

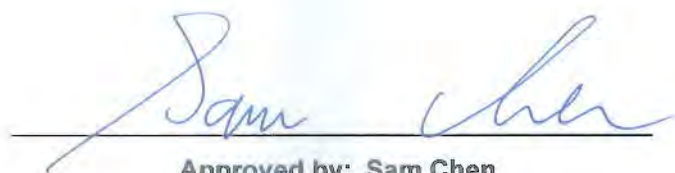


RADIO TEST REPORT

FCC ID : 2A2CB-0000011000102
Equipment : Wireless Spy Fishing Camera (Receiver)
Brand Name : G-Sau
Model Name : Trident 101
Applicant : Lian Hong Art. Co., Ltd.
Wanshou Road, No. 492-1, 5th Floor, Section
1..Taoyuan City, Taiwan
Manufacturer : Lian Hong Art. Co., Ltd.
Wanshou Road, No. 492-1, 5th Floor, Section
1..Taoyuan City, Taiwan
Standard : 47 CFR FCC Part 15.247

The product was received on Jun. 22, 2021, and testing was started from Jun. 22, 2021 and completed on Jul. 29, 2021. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.



Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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Appendix H. Test Photos

Photographs of EUT v01



TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A10_5 Ver1.3



Summary of Test Result

| Report Clause | Ref Std. Clause | Test Items | Result (PASS/FAIL) | Remark |
|---------------|-----------------|---|--------------------|--------|
| 1.1.3 | 15.203 | Antenna Requirement | PASS | - |
| 3.1 | 15.207 | AC Power-line Conducted Emissions | PASS | - |
| 3.2 | 15.247(a) | 20dB Bandwidth | PASS | - |
| 3.2 | 15.247(a) | Carrier Frequency Separation | PASS | - |
| 3.3 | 15.247(b) | Maximum Conducted Output Power | PASS | - |
| 3.4 | 15.247(a) | Number of Hopping Frequencies and Hopping Band edge | PASS | - |
| 3.5 | 15.247(a) | Time of Occupancy (Dwell Time) | PASS | - |
| 3.6 | 15.247(d) | Emissions in Non-restricted Frequency Bands | PASS | - |
| 3.7 | 15.247(d) | Emissions in Restricted Frequency Bands | PASS | - |

Declaration of Conformity:

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

Comments and Explanations:

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

Reviewed by: Sam Chen

Report Producer: Vicky Huang

1 General Description

1.1 Information

1.1.1 RF General Information

| Frequency Range (MHz) | Modulation | Ch. Frequency (MHz) | Channel Number |
|-----------------------|------------|---------------------|----------------|
| 2400-2483.5 | QPSK | 2408-2468 | 1-15 [15] |

| Band | Mode | BWch (MHz) | Nant |
|-------------|------|------------|------|
| 2400-2483.5 | QPSK | 3 | 1 |

Note:

- ♦ BWch is the nominal channel bandwidth.

1.1.2 Table of channel

| Channel No. | Frequency (MHz) | Channel No. | Frequency (MHz) |
|-------------|-----------------|-------------|-----------------|
| 1 | 2408 | 9 | 2445 |
| 2 | 2411 | 10 | 2448 |
| 3 | 2415 | 11 | 2452 |
| 4 | 2418 | 12 | 2455 |
| 5 | 2422 | 13 | 2458 |
| 6 | 2425 | 14 | 2465 |
| 7 | 2432 | 15 | 2468 |
| 8 | 2442 | - | - |

1.1.3 Antenna Information

| Ant. | Port | Brand | Model Name | Antenna Type | Connector | Antenna Gain (dBi) |
|------|------|------------|-------------------|------------------|-----------|--------------------|
| 1 | 1 | Superbatrf | WA2-882-S01SP-030 | Omni-directional | N/A | 3 |

Note: The above information was declared by manufacturer.

For 1TX/1RX:

Only Port 1 can be used as transmitting/receiving.

**1.1.4 Mode Test Duty Cycle**

| Mode | DC | DCF(dB) | T(s) | VBW(Hz) $\geq 1/T$ |
|------|-------|---------|--------|--------------------|
| QPSK | 0.215 | 6.68 | 357.5u | 3k |

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

1.1.5 EUT Operational Condition

| | |
|------------------------------|-----------------------------------|
| EUT Power Type | From power adapter or Host system |
| Test Software Version | ttermpro V4.75 |



1.2 Applicable Standards

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

- ♦ 47 CFR FCC Part 15.247

The following reference test guidance is not within the scope of accreditation of TAF.

- ♦ FCC KDB 558074 D01 v05r02
- ♦ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

| Testing Location Information | | | | |
|--|--|--|--|--|
| Test Lab. : Sporton International Inc. Hsinchu Laboratory | | | | |
| Hsinchu ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) | | | | |
| (TAF: 3787) TEL: 886-3-656-9065 FAX: 886-3-656-9085 | | | | |
| Test site Designation No. TW3787 with FCC. | | | | |
| Conformity Assessment Body Identifier (CABID) TW3787 with ISED. | | | | |

| Test Condition | Test Site No. | Test Engineer | Test Environment (°C / %) | Test Date |
|--------------------------|---------------|---------------|------------------------------|---------------------------------|
| RF Conducted | TH01-CB | Caster Jiang | 23.2-24.1 / 78-81 | Jun. 22, 2021~ Jun. 25, 2021 |
| Radiated (Below 1GHz) | 03CH06-CB | Bruce Yang | 25.9~27.3 / 65~69 | Jul. 05, 2021 |
| Radiated (Above 1GHz) | 03CH05-CB | Stim Sung | 24.6-25.9 / 63-68 | Jun. 24, 2021 |
| AC Conduction | CO01-CB | Wei Li | 23~24 / 56~59 | Jul. 29, 2021 |

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

| Test Items | Uncertainty | Remark |
|--------------------------------------|-------------|--------------------------|
| Conducted Emission (150kHz ~ 30MHz) | 2.0 dB | Confidence levels of 95% |
| Radiated Emission (9kHz ~ 30MHz) | 4.2 dB | Confidence levels of 95% |
| Radiated Emission (30MHz ~ 1,000MHz) | 5.5 dB | Confidence levels of 95% |
| Radiated Emission (1GHz ~ 18GHz) | 4.7 dB | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz) | 4.2 dB | Confidence levels of 95% |
| Conducted Emission | 2.5 dB | Confidence levels of 95% |
| Output Power Measurement | 1.3 dB | Confidence levels of 95% |
| Power Density Measurement | 2.5 dB | Confidence levels of 95% |
| Bandwidth Measurement | 0.9% | Confidence levels of 95% |



2 Test Configuration of EUT

2.1 Test Channel Mode

| Mode | Power Setting |
|-------------|----------------------|
| QPSK | - |
| 2408MHz | 3 |
| 2442MHz | 3 |
| 2468MHz | 3 |

2.2 The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests | |
|---|---|
| Tests Item | AC power-line conducted emissions |
| Condition | AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz |
| Operating Mode | Normal Link |
| 1 | Normal Link: EUT + Powered from Adapter |
| 2 | Normal Link: EUT + Powered from host system |
| For operating mode 2 is the worst case and it was record in this test report. | |

| The Worst Case Mode for Following Conformance Tests | |
|---|--|
| Tests Item | 20dB Bandwidth Carrier Frequency Separation Maximum Conducted Output Power Number of Hopping Frequencies Hopping Bandedge Time of Occupancy (Dwell Time) Emissions in Non-restricted Frequency Bands |
| Test Condition | Conducted measurement at transmit chains |

| The Worst Case Mode for Following Conformance Tests | |
|---|---|
| Tests Item | Emissions in Restricted Frequency Bands |
| Test Condition | Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. |
| Operating Mode < 1GHz | Normal Link |
| 1 | Normal Link: EUT in Z axis + Powered from Adapter |
| 2 | Normal Link: EUT in Z axis + Powered from host system |
| For operating mode 1 is the worst case and it was record in this test report. | |
| Operating Mode > 1GHz | CTX |
| 1 | EUT in Z axis |

Note: The EUT can only be used at Z axis position.

The Adapter is for measurement only, would not be marketed.

| Support Unit | Brand | Model |
|--------------|-------|-------|
| Adapter | Apple | A1443 |



2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

N/A

2.5 Support Equipment

For AC Conduction:

| Support Equipment | | | | |
|-------------------|---------------------|------------|-------------|--------|
| No. | Equipment | Brand Name | Model Name | FCC ID |
| A | NB | DELL | E6430 | N/A |
| B | TV | ASUS | VP28U | N/A |
| C | SD Card | ADATA | 16G | N/A |
| D | Wireless Device(TX) | G-Sau | Trident 101 | N/A |
| E | Earphone | e-Power | S90W | N/A |
| F | Mouse | Logitech | M-U0026 | N/A |

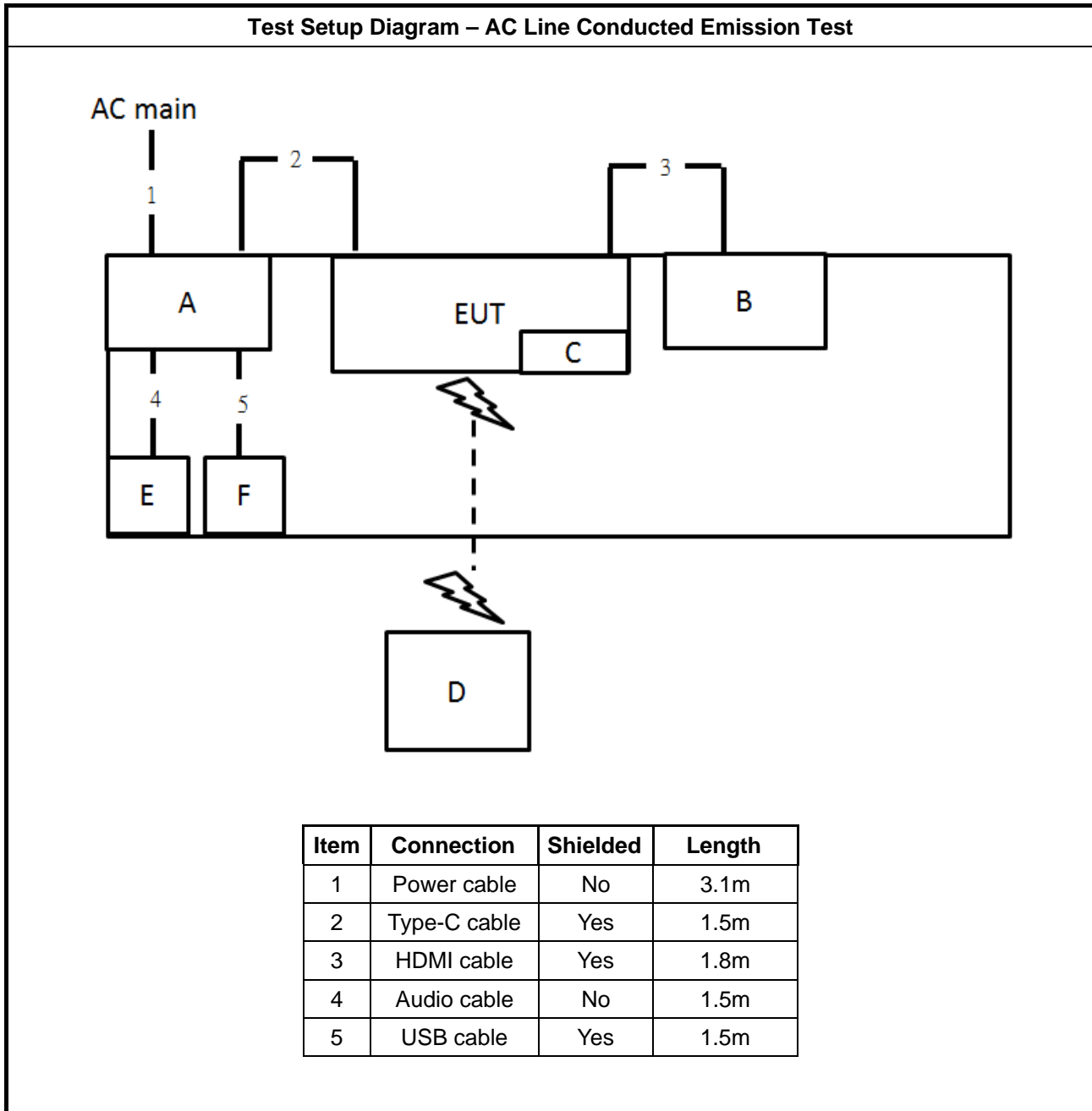
For Radiated (below 1GHz):

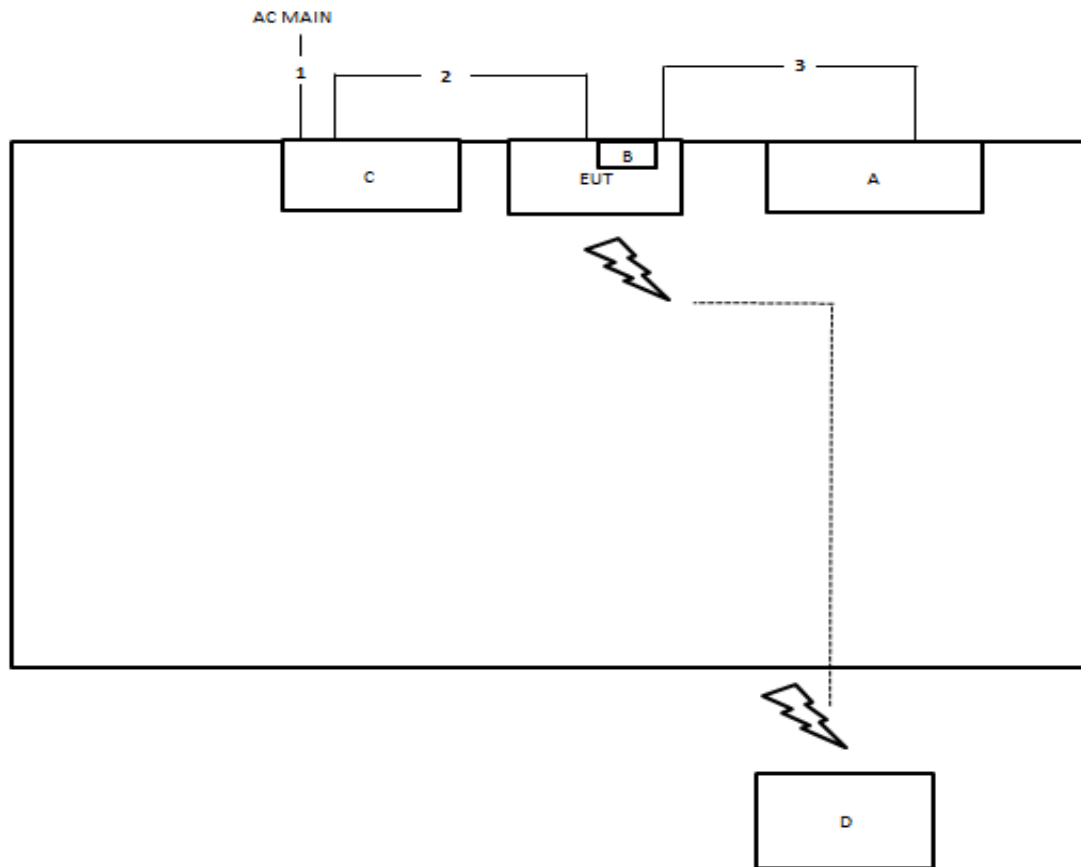
| Support Equipment | | | | |
|-------------------|---------------------|------------|-------------|--------|
| No. | Equipment | Brand Name | Model Name | FCC ID |
| A | TV | ASUS | VP28U | N/A |
| B | SD Card | Apacer | SD Card | N/A |
| C | Adapter | Apple | A1443 | N/A |
| D | Wireless Device(TX) | G-Sau | Trident 101 | N/A |

For Radiated (above 1GHz) and RF Conducted:

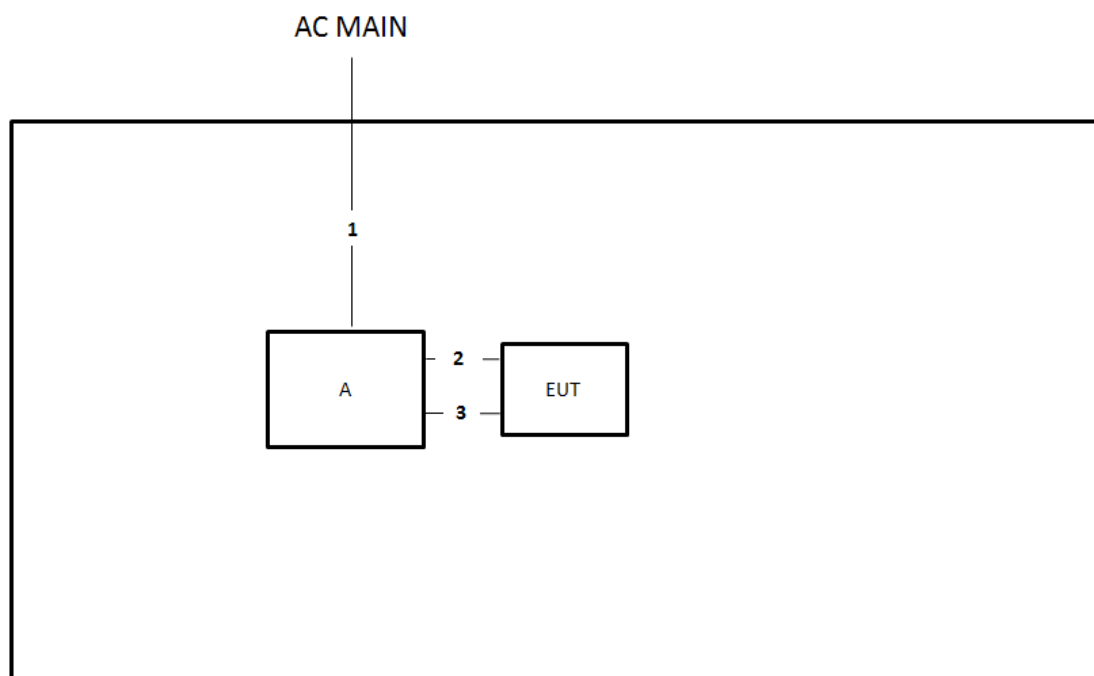
| Support Equipment | | | | |
|-------------------|-----------|------------|------------|--------|
| No. | Equipment | Brand Name | Model Name | FCC ID |
| A | NB | DELL | E4300 | N/A |

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz


| Item | Connection | Shielded | Length |
|------|--------------|----------|--------|
| 1 | Power cable | No | 1.5m |
| 2 | Type-C cable | Yes | 1.5m |
| 3 | HDMI cable | Yes | 1.8m |

Test Setup Diagram - Radiated Test > 1GHz


| Item | Connection | Shielded | Length |
|------|---------------|----------|--------|
| 1 | Power cable | No | 2.6m |
| 2 | Type-C cable | Yes | 1.5m |
| 3 | Console cable | No | 0.7m |

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

| AC Power-line Conducted Emissions Limit | | |
|---|------------|-----------|
| Frequency Emission (MHz) | Quasi-Peak | Average |
| 0.15-0.5 | 66 - 56 * | 56 - 46 * |
| 0.5-5 | 56 | 46 |
| 5-30 | 60 | 50 |

Note 1: * Decreases with the logarithm of the frequency.

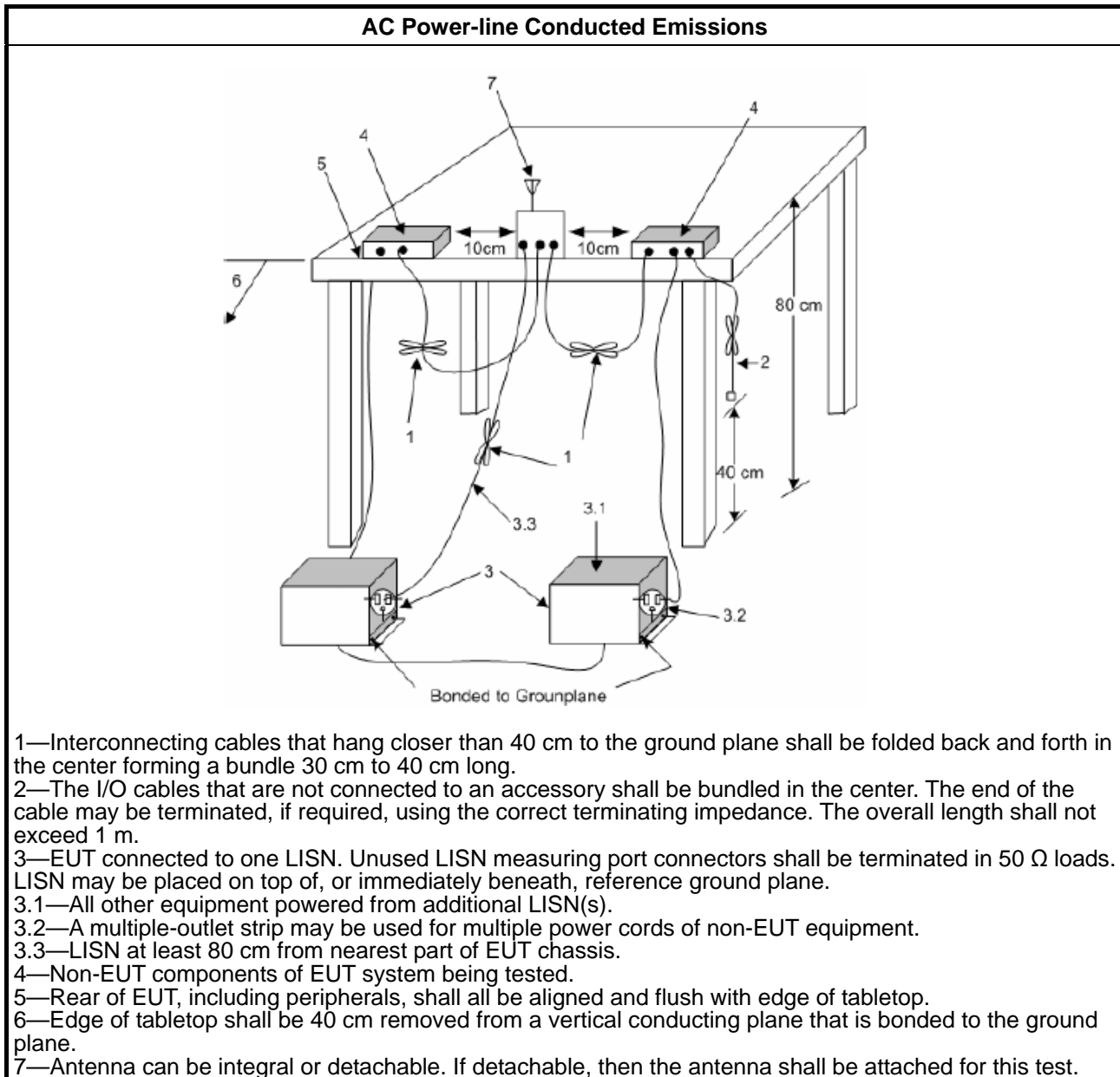
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

| Test Method |
|--|
| ▪ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions. |

3.1.4 Test Setup



1.1.1. Measurement Results Calculation

The measured Level is calculated using:

- a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- b. Margin = -Limit + Level

3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 20dB Bandwidth and Carrier Frequency Separation

3.2.1 20dB Bandwidth and Carrier Frequency Separation Limit

| 20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems | |
|---|--|
| ▪ 902-928 MHz Band: | |
| | ▪ $N \geq 50$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth \leq 250 kHz. |
| | ▪ $50 > N \geq 25$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz. |
| ▪ 2400-2483.5 MHz Band: | |
| | ▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz). |
| | ▪ $75 > N \geq 15$ and $ChS \geq \text{MAX}$ (20 dB bandwidth 2/3, 25 kHz). |
| ▪ 5725-5850 MHz Band: | |
| | ▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth \leq 1 MHz. |
| N: Number of Hopping Frequencies; ChS: Hopping Channel Separation | |

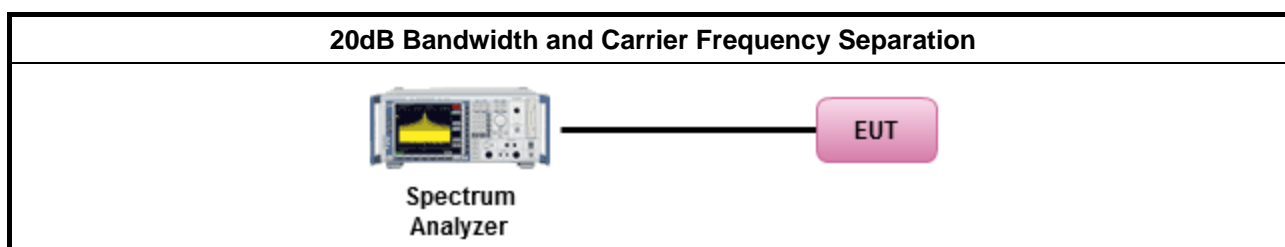
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

| Test Method |
|---|
| ▪ Refer as ANSI C63.10-2013, clause 6.9.1 for 20 dB bandwidth measurement. |
| ▪ Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement. |

3.2.4 Test Setup



3.2.5 Test Result of 20dB Bandwidth

Refer as Appendix B

3.2.6 Test Result of Carrier Frequency Separation

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

| Maximum Conducted Output Power Limit | |
|--|--|
| ▪ 902-928 MHz Band: | |
| ▪ N ≥ 50; Power 30dBm; EIRP 36dBm | |
| ▪ 50 > N ≥ 25; Power 23.98dBm; EIRP 29.98dBm | |
| ▪ 2400-2483.5 MHz Band: | |
| ▪ N ≥ 75; Power 30dBm; EIRP 36dBm | |
| ▪ 75 > N ≥ 15; Power 21dBm; EIRP 27dBm | |
| ▪ 5725-5850 MHz Band: | |
| ▪ N ≥ 75; Power 30dBm; EIRP 36dBm | |
| N: Number of Hopping Frequencies | |

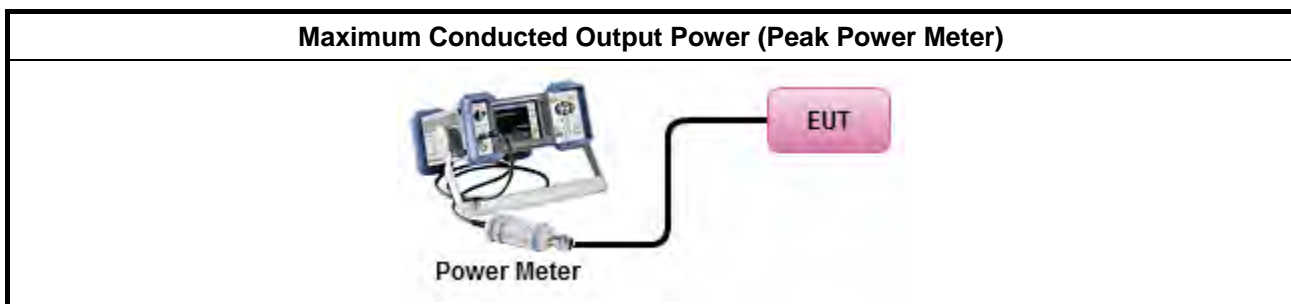
3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

| Test Method |
|---|
| ▪ Refer as ANSI C63.10-2013, clause 7.8.5 for output power measurement. |

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Number of Hopping Frequencies and Hopping Bandedge

3.4.1 Number of Hopping Frequencies Limit

| Number of Hopping Frequencies Limit | |
|--|---|
| ▪ 902-928 MHz Band: | |
| | ▪ $N \geq 50$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth \leq 250 kHz. |
| | ▪ $50 > N \geq 25$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz. |
| ▪ 2400-2483.5 MHz Band: | |
| | ▪ $N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz). |
| | ▪ $75 > N \geq 15$ and $ChS \geq MAX$ (20 dB bandwidth 2/3, 25 kHz). |
| ▪ 5725-5850 MHz Band: | |
| | ▪ $N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth \leq 1 MHz. |
| N: Number of Hopping Frequencies; ChS : Hopping Channel Separation | |

3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

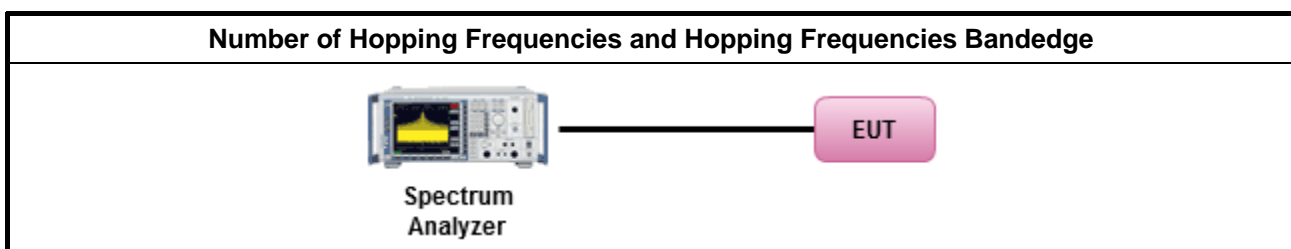
3.4.3 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.4 Test Procedures

| Test Method |
|--|
| ▪ Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement. |
| ▪ Refer as ANSI C63.10-2013, clause 7.8.6 for hopping frequencies Bandedge measurement. |

3.4.5 Test Setup



3.4.6 Test Result of Number of Hopping Frequencies

Refer as Appendix D

3.4.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix D

3.5 Time of Occupancy (Dwell Time)

3.5.1 Time of Occupancy (Dwell Time) Limit

| 20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems | |
|---|--|
| ▪ 902-928 MHz Band: | |
| | ▪ $N \geq 50$; 0.4s in 20s period |
| | ▪ $50 > N \geq 25$; 0.4s in 10s period |
| ▪ 2400-2483.5 MHz Band: | |
| | ▪ $N \geq 75$; 0.4s in $N \times 0.4$ period |
| | ▪ $75 > N \geq 15$; 0.4s in $N \times 0.4$ period |
| ▪ 5725-5850 MHz Band: | |
| | ▪ $N \geq 75$; 0.4s in 30s period |
| N: Number of Hopping Frequencies | |

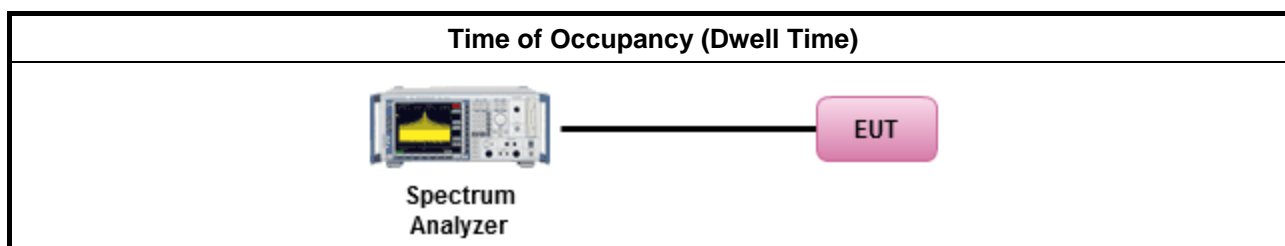
3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

| Test Method | |
|--|--|
| ▪ Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement. | |
| ▪ Bluetooth ACL packets can be 1, 3, or 5 time slots. Following as dwell time. Operate DH5 at maximum dwell time and maximum duty cycle. | |
| | ▪ The DH5 packet can cover up to 5 time slots. Operate DH5 at maximum dwell time and maximum duty cycle. A maximum length packet has duration of 5 time slots. The hopping rate is 1600 hops/second so the maximum dwell time is $5/1600$ seconds, or 3.125ms. DH5 Packet permit maximum $1600/79/6 = 3.37$ hops per second in each channel. |

3.5.4 Test Setup



3.5.5 Test Result of Time of Occupancy (Dwell Time)

Refer as Appendix E

3.6 Emissions in Non-restricted Frequency Bands

3.6.1 Emissions in Non-restricted Frequency Bands Limit

| Un-restricted Band Emissions Limit | |
|---|-------------|
| RF output power procedure | Limit (dBc) |
| Peak output power procedure | 20 |
| Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. | |

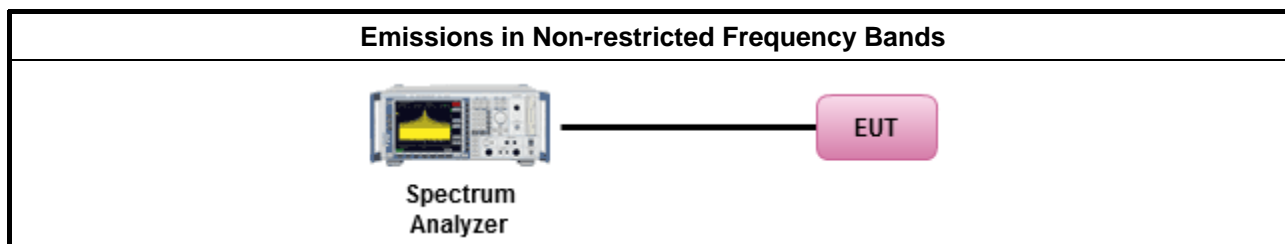
3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

| Test Method |
|---|
| <ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 7.8.8 for unwanted emissions into non-restricted bands. |

3.6.4 Test Setup



3.6.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix F

3.7 Emissions in Restricted Frequency Bands

3.7.1 Emissions in Restricted Frequency Bands Limit

| Restricted Band Emissions Limit | | | |
|---------------------------------|-----------------------|-------------------------|----------------------|
| Frequency Range (MHz) | Field Strength (uV/m) | Field Strength (dBuV/m) | Measure Distance (m) |
| 0.009~0.490 | 2400/F(kHz) | 48.5 - 13.8 | 300 |
| 0.490~1.705 | 24000/F(kHz) | 33.8 - 23 | 30 |
| 1.705~30.0 | 30 | 29 | 30 |
| 30~88 | 100 | 40 | 3 |
| 88~216 | 150 | 43.5 | 3 |
| 216~960 | 200 | 46 | 3 |
| Above 960 | 500 | 54 | 3 |

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

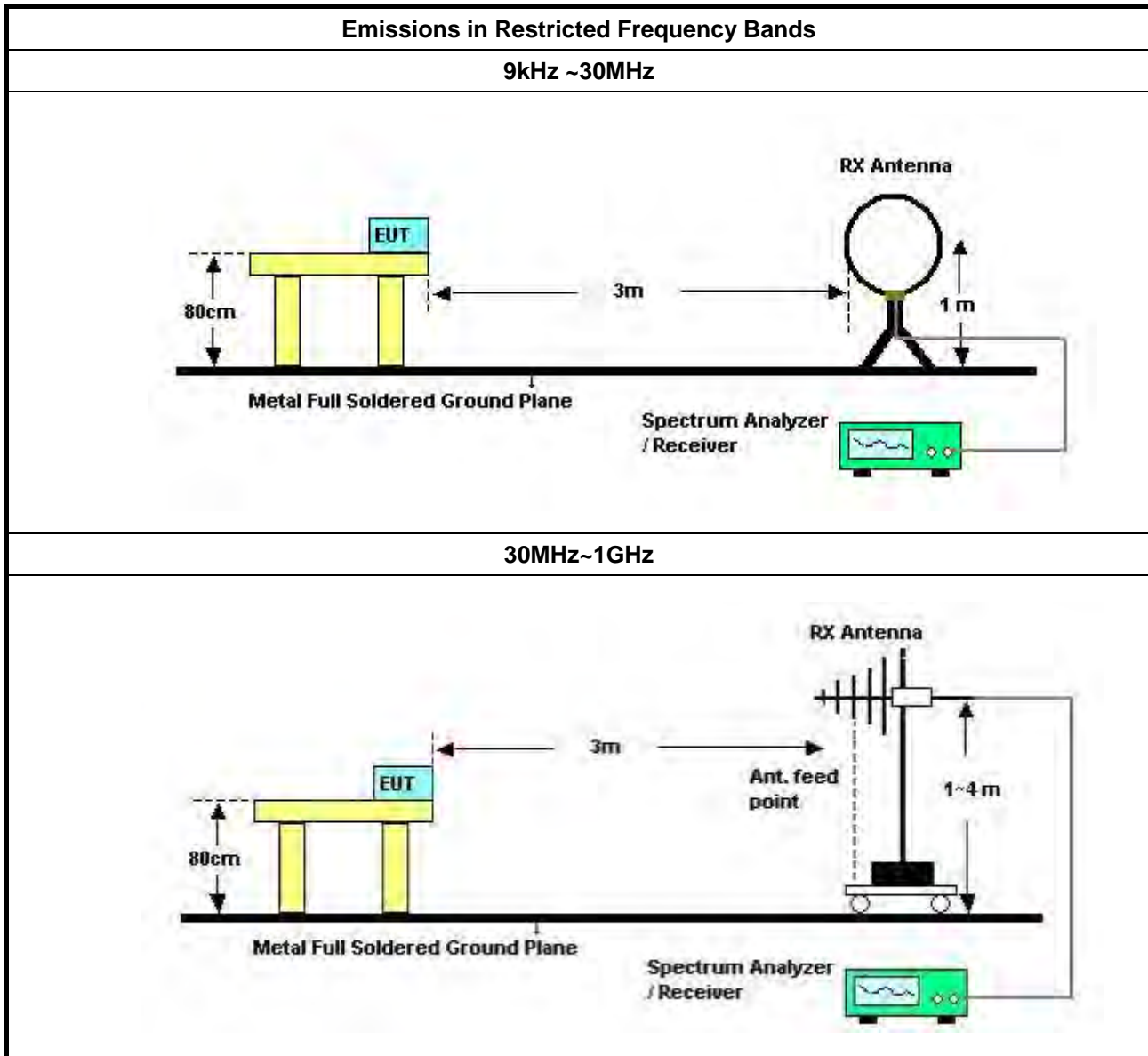
3.7.2 Measuring Instruments

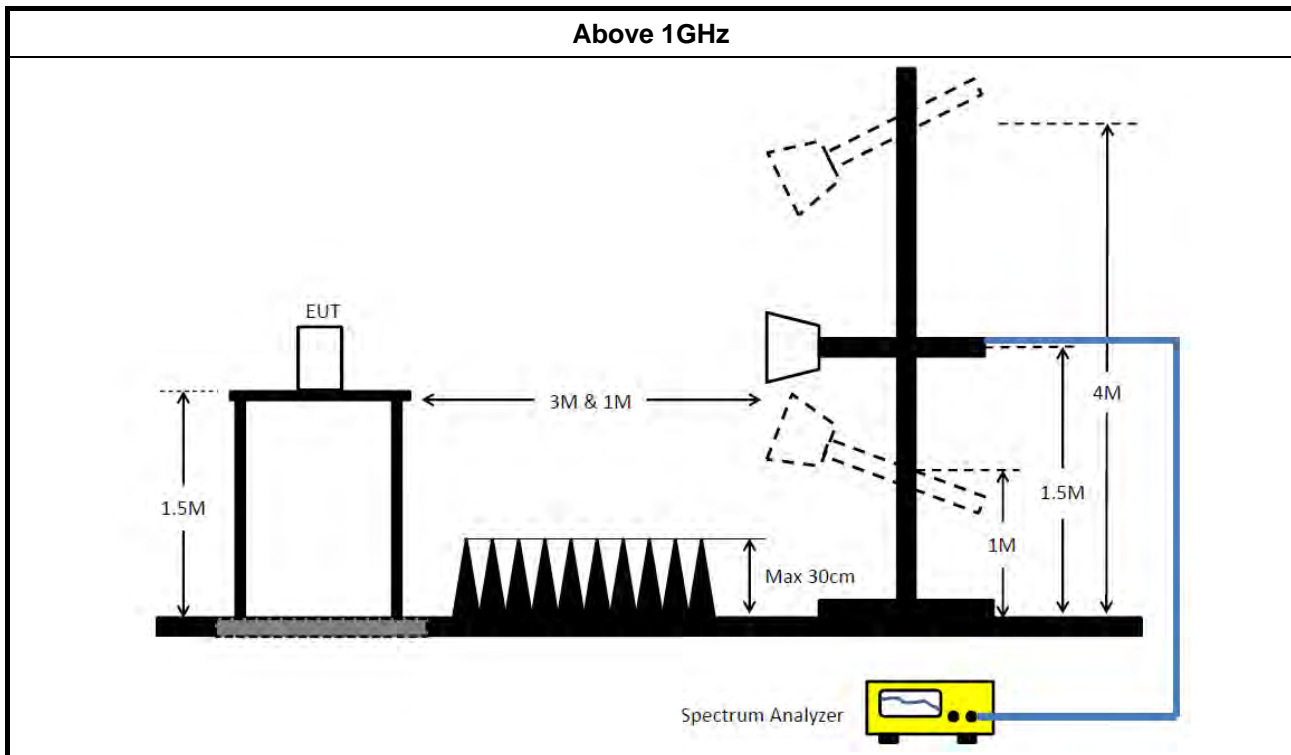
Refer a test equipment and calibration data table in this test report.

3.7.3 Test Procedures

| Test Method | |
|---|---|
| <ul style="list-style-type: none">▪ The average emission levels shall be measured in [hopping duty factor]. | |
| <ul style="list-style-type: none">▪ Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. | |
| <ul style="list-style-type: none">▪ For the transmitter unwanted emissions shall be measured using following options below: | |
| | <ul style="list-style-type: none">▪ Refer as ANSI C63.10, clause 4.1.4.2.1 QP value. |
| | <ul style="list-style-type: none">▪ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak. |
| | <ul style="list-style-type: none">▪ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions. |

3.7.4 Test Setup





3.7.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

3.7.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

3.7.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix G



4 Test Equipment and Calibration Data

| Instrument | Brand | Model No. | Serial No. | Characteristics | Calibration Date | Calibration Due Date | Remark |
|------------------------------------|-----------------|-------------------|------------------|-----------------|------------------|----------------------|-----------------------|
| EMI Receiver | Agilent | N9038A | My52260123 | 9kHz ~ 8.4GHz | Mar. 03, 2021 | Mar. 02, 2022 | Conduction (CO01-CB) |
| LISN | F.C.C. | FCC-LISN-50-16-2 | 04083 | 150kHz ~ 100MHz | Jan. 06, 2021 | Jan. 05, 2022 | Conduction (CO01-CB) |
| LISN | Schwarzbeck | NSLK 8127 | 8127647 | 9kHz ~ 30MHz | Mar. 07, 2021 | Mar. 06, 2022 | Conduction (CO01-CB) |
| Pulse Limiter | Rohde & Schwarz | ESH3-Z2 | 100430 | 9kHz ~ 30MHz | Jan. 30, 2021 | Jan. 29, 2022 | Conduction (CO01-CB) |
| COND Cable | Woken | Cable | Low cable-CO01 | 9kHz ~ 30MHz | May 19, 2021 | May 18, 2022 | Conduction (CO01-CB) |
| Software | SPORTON | SENSE | V5.10 | - | N.C.R. | N.C.R. | Conduction (CO01-CB) |
| 3m Semi Anechoic Chamber NSA | TDK | SAC-3M | 03CH06-CB | 30 MHz ~ 1 GHz | Aug. 10, 2020 | Aug. 09, 2021 | Radiation (03CH06-CB) |
| Loop Antenna | Teseq | HLA 6120 | 24155 | 9kHz - 30 MHz | Apr. 14, 2021 | Apr. 13, 2022 | Radiation (03CH06-CB) |
| Bilog Antenna with 6 dB attenuator | TESEQ & EMCI | CBL6112D & N-6-06 | 37878 & AT-N0606 | 20MHz ~ 2GHz | Aug. 02, 2020 | Aug. 01, 2021 | Radiation (03CH06-CB) |
| Pre-Amplifier | Agilent | 310N | 187290 | 0.1MHz ~ 1GHz | Nov. 05, 2020 | Nov. 04, 2021 | Radiation (03CH06-CB) |
| Spectrum analyzer | R&S | FSP40 | 100080 | 9kHz~40GHz | Dec. 15, 2020 | Dec. 14, 2021 | Radiation (03CH06-CB) |
| EMI Test Receiver | R&S | ESCS | 826547/017 | 9kHz ~ 2.75GHz | Jun. 21, 2021 | Jun. 20, 2022 | Radiation (03CH06-CB) |
| RF Cable-low | Woken | RG402 | Low Cable-05+24 | 30MHz~1GHz | Oct. 05, 2020 | Oct. 04, 2021 | Radiation (03CH06-CB) |
| Test Software | SPORTON | SENSE | V5.10 | - | N.C.R. | N.C.R. | Radiation (03CH06-CB) |
| 3m Semi Anechoic Chamber VSWR | TDK | SAC-3M | 03CH05-CB | 1GHz ~18GHz 3m | Nov. 08, 2020 | Nov. 07, 2021 | Radiation (03CH05-CB) |
| Horn Antenna | SCHWARZBECK | BBHA9120D | BBHA 9120 D-1291 | 1GHz~18GHz | Sep. 05, 2020 | Sep. 04, 2021 | Radiation (03CH05-CB) |
| Horn Antenna | Schwarzbeck | BBHA 9170 | BBHA9170252 | 15GHz ~ 40GHz | Jul. 21, 2020 | Jul. 20, 2021 | Radiation (03CH05-CB) |
| Pre-Amplifier | EMCI | EMC12630SE | 980287 | 1GHz ~ 26.5GHz | Jul. 03, 2020 | Jul. 02, 2021 | Radiation (03CH05-CB) |
| Amplifier | - | - | TF-130N-R1 | 18GHz ~ 40GHz | Jun. 15, 2021 | Jun. 14, 2022 | Radiation (03CH05-CB) |
| Spectrum Analyzer | R&S | FSP40 | 100304 | 9kHz ~ 40GHz | Nov. 10, 2020 | Nov. 09, 2021 | Radiation (03CH05-CB) |
| EMI Test Receiver | R&S | ESR7 | 102171 | 9kHz ~ 26GHz | Jul. 01, 2020 | Jun. 30, 2021 | Radiation (03CH05-CB) |



| Instrument | Brand | Model No. | Serial No. | Characteristics | Calibration Date | Calibration Due Date | Remark |
|-------------------|---------|-----------|------------------|------------------|------------------|----------------------|-----------------------|
| RF Cable-high | Woken | RG402 | High Cable-28 | 1GHz~18GHz | Oct. 05, 2020 | Oct. 04, 2021 | Radiation (03CH05-CB) |
| RF Cable-high | Woken | RG402 | High Cable-40G#1 | 18GHz ~ 40 GHz | Jul. 16, 2020 | Jul. 15, 2021 | Radiation (03CH05-CB) |
| RF Cable-high | Woken | RG402 | High Cable-04+28 | 1GHz~18GHz | Oct. 05, 2020 | Oct. 04, 2021 | Radiation (03CH05-CB) |
| RF Cable-high | Woken | RG402 | High Cable-40G#2 | 18GHz ~ 40 GHz | Jul. 16, 2020 | Jul. 15, 2021 | Radiation (03CH05-CB) |
| Test Software | SPORTON | SENSE | V5.10 | - | N.C.R. | N.C.R. | Radiation (03CH05-CB) |
| Spectrum analyzer | R&S | FSV40 | 100979 | 9kHz~40GHz | May 21, 2021 | May 20, 2022 | Conducted (TH01-CB) |
| RF Cable-high | Woken | RG402 | High Cable-06 | 1 GHz – 26.5 GHz | Oct. 05, 2020 | Oct. 04, 2021 | Conducted (TH01-CB) |
| RF Cable-high | Woken | RG402 | High Cable-07 | 1 GHz –26.5 GHz | Oct. 05, 2020 | Oct. 04, 2021 | Conducted (TH01-CB) |
| RF Cable-high | Woken | RG402 | High Cable-08 | 1 GHz –26.5 GHz | Oct. 05, 2020 | Oct. 04, 2021 | Conducted (TH01-CB) |
| RF Cable-high | Woken | RG402 | High Cable-09 | 1 GHz –26.5 GHz | Oct. 05, 2020 | Oct. 04, 2021 | Conducted (TH01-CB) |
| RF Cable-high | Woken | RG402 | High Cable-10 | 1 GHz –26.5 GHz | Oct. 05, 2020 | Oct. 04, 2021 | Conducted (TH01-CB) |
| RF Cable-high | Woken | RG402 | High Cable-30 | 1 GHz –26.5 GHz | Oct. 05, 2020 | Oct. 04, 2021 | Conducted (TH01-CB) |
| Cable | Woken | RG402 | low Cable-30 | 9 kHz –1 GHz | Apr. 06, 2021 | Apr. 05, 2022 | Conducted (TH01-CB) |
| Power Sensor | Agilent | E9327A | US40442088 | 50MHz~18GHz | Feb. 23, 2021 | Feb. 22, 2022 | Conducted (TH01-CB) |
| Power Meter | Agilent | E4416A | GB41291199 | 50MHz~18GHz | Feb. 23, 2021 | Feb. 22, 2022 | Conducted (TH01-CB) |
| Test Software | SPORTON | SENSE | V5.10 | - | N.C.R. | N.C.R. | Conducted (TH01-CB) |

Note: Calibration Interval of instruments listed above is one year.
NCR means Non-Calibration required.



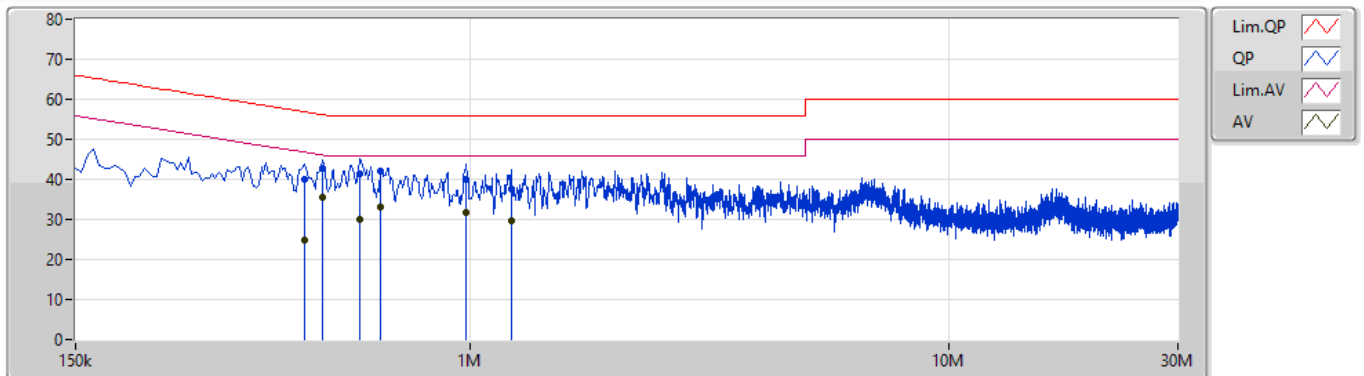
Conducted Emissions at Powerline

Appendix A

Summary

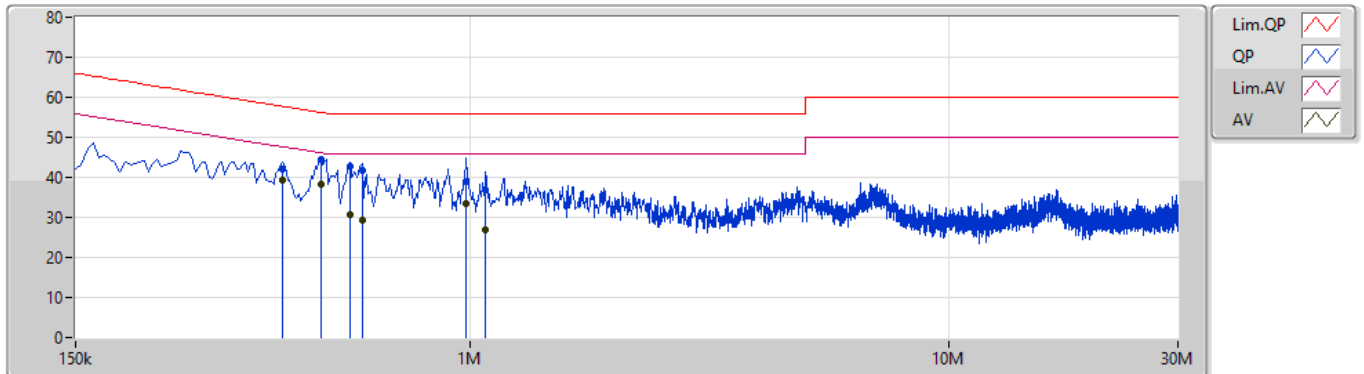
| Mode | Result | Type | Freq (Hz) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Condition |
|--------|--------|------|--------------|-----------------|-----------------|----------------|-----------|
| Mode 2 | Pass | AV | 487.5k | 38.24 | 46.21 | -7.97 | Neutral |

28/07/2021



| Type | Freq (Hz) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Factor (dB) | Condition | Comment | Raw (dBuV) | LISN (dB) | CL (dB) | AT (dB) | | | |
|------|--------------|-----------------|-----------------|----------------|----------------|-----------|---------|---------------|--------------|------------|------------|--|--|--|
| QP | 451.5k | 39.91 | 56.84 | -16.93 | 9.90 | Line | - | 30.01 | 0.04 | 0.04 | 9.82 | | | |
| AV | 451.5k | 24.96 | 46.84 | -21.88 | 9.90 | Line | - | 15.06 | 0.04 | 0.04 | 9.82 | | | |
| QP | 492k | 42.78 | 56.13 | -13.35 | 9.90 | Line | - | 32.88 | 0.04 | 0.04 | 9.82 | | | |
| AV | 492k | 35.48 | 46.13 | -10.65 | 9.90 | Line | "Worst" | 25.58 | 0.04 | 0.04 | 9.82 | | | |
| QP | 586.5k | 41.28 | 56.00 | -14.72 | 9.91 | Line | - | 31.37 | 0.05 | 0.04 | 9.82 | | | |
| AV | 586.5k | 29.89 | 46.00 | -16.11 | 9.91 | Line | - | 19.98 | 0.05 | 0.04 | 9.82 | | | |
| QP | 649.5k | 42.03 | 56.00 | -13.97 | 9.92 | Line | - | 32.11 | 0.05 | 0.04 | 9.83 | | | |
| AV | 649.5k | 32.95 | 46.00 | -13.05 | 9.92 | Line | - | 23.03 | 0.05 | 0.04 | 9.83 | | | |
| QP | 982.5k | 40.01 | 56.00 | -15.99 | 9.93 | Line | - | 30.08 | 0.06 | 0.04 | 9.83 | | | |
| AV | 982.5k | 31.74 | 46.00 | -14.26 | 9.93 | Line | - | 21.81 | 0.06 | 0.04 | 9.83 | | | |
| QP | 1.217M | 37.70 | 56.00 | -18.30 | 9.95 | Line | - | 27.75 | 0.07 | 0.05 | 9.83 | | | |
| AV | 1.217M | 29.60 | 46.00 | -16.40 | 9.95 | Line | - | 19.65 | 0.07 | 0.05 | 9.83 | | | |

28/07/2021



| Type | Freq (Hz) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Factor (dB) | Condition | Comment | Raw (dBuV) | LISN (dB) | CL (dB) | AT (dB) | | | |
|------|--------------|-----------------|-----------------|----------------|----------------|-----------|---------|---------------|--------------|------------|------------|--|--|--|
| QP | 406.5k | 41.93 | 57.72 | -15.79 | 9.89 | Neutral | - | 32.04 | 0.03 | 0.04 | 9.82 | | | |
| AV | 406.5k | 39.43 | 47.72 | -8.29 | 9.89 | Neutral | - | 29.54 | 0.03 | 0.04 | 9.82 | | | |
| QP | 487.5k | 44.58 | 56.21 | -11.63 | 9.89 | Neutral | - | 34.69 | 0.03 | 0.04 | 9.82 | | | |
| AV | 487.5k | 38.24 | 46.21 | -7.97 | 9.89 | Neutral | "Worst" | 28.35 | 0.03 | 0.04 | 9.82 | | | |
| QP | 559.5k | 42.79 | 56.00 | -13.21 | 9.90 | Neutral | - | 32.89 | 0.04 | 0.04 | 9.82 | | | |
| AV | 559.5k | 30.65 | 46.00 | -15.35 | 9.90 | Neutral | - | 20.75 | 0.04 | 0.04 | 9.82 | | | |
| QP | 595.5k | 41.72 | 56.00 | -14.28 | 9.90 | Neutral | - | 31.82 | 0.04 | 0.04 | 9.82 | | | |
| AV | 595.5k | 29.19 | 46.00 | -16.81 | 9.90 | Neutral | - | 19.29 | 0.04 | 0.04 | 9.82 | | | |
| QP | 982.5k | 39.13 | 56.00 | -16.87 | 9.92 | Neutral | - | 29.21 | 0.05 | 0.04 | 9.83 | | | |
| AV | 982.5k | 33.29 | 46.00 | -12.71 | 9.92 | Neutral | - | 23.37 | 0.05 | 0.04 | 9.83 | | | |
| QP | 1.077M | 36.83 | 56.00 | -19.17 | 9.92 | Neutral | - | 26.91 | 0.05 | 0.04 | 9.83 | | | |
| AV | 1.077M | 26.83 | 46.00 | -19.17 | 9.92 | Neutral | - | 16.91 | 0.05 | 0.04 | 9.83 | | | |



Summary

| Mode | Max-N dB (Hz) | Max-OBW (Hz) | ITU-Code | Min-N dB (Hz) | Min-OBW (Hz) |
|---------------|------------------|-----------------|----------|------------------|-----------------|
| 2.4-2.4835GHz | - | - | - | - | - |
| QPSK | 4.391M | 3.906M | 3M91G7D | 4.38M | 3.902M |

Max-N dB = Maximum 20dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 20dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth

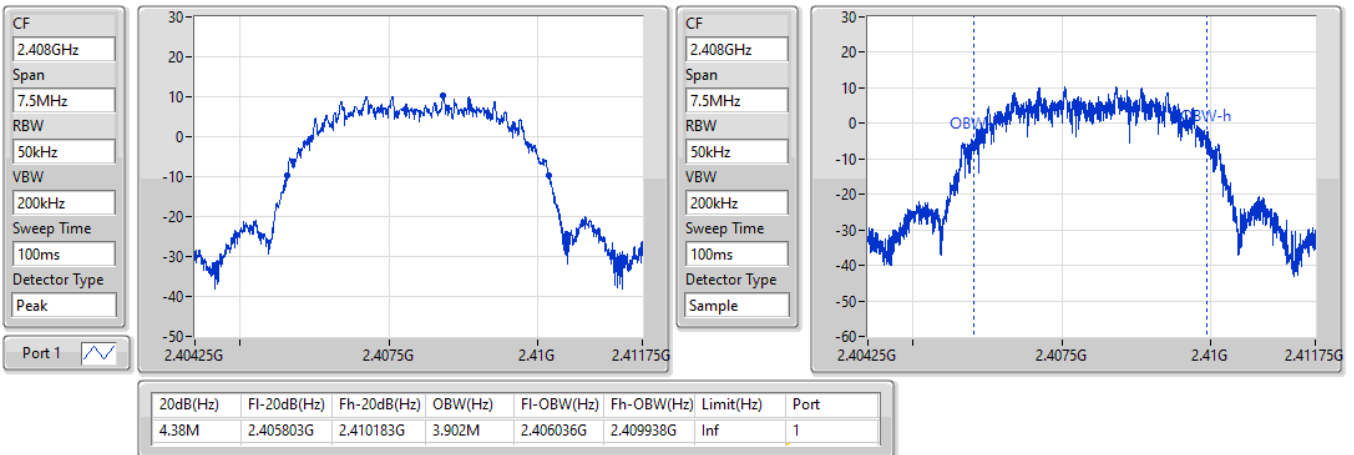
Result

| Mode | Result | Limit (Hz) | Port 1-N dB (Hz) | Port 1-OBW (Hz) |
|---------|--------|---------------|---------------------|--------------------|
| QPSK | - | - | - | - |
| 2408MHz | Pass | Inf | 4.38M | 3.902M |
| 2442MHz | Pass | Inf | 4.384M | 3.902M |
| 2468MHz | Pass | Inf | 4.391M | 3.906M |

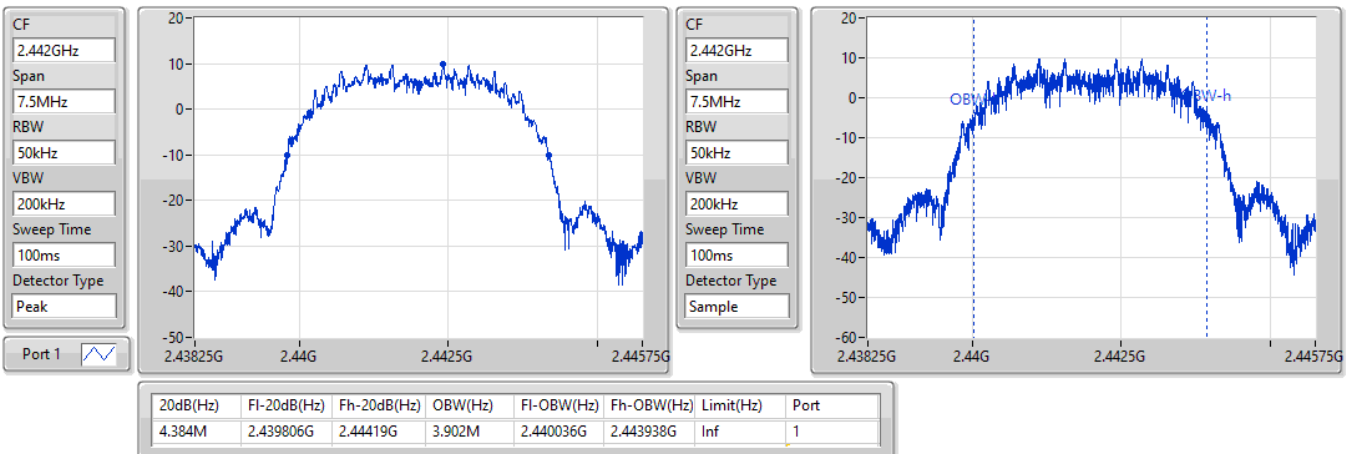
Port X-N dB = Port X 20dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

QPSK
2408MHz
EBW-FS

25/06/2021

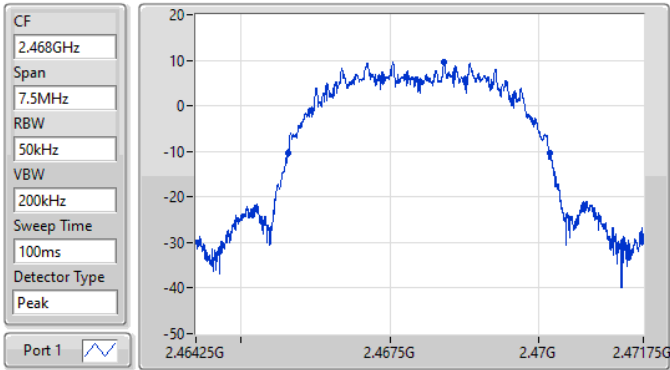

QPSK
2442MHz
EBW-FS

25/06/2021



QPSK

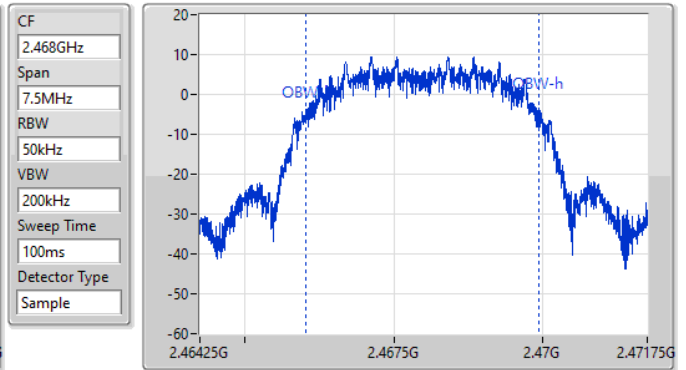
2468MHz



| 20dB(Hz) | Fl-20dB(Hz) | Fh-20dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Limit(Hz) | Port |
|----------|-------------|-------------|---------|------------|------------|-----------|------|
| 4.391M | 2.465791G | 2.470183G | 3.906M | 2.466025G | 2.46993G | Inf | 1 |

EBW-FS

25/06/2021





Summary

| Mode | Max-Space (Hz) | Min-Space (Hz) |
|---------------|-------------------|-------------------|
| 2.4-2.4835GHz | - | - |
| QPSK | 4.284M | 3.0015M |

Result

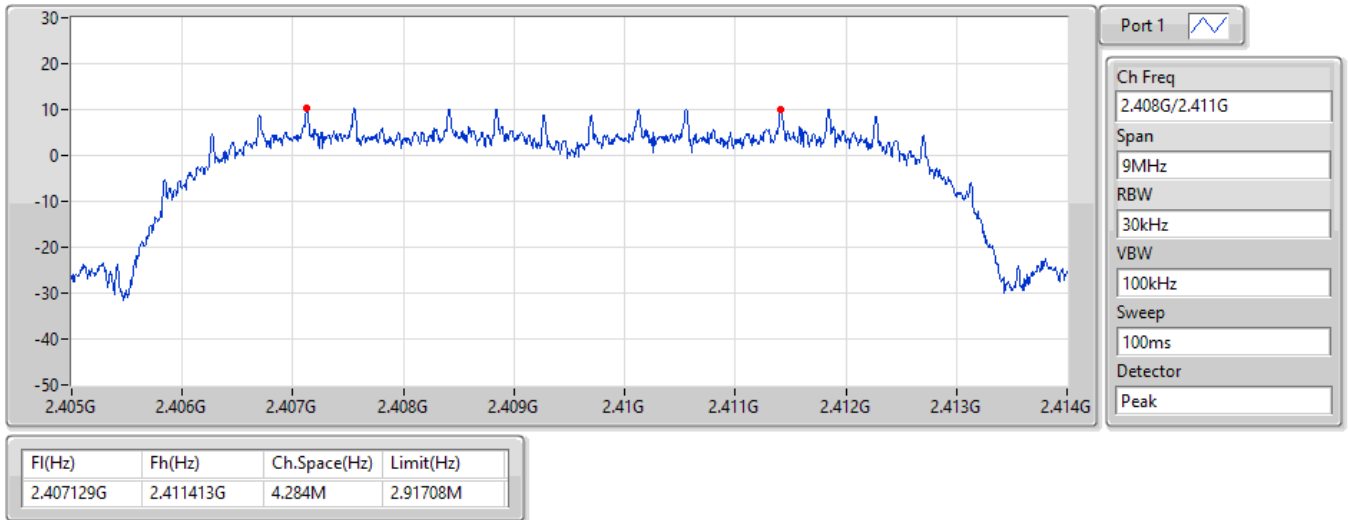
| Mode | Result | Fl (Hz) | Fh (Hz) | Ch.Space (Hz) | Limit (Hz) |
|---------|--------|------------|------------|------------------|---------------|
| QPSK | - | - | - | - | - |
| 2408MHz | Pass | 2.407129G | 2.411413G | 4.284M | 2.91708M |
| 2442MHz | Pass | 2.442411G | 2.445413G | 3.0015M | 2.919744M |
| 2468MHz | Pass | 2.464552G | 2.467553G | 3.0015M | 2.924406M |

QPSK

Channel Separation-FS

2.408G/2.411GHz

25/06/2021

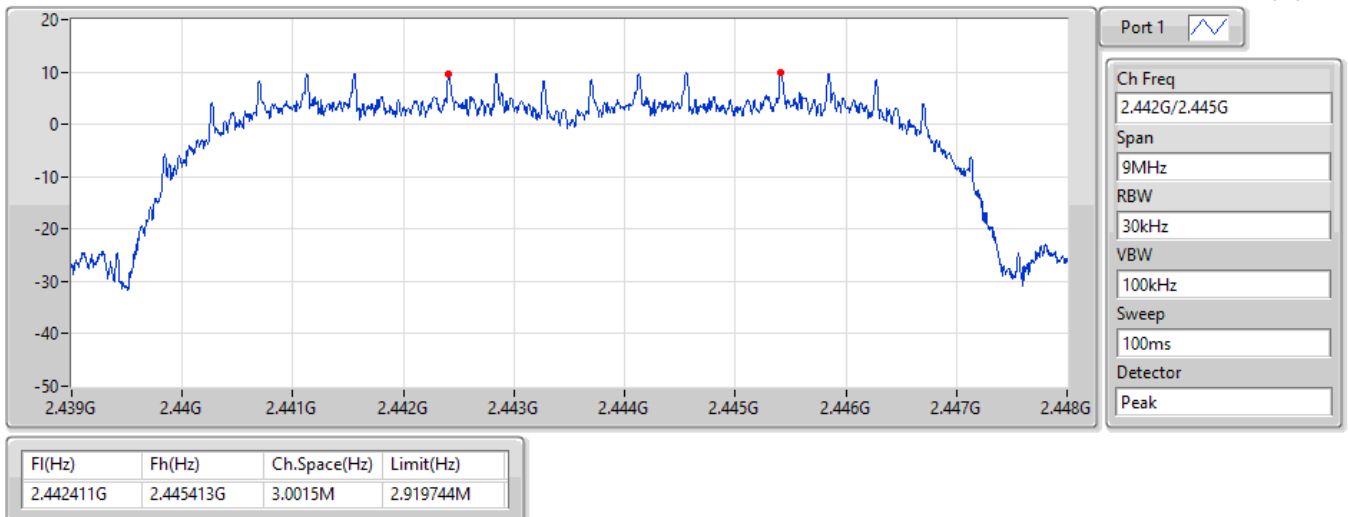


QPSK

Channel Separation-FS

2.442G/2.445GHz

25/06/2021

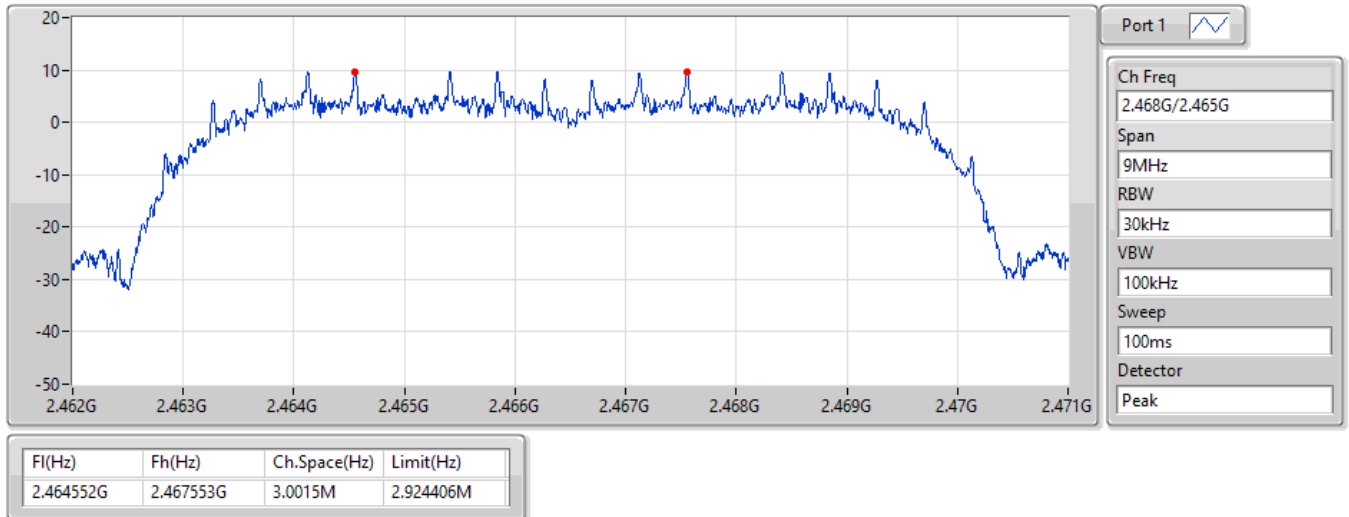


QPSK

Channel Separation-FS

2.468G/2.465GHz

25/06/2021





Average Power-FHSS

Appendix C.1

Summary

| Mode | Power (dBm) | Power (W) |
|---------------|----------------|--------------|
| 2.4-2.4835GHz | - | - |
| QPSK | 18.14 | 0.06516 |



Average Power-FHSS

Appendix C.1

Result

| Mode | Result | Gain (dBi) | Power (dBm) | Power Limit (dBm) |
|---------|--------|---------------|----------------|----------------------|
| QPSK | - | - | - | - |
| 2408MHz | Pass | 3.00 | 18.14 | 21.00 |
| 2442MHz | Pass | 3.00 | 17.79 | 21.00 |
| 2468MHz | Pass | 3.00 | 17.73 | 21.00 |

DG = Directional Gain; Port X = Port X output power



Summary

| Mode | Power (dBm) | Power (W) |
|---------------|----------------|--------------|
| 2.4-2.4835GHz | - | - |
| QPSK | 20.58 | 0.11429 |



Result

| Mode | Result | Gain (dBi) | Power (dBm) | Power Limit (dBm) |
|---------|--------|---------------|----------------|----------------------|
| QPSK | - | - | - | - |
| 2408MHz | Pass | 3.00 | 20.58 | 21.00 |
| 2442MHz | Pass | 3.00 | 20.38 | 21.00 |
| 2468MHz | Pass | 3.00 | 20.16 | 21.00 |

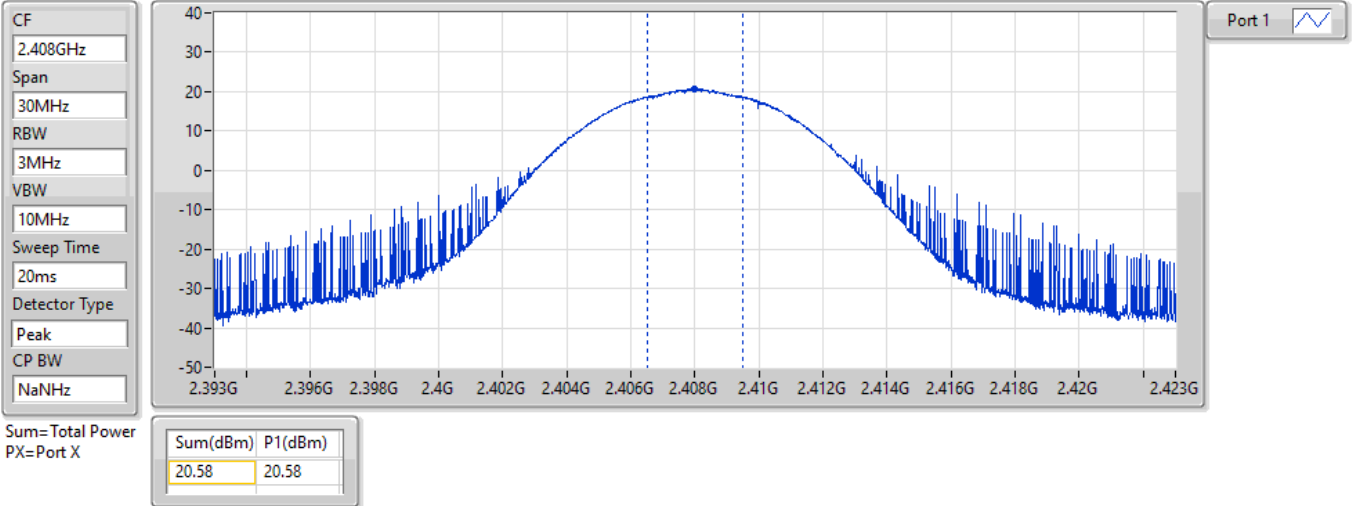
DG = Directional Gain; Port X = Port X output power

QPSK

2408MHz

PK Power-FS

25/06/2021

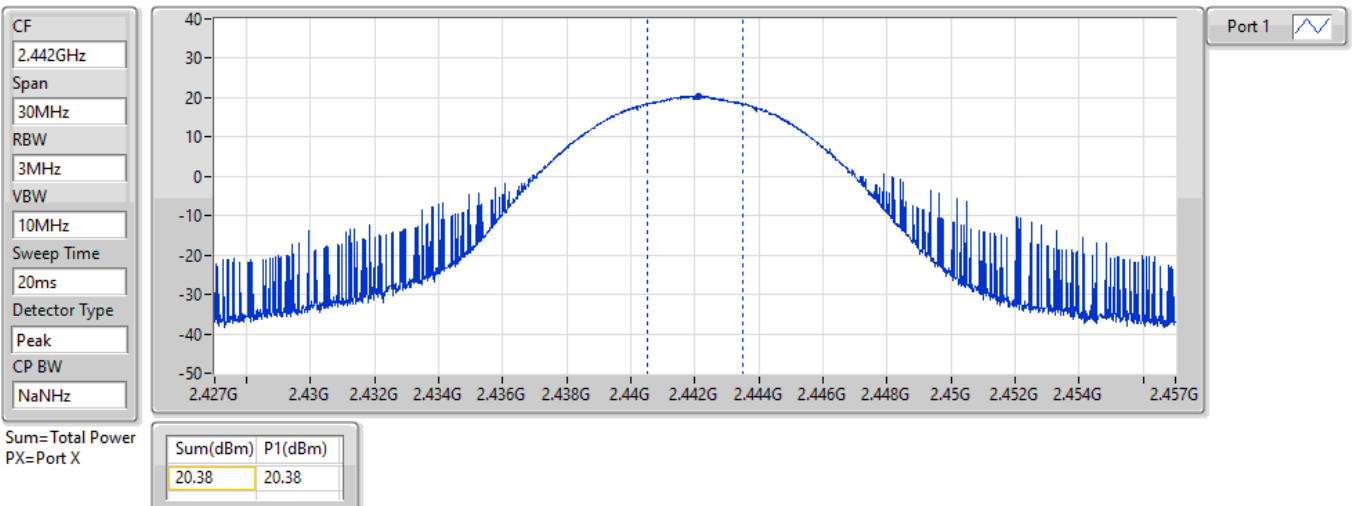


QPSK

2442MHz

PK Power-FS

25/06/2021

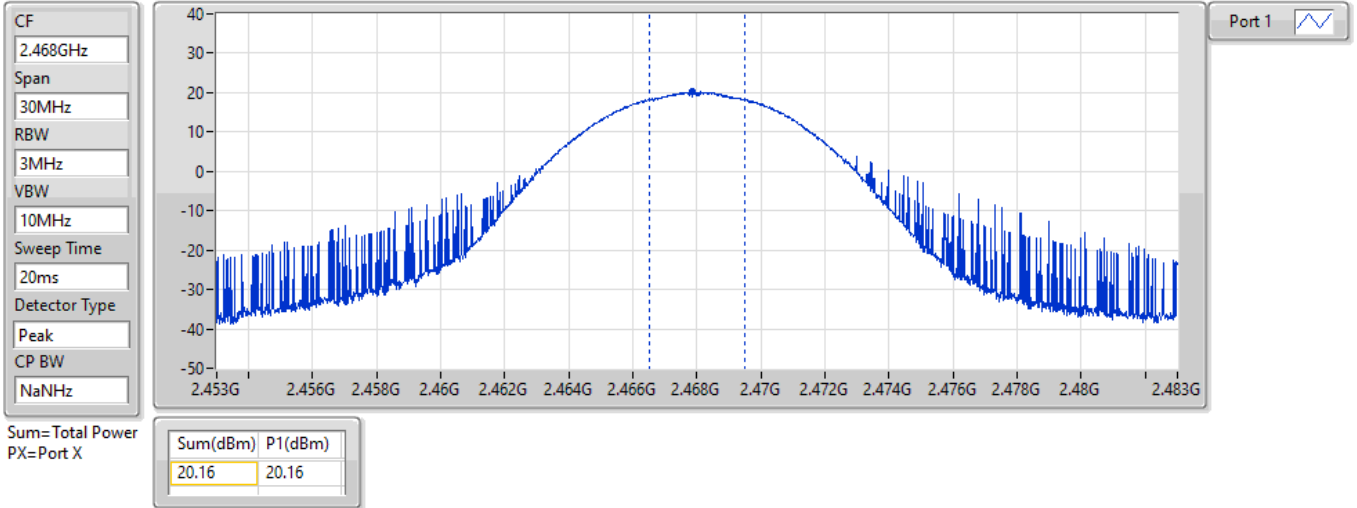


QPSK

PK Power-FS

2468MHz

25/06/2021





Summary

| Mode | Max-Hop No |
|---------------|------------|
| 2.4-2.4835GHz | - |
| QPSK | 15 |



Result

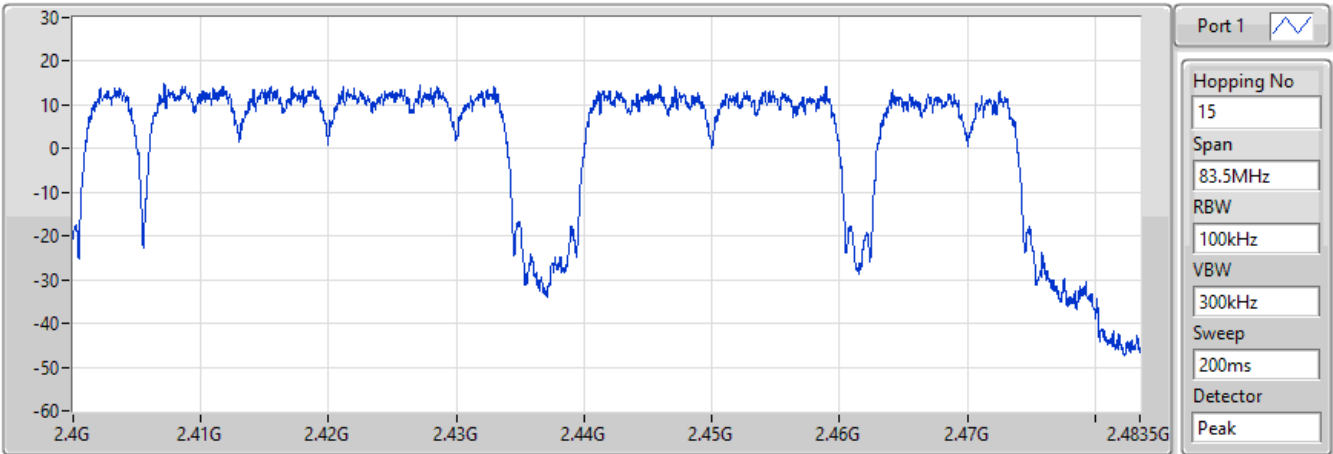
| Mode | Result | Hopping No | Limit |
|---------|--------|------------|-------|
| QPSK | - | - | - |
| 2442MHz | Pass | 15 | 15 |

QPSK

2442MHz

Hopping-FS

22/06/2021

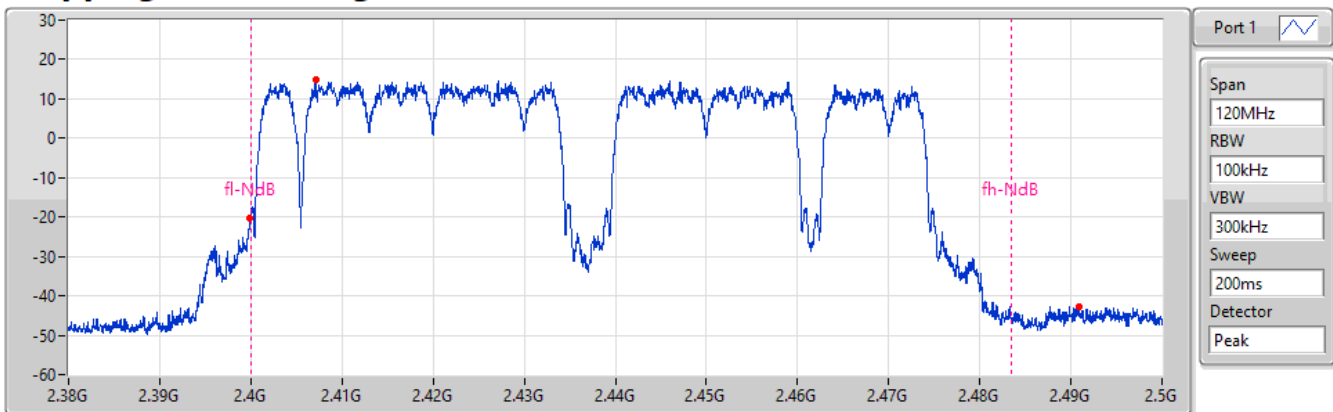


QPSK

2442MHz

Hopping Ch Bandedge (Non-restricted Band)

22/06/2021



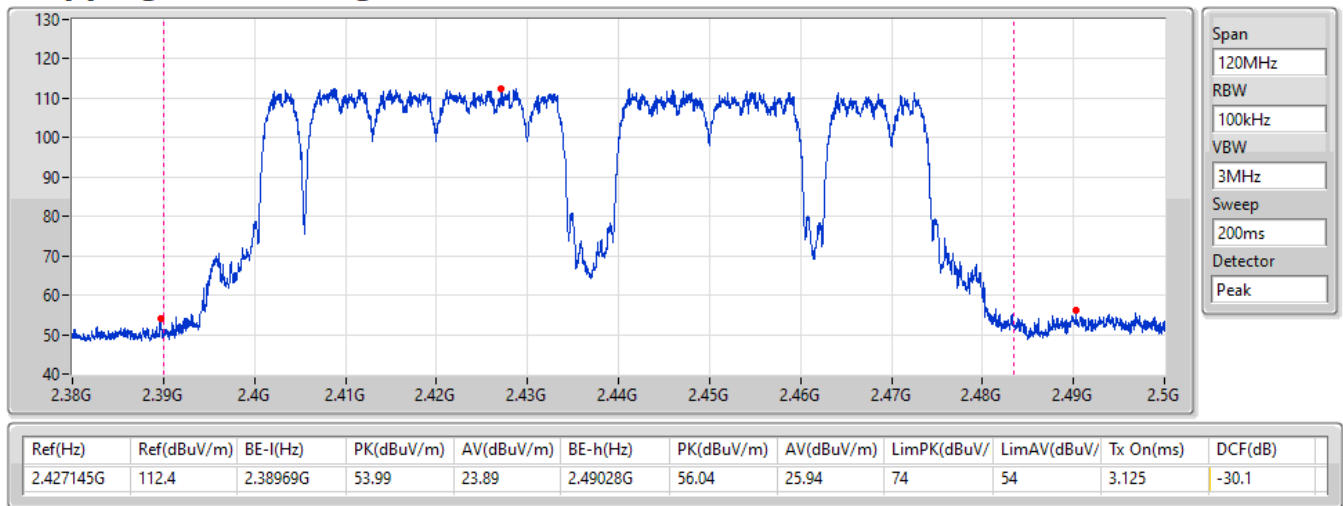
| Limit(dBm) | Ref(Hz) | Ref(dBm) | BE-l(Hz) | BE-l(dBm) | BE-h(Hz) | BE-h(dBm) |
|------------|-----------|----------|-----------|-----------|-----------|-----------|
| -5.24 | 2.407135G | 14.76 | 2.399935G | -20.18 | 2.490835G | -42.85 |

QPSK

2442MHz

Hopping Ch Bandedge (Restricted Band)

22/06/2021





Summary

| Mode | Max-Dwell (s) |
|---------------|------------------|
| 2.4-2.4835GHz | - |
| QPSK | 38.4826m |



Result

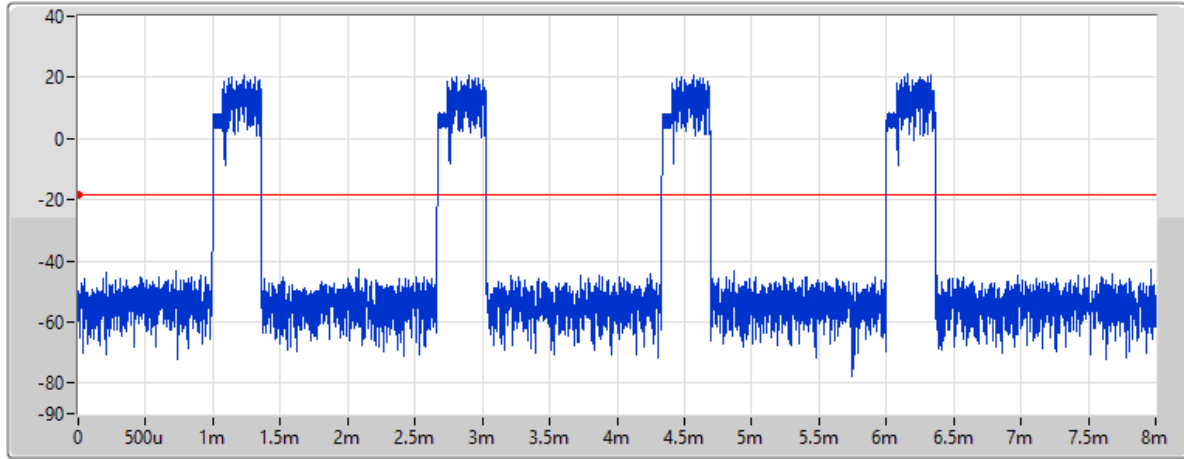
| Mode | Result | Period (s) | Dwell (s) | Limit (s) | Tx On (s) |
|---------|--------|---------------|--------------|--------------|--------------|
| QPSK | - | - | - | - | - |
| 2442MHz | Pass | 0 | 38.4826m | 400m | 361u |


QPSK

2442MHz

Dwell-FS

22/06/2021



Port 1 

Ch Freq
2.442GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
361us

| Period(s) | Dwell(s) | Limit(s) | Tx On(s) |
|-----------|-----------|----------|----------|
| 0 | 38.4826m_ | 400m | 361u |



Summary

| Mode | Result | Ref (Hz) | Ref (dBm) | Limit (dBm) | Freq (Hz) | Level (dBm) | Freq (Hz) | Level (dBm) | Freq (Hz) | Level (dBm) | Freq (Hz) | Level (dBm) | Freq (Hz) | Level (dBm) | Port |
|---------------|--------|-------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|------|
| 2.4-2.4835GHz | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| QPSK | Pass | 2.40714G | 12.72 | -7.28 | 1.77781G | -52.13 | 2.39973G | -35.61 | 2.4G | -37.09 | 2.50314G | -45.46 | 15.14653G | -46.07 | 1 |

Result

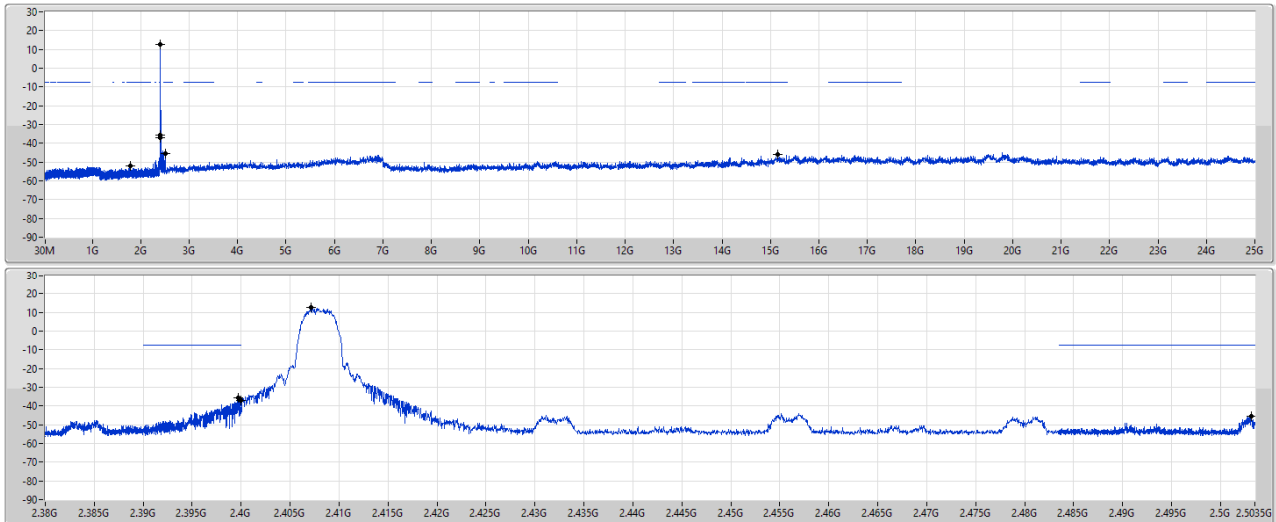
| Mode | Result | Ref (Hz) | Ref (dBm) | Limit (dBm) | Freq (Hz) | Level (dBm) | Freq (Hz) | Level (dBm) | Freq (Hz) | Level (dBm) | Freq (Hz) | Level (dBm) | Freq (Hz) | Level (dBm) | Port |
|---------|--------|-------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|------|
| QPSK | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2408MHz | Pass | 2.40714G | 12.72 | -7.28 | 1.77781G | -52.13 | 2.39973G | -35.61 | 2.4G | -37.09 | 2.50314G | -45.46 | 15.14653G | -46.07 | 1 |
| 2442MHz | Pass | 2.44112G | 12.37 | -7.63 | 895.68M | -52.20 | 2.39527G | -50.99 | 2.4G | -54.48 | 2.49123G | -44.11 | 24.581G | -45.36 | 1 |
| 2468MHz | Pass | 2.46713G | 12.21 | -7.79 | 1.78193G | -51.31 | 2.39476G | -47.78 | 2.4835G | -52.90 | 2.49113G | -44.84 | 2.51475G | -46.19 | 1 |

QPSK

2408MHz

CSENdB-FS

25/06/2021



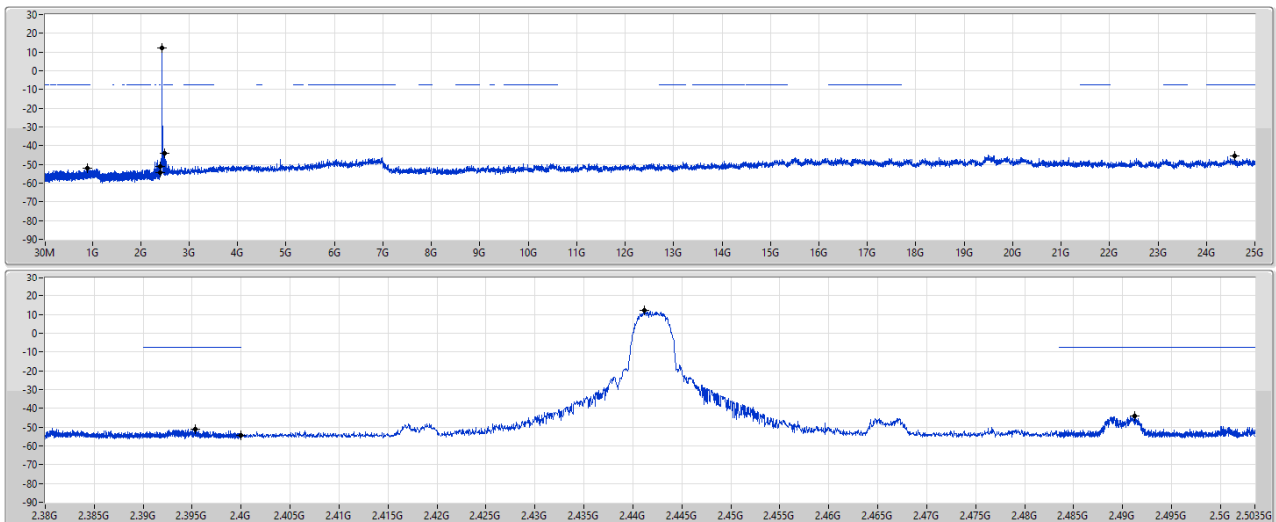
| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Port |
|----------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|------|
| 2.40714G | 12.72 | -7.28 | 1.77781G | -52.13 | 2.39973G | -35.61 | 2.4G | -37.09 | 2.50314G | -45.46 | 15.1463G | -46.07 | 1 |

QPSK

2442MHz

CSENdB-FS

25/06/2021



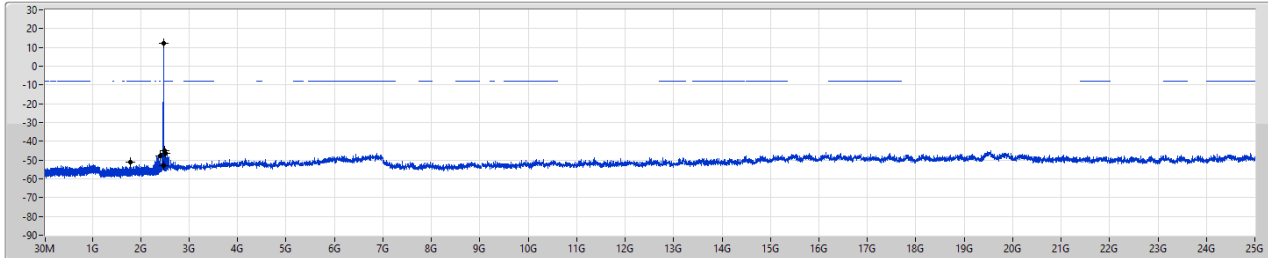
| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Port |
|----------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|------|
| 2.44112G | 12.37 | -7.63 | 895.68M | -52.20 | 2.39527G | -50.99 | 2.4G | -54.48 | 2.49123G | -44.11 | 24.581G | -45.36 | 1 |

QPSK

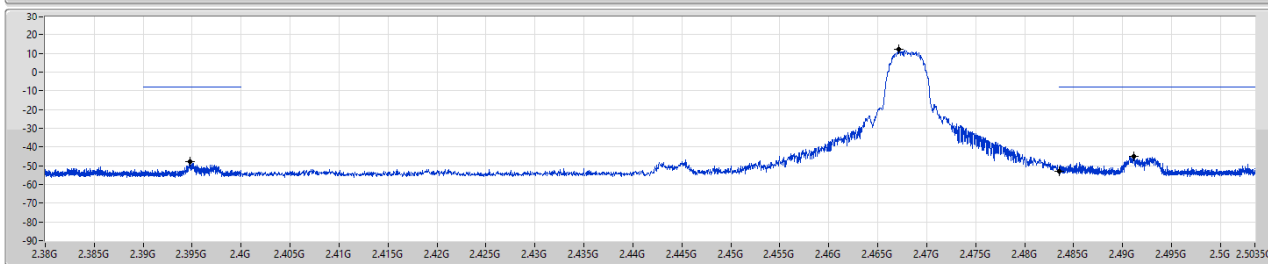
CSEndB-FS

2468MHz

25/06/2021



Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

| Ref(Hz) | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz) | Level(dBm) | Port |
|----------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|------|
| 2.46713G | 12.21 | -7.79 | 1.78193G | -51.31 | 2.39476G | -47.78 | 2.4833G | -52.90 | 2.49113G | -44.84 | 2.51475G | -46.19 | 1 |

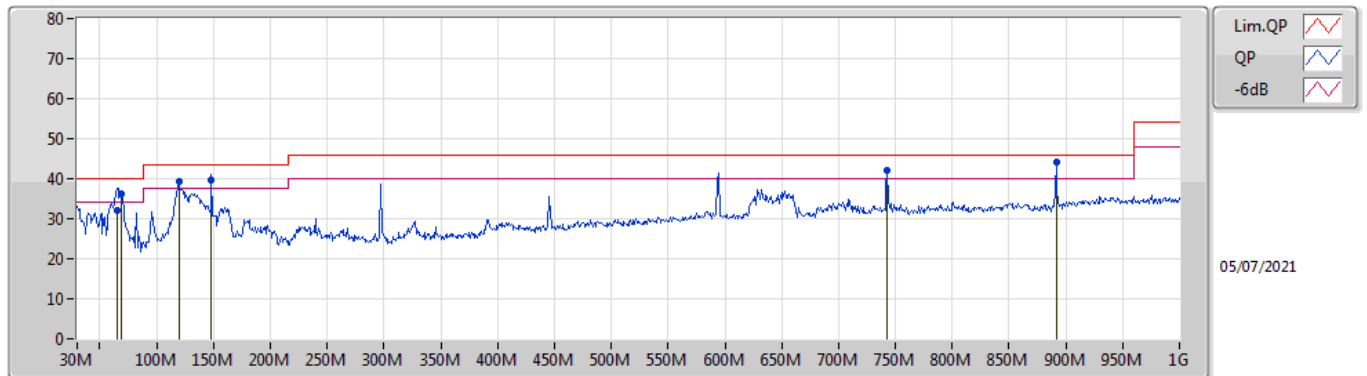


Radiated Emissions below 1GHz

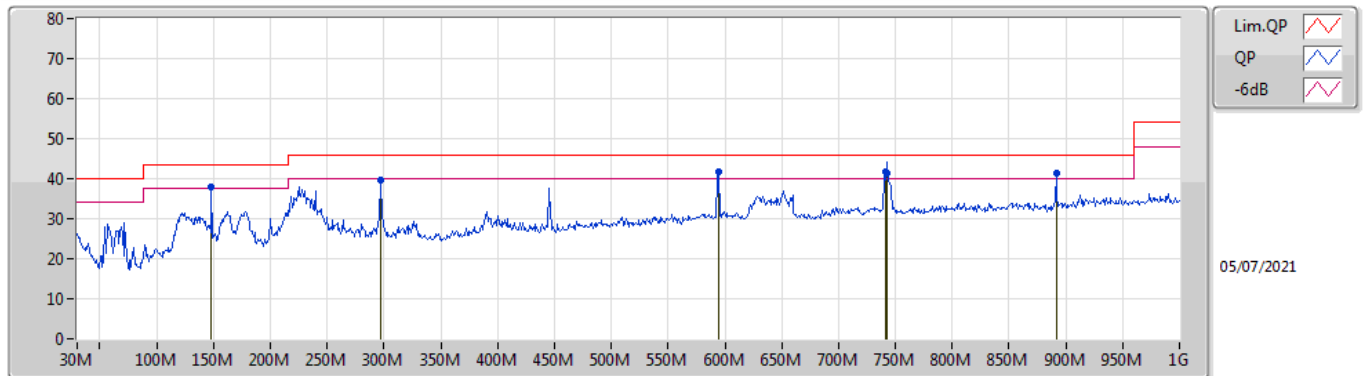
Appendix G.1

Summary

| Mode | Result | Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Condition |
|--------|--------|------|--------------|-------------------|-------------------|----------------|-----------|
| Mode 1 | Pass | QP | 891.36M | 44.25 | 46.00 | -1.75 | Vertical |



| Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Factor (dB/m) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comment | Raw (dBuV/m) | AF (dB/m) | CL (dB) | PA (dB) |
|------|--------------|-------------------|-------------------|----------------|------------------|-------------|-----------|----------------|---------------|---------|-----------------|--------------|------------|------------|
| QP | 64.92M | 32.09 | 40.00 | -7.91 | -18.71 | 3 | Vertical | 108 | 1.25 | - | 50.80 | 12.26 | 1.40 | 32.37 |
| PK | 68.8M | 36.34 | 40.00 | -3.66 | -18.57 | 3 | Vertical | 71 | 2.00 | - | 54.91 | 12.31 | 1.48 | 32.36 |
| PK | 119.24M | 39.17 | 43.50 | -4.33 | -12.02 | 3 | Vertical | 253 | 1.00 | - | 51.19 | 18.30 | 1.99 | 32.31 |
| QP | 148.34M | 39.64 | 43.50 | -3.86 | -13.56 | 3 | Vertical | 170 | 1.00 | - | 53.20 | 16.55 | 2.18 | 32.29 |
| PK | 742.95M | 42.18 | 46.00 | -3.82 | -0.92 | 3 | Vertical | 310 | 2.00 | - | 43.10 | 25.65 | 5.36 | 31.93 |
| QP | 891.36M | 44.25 | 46.00 | -1.75 | 0.95 | 3 | Vertical | 150 | 1.25 | "Worst" | 43.30 | 26.42 | 5.87 | 31.34 |



| Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Factor (dB/m) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comment | Raw (dBuV/m) | AF (dB/m) | CL (dB) | PA (dB) |
|------|--------------|-------------------|-------------------|----------------|------------------|-------------|------------|----------------|---------------|---------|-----------------|--------------|------------|------------|
| PK | 148.34M | 37.98 | 43.50 | -5.52 | -13.56 | 3 | Horizontal | 242 | 2.00 | - | 51.54 | 16.55 | 2.18 | 32.29 |
| PK | 296.75M | 39.81 | 46.00 | -6.19 | -10.02 | 3 | Horizontal | 345 | 1.25 | - | 49.83 | 19.08 | 3.09 | 32.19 |
| PK | 594.54M | 41.60 | 46.00 | -4.40 | -2.51 | 3 | Horizontal | 138 | 2.00 | - | 44.11 | 24.84 | 4.68 | 32.03 |
| PK | 741.01M | 41.62 | 46.00 | -4.38 | -0.92 | 3 | Horizontal | 1 | 1.25 | "Worst" | 42.54 | 25.66 | 5.35 | 31.93 |
| QP | 742.95M | 41.28 | 46.00 | -4.72 | -0.92 | 3 | Horizontal | 219 | 1.50 | - | 42.20 | 25.65 | 5.36 | 31.93 |
| PK | 891.36M | 41.21 | 46.00 | -4.79 | 0.95 | 3 | Horizontal | 142 | 1.25 | - | 40.26 | 26.42 | 5.87 | 31.34 |

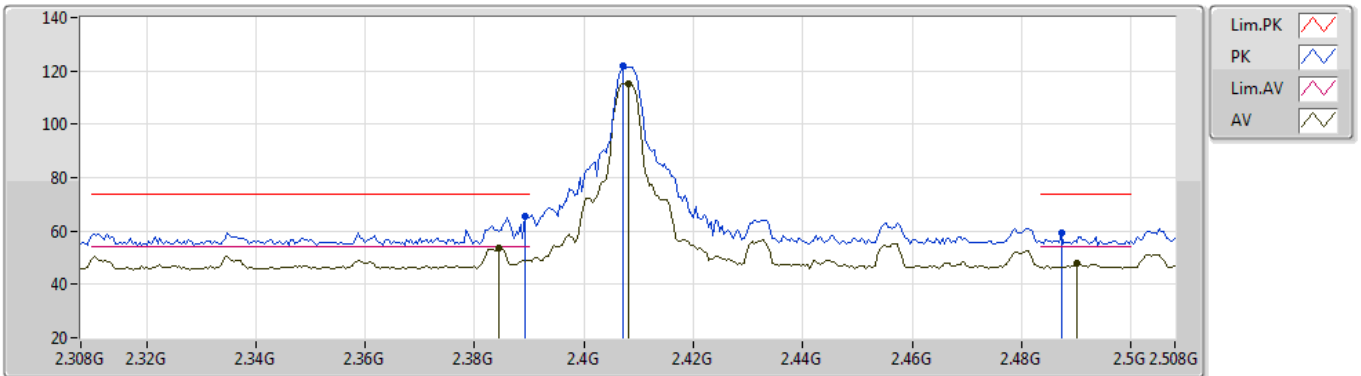


Summary

| Mode | Result | Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comments |
|---------------|--------|------|--------------|-------------------|-------------------|----------------|-------------|-----------|----------------|---------------|----------|
| 2.4-2.4835GHz | - | - | - | - | - | - | - | - | - | - | - |
| QPSK | Pass | AV | 2.3844G | 53.77 | 54.00 | -0.23 | 3 | Vertical | 86 | 2.16 | - |

QPSK

2408MHz_TX

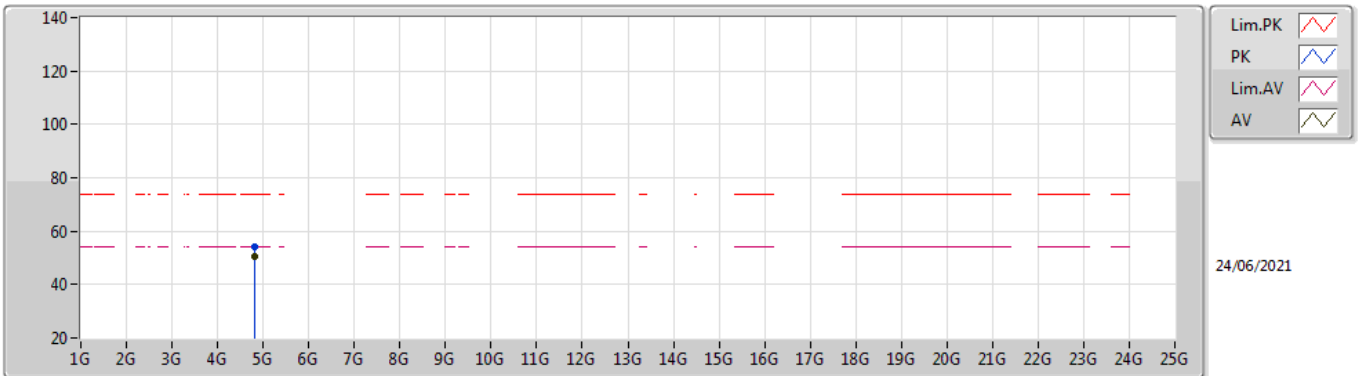


EUT_Z_1TX
Setting 0
05-M-E-2

| Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Raw (dBuV) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comment | AF (dB) | CL (dB) | PA (dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|
| PK | 2.3892G | 65.76 | 74.00 | -8.24 | 35.61 | 3 | Vertical | 86 | 2.16 | - | 27.56 | 2.59 | - |
| AV | 2.3844G | 53.77 | 54.00 | -0.23 | 23.60 | 3 | Vertical | 86 | 2.16 | - | 27.59 | 2.58 | - |
| PK | 2.4072G | 121.83 | Inf | -Inf | 91.73 | 3 | Vertical | 86 | 2.16 | - | 27.49 | 2.61 | - |
| AV | 2.408G | 115.34 | Inf | -Inf | 85.25 | 3 | Vertical | 86 | 2.16 | - | 27.48 | 2.61 | - |
| PK | 2.4872G | 59.25 | 74.00 | -14.75 | 29.23 | 3 | Vertical | 86 | 2.16 | - | 27.33 | 2.69 | - |
| AV | 2.49G | 47.68 | 54.00 | -6.32 | 17.67 | 3 | Vertical | 86 | 2.16 | - | 27.32 | 2.69 | - |

QPSK

2408MHz_TX

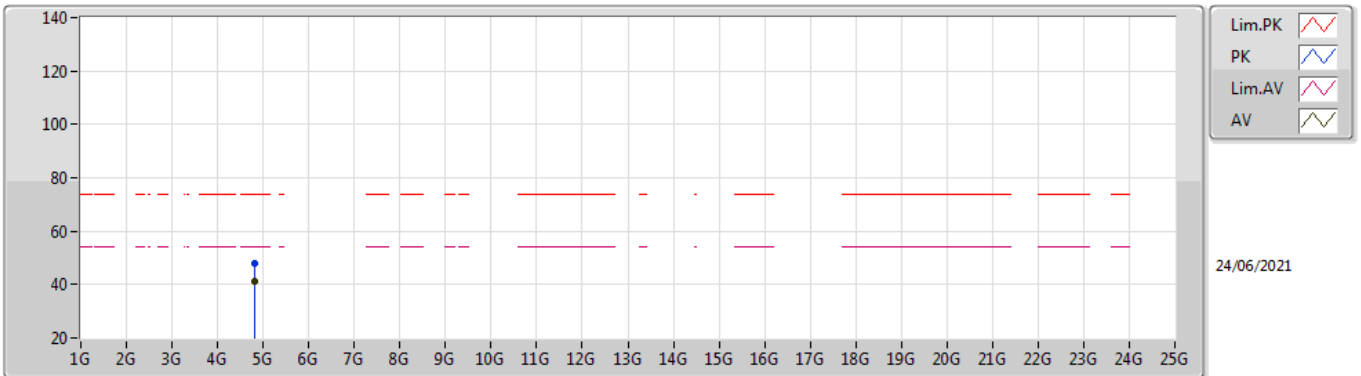


EUT_Z_1TX
Setting 0
05-M-E-2

| Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Raw (dBuV) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comment | AF (dB) | CL (dB) | PA (dB) | |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|--|
| PK | 4.81608G | 53.89 | 74.00 | -20.11 | 52.64 | 3 | Vertical | 197 | 2.24 | - | 31.33 | 6.02 | 36.10 | |
| AV | 4.81574G | 50.39 | 54.00 | -3.61 | 49.14 | 3 | Vertical | 197 | 2.24 | - | 31.33 | 6.02 | 36.10 | |

QPSK

2408MHz_TX

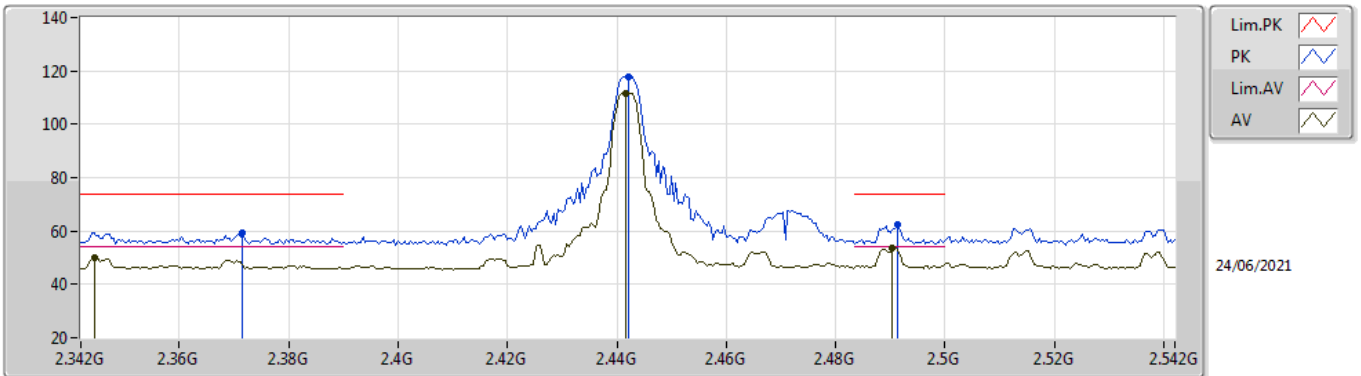


EUT_Z_1TX
Setting 0
05-M-E-2

| Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Raw (dBuV) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comment | AF (dB) | CL (dB) | PA (dB) | |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|--|
| PK | 4.81611G | 47.82 | 74.00 | -26.18 | 46.57 | 3 | Horizontal | 207 | 1.97 | - | 31.33 | 6.02 | 36.10 | |
| AV | 4.81578G | 41.21 | 54.00 | -12.79 | 39.96 | 3 | Horizontal | 207 | 1.97 | - | 31.33 | 6.02 | 36.10 | |

QPSK

2442MHz_TX

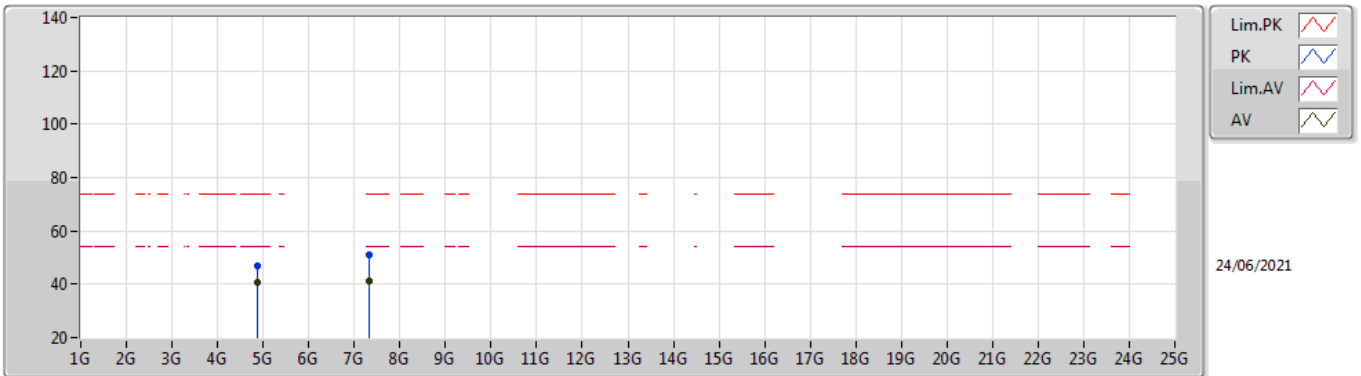


EUT_Z1TX
Setting 2
05-M-E-2

| Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Raw (dBuV) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comment | AF (dB) | CL (dB) | PA (dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|
| PK | 2.3716G | 59.16 | 74.00 | -14.84 | 28.92 | 3 | Vertical | 82 | 1.89 | - | 27.67 | 2.57 | - |
| AV | 2.3444G | 49.95 | 54.00 | -4.05 | 19.60 | 3 | Vertical | 82 | 1.89 | - | 27.81 | 2.54 | - |
| PK | 2.442G | 117.95 | Inf | -Inf | 87.89 | 3 | Vertical | 82 | 1.89 | - | 27.42 | 2.64 | - |
| AV | 2.4416G | 111.74 | Inf | -Inf | 81.68 | 3 | Vertical | 82 | 1.89 | - | 27.42 | 2.64 | - |
| PK | 2.4912G | 62.43 | 74.00 | -11.57 | 32.42 | 3 | Vertical | 82 | 1.89 | - | 27.32 | 2.69 | - |
| AV | 2.4904G | 53.41 | 54.00 | -0.59 | 23.40 | 3 | Vertical | 82 | 1.89 | - | 27.32 | 2.69 | - |

QPSK

2442MHz_TX

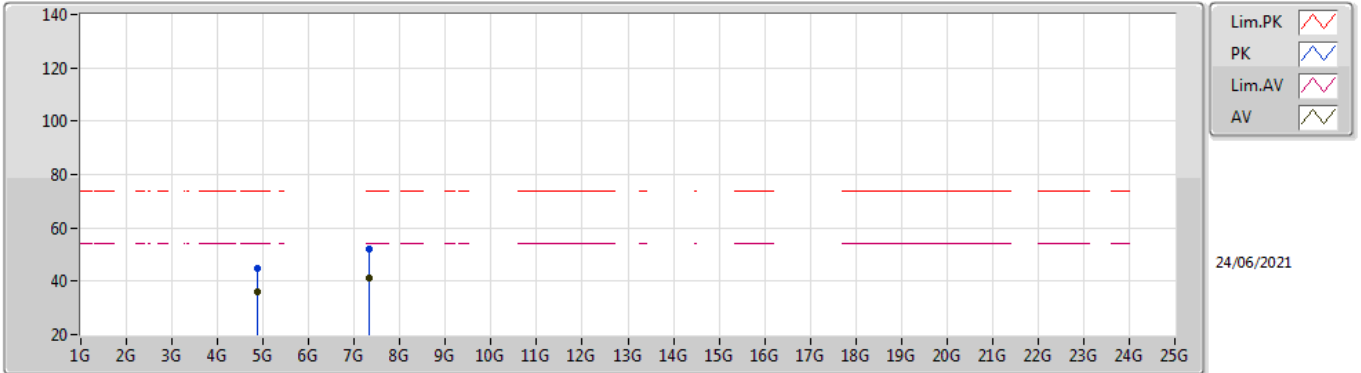


EUT_Z_1TX
Setting 2
05-M-E-2

| Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Raw (dBuV) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comment | AF (dB) | CL (dB) | PA (dB) | |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|--|
| PK | 4.88422G | 46.83 | 74.00 | -27.17 | 45.58 | 3 | Vertical | 71 | 2.17 | - | 31.26 | 6.13 | 36.14 | |
| AV | 4.88376G | 40.49 | 54.00 | -13.51 | 39.24 | 3 | Vertical | 71 | 2.17 | - | 31.26 | 6.13 | 36.14 | |
| PK | 7.32756G | 51.01 | 74.00 | -22.99 | 42.20 | 3 | Vertical | 249 | 1.44 | - | 36.60 | 7.29 | 35.08 | |
| AV | 7.32668G | 41.15 | 54.00 | -12.85 | 32.34 | 3 | Vertical | 249 | 1.44 | - | 36.60 | 7.29 | 35.08 | |

QPSK

2442MHz_TX

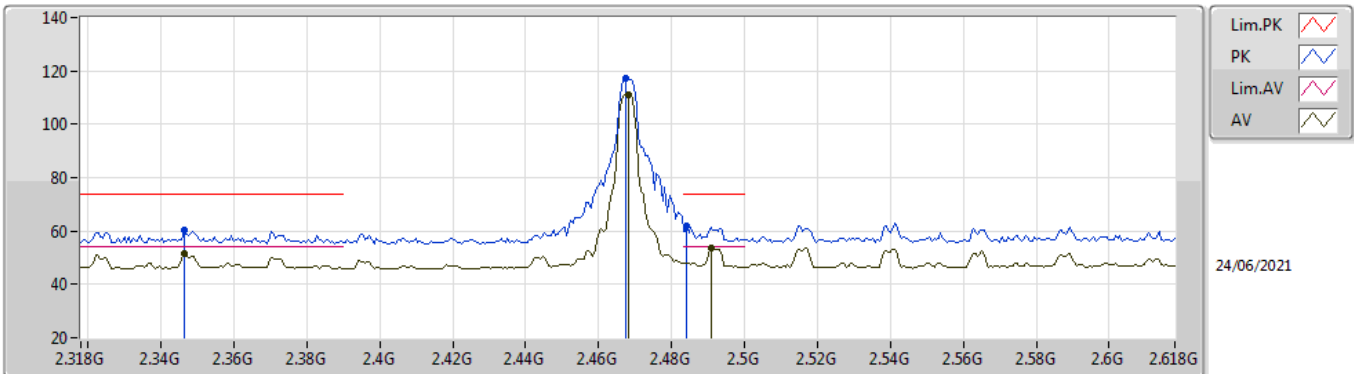


EUT_Z_1TX
Setting 2
05-M-E-2

| Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Raw (dBuV) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comment | AF (dB) | CL (dB) | PA (dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|
| PK | 4.884G | 44.73 | 74.00 | -29.27 | 43.48 | 3 | Horizontal | 206 | 1.03 | - | 31.26 | 6.13 | 36.14 |
| AV | 4.88366G | 36.23 | 54.00 | -17.77 | 34.97 | 3 | Horizontal | 206 | 1.03 | - | 31.27 | 6.13 | 36.14 |
| PK | 7.32692G | 52.05 | 74.00 | -21.95 | 43.24 | 3 | Horizontal | 229 | 2.14 | - | 36.60 | 7.29 | 35.08 |
| AV | 7.32646G | 41.30 | 54.00 | -12.70 | 32.49 | 3 | Horizontal | 229 | 2.14 | - | 36.60 | 7.29 | 35.08 |

QPSK

2468MHz_TX

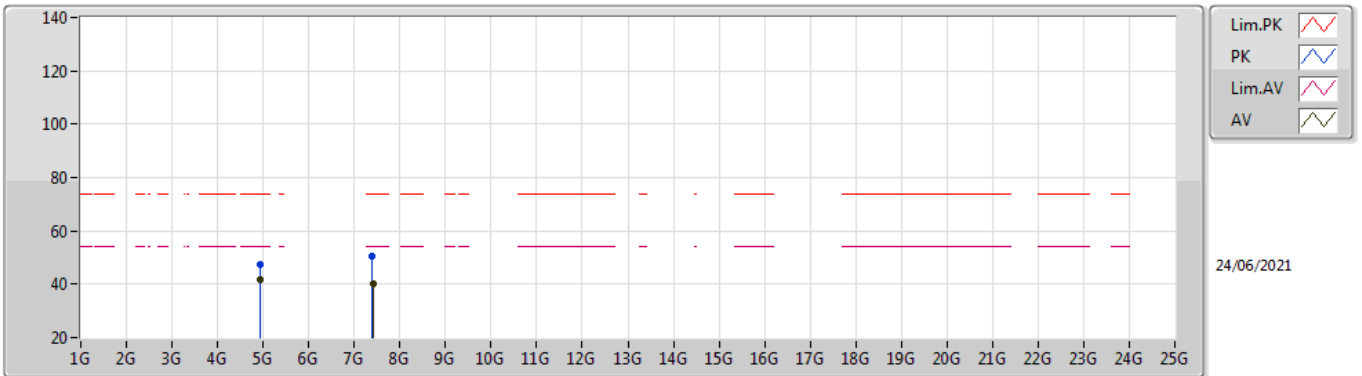


EUT_Z_1TX
Setting 2
05-M-S-5

| Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Raw (dBuV) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comment | AF (dB) | CL (dB) | PA (dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|
| PK | 2.3462G | 60.11 | 74.00 | -13.89 | 29.75 | 3 | Vertical | 94 | 1.69 | - | 27.81 | 2.55 | - |
| AV | 2.3462G | 51.72 | 54.00 | -2.28 | 21.36 | 3 | Vertical | 94 | 1.69 | - | 27.81 | 2.55 | - |
| PK | 2.4674G | 117.21 | Inf | -Inf | 87.17 | 3 | Vertical | 94 | 1.69 | - | 27.37 | 2.67 | - |
| AV | 2.468G | 110.89 | Inf | -Inf | 80.86 | 3 | Vertical | 94 | 1.69 | - | 27.36 | 2.67 | - |
| PK | 2.4842G | 61.93 | 74.00 | -12.07 | 31.92 | 3 | Vertical | 94 | 1.69 | - | 27.33 | 2.68 | - |
| AV | 2.4908G | 53.57 | 54.00 | -0.43 | 23.56 | 3 | Vertical | 94 | 1.69 | - | 27.32 | 2.69 | - |

QPSK

2468MHz_TX

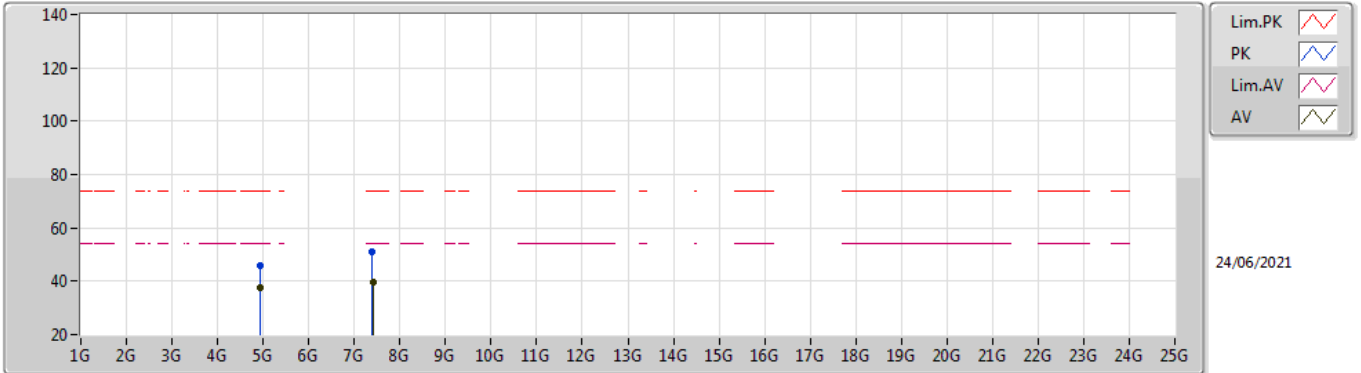


EUT_Z_1TX
Setting 2
05-M-S-5

| Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Raw (dBuV) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comment | AF (dB) | CL (dB) | PA (dB) | |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|--|
| PK | 4.93592G | 47.26 | 74.00 | -26.74 | 45.90 | 3 | Vertical | 59 | 2.24 | - | 31.34 | 6.20 | 36.18 | |
| AV | 4.93568G | 41.73 | 54.00 | -12.27 | 40.37 | 3 | Vertical | 59 | 2.24 | - | 31.34 | 6.20 | 36.18 | |
| PK | 7.39804G | 50.33 | 74.00 | -23.67 | 41.50 | 3 | Vertical | 250 | 2.19 | - | 36.50 | 7.40 | 35.07 | |
| AV | 7.40472G | 40.13 | 54.00 | -13.87 | 31.30 | 3 | Vertical | 250 | 2.19 | - | 36.50 | 7.40 | 35.07 | |

QPSK

2468MHz_TX



EUT_Z_1TX
Setting 2
05-M-S-5

| Type | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Raw (dBuV) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comment | AF (dB) | CL (dB) | PA (dB) | |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|--|
| PK | 4.936G | 45.71 | 74.00 | -28.29 | 44.35 | 3 | Horizontal | 241 | 1.26 | - | 31.34 | 6.20 | 36.18 | |
| AV | 4.93568G | 37.48 | 54.00 | -16.52 | 36.12 | 3 | Horizontal | 241 | 1.26 | - | 31.34 | 6.20 | 36.18 | |
| PK | 7.39488G | 51.00 | 74.00 | -23.00 | 42.17 | 3 | Horizontal | 340 | 2.84 | - | 36.51 | 7.39 | 35.07 | |
| AV | 7.4042G | 39.79 | 54.00 | -14.21 | 30.96 | 3 | Horizontal | 340 | 2.84 | - | 36.50 | 7.40 | 35.07 | |