



# FCC RADIO TEST REPORT

**FCC ID** : UZ7RM520NGL  
**Equipment** : 5G Sub-6 GHz M.2 Module  
**Brand Name** : ZEBRA  
**Model Name** : RM520N-GL  
**Applicant** : Zebra Technologies Corporation  
1 Zebra Plaza, Holtsville, NY 11742  
**Manufacturer** : Quectel Wireless Solutions Co., Ltd.  
Building 5, Shanghai Business Park Phase III (Area B), No.  
1016 Tianlin Road, Minhang District, Shanghai, China 200233  
**Standard** : FCC 47 CFR Part 2, 96

The product was received on Jan. 09, 2024 and testing was performed from Feb. 06, 2024 to Apr. 12, 2024. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

**Sporton International Inc. EMC & Wireless Communications Laboratory**  
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)



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## History of this test report

| Report No. | Version | Description                                                                                                | Issue Date    |
|------------|---------|------------------------------------------------------------------------------------------------------------|---------------|
| FG3D2501E  | 01      | Initial issue of report                                                                                    | Apr. 18, 2024 |
| FG3D2501E  | 02      | Revise Product Feature<br>This report is an updated version, replacing the report issued on Apr. 18, 2024. | Apr. 22, 2024 |
|            |         |                                                                                                            |               |
|            |         |                                                                                                            |               |
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|            |         |                                                                                                            |               |
|            |         |                                                                                                            |               |
|            |         |                                                                                                            |               |



## Summary of Test Result

| Report Clause | Ref Std. Clause   | Test Items                                      | Result (PASS/FAIL) | Remark                                  |
|---------------|-------------------|-------------------------------------------------|--------------------|-----------------------------------------|
| 3.2           | §2.1046           | Conducted Output Power                          | Reporting only     | -                                       |
| -             | §96.41            | Peak-to-Average Ratio                           | -                  | See Note                                |
| 3.3           | §96.41            | Effective Isotropic Radiated Power and EIRP PSD | Pass               | -                                       |
| -             | §2.1049<br>§96.41 | Occupied Bandwidth                              | -                  | See Note                                |
| -             | §2.1051<br>§96.41 | Conducted Band Edge Measurement                 | -                  | See Note                                |
| -             | §2.1051<br>§96.41 | Conducted Spurious Emission                     | -                  | See Note                                |
| -             | §2.1055           | Frequency Stability for Temperature & Voltage   | -                  | See Note                                |
| 4.4           | §2.1051<br>§96.41 | Radiated Spurious Emission                      | Pass               | 9.43 dB under the limit at 14725.00 MHz |

**Remark:**

1. For host device, Radiated Spurious Emission and Equivalent Isotropic Radiated Power are verified and complies with the limit in this test report.
2. For host device, the Conducted Output Power is no difference after compared to module (Model: RM520N-GL)
3. Testing was conducted on the EUT to compare its antenna gain, which was found to be higher than reported by the module in specific frequency bands. This testing encompassed evaluations of conducted power, ERP/EIRP, and RSE.

**Conformity Assessment Condition:**

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".

**Disclaimer:**

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

**Reviewed by: Wei Chen****Report Producer: Ming Chen**



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

| Product Feature                 |                                                                                                                |
|---------------------------------|----------------------------------------------------------------------------------------------------------------|
| Equipment                       | 5G Sub-6 GHz M.2 Module                                                                                        |
| Brand Name                      | ZEBRA                                                                                                          |
| Model Name                      | RM520N-GL                                                                                                      |
| FCC ID                          | UZ7RM520NGL                                                                                                    |
| Installed into host             | Equipment Name: Industrial Fixed RFID Reader<br>Brand Name: ZEBRA<br>Model Name: FXR9011<br>FCC ID: UZ7FXR9001 |
| Sample 1                        | FXR90110-400000-WR 4 port<br>(BT/WiFi/RFID/WWAN/GPS)                                                           |
| Sample 2                        | FXR90111-400000-WR 4+1 port<br>(BT/WiFi/RFID/WWAN/GPS)                                                         |
| Sample 3                        | FXR90110-800000-WR 8 port<br>(BT/WiFi/RFID/WWAN/GPS)                                                           |
| EUT supports Radios application | WCDMA/HSPA/LTE/5G NR/GNSS                                                                                      |
| HW Version                      | DV1                                                                                                            |
| SW Version                      | 0.4.18-90                                                                                                      |
| MFD                             | 26DEC23                                                                                                        |
| EUT Stage                       | Identical Prototype                                                                                            |

**Remark:** The above EUT's information was declared by manufacturer.

| Supported Unit Used in Test Configuration and System for Host |            |       |            |                    |
|---------------------------------------------------------------|------------|-------|------------|--------------------|
| Cable, 3-way USB Splitter                                     | Brand Name | ZEBRA | Model Name | ADP-USB0010-M12    |
| Cable, USB-C Host, 5ft.                                       | Brand Name | ZEBRA | Model Name | CBL-USBCHST015-M12 |
| Cable, USB-C Host, 15ft.                                      | Brand Name | ZEBRA | Model Name | CBL-USBCHST035-M12 |
| Cable, USB-C Client, 5ft.                                     | Brand Name | ZEBRA | Model Name | CBL-USBCCLT015-M12 |
| Cable, USB-C Client, 15ft.                                    | Brand Name | ZEBRA | Model Name | CBL-USBCCLT035-M12 |
| Cable, USB-A Client, 5ft.                                     | Brand Name | ZEBRA | Model Name | CBL-USBACLT015-M12 |
| Cable, USB-A Client, 15ft.                                    | Brand Name | ZEBRA | Model Name | CBL-USBACLT035-M12 |
| Cable, GPIO                                                   | Brand Name | ZEBRA | Model Name | CBL-GP0050-M12M12A |
| Cable, 12V (Cigarette Lighter)<br>Power Adapter, 3.5 meter    | Brand Name | ZEBRA | Model Name | CBL-PWRD035-M12CL  |
| Cable, DC Power Cord (Flying<br>Leads), 3.5m                  | Brand Name | ZEBRA | Model Name | CBL-PWRD035-M1200  |
| Cable, DC Power Cord (Flying<br>Leads), 10m                   | Brand Name | ZEBRA | Model Name | CBL-PWRD100-M1200  |
| Cable, Power Supply Output<br>Adapter, 3.5m                   | Brand Name | ZEBRA | Model Name | CBL-PWRD035-M12M12 |
| Cable, Power Supply Output<br>Adapter, 10m                    | Brand Name | ZEBRA | Model Name | CBL-PWRD100-M12M12 |

| Supported Unit Used in Test Configuration and System for Host        |            |       |            |                                      |
|----------------------------------------------------------------------|------------|-------|------------|--------------------------------------|
| Cable, DC-DC Power Supply Input                                      | Brand Name | ZEBRA | Model Name | CBL-PWRD150-M12M00                   |
| Cable, AC-DC Power Supply Input (Flying Leads)                       | Brand Name | ZEBRA | Model Name | CBL-PWRA150-M1200                    |
| Cable, AC-DC Power Supply Input (IEC plug)                           | Brand Name | ZEBRA | Model Name | CBL-PWRA035-M12IEC                   |
| CBL: RF, N STR PLUG TO RP-TNC STR PLUG ON LMR-240, 68", IP67 Sealed  | Brand Name | ZEBRA | Model Name | CBLRD-3B4000680R                     |
| CBL: RF, N STR PLUG TO RP-TNC STR PLUG ON LMR-240, 180", IP67 Sealed | Brand Name | ZEBRA | Model Name | CBLRD-3B4001800R                     |
| CBL: RF, N STR PLUG TO RP-TNC STR PLUG ON LMR-240, 240", IP67 Sealed | Brand Name | ZEBRA | Model Name | CBLRD-3B4002400R                     |
| CBL: RF, N STR PLUG TO RP-TNC STR PLUG ON LMR-240, 360", IP67 Sealed | Brand Name | ZEBRA | Model Name | CBLRD-3B4003600R                     |
| CBL: RF, N STR PLUG TO RP-TNC STR PLUG ON LMR-240, 68", IP67 Sealed  | Brand Name | ZEBRA | Model Name | CBLRD-1B4000680R                     |
| CBL: RF, N STR PLUG TO RP-TNC STR PLUG ON LMR-240, 180", IP67 Sealed | Brand Name | ZEBRA | Model Name | CBLRD-1B4001800R                     |
| CBL: RF, N STR PLUG TO RP-TNC STR PLUG ON LMR-240, 240", IP67 Sealed | Brand Name | ZEBRA | Model Name | CBLRD-1B4002400R                     |
| CBL: RF, N STR PLUG TO RP-TNC STR PLUG ON LMR-240, 360", IP67 Sealed | Brand Name | ZEBRA | Model Name | CBLRD-1B4003600R                     |
| CHIMERA ETHERNET CABLE 5M                                            | Brand Name | ZEBRA | Model Name | CBL-ENT00500-M1200                   |
| CHIMERA ETHERNET CABLE 15M                                           | Brand Name | ZEBRA | Model Name | CBL-ENT01500-M1200                   |
| Outdoor AC-DC PSU                                                    | Brand Name | ZEBRA | Model Name | PWR-BGA24V90W0WW (Spec PD-007875-01) |
| Forklift DC-DC PSU                                                   | Brand Name | ZEBRA | Model Name | PWR-BGA24V90W1WW (Spec PD-007876-01) |
| Indoor AC-DC PSU                                                     | Brand Name | ZEBRA | Model Name | PWR-BGA24V78W3WW (Spec PD-007877-01) |
| PoE adaptor                                                          | Brand Name | ZEBRA | Model Name | PD-9001GR/AT/AC                      |



