26.27       | 250       | Horizontal |
| 4   | 137.67      | -100.33       | -74.40      | -36.00      | 38.40       | 25.93       | 140       | Horizontal |
| 5   | 283.17      | -101.68       | -71.38      | -36.00      | 35.38       | 30.30       | 30        | Horizontal |
| 6   | 862.26      | -100.72       | -60.60      | -36.00      | 24.60       | 40.12       | 100       | Horizontal |

**RESULT: PASS**

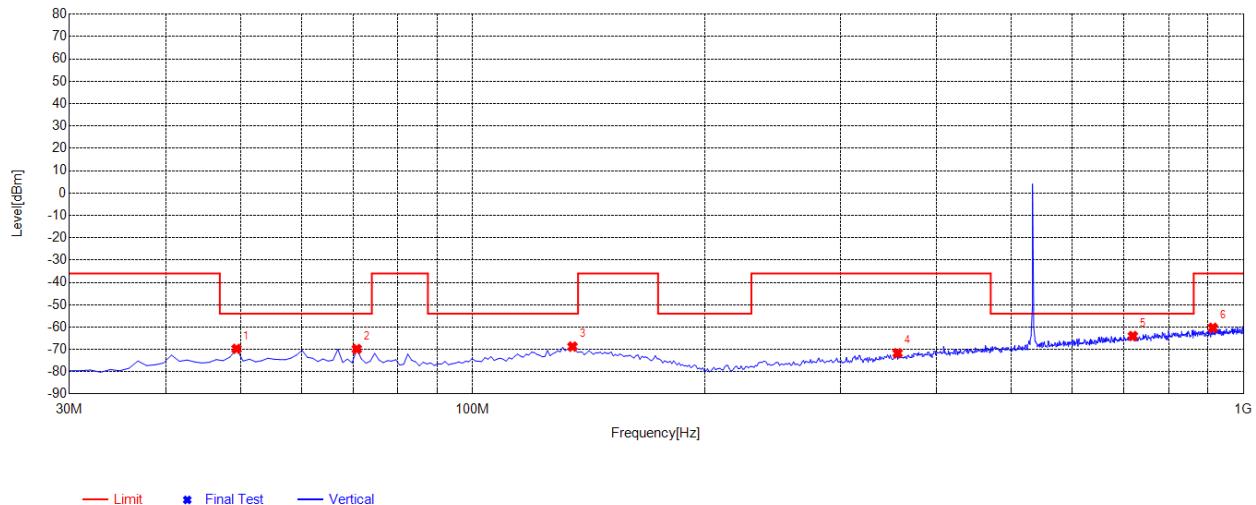
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|              |                            |                    |          |
|--------------|----------------------------|--------------------|----------|
| EUT:         | Wireless Monitoring System | Model Name:        | WPM-300  |
| Temperature: | 25 °C                      | Relative Humidity: | 60%      |
| Pressure:    | 986 Pa                     | Test Voltage:      | Normal   |
| Test Mode:   | Mode 1                     | Polarization:      | Vertical |



| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Angle [°] | Polarity |
|-----|-------------|---------------|-------------|-------------|-------------|-------------|-----------|----------|
| 1   | 49.4        | -96.45        | -69.74      | -54.00      | 15.74       | 26.71       | 80        | Vertical |
| 2   | 70.74       | -94.77        | -69.82      | -54.00      | 15.82       | 24.95       | 70        | Vertical |
| 3   | 134.76      | -99.76        | -68.72      | -54.00      | 14.72       | 31.04       | 290       | Vertical |
| 4   | 355.92      | -101.88       | -71.68      | -36.00      | 35.68       | 30.20       | 200       | Vertical |
| 5   | 718.7       | -101.85       | -64.02      | -54.00      | 10.02       | 37.83       | 310       | Vertical |
| 6   | 912.7       | -100.77       | -60.33      | -36.00      | 24.33       | 40.44       | 310       | Vertical |

## RESULT: PASS

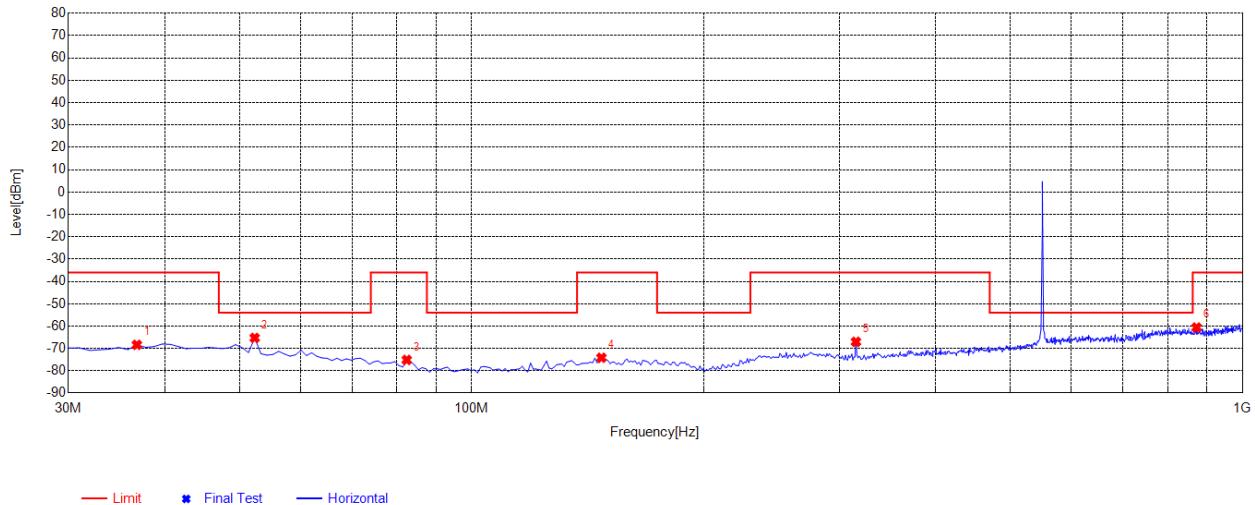
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|              |                            |                    |            |
|--------------|----------------------------|--------------------|------------|
| EUT:         | Wireless Monitoring System | Model Name:        | WPM-300    |
| Temperature: | 25°C                       | Relative Humidity: | 60%        |
| Pressure:    | 986 Pa                     | Test Voltage:      | Normal     |
| Test Mode:   | Mode 2                     | Polarization:      | Horizontal |



| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Angle [°] | Polarity   |
|-----|-------------|---------------|-------------|-------------|-------------|-------------|-----------|------------|
| 1   | 36.79       | -100.23       | -68.38      | -36.00      | 32.38       | 31.85       | 40        | Horizontal |
| 2   | 52.31       | -95.27        | -65.28      | -54.00      | 11.28       | 29.99       | 120       | Horizontal |
| 3   | 82.38       | -98.42        | -75.13      | -36.00      | 39.13       | 23.29       | 220       | Horizontal |
| 4   | 147.37      | -100.52       | -74.17      | -36.00      | 38.17       | 26.35       | 340       | Horizontal |
| 5   | 315.18      | -96.36        | -67.03      | -36.00      | 31.03       | 29.33       | 20        | Horizontal |
| 6   | 871.96      | -100.69       | -60.62      | -36.00      | 24.62       | 40.07       | 330       | Horizontal |

## RESULT: PASS

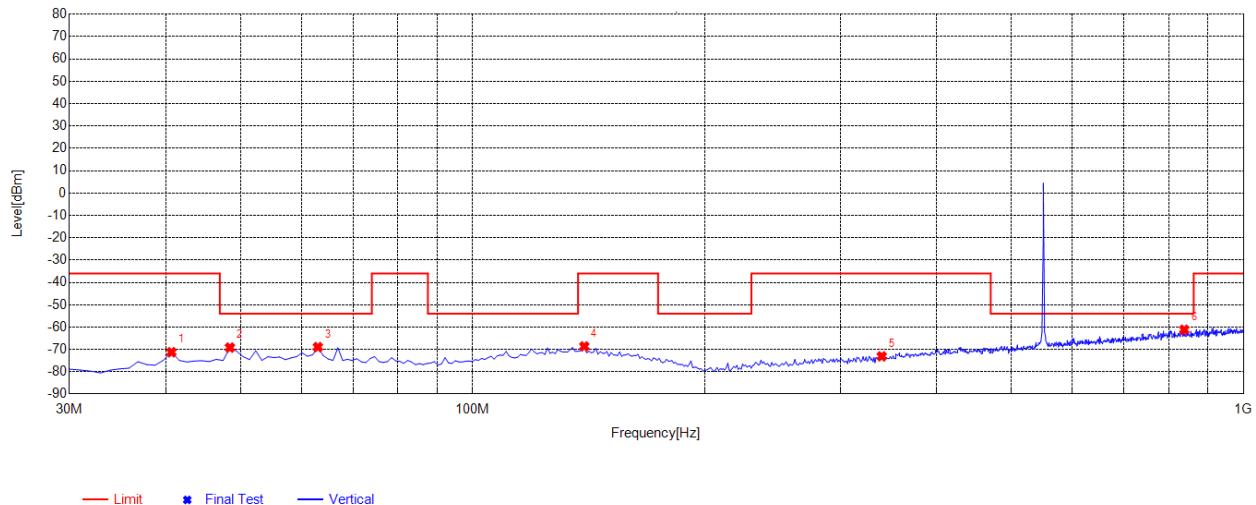
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|              |                            |                    |          |
|--------------|----------------------------|--------------------|----------|
| EUT:         | Wireless Monitoring System | Model Name:        | WPM-300  |
| Temperature: | 25 °C                      | Relative Humidity: | 60%      |
| Pressure:    | 986 Pa                     | Test Voltage:      | Normal   |
| Test Mode:   | Mode 2                     | Polarization:      | Vertical |



| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Angle [°] | Polarity |
|-----|-------------|---------------|-------------|-------------|-------------|-------------|-----------|----------|
| 1   | 40.67       | -96.49        | -71.24      | -36.00      | 35.24       | 25.25       | 170       | Vertical |
| 2   | 48.43       | -95.71        | -69.16      | -54.00      | 15.16       | 26.55       | 70        | Vertical |
| 3   | 62.98       | -96.29        | -68.95      | -54.00      | 14.95       | 27.34       | 170       | Vertical |
| 4   | 139.61      | -99.99        | -68.63      | -36.00      | 32.63       | 31.36       | 40        | Vertical |
| 5   | 339.43      | -102.61       | -73.08      | -36.00      | 37.08       | 29.53       | 180       | Vertical |
| 6   | 838.01      | -100.90       | -61.17      | -54.00      | 7.17        | 39.73       | 280       | Vertical |

