

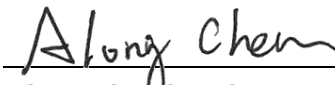
# CE Test Report

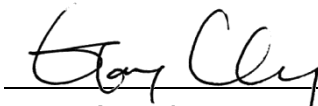
**Equipment** : Bluetooth 5.2 BLE + 802.15.4 + NFC Module  
**Model No.** : BL5340PA Series  
**Brand Name** : Laird Connectivity  
**Applicant** : Laird Connectivity LLC  
**Address** : W66N220 Commerce Court, Cedarburg, WI  
53012 United States Of America  
**Standard** : EN 300 330 V2.1.1 (2017-02)  
**Received Date** : Feb. 01, 2023  
**Tested Date** : Feb. 01 ~ Apr. 25 , 2023

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:

Approved by:

  
Along Chen / Assistant Manager

  
Gary Chang / Manager

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## Table of Contents

|          |                                                             |           |
|----------|-------------------------------------------------------------|-----------|
| <b>1</b> | <b>GENERAL DESCRIPTION .....</b>                            | <b>5</b>  |
| 1.1      | Information.....                                            | 5         |
| 1.2      | Local Support Equipment List .....                          | 6         |
| 1.3      | Test Setup Chart .....                                      | 6         |
| 1.4      | Test Equipment List and Calibration Data.....               | 7         |
| 1.5      | Testing Applied Standards .....                             | 7         |
| 1.6      | Deviation from Test Standard and Measurement Procedure..... | 7         |
| 1.7      | Measurement Uncertainty .....                               | 8         |
| <b>2</b> | <b>TEST CONFIGURATION.....</b>                              | <b>9</b>  |
| 2.1      | Testing Facility .....                                      | 9         |
| 2.2      | The Worst Test Modes and Channel Details .....              | 9         |
| <b>3</b> | <b>RECEIVER TEST RESULTS .....</b>                          | <b>10</b> |
| 3.1      | Receiver Spurious Emissions.....                            | 10        |
| <b>4</b> | <b>PHOTOGRAPHS OF THE TEST CONFIGURATION .....</b>          | <b>12</b> |
| <b>5</b> | <b>TEST LABORATORY INFORMATION .....</b>                    | <b>24</b> |

### Appendix A Receiver Spurious Emissions

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## Release Record

| Report No.    | Version | Description   | Issued Date   |
|---------------|---------|---------------|---------------|
| ER1O0405-01NF | Rev. 01 | Initial issue | Jun. 20, 2023 |

## Summary of Test Results

| Ref. Std. Clause | Test Items                                                    | Measured                       | Result            |
|------------------|---------------------------------------------------------------|--------------------------------|-------------------|
| 4.3.1            | Permitted Range of Operating Frequencies                      | Note <sup>1</sup>              | Note <sup>1</sup> |
| 4.3.2            | Operating Frequency Ranges                                    | Note <sup>1</sup>              | Note <sup>1</sup> |
| 4.3.3            | Modulation Bandwidth                                          | Note <sup>1</sup>              | Note <sup>1</sup> |
| 4.3.4            | Transmitter H-Field Requirements                              | Note <sup>1</sup>              | Note <sup>1</sup> |
| 4.3.5            | Transmitter RF Carrier Current                                | Note <sup>1</sup>              | Note <sup>1</sup> |
| 4.3.6            | Transmitter Radiated E-Field                                  | Note <sup>1</sup>              | Note <sup>1</sup> |
| 4.3.7            | Transmitter Conducted Spurious Emissions                      | Note <sup>1</sup>              | Note <sup>1</sup> |
| 4.3.8            | Transmitter Radiated Spurious Domain Emission Limits < 30 MHz | Note <sup>1</sup>              | Note <sup>1</sup> |
| 4.3.9            | Transmitter Radiated Spurious Domain Emission Limits > 30 MHz | Note <sup>1</sup>              | Note <sup>1</sup> |
| 4.3.10           | Transmitter Frequency Stability                               | Note <sup>1</sup>              | Note <sup>1</sup> |
| 4.4.2            | Receiver Spurious Emissions                                   | Meet the requirement of limit. | Pass              |
| 4.4.3            | Adjacent Channel Selectivity                                  | Only for channelized systems.  | N/A               |
| 4.4.4            | Receiver Blocking Or Desensitization                          | Not for tagging systems.       | N/A               |

Note: This test item is not required since the NFC function is passive only.

### Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

### Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

# 1 General Description

## 1.1 Information

### 1.1.1 Specification of the Equipment under Test (EUT)

| RF General Information                            |            |                     |                |
|---------------------------------------------------|------------|---------------------|----------------|
| Frequency Range (MHz)                             | Modulation | Ch. Frequency (MHz) | Channel Number |
| 13.553 – 13.567                                   | NFC-ASK    | 13.56               | 1              |
| Note: Field strength performed peak level at 10m. |            |                     |                |

### 1.1.2 Antenna Details

| Ant. No. | Brand      | Model                                    | Type                                                            | Connector | 2400-2500MHz | 2400-2480MHz | Remarks             |
|----------|------------|------------------------------------------|-----------------------------------------------------------------|-----------|--------------|--------------|---------------------|
|          |            |                                          |                                                                 |           | Gain (dBi)   |              |                     |
| 1        | Laird      | NanoBlue                                 | PCB Dipole                                                      | IPEX MHF4 | 2            | ---          | External            |
| 2        | Laird      | FlexPIFA                                 | PCB Dipole                                                      | IPEX MHF4 | ---          | 2            | External            |
| 3        | Mag.Layers | EDA-8709-2G4C1-B27-CY                    | Dipole                                                          | IPEX MHF4 | 2            | ---          | External            |
| 4        | Laird      | mFlexPIFA                                | PIFA                                                            | IPEX MHF4 | ---          | 2            | External            |
| 5        | Laird      | Laird NFC                                | spiral                                                          | ---       | ---          | ---          | Internal + External |
| 6        | Laird      | BL5340 onboard printed PCB Trace antenna | Printed PCB                                                     | ---       | 1.49         | ---          | Internal            |
| 7        | Laird      | i-FlexPIFA                               | Inverted Ground Flexible Planar Inverted F Antenna (i-FlexPIFA) | ---       | ---          | 3.1          | External            |

### 1.1.3 EUT Operational Condition

|                      |                                                  |                                                  |                                                   |
|----------------------|--------------------------------------------------|--------------------------------------------------|---------------------------------------------------|
| Power Supply Type    | 3.3Vdc from host                                 |                                                  |                                                   |
| SW Version           | bl5340_radio_test_fem_module_v00.00.03           |                                                  |                                                   |
| Operational Voltage  | <input checked="" type="checkbox"/> Vnom (3.3 V) | <input checked="" type="checkbox"/> Vmax (3.6 V) | <input checked="" type="checkbox"/> Vmin (3.00 V) |
| Operational Climatic | <input checked="" type="checkbox"/> Tnom (20°C)  | <input checked="" type="checkbox"/> Tmax (105°C) | <input checked="" type="checkbox"/> Tmin (-40°C)  |

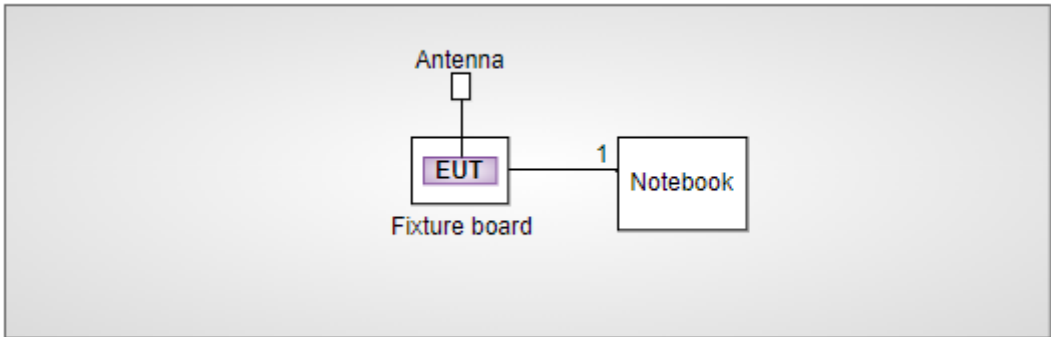
### 1.1.4 Accessories

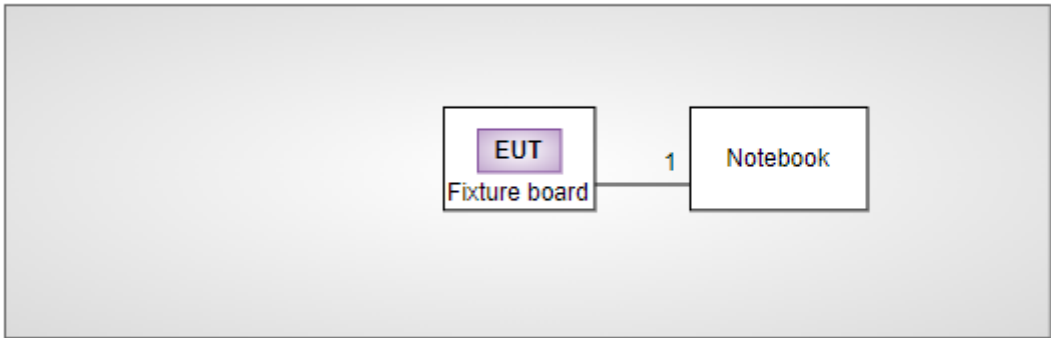
N/A

## 1.2 Local Support Equipment List

| Support Equipment List |               |       |               |         |         |
|------------------------|---------------|-------|---------------|---------|---------|
| No.                    | Equipment     | Brand | Model         | S/N     | Remarks |
| 1                      | Notebook      | DELL  | Latitude 3400 | GKZLWZ2 | ---     |
| 2                      | Fixture board | ---   | ---           | ---     | ---     |

## 1.3 Test Setup Chart

| Test Setup Diagram (External antenna)                                               |                           |
|-------------------------------------------------------------------------------------|---------------------------|
|  |                           |
| No.                                                                                 | Signal cable / Length (m) |
| 1                                                                                   | USB, 1m shielded.         |

| Test Setup Diagram (Internal antenna)                                                |                           |
|--------------------------------------------------------------------------------------|---------------------------|
|  |                           |
| No.                                                                                  | Signal cable / Length (m) |
| 1                                                                                    | USB, 1m shielded.         |

## 1.4 Test Equipment List and Calibration Data

|                                                                     |                                         |                     |                   |                         |                          |
|---------------------------------------------------------------------|-----------------------------------------|---------------------|-------------------|-------------------------|--------------------------|
| <b>Test Item</b>                                                    | Radiated Emissions                      |                     |                   |                         |                          |
| <b>Test Site</b>                                                    | Fully –anechoic chamber 1 / (05CH01-WS) |                     |                   |                         |                          |
| <b>Tested Date</b>                                                  | Apr. 21 ~ Apr. 25 , 2023                |                     |                   |                         |                          |
| <b>Instrument</b>                                                   | <b>Manufacturer</b>                     | <b>Model No.</b>    | <b>Serial No.</b> | <b>Calibration Date</b> | <b>Calibration Until</b> |
| Spectrum Analyzer                                                   | Agilent                                 | N9010A              | MY54200247        | Oct. 24, 2022           | Oct. 23, 2023            |
| Bilog Antenna<br>30-1000MHz                                         | SCHWARZBECK                             | VULB9168            | 9168-524          | Dec. 20, 2022           | Dec. 19, 2023            |
| Horn Antenna<br>1G-18G                                              | SCHWARZBECK                             | BBHA 9120 D         | 9120 D 1094       | Nov. 04, 2022           | Nov. 03, 2023            |
| Preamplifier                                                        | Agilent                                 | 83017A              | MY39501310        | Nov. 07, 2022           | Nov. 06, 2023            |
| Preamplifier                                                        | EMC                                     | EMC02325            | 980146            | Oct. 26, 2022           | Oct. 25, 2023            |
| RF cable-1M                                                         | EMC                                     | EMC104-35M-35M-1000 | S/N:210904        | Oct. 11, 2022           | Oct. 10, 2023            |
| RF cable-3M                                                         | HUBER+SUHNER                            | SUCOFLEX104         | MY16609/4         | Oct. 11, 2022           | Oct. 10, 2023            |
| RF cable-4M                                                         | HUBER+SUHNER                            | SUCOFLEX104         | MY15686/4         | Oct. 11, 2022           | Oct. 10, 2023            |
| LF cable-3M                                                         | Woken                                   | CFD400NL-LW         | CFD400NL-005      | Oct. 11, 2022           | Oct. 10, 2023            |
| Note: Calibration Interval of instruments listed above is one year. |                                         |                     |                   |                         |                          |

|                                                                     |                                |                  |                   |                         |                          |
|---------------------------------------------------------------------|--------------------------------|------------------|-------------------|-------------------------|--------------------------|
| <b>Test Item</b>                                                    | Radiated Emissions below 30MHz |                  |                   |                         |                          |
| <b>Test Site</b>                                                    | 10m chamber / (10CH02-HY)      |                  |                   |                         |                          |
| <b>Tested Date</b>                                                  | Feb. 01, 2023                  |                  |                   |                         |                          |
| <b>Instrument</b>                                                   | <b>Manufacturer</b>            | <b>Model No.</b> | <b>Serial No.</b> | <b>Calibration Date</b> | <b>Calibration Until</b> |
| 10m Semi Anechoic Chamber                                           | TDK                            | SAC-10M          | 10CH02-HY         | Sep. 02, 2022           | Sep. 01, 2023            |
| Receiver                                                            | R&S                            | ESU26            | 100422            | Nov.28 ,2022            | Nov. 27 ,2023            |
| Loop Antenna                                                        | TESEQ                          | HLA 6120         | 31244             | Mar. 18 , 2022          | Mar. 17, 2023            |
| Turn Table                                                          | EM Electronics                 | EM 1000          | 60546             | --                      | ---                      |
| RF Cable-R10m                                                       | MTJ                            | RG223/U + RG8/U  | CB026-DOOR        | Sep. 14, 2022           | Sep. 13, 2023            |
| Software                                                            | Audix                          | E3               | 6.12 160809       | --                      | ---                      |
| Note: Calibration Interval of instruments listed above is one year. |                                |                  |                   |                         |                          |

## 1.5 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

EN 300 330 V2.1.1 (2017-02)

## 1.6 Deviation from Test Standard and Measurement Procedure

None

## 1.7 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ( $k=2$ )).

| Measurement Uncertainty |                           |                        |
|-------------------------|---------------------------|------------------------|
| Test Item               | Uncertainty               | Limit                  |
| Radio Frequency         | $\pm 0.34 \times 10^{-7}$ | $\pm 1 \times 10^{-7}$ |
| RF power, conducted     | $\pm 2.2$ dB              | $\pm 1$ dB             |
| RF power, radiated      | $\pm 2.59$ dB             | $\pm 6$ dB             |
| Temperature             | $\pm 0.4$ °C              | $\pm 1$ °C             |
| Humidity                | $\pm 3.3$ %               | $\pm 5$ %              |

## 2 Test Configuration

### 2.1 Testing Facility

|                             |                                                                                        |
|-----------------------------|----------------------------------------------------------------------------------------|
| <b>Test Laboratory</b>      | International Certification Corporation                                                |
| <b>Test Site</b>            | 05CH01-WS                                                                              |
| <b>Address of Test Site</b> | No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.) |

|                             |                                                                                                                        |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Test Laboratory</b>      | Sporton International Inc. Hsinhua Laboratory                                                                          |
| <b>Test Site</b>            | 10CH02-HY                                                                                                              |
| <b>Address of Test Site</b> | No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)<br>Tel: 886-3-327-3456, Fax: 886-3-327-0973 |

Note: \* ICC lab subcontracts this test item to Sporton Lab (TAF: 3785).

Sporton Lab is a TAF accreditation test firm and also is an approved provider of ICC lab.

### 2.2 The Worst Test Modes and Channel Details

| Test item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mode    | Test Channel (MHz) | Test Configuration |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------|--------------------|
| Receiver Spurious Emissions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | NFC-ASK | 13.56              | 1, 2, 3, 4, 5, 6   |
| <b>NOTE:</b><br>1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The <b>Z-plane</b> result was found as the worst case and was shown in this report.<br>2. Test configurations are listed as below:<br>1) Configuration 1: EDA-8709-2G4C1-B27-CY antenna (External) + Laird NFC<br>2) Configuration 2: FlexPIFA antenna (External) + Laird NFC<br>3) Configuration 3: i-FlexPIFA antenna (External) + Laird NFC<br>4) Configuration 4: mFlexPIFA antenna (External) + Laird NFC<br>5) Configuration 5: NanoBlue antenna (External) + Laird NFC<br>6) Configuration 6: BL5340 onboard printed PCB Trace antenna (Internal) + Laird NFC<br>3. nRF5340 chipset DCDC convertor Mode A : VREGRADIO DCDC on / VRERGMMAIN DCDC on / VREGH DCDC on<br>nRF5340 chipset DCDC convertor Mode B : VREGRADIO DCDC off / VRERGMMAIN DCDC off / VREGH DCDC off<br>Mode A is the worst case |         |                    |                    |

### 3 Receiver Test Results

#### 3.1 Receiver Spurious Emissions

##### 3.1.1 Limit of Receiver Spurious Emissions

###### Measurement below 30 MHz

| Frequency $9 \text{ kHz} \leq f < 10 \text{ MHz}$ | Frequency $10 \text{ MHz} \leq f < 30 \text{ MHz}$ |
|---------------------------------------------------|----------------------------------------------------|
| 5,5 dB $\mu$ A/m at 9 kHz descending 3 dB/oct     | -25 dB $\mu$ A/m                                   |

###### Measurement above 30 MHz

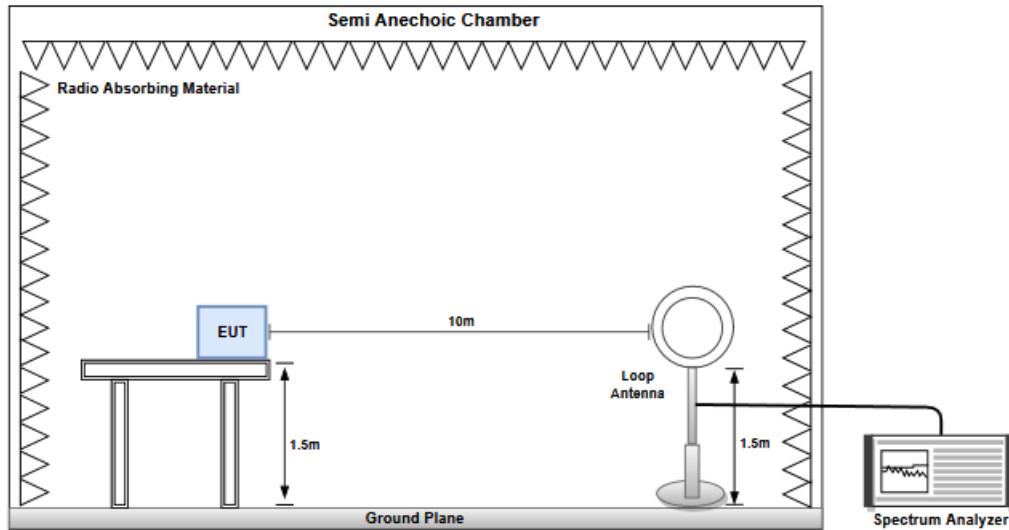
The measured values shall not exceed 2 nW e.r.p. (-57 dBm).