| Supported Unit Used in Test Configuration and System for Host |            |          |            |                  |
|---------------------------------------------------------------|------------|----------|------------|------------------|
| External RFID Antenna                                         | Brand Name | ZEBRA    | Model Name | AN480            |
| External RFID Antenna                                         | Brand Name | ZEBRA    | Model Name | AN650            |
| External RFID Antenna                                         | Brand Name | ZEBRA    | Model Name | SR5502           |
| External RFID Antenna                                         | Brand Name | ZEBRA    | Model Name | AN510            |
| External RFID Antenna                                         | Brand Name | ZEBRA    | Model Name | AN520            |
| External RFID Antenna                                         | Brand Name | ZEBRA    | Model Name | AN610            |
| External RFID Antenna                                         | Brand Name | ZEBRA    | Model Name | AN620            |
| External RFID Antenna                                         | Brand Name | ZEBRA    | Model Name | AN720            |
| External RFID Antenna                                         | Brand Name | ZEBRA    | Model Name | AN440            |
| External RFID Antenna                                         | Brand Name | ZEBRA    | Model Name | SP5504           |
| BT/WLAN_External Antenna                                      | Brand Name | Amphenol | Model Name | ST0228-30-502-A  |
| BT/WLAN_External Antenna                                      | Brand Name | Amphenol | Model Name | ZB511A-02-001-C  |
| AN650 Antenna<br>cable(5ft/1524mm)                            | Brand Name | ZEBRA    | Model Name | CBLRD-1C4000600R |
| AN650 Antenna<br>cable(20ft/6096mm)                           | Brand Name | ZEBRA    | Model Name | CBLRD-1C4002400R |
| AN650 Antenna<br>cable(15ft/4572mm)                           | Brand Name | ZEBRA    | Model Name | CBLRD-1C4001800R |
| AN650 Antenna<br>cable(30ft/9144mm)                           | Brand Name | ZEBRA    | Model Name | CBLRD-1C4003600R |
| AN650 Antenna<br>cable(10ft/3048mm)                           | Brand Name | ZEBRA    | Model Name | CBLRD-1C4001200R |
| WWAN_External Antenna                                         | Brand Name | Quectel  | Model Name | YB0007BA         |

| Support band and evaluated information |      |
|----------------------------------------|------|
| Supported band                         | n48, |
| Evaluated and Tested band              | n48, |

| TDD band Power Class |     |     |  |  |
|----------------------|-----|-----|--|--|
|                      | PC3 | PC2 |  |  |
| N48                  | V   |     |  |  |



## 1.2 Product Specification of Equipment Under Test

| Product Specification is subject to this standard |                               |
|---------------------------------------------------|-------------------------------|
| <b>Tx Frequency</b>                               | 3552 MHz ~ 3694.98 MHz        |
| <b>Rx Frequency</b>                               | 3552 MHz ~ 3694.98 MHz        |
| <b>Bandwidth</b>                                  | 10 MHz / 20 MHz / 40 MHz      |
| <b>Maximum Output Power to Antenna</b>            | 17.63 dBm                     |
| <b>Antenna Type for Host</b>                      | Omni-directional Antenna      |
| <b>Antenna Gain for Host</b>                      | <Ant. 2>: 2.00 dBi            |
| <b>Type of Modulation</b>                         | QPSK / 16QAM / 64QAM / 256QAM |

**Remark:** The above EUT's information was declared by manufacturer. Please refer to Disclaimer in report summary.

## 1.3 Modification of EUT

No modifications are made to the EUT during all test items.





## 1.4 Testing Location

|                       |                                                                                                                           |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------|
| Test Site             | Sporton International Inc. EMC & Wireless Communications Laboratory                                                       |
| Test Site Location    | No.52, Huaya 1st Rd., Guishan Dist.,<br>Taoyuan City 333, Taiwan (R.O.C.)<br>TEL: +886-3-327-3456<br>FAX: +886-3-328-4978 |
| Test Site No.         | <b>Sporton Site No.</b><br>TH03-HY                                                                                        |
| Test Engineer         | Hank Chen                                                                                                                 |
| Temperature (°C)      | 22.2~28.7                                                                                                                 |
| Relative Humidity (%) | 49.3~57.6                                                                                                                 |

|                       |                                                                                                                                                  |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Site             | Sporton International Inc. Wensan Laboratory.                                                                                                    |
| Test Site Location    | No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist.,<br>Taoyuan City 333010, Taiwan (R.O.C.)<br>TEL: +886-3-327-0868<br>FAX: +886-3-327-0855 |
| Test Site No.         | <b>Sporton Site No.</b><br>03CH21-HY (TAF Code: 3786)                                                                                            |
| Test Engineer         | Jack Cheng, Ray Lung and Sky Chang                                                                                                               |
| Temperature (°C)      | 18~26                                                                                                                                            |
| Relative Humidity (%) | 50~70                                                                                                                                            |
| Remark                | The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory.                                          |

**Note:** The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW1190 and TW3786

## 1.5 Applied Standards

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

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ FCC 47 CFR Part 2, 96
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 940660 D01 Part 96 CBRS Eqpt v03
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

### Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
3. The TAF code is not including all the FCC KDB listed without accreditation.

## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in two config (Ant. Degree 0 and Ant. Degree 90), and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and only the worst case emissions were reported in this report.

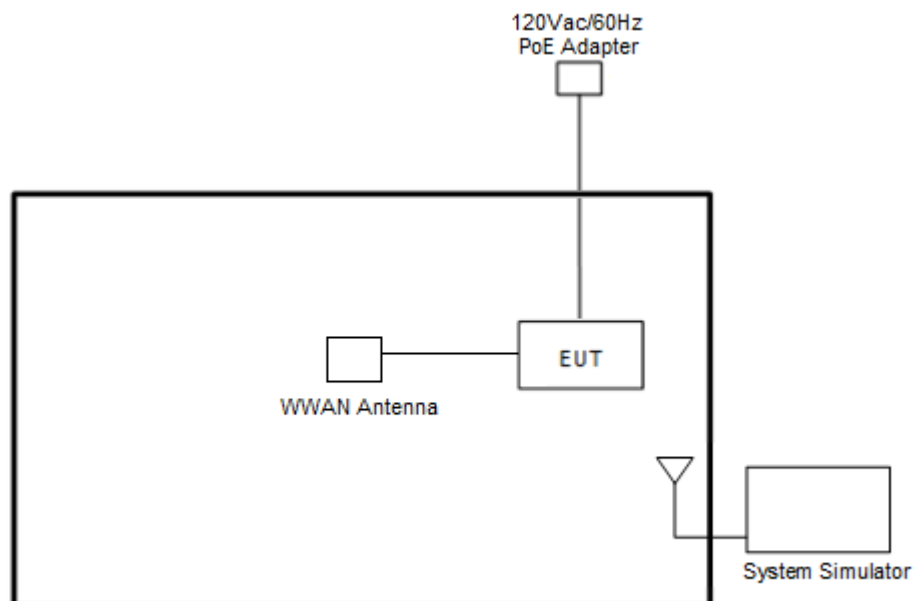
| Modulation Type | Modulation           | Modulation Type | Modulation     |
|-----------------|----------------------|-----------------|----------------|
| A               | DFT-s-OFDM pi/2 BPSK | N/A             | N/A            |
| B               | DFT-s-OFDM QPSK      | F               | CP-OFDM QPSK   |
| C               | DFT-s-OFDM 16QAM     | G               | CP-OFDM 16QAM  |
| D               | DFT-s-OFDM 64QAM     | H               | CP-OFDM 64QAM  |
| E               | DFT-s-OFDM 256QAM    | I               | CP-OFDM 256QAM |

| Test Item       | Modulation Type | Bandwidth | RB Size       | Channel |
|-----------------|-----------------|-----------|---------------|---------|
| Conducted Power | A, B, C, D, E   | All       | 1, Half, Full | L, M, H |
| EIRP            | A, B, C, D, E   | All       | 1, Half, Full | L, M, H |
| RSE             | A               | 20MHz     | Inner 1RB     | L, M, H |

