Test report No.: 2380757R-RFUSV16S-A

# FCC/ISED TEST REPORT

| | |
|---|---|
| Product Name | Mesa 4 |
| Trademark | Juniper Systems |
| Model and /or type reference | MS4W |
| Contains FCC ID | VSF31102, N7NEM75T, VSF26593, VSF27065 |
| Contains IC | 7980A-31102, 2417C-EM75T, 7980A-26593, 7980A-27065 |
| Applicant´s name /<br>Address (FCC)<br>Address (IC) | Juniper Systems, Inc.<br>1132 W 1700 N, Logan, Utah, 84321 United States<br>1132 W 1700 N, Logan UT 84321, United States |
| Manufacturer´s name | Juniper Systems, Inc. |
| Test method requested, standard | Simultaneous Transmit (co-location) |
| Verdict Summary | IN COMPLIANCE |
| Documented By<br>(Senior Project Specialist / Genie Chang) | Genie Chang |
| Tested By<br>(Senior Engineer / Ivan Chuang) | Ivan Chuang |
| Approved By<br>(Senior Engineer / Alan Chen) | Alan Chen |
| Date of Receipt | 2023/08/24 |
| Date of Issue | 2023/11/07 |
| Report Version | V1.0 |

## INDEX

## Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.



## General conditions

1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

## Revision History

| Report No. | Version | Description | Issued Date |
|---|---|---|---|
| 2380757R-RFUSV16S-A | V1.0 | Initial issue of report. | 2023/11/07 |

# 1. General Information

## 1.1. EUT Description

| | |
|---|---|
| Product Name | Mesa 4 |
| Trade Name | Juniper Systems |
| Main Model and /or type reference | MS4W |
| EUT Rated Voltage | AC 100-240 V / 50-60 Hz |
| EUT Test Voltage | AC 120 V / 60 Hz |
| Contains FCC ID | VSF31102, N7NEM75T, VSF26593, VSF27065 |
| Contains IC | 7980A-31102, 2417C-EM75T, 7980A-26593, 7980A-27065 |
| Power Adapter | MFR: Phihong, M/N: PSAA30R-120<br>Input: AC 100-240V~0.8A 50-60Hz<br>Output: 12V⎓2.5A 30W<br>Cable out: Non-shielded, 1.5m |

Note: The RF specifications of EUT refer to Intel AX211D2W, Sierra EM7590, MS2 MICRO and WT41u-E follow above FCC ID and IC.

Antenna List

| No. | Manufacturer | Part No. | Antenna Type | Peak Gain |
|---|---|---|---|---|
| 1 | Juniper Systems | PCB Trace (WLAN Main)<br>(For Intel AX211D2W) | PIFA | 2.4 dBi for 2.4 GHz<br>2.4 dBi for 5150-5250MHz<br>2.4 dBi for 5250-5350MHz<br>1.6 dBi for 5470-5725MHz<br>2.4 dBi for 5725-5850MHz |
| | | 25249 (WLAN Aux)<br>(For Intel AX211D2W) | PIFA | 0.8 dBi for 2.4 GHz<br>2.8 dBi for 5150-5250MHz<br>2.5 dBi for 5250-5350MHz<br>2.8 dBi for 5470-5725MHz<br>3.3 dBi for 5725-5850MHz |
| 2 | Juniper Systems | Extended Range Bluetooth<br>(For WT41u-E) | PIFA | 1.5 dBi for 2.4 GHz |

Note: The WLAN antenna of EUT is conform to FCC 15.203.

## 1.2. Test Summary

Simultaneous Transmit (co-location) Requirement

| Requirement – Test Item | Result |
|---|---|
| Radiated Emissions | Pass |

Note:

1. The EUT is a Mesa Pro, which contains functions on WWAN and 2.4GHz/5GHz band WIFI with Bluetooth card module transceiver.
2. These tests were conducted on a sample for the purpose of demonstrating compliance of transmitter with simultaneous transmit (co-location).
3. There consider simultaneous transmit (co-location) based on KDB 996369 D02 Question 1 and KDB 996369 D04 for Radiated Emission.
4. The antenna gain and output power are both comply with the original certification, the final product complies with the ERP/EIRP rules.
5. The final test results meets all the applicable FCC/ISED rules.

| | |
|---|---|
| Test Mode<br>(Simultaneous Transmit) | Mode 1: bt3m_2480MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640<br>Mode 2: n20_2442MHZ+BT1M_2402MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640<br>Mode 3: n20_2442MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640<br>Mode 4: ax80_5775MHZ+BT1M_2402MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640<br>Mode 5: ax80_5775MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640 |