##### 3.1.2 Test Procedures

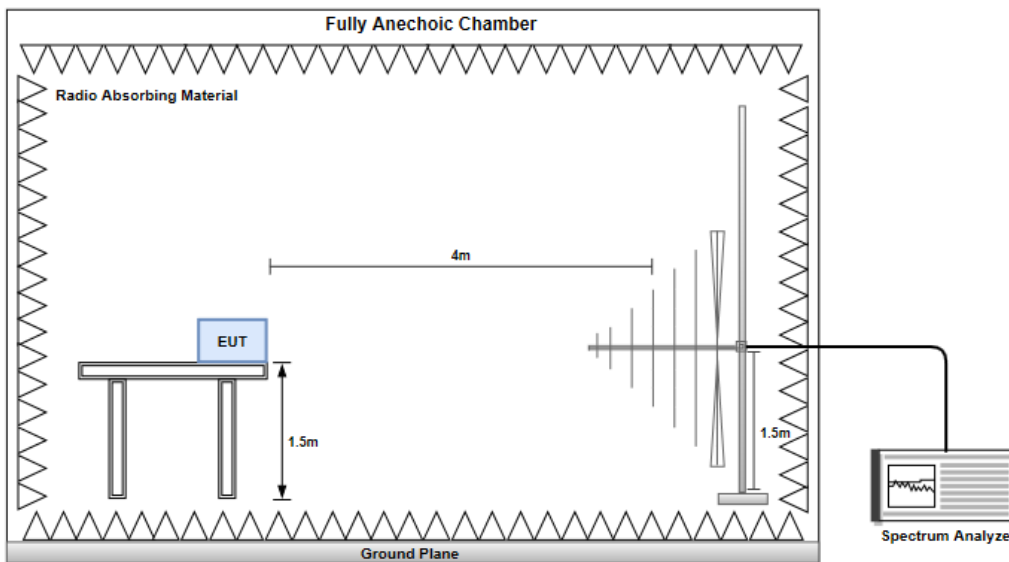
Reference to clause 6.3.1 of EN 300 330 V2.1.1 (2017-02).

### 3.1.3 Test Setup

#### Below 30MHz



#### Above 30MHz



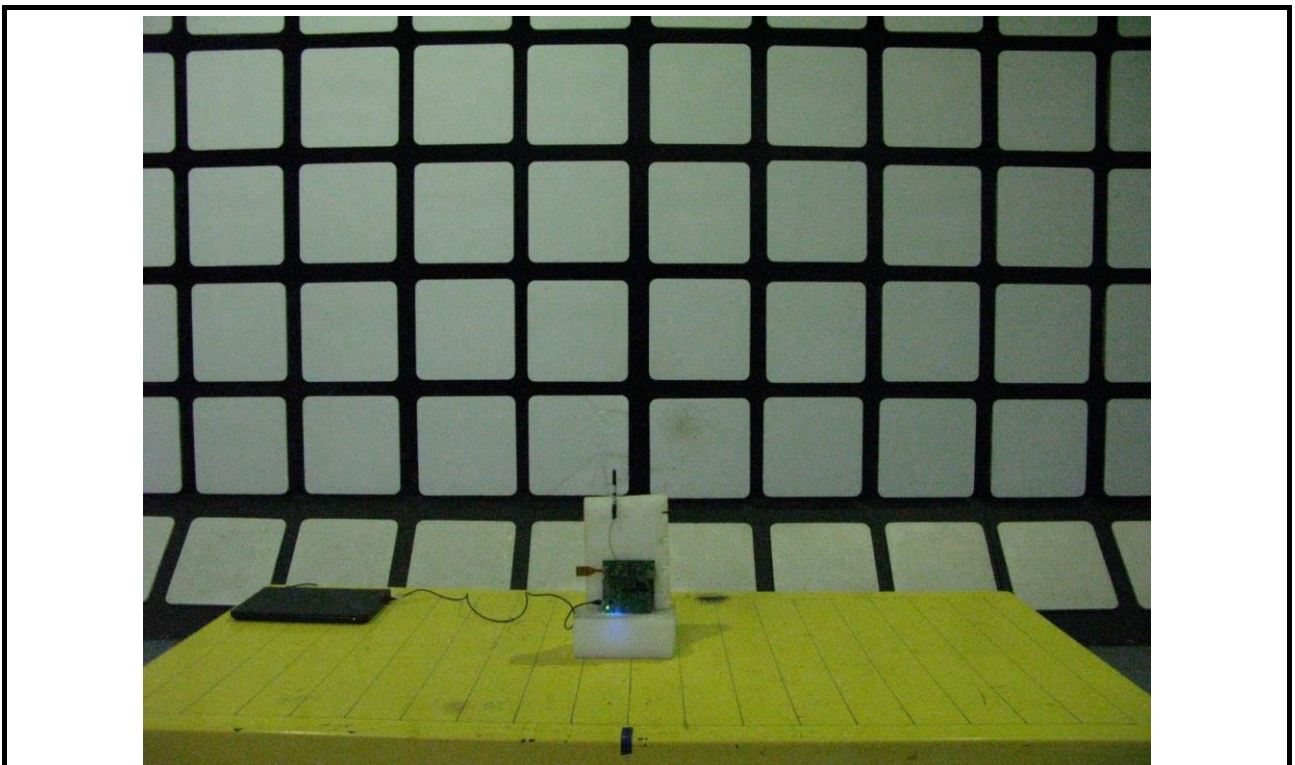
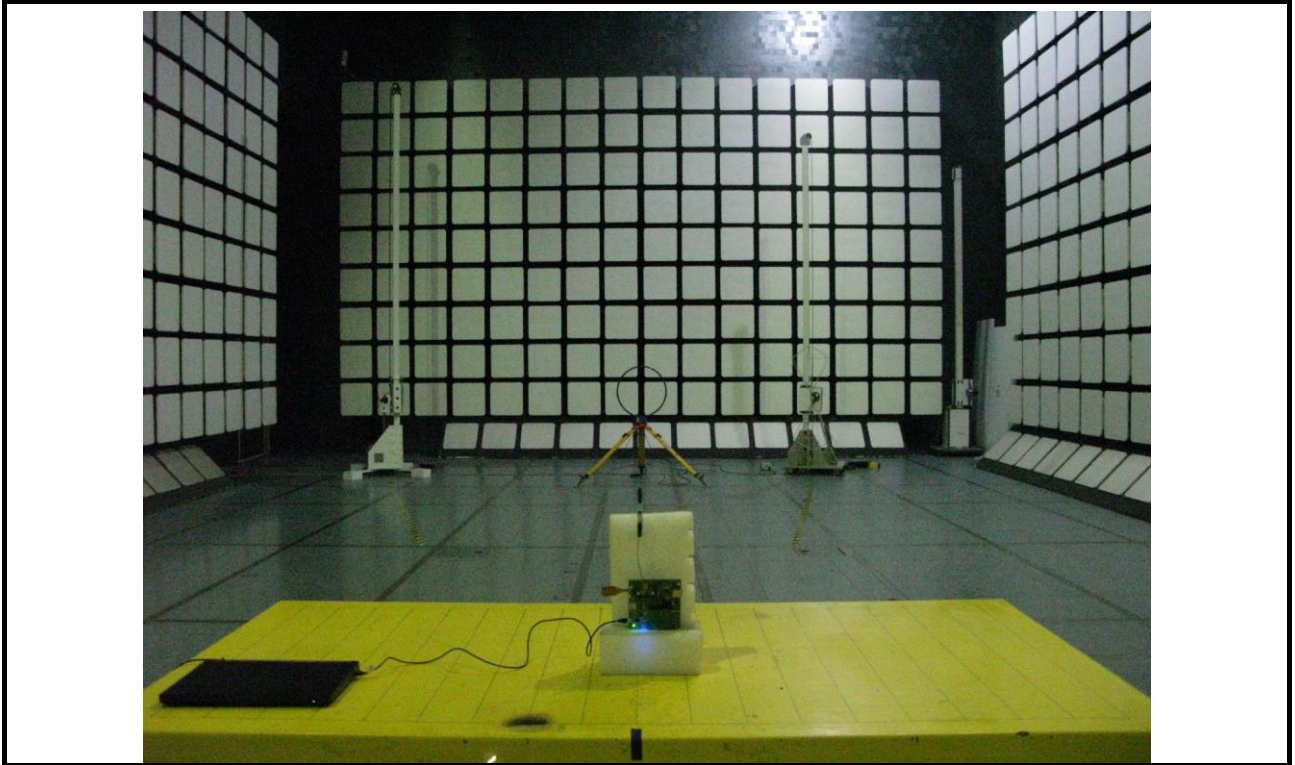
### 3.1.4 Receiver Spurious Emissions

Refer to Appendix A

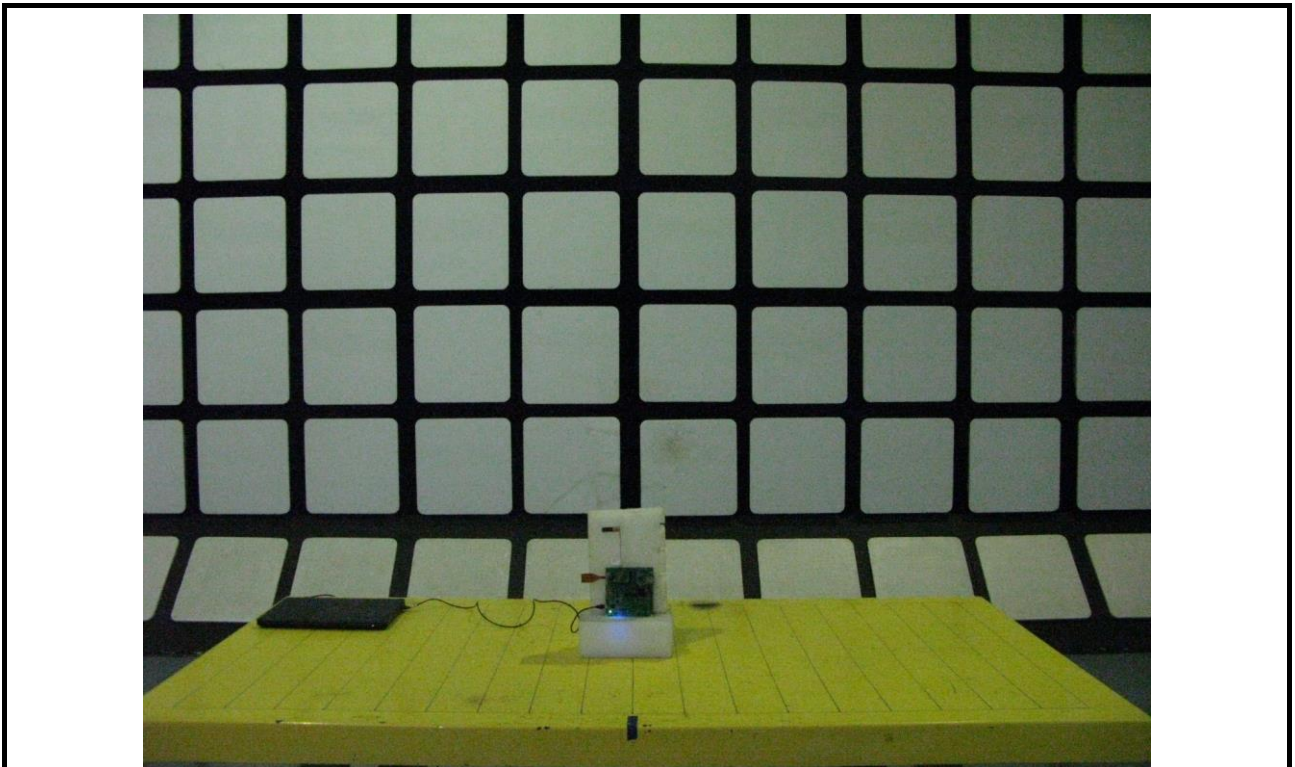
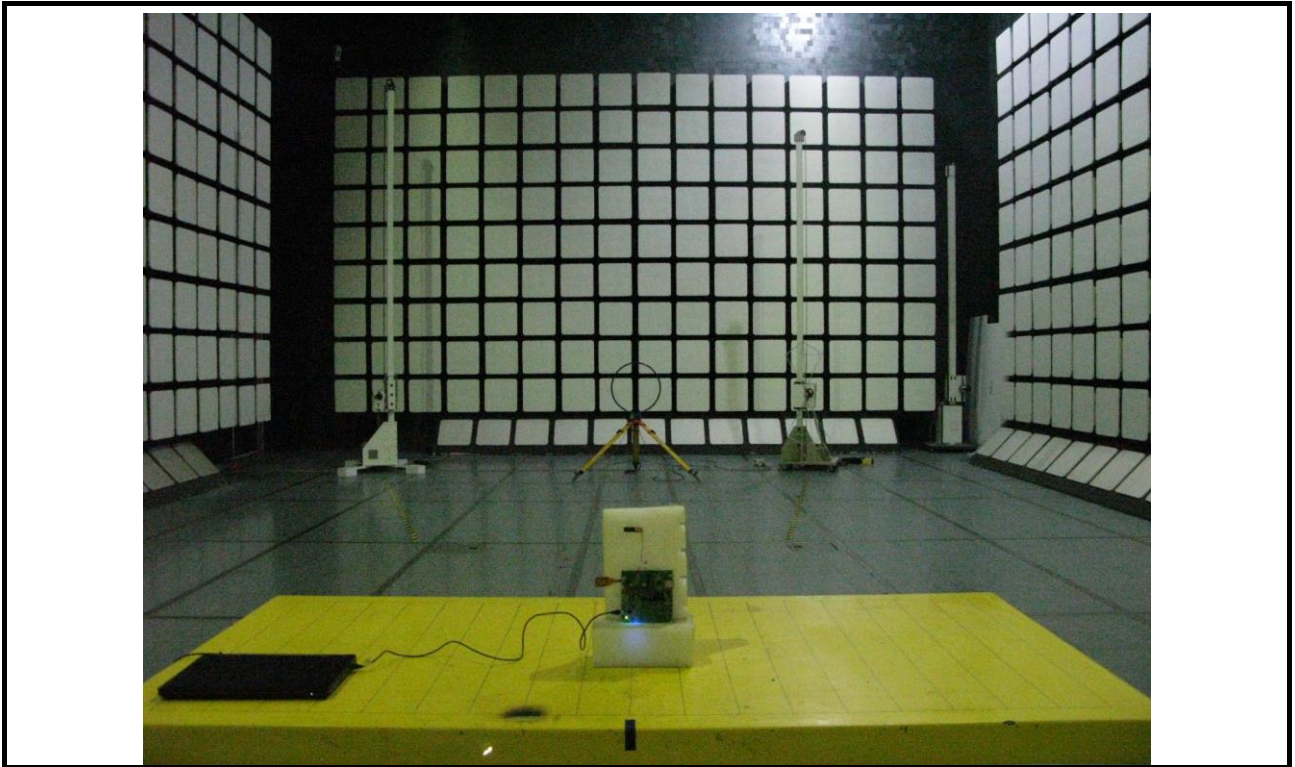
## 4 Photographs of the Test Configuration

### *External Antenna*

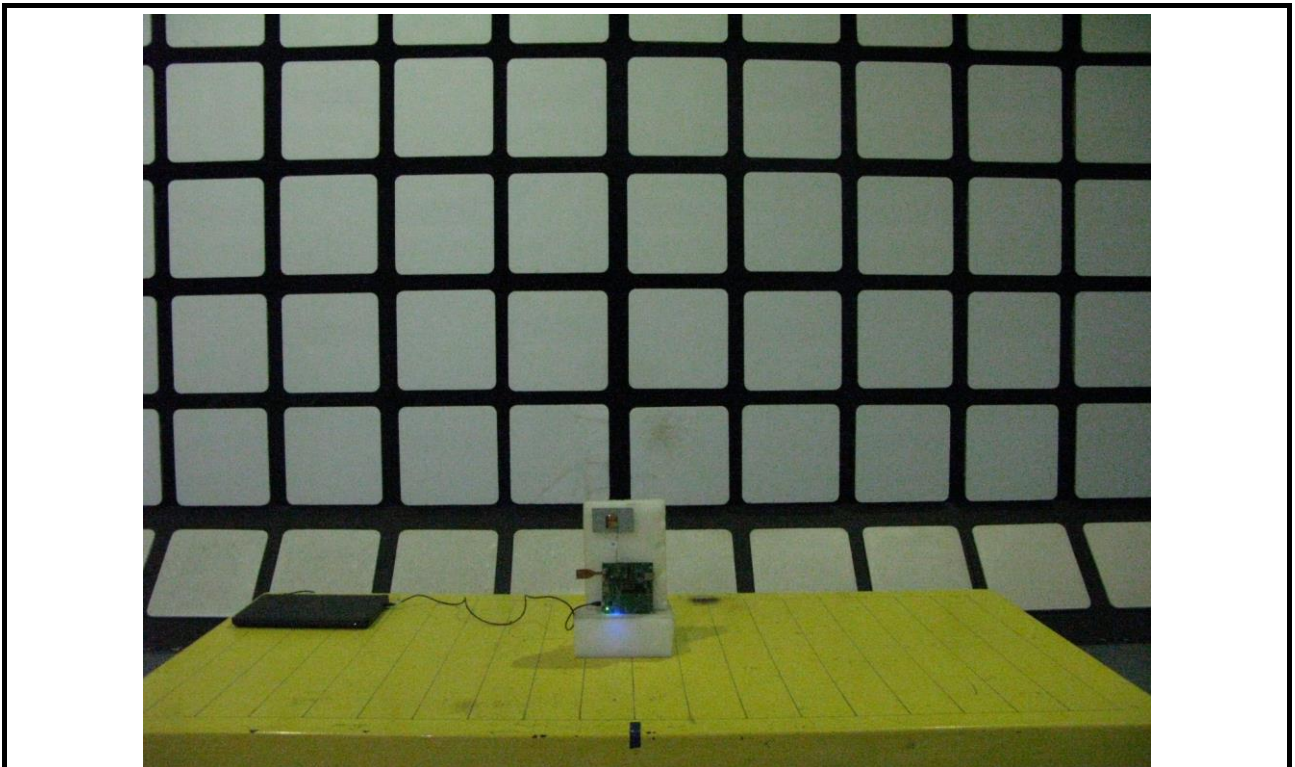
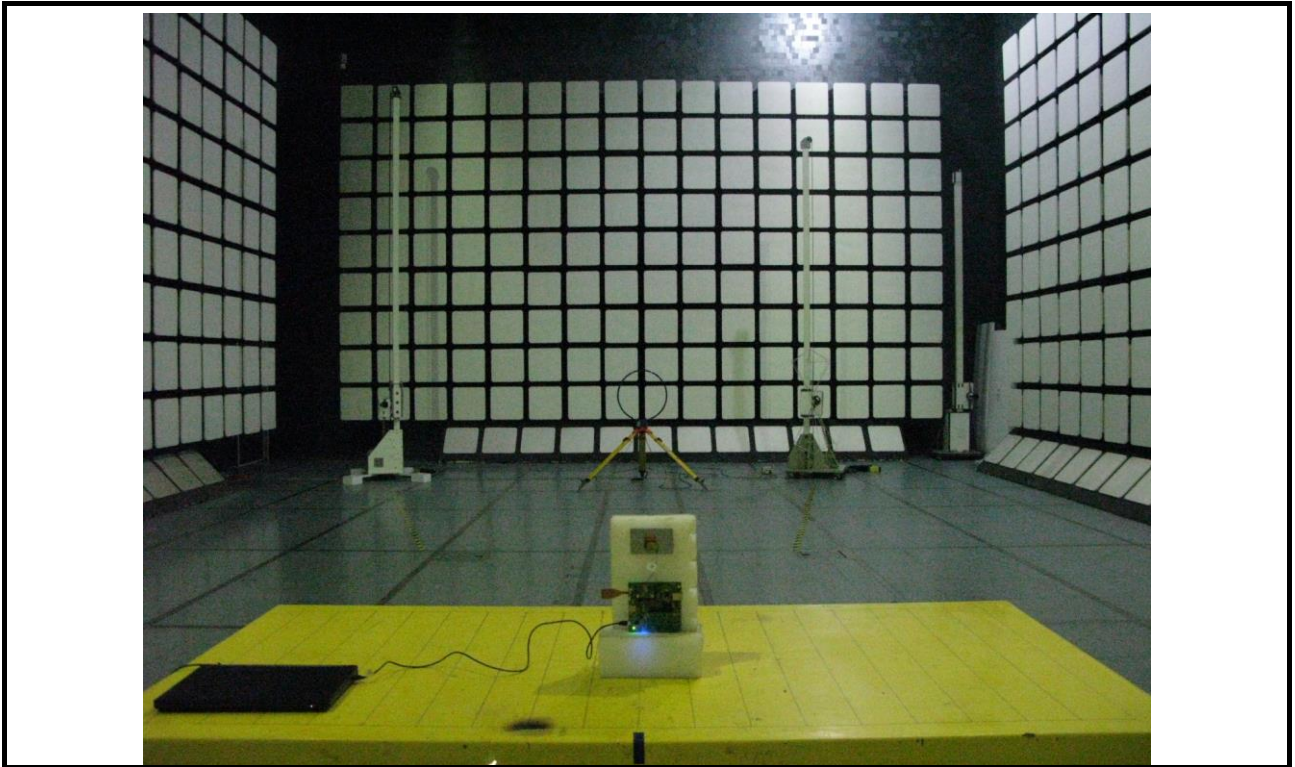
Spurious Emission below 30MHz Test (EDA-8709-2G4C1-B27-CY antenna)



