



# TEST REPORT

**Reference No.**..... : WTA24F08192419W  
**FCC ID** ..... : 2AJJGHJ8258  
**Applicant**..... : Qingdao Richmat Intelligence Technology Inc  
**Address**..... : NO.78 Kongquehe 4th Road, Qingdao Clothing Industry park, Jimo, Qingdao, Shandong Province, China.  
**Manufacturer** ..... : The same as above  
**Address**..... : The same as above  
**Product Name**..... : Module  
**Model No**..... : HJ8258  
**Test specification**..... : FCC CFR47 Part 15 Subpart C (Section 15.247)  
**Date of Receipt sample** .... : 2024-10-11  
**Date of Test** ..... : 2024-10-16  
**Date of Issue**..... : 2024-10-22  
**Test Report Form No.** ..... : WEW-15247A-01B  
**Test Result**..... : **Pass**

**Remarks:**

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

**Prepared By:**

**Waltek Testing Group (Foshan) Co., Ltd.**

Address: 1/F., Building 19, Sunlink Machinery City, Xingye 4 Road,  
Guanglong Industrial Park, Chihua Neighborhood Committee, Chencun Town,  
Shunde District, Foshan, Guangdong, China

Tel:+86-757-23811398 Fax:+86-757-23811381 E-mail:info@waltek.com.cn

Tested by:

Roy Hong

Approved by:

Danny Zhou



1 Revision History

| Test Report No. | Date of Issue | Description                | Status |
|-----------------|---------------|----------------------------|--------|
| WTA24F08192419W | 2024-10-22    | Class II Permissive Change | Valid  |

WALTEK



## 2 Contents

|                                                       | Page      |
|-------------------------------------------------------|-----------|
| <b>1 REVISION HISTORY</b> .....                       | <b>2</b>  |
| <b>2 CONTENTS</b> .....                               | <b>3</b>  |
| <b>3 GENERAL INFORMATION</b> .....                    | <b>4</b>  |
| 3.1 GENERAL DESCRIPTION OF E.U.T .....                | 4         |
| 3.2 TECHNICAL CHARACTERISTICS OF EUT .....            | 4         |
| 3.3 STANDARDS APPLICABLE FOR TESTING.....             | 4         |
| 3.4 TEST FACILITY .....                               | 5         |
| 3.5 SUBCONTRACTED .....                               | 5         |
| 3.6 ABNORMALITIES FROM STANDARD CONDITIONS.....       | 5         |
| 3.7 DISCLAIMER.....                                   | 5         |
| <b>4 EUT SETUP AND TEST MODE</b> .....                | <b>6</b>  |
| <b>5 EQUIPMENT USED DURING TEST</b> .....             | <b>7</b>  |
| 5.1 EQUIPMENT LIST .....                              | 7         |
| 5.2 TEST SOFTWARE .....                               | 8         |
| 5.3 SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT ..... | 8         |
| 5.4 MEASUREMENT UNCERTAINTY .....                     | 8         |
| <b>6 SUMMARY OF TEST RESULT</b> .....                 | <b>9</b>  |
| 6.1 RADIATED SPURIOUS EMISSIONS .....                 | 10        |
| <b>7 PHOTOGRAPHS TEST SETUP</b> .....                 | <b>27</b> |
| 7.1 PHOTOGRAPHS - RADIATED EMISSION TEST SETUP.....   | 27        |
| <b>8 PHOTOGRAPHS - CONSTRUCTIONAL DETAILS</b> .....   | <b>28</b> |
| 8.1 EUT - EXTERNAL PHOTOS.....                        | 28        |
| 8.2 EUT - INTERNAL PHOTOS.....                        | 37        |



### 3 General Information

#### 3.1 General Description of E.U.T

**Product Name** ..... : Module

**Model No.** ..... : HJ8258

**Remark** ..... : The report is C2PC report, the following host models were added and tested.

**Host Models** ..... : HJSR96 Ble, HJSR96B Ble, HJSR96C Ble

**Host Models Difference** ..... : HJSR96B Ble and HJSR96C Ble are identical except for the appearance.  
HJSR96 Ble is different from other models.  
Therefore the necessary test was performed on model HJSR96 Ble and HJSR96B Ble.

**Rating** ..... : Battery 4.5V (3\*1.5V AAA)

**Battery Capacity** ..... : ---

**Power Adapter** ..... : ---

#### 3.2 Technical Characteristics of EUT

**Frequency Range** ..... : 2402-2480MHz

**Modulation** ..... : GFSK

**Data Rate** ..... : 1Mbps

**Quantity of Channels** ..... : 40

**Channel Separation** ..... : 2MHz

**Type of Antenna** ..... : PCB Antenna

**Antenna Gain** ..... : 3dBi

#### 3.3 Standards Applicable for Testing

The tests were performed according to following standards:

|                                        |                                                                                                                                                                                          |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FCC Rules Part 15.247                  | Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz                                   |
| 558074 D01 15.247 Meas Guidance v05r02 | Guidance For Compliance Measurements On Digital Transmission System, Frequency Hopping Spread Spectrum System, And Hybrid System Devices Operating Under Section 15.247 Of The FCC Rules |
| ANSI C63.10-2013                       | American National Standard for Testing Unlicensed Wireless Devices                                                                                                                       |



### 3.4 Test Facility

The test facility has a test site registered with the following organizations:

- **ISED – Registration No.: 21895**

Waltek Testing Group (Foshan) Co., Ltd. has been registered and fully described in a report filed with the Innovation, Science and Economic Development Canada (ISED). The acceptance letter from the ISED is maintained in our files. Registration ISED number: 21895, March 12, 2019

- **FCC – Registration No.: 820106**

Waltek Testing Group (Foshan) Co., Ltd. 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 820106, August 16, 2018

- **FCC – Designation No.: CN5034**

Waltek Testing Group (Foshan) Co., Ltd. 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. Designation No. CN5034.

- **NVLAP – Lab Code: 600191-0**

Waltek Testing Group (Foshan) Co., Ltd. EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 600191-0.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

### 3.5 Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test items: ---

Lab information: ---

### 3.6 Abnormalities from Standard Conditions

None.

### 3.7 Disclaimer

The antenna gain information is provided by the customer. The laboratory is not responsible for the accuracy of the antenna gain information.



#### 4 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, with a duty cycle equal to 100%, and to measure its highest possible emissions level, more detailed description as follows:

**Test Mode List**

| Test Mode | Description    | Remark  |
|-----------|----------------|---------|
| TM1       | Low Channel    | 2402MHz |
| TM2       | Middle Channel | 2440MHz |
| TM3       | High Channel   | 2480MHz |

**Test Conditions**

|                       |          |
|-----------------------|----------|
| Temperature:          | 22~25°C  |
| Relative Humidity:    | 50~55%   |
| Atmospheric pressure: | 101.9kPa |

# WALTEK



## 5 Equipment Used during Test

### 5.1 Equipment List

| <input type="checkbox"/> Conducted Emissions 1#         |                            |                 |                   |             |                       |                      |
|---------------------------------------------------------|----------------------------|-----------------|-------------------|-------------|-----------------------|----------------------|
| Item                                                    | Equipment                  | Manufacturer    | Model No.         | Serial No.  | Last Cal Date         | Cal Due Date         |
| 1.                                                      | EMI Test Receiver          | R&S             | ESR3              | 102423      | 2024-01-05            | 2025-01-04           |
| 2.                                                      | LISN                       | R&S             | ENV216            | 101343      | 2024-01-05            | 2025-01-04           |
| 3.                                                      | Cable                      | HUBER+SUHNER    | CBL2-NN-6M        | 223NN624    | 2024-01-04            | 2025-01-03           |
| 4.                                                      | Switch                     | CD              | RSU-A4 18G        | RSUA4008    | 2024-01-04            | 2025-01-03           |
| <input type="checkbox"/> Conducted Emissions 2#         |                            |                 |                   |             |                       |                      |
| Item                                                    | Equipment                  | Manufacturer    | Model No.         | Serial No.  | Last Cal Date         | Cal Due Date         |
| 1.                                                      | EMI Test Receiver          | R&S             | ESCI              | 101178      | 2024-01-06            | 2025-01-05           |
| 2.                                                      | LISN                       | R&S             | ENV216            | 101215      | 2024-01-05            | 2025-01-04           |
| 3.                                                      | Cable                      | HUBER+SUHNER    | CBL2-NN-6M        | 6102701     | 2024-01-04            | 2025-01-03           |
| 4.                                                      | Switch                     | ESE             | RSU/M2            | ---         | 2024-01-04            | 2025-01-03           |
| <input type="checkbox"/> Conducted Emissions 3#         |                            |                 |                   |             |                       |                      |
| Item                                                    | Equipment                  | Manufacturer    | Model No.         | Serial No.  | Last Cal Date         | Cal Due Date         |
| 1.                                                      | EMI Test Receiver          | R&S             | ESR3              | 102842      | 2024-01-05            | 2025-01-04           |
| 2.                                                      | LISN                       | R&S             | ENV216            | 101542      | 2024-01-05            | 2025-01-04           |
| 3.                                                      | Cable                      | YIHENG          | LMR195UF-NMNM-2.5 | ---         | 2024-01-04            | 2025-01-03           |
| 4.                                                      | Manual RF Switch           | YIHENG          | SW-2              | RSU0402     | 2024-01-04            | 2025-01-03           |
| <input checked="" type="checkbox"/> Radiation Emissions |                            |                 |                   |             |                       |                      |
| Item                                                    | Equipment                  | Manufacturer    | Model No.         | Serial No.  | Last Calibration Date | Calibration Due Date |
| 1.                                                      | 3m Semi-anechoic Chamber   | CHANGCHUANG     | 9m×6m×6m          | -           | 2024-01-05            | 2025-01-04           |
| 2.                                                      | EMI Test Receiver          | RS              | ESR7              | 101566      | 2024-01-06            | 2025-01-05           |
| 3.                                                      | EMC Analyzer               | Agilent         | N9020A            | MY48011796  | 2024-01-04            | 2025-01-03           |
| 4.                                                      | Active Loop Antenna        | SCHWARZBECK     | FMZB1519B         | 00004       | 2024-01-05            | 2025-01-04           |
| 5.                                                      | Trilog Broadband Antenna   | SCHWARZBECK     | VULB 9162         | 9162-117    | 2024-01-05            | 2025-01-04           |
| 6.                                                      | Coaxial Cable (below 1GHz) | H+S             | CBL3-NN-12+3 m    | 214NN320    | 2024-01-06            | 2025-01-05           |
| 7.                                                      | Broad-band Horn Antenna    | SCHWARZBECK     | BBHA 9120 D       | 01561       | 2024-01-05            | 2025-01-04           |
| 8.                                                      | Broad-band Horn Antenna    | SCHWARZBECK     | BBHA 9170         | 01119       | 2024-01-05            | 2025-01-04           |
| 9.                                                      | Coaxial Cable (above 1GHz) | Times-Microwave | CBL5-NN           | -           | 2024-01-04            | 2025-01-03           |
| 10.                                                     | Amplifier                  | Lunar E M       | LNA1G18-40        | 20160501002 | 2024-01-04            | 2025-01-03           |



| <input type="checkbox"/> RF Conducted Testing |                         |              |           |            |                       |                      |
|-----------------------------------------------|-------------------------|--------------|-----------|------------|-----------------------|----------------------|
| Item                                          | Equipment               | Manufacturer | Model No. | Serial No. | Last Calibration Date | Calibration Due Date |
| 1.                                            | Spectrum Analyzer       | Agilent      | N9020A    | MY48011796 | 2024-01-04            | 2025-01-03           |
| 2.                                            | Analog Signal Generator | Agilent      | N5181A    | MY48180720 | 2024-01-04            | 2025-01-03           |
| 3.                                            | RF Control Unit         | CHANGCHUANG  | JS0806-2  | -          | 2024-01-04            | 2025-01-03           |

☐: Not Used

☒: Used

5.2 Test Software

| Description                               | Manufacturer | Model  | Version        |
|-------------------------------------------|--------------|--------|----------------|
| EMI Test Software (Conducted Emission 1#) | FARATRONIC   | EZ-EMC | EMEC-3A1       |
| EMI Test Software (Conducted Emission 2#) | FARATRONIC   | EZ-EMC | FARAD-3A1.1+   |
| EMI Test Software (Conducted Emission 3#) | FARATRONIC   | EZ-EMC | EMC-CON 3A1.1+ |
| EMI Test Software (Radiated Emission)     | FARATRONIC   | EZ-EMC | RA-03A1-2      |
| RF Conducted Test Software                | Chinese EMC  | EMS    | V1.0.0.0       |

5.3 Special Accessories and Auxiliary Equipment

| Item | Equipment | Manufacturer | Model No. | Serial No. |
|------|-----------|--------------|-----------|------------|
| 1.   | /         | /            | /         | /          |

5.4 Measurement Uncertainty

| Parameter                     | Uncertainty             |
|-------------------------------|-------------------------|
| RF Output Power               | ±2.2dB                  |
| Occupied Bandwidth            | ±1.5%                   |
| Conducted Emission            | ±2.6dB                  |
| Transmitter Spurious Emission | ±3.8dB (for 25MHz-1GHz) |
|                               | ±5.0dB (for 1GHz-18GHz) |

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



## 6 Summary of Test Result

| Test Items                  | FCC Rules  | Result    |
|-----------------------------|------------|-----------|
| Radiated Spurious Emissions | §15.209(a) | Compliant |

Remark:

Pass Test item meets the requirement  
Fail Test item does not meet the requirement  
N/A Test case does not apply to the test object

# WALTEK



## 6.1 Radiated Spurious Emissions

### 6.1.1 Standard Applicable

According to §15.247(d), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

### 6.1.2 Test Procedure

- 1) The EUT is placed on a turntable, which is 0.8m(Below 1G) 1.5m(above 1G)above ground plane.
- 2) The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3) EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions. The spectrum was investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- 4) Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5) And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 6) Repeat above procedures until the measurements for all frequencies are complete.
- 7) The radiation measurements are tested under 3-axes(X, Y, Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the Z position. So the data shown was the Z position only.