## RESULT: PASS

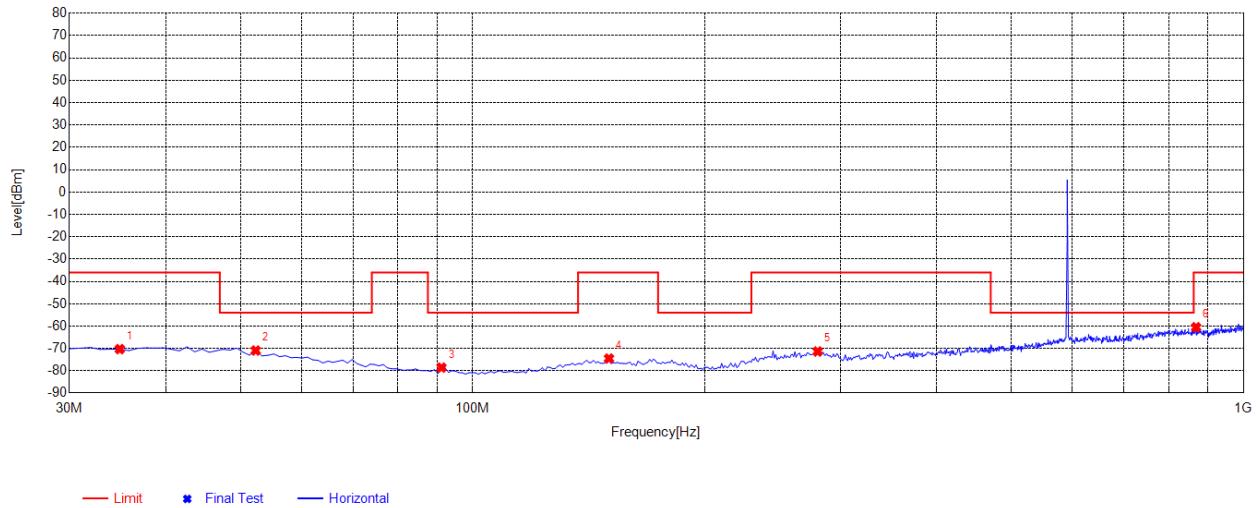
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|              |                            |                    |            |
|--------------|----------------------------|--------------------|------------|
| EUT:         | Wireless Monitoring System | Model Name:        | WPM-300    |
| Temperature: | 25°C                       | Relative Humidity: | 60%        |
| Pressure:    | 986 Pa                     | Test Voltage:      | Normal     |
| Test Mode:   | Mode 3                     | Polarization:      | Horizontal |



| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Angle [°] | Polarity   |
|-----|-------------|---------------|-------------|-------------|-------------|-------------|-----------|------------|
| 1   | 34.85       | -102.06       | -70.30      | -36.00      | 34.30       | 31.76       | 200       | Horizontal |
| 2   | 52.31       | -100.92       | -70.93      | -54.00      | 16.93       | 29.99       | 140       | Horizontal |
| 3   | 91.11       | -100.45       | -78.58      | -54.00      | 24.58       | 21.87       | 40        | Horizontal |
| 4   | 150.28      | -100.85       | -74.51      | -36.00      | 38.51       | 26.34       | 180       | Horizontal |
| 5   | 280.26      | -101.90       | -71.37      | -36.00      | 35.37       | 30.53       | 130       | Horizontal |
| 6   | 868.08      | -100.60       | -60.51      | -36.00      | 24.51       | 40.09       | 120       | Horizontal |

## RESULT: PASS

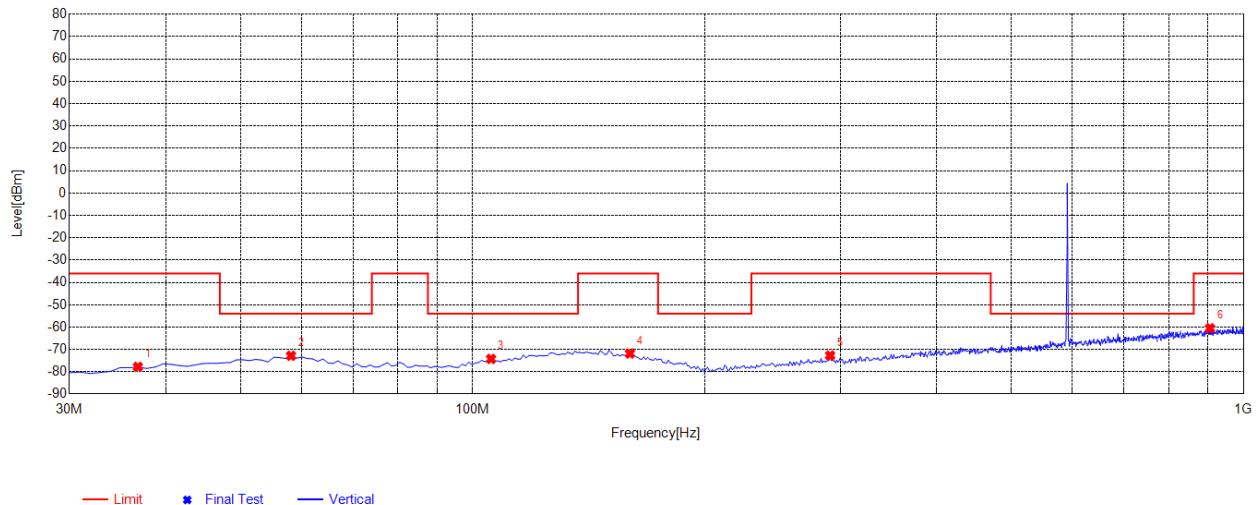
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|              |                            |                    |          |
|--------------|----------------------------|--------------------|----------|
| EUT:         | Wireless Monitoring System | Model Name:        | WPM-300  |
| Temperature: | 25 °C                      | Relative Humidity: | 60%      |
| Pressure:    | 986 Pa                     | Test Voltage:      | Normal   |
| Test Mode:   | Mode 3                     | Polarization:      | Vertical |



| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Angle [°] | Polarity |
|-----|-------------|---------------|-------------|-------------|-------------|-------------|-----------|----------|
| 1   | 36.79       | -101.72       | -77.78      | -36.00      | 41.78       | 23.94       | 10        | Vertical |
| 2   | 58.13       | -100.92       | -72.83      | -54.00      | 18.83       | 28.09       | 210       | Vertical |
| 3   | 105.66      | -101.57       | -74.23      | -54.00      | 20.23       | 27.34       | 300       | Vertical |
| 4   | 159.98      | -101.83       | -71.82      | -36.00      | 35.82       | 30.01       | 30        | Vertical |
| 5   | 290.93      | -100.55       | -72.71      | -36.00      | 36.71       | 27.84       | 220       | Vertical |
| 6   | 904.94      | -100.87       | -60.51      | -36.00      | 24.51       | 40.36       | 280       | Vertical |