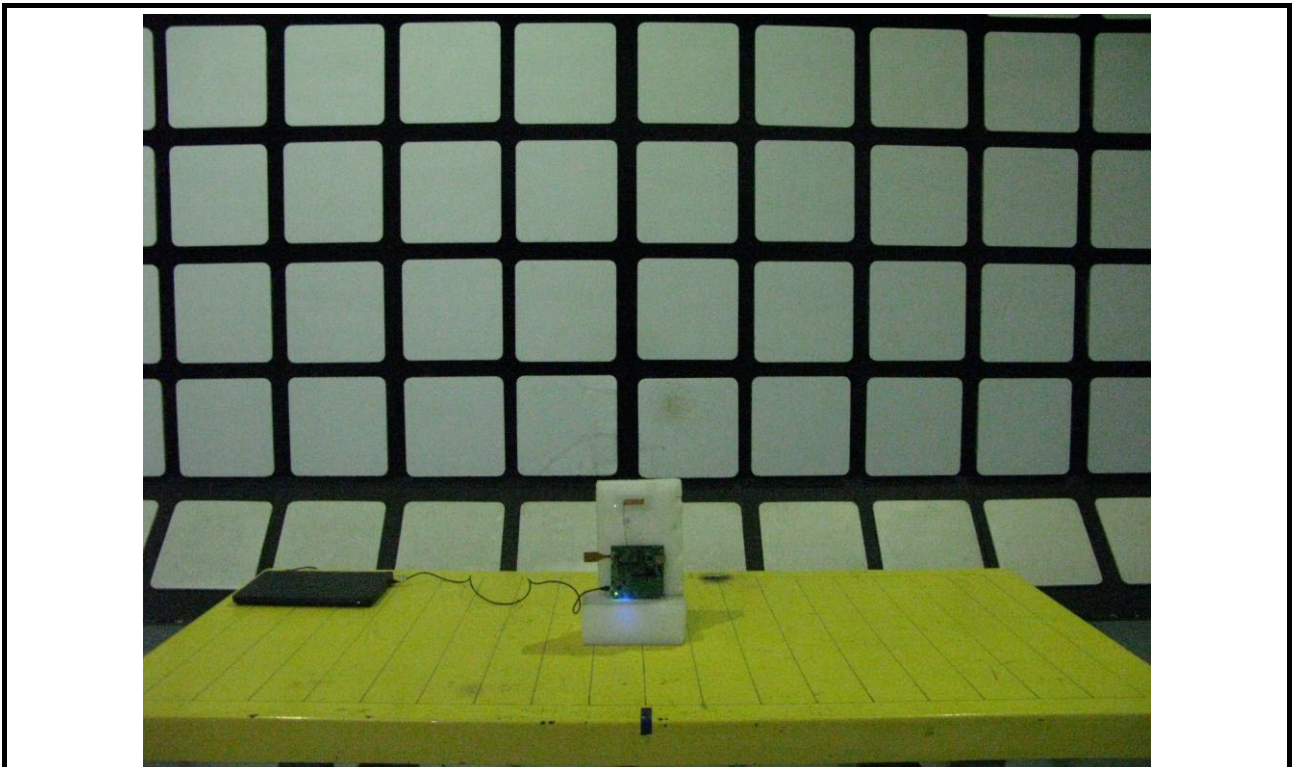
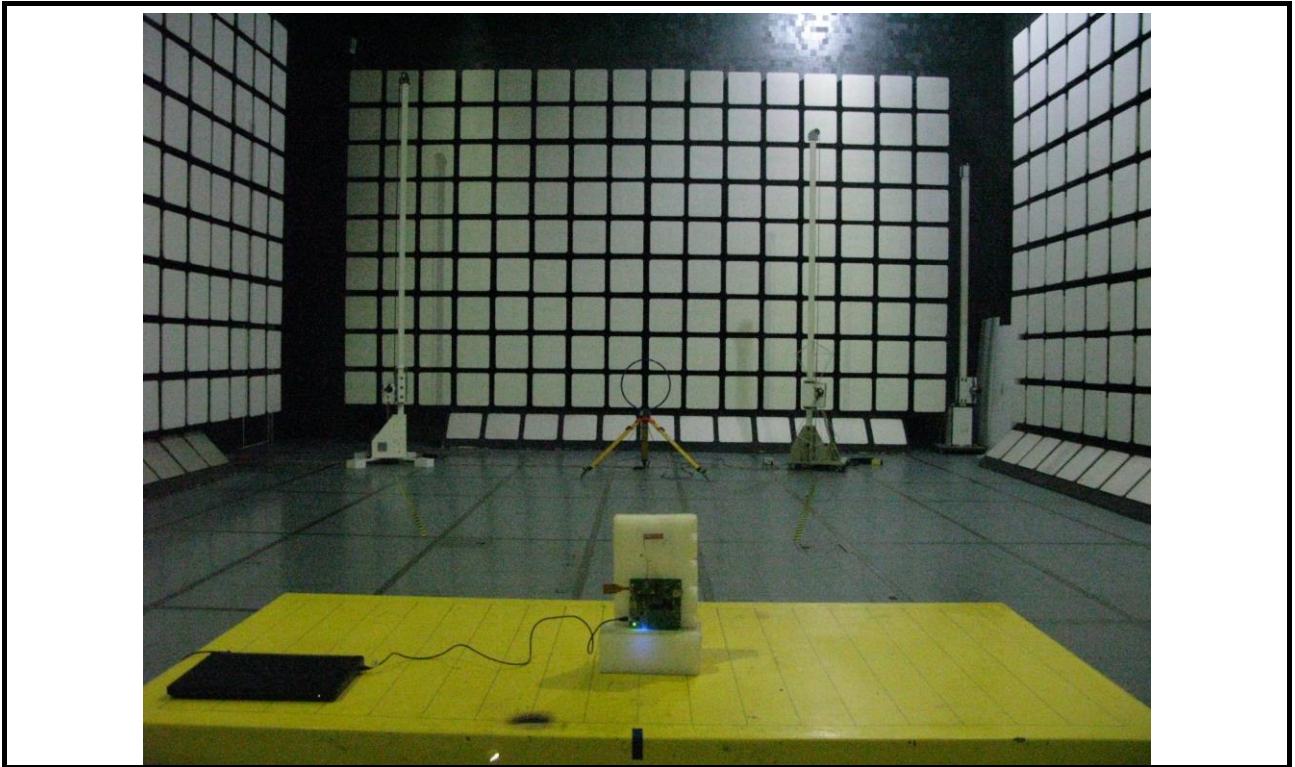
**Spurious Emission below 30MHz Test (FlexPIFA antenna)**



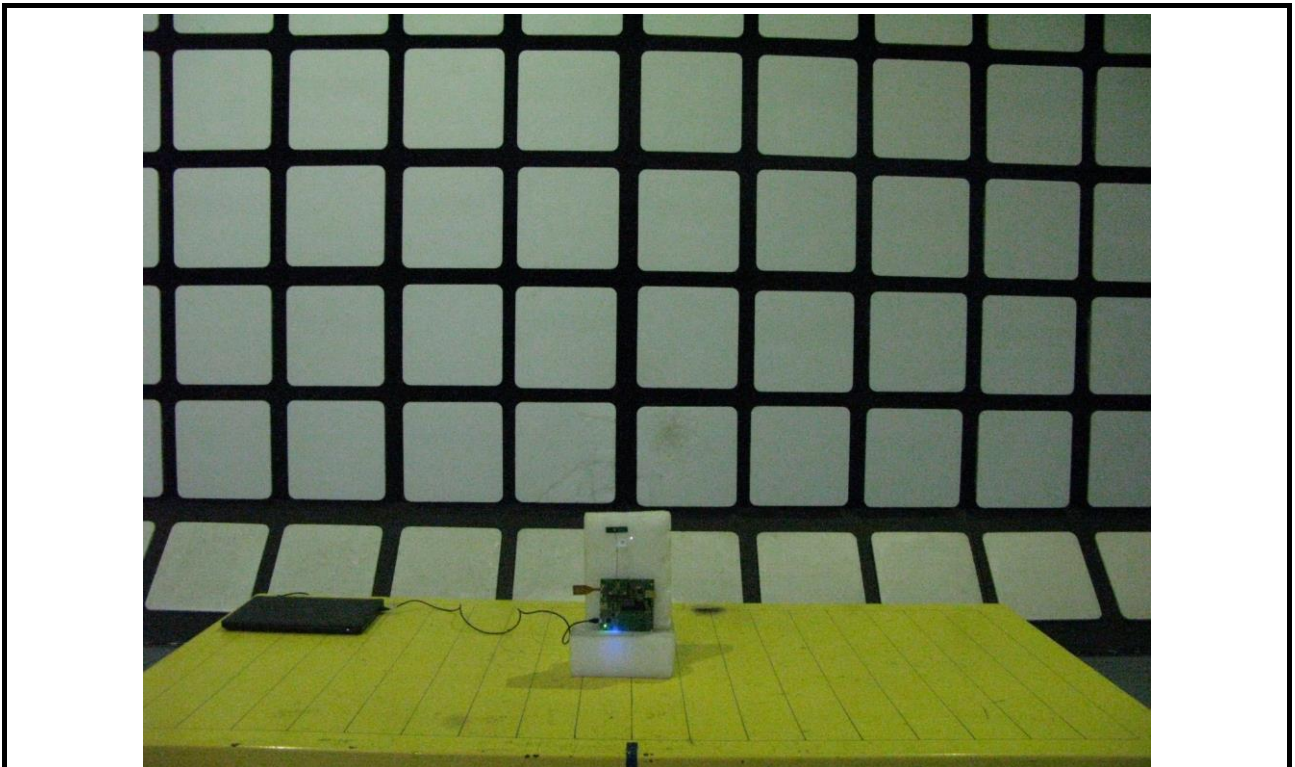
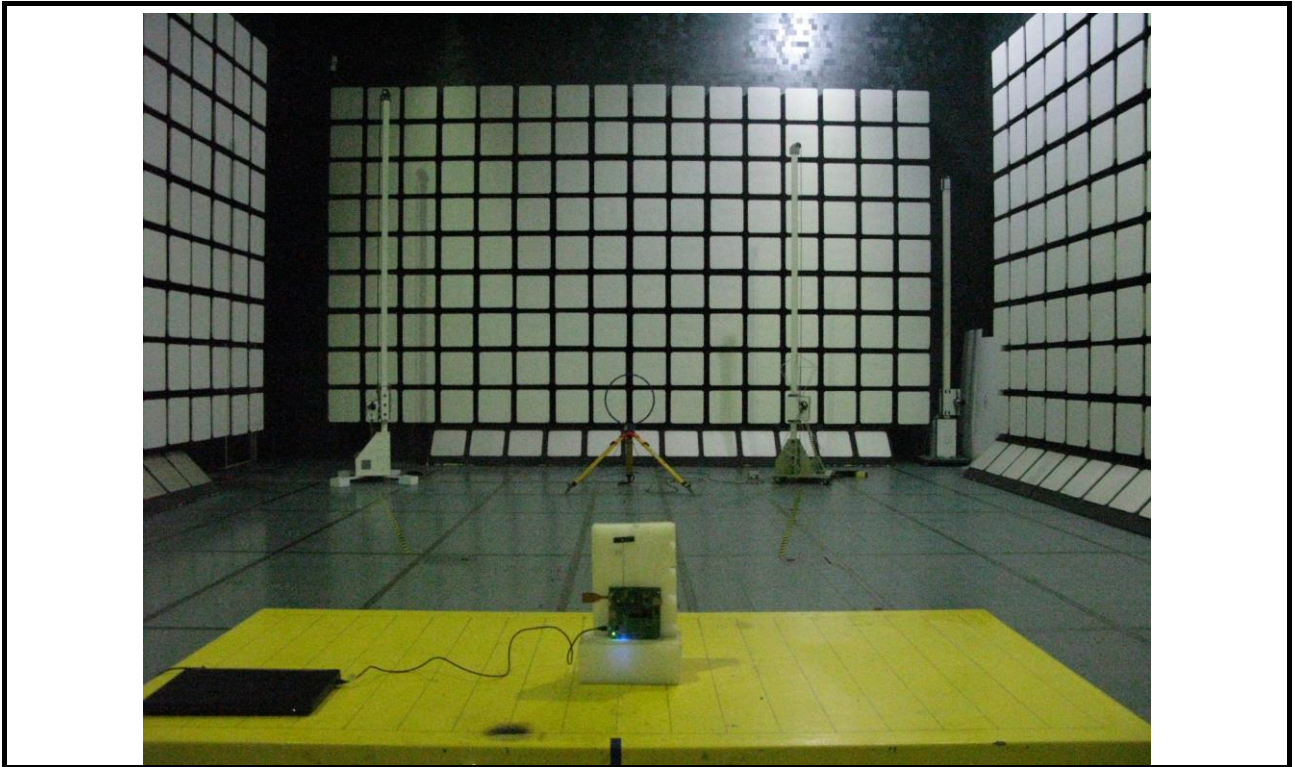
**Spurious Emission below 30MHz Test (i-FlexPIFA antenna)**



**Spurious Emission below 30MHz Test (mFlexPIFA antenna)**

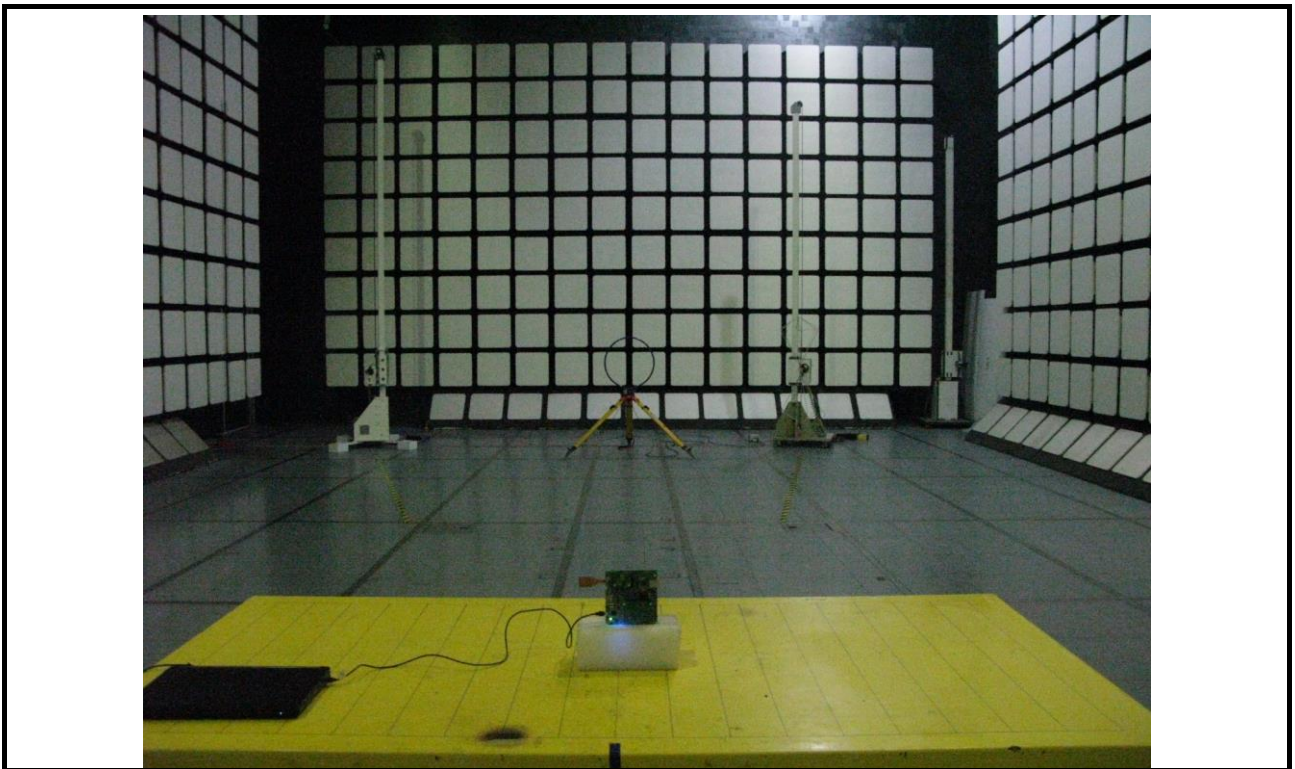
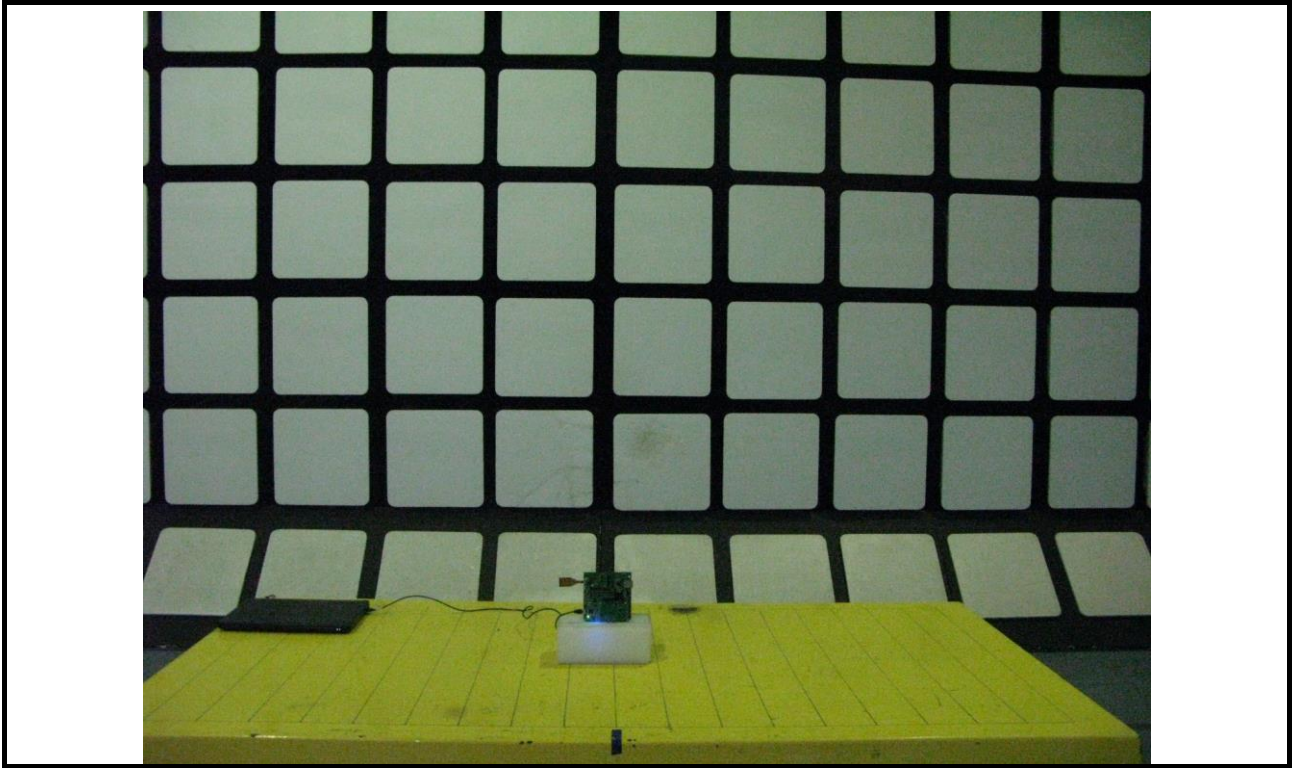