**Remark:**

1. Evaluated all the transmitter signal and reporting worst-case configuration among all modulation types.
2. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst-case emissions are reported.
3. Output Conducted Power was spot checks Original models worse case Modulation

## 2.2 Connection Diagram of Test System



## 2.3 Support Unit used in test configuration

| Item | Equipment                 | Brand Name | Model No. | FCC ID | Data Cable | Power Cord        |
|------|---------------------------|------------|-----------|--------|------------|-------------------|
| 1.   | 5G Wireless Test Platform | Anritsu    | MT8000A   | N/A    | N/A        | Unshielded, 1.8 m |

## 2.4 Frequency List of Low/Middle/High Channels

| NR Band n48 Channel and Frequency List |                        |         |         |         |
|----------------------------------------|------------------------|---------|---------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest  | Middle  | Highest |
| 40                                     | Channel                | 638000  | 641666  | 645332  |
|                                        | Frequency              | 3570.0  | 3624.99 | 3679.98 |
| 30                                     | Channel                | 637668  | 641666  | 645666  |
|                                        | Frequency              | 3565.02 | 3624.99 | 3684.99 |
| 20                                     | Channel                | 637334  | 641666  | 646000  |
|                                        | Frequency              | 3560.01 | 3624.99 | 3690.0  |
| 10                                     | Channel                | 637000  | 641666  | 646332  |
|                                        | Frequency              | 3555.0  | 3624.99 | 3694.98 |

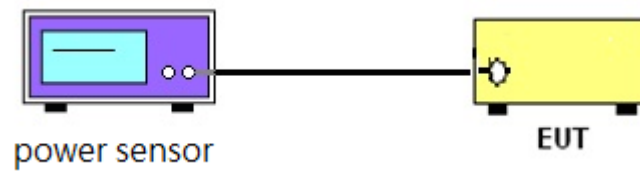
### 3 Conducted Test Items

#### 3.1 Measuring Instruments

See list of measuring instruments of this test report.

##### 3.1.1 Test Setup

##### 3.1.2 Conducted Output Power



##### 3.1.3 Test Result of Conducted Test

Please refer to Appendix A.



## **3.2 Conducted Output Power**

### **3.2.1 Description of the Conducted Output Power Measurement**

A power sensor was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

### **3.2.2 Test Procedures**

1. The transmitter output port was connected to the power sensor.
  2. Set EUT at maximum power.
  3. Select lowest, middle, and highest channels for each band and different modulation.
  4. Measure and record the power level from the power sensor
  5. The measure-and-sum technique is used for measuring in-band transmit power of a device.
- Total power is the sum of the conducted power levels measured at the various output ports.

### 3.3 EIRP

#### 3.3.1 Description of the EIRP Measurement

The EIRP of category A CBSD must not exceed 30 dBm / 10 megahertz.

The EIRP PSD of category A CBSD must not exceed 20 dBm / 1 megahertz.

The testing follows ANSI C63.26-2015 Section 5.2.5.5

According to KDB 412172 D01 Power Approach,

$EIRP = PT + GT - LC$ , where

PT = transmitter output power in dBm

GT = gain of the transmitting antenna in dBi

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB

| Device          | Maximum EIRP<br>(dBm/10 MHz) | Maximum PSD<br>(dBm/MHz) |
|-----------------|------------------------------|--------------------------|
| Category A CBSD | 30                           | 20                       |

#### 3.3.2 Test Procedures

1. The testing follows procedure in Section 5.2 of ANSI C63.26-2015 and KDB 940660 D01 Part 96 CBRS Eqpt v03 Section 3.2(b)(2) and 3.2(b)(3)
2. Determine the EIRP by adding the effective antenna gain to the measured average conducted power level.
3. For MIMO measurement, the KDB 662911 E)2)c) is used as following:  
Measure and add  $10 \log(NANT)$  dB, where NANT is the number of outputs. With this technique, spectrum measurements are performed at each output of the device, but rather than summing the spectra or the spectral peaks across the outputs, the quantity  $10 \log(NANT)$  dB is added to each spectrum value before comparing to the emission limit.

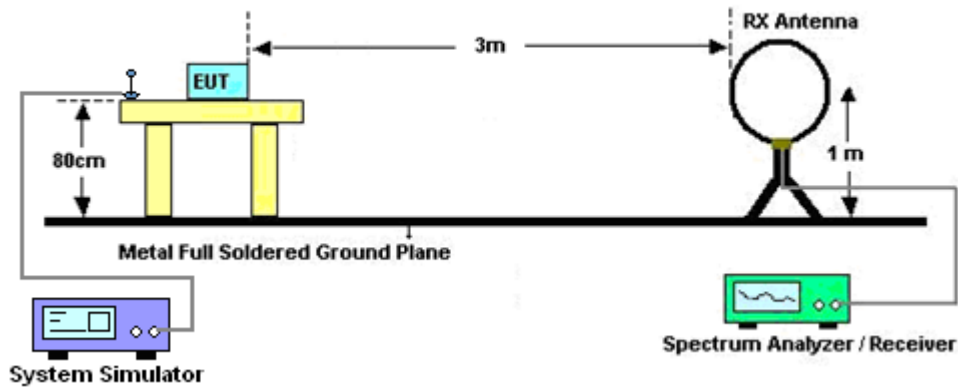
## 4 Radiated Test Items

### 4.1 Measuring Instruments

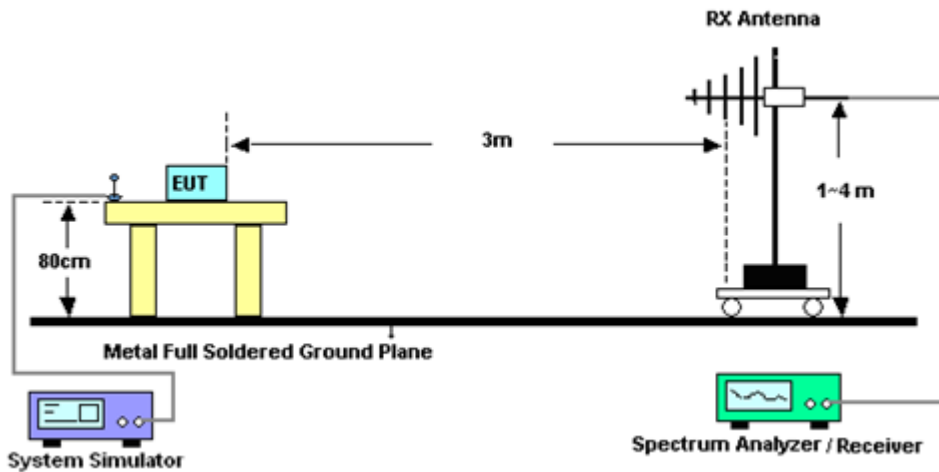
See list of measuring instruments of this test report.

### 4.2 Test Setup

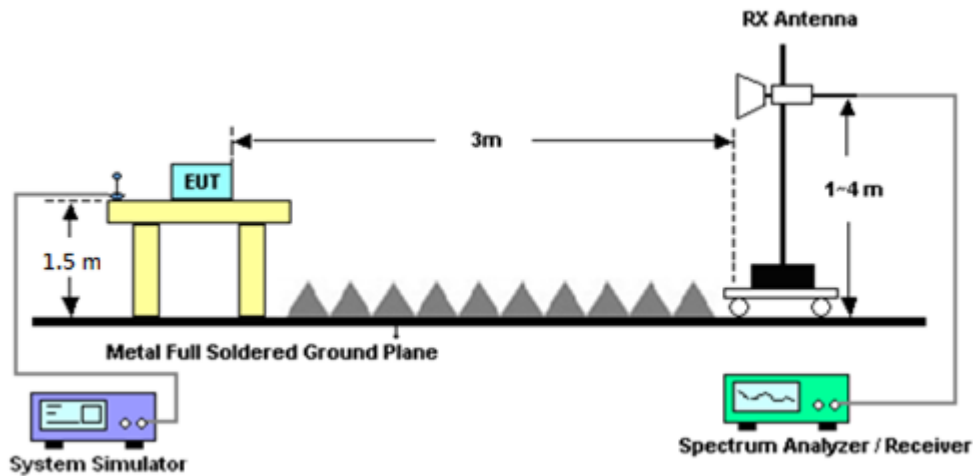
For radiated emissions below 30MHz



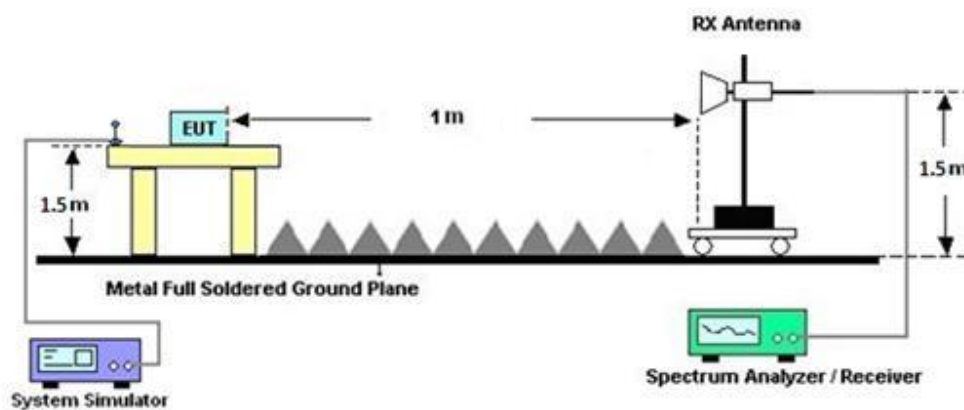
For radiated emissions from 30MHz to 1GHz



For radiated emissions from 1GHz to 18GHz



For radiated emissions above 18GHz



## 4.3 Test Result of Radiated Test

Please refer to Appendix B.

### Note:

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.





## **4.4 Radiated Spurious Emission**

### **4.4.1 Description of Radiated Spurious Emission Measurement**

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E.

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least -40dBm / MHz .

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

### **4.4.2 Test Procedures**

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI C63.26-2015 section 5.5.4

Radiated measurement using the field strength method

1. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
5. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
6. To convert spectrum reading E(dBuV/m) to EIRP(dBm)  
$$\text{EIRP(dBm)} = \text{Level (dBuV/m)} + 20\log(d) - 104.77$$
, where d is the distance at which field strength limit is specified in the rules.
7. 
$$\text{Field Strength Level (dBm)} = \text{Spectrum Reading (dBm)} + \text{Antenna Factor} + \text{Cable Loss} + \text{Read Level} - \text{Preamp Factor}.$$
8. 
$$\text{ERP (dBm)} = \text{EIRP (dBm)} - 2.15$$
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.



## 5 List of Measuring Equipment

| Instrument                             | Brand Name         | Model No.                  | Serial No.                     | Characteristics                            | Calibration Date | Test Date                       | Due Date      | Remark                   |
|----------------------------------------|--------------------|----------------------------|--------------------------------|--------------------------------------------|------------------|---------------------------------|---------------|--------------------------|
| Hygrometer                             | Testo              | 608-H1                     | 34852481                       | NA                                         | Sep. 14, 2023    | Feb. 06, 2024~<br>Apr. 12, 2024 | Sep. 13, 2024 | Conducted<br>(TH03-HY)   |
| Base Station<br>(Measure)              | Anritsu            | MT8821C                    | 6262116725                     | LTE FDD/TDD<br>LTE-3CC<br>DLCA/2CC<br>ULCA | Oct. 25, 2023    | Feb. 06, 2024~<br>Apr. 12, 2024 | Oct. 24, 2024 | Conducted<br>(TH03-HY)   |
| Radio<br>Communication<br>Test Station | Anritsu            | MT8000A                    | 6272337370                     | N/A                                        | Nov. 14, 2023    | Feb. 06, 2024~<br>Apr. 12, 2024 | Nov. 14, 2024 | Conducted<br>(TH03-HY)   |
| LOOP Antenna                           | Rohde &<br>Schwarz | HFH2-Z2                    | 100488                         | 9 kHz~30 MHz                               | Sep. 12, 2023    | Feb. 08, 2024~<br>Mar. 14, 2024 | Sep. 11, 2024 | Radiation<br>(03CH21-HY) |
| Bilog Antenna                          | TESEQ &<br>WOKEN   | CBL 6111D &<br>00802N1D-06 | 63303 & 001                    | 30MHz~1GHz                                 | Oct. 15, 2023    | Feb. 08, 2024~<br>Mar. 14, 2024 | Oct. 14, 2024 | Radiation<br>(03CH21-HY) |
| Double Ridged<br>Guide Horn<br>Antenna | RFSPIN             | DRH18-E                    | LE2C03A18EN                    | 1GHz~18GHz                                 | Jul. 12, 2023    | Feb. 08, 2024~<br>Mar. 14, 2024 | Jul. 11, 2024 | Radiation<br>(03CH21-HY) |
| SHF-EHF Horn<br>Antenna                | SCHWARZBE<br>CK    | BBHA 9170                  | 1223                           | 18GHz~40GHz                                | Jul. 10, 2023    | Feb. 08, 2024~<br>Mar. 14, 2024 | Jul. 09, 2024 | Radiation<br>(03CH21-HY) |
| Amplifier                              | SONOMA             | 310N                       | 421580                         | 30MHz~1GHz                                 | Jul. 15, 2023    | Feb. 08, 2024~<br>Mar. 14, 2024 | Jul. 14, 2024 | Radiation<br>(03CH21-HY) |
| Amplifier                              | EMEC               | EM01G18GA                  | 060876                         | 1GHz~18GHz                                 | Sep. 28, 2023    | Feb. 08, 2024~<br>Mar. 14, 2024 | Sep. 27, 2024 | Radiation<br>(03CH21-HY) |
| Preamplifier                           | EMEC               | EM18G40G                   | 060871                         | 18GHz~40GHz                                | Aug. 30, 2023    | Feb. 08, 2024~<br>Mar. 14, 2024 | Aug. 29, 2024 | Radiation<br>(03CH21-HY) |
| Spectrum<br>Analyzer                   | Keysight           | N9010B                     | MY62170358                     | 10Hz~44GHz                                 | Aug. 28, 2023    | Feb. 08, 2024~<br>Mar. 14, 2024 | Aug. 27, 2024 | Radiation<br>(03CH21-HY) |
| RF Cable                               | HUBER +<br>SUHNER  | SUCOFLEX 102               | 803951/2                       | 9K~30M                                     | Mar. 07, 2023    | Feb. 08, 2024~<br>Mar. 14, 2024 | Mar. 06, 2024 | Radiation<br>(03CH21-HY) |
| RF Cable                               | HUBER +<br>SUHNER  | SUCOFLEX 102               | 803951/2                       | 9K~30M                                     | Mar. 06, 2024    | Feb. 08, 2024~<br>Mar. 14, 2024 | Mar. 05, 2025 | Radiation<br>(03CH21-HY) |
| RF Cable                               | HUBER +<br>SUHNER  | SUCOFLEX 102               | 804397/2,8046<br>12/2,804614/2 | 30MHz~40GHz                                | Oct. 24, 2023    | Feb. 08, 2024~<br>Mar. 14, 2024 | Oct. 23, 2024 | Radiation<br>(03CH21-HY) |
| Hygrometer                             | TECPEL             | DTM-303A                   | TP211568                       | N/A                                        | Oct. 30, 2023    | Feb. 08, 2024~<br>Mar. 14, 2024 | Oct. 29, 2024 | Radiation<br>(03CH21-HY) |
| Controller                             | EMEC               | EM 1000                    | N/A                            | Control Turn<br>table & Ant Mast           | N/A              | Feb. 08, 2024~<br>Mar. 14, 2024 | N/A           | Radiation<br>(03CH21-HY) |
| Antenna Mast                           | EMEC               | AM-BS-4500-B               | N/A                            | 1~4m                                       | N/A              | Feb. 08, 2024~<br>Mar. 14, 2024 | N/A           | Radiation<br>(03CH21-HY) |
| Turn Table                             | EMEC               | TT 2000                    | N/A                            | 0~360 Degree                               | N/A              | Feb. 08, 2024~<br>Mar. 14, 2024 | N/A           | Radiation<br>(03CH21-HY) |
| Software                               | Audix              | E3 6.2009-8-24             | RK-001053                      | N/A                                        | N/A              | Feb. 08, 2024~<br>Mar. 14, 2024 | N/A           | Radiation<br>(03CH21-HY) |