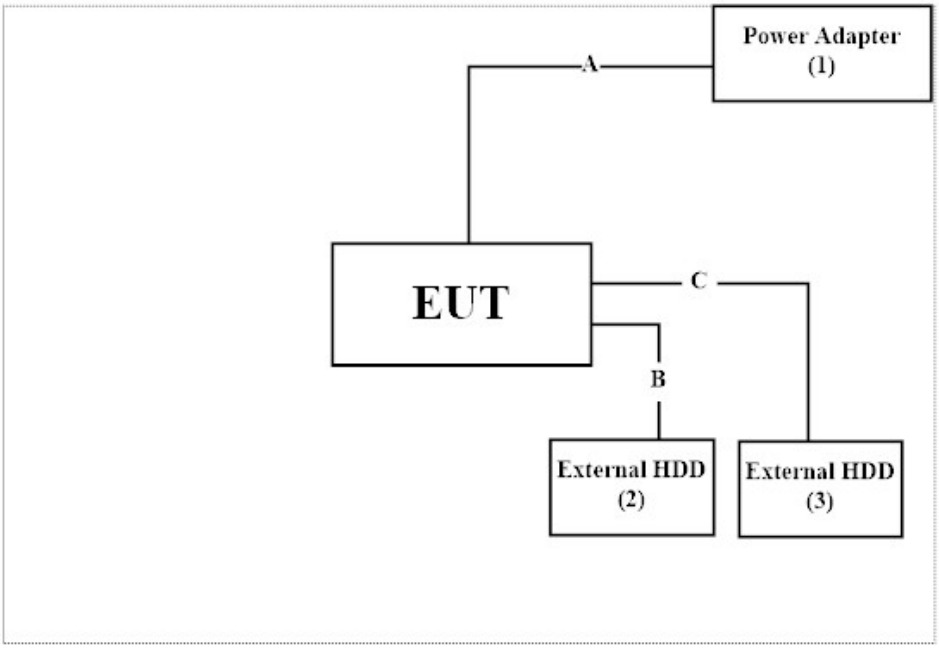
## 1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

| Product | | Manufacturer | Model No. | Serial No. | Power Cord |
|---|---|---|---|---|---|
| 1 | Power Adapter | Phihong | PSAA30R-120 | N/A | N/A |
| 2 | External HDD | Transcend | TS1TSJ25H3P | G73393-3868 | N/A |
| 3 | External HDD | Transcend | TS1TSJ25MC | F30467-0011 | N/A |

| Cable Type | | Cable Description |
|---|---|---|
| A | Power Cable | Non-shielded, 1.5m |

## 1.4. Configuration of Tested System




## 1.5. EUT Exercise Software

| | |
|---|---|
| 1 | Setup the EUT as shown on 1.5. |
| 2 | Execute software “DRTU Ver. 04739.22.240.0” on the EUT. |
| 3 | The Communication Analyzer (MT8821C) uses in controlling EUT to transmit continuously. |
| 4 | Configure the test mode, the test channel, and the data rate. |
| 5 | Start the continuous transmission. |
| 6 | Verify that the EUT works properly. |

## 1.6. Test Facility

Ambient conditions in the laboratory:

| Performed Item | Items | Required | Actual |
|---|---|---|---|
| Radiated Emission | Temperature (°C) | 15~35 ℃ | 21.6 ℃ |
| | Humidity (%RH) | 20~75 % | 61.5 % |

| | |
|---|---|
| Site Description | Accredited by TAF |
| | Accredited Number: 3023 |

| | |
|---|---|
| Test Laboratory | DEKRA Testing and Certification Co., Ltd. |
| | Linkou Laboratory |
| Address | No.5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan, R.O.C |
| Performed Location | No. 6, Lane 75, Wenlin St., Linkou Dist., New Taipei City 24457, Taiwan, R.O.C. |
| Phone Number | +886-3-275-7255 |
| Fax Number | +886-3-327-8031 |