**Spurious Emission below 30MHz Test (NanoBlue antenna)**



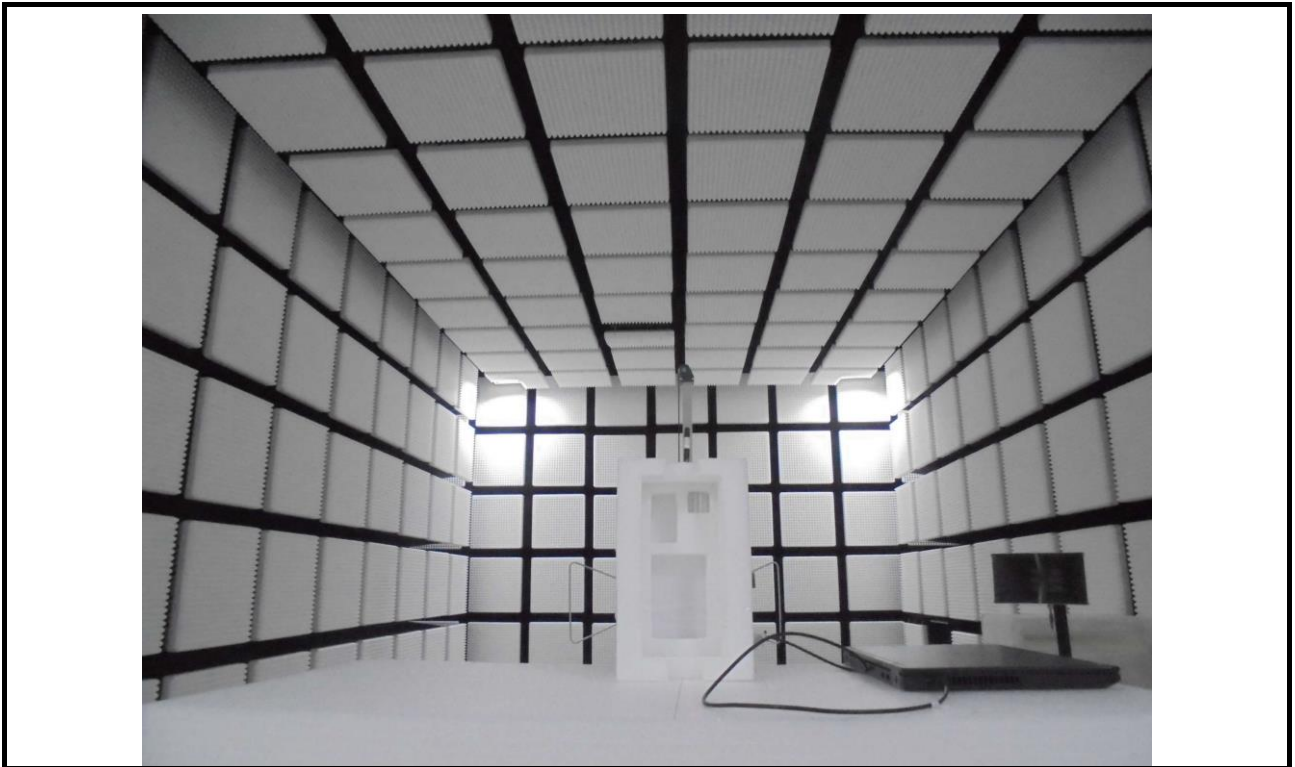
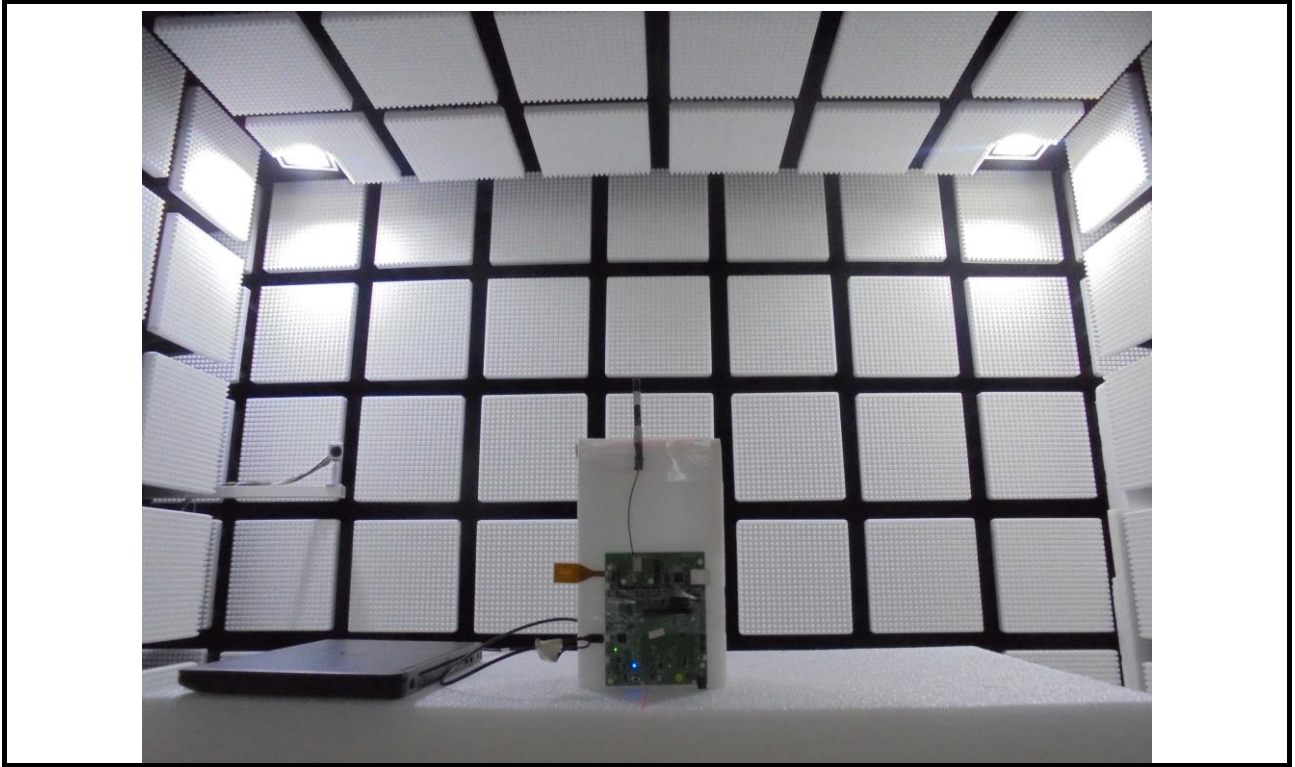
### **Internal Antenna**

**Spurious Emission below 30MHz Test (BL5340 onboard printed PCB Trace antenna)**

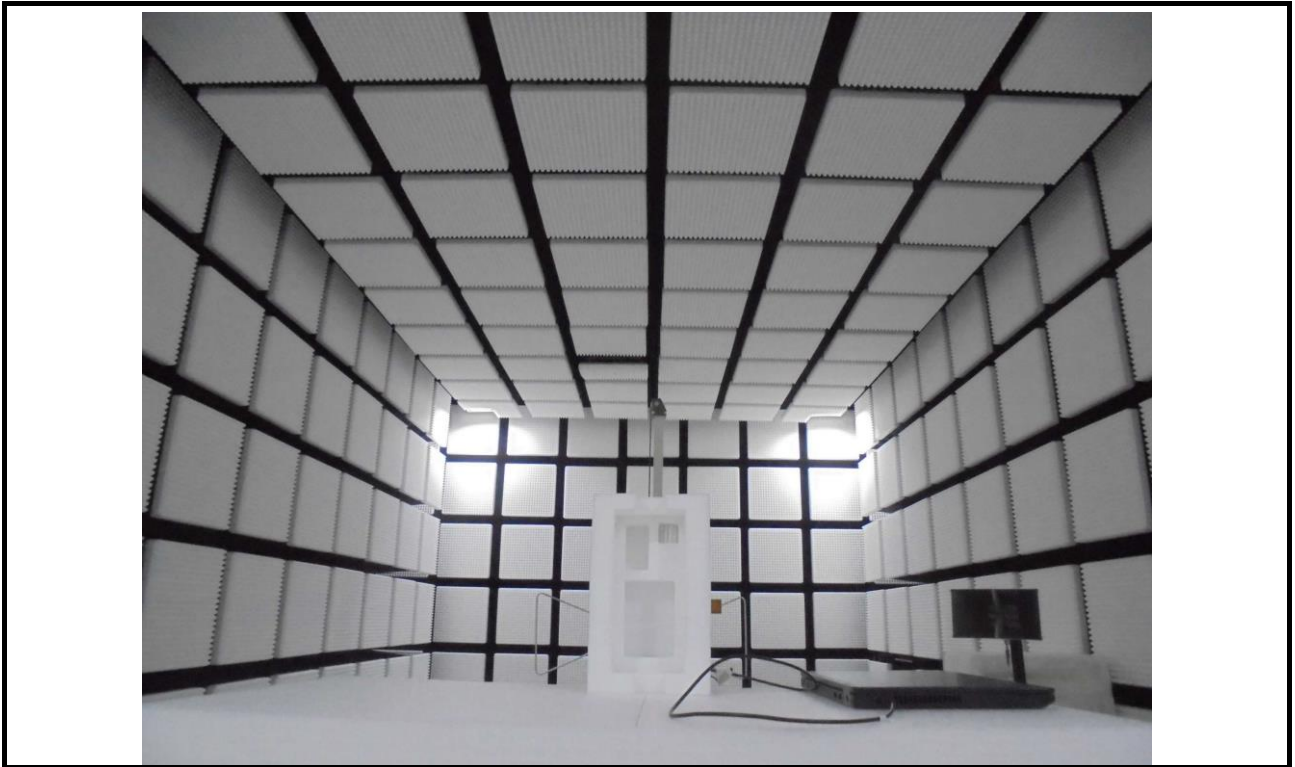
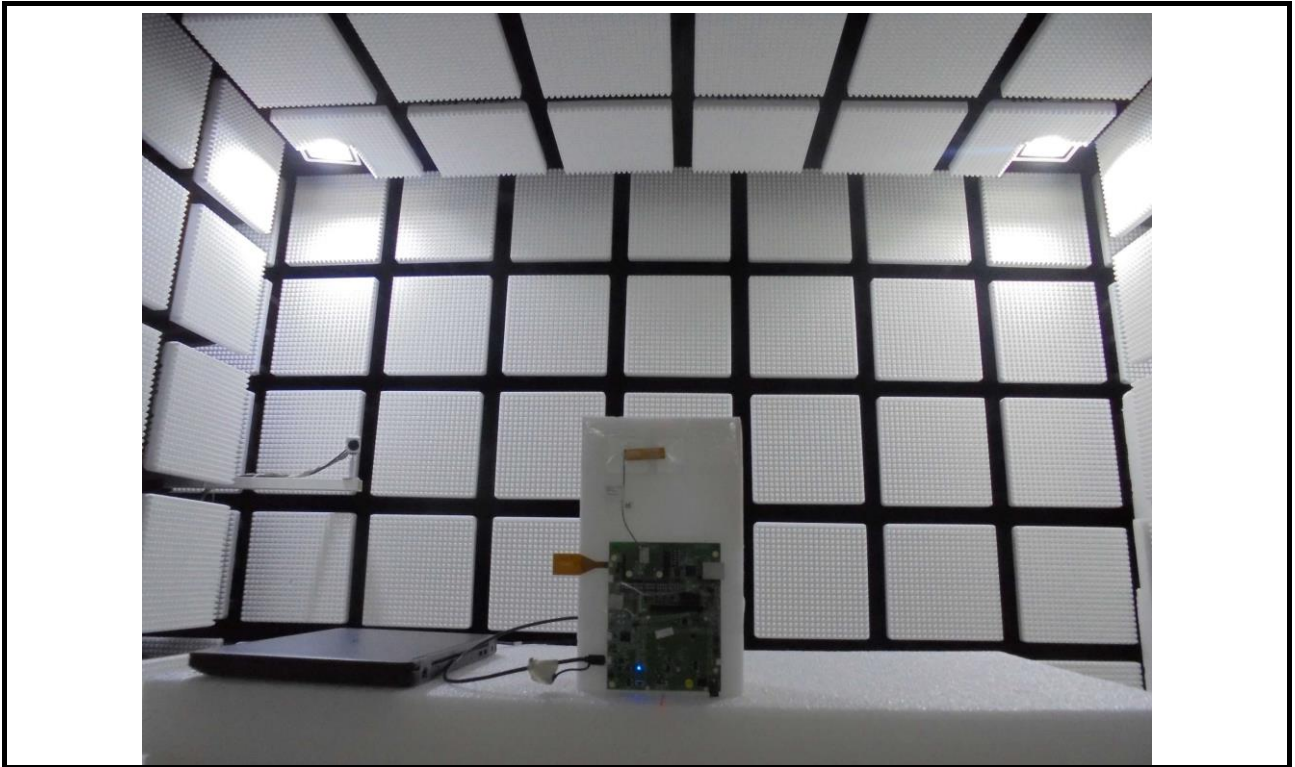


## **External Antenna**

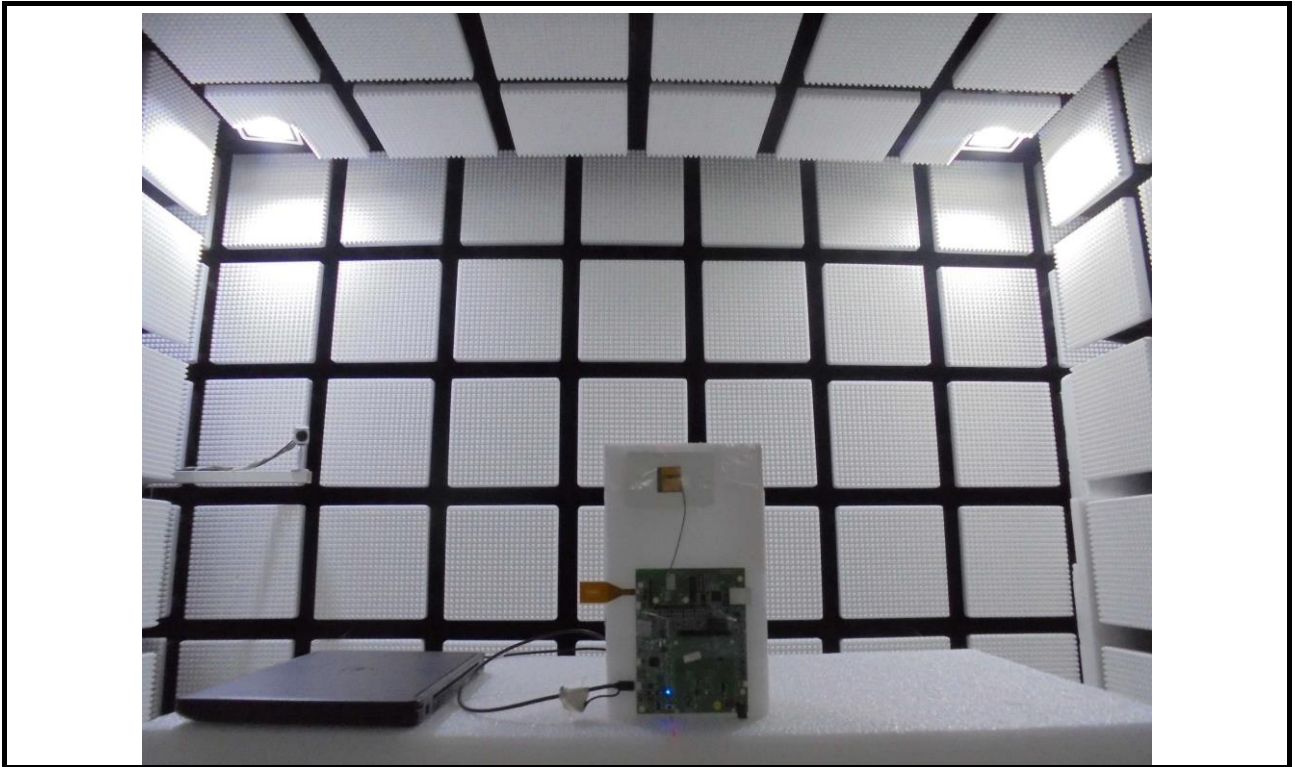
### **Spurious Emission above 30MHz Test (EDA-8709-2G4C1-B27-CY antenna)**