## 6 Measurement Uncertainty

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

|                                                                             |         |
|-----------------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of<br>Confidence of 95% ( $U = 2U_c(y)$ ) | 3.04 dB |
|-----------------------------------------------------------------------------|---------|

### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

|                                                                             |         |
|-----------------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of<br>Confidence of 95% ( $U = 2U_c(y)$ ) | 3.33 dB |
|-----------------------------------------------------------------------------|---------|

### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

|                                                                             |         |
|-----------------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of<br>Confidence of 95% ( $U = 2U_c(y)$ ) | 3.68 dB |
|-----------------------------------------------------------------------------|---------|



## Appendix A. Test Results of Conducted Test

### Conducted Output Power(Average power) and ERP/EIRP

| NR n48 Maximum Average Power [dBm] (GT - LC = 2 dB) |                    |           |           |        |        |         |            |         |  |  |
|-----------------------------------------------------|--------------------|-----------|-----------|--------|--------|---------|------------|---------|--|--|
| BW [MHz]                                            | RB Size            | RB Offset | Mod       | Lowest | Middle | Highest | EIRP (dBm) | EIRP(W) |  |  |
| 10                                                  | 1                  | 1         | PI/2 BPSK | 17.38  | 17.28  | 17.19   | 19.41      | 0.0873  |  |  |
| 10                                                  | 1                  | 22        |           | 17.26  | 17.24  | 17.21   |            |         |  |  |
| 10                                                  | 12                 | 6         |           | 17.36  | 17.32  | 17.28   |            |         |  |  |
| 10                                                  | 1                  | 0         |           | 16.84  | 16.75  | 16.77   |            |         |  |  |
| 10                                                  | 1                  | 23        |           | 16.71  | 16.71  | 16.68   |            |         |  |  |
| 10                                                  | 24                 | 0         |           | 16.91  | 16.80  | 16.81   |            |         |  |  |
| 10                                                  | 1                  | 1         | QPSK      | 17.36  | 17.31  | 17.26   |            |         |  |  |
| 10                                                  | 1                  | 22        |           | 17.29  | 17.25  | 17.23   |            |         |  |  |
| 10                                                  | 12                 | 6         |           | 17.41  | 17.32  | 17.28   |            |         |  |  |
| 10                                                  | 1                  | 0         |           | 16.38  | 16.26  | 16.28   |            |         |  |  |
| 10                                                  | 1                  | 23        |           | 16.21  | 16.20  | 16.24   |            |         |  |  |
| 10                                                  | 24                 | 0         |           | 16.37  | 16.31  | 16.30   |            |         |  |  |
| 10                                                  | 1                  | 1         | 16-QAM    | 16.50  | 16.37  | 16.44   | 18.5       | 0.0708  |  |  |
| 10                                                  | 1                  | 1         | 64-QAM    | 14.84  | 14.74  | 14.75   |            |         |  |  |
| 10                                                  | 1                  | 1         | 256-QAM   | 12.80  | 12.68  | 12.68   |            |         |  |  |
| Limit                                               | EIRP < 23dBm/10MHz |           |           | Result |        |         | Pass       |         |  |  |

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



| NR n48 Maximum Average Power [dBm] (GT - LC = 2 dB) |                    |           |           |        |        |         |            |         |  |  |
|-----------------------------------------------------|--------------------|-----------|-----------|--------|--------|---------|------------|---------|--|--|
| BW [MHz]                                            | RB Size            | RB Offset | Mod       | Lowest | Middle | Highest | EIRP (dBm) | EIRP(W) |  |  |
| 20                                                  | 1                  | 1         | PI/2 BPSK | 17.59  | 17.38  | 17.34   | 19.6       | 0.0912  |  |  |
| 20                                                  | 1                  | 49        |           | 17.43  | 17.42  | 17.30   |            |         |  |  |
| 20                                                  | 25                 | 12        |           | 17.54  | 17.47  | 17.41   |            |         |  |  |
| 20                                                  | 1                  | 0         |           | 17.05  | 16.98  | 16.84   |            |         |  |  |
| 20                                                  | 1                  | 50        |           | 16.92  | 16.83  | 16.83   |            |         |  |  |
| 20                                                  | 50                 | 0         |           | 17.04  | 16.94  | 16.91   |            |         |  |  |
| 20                                                  | 1                  | 1         | QPSK      | 17.60  | 17.42  | 17.25   |            |         |  |  |
| 20                                                  | 1                  | 49        |           | 17.46  | 17.40  | 17.25   |            |         |  |  |
| 20                                                  | 25                 | 12        |           | 17.51  | 17.46  | 17.41   |            |         |  |  |
| 20                                                  | 1                  | 0         |           | 16.55  | 16.47  | 16.32   |            |         |  |  |
| 20                                                  | 1                  | 50        |           | 16.43  | 16.35  | 16.33   |            |         |  |  |
| 20                                                  | 50                 | 0         |           | 16.54  | 16.43  | 16.38   |            |         |  |  |
| 20                                                  | 1                  | 1         | 16-QAM    | 16.69  | 16.51  | 16.46   | 18.69      | 0.074   |  |  |
| 20                                                  | 1                  | 1         | 64-QAM    | 15.04  | 14.85  | 14.90   |            |         |  |  |
| 20                                                  | 1                  | 1         | 256-QAM   | 13.04  | 12.91  | 12.77   |            |         |  |  |
| Limit                                               | EIRP < 23dBm/10MHz |           |           | Result |        |         | Pass       |         |  |  |

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

| NR n48 Maximum Average Power [dBm] (GT - LC = 2 dB) |                    |           |           |        |        |         |            |         |  |  |
|-----------------------------------------------------|--------------------|-----------|-----------|--------|--------|---------|------------|---------|--|--|
| BW [MHz]                                            | RB Size            | RB Offset | Mod       | Lowest | Middle | Highest | EIRP (dBm) | EIRP(W) |  |  |
| 30                                                  | 1                  | 1         | PI/2 BPSK | 17.62  | 17.62  | 17.46   | 19.63      | 0.0918  |  |  |
| 30                                                  | 1                  | 76        |           | 17.32  | 17.42  | 17.39   |            |         |  |  |
| 30                                                  | 36                 | 18        |           | 17.48  | 17.52  | 17.51   |            |         |  |  |
| 30                                                  | 1                  | 0         |           | 17.12  | 17.09  | 16.93   |            |         |  |  |
| 30                                                  | 1                  | 77        |           | 16.83  | 16.95  | 16.90   |            |         |  |  |
| 30                                                  | 75                 | 0         |           | 16.97  | 17.00  | 17.07   |            |         |  |  |
| 30                                                  | 1                  | 1         | QPSK      | 17.61  | 17.63  | 17.58   |            |         |  |  |
| 30                                                  | 1                  | 76        |           | 17.30  | 17.45  | 17.37   |            |         |  |  |
| 30                                                  | 36                 | 18        |           | 17.49  | 17.53  | 17.57   |            |         |  |  |
| 30                                                  | 1                  | 0         |           | 16.60  | 16.60  | 16.50   |            |         |  |  |
| 30                                                  | 1                  | 77        |           | 16.27  | 16.44  | 16.39   |            |         |  |  |
| 30                                                  | 75                 | 0         |           | 16.48  | 16.50  | 16.51   |            |         |  |  |
| 30                                                  | 1                  | 1         | 16-QAM    | 16.60  | 16.57  | 16.41   | 18.6       | 0.0724  |  |  |
| 30                                                  | 1                  | 1         | 64-QAM    | 14.93  | 14.97  | 14.82   |            |         |  |  |
| 30                                                  | 1                  | 1         | 256-QAM   | 13.08  | 13.02  | 12.89   |            |         |  |  |
| Limit                                               | EIRP < 23dBm/10MHz |           |           | Result |        |         | Pass       |         |  |  |

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



| NR n48 Maximum Average Power [dBm] (GT - LC = 2 dB) |                    |           |           |        |        |         |            |         |  |  |
|-----------------------------------------------------|--------------------|-----------|-----------|--------|--------|---------|------------|---------|--|--|
| BW [MHz]                                            | RB Size            | RB Offset | Mod       | Lowest | Middle | Highest | EIRP (dBm) | EIRP(W) |  |  |
| 40                                                  | 1                  | 1         | PI/2 BPSK | 17.59  | 17.58  | 17.43   | 19.59      | 0.091   |  |  |
| 40                                                  | 1                  | 104       |           | 17.35  | 17.45  | 17.40   |            |         |  |  |
| 40                                                  | 50                 | 25        |           | 17.52  | 17.51  | 17.55   |            |         |  |  |
| 40                                                  | 1                  | 0         |           | 17.06  | 17.06  | 16.93   |            |         |  |  |
| 40                                                  | 1                  | 105       |           | 16.85  | 16.96  | 16.95   |            |         |  |  |
| 40                                                  | 100                | 0         |           | 16.92  | 16.99  | 17.02   |            |         |  |  |
| 40                                                  | 1                  | 1         | QPSK      | 17.56  | 17.59  | 17.45   |            |         |  |  |
| 40                                                  | 1                  | 104       |           | 17.37  | 17.45  | 17.44   |            |         |  |  |
| 40                                                  | 50                 | 25        |           | 17.48  | 17.50  | 17.51   |            |         |  |  |
| 40                                                  | 1                  | 0         |           | 16.56  | 16.59  | 16.41   |            |         |  |  |
| 40                                                  | 1                  | 105       |           | 16.37  | 16.45  | 16.42   |            |         |  |  |
| 40                                                  | 100                | 0         |           | 16.50  | 16.48  | 16.52   |            |         |  |  |
| 40                                                  | 1                  | 1         | 16-QAM    | 16.71  | 16.69  | 16.52   | 18.71      | 0.0743  |  |  |
| 40                                                  | 1                  | 1         | 64-QAM    | 15.06  | 15.07  | 14.90   |            |         |  |  |
| 40                                                  | 1                  | 1         | 256-QAM   | 13.08  | 13.01  | 12.82   |            |         |  |  |
| Limit                                               | EIRP < 23dBm/10MHz |           |           | Result |        |         | Pass       |         |  |  |

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



## Appendix B. Test Results of Radiated Test

| Mode | Part    | Band      | Ch | Freq (MHz) | Level (dBm) | Det | Ant Factor (dB) | AmplCbl (dB) | Filter (dB) | EIRPCF (dB) | Reading (dBuV) | Limit (dBm) | Margin (dB) | Pol | Ant |
|------|---------|-----------|----|------------|-------------|-----|-----------------|--------------|-------------|-------------|----------------|-------------|-------------|-----|-----|
| 2    | Part 96 | NR SA n48 | H  | 14725      | -49.43      | RMS | 41.65           | -23.00       | 0.42        | -95.23      | 26.73          | -40.00      | -9.43       | H   | Tx2 |

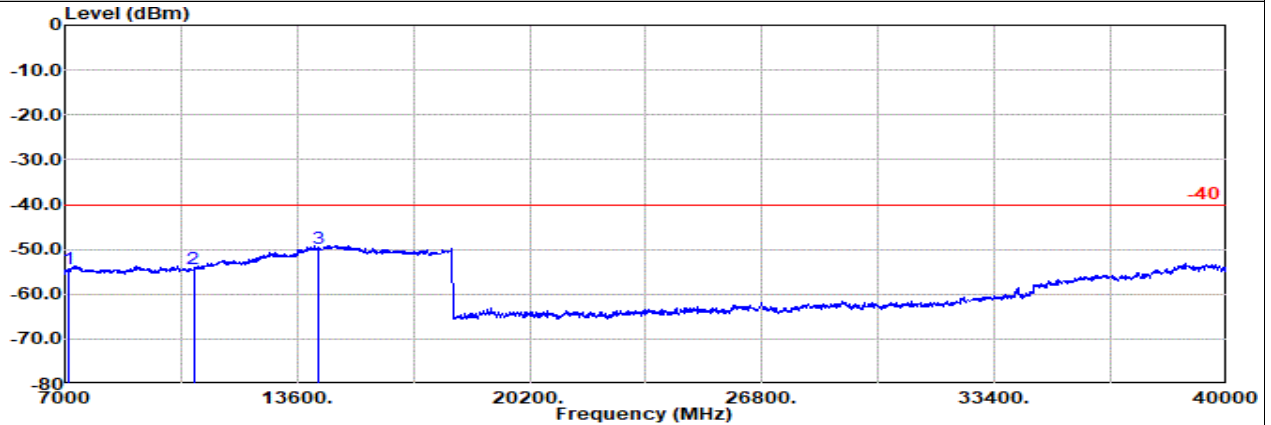


Tx2

## Part 96 Mode 2

NR SA n48 20M Ch637334 1RB1 BPSK

L

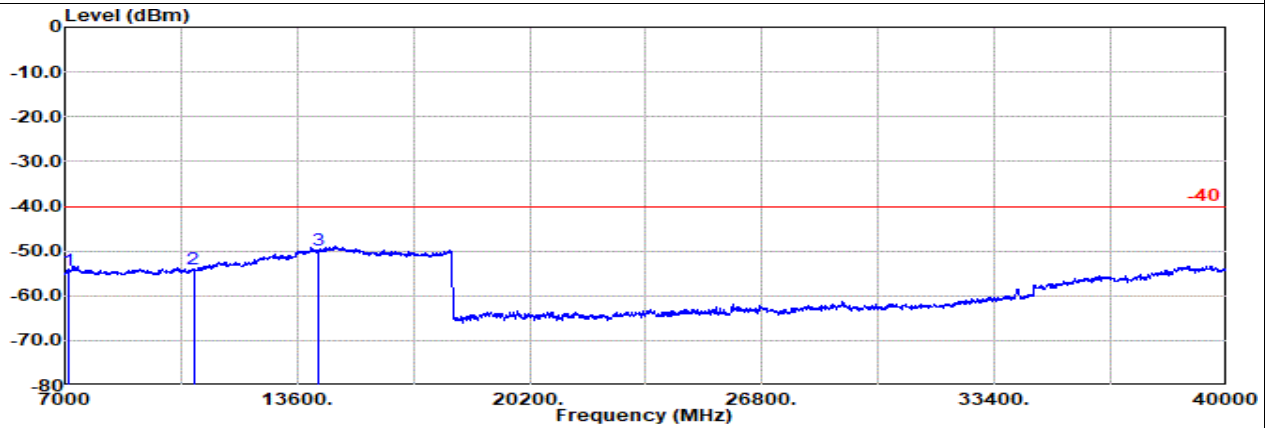


Site : 03CH21-HY

Condition: -40 3m DRH18-E\_LE2C03A18EN\_230712 Horizontal

: SA n48 20M Ch637334 1RB1 BPSK

|   | Freq     | Level  | Detector | Ant Factor | Amp\Cb |      | Filter 1 | EIRPCF | Reading | Limit  | Margin     |    | Pol |
|---|----------|--------|----------|------------|--------|------|----------|--------|---------|--------|------------|----|-----|
|   |          |        |          |            | dB/m   | dB   |          |        | dB      | dBuV   | dBm        | dB |     |
| 1 | 7103.00  | -54.39 | RMS      | 36.41      | -21.43 | 1.19 | -95.23   | 24.67  | -40.00  | -14.39 | Horizontal |    |     |
| 2 | 10654.00 | -54.28 | RMS      | 37.50      | -21.68 | 0.44 | -95.23   | 24.69  | -40.00  | -14.28 | Horizontal |    |     |
| 3 | 14205.00 | -49.77 | RMS      | 41.00      | -22.35 | 0.41 | -95.23   | 26.40  | -40.00  | -9.77  | Horizontal |    |     |



Site : 03CH21-HY

Condition: -40 3m DRH18-E\_LE2C03A18EN\_230712 Vertical

: SA n48 20M Ch637334 1RB1 BPSK

|   | Freq     | Level  | Detector | Ant Factor | Amp\Cb |      | Filter 1 | EIRPCF | Reading | Limit  | Margin   |    | Pol |
|---|----------|--------|----------|------------|--------|------|----------|--------|---------|--------|----------|----|-----|
|   |          |        |          |            | dB/m   | dB   |          |        | dB      | dBuV   | dBm      | dB |     |
| 1 | 7103.00  | -54.34 | RMS      | 36.41      | -21.43 | 1.19 | -95.23   | 24.72  | -40.00  | -14.34 | Vertical |    |     |
| 2 | 10654.00 | -54.16 | RMS      | 37.50      | -21.68 | 0.44 | -95.23   | 24.81  | -40.00  | -14.16 | Vertical |    |     |
| 3 | 14205.00 | -49.74 | RMS      | 41.00      | -22.35 | 0.41 | -95.23   | 26.43  | -40.00  | -9.74  | Vertical |    |     |



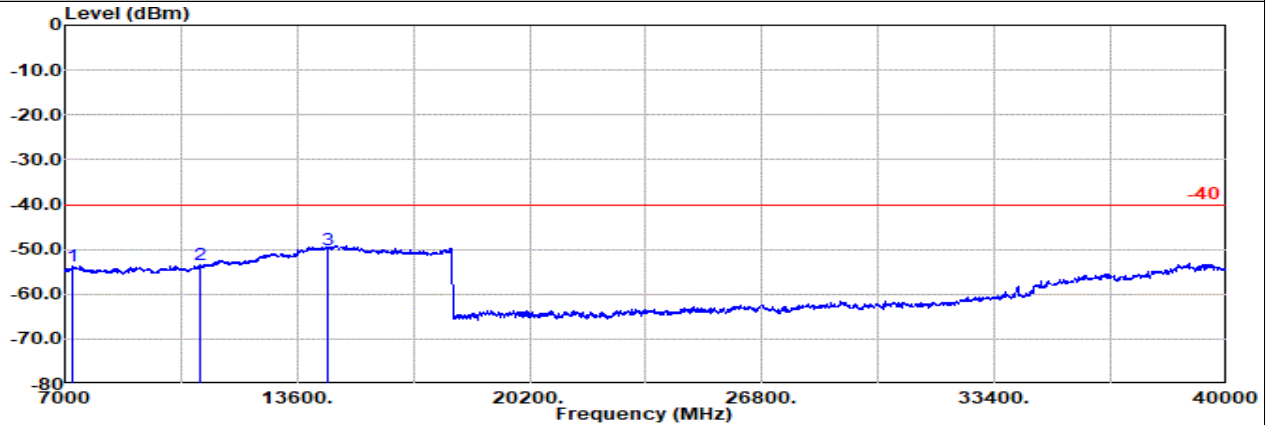


Tx2

## Part 96 Mode 2

NR SA n48 20M Ch641666 1RB1 BPSK

M

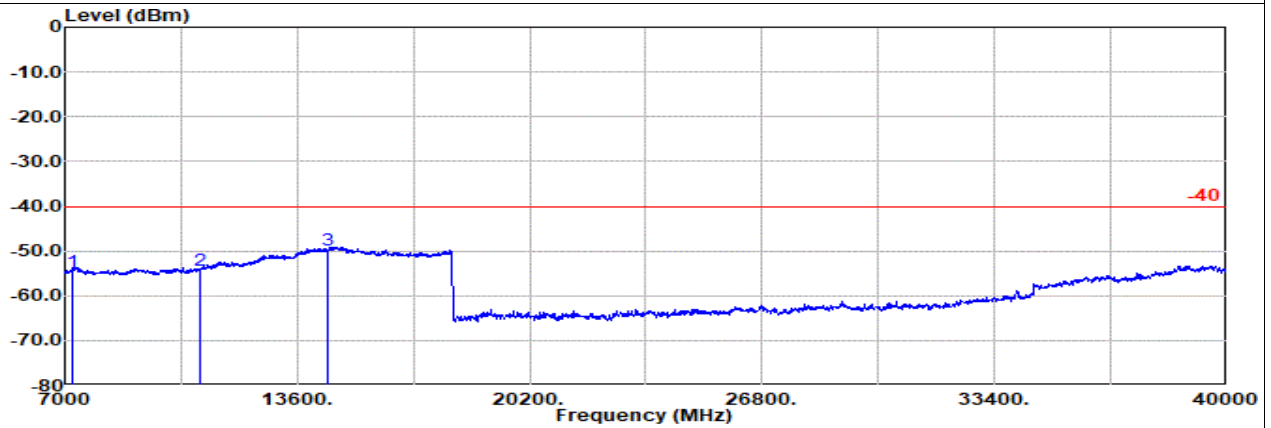


Site : 03CH21-HY

Condition: -40 3m DRH18-E\_LE2C03A18EN\_230712 Horizontal

: SA n48 20M Ch641666 1RB1 BPSK

|   | Freq Level |        | Detector | Ant Amp\Cb Filter |        | Factor | Filter 1 |       | EIRPCF | Readin g | Limit      |     | Margin | Pol |
|---|------------|--------|----------|-------------------|--------|--------|----------|-------|--------|----------|------------|-----|--------|-----|
|   | MHz        | dBm    |          | dB/m              | dB     |        | dB       | dB    |        |          | dBuV       | dBm | dB     |     |
| 1 | 7233.00    | -53.77 | RMS      | 36.87             | -21.34 | 1.13   | -95.23   | 24.80 | -40.00 | -13.77   | Horizontal |     |        |     |
| 2 | 10849.00   | -53.47 | RMS      | 37.50             | -21.65 | 0.44   | -95.23   | 25.47 | -40.00 | -13.47   | Horizontal |     |        |     |
| 3 | 14465.00   | -49.97 | RMS      | 41.16             | -22.73 | 0.42   | -95.23   | 26.41 | -40.00 | -9.97    | Horizontal |     |        |     |



Site : 03CH21-HY

Condition: -40 3m DRH18-E\_LE2C03A18EN\_230712 Vertical

: SA n48 20M Ch641666 1RB1 BPSK

|   | Freq Level |        | Detector | Ant Amp\Cb Filter |        | Factor | Filter 1 |       | EIRPCF | Readin g | Limit    |     | Margin | Pol |
|---|------------|--------|----------|-------------------|--------|--------|----------|-------|--------|----------|----------|-----|--------|-----|
|   | MHz        | dBm    |          | dB/m              | dB     |        | dB       | dB    |        |          | dBuV     | dBm | dB     |     |
| 1 | 7233.00    | -54.50 | RMS      | 36.87             | -21.34 | 1.13   | -95.23   | 24.07 | -40.00 | -14.50   | Vertical |     |        |     |
| 2 | 10849.00   | -54.32 | RMS      | 37.50             | -21.65 | 0.44   | -95.23   | 24.62 | -40.00 | -14.32   | Vertical |     |        |     |
| 3 | 14465.00   | -49.85 | RMS      | 41.16             | -22.73 | 0.42   | -95.23   | 26.53 | -40.00 | -9.85    | Vertical |     |        |     |