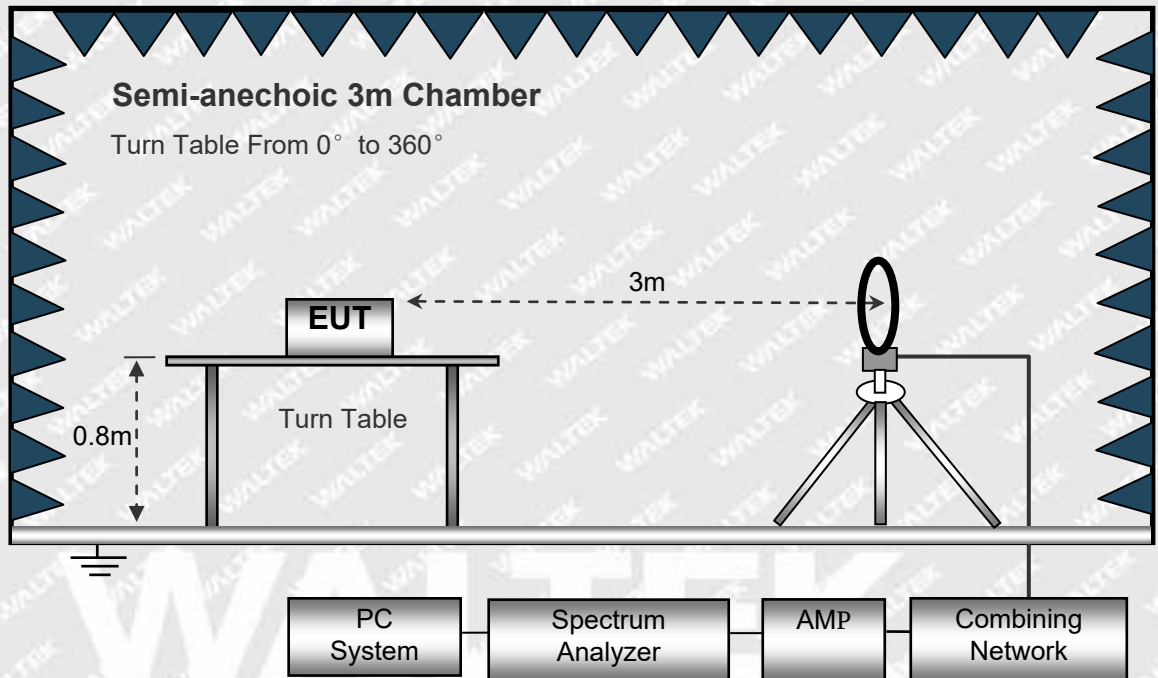
### 6.1.3 Test Setup

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 Limit.

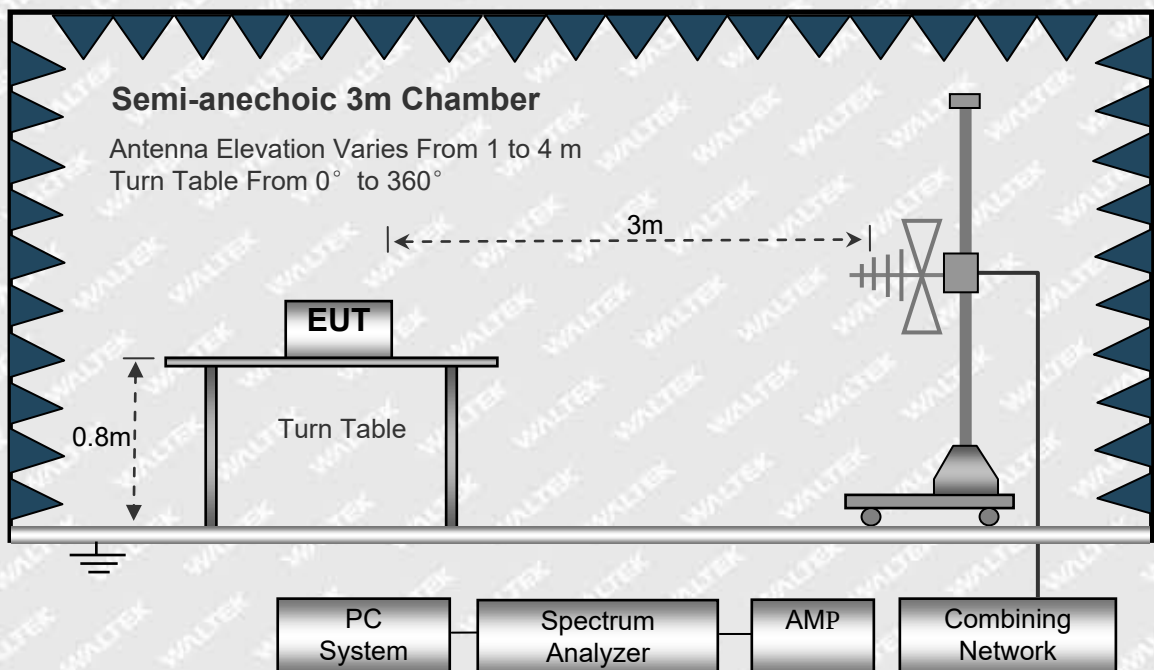
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

The test setup for emission measurement below 30MHz.

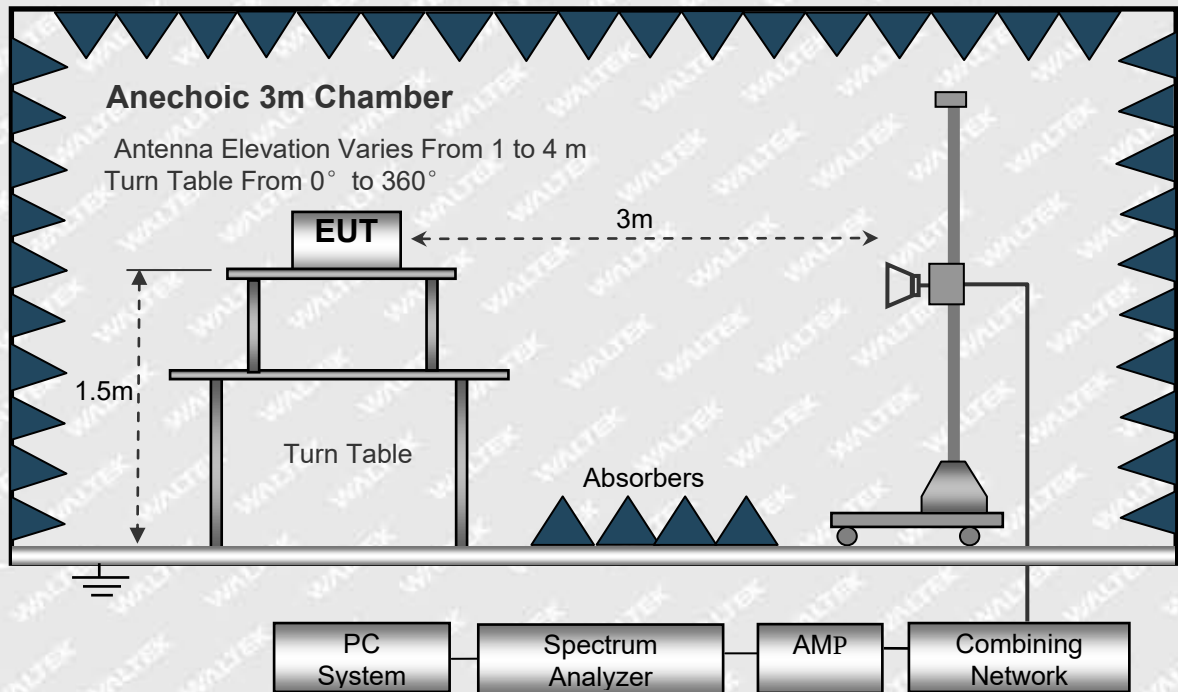


The test setup for emission measurement from 30 MHz to 1 GHz.





The test setup for emission measurement above 1 GHz.



6.1.4 Spectrum Analyzer Setup

9KHz-30MHz

RBW=10kHz

VBW=30kHz

Sweep time=Auto

Trace=Max hold

Detector function=peak

30MHz-1GHz

RBW=120kHz

VBW=300kHz

Sweep time=Auto

Trace=Max hold

Detector function=peak, QP

Above 1GHz

RBW=1MHz

VBW=3MHz(Peak), 10MHz(AV)

Sweep time=Auto

Trace=Max hold

Detector function=peak, AV

6.1.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corr. Ampl. = Indicated Reading + Corr. Factor

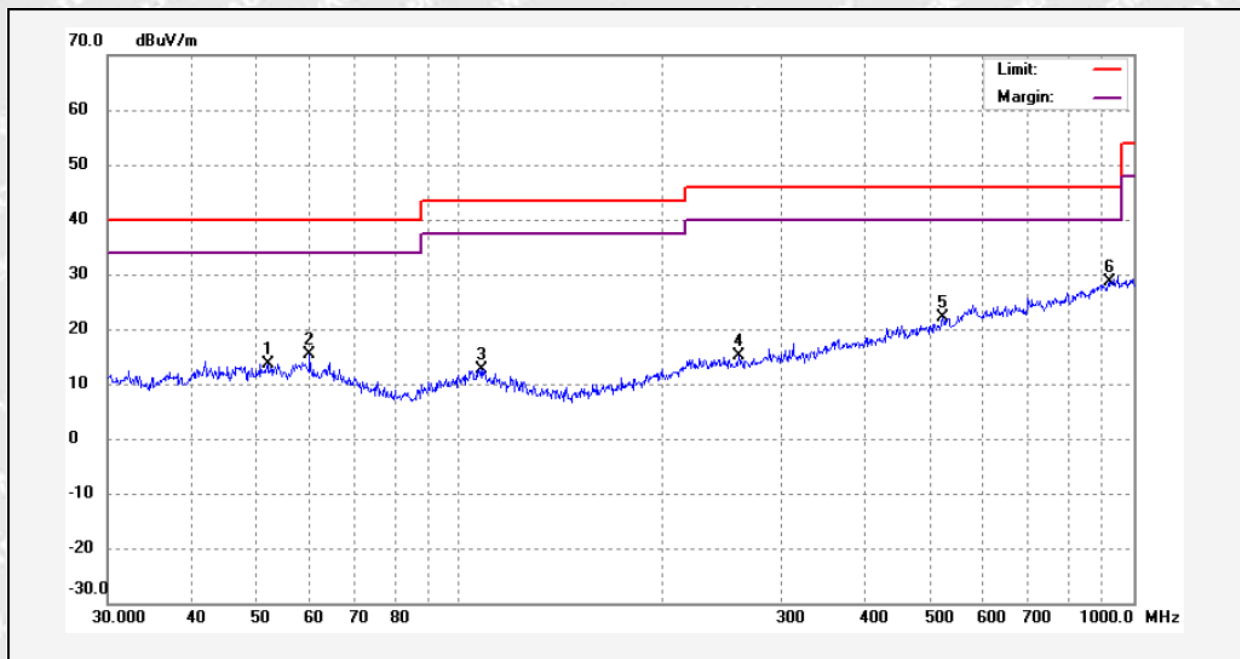
Corr.Factor=Antenna Factor + Cable Factor - Amplifier Gain