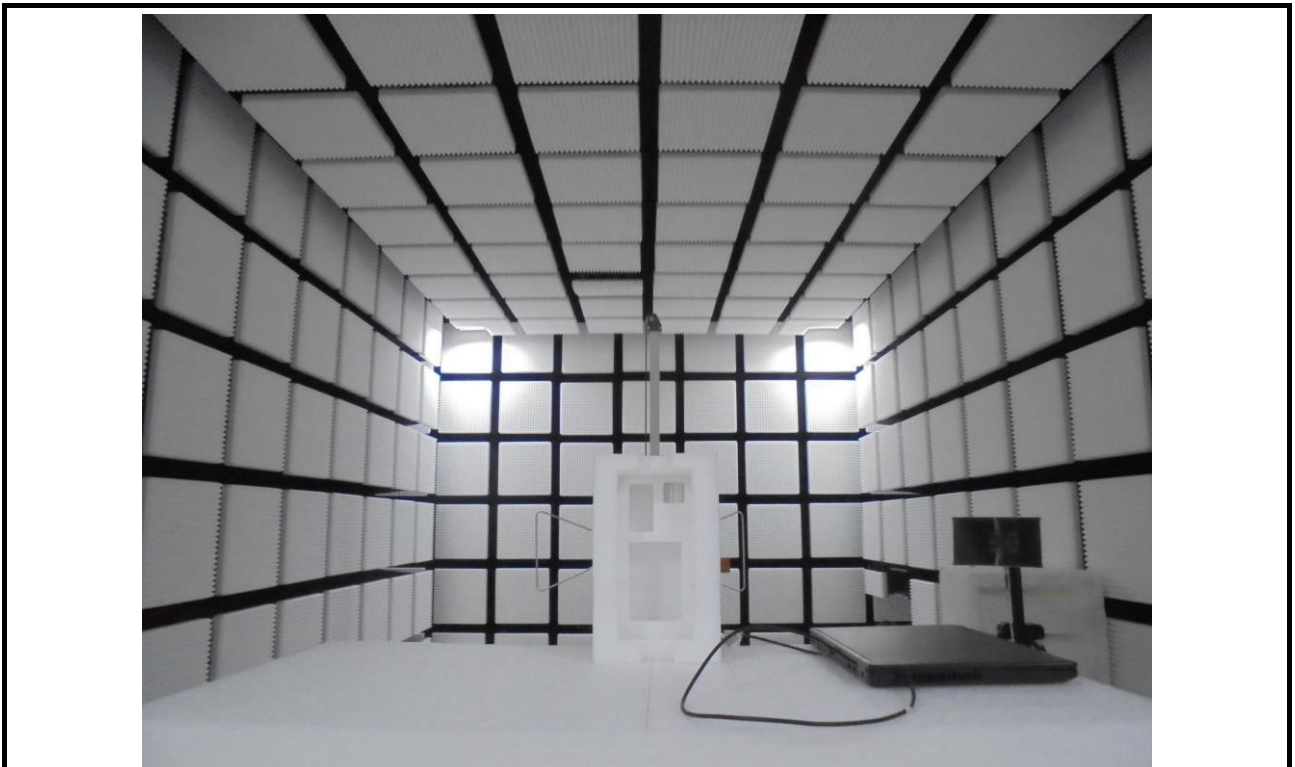
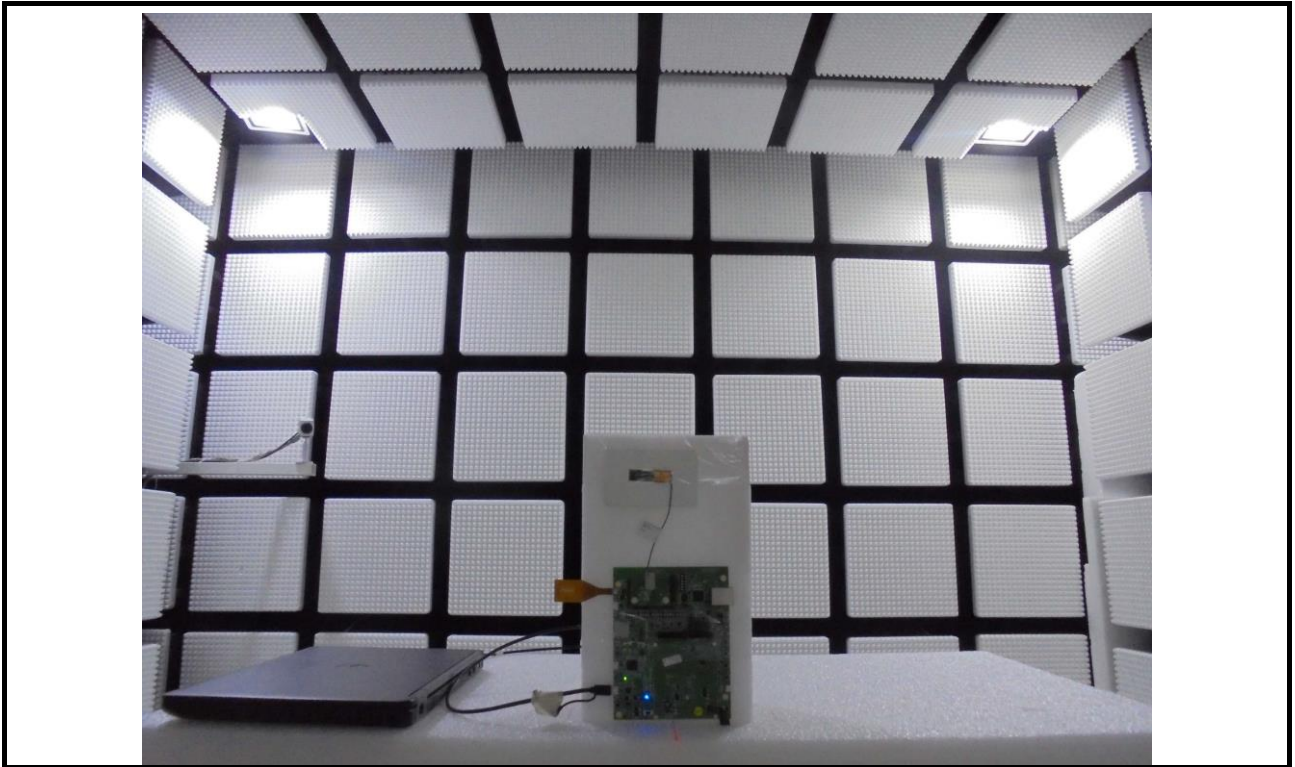
**Spurious Emission above 30MHz Test (FlexPIFA antenna)**



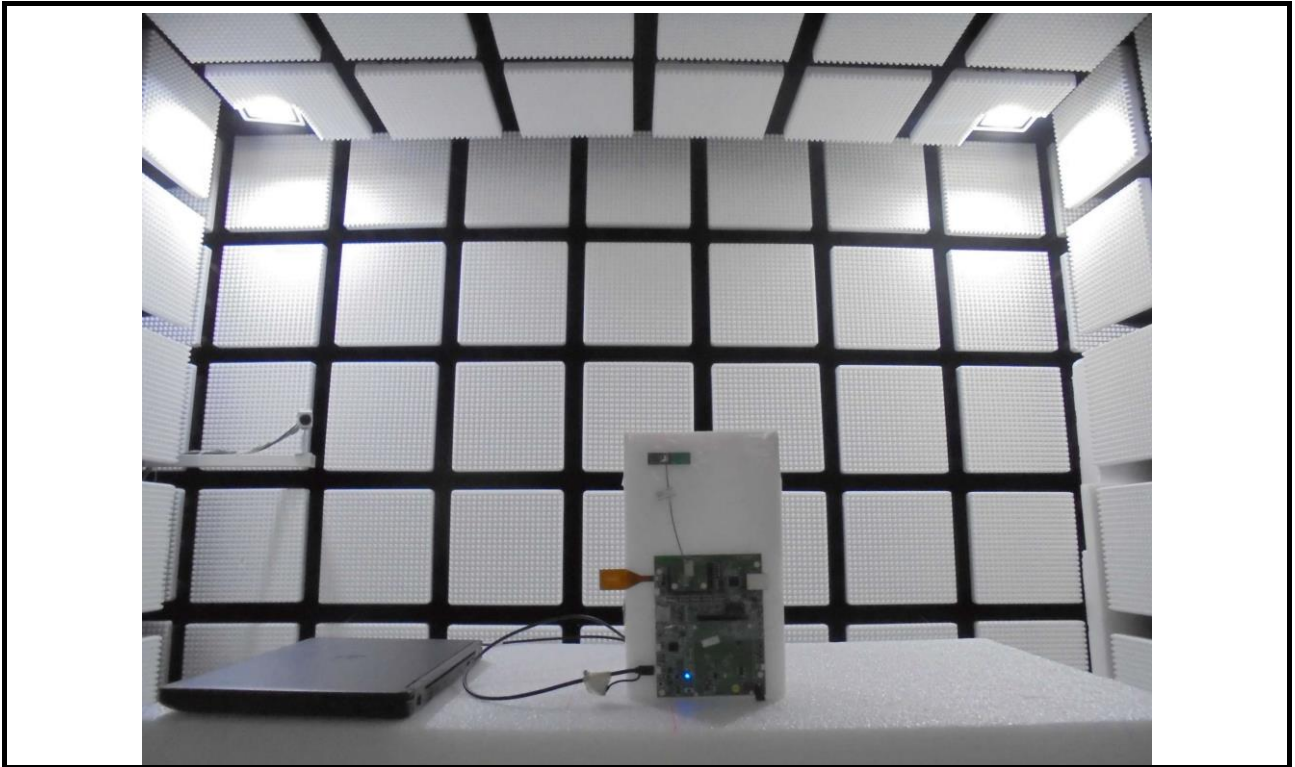
**Spurious Emission above 30MHz Test (i-FlexPIFA antenna)**



**Spurious Emission above 30MHz Test (mFlexPIFA antenna)**

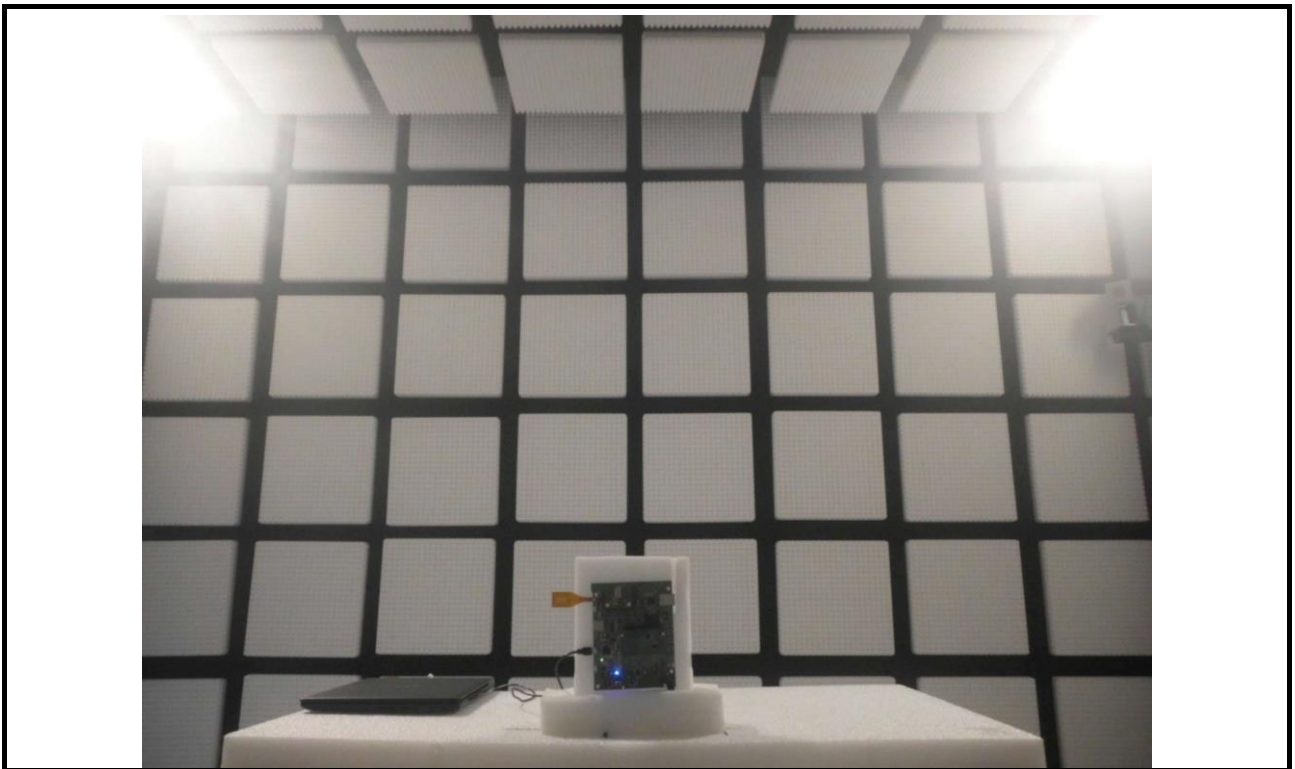


**Spurious Emission above 30MHz Test (NanoBlue antenna)**



### **Internal Antenna**

**Spurious Emission above 30MHz Test (BL5340 onboard printed PCB Trace antenna)**



## 5 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

### **Linkou**

Tel: 886-2-2601-1640

No.30-2, Ding Fwu Tsuen, Lin Kou  
District, New Taipei City, Taiwan  
(R.O.C.)

### **Kwei Shan**

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)  
No.2-1, Lane 6, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)

### **Kwei Shan Site II**

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666

Fax: 886-3-318-0345

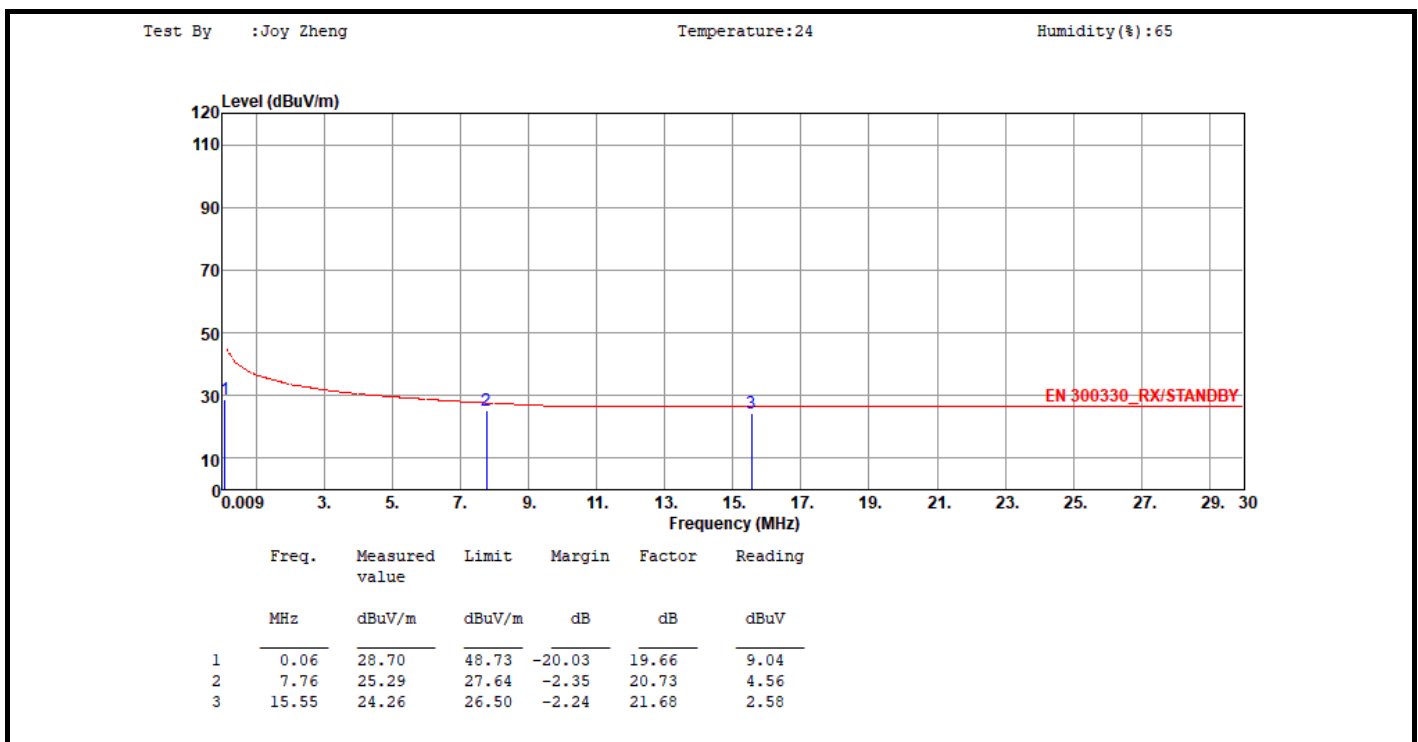
Email: ICC\_Service@icertifi.com.tw

==END==



Configuration 1: EDA-8709-2G4C1-B27-CY antenna (External) + Laird NFC

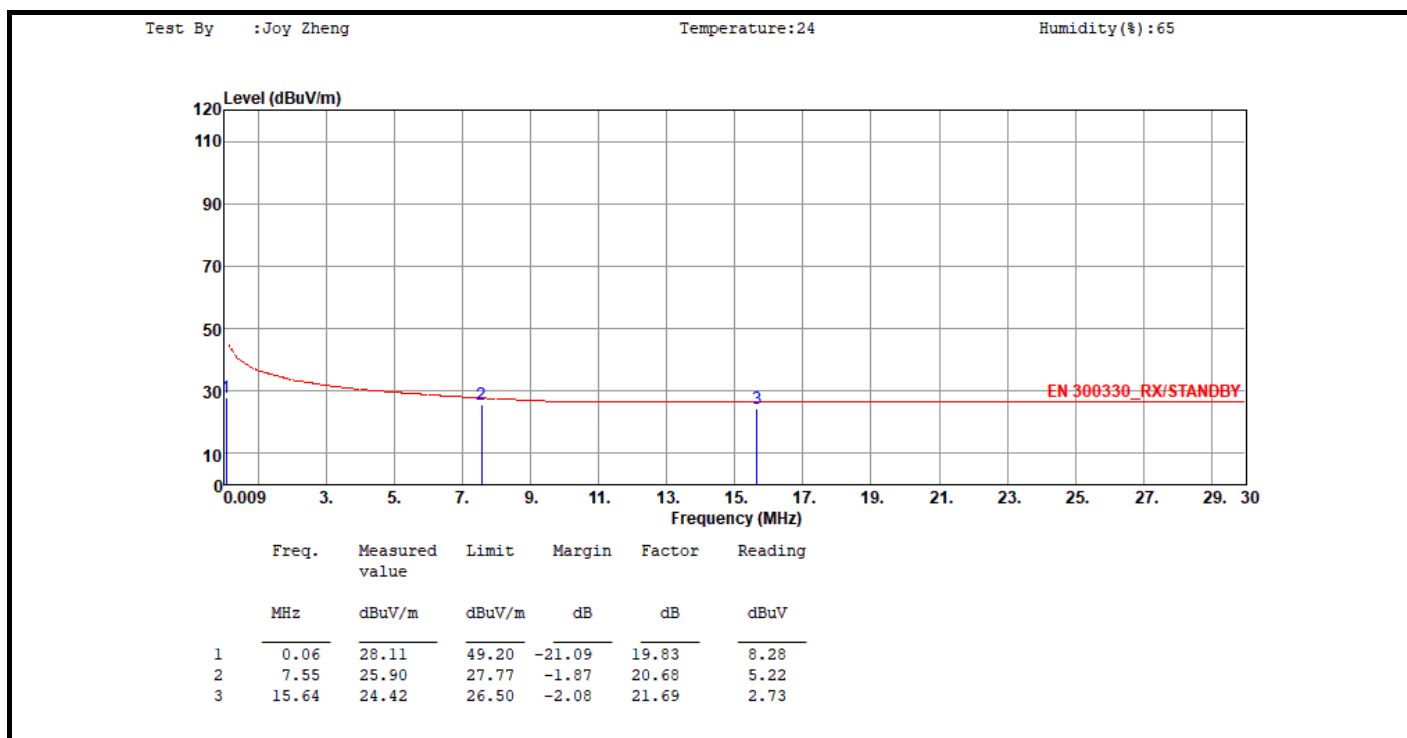
| Receiver Emissions in the Range from 9kHz~30MHz Result                  |                  |                                          |                         |                               |            |             |
|-------------------------------------------------------------------------|------------------|------------------------------------------|-------------------------|-------------------------------|------------|-------------|
| Emission Freq. (MHz)                                                    | E-field (dBuV/m) | E-field to H-field Converted Factor (dB) | H-field (dBuA/m at 10m) | H-field Limit (dBuA/m at 10m) | Level Type | Margin (dB) |
| 15.55                                                                   | 24.26            | -51.5                                    | -27.24                  | -25                           | PK         | 2.24        |
| H-field (10m) = [E-field (10m)] + [E-field to H-field Converted Factor] |                  |                                          |                         |                               |            |             |