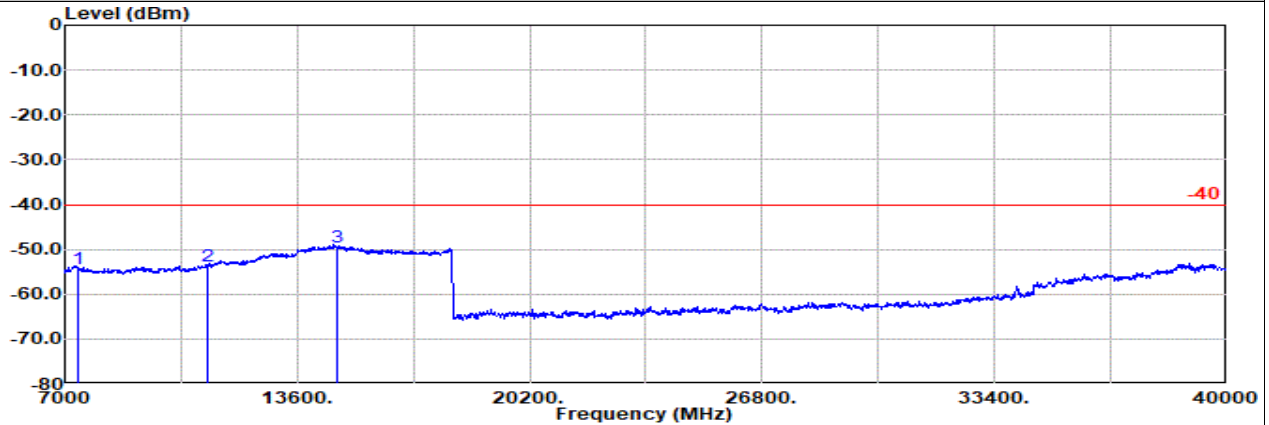


Tx2

## Part 96 Mode 2

NR SA n48 20M Ch646000 1RB1 BPSK

H

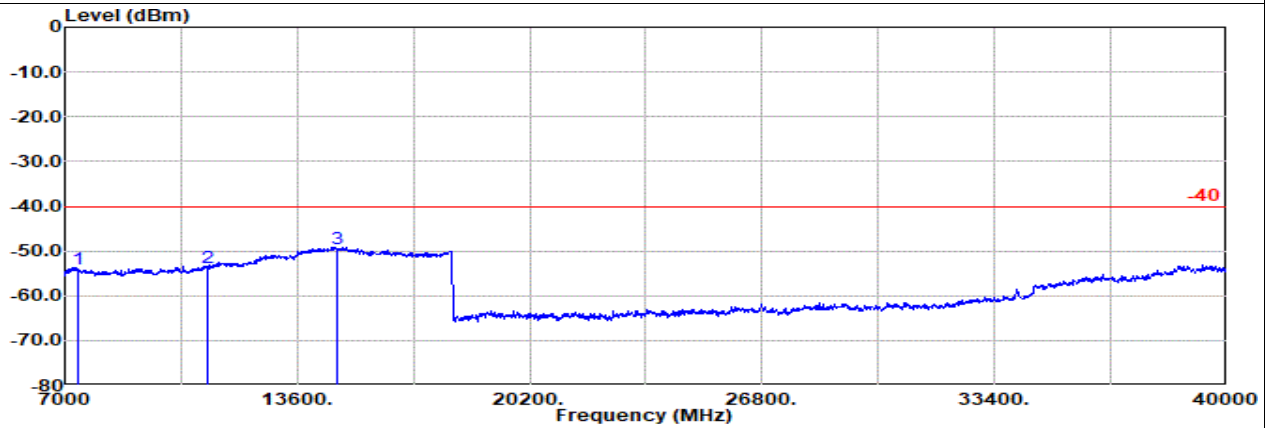


Site : 03CH21-HY

Condition: -40 3m DRH18-E\_LE2C03A18EN\_230712 Horizontal

: SA n48 20M Ch646000 1RB1 BPSK

|   | Freq     | Level  | Detector | Ant Factor | Amp\Cb Filter 1 |        | EIRPCF | Reading | Limit | Margin Pol |                   |
|---|----------|--------|----------|------------|-----------------|--------|--------|---------|-------|------------|-------------------|
|   |          |        |          |            | dB/m            | dB     |        | dB      | dBuV  | dBm        | dB                |
| 1 | 7363.00  | -54.40 | RMS      |            | 36.97           | -21.28 | 1.05   | -95.23  | 24.09 | -40.00     | -14.40 Horizontal |
| 2 | 11044.00 | -53.70 | RMS      |            | 37.98           | -21.61 | 0.44   | -95.23  | 24.72 | -40.00     | -13.70 Horizontal |
| 3 | 14725.00 | -49.43 | RMS      |            | 41.65           | -23.00 | 0.42   | -95.23  | 26.73 | -40.00     | -9.43 Horizontal  |



Site : 03CH21-HY

Condition: -40 3m DRH18-E\_LE2C03A18EN\_230712 Vertical

: SA n48 20M Ch646000 1RB1 BPSK

|   | Freq     | Level  | Detector | Ant Factor | Amp\Cb Filter 1 |        | EIRPCF | Reading | Limit | Margin Pol |                 |
|---|----------|--------|----------|------------|-----------------|--------|--------|---------|-------|------------|-----------------|
|   |          |        |          |            | dB/m            | dB     |        | dB      | dBuV  | dBm        | dB              |
| 1 | 7363.00  | -53.96 | RMS      |            | 36.97           | -21.28 | 1.05   | -95.23  | 24.53 | -40.00     | -13.96 Vertical |
| 2 | 11044.00 | -53.62 | RMS      |            | 37.98           | -21.61 | 0.44   | -95.23  | 24.80 | -40.00     | -13.62 Vertical |
| 3 | 14725.00 | -49.64 | RMS      |            | 41.65           | -23.00 | 0.42   | -95.23  | 26.52 | -40.00     | -9.64 Vertical  |

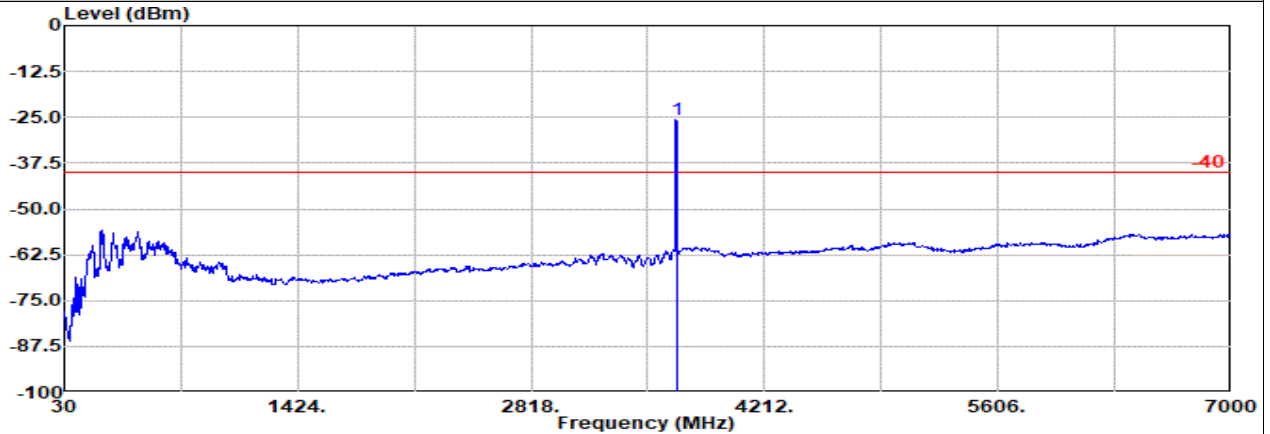


Tx2

## Part 96 Mode 2

NR SA n48 20M Ch646000 1RB1 BPSK

H



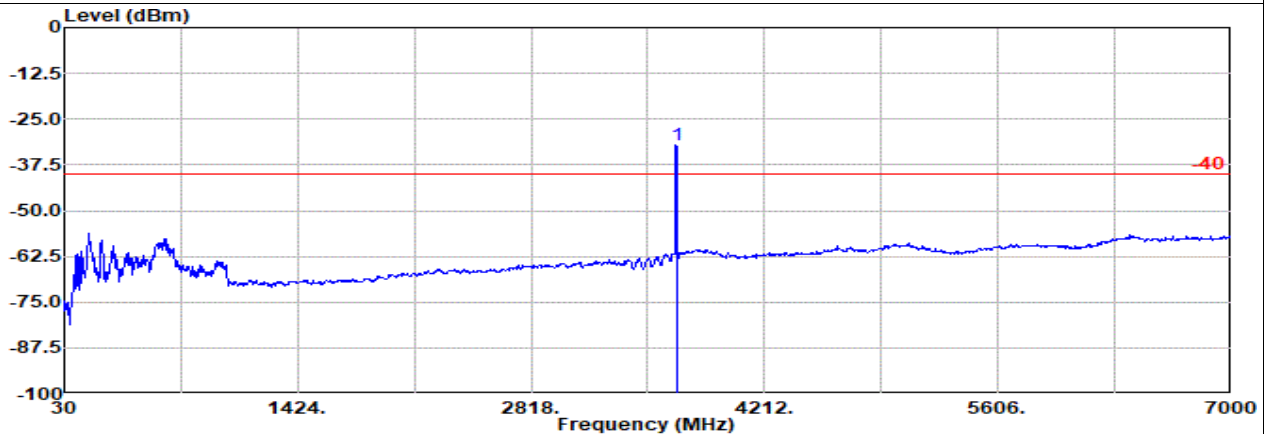
Site : 03CH21-HY

Condition: -40 3m DRH18-E\_LE2C03A18EN\_230712 Horizontal

: SA n48 20M Ch646000 1RB1 BPSK

: #1 is fundamental signal which can be ignored.

| 1 | Freq    | Level  | Detector | Ant Amp\Cb Filter |        | EIRPCF |        | Readin | Limit  | Margin Pol |            |
|---|---------|--------|----------|-------------------|--------|--------|--------|--------|--------|------------|------------|
|   | MHz     | dBm    |          | Factor            | 1      | dB     | dB     | dBuV   | dBm    | dB         |            |
| 1 | 3690.00 | -25.58 | RMS      | 29.80             | -23.23 | 0.56   | -95.23 | 62.52  | -40.00 | 14.42      | Horizontal |



Site : 03CH21-HY

Condition: -40 3m DRH18-E\_LE2C03A18EN\_230712 Vertical

: SA n48 20M Ch646000 1RB1 BPSK

: #1 is fundamental signal which can be ignored.

| 1 | Freq    | Level  | Detector | Ant Amp\Cb Filter |        | EIRPCF |        | Readin | Limit  | Margin Pol |          |
|---|---------|--------|----------|-------------------|--------|--------|--------|--------|--------|------------|----------|
|   | MHz     | dBm    |          | Factor            | 1      | dB     | dB     | dBuV   | dBm    | dB         |          |
| 1 | 3690.00 | -32.22 | RMS      | 29.80             | -23.23 | 0.56   | -95.23 | 55.88  | -40.00 | 7.78       | Vertical |

Remark: #1 is fundamental signal which can be ignored.