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the maximum limit for Class B. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – Limit



### 6.1.6 Test Results

**Test Model:** HJSR96 Ble**Test Frequency:** Below 1GHz**Test Channel:** Lowest Channel**Polarization:** Vertical

| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|--------|
| 1   | 52.0069     | -0.66            | 14.37       | 13.71           | 40.00          | -26.29      | QP       |        |
| 2   | 60.0270     | 1.47             | 13.86       | 15.33           | 40.00          | -24.67      | QP       |        |
| 3   | 108.0391    | -0.17            | 12.87       | 12.70           | 43.50          | -30.80      | QP       |        |
| 4   | 259.8709    | 0.61             | 14.63       | 15.24           | 46.00          | -30.76      | QP       |        |
| 5   | 521.9853    | 1.13             | 20.94       | 22.07           | 46.00          | -23.93      | QP       |        |
| 6   | 925.7563    | 1.25             | 27.39       | 28.64           | 46.00          | -17.36      | QP       |        |

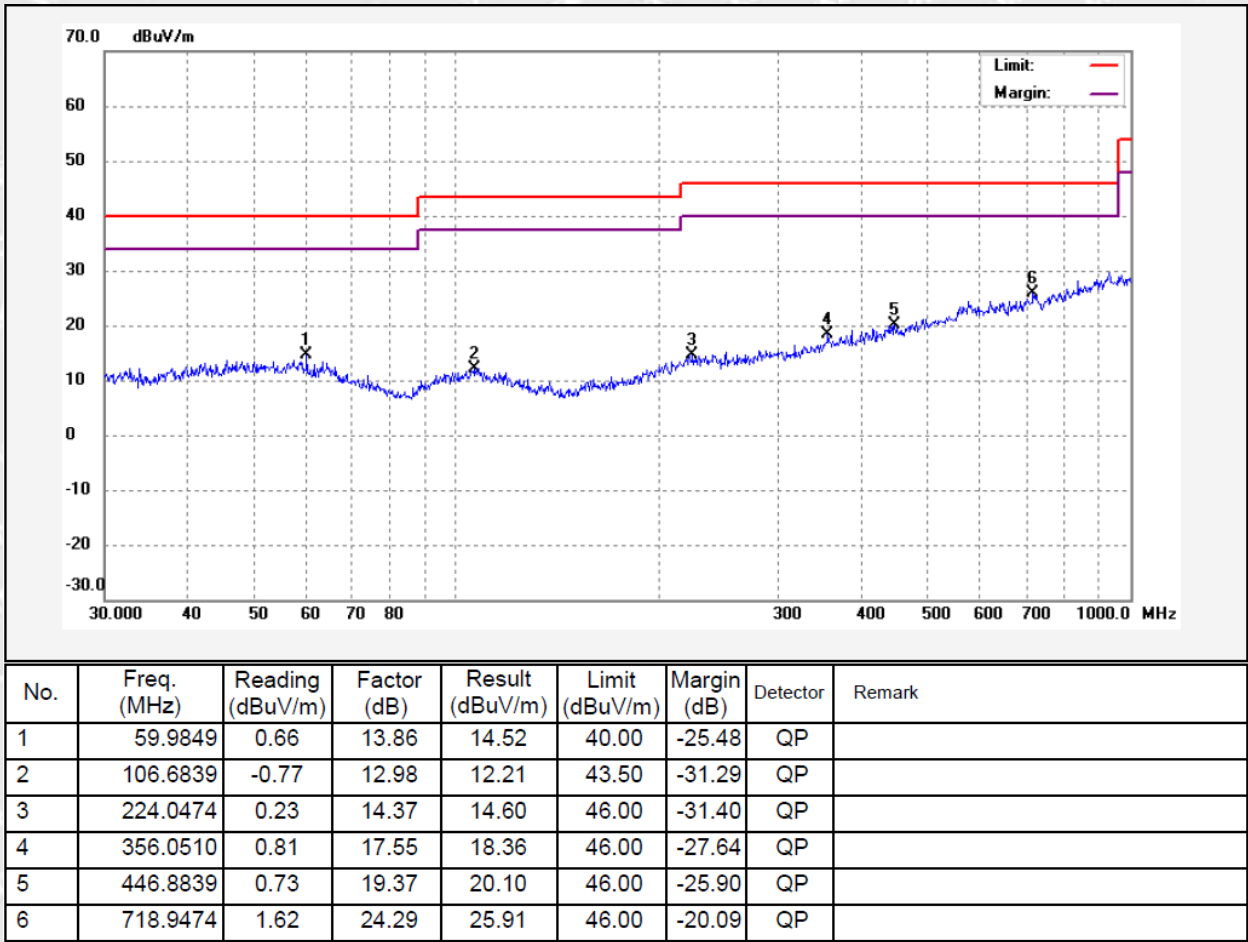


Test Model: HJSR96 Ble

Test Frequency: Below 1GHz

Test Channel: Lowest Channel

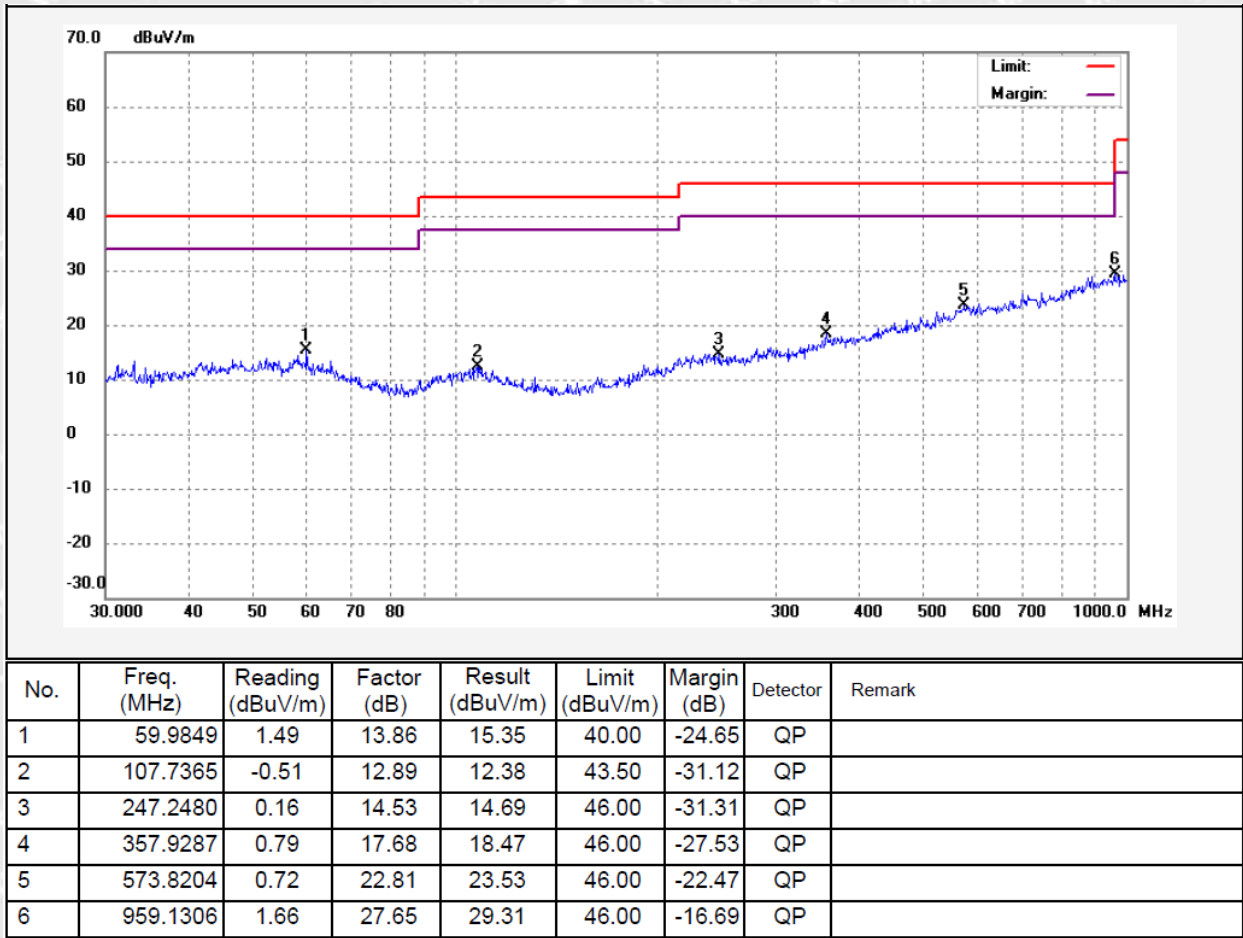
Polarization: Horizontal





**Test Model:** HJSR96 Ble  
**Test Channel:** Middle Channel

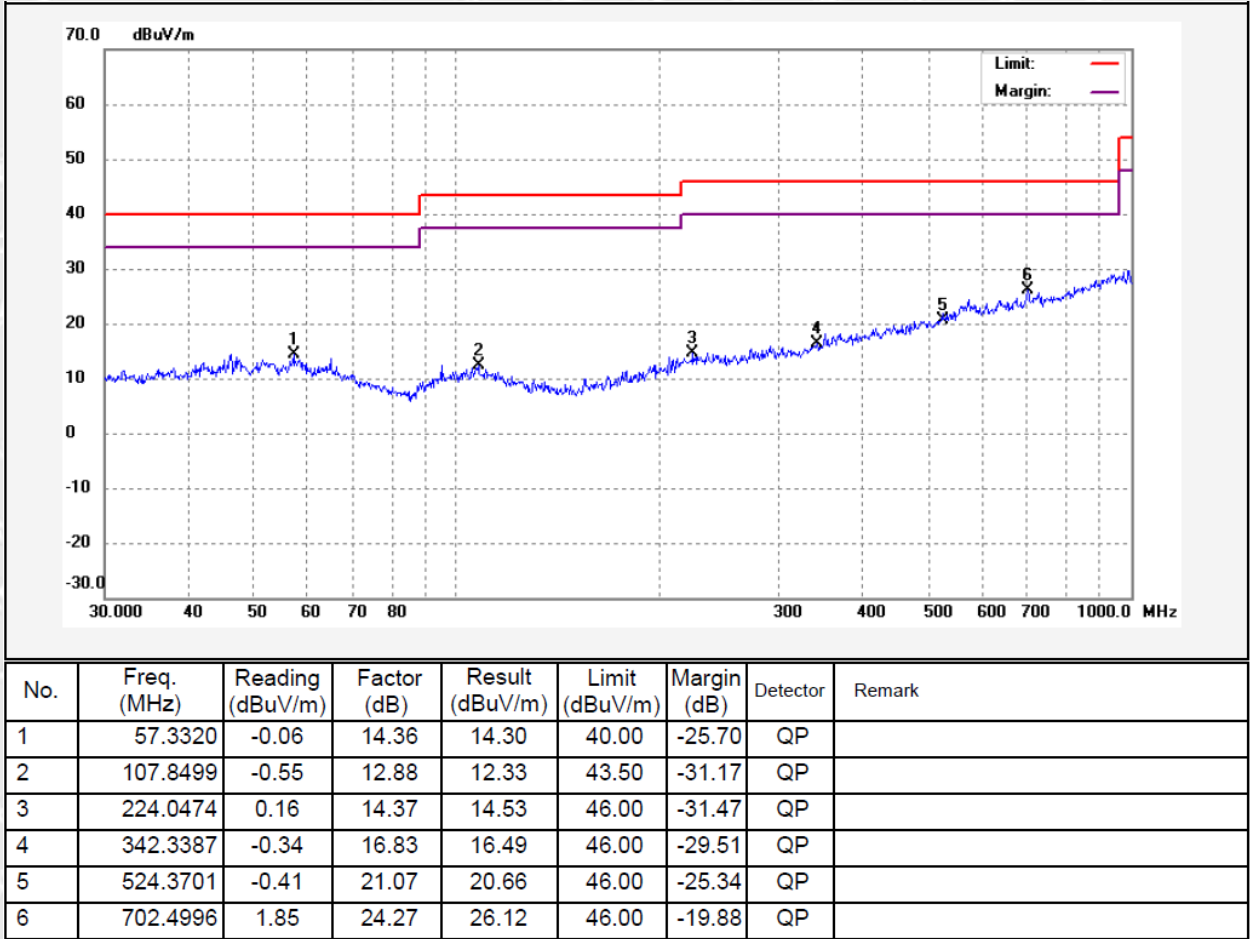
**Test Frequency:** Below 1GHz  
**Polarization:** Vertical

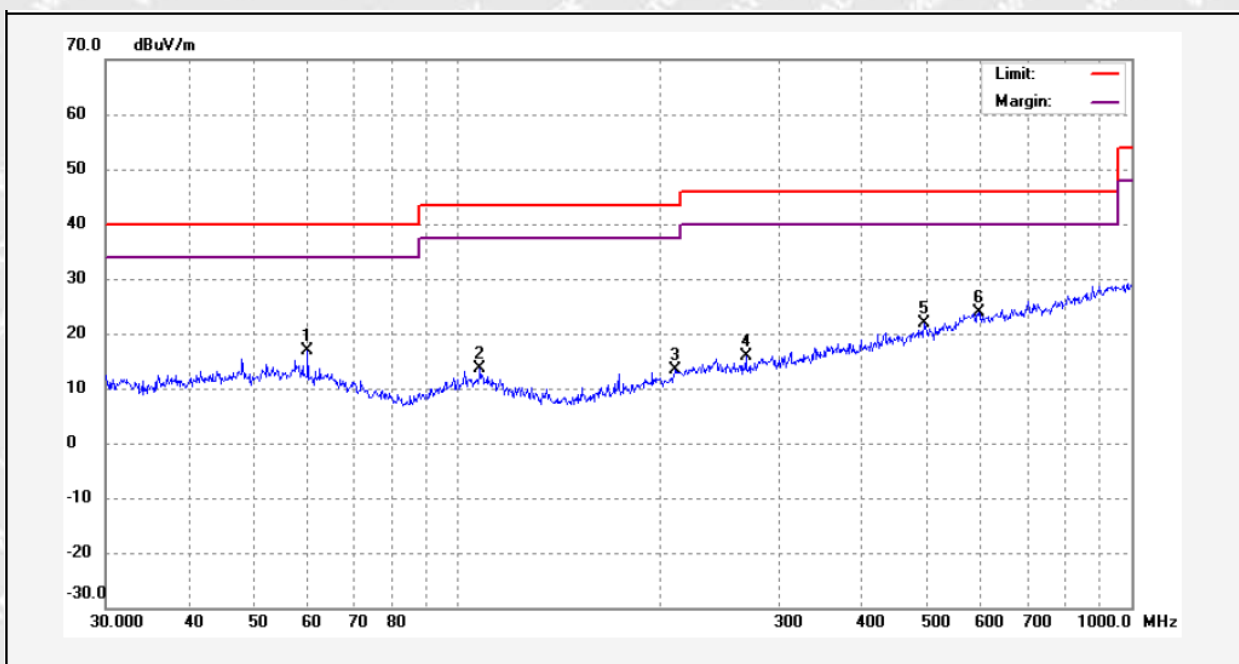




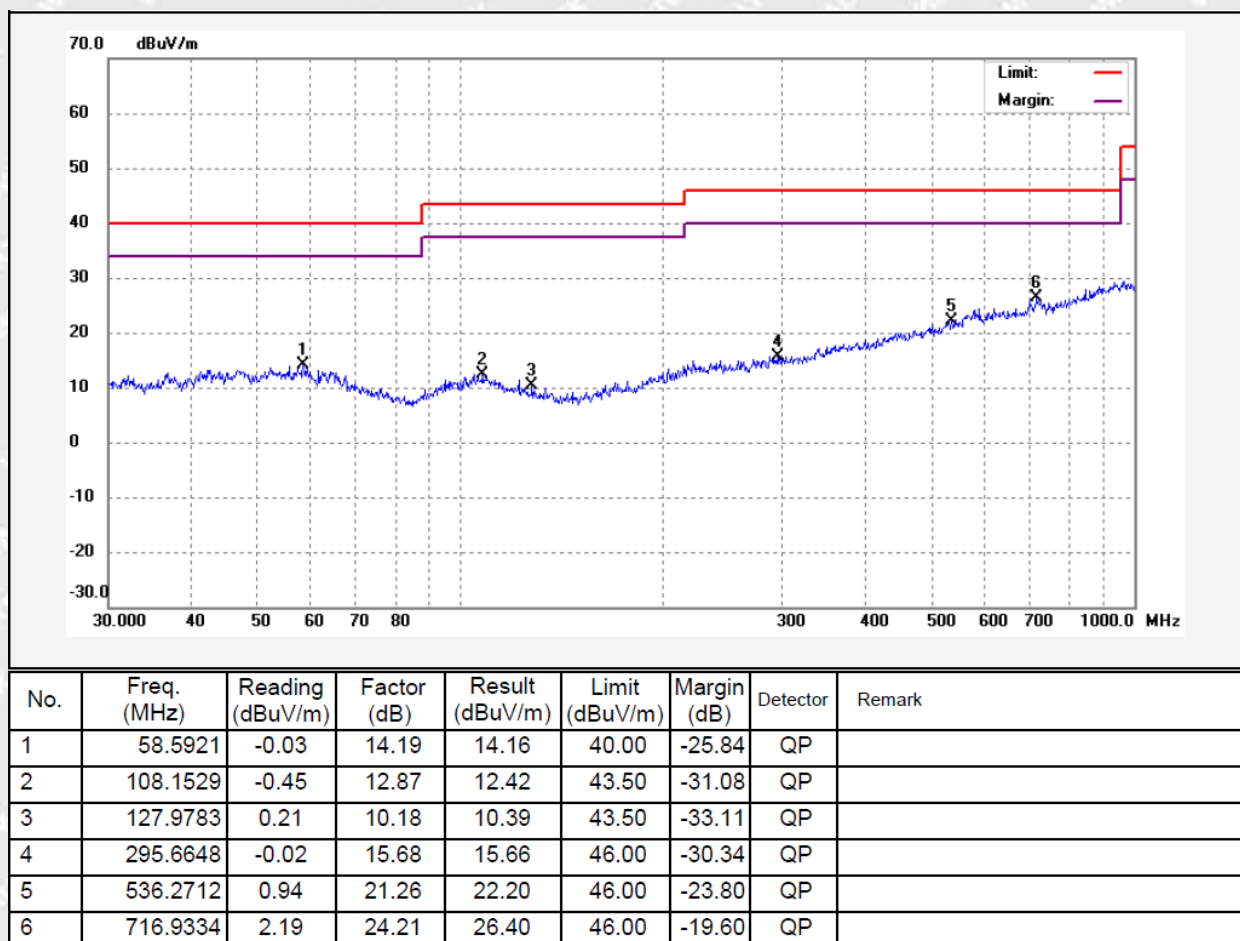
**Test Model:** HJSR96 Ble  
**Test Channel:** Middle Channel

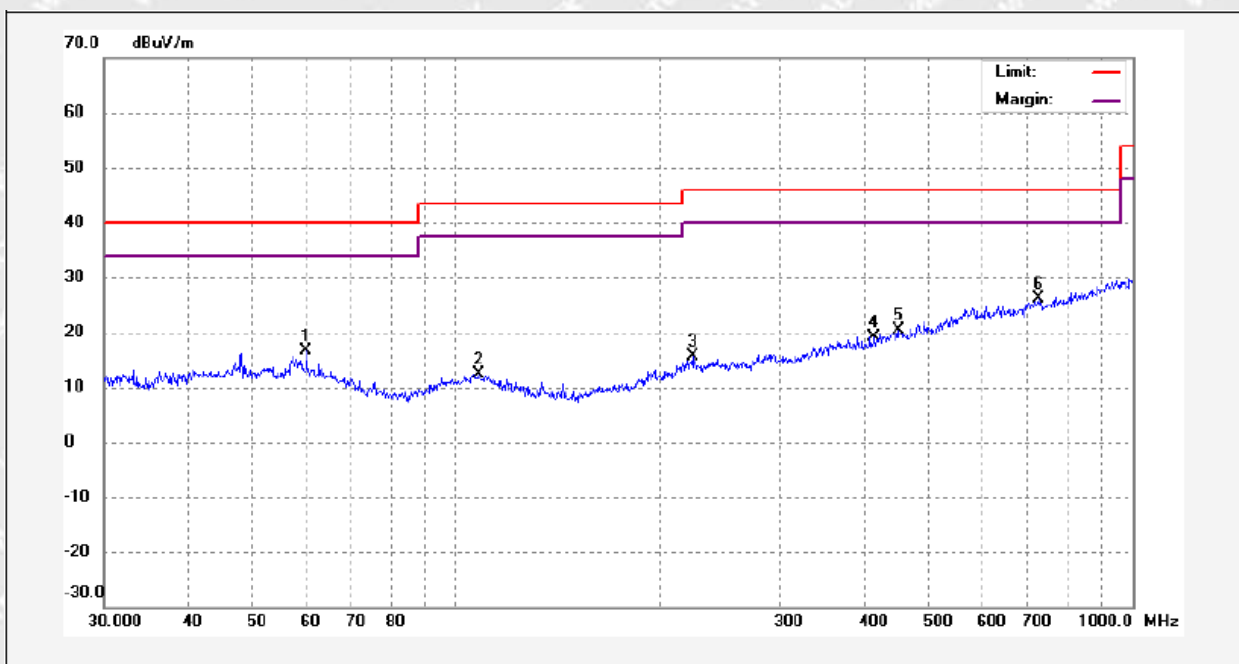
**Test Frequency:** Below 1GHz  
**Polarization:** Horizontal



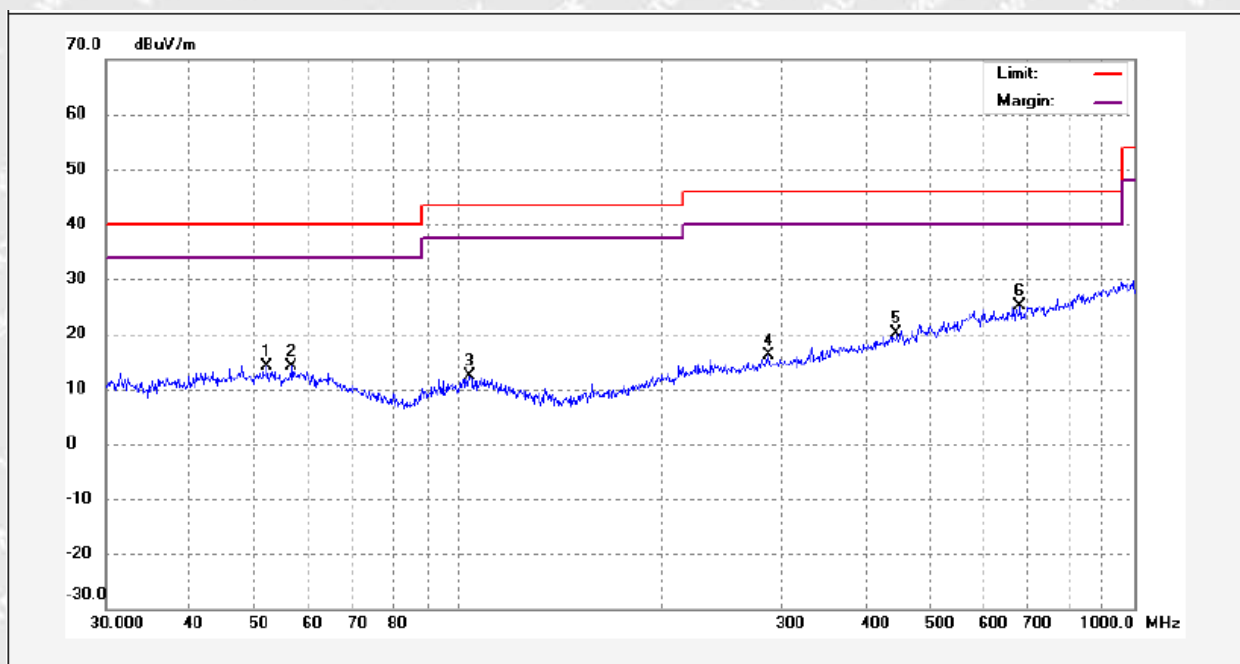
**Test Model:** HJSR96 Ble**Test Frequency:** Below 1GHz**Test Channel:** Highest Channel**Polarization:** Vertical

| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|--------|
| 1   | 59.9639     | 3.12             | 13.87       | 16.99           | 40.00          | -23.01      | QP       |        |
| 2   | 108.0391    | 0.75             | 12.87       | 13.62           | 43.50          | -29.88      | QP       |        |
| 3   | 210.5644    | 0.07             | 13.43       | 13.50           | 43.50          | -30.00      | QP       |        |
| 4   | 268.2030    | 1.21             | 14.61       | 15.82           | 46.00          | -30.18      | QP       |        |
| 5   | 493.6788    | 1.43             | 20.45       | 21.88           | 46.00          | -24.12      | QP       |        |
| 6   | 594.7157    | 1.31             | 22.46       | 23.77           | 46.00          | -22.23      | QP       |        |

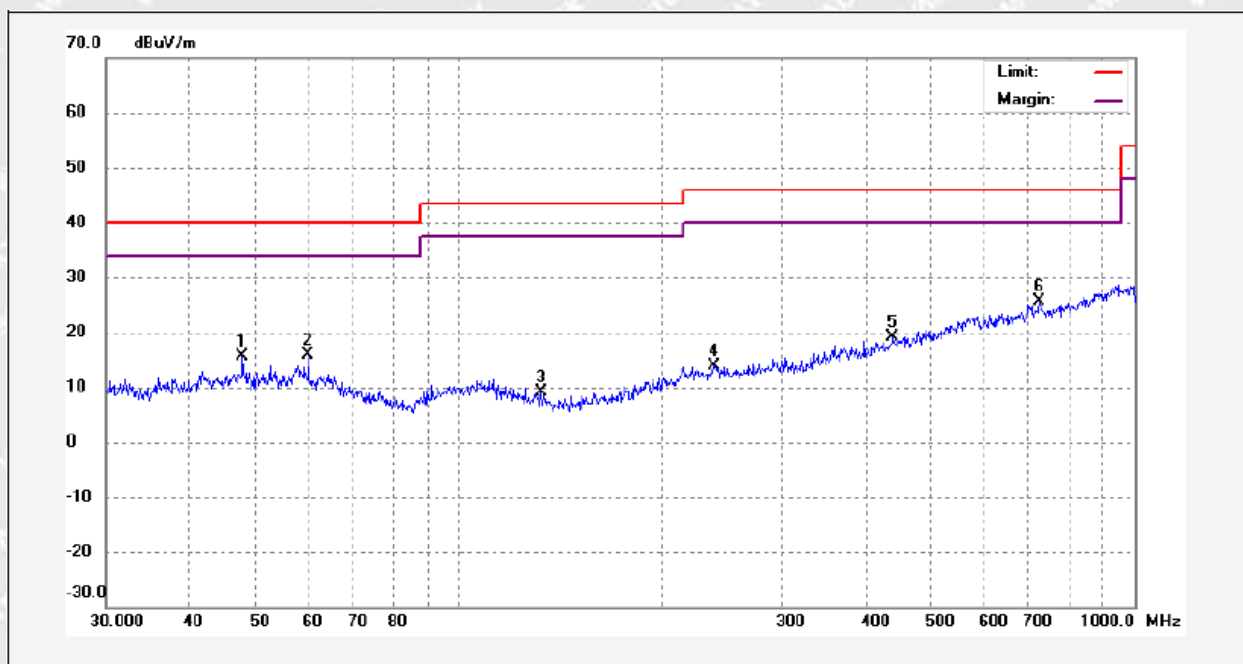
**Test Model:** HJSR96 Ble**Test Frequency:** Below 1GHz**Test Channel:** Highest Channel**Polarization:** Horizontal

**Test Model:** HJSR96B Ble**Test Frequency:** Below 1GHz**Test Channel:** Lowest Channel**Polarization:** Vertical

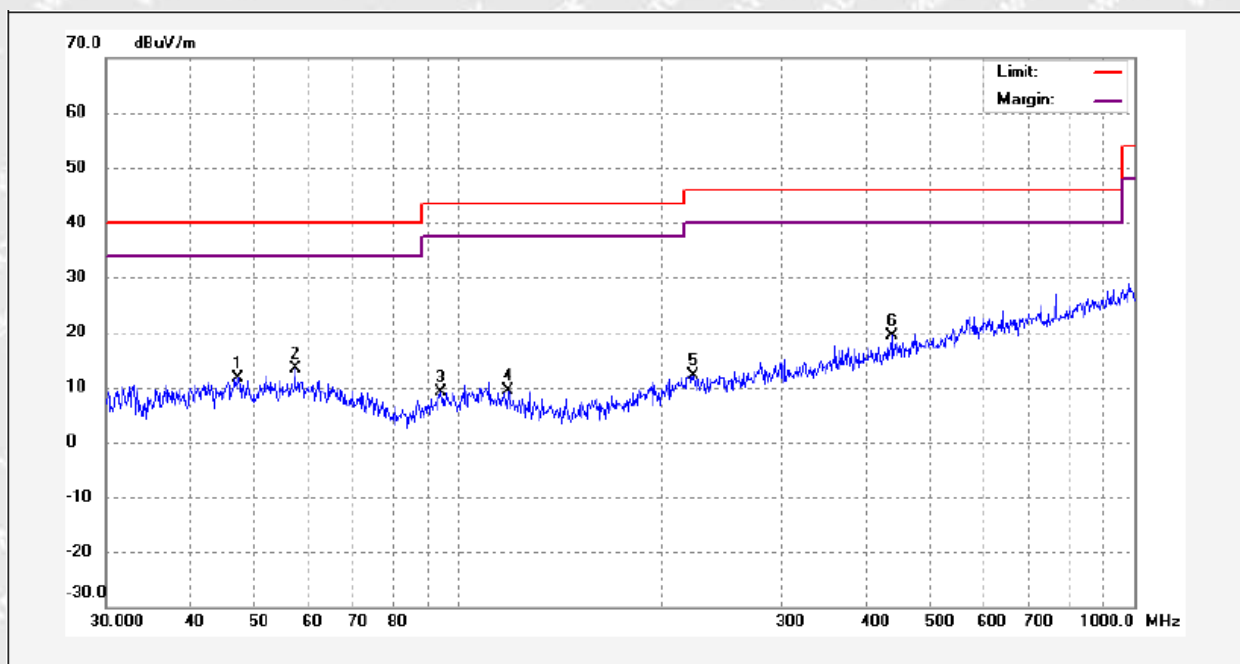
| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|--------|
| 1   | 59.9429     | 2.75             | 13.87       | 16.62           | 40.00          | -23.38      | QP       |        |
| 2   | 107.6232    | -0.60            | 12.90       | 12.30           | 43.50          | -31.20      | QP       |        |
| 3   | 223.1849    | 1.33             | 14.35       | 15.68           | 46.00          | -30.32      | QP       |        |
| 4   | 416.0332    | 0.70             | 18.42       | 19.12           | 46.00          | -26.88      | QP       |        |
| 5   | 449.5558    | 1.05             | 19.41       | 20.46           | 46.00          | -25.54      | QP       |        |
| 6   | 728.5914    | 1.80             | 24.27       | 26.07           | 46.00          | -19.93      | QP       |        |

**Test Model:** HJSR96B Ble**Test Frequency:** Below 1GHz**Test Channel:** Lowest Channel**Polarization:** Horizontal

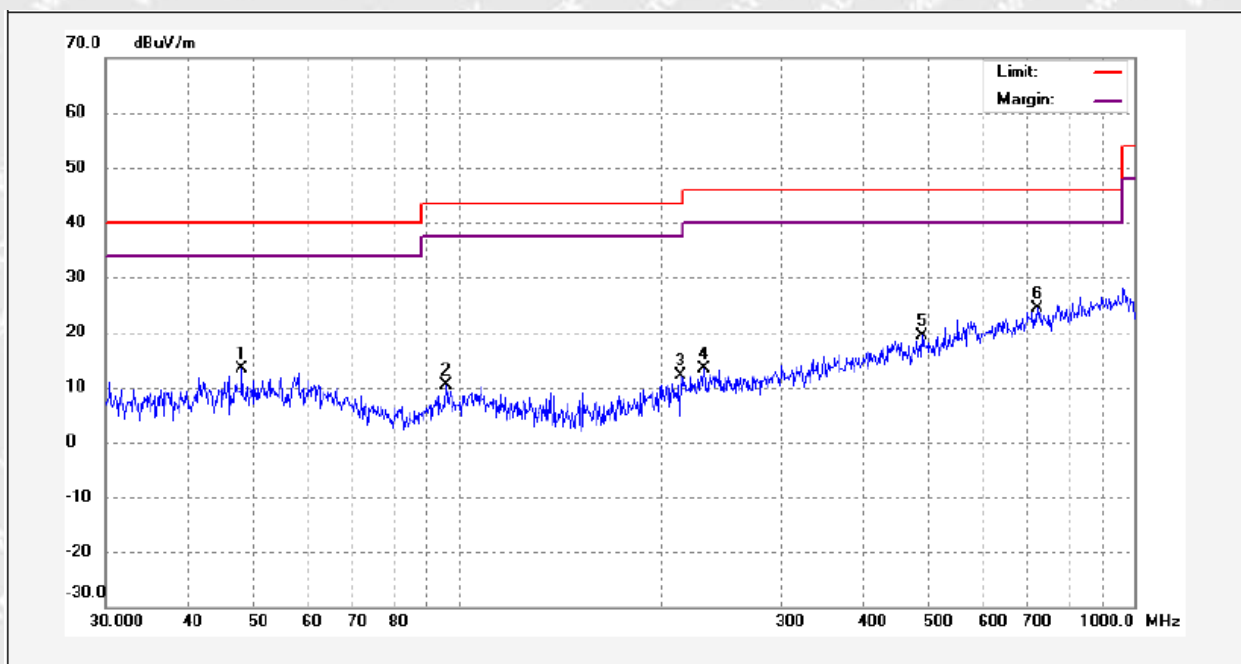
| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|--------|
| 1   | 52.0251     | -0.13            | 14.37       | 14.24           | 40.00          | -25.76      | QP       |        |
| 2   | 56.7519     | -0.36            | 14.38       | 14.02           | 40.00          | -25.98      | QP       |        |
| 3   | 103.9511    | -0.54            | 12.92       | 12.38           | 43.50          | -31.12      | QP       |        |
| 4   | 288.6981    | 0.66             | 15.49       | 16.15           | 46.00          | -29.85      | QP       |        |
| 5   | 444.8514    | 0.74             | 19.34       | 20.08           | 46.00          | -25.92      | QP       |        |
| 6   | 677.8175    | 2.03             | 23.14       | 25.17           | 46.00          | -20.83      | QP       |        |

**Test Model:** HJSR96B Ble**Test Frequency:** Below 1GHz**Test Channel:** Middle Channel**Polarization:** Vertical

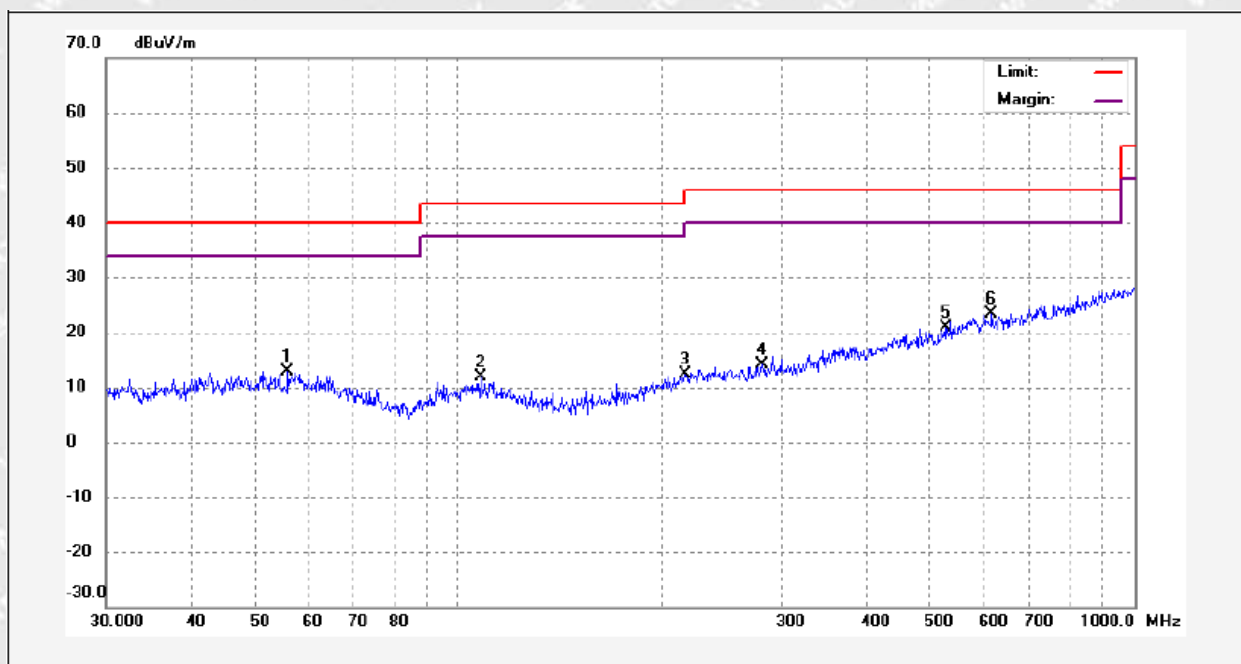
| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|--------|
| 1   | 47.9772     | 1.20             | 14.43       | 15.63           | 40.00          | -24.37      | QP       |        |
| 2   | 60.0270     | 2.13             | 13.86       | 15.99           | 40.00          | -24.01      | QP       |        |
| 3   | 132.6385    | -0.87            | 9.95        | 9.08            | 43.50          | -34.42      | QP       |        |
| 4   | 238.3938    | -0.58            | 14.55       | 13.97           | 46.00          | -32.03      | QP       |        |
| 5   | 438.8093    | -0.10            | 19.22       | 19.12           | 46.00          | -26.88      | QP       |        |
| 6   | 724.2611    | 1.33             | 24.31       | 25.64           | 46.00          | -20.36      | QP       |        |