Configuration 2: FlexPIFA antenna (External) + Laird NFC

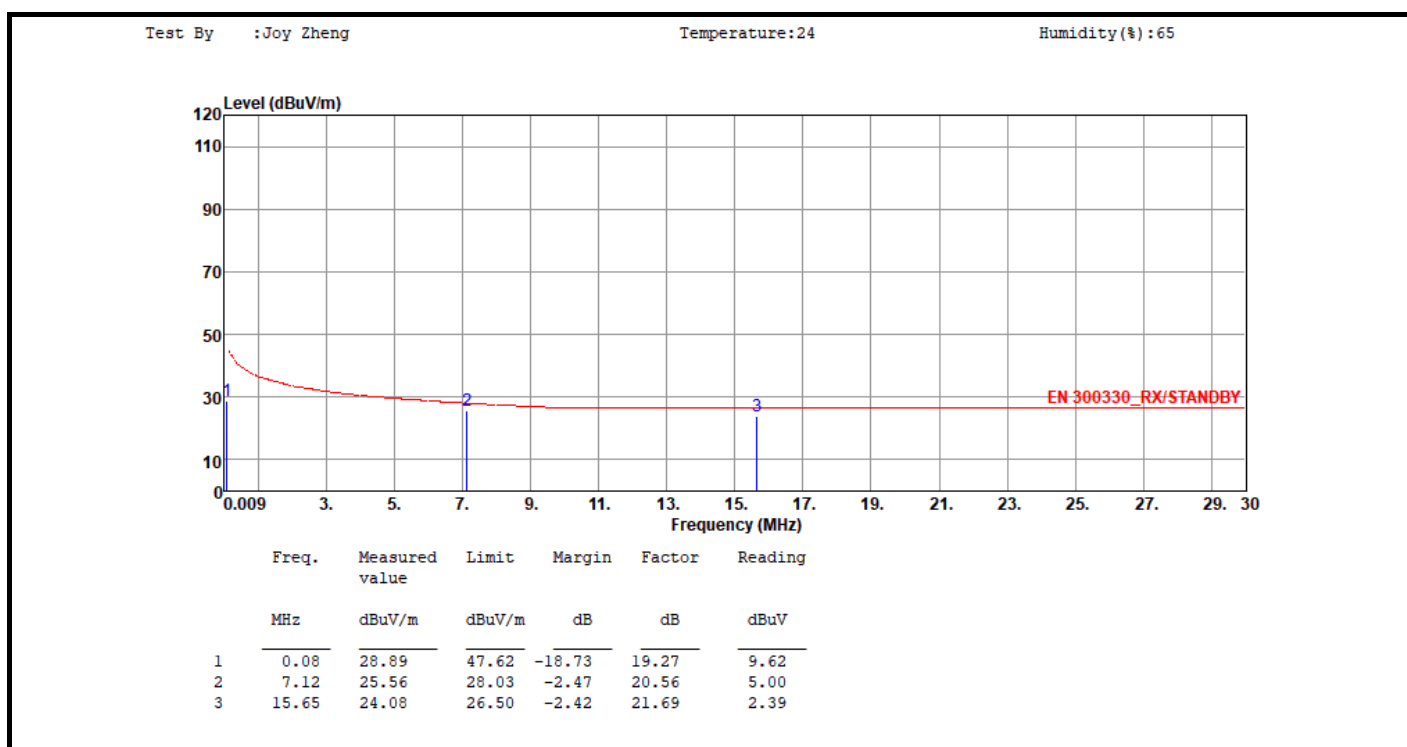
| Receiver Emissions in the Range from 9kHz~30MHz Result                  |                  |                                          |                         |                               |            |             |
|-------------------------------------------------------------------------|------------------|------------------------------------------|-------------------------|-------------------------------|------------|-------------|
| Emission Freq. (MHz)                                                    | E-field (dBuV/m) | E-field to H-field Converted Factor (dB) | H-field (dBuA/m at 10m) | H-field Limit (dBuA/m at 10m) | Level Type | Margin (dB) |
| 7.55                                                                    | 25.90            | -51.5                                    | -25.60                  | -23.73                        | PK         | 1.87        |
| H-field (10m) = [E-field (10m)] + [E-field to H-field Converted Factor] |                  |                                          |                         |                               |            |             |



## Configuration 3: i-FlexPIFA antenna (External) + Laird NFC

| Receiver Emissions in the Range from 9kHz~30MHz Result |                  |                                          |                         |                               |            |             |
|--------------------------------------------------------|------------------|------------------------------------------|-------------------------|-------------------------------|------------|-------------|
| Emission Freq. (MHz)                                   | E-field (dBuV/m) | E-field to H-field Converted Factor (dB) | H-field (dBuA/m at 10m) | H-field Limit (dBuA/m at 10m) | Level Type | Margin (dB) |
| 15.65                                                  | 24.08            | -51.5                                    | -27.42                  | -25                           | PK         | 2.42        |

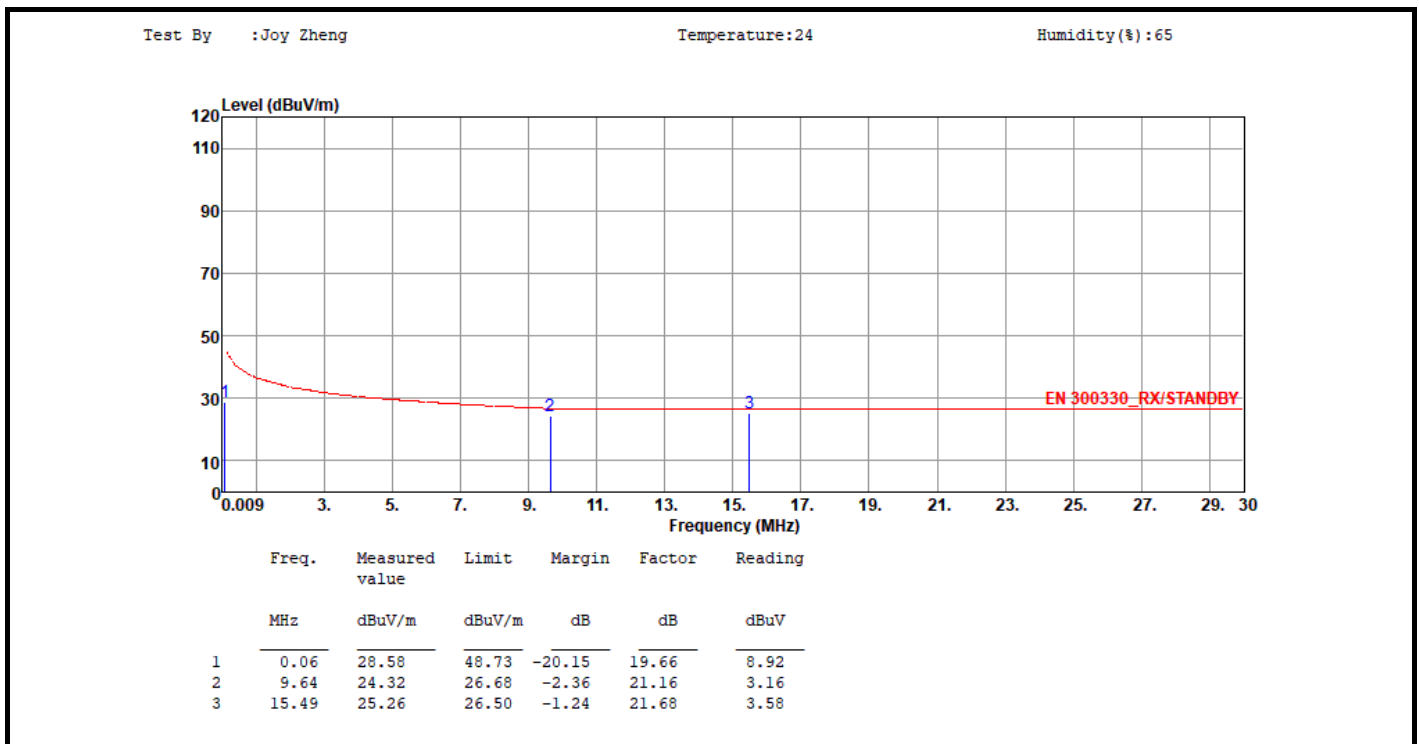
H-field (10m) = [E-field (10m)] + [E-field to H-field Converted Factor]





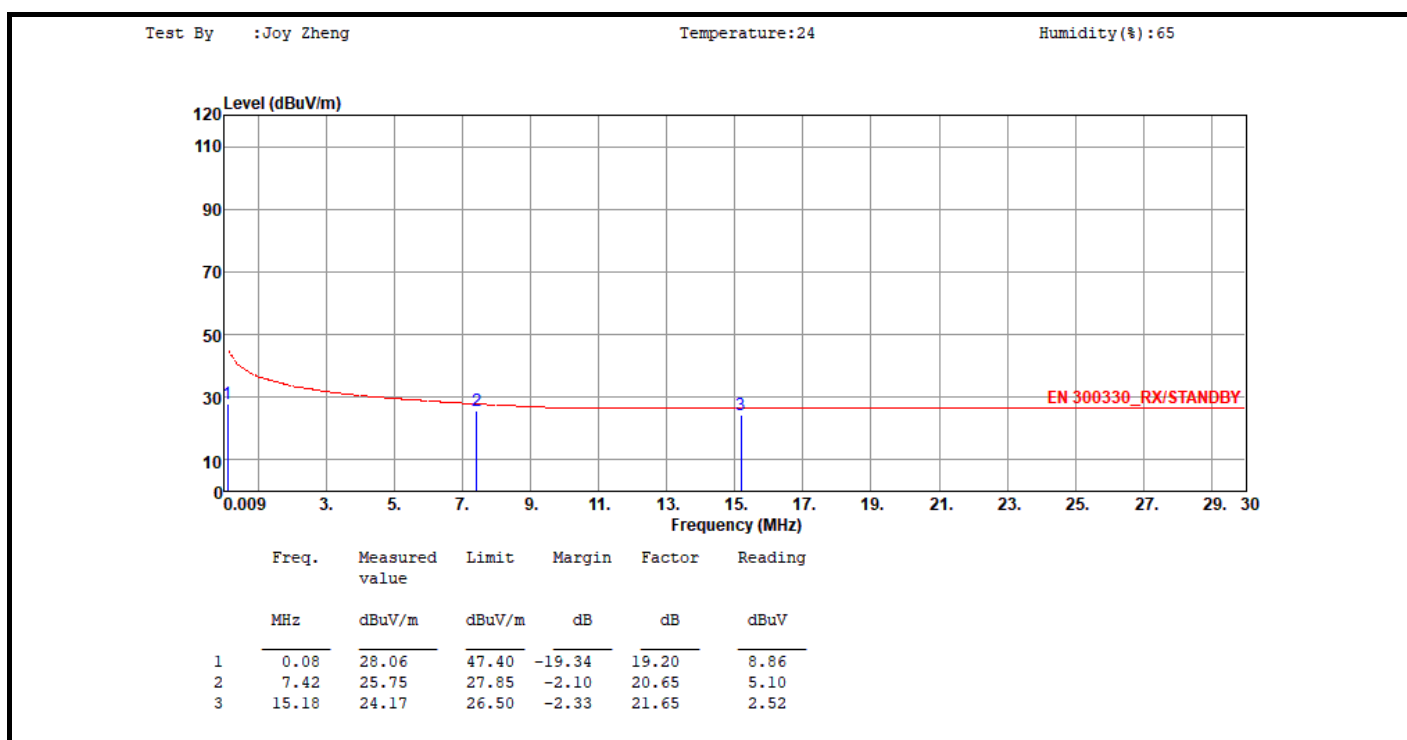
Configuration 4: mFlexPIFA antenna (External) + Laird NFC

| Receiver Emissions in the Range from 9kHz~30MHz Result                  |                  |                                          |                         |                               |            |             |
|-------------------------------------------------------------------------|------------------|------------------------------------------|-------------------------|-------------------------------|------------|-------------|
| Emission Freq. (MHz)                                                    | E-field (dBuV/m) | E-field to H-field Converted Factor (dB) | H-field (dBuA/m at 10m) | H-field Limit (dBuA/m at 10m) | Level Type | Margin (dB) |
| 15.49                                                                   | 25.26            | -51.5                                    | -26.24                  | -25                           | PK         | 1.24        |
| H-field (10m) = [E-field (10m)] + [E-field to H-field Converted Factor] |                  |                                          |                         |                               |            |             |



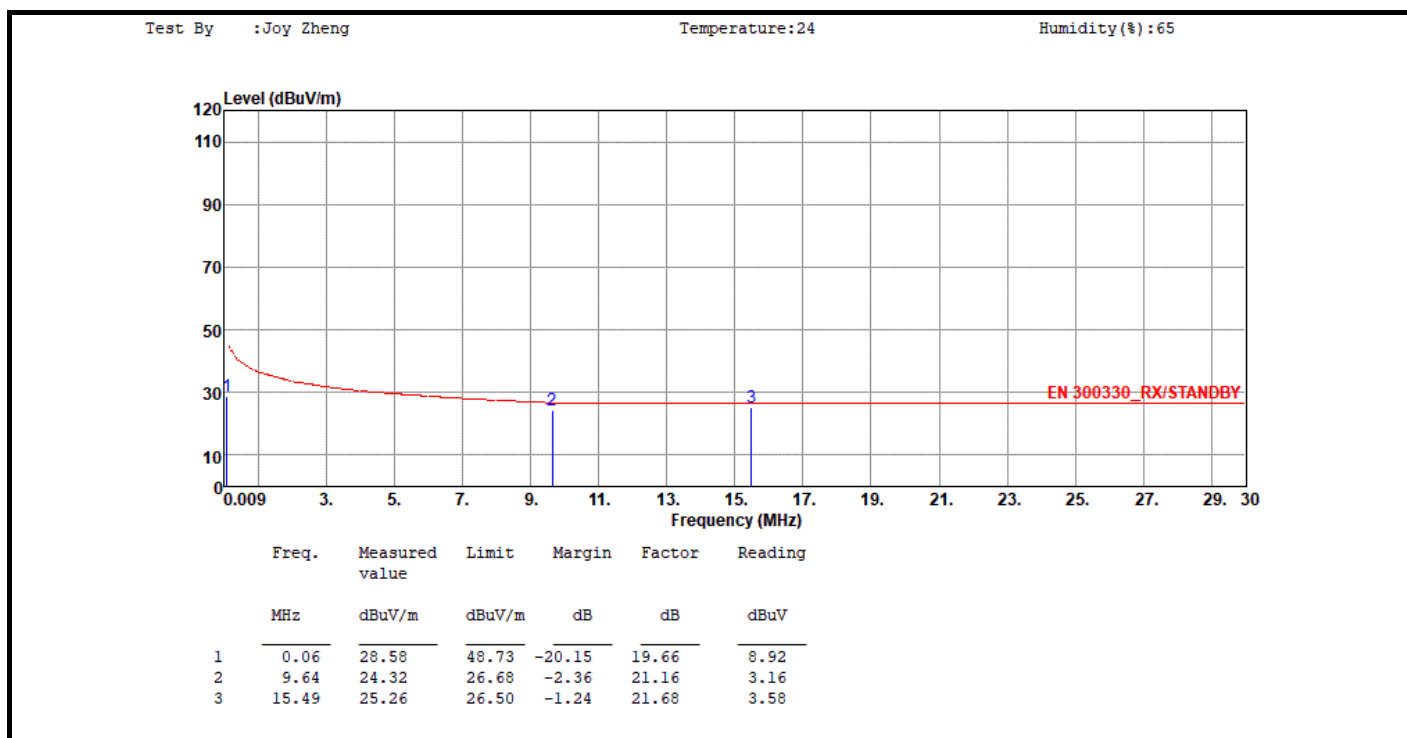
## Configuration 5: NanoBlue antenna (External) + Laird NFC

| Receiver Emissions in the Range from 9kHz~30MHz Result                  |                  |                                          |                         |                               |            |             |
|-------------------------------------------------------------------------|------------------|------------------------------------------|-------------------------|-------------------------------|------------|-------------|
| Emission Freq. (MHz)                                                    | E-field (dBuV/m) | E-field to H-field Converted Factor (dB) | H-field (dBuA/m at 10m) | H-field Limit (dBuA/m at 10m) | Level Type | Margin (dB) |
| 7.42                                                                    | 25.75            | -51.5                                    | -25.75                  | -23.66                        | PK         | 2.09        |
| H-field (10m) = [E-field (10m)] + [E-field to H-field Converted Factor] |                  |                                          |                         |                               |            |             |



**Configuration 6: BL5340 onboard printed PCB Trace antenna (Internal) + Laird NFC**

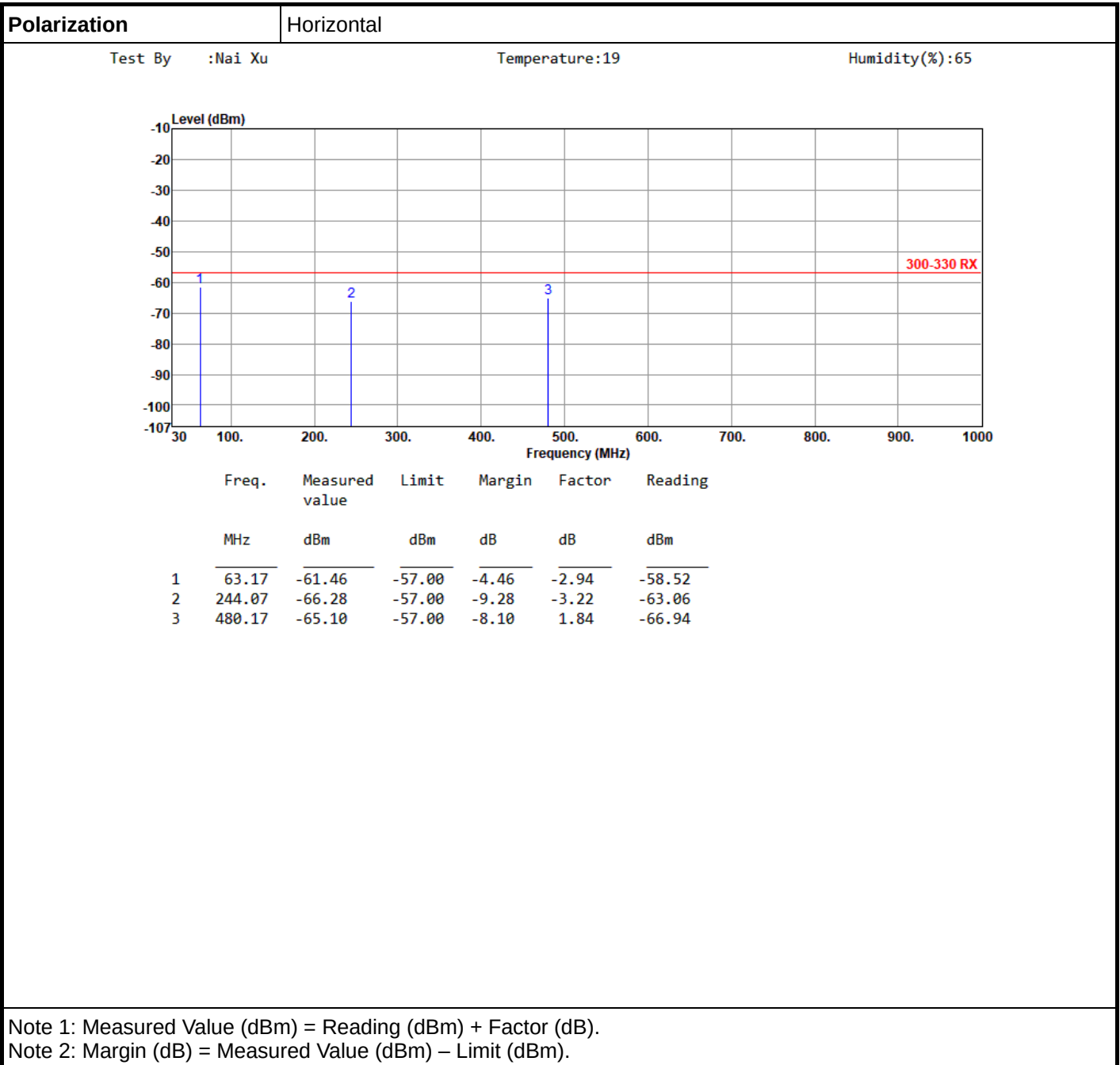
| Receiver Emissions in the Range from 9kHz~30MHz Result                  |                  |                                          |                         |                               |            |             |
|-------------------------------------------------------------------------|------------------|------------------------------------------|-------------------------|-------------------------------|------------|-------------|
| Emission Freq. (MHz)                                                    | E-field (dBuV/m) | E-field to H-field Converted Factor (dB) | H-field (dBuA/m at 10m) | H-field Limit (dBuA/m at 10m) | Level Type | Margin (dB) |
| 15.49                                                                   | 25.26            | -51.5                                    | -26.24                  | -25                           | PK         | 1.24        |
| H-field (10m) = [E-field (10m)] + [E-field to H-field Converted Factor] |                  |                                          |                         |                               |            |             |