## 1.7. List of Test Item and Equipment

**For Radiated Measurements /HY-CB01**

| | Equipment | Manufacturer | Model No. | Serial No. | Cal. Date | Due Date |
|---|---|---|---|---|---|---|
| V | Loop Antenna | AMETEK | HLA6121 | 56736 | 2023/05/23 | 2024/05/22 |
| V | Bi-Log Antenna | SCHWARZBECK | VULB9168 | 9168-0675 | 2023/08/09 | 2025/08/08 |
| V | Horn Antenna | RF SPIN | DRH18-E | 210802A18ES | 2023/03/23 | 2024/03/22 |
| V | Horn Antenna | Com-Power | AH-840 | 101101 | 2021/11/30 | 2023/11/29 |
| V | Pre-Amplifier | SGH | 0301 | 20211007-7 | 2023/01/10 | 2024/01/09 |
| V | Pre-Amplifier | EMCI | EMC051845SE | 980632 | 2023/01/10 | 2024/01/09 |
| | Pre-Amplifier | EMCI | EMC05820SE | 980362 | 2023/01/10 | 2024/01/09 |
| V | Pre-Amplifier | EMCI | EMC184045SE | 980369 | 2023/01/10 | 2024/01/09 |
| | Coaxial Cable | EMCI | EMC102-KM-KM-600 | 1160314 | | |
| | Coaxial Cable | EMCI | EMC102-KM-KM-7000 | 170242 | | |
| V | Filter | MICRO TRONICS | BRM50702 | G251 | 2023/01/05 | 2024/01/04 |
| V | Filter | MICRO TRONICS | BRM50716 | 067 | 2023/01/05 | 2024/01/04 |
| V | EMI Test Receiver | R&S | ESR3 | 102792 | 2022/12/29 | 2023/12/28 |
| V | Spectrum Analyzer | R&S | FSV3044 | 101115 | 2023/01/06 | 2024/01/05 |
| V | Coaxial Cable | SUHNER | SUCOFLEX 106 | 25450/6 | 2023/01/10 | 2024/01/09 |
| | Coaxial Cable | SGH | HA800 | GD20110222-8 | | |
| | Coaxial Cable | SGH | SGH18 | 2021003-8 | | |
| | Coaxial Cable | EMCI | EMC106 | 151113 | | |
| | Universal Radiocommunication tester | R&S | CMU200 | 113574 | 2023/07/07 | 2024/07/06 |
| V | Radio communication test station | Anritsu | MT8821C | 6261849043 | 2023/01/11 | 2024/01/10 |

Note:

1. Bi-Log Antenna and Horn Antenna (AH-840) is calibrated every two years, the other equipments are calibrated every one year.
2. The test instruments marked with “V” are used to measure the final test results.
3. Test Software Version: e3 230303 dekra V9.

## 1.8. Uncertainty

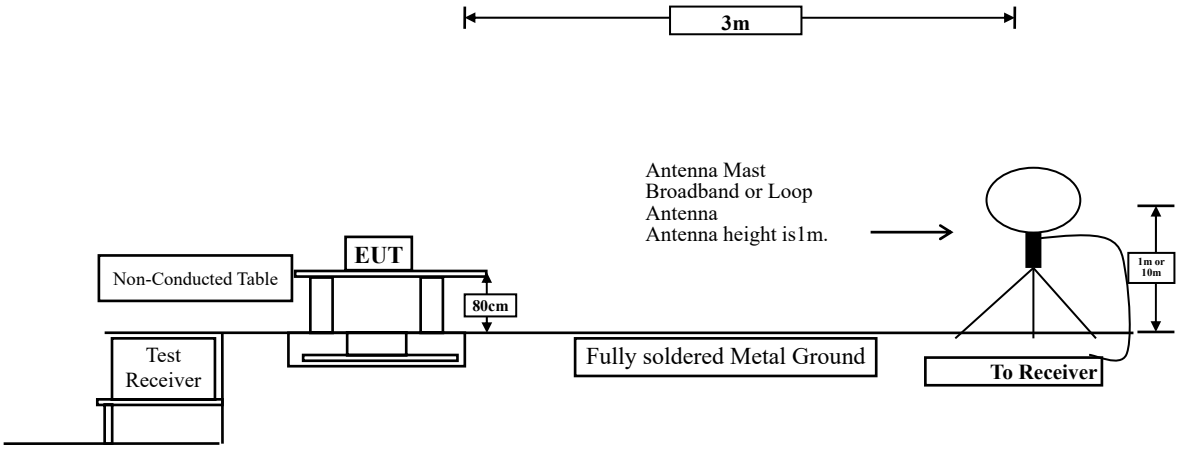
Uncertainties have been calculated according to the DEKRA internal document.
The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.
Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

| Test item | Uncertainty |
|---|---|
| Radiated Emission | 9 kHz~30 MHz: ±3.88 dB<br>30 MHz~1 GHz: ±4.42 dB<br>1 GHz~18 GHz: ±4.28 dB<br>18 GHz~40 GHz: ±3.90 dB |