## RESULT: PASS

### Note:

Factor=Antenna Factor + Cable loss, Margin=Limit-Level.

The "Factor" value can be calculated automatically by software of measurement system.

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**Emission outside the band above 1000MHz**

|              |                            |                    |                     |
|--------------|----------------------------|--------------------|---------------------|
| EUT:         | Wireless Monitoring System | Model Name:        | WPM-300             |
| Temperature: | 25 °C                      | Relative Humidity: | 60%                 |
| Pressure:    | 986 Pa                     | Test Voltage:      | Normal              |
| Test Mode:   | Mode 1                     | Polarization:      | Horizontal/Vertical |

| Frequency<br>(MHz) | Meter Reading<br>(dBm) | Factor<br>(dB) | Emission Level<br>(dBm) | Limits<br>(dBm) | Margin<br>(dB) | Value Type |
|--------------------|------------------------|----------------|-------------------------|-----------------|----------------|------------|
| 1066.600           | -36.25                 | -4.02          | -40.27                  | -30             | -10.27         | Horizontal |
| 1066.600           | -41.45                 | -4.02          | -45.47                  | -30             | -15.47         | Vertical   |
| 1599.900           | -39.67                 | -1.95          | -41.62                  | -30             | -11.62         | Horizontal |
| 1599.900           | -40.25                 | -1.95          | -42.2                   | -30             | -12.2          | Vertical   |
|                    |                        |                |                         |                 |                |            |
|                    |                        |                |                         |                 |                |            |

Remark:  
 Factor = Antenna Factor + Cable Loss – Pre-amplifier.

|              |                            |                    |                     |
|--------------|----------------------------|--------------------|---------------------|
| EUT:         | Wireless Monitoring System | Model Name:        | WPM-300             |
| Temperature: | 25 °C                      | Relative Humidity: | 60%                 |
| Pressure:    | 986 Pa                     | Test Voltage:      | Normal              |
| Test Mode:   | Mode 2                     | Polarization:      | Horizontal/Vertical |

| Frequency<br>(MHz) | Meter Reading<br>(dBm) | Factor<br>(dB) | Emission Level<br>(dBm) | Limits<br>(dBm) | Margin<br>(dB) | Value Type |
|--------------------|------------------------|----------------|-------------------------|-----------------|----------------|------------|
| 1100.800           | -36.57                 | -4.02          | -40.59                  | -30             | -10.59         | Horizontal |
| 1100.800           | -40.48                 | -4.02          | -44.5                   | -30             | -14.5          | Vertical   |
| 1651.200           | -39.57                 | -1.95          | -41.52                  | -30             | -11.52         | Horizontal |
| 1651.200           | -41.36                 | -1.95          | -43.31                  | -30             | -13.31         | Vertical   |
|                    |                        |                |                         |                 |                |            |
|                    |                        |                |                         |                 |                |            |

Remark:  
 Factor = Antenna Factor + Cable Loss – Pre-amplifier.

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|              |                            |                    |                     |
|--------------|----------------------------|--------------------|---------------------|
| EUT:         | Wireless Monitoring System | Model Name:        | WPM-300             |
| Temperature: | 25 °C                      | Relative Humidity: | 60%                 |
| Pressure:    | 986 Pa                     | Test Voltage:      | Normal              |
| Test Mode:   | Mode 3                     | Polarization:      | Horizontal/Vertical |

| Frequency<br>(MHz) | Meter Reading<br>(dBm) | Factor<br>(dB) | Emission Level<br>(dBm) | Limits<br>(dBm) | Margin<br>(dB) | Value Type |
|--------------------|------------------------|----------------|-------------------------|-----------------|----------------|------------|
| 1182.000           | -35.98                 | -4.02          | -40                     | -30             | -10            | Horizontal |
| 1182.000           | -41.52                 | -4.02          | -45.54                  | -30             | -15.54         | Vertical   |
| 1773.000           | -38.54                 | -1.95          | -40.49                  | -30             | -10.49         | Horizontal |
| 1773.000           | -42.75                 | -1.95          | -44.7                   | -30             | -14.7          | Vertical   |
|                    |                        |                |                         |                 |                |            |
|                    |                        |                |                         |                 |                |            |

Remark:  
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

**RESULT: PASS****Note:**

Other emissions from 1G to 6 GHz are considered as ambient noise. No recording in the test report.

The “Factor” value can be calculated automatically by software of measurement system.

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## 11. LINE CONDUCTED EMISSION TEST

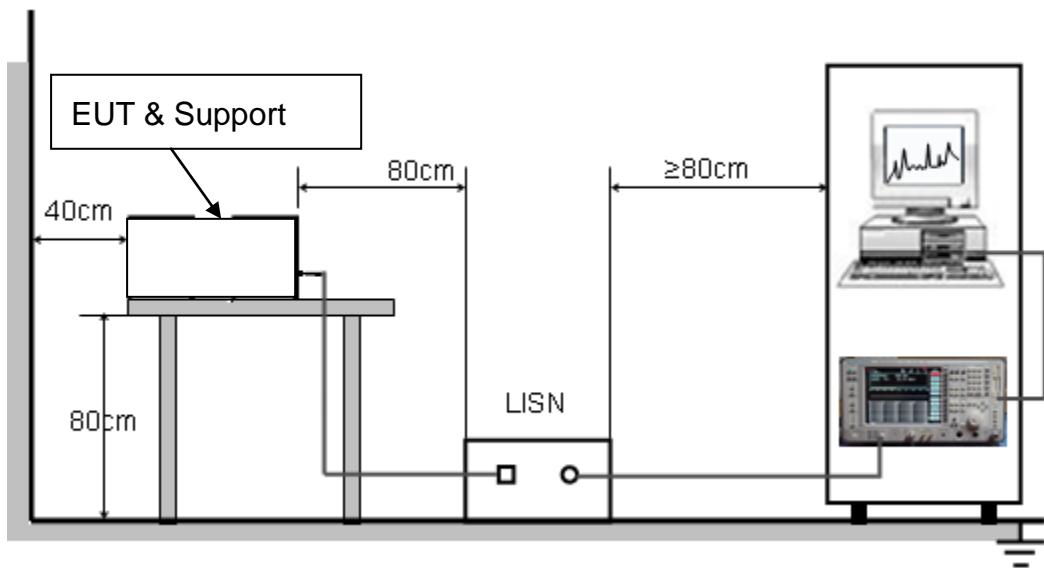
### 11.1. LIMITS OF LINE CONDUCTED EMISSION TEST

| Frequency     | Maximum RF Line Voltage |                      |
|---------------|-------------------------|----------------------|
|               | Q.P. (dB $\mu$ V)       | Average (dB $\mu$ V) |
| 150kHz~500kHz | 66-56                   | 56-46                |
| 500kHz~5MHz   | 56                      | 46                   |
| 5MHz~30MHz    | 60                      | 50                   |

Note:

1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

### 11.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



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### 11.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. All support equipment received AC120V/60Hz power from a LISN, if any.
5. The EUT received DC 5V power from adapter which received AC120V/60Hz power from a LISN.
6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.
9. The test mode(s) were scanned during the preliminary test.

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

### 11.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less -2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
3. The test data of the worst case condition(s) was reported on the Summary Data page.

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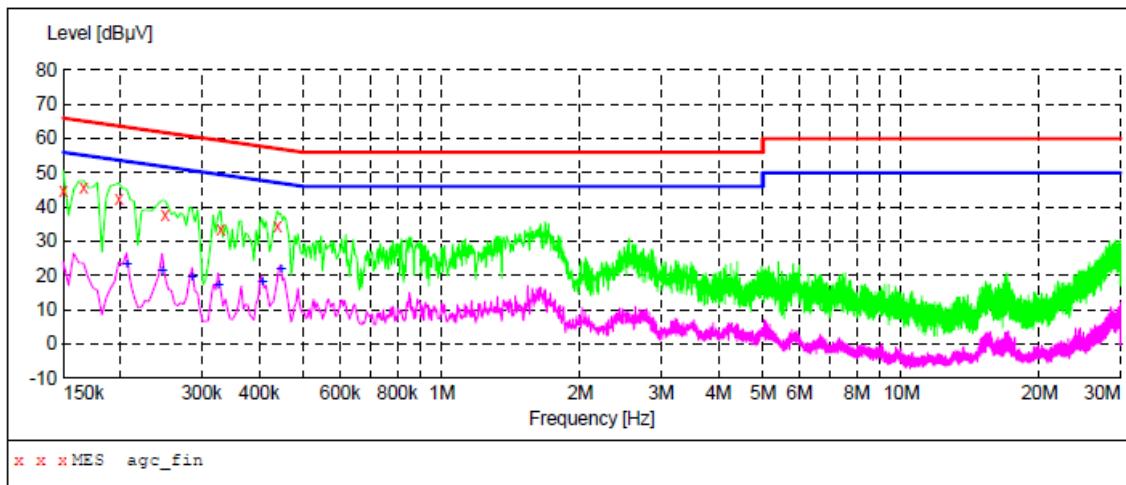
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## 11.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

Mode 1

Line Conducted Emission Test Line 1-L



### MEASUREMENT RESULT: "agc\_fin"

2022/5/22 11:09

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.150000         | 44.70               | 6.9          | 66                  | 21.3         | QP       | L1   |
| 0.166000         | 45.60               | 6.8          | 65                  | 19.6         | QP       | L1   |
| 0.198000         | 42.50               | 6.6          | 64                  | 21.2         | QP       | L1   |
| 0.250000         | 37.80               | 6.3          | 62                  | 24.0         | QP       | L1   |
| 0.330000         | 33.50               | 5.9          | 60                  | 26.0         | QP       | L1   |
| 0.438000         | 34.50               | 5.6          | 57                  | 22.6         | QP       | L1   |

### MEASUREMENT RESULT: "agc\_fin2"

2022/5/22 11:09

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.206000         | 22.90               | 6.5          | 53                  | 30.5         | AV       | L1   |
| 0.246000         | 21.40               | 6.3          | 52                  | 30.5         | AV       | L1   |
| 0.286000         | 19.60               | 6.1          | 51                  | 31.0         | AV       | L1   |
| 0.326000         | 16.80               | 5.9          | 50                  | 32.8         | AV       | L1   |
| 0.406000         | 18.10               | 5.7          | 48                  | 29.6         | AV       | L1   |
| 0.446000         | 21.60               | 5.5          | 47                  | 25.3         | AV       | L1   |

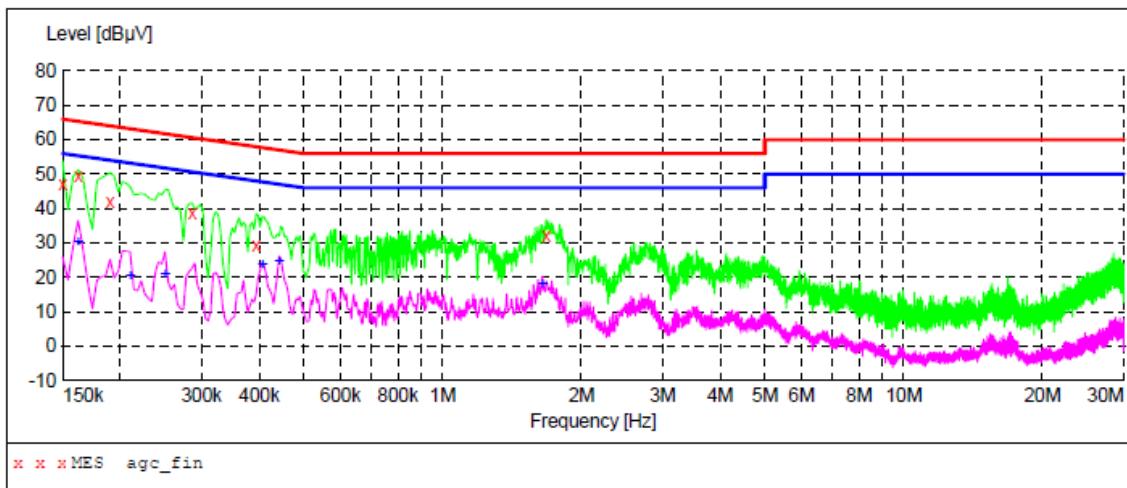
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## Line Conducted Emission Test Line 2-N


**MEASUREMENT RESULT: "agc\_fin"**

2022/5/22 10:55

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.150000         | 47.00               | 6.9          | 66                  | 19.0         | QP       | N    |
| 0.162000         | 49.20               | 6.8          | 65                  | 16.2         | QP       | N    |
| 0.190000         | 42.00               | 6.6          | 64                  | 22.0         | QP       | N    |
| 0.286000         | 38.40               | 6.1          | 61                  | 22.2         | QP       | N    |
| 0.394000         | 29.00               | 5.7          | 58                  | 29.0         | QP       | N    |
| 1.678000         | 31.90               | 6.2          | 56                  | 24.1         | QP       | N    |

**MEASUREMENT RESULT: "agc\_fin2"**

2022/5/22 10:55

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.162000         | 30.20               | 6.8          | 55                  | 25.2         | AV       | N    |
| 0.210000         | 20.50               | 6.5          | 53                  | 32.7         | AV       | N    |
| 0.250000         | 20.60               | 6.3          | 52                  | 31.2         | AV       | N    |
| 0.406000         | 23.50               | 5.7          | 48                  | 24.2         | AV       | N    |
| 0.442000         | 24.60               | 5.6          | 47                  | 22.4         | AV       | N    |
| 1.646000         | 17.80               | 6.2          | 46                  | 28.2         | AV       | N    |

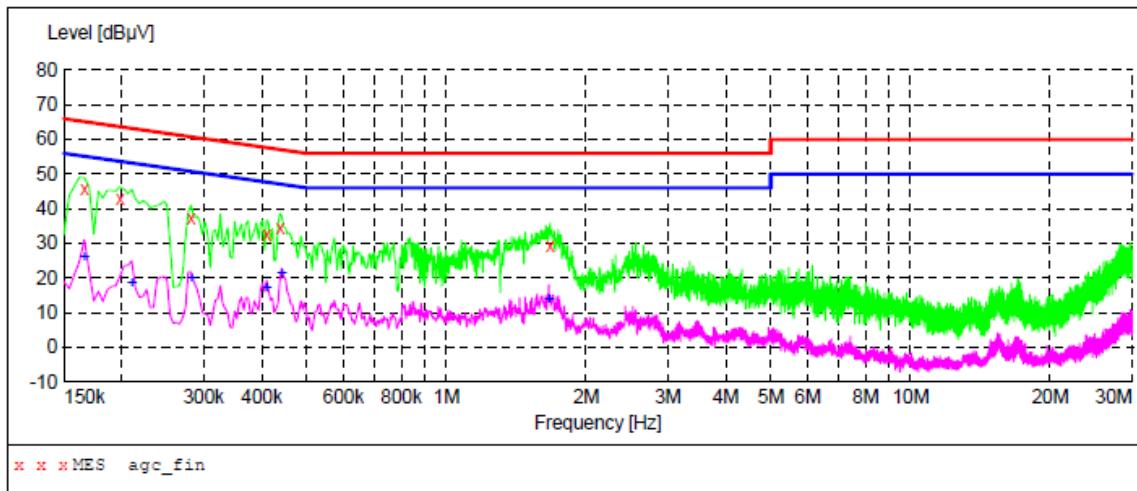
**RESULT: PASS**

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Mode 2  
 Line Conducted Emission Test Line 1-L

**MEASUREMENT RESULT: "agc\_fin"**

2022/5/22 11:06

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.166000         | 45.90               | 6.8          | 65                  | 19.3         | QP       | L1   |
| 0.198000         | 42.70               | 6.6          | 64                  | 21.0         | QP       | L1   |
| 0.282000         | 37.30               | 6.1          | 61                  | 23.5         | QP       | L1   |
| 0.410000         | 32.30               | 5.7          | 58                  | 25.3         | QP       | L1   |
| 0.438000         | 34.20               | 5.6          | 57                  | 22.9         | QP       | L1   |
| 1.674000         | 29.10               | 6.2          | 56                  | 26.9         | QP       | L1   |

**MEASUREMENT RESULT: "agc\_fin2"**

2022/5/22 11:06

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.166000         | 26.00               | 6.8          | 55                  | 29.2         | AV       | L1   |
| 0.210000         | 18.60               | 6.5          | 53                  | 34.6         | AV       | L1   |
| 0.282000         | 20.00               | 6.1          | 51                  | 30.8         | AV       | L1   |
| 0.410000         | 17.00               | 5.7          | 48                  | 30.6         | AV       | L1   |
| 0.442000         | 21.40               | 5.6          | 47                  | 25.6         | AV       | L1   |
| 1.662000         | 13.90               | 6.2          | 46                  | 32.1         | AV       | L1   |

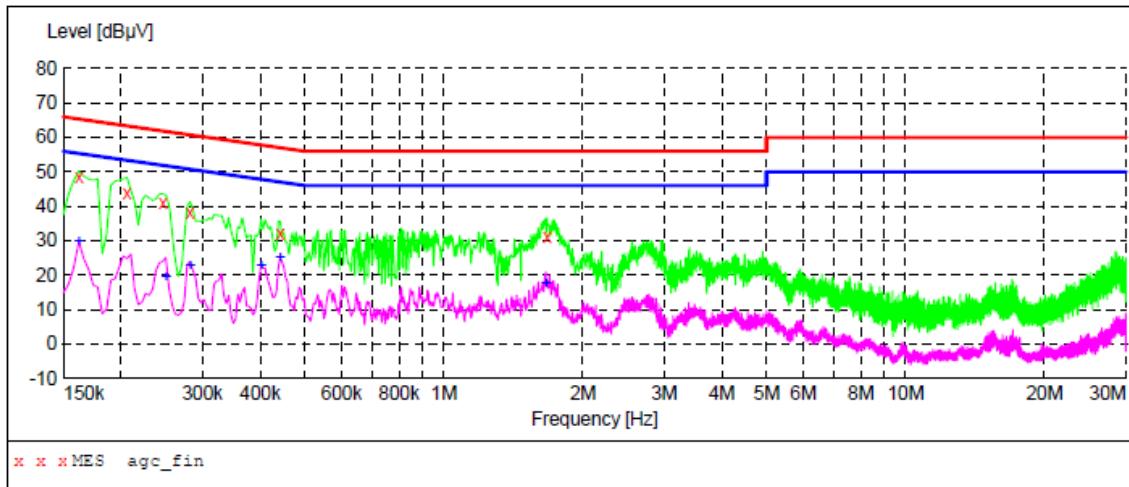
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## Line Conducted Emission Test Line 2-N

**MEASUREMENT RESULT: "agc\_fin"**

2022/5/22 10:58

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.162000         | 48.50               | 6.8          | 65                  | 16.9         | QP       | N    |
| 0.206000         | 43.70               | 6.5          | 63                  | 19.7         | QP       | N    |
| 0.246000         | 40.80               | 6.3          | 62                  | 21.1         | QP       | N    |
| 0.282000         | 38.20               | 6.1          | 61                  | 22.6         | QP       | N    |
| 0.442000         | 31.80               | 5.6          | 57                  | 25.2         | QP       | N    |
| 1.674000         | 31.20               | 6.2          | 56                  | 24.8         | QP       | N    |

**MEASUREMENT RESULT: "agc\_fin2"**

2022/5/22 10:58

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.162000         | 29.50               | 6.8          | 55                  | 25.9         | AV       | N    |
| 0.250000         | 19.50               | 6.3          | 52                  | 32.3         | AV       | N    |
| 0.282000         | 22.40               | 6.1          | 51                  | 28.4         | AV       | N    |
| 0.402000         | 22.70               | 5.7          | 48                  | 25.1         | AV       | N    |
| 0.442000         | 24.80               | 5.6          | 47                  | 22.2         | AV       | N    |
| 1.662000         | 17.40               | 6.2          | 46                  | 28.6         | AV       | N    |

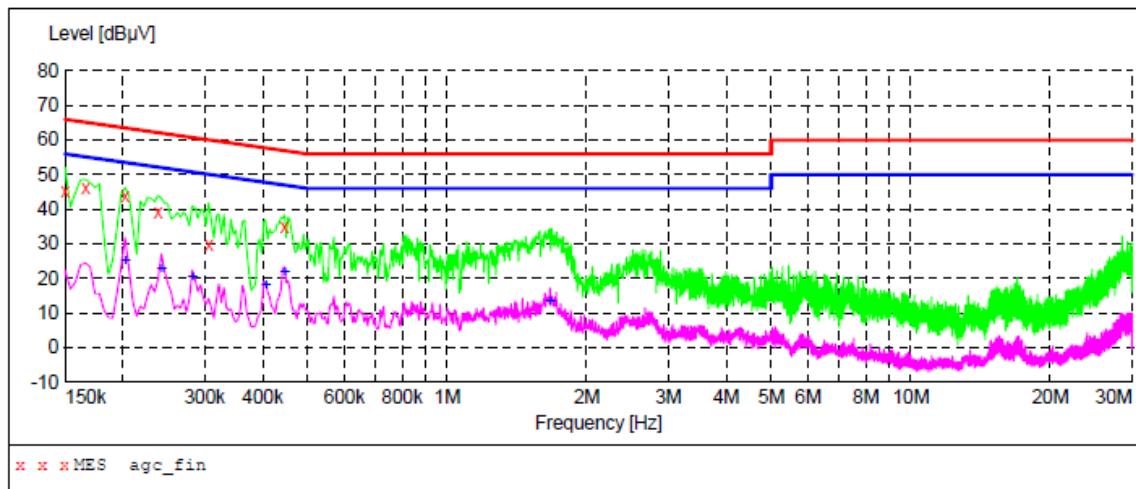
**RESULT: PASS**

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Mode 3  
 Line Conducted Emission Test Line 1-L

**MEASUREMENT RESULT: "agc\_fin"**

2022/5/22 11:04

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.150000         | 45.20               | 6.9          | 66                  | 20.8         | QP       | L1   |
| 0.166000         | 46.10               | 6.8          | 65                  | 19.1         | QP       | L1   |
| 0.202000         | 44.00               | 6.5          | 64                  | 19.5         | QP       | L1   |
| 0.238000         | 39.30               | 6.3          | 62                  | 22.9         | QP       | L1   |
| 0.306000         | 29.50               | 6.0          | 60                  | 30.6         | QP       | L1   |
| 0.446000         | 34.70               | 5.5          | 57                  | 22.2         | QP       | L1   |

**MEASUREMENT RESULT: "agc\_fin2"**

2022/5/22 11:04

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.202000         | 25.00               | 6.5          | 54                  | 28.5         | AV       | L1   |
| 0.242000         | 22.60               | 6.3          | 52                  | 29.4         | AV       | L1   |
| 0.282000         | 20.40               | 6.1          | 51                  | 30.4         | AV       | L1   |
| 0.406000         | 18.20               | 5.7          | 48                  | 29.5         | AV       | L1   |
| 0.446000         | 21.60               | 5.5          | 47                  | 25.3         | AV       | L1   |
| 1.666000         | 13.40               | 6.2          | 46                  | 32.6         | AV       | L1   |

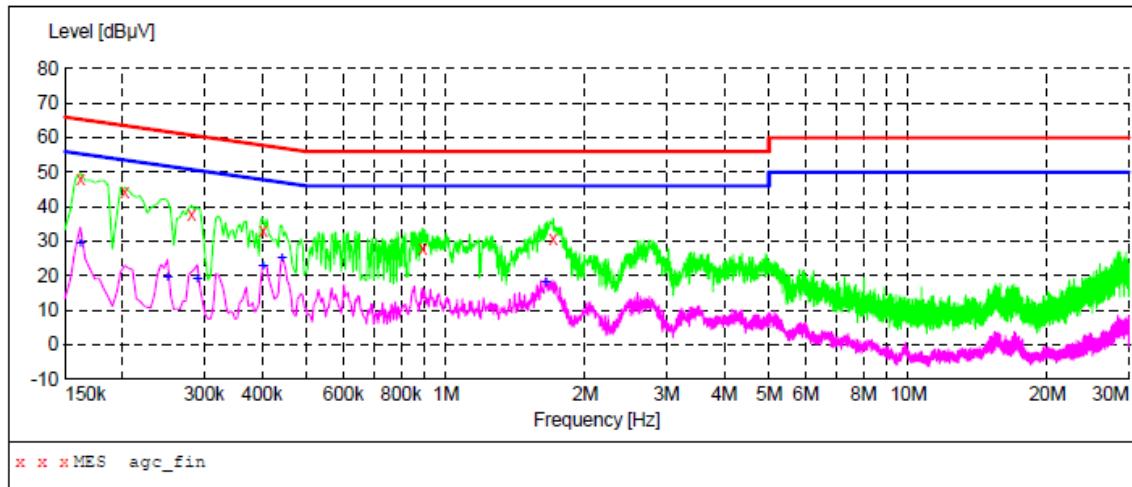
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## Line Conducted Emission Test Line 2-N

**MEASUREMENT RESULT: "agc\_fin"**

2022/5/22 11:00

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.162000         | 48.00               | 6.8          | 65                  | 17.4         | QP       | N    |
| 0.202000         | 44.30               | 6.5          | 64                  | 19.2         | QP       | N    |
| 0.282000         | 37.70               | 6.1          | 61                  | 23.1         | QP       | N    |
| 0.402000         | 33.20               | 5.7          | 58                  | 24.6         | QP       | N    |
| 0.890000         | 27.60               | 5.4          | 56                  | 28.4         | QP       | N    |
| 1.706000         | 30.40               | 6.2          | 56                  | 25.6         | QP       | N    |

**MEASUREMENT RESULT: "agc\_fin2"**

2022/5/22 11:00

| Frequency<br>MHz | Level<br>dB $\mu$ V | Transd<br>dB | Limit<br>dB $\mu$ V | Margin<br>dB | Detector | Line |
|------------------|---------------------|--------------|---------------------|--------------|----------|------|
| 0.162000         | 29.30               | 6.8          | 55                  | 26.1         | AV       | N    |
| 0.250000         | 19.40               | 6.3          | 52                  | 32.4         | AV       | N    |
| 0.290000         | 18.80               | 6.1          | 51                  | 31.7         | AV       | N    |
| 0.402000         | 22.70               | 5.7          | 48                  | 25.1         | AV       | N    |
| 0.442000         | 24.80               | 5.6          | 47                  | 22.2         | AV       | N    |
| 1.646000         | 17.90               | 6.2          | 46                  | 28.1         | AV       | N    |

**RESULT: PASS**

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**APPENDIX A: PHOTOGRAPHS OF TEST SETUP**

Refer to the Report No.: AGC01612220501AP02

**APPENDIX B: PHOTOGRAPHS OF EUT**

Refer to the Report No.: AGC01612220501AP03

----END OF REPORT----

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3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
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7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

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