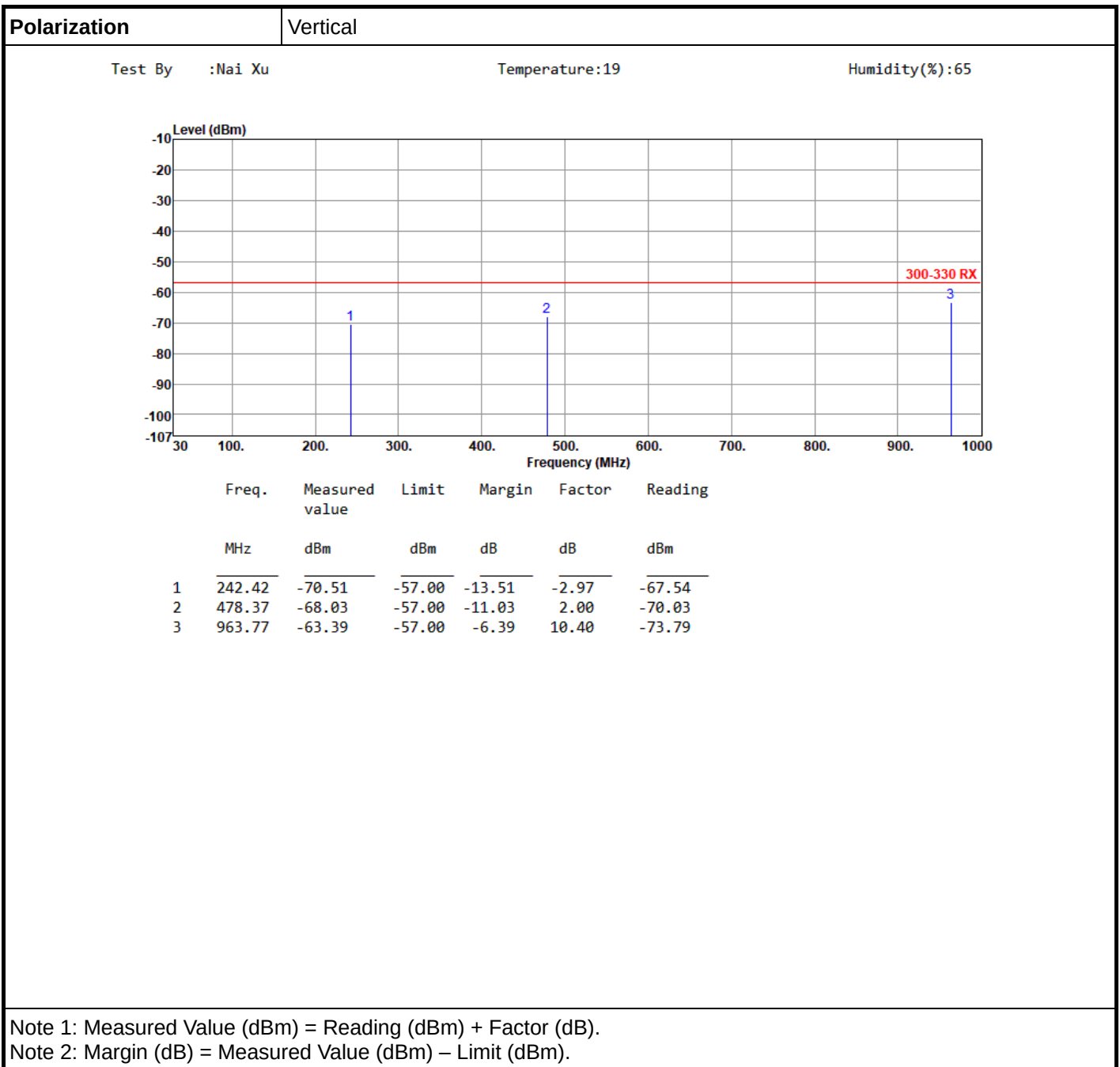




Configuration 1: EDA-8709-2G4C1-B27-CY antenna (External) + Laird NFC

Receiver Spurious Emissions (Above 30MHz)

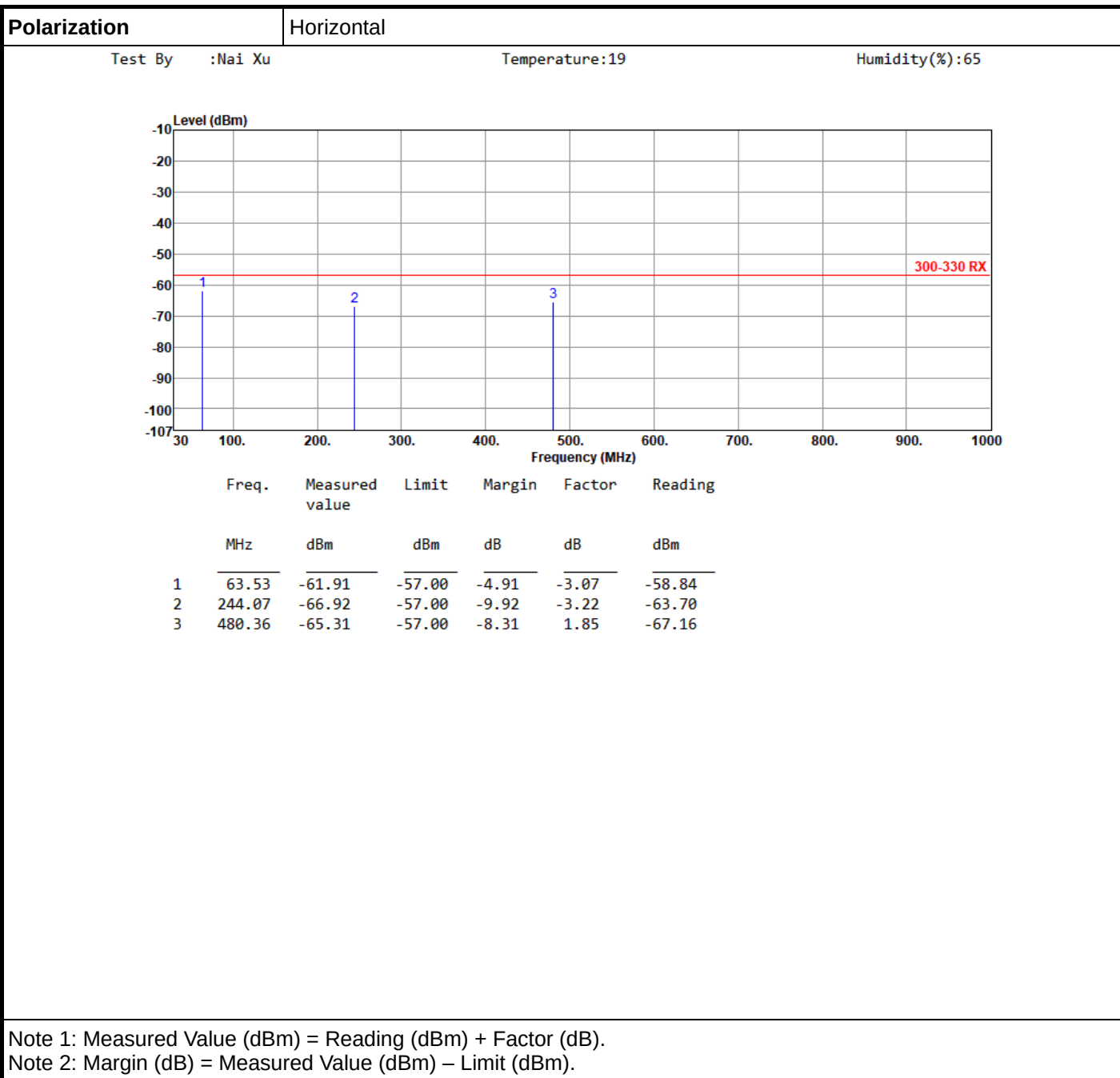


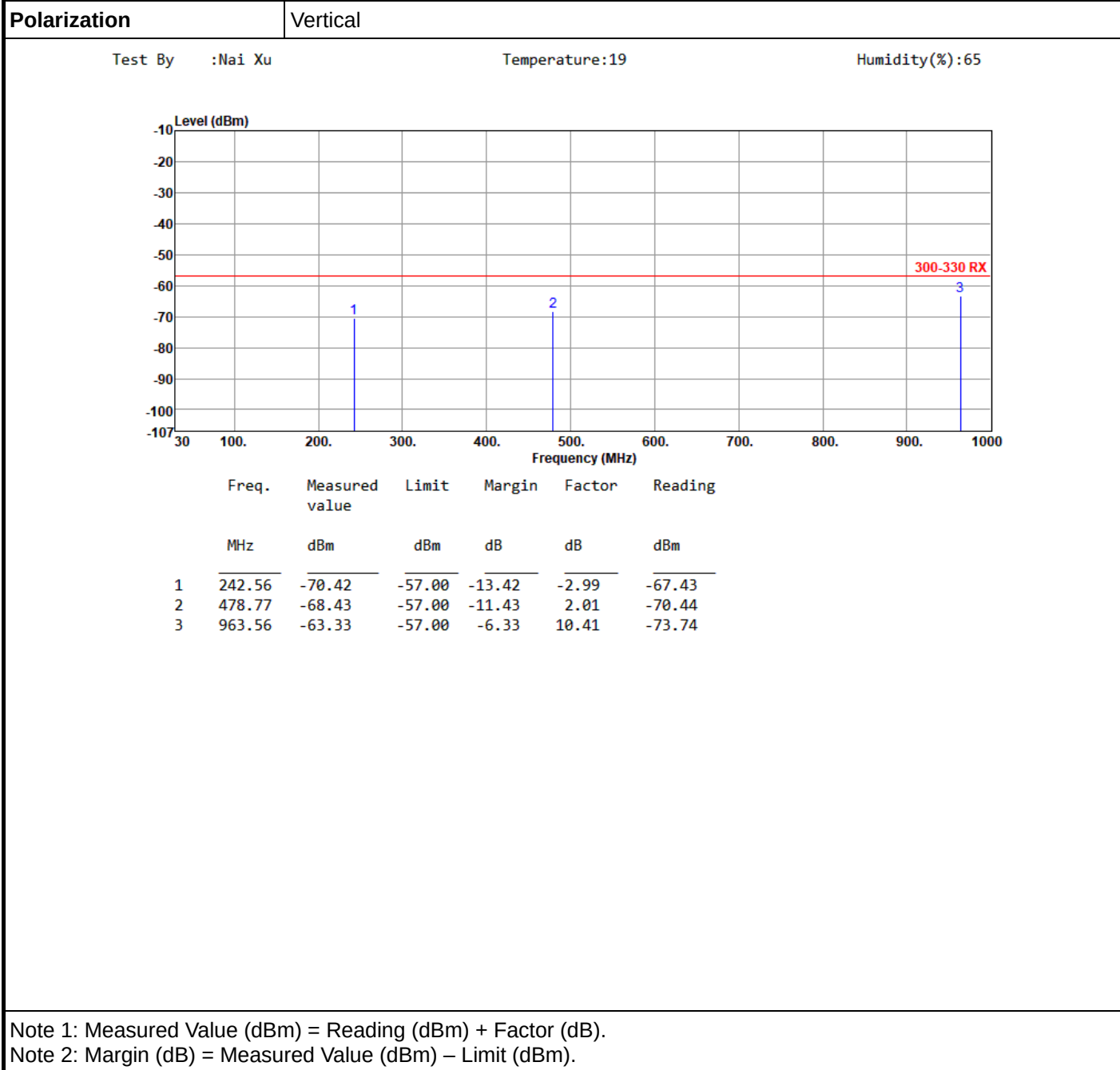




Configuration 2: FlexPIFA antenna (External) + Laird NFC

Receiver Spurious Emissions (Above 30MHz)

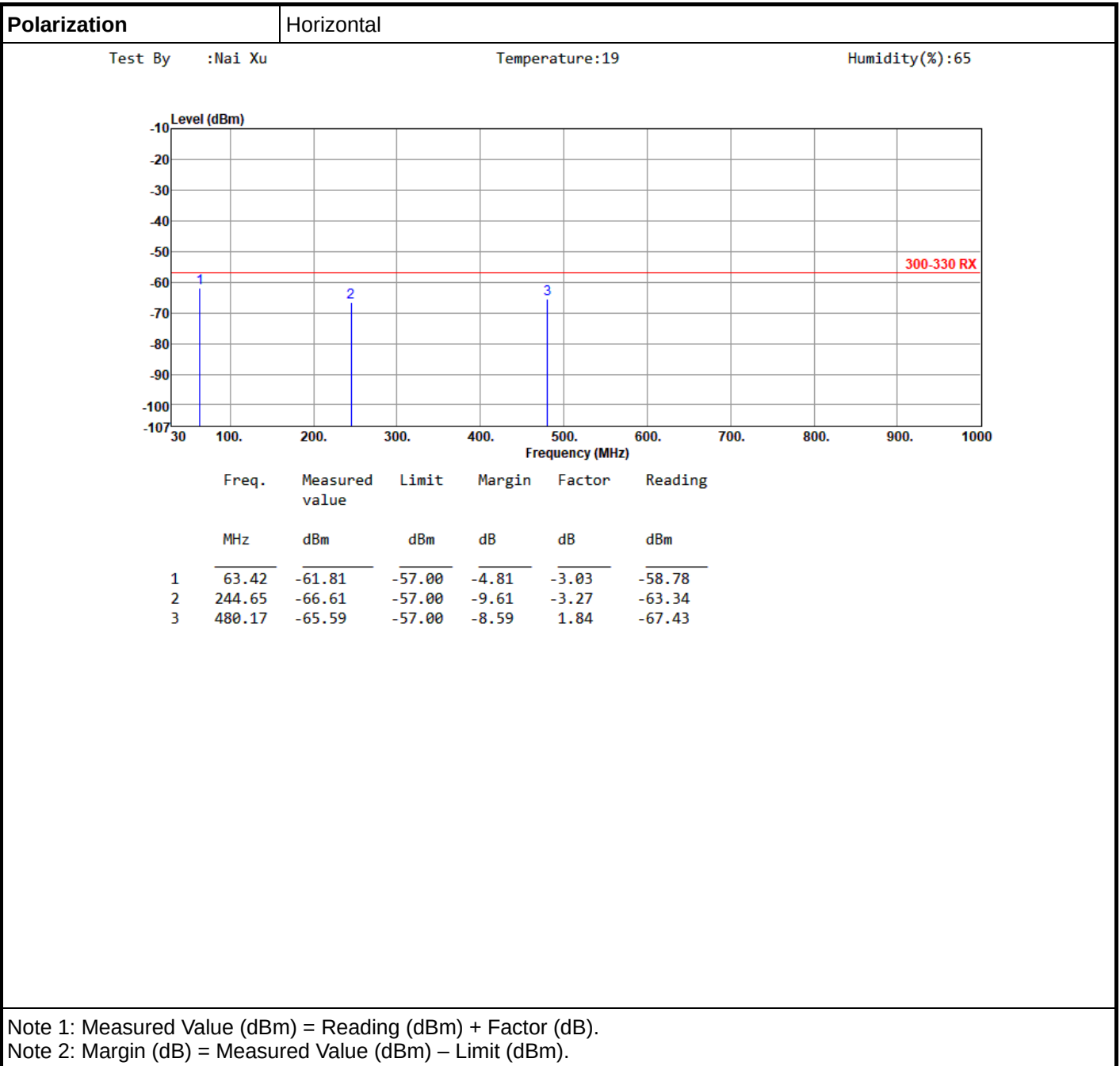






Configuration 3: i-FlexPIFA antenna (External) + Laird NFC

Receiver Spurious Emissions (Above 30MHz)





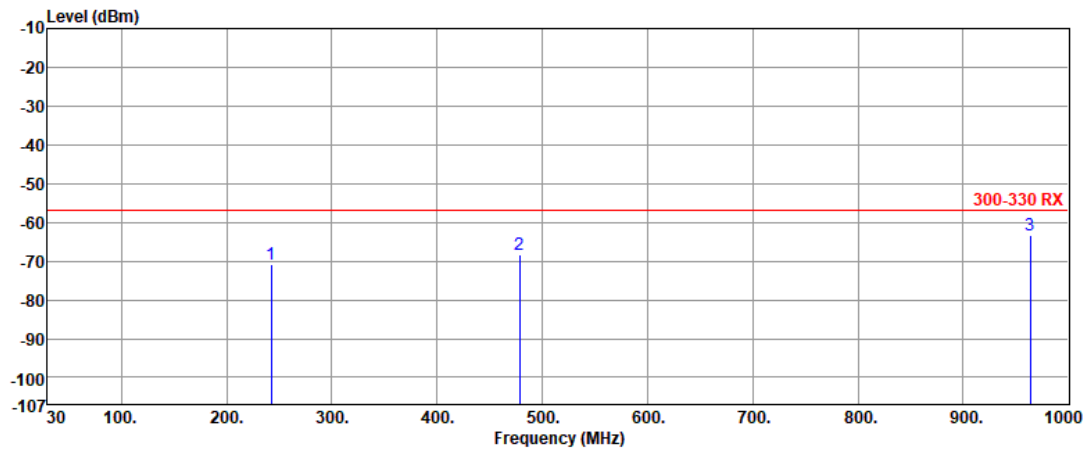
Polarization

Vertical

Test By :Nai Xu

Temperature:19

Humidity(%):65



|   | Freq.  | Measured value | Limit  | Margin | Factor | Reading |
|---|--------|----------------|--------|--------|--------|---------|
|   | MHz    | dBm            | dBm    | dB     | dB     | dBm     |
| 1 | 242.44 | -70.82         | -57.00 | -13.82 | -2.97  | -67.85  |
| 2 | 478.65 | -68.43         | -57.00 | -11.43 | 2.00   | -70.43  |
| 3 | 963.77 | -63.27         | -57.00 | -6.27  | 10.40  | -73.67  |

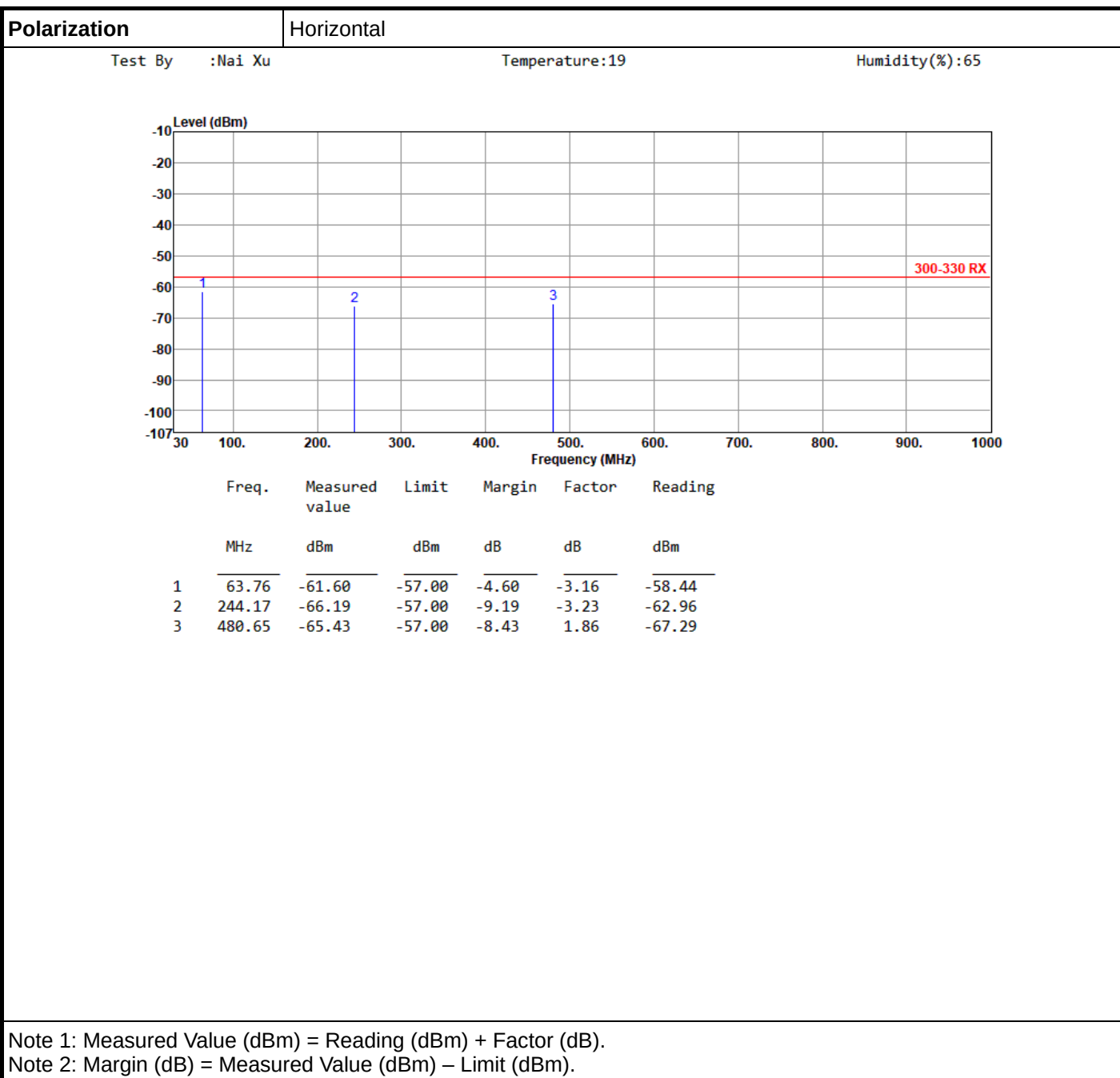
Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB).