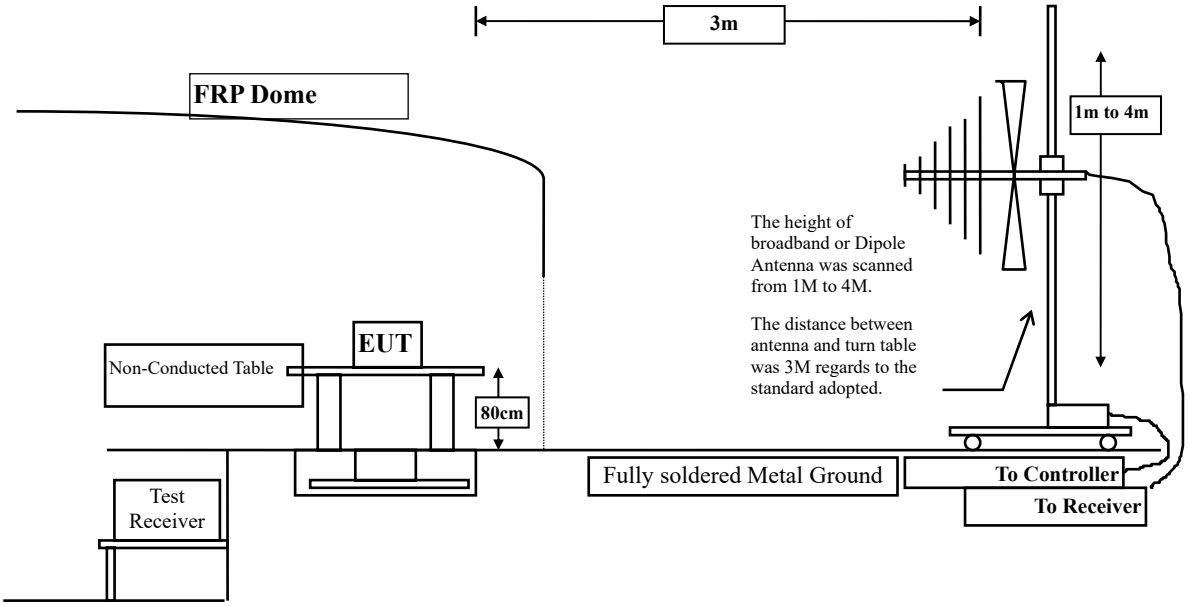
## 2. Radiated Emission

### 2.1. Test Setup

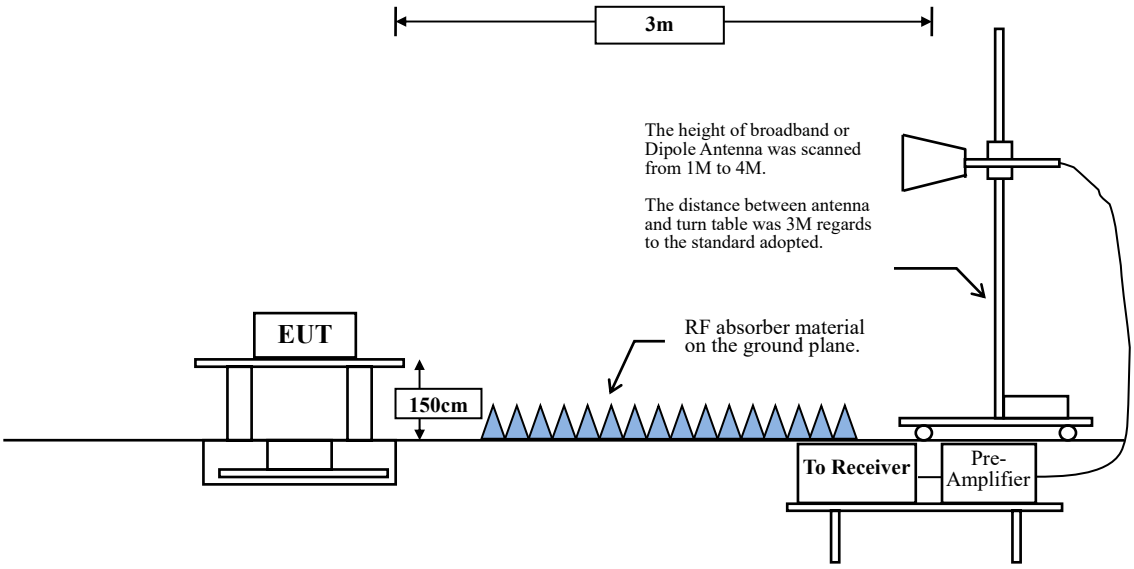
Under 30MHz




Below 1GHz



Above 1GHz


3m
The height of broadband or Dipole Antenna was scanned from 1M to 4M.
The distance between antenna and turn table was 3M regards to the standard adopted.
EUT
150cm
RF absorber material on the ground plane.
To Receiver
Pre-Amplifier

## 2.2. Limits

### ➢ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

| **FCC Part 15 Subpart C Paragraph 15.209 Limits** | | |
|---|---|---|
| Frequency<br>MHz | Field strength<br>(microvolts/meter) | Measurement distance (meter) |
| 0.009-0.490 | 2400/F(kHz) | 300 |
| 0.490-1.705 | 24000/F(kHz) | 30 |
| 1.705-30 | 30 | 30 |
| 30-88 | 100 | 3 |
| 88-216 | 150 | 3 |
| 216-960 | 200 | 3 |
| Above 960 | 500 | 3 |

Remarks: 1. RF Voltage (dBμV) = 20 log RF Voltage (μV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

## 2.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground,when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

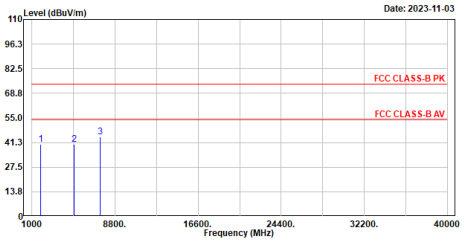
The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

## 2.4. Test Result of Radiated Emission

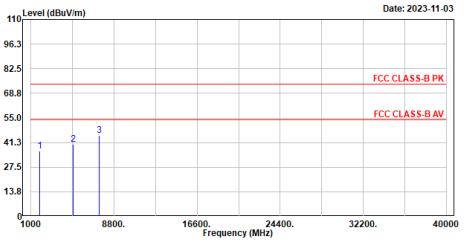
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_bt3m_2480MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 1805.500 | 40.40 | 74.00 | -33.60 | 63.19 | -22.79 | Peak |
| 2 | 4960.000 | 40.17 | 74.00 | -33.83 | 53.37 | -13.20 | Peak |
| 3 | 7380.000 | 44.50 | 74.00 | -29.50 | 53.71 | -9.21 | Peak |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

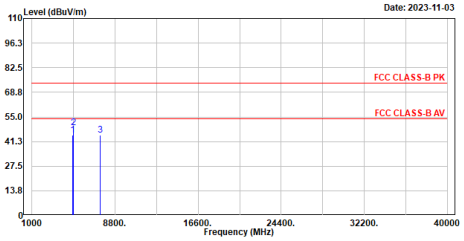
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_bt3m_2480MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 1805.500 | 36.41 | 74.00 | -37.59 | 59.20 | -22.79 | Peak |
| 2 | 4960.000 | 40.39 | 74.00 | -33.61 | 53.59 | -13.20 | Peak |
| 3 | 7380.000 | 45.33 | 74.00 | -28.67 | 54.54 | -9.21 | Peak |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

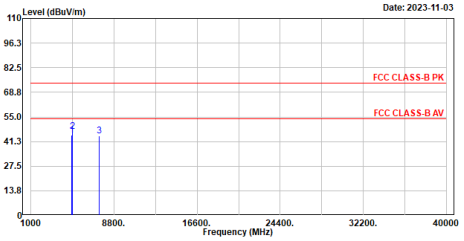
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_n20_2442MHZ+BT1M_2402MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 4804.000 | 45.03 | 74.00 | -28.97 | 58.58 | -13.55 | Peak |
| 2 | 4884.000 | 49.13 | 74.00 | -24.87 | 62.50 | -13.37 | Peak |
| 3 | 7380.000 | 44.99 | 74.00 | -29.01 | 54.20 | -9.21 | Peak |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

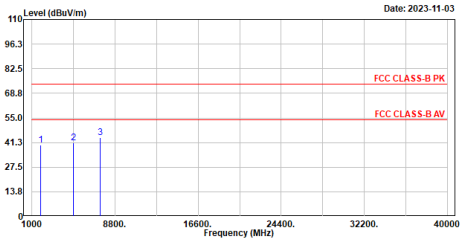
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_n20_2442MHZ+BT1M_2402MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 4804.000 | 44.90 | 74.00 | -29.10 | 58.45 | -13.55 | Peak |
| 2 | 4884.000 | 46.88 | 74.00 | -27.12 | 60.25 | -13.37 | Peak |
| 3 | 7380.000 | 44.61 | 74.00 | -29.39 | 53.82 | -9.21 | Peak |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

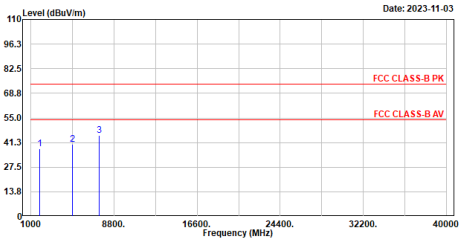
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_n20_2442MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 1805.500 | 40.01 | 74.00 | -33.99 | 62.80 | -22.79 | Peak |
| 2 | 4884.000 | 41.12 | 74.00 | -32.88 | 54.49 | -13.37 | Peak |
| 3 | 7380.000 | 44.05 | 74.00 | -29.95 | 53.26 | -9.21 | Peak |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

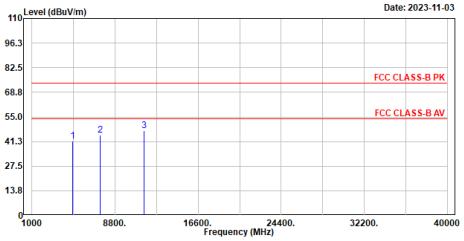
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_n20_2442MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 1805.500 | 37.65 | 74.00 | -36.35 | 60.44 | -22.79 | Peak |
| 2 | 4884.000 | 40.20 | 74.00 | -33.80 | 53.57 | -13.37 | Peak |
| 3 | 7380.000 | 45.09 | 74.00 | -28.91 | 54.30 | -9.21 | Peak |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

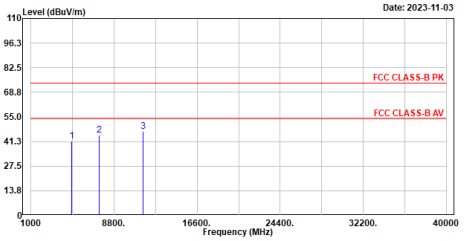
Site :HY-CB01
Condition :3m ,Horizontal
Mode :TX_ax80_5775MHZ+BT1M_2402MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 4804.000 | 41.61 | 74.00 | -32.39 | 55.16 | -13.55 | Peak |
| 2 | 7380.000 | 44.95 | 74.00 | -29.05 | 54.16 | -9.21 | Peak |
| 3 | 11550.000 | 47.19 | 74.00 | -26.81 | 54.44 | -7.25 | Peak |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

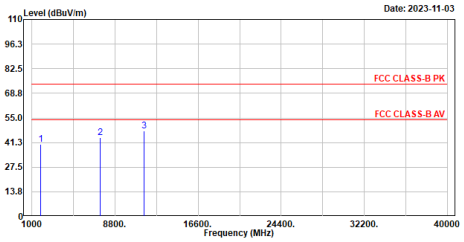
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_5775MHZ+BT1M_2402MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 4804.000 | 41.53 | 74.00 | -32.47 | 55.08 | -13.55 | Peak |
| 2 | 7380.000 | 44.66 | 74.00 | -29.34 | 53.87 | -9.21 | Peak |
| 3 | 11550.000 | 47.01 | 74.00 | -26.99 | 54.26 | -7.25 | Peak |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

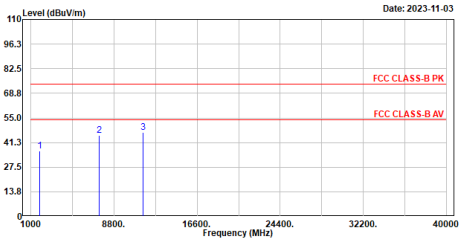
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_5775MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 1805.500 | 40.31 | 74.00 | -33.69 | 63.10 | -22.79 | Peak |
| 2 | 7380.000 | 44.09 | 74.00 | -29.91 | 53.30 | -9.21 | Peak |
| 3 | 11550.000 | 47.74 | 74.00 | -26.26 | 54.99 | -7.25 | Peak |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

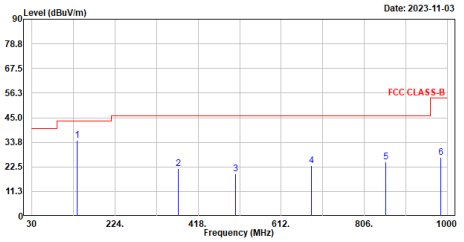
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_5775MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 1805.500 | 36.52 | 74.00 | -37.48 | 59.31 | -22.79 | Peak |
| 2 | 7380.000 | 45.16 | 74.00 | -28.84 | 54.37 | -9.21 | Peak |
| 3 | 11550.000 | 46.87 | 74.00 | -27.13 | 54.12 | -7.25 | Peak |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

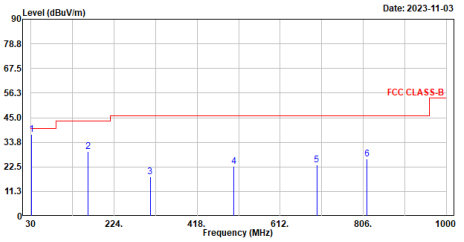
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_bt3m_2480MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 135.730 | 34.51 | 43.50 | -8.99 | 59.14 | -24.63 | QP |
| 2 | 372.410 | 21.57 | 46.00 | -24.43 | 42.51 | -20.94 | QP |
| 3 | 505.300 | 19.31 | 46.00 | -26.69 | 37.01 | -17.70 | QP |
| 4 | 681.840 | 23.02 | 46.00 | -22.98 | 37.34 | -14.32 | QP |
| 5 | 855.470 | 24.62 | 46.00 | -21.38 | 36.45 | -11.83 | QP |
| 6 | 985.450 | 26.72 | 54.00 | -27.28 | 37.40 | -10.68 | QP |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

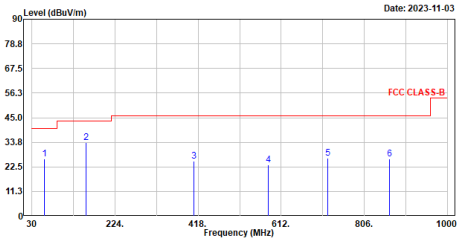
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_bt3m_2480MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 30.970 | 37.43 | 40.00 | -2.57 | 62.25 | -24.82 | QP |
| 2 | 162.890 | 29.54 | 43.50 | -13.96 | 53.27 | -23.73 | QP |
| 3 | 308.390 | 18.06 | 46.00 | -27.94 | 40.70 | -22.64 | QP |
| 4 | 504.330 | 22.80 | 46.00 | -23.20 | 40.52 | -17.72 | QP |
| 5 | 697.360 | 23.35 | 46.00 | -22.65 | 37.28 | -13.93 | QP |
| 6 | 814.730 | 26.12 | 46.00 | -19.88 | 38.49 | -12.37 | QP |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

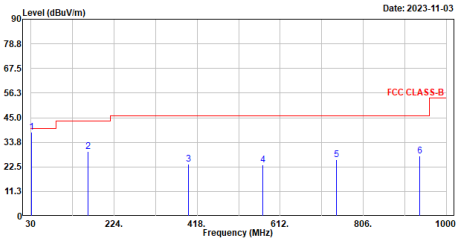
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_n20_2442MHZ+bt1m_2402MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 59.100 | 26.28 | 40.00 | -13.72 | 50.29 | -24.01 | QP |
| 2 | 156.100 | 33.77 | 43.50 | -9.73 | 57.35 | -23.58 | QP |
| 3 | 408.300 | 25.10 | 46.00 | -20.90 | 44.99 | -19.89 | QP |
| 4 | 581.930 | 23.26 | 46.00 | -22.74 | 39.21 | -15.95 | QP |
| 5 | 720.640 | 26.41 | 46.00 | -19.59 | 40.03 | -13.62 | QP |
| 6 | 865.170 | 26.15 | 46.00 | -19.85 | 38.05 | -11.90 | QP |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

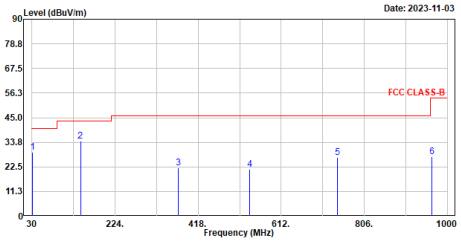
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_n20_2442MHZ+bt1m_2402MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 31.940 | 38.23 | 40.00 | -1.77 | 62.97 | -24.74 | QP |
| 2 | 163.860 | 29.63 | 43.50 | -13.87 | 53.46 | -23.83 | QP |
| 3 | 398.600 | 23.69 | 46.00 | -22.31 | 43.80 | -20.11 | QP |
| 4 | 571.260 | 23.41 | 46.00 | -22.59 | 39.57 | -16.16 | QP |
| 5 | 742.950 | 25.87 | 46.00 | -20.13 | 38.97 | -13.10 | QP |
| 6 | 937.920 | 27.38 | 46.00 | -18.62 | 38.17 | -10.79 | QP |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

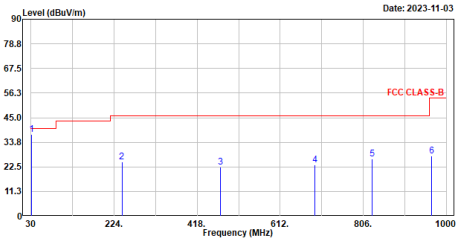
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_n20_2442MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 31.940 | 29.08 | 40.00 | -10.92 | 53.82 | -24.74 | QP |
| 2 | 143.490 | 34.15 | 43.50 | -9.35 | 58.09 | -23.94 | QP |
| 3 | 372.410 | 21.94 | 46.00 | -24.06 | 42.88 | -20.94 | QP |
| 4 | 539.250 | 21.39 | 46.00 | -24.61 | 38.55 | -17.16 | QP |
| 5 | 742.950 | 26.91 | 46.00 | -19.09 | 40.01 | -13.10 | QP |
| 6 | 963.140 | 27.30 | 54.00 | -26.70 | 37.98 | -10.68 | QP |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

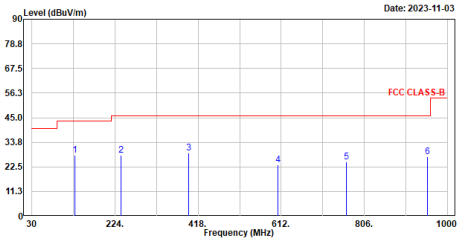
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_n20_2442MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 31.940 | 37.48 | 40.00 | -2.52 | 62.22 | -24.74 | QP |
| 2 | 242.430 | 24.67 | 46.00 | -21.33 | 49.49 | -24.82 | QP |
| 3 | 473.290 | 22.37 | 46.00 | -23.63 | 40.70 | -18.33 | QP |
| 4 | 693.480 | 23.54 | 46.00 | -22.46 | 37.50 | -13.96 | QP |
| 5 | 826.370 | 26.21 | 46.00 | -19.79 | 38.47 | -12.26 | QP |
| 6 | 965.080 | 27.48 | 54.00 | -26.52 | 38.14 | -10.66 | QP |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

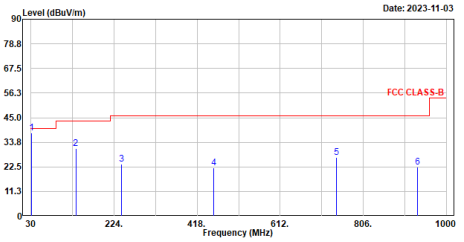
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_5775MHZ+bt1m_2402MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 129.910 | 27.82 | 43.50 | -15.68 | 52.87 | -25.05 | QP |
| 2 | 238.550 | 27.84 | 46.00 | -18.16 | 52.85 | -25.01 | QP |
| 3 | 395.690 | 28.74 | 46.00 | -17.26 | 48.93 | -20.19 | QP |
| 4 | 604.240 | 23.37 | 46.00 | -22.63 | 38.61 | -15.24 | QP |
| 5 | 764.290 | 24.69 | 46.00 | -21.31 | 37.45 | -12.76 | QP |
| 6 | 953.440 | 27.09 | 46.00 | -18.91 | 37.69 | -10.60 | QP |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

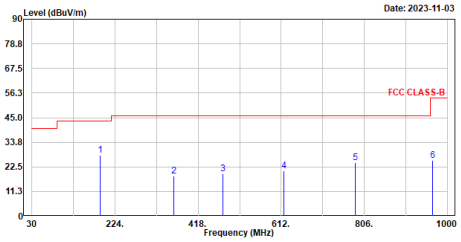
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_5775MHZ+bt1m_2402MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 31.940 | 38.14 | 40.00 | -1.86 | 62.88 | -24.74 | QP |
| 2 | 134.760 | 30.77 | 43.50 | -12.73 | 55.41 | -24.64 | QP |
| 3 | 241.460 | 23.85 | 46.00 | -22.15 | 48.71 | -24.86 | QP |
| 4 | 456.800 | 21.94 | 46.00 | -24.06 | 40.48 | -18.54 | QP |
| 5 | 742.950 | 26.96 | 46.00 | -19.04 | 40.06 | -13.10 | QP |
| 6 | 933.070 | 22.57 | 46.00 | -23.43 | 33.43 | -10.86 | QP |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

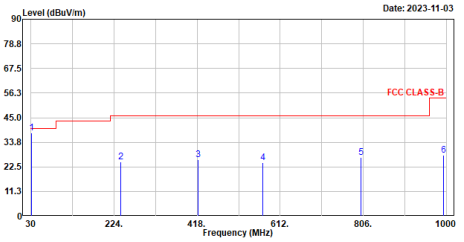
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ax80_5775MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 190.050 | 27.97 | 43.50 | -15.53 | 54.35 | -26.38 | QP |
| 2 | 361.740 | 18.36 | 46.00 | -27.64 | 39.93 | -21.57 | QP |
| 3 | 476.200 | 19.20 | 46.00 | -26.80 | 37.51 | -18.31 | QP |
| 4 | 617.820 | 20.83 | 46.00 | -25.17 | 36.06 | -15.23 | QP |
| 5 | 784.660 | 24.58 | 46.00 | -21.42 | 37.08 | -12.50 | QP |
| 6 | 965.080 | 25.31 | 54.00 | -28.69 | 35.97 | -10.66 | QP |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ax80_5775MHZ+RFID_902.75MHz+LTE_band48_QPSK (1,0)_20MHZ_CH56640
TEST BY :Sam




| No. | Frequency | Level | Limit Line | Over Limit | Read Level | Factor | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | |
| 1 | 31.940 | 37.98 | 40.00 | -2.02 | 62.72 | -24.74 | QP |
| 2 | 240.490 | 24.71 | 46.00 | -21.29 | 49.60 | -24.89 | QP |
| 3 | 420.910 | 25.84 | 46.00 | -20.16 | 45.63 | -19.79 | QP |
| 4 | 572.230 | 24.60 | 46.00 | -21.40 | 40.76 | -16.16 | QP |
| 5 | 801.150 | 26.91 | 46.00 | -19.09 | 39.30 | -12.39 | QP |
| 6 | 994.180 | 27.92 | 54.00 | -26.08 | 38.58 | -10.66 | QP |

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.