**Test Model:** HJSR96B Ble**Test Frequency:** Below 1GHz**Test Channel:** Middle Channel**Polarization:** Horizontal

| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|--------|
| 1   | 46.9948     | -2.65            | 14.22       | 11.57           | 40.00          | -28.43      | QP       |        |
| 2   | 57.2717     | -1.06            | 14.37       | 13.31           | 40.00          | -26.69      | QP       |        |
| 3   | 94.0979     | -2.26            | 11.33       | 9.07            | 43.50          | -34.43      | QP       |        |
| 4   | 118.6014    | -2.15            | 11.48       | 9.33            | 43.50          | -34.17      | QP       |        |
| 5   | 222.6377    | -2.12            | 14.33       | 12.21           | 46.00          | -33.79      | QP       |        |
| 6   | 438.5016    | 0.11             | 19.21       | 19.32           | 46.00          | -26.68      | QP       |        |

**Test Model:** HJSR96B Ble**Test Frequency:** Below 1GHz**Test Channel:** Highest Channel**Polarization:** Vertical

| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|--------|
| 1   | 47.9772     | -1.04            | 14.43       | 13.39           | 40.00          | -26.61      | QP       |        |
| 2   | 96.0312     | -1.28            | 11.68       | 10.40           | 43.50          | -33.10      | QP       |        |
| 3   | 213.6885    | -1.76            | 13.95       | 12.19           | 43.50          | -31.31      | QP       |        |
| 4   | 231.6367    | -0.90            | 14.25       | 13.35           | 46.00          | -32.65      | QP       |        |
| 5   | 486.8027    | -0.99            | 20.33       | 19.34           | 46.00          | -26.66      | QP       |        |
| 6   | 721.7259    | 0.09             | 24.32       | 24.41           | 46.00          | -21.59      | QP       |        |

**Test Model:** HJSR96B Ble**Test Frequency:** Below 1GHz**Test Channel:** Highest Channel**Polarization:** Horizontal

| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|--------|
| 1   | 55.9222     | -1.59            | 14.41       | 12.82           | 40.00          | -27.18      | QP       |        |
| 2   | 107.8121    | -1.09            | 12.88       | 11.79           | 43.50          | -31.71      | QP       |        |
| 3   | 216.6308    | -1.80            | 14.20       | 12.40           | 46.00          | -33.60      | QP       |        |
| 4   | 281.9946    | -1.15            | 15.38       | 14.23           | 46.00          | -31.77      | QP       |        |
| 5   | 526.0277    | -0.16            | 21.15       | 20.99           | 46.00          | -25.01      | QP       |        |
| 6   | 615.7237    | 0.52             | 22.77       | 23.29           | 46.00          | -22.71      | QP       |        |

**Test Frequency: Above 1GHz**

| Model HJSR96 Ble |         |                 |                            |                       |                |             |          |
|------------------|---------|-----------------|----------------------------|-----------------------|----------------|-------------|----------|
| CH               | Antenna | Frequency (MHz) | Corrected Reading (dBuV/m) | Correct Factor (dB/m) | Limit (dBuV/m) | Margin (dB) | Detector |
| L                | H       | 2402            | 93.33                      | -10.43                | Fundamental    | /           | PK       |
|                  | V       | 2402            | 95.99                      | -10.18                | Fundamental    | /           | PK       |
|                  | H       | 2390            | 37.91                      | -10.47                | 74             | 36.09       | PK       |
|                  | H       | 2390            | 28.23                      | -10.47                | 54             | 25.77       | AV       |
|                  | V       | 2390            | 37.51                      | -10.23                | 74             | 36.49       | PK       |
|                  | V       | 2390            | 28.63                      | -10.23                | 54             | 25.37       | AV       |
|                  | H       | 4804            | 43.02                      | -3.59                 | 74             | 30.98       | PK       |
|                  | V       | 4804            | 43.48                      | -3.47                 | 74             | 30.52       | PK       |
| M                | H       | 2440            | 93.47                      | -10.28                | Fundamental    | /           | PK       |
|                  | V       | 2440            | 95.86                      | -10.01                | Fundamental    | /           | PK       |
|                  | H       | 4880            | 44.46                      | -3.41                 | 74             | 29.54       | PK       |
|                  | V       | 4880            | 44.43                      | -3.26                 | 74             | 29.57       | PK       |
| H                | H       | 2480            | 93.39                      | -10.12                | Fundamental    | /           | PK       |
|                  | V       | 2480            | 95.81                      | -9.83                 | Fundamental    | /           | PK       |
|                  | H       | 2483.5          | 42.77                      | -10.11                | 74             | 31.23       | PK       |
|                  | H       | 2483.5          | 31.73                      | -10.11                | 54             | 22.27       | AV       |
|                  | V       | 2483.5          | 42.09                      | -9.82                 | 74             | 31.91       | PK       |
|                  | V       | 2483.5          | 32.52                      | -9.82                 | 54             | 21.48       | AV       |
|                  | H       | 4960            | 42.09                      | -3.22                 | 74             | 31.91       | PK       |
|                  | V       | 4960            | 32.38                      | -3.03                 | 74             | 41.62       | PK       |



| Model HJSR96B Ble |         |                 |                            |                       |                |             |          |
|-------------------|---------|-----------------|----------------------------|-----------------------|----------------|-------------|----------|
| CH                | Antenna | Frequency (MHz) | Corrected Reading (dBuV/m) | Correct Factor (dB/m) | Limit (dBuV/m) | Margin (dB) | Detector |
| L                 | H       | 2402            | 93.92                      | -10.43                | Fundamental    | /           | PK       |
|                   | V       | 2402            | 95.72                      | -10.18                | Fundamental    | /           | PK       |
|                   | H       | 2390            | 37.51                      | -10.47                | 74             | 36.49       | PK       |
|                   | H       | 2390            | 28.04                      | -10.47                | 54             | 25.96       | AV       |
|                   | V       | 2390            | 37.33                      | -10.23                | 74             | 36.67       | PK       |
|                   | V       | 2390            | 28.85                      | -10.23                | 54             | 25.15       | AV       |
|                   | H       | 4804            | 43.08                      | -3.59                 | 74             | 30.92       | PK       |
|                   | V       | 4804            | 43.79                      | -3.47                 | 74             | 30.21       | PK       |
| M                 | H       | 2440            | 93.42                      | -10.28                | Fundamental    | /           | PK       |
|                   | V       | 2440            | 95.59                      | -10.01                | Fundamental    | /           | PK       |
|                   | H       | 4880            | 44.53                      | -3.41                 | 74             | 29.47       | PK       |
|                   | V       | 4880            | 44.93                      | -3.26                 | 74             | 29.07       | PK       |
| H                 | H       | 2480            | 93.84                      | -10.12                | Fundamental    | /           | PK       |
|                   | V       | 2480            | 95.06                      | -9.83                 | Fundamental    | /           | PK       |
|                   | H       | 2483.5          | 42.23                      | -10.11                | 74             | 31.77       | PK       |
|                   | H       | 2483.5          | 31.64                      | -10.11                | 54             | 22.36       | AV       |
|                   | V       | 2483.5          | 42.46                      | -9.82                 | 74             | 31.54       | PK       |
|                   | V       | 2483.5          | 32.13                      | -9.82                 | 54             | 21.87       | AV       |
|                   | H       | 4960            | 42.98                      | -3.22                 | 74             | 31.02       | PK       |
|                   | V       | 4960            | 32.14                      | -3.03                 | 74             | 41.86       | PK       |

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above 5<sup>th</sup> Harmonics are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured. The measurements greater than 20dB below the limit from 9kHz to 30MHz.



## 7 Photographs Test Setup

### 7.1 Photographs - Radiated Emission Test Setup

30MHz-1GHz



Above 1GHz





## 8 Photographs - Constructional Details

### 8.1 EUT - External Photos

#### Model HJSR96 Ble









### Model HJSR96B Ble









### Model HJSR96C Ble



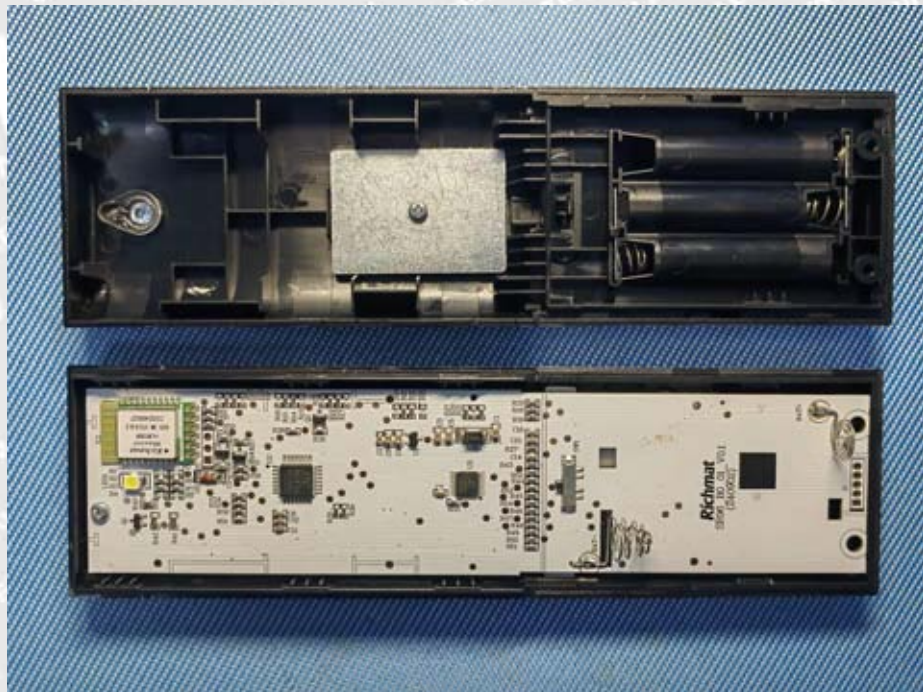


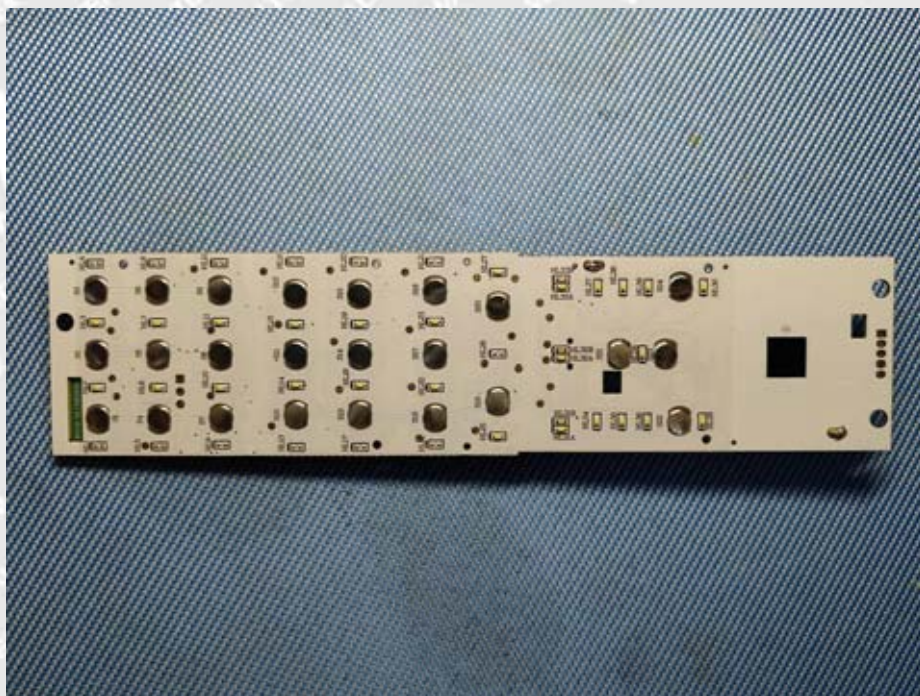
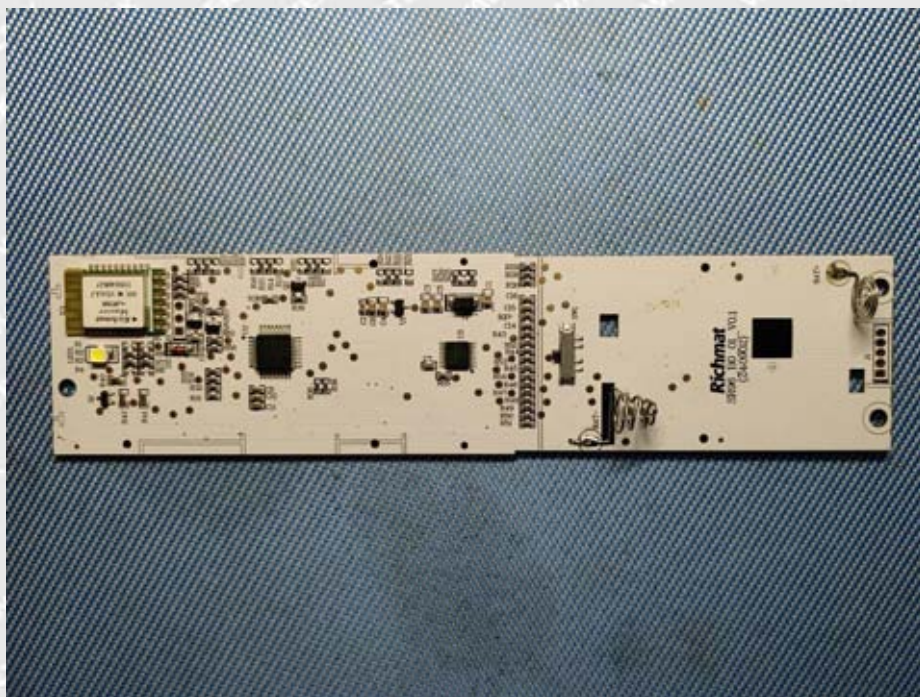


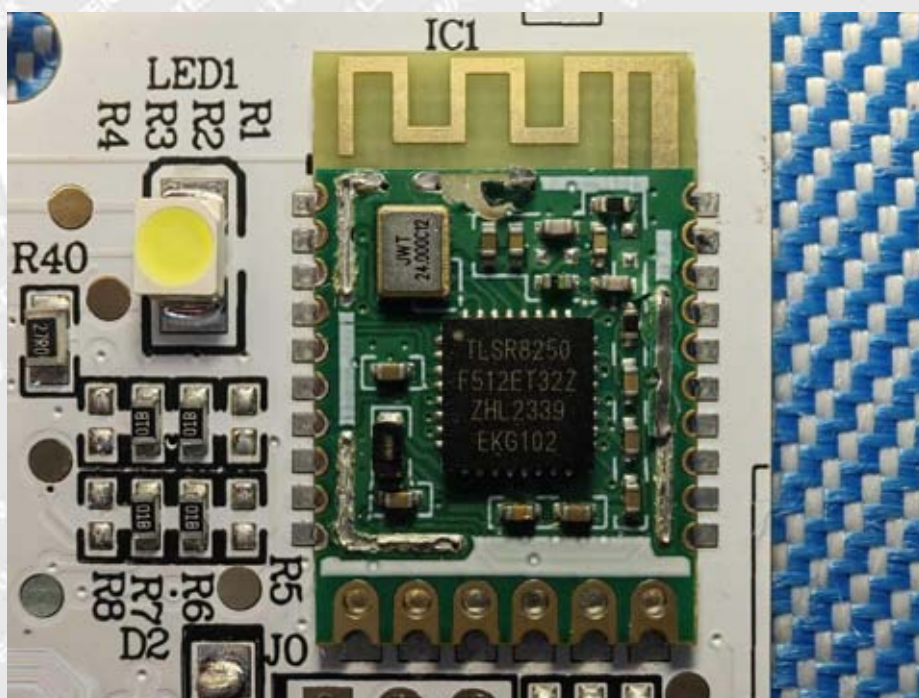
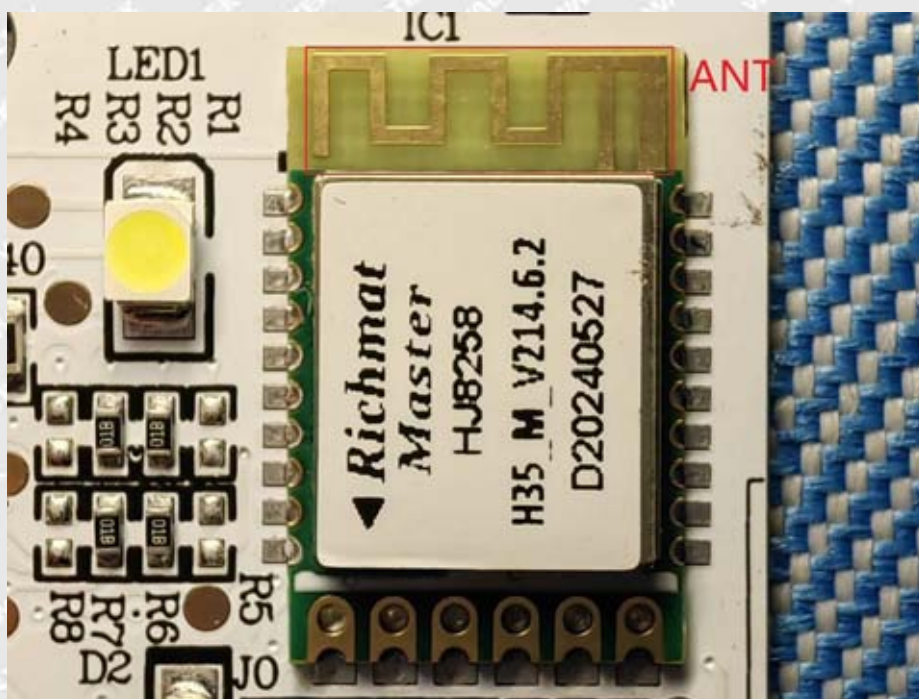


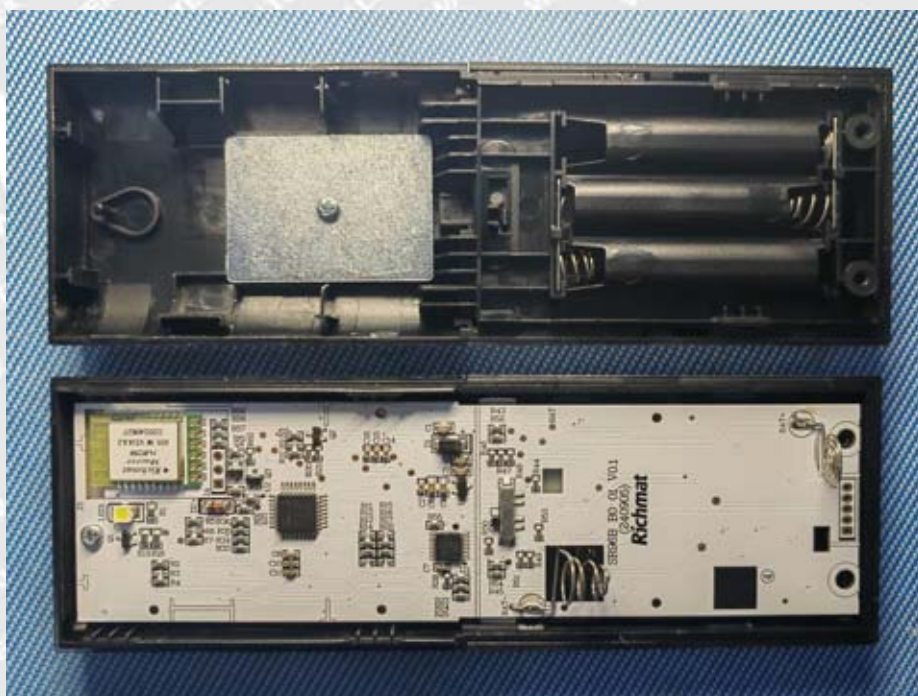
## 8.2 EUT - Internal Photos

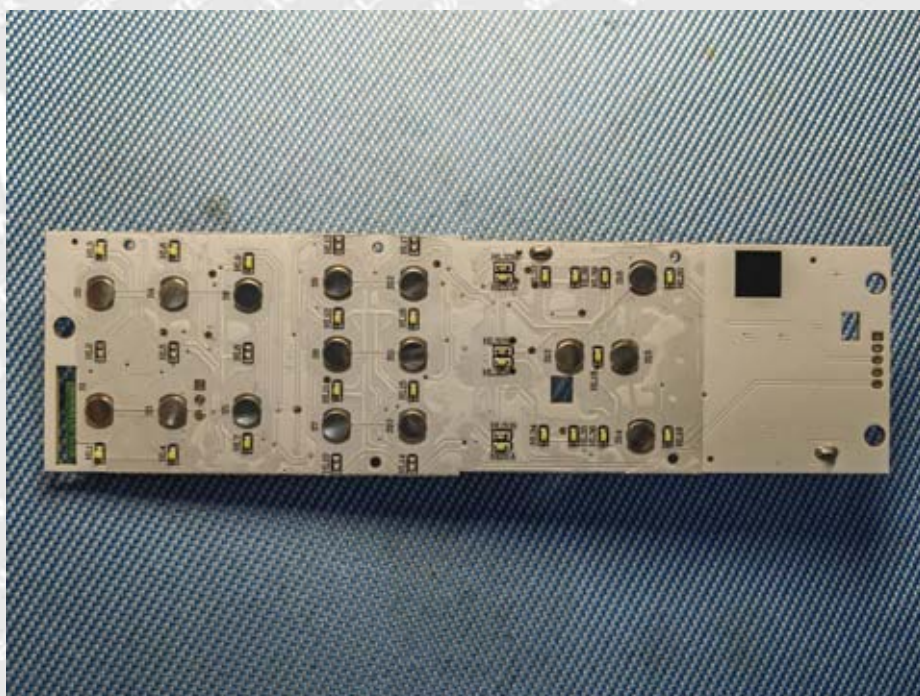
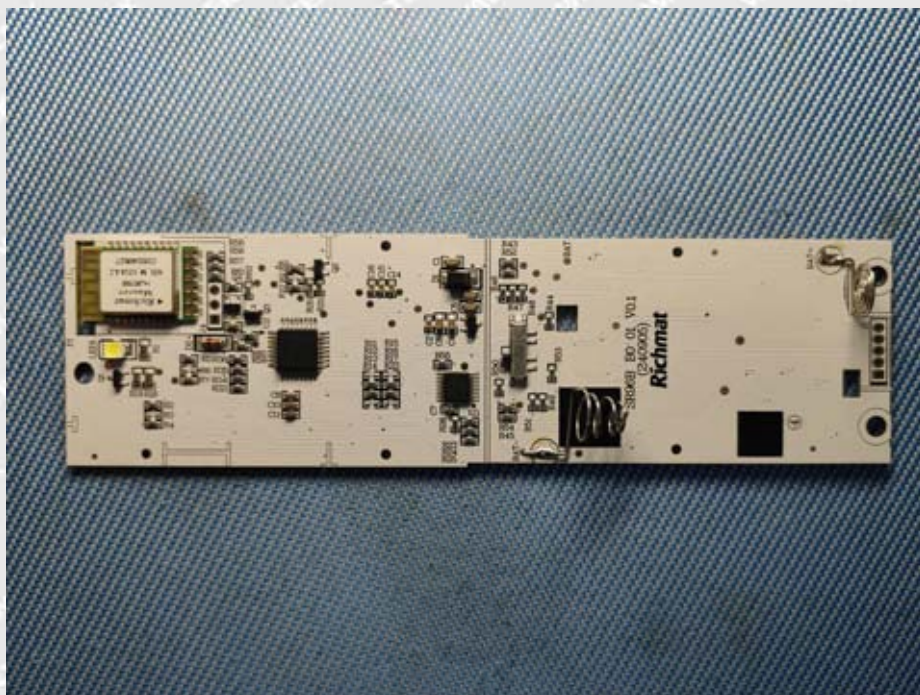
### Model HJSR96 Ble

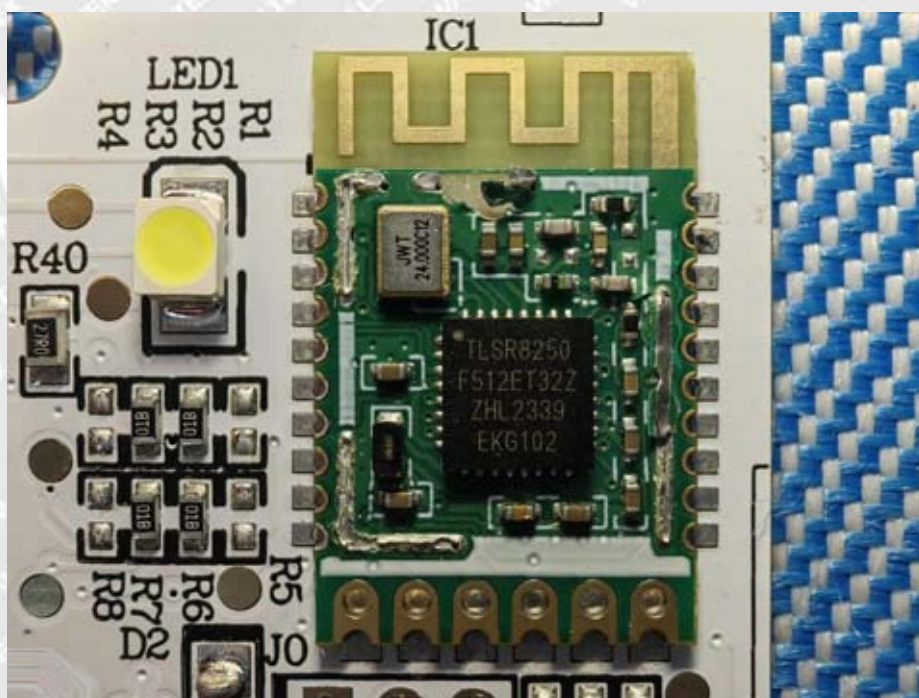
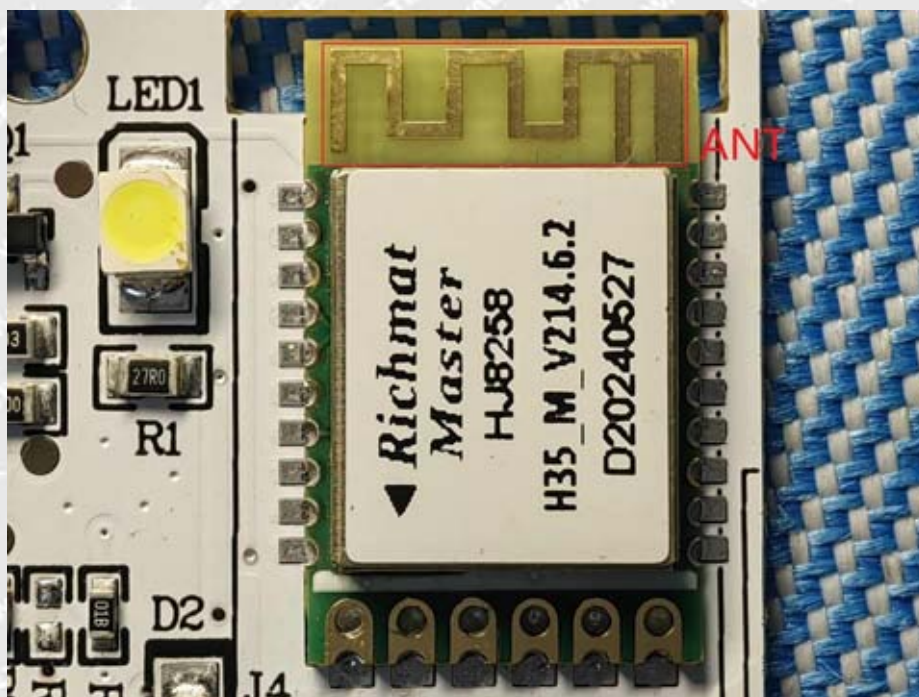






**Model HJSR96B Ble**

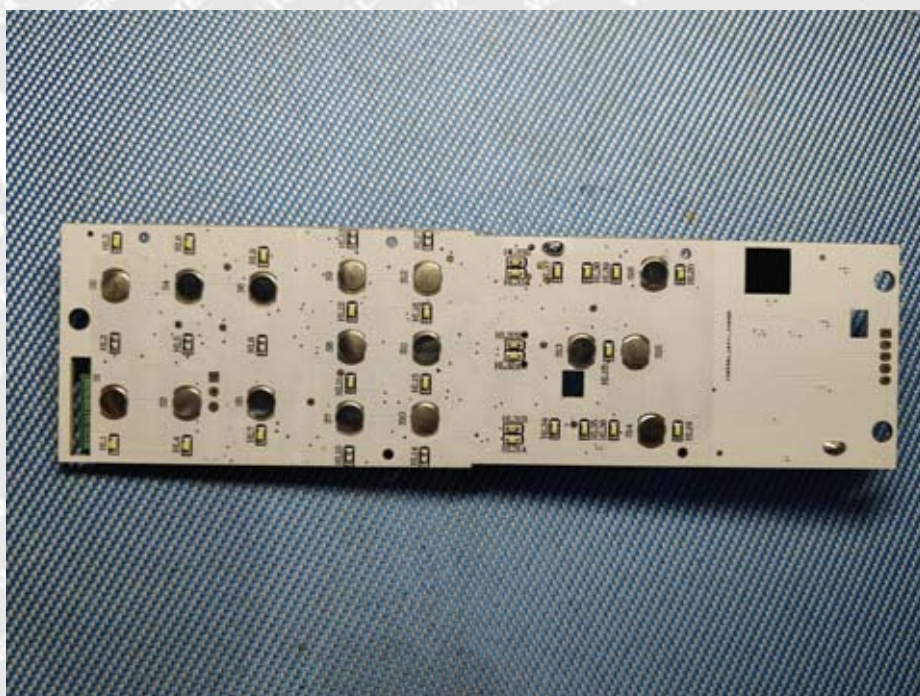
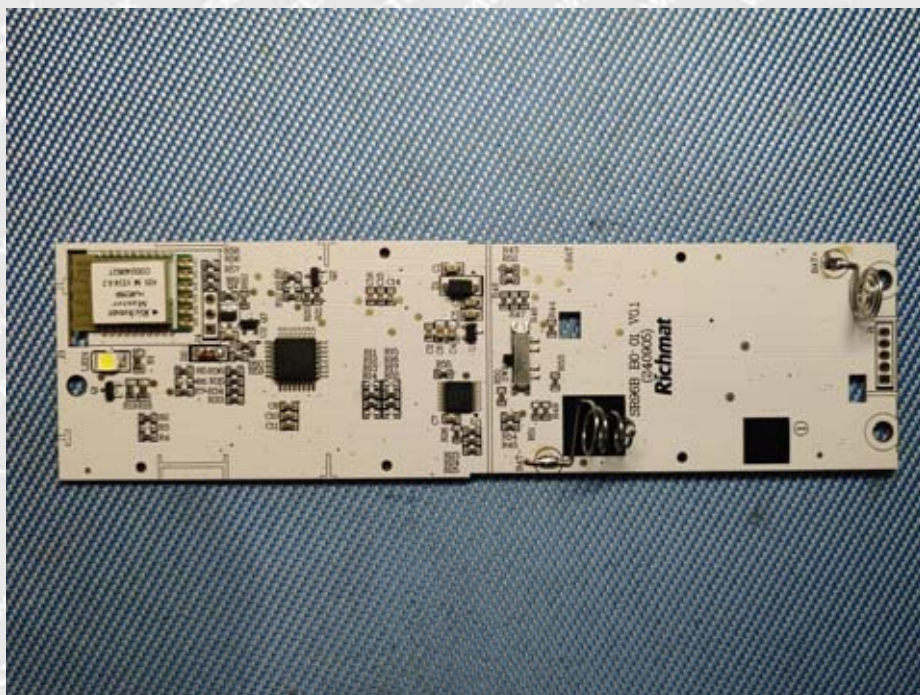


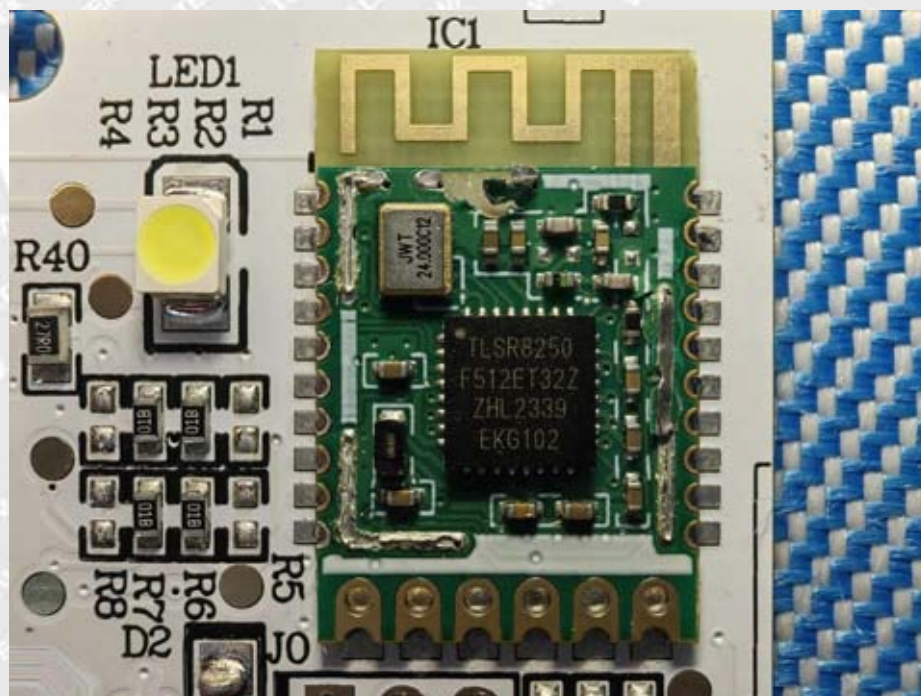
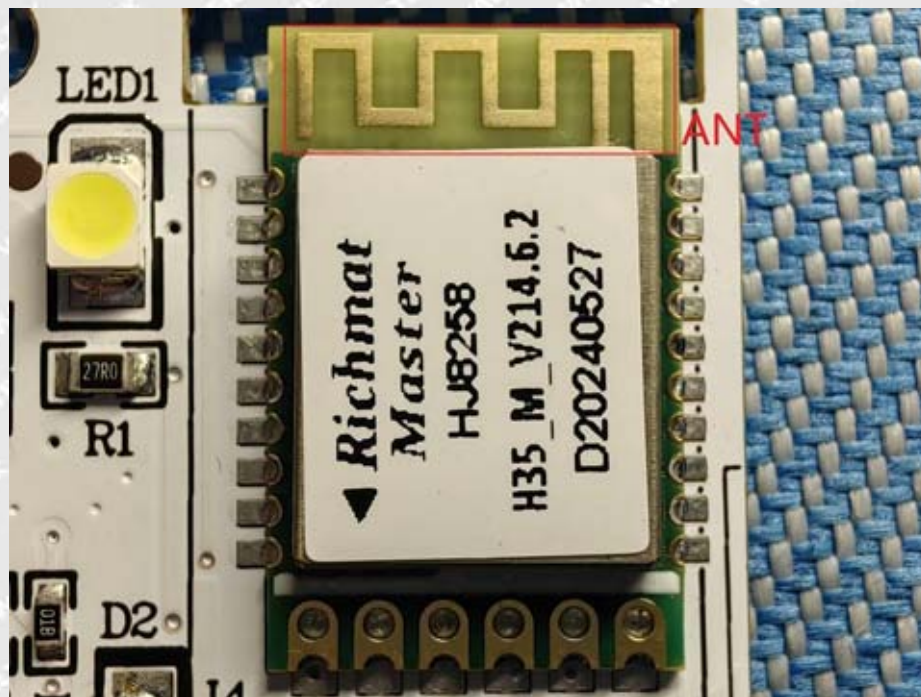




### Model HJSR96C Ble







=====End of Report=====