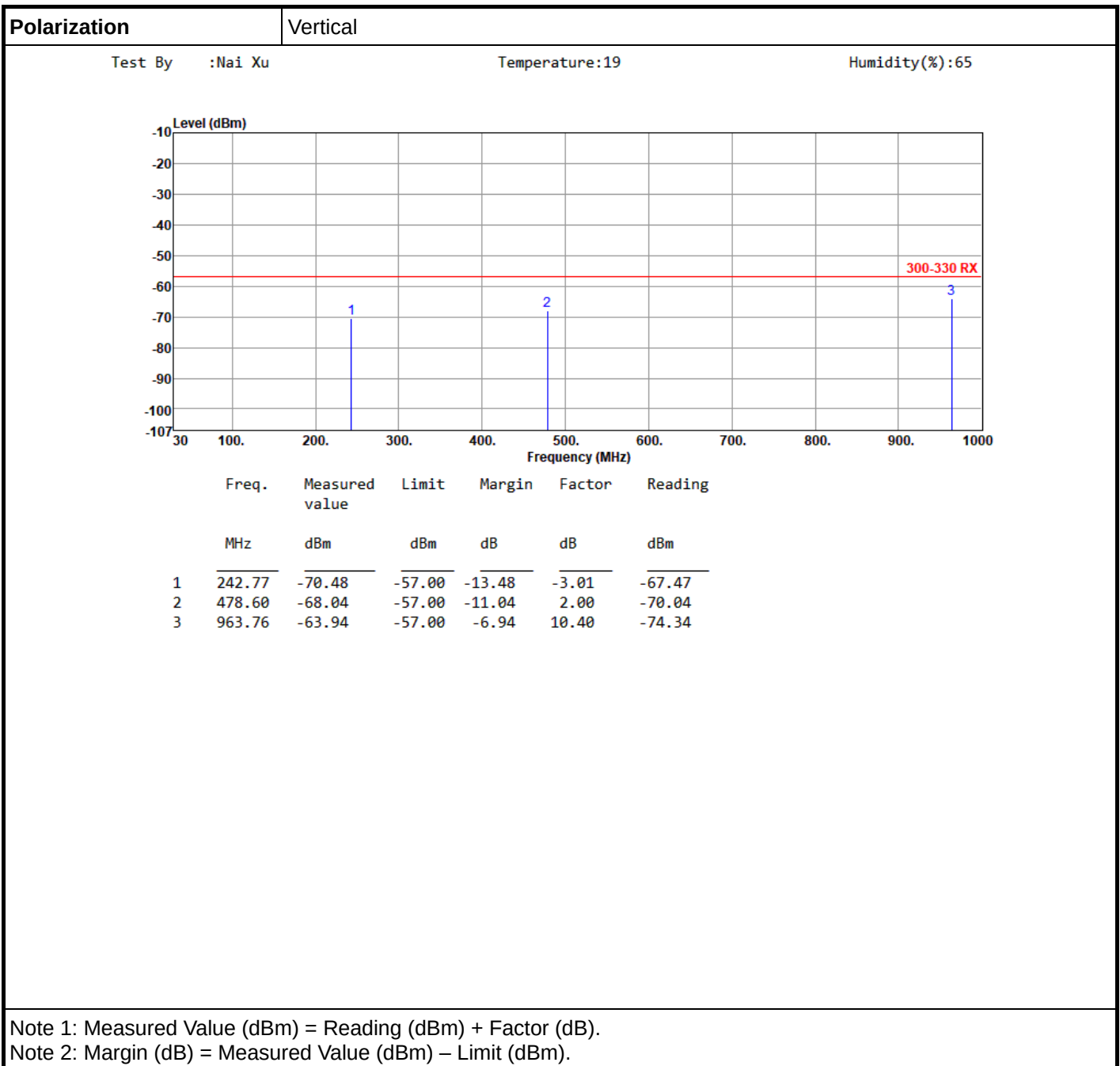
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm).



Configuration 4: mFlexPIFA antenna (External) + Laird NFC

Receiver Spurious Emissions (Above 30MHz)

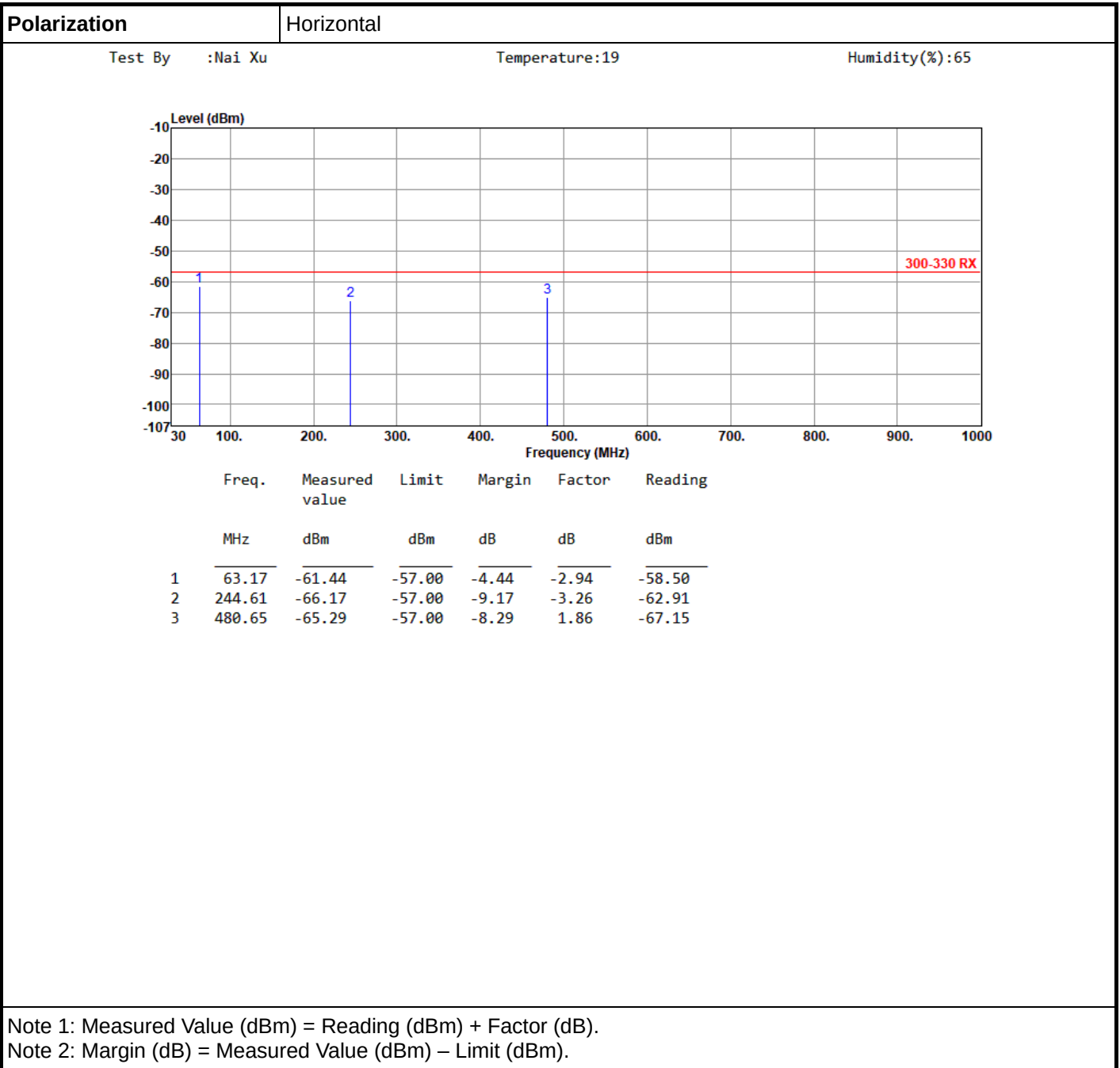


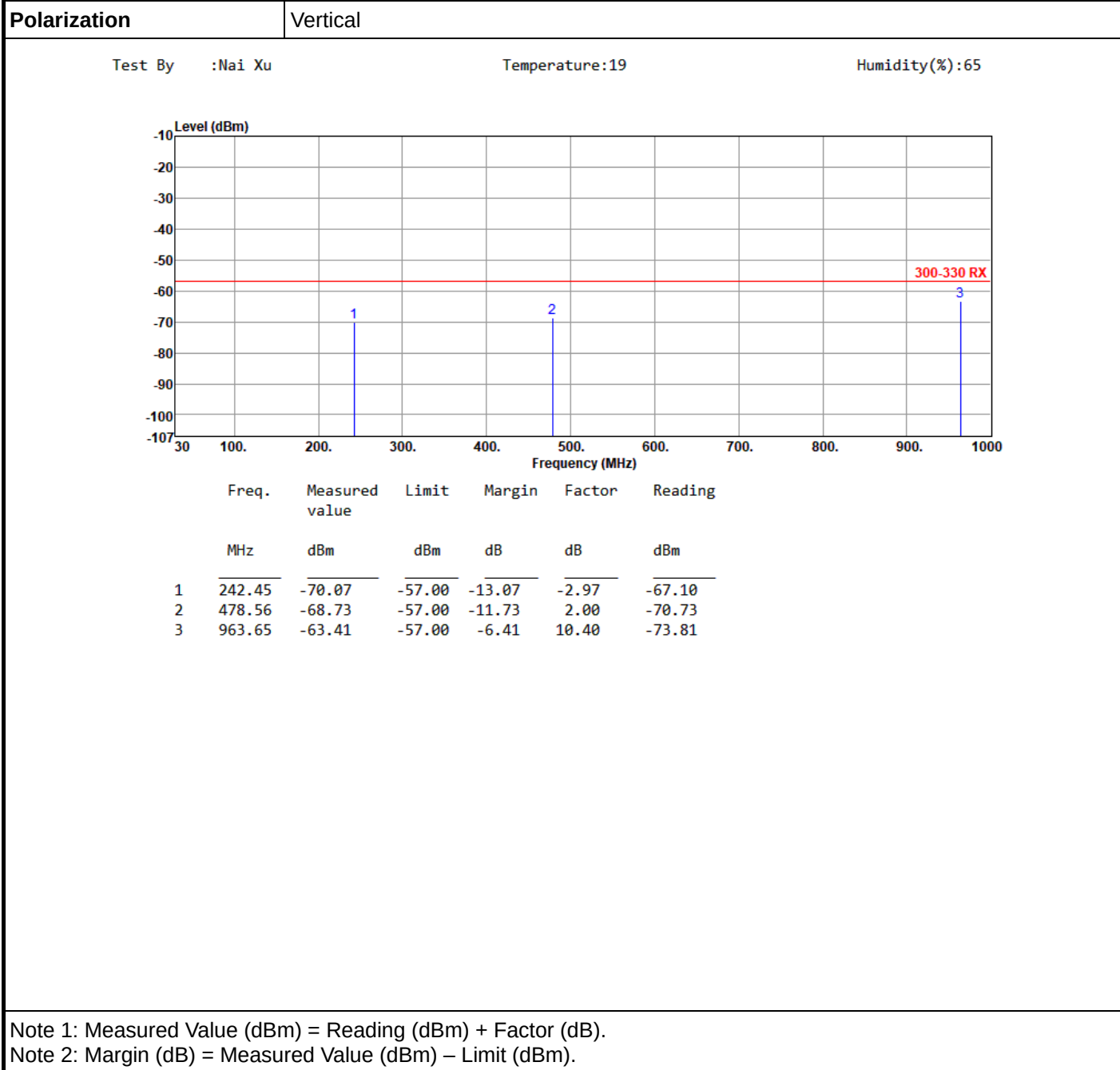


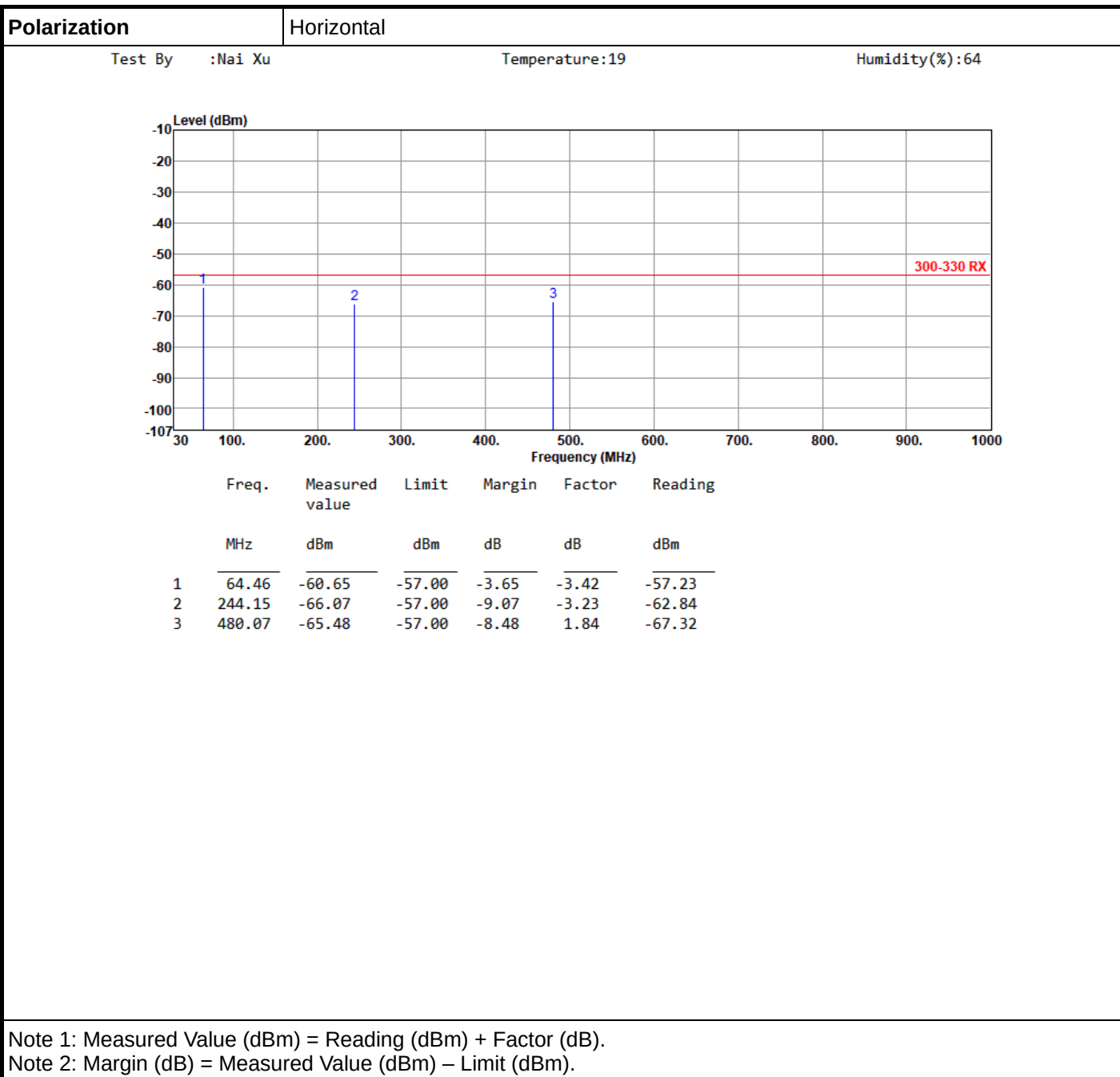


Configuration 5: NanoBlue antenna (External) + Laird NFC

Receiver Spurious Emissions (Above 30MHz)





**Configuration 6: BL5340 onboard printed PCB Trace antenna (Internal) + Laird NFC****Receiver Spurious Emissions (Above 30MHz)**



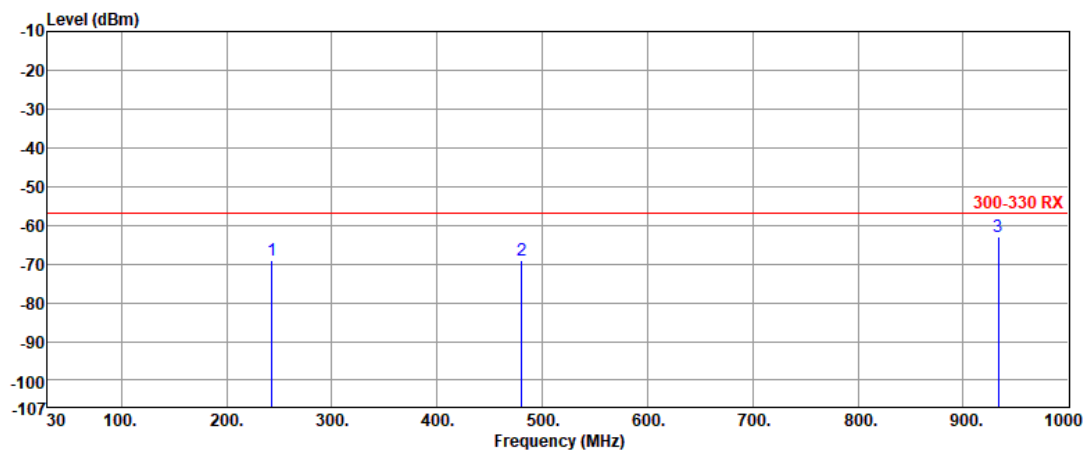
Polarization

Vertical

Test By :Nai Xu

Temperature:19

Humidity(%):64



|   | Freq.  | Measured value | Limit  | Margin | Factor | Reading |
|---|--------|----------------|--------|--------|--------|---------|
|   | MHz    | dBm            | dBm    | dB     | dB     | dBm     |
| 1 | 242.71 | -69.16         | -57.00 | -12.16 | -3.00  | -66.16  |
| 2 | 480.71 | -68.91         | -57.00 | -11.91 | 2.03   | -70.94  |
| 3 | 933.11 | -62.87         | -57.00 | -5.87  | 9.91   | -72.78  |

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB).

Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm).