

CFR 47 FCC PART 15 SUBPART C ISED RSS-247 ISSUE 2

CERTIFICATION TEST REPORT

For

Headphone

MODEL NUMBER: YH-L700A

FCC ID: 2AN4C-YHL700A IC: 10276A-YHL700A

REPORT NUMBER: 4789527609-3

ISSUE DATE: July 07, 2020

Prepared for

Shenzhen Grandsun Electronics Co.,Ltd. Gaoqiao Industry Zone,Pingdi Town,Longgang District,Shenzhen,China

Prepared by

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Revision History

| Rev. | Issue Date | Revisions | Revised By |
|------|------------|---------------|------------|
| V0 | 07/07/2020 | Initial Issue | |



| Summary of Test Results | | | | | | |
|-------------------------|--|---|--------------|--|--|--|
| Clause | Test Items | FCC/ISED Rules | Test Results | | | |
| 1 | 6dB Bandwidth and 99% Occupied Bandwidth | FCC Part 15.247 (a) (2) RSS-247 Clause 5.2 (a) ISED RSS-Gen Clause 6.7 | Pass | | | |
| 2 | Peak Conducted Output Power | FCC Part 15.247 (b) (3) RSS-247 Clause 5.4 (d) | Pass | | | |
| 3 | Power Spectral Density | FCC Part 15.247 (e) RSS-247 Clause 5.2 (b) | Pass | | | |
| 4 | Conducted Bandedge and Spurious Emission | FCC Part 15.247 (d) RSS-247 Clause 5.5 | Pass | | | |
| 5 | Radiated Bandedge and Spurious Emission | FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205 RSS-247 Clause 5.5 RSS-GEN Clause 8.9 | Pass | | | |
| 6 | Conducted Emission Test for AC Power Port | FCC Part 15.207 RSS-GEN Clause 8.8 | Pass | | | |
| 7 | Antenna Requirement | FCC Part 15.203 RSS-GEN Clause 6.8 | Pass | | | |
| Note: | | | | | | |

inote:

1. This test report is only published to and used by the applicant, and it is not for evidence purpose in China.

2. The measurement result for the sample received is <Pass> according to < CFR 47 FCC PART 15 SUBPART C >< ISED RSS-247 > when <Accuracy Method> decision rule is applied.



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1. ATTESTATION OF TEST RESULTS

Applicant Information

| Company Name: | Shenzhen Grandsun Electronics Co., Ltd. |
|---------------|--|
| Address: | Gaoqiao Industry Zone, Pingdi Town, Longgang |
| | District,Shenzhen,China |

Manufacturer Information

| Company Name: | Shenzhen Grandsun Electronics Co.,Ltd. |
|---------------|---|
| Address: | Gaoqiao Industry Zone,Pingdi Town,Longgang District,Shenzhen,China |

EUT Description

Product Name Model Name Sample Status Sample ID: Sample Received date Date Tested Headphone YH-L700A Normal 3140742 June 23, 2020 June 28~ July 03, 2020

| APPLICABLE STANDARDS | | | | | | |
|------------------------------|------|--|--|--|--|--|
| STANDARD TEST RESULTS | | | | | | |
| CFR 47 FCC PART 15 SUBPART C | PASS | | | | | |
| ISED RSS-247 Issue 2 | PASS | | | | | |
| ISED RSS-GEN Issue 5 | PASS | | | | | |

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rem

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 558074 D01 15.247 Meas Guidance v05r02, 414788 D01 Radiated Test Site v01r01, CFR 47 FCC Part 2, CFR 47 FCC Part 15, ANSI C63.10-2013, ISED RSS-247 Issue 2 and ISED RSS-GEN Issue 5.

3. FACILITIES AND ACCREDITATION

| | A2LA (Certificate No.: 4102.01) |
|---------------|---|
| | UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. |
| | has been assessed and proved to be in compliance with A2LA. |
| | FCC (FCC Designation No.: CN1187) |
| | UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. |
| | Has been recognized to perform compliance testing on equipment subject |
| | to the Commission's Delcaration of Conformity (DoC) and Certification rules |
| | ISED (Company No.: 21320) |
| Accreditation | UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. |
| Certificate | has been registered and fully described in a report filed with ISED. |
| | The Company Number is 21320. |
| | VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011) |
| | UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. |
| | has been assessed and proved to be in compliance with VCCI, the |
| | Membership No. is 3793. |
| | Facility Name: |
| | Chamber D, the VCCI registration No. is G-20019 and R-20004 |
| | Shielding Room B, the VCCI registration No. is C-20012 and T-20011 |

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OFS.



4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognize national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| Test Item | Uncertainty | | | |
|---|------------------------|--|--|--|
| Conduction emission | 3.62dB | | | |
| Radiated Emission (Included Fundamental Emission) (9kHz ~ 30MHz) | 2.2dB | | | |
| Radiated Emission (Included Fundamental Emission) (30MHz ~ 1GHz) | 4.00dB | | | |
| Radiated Emission | 5.78dB (1GHz ~ 18GHz) | | | |
| (Included Fundamental Emission) (1GHz to 26GHz) | 5.23dB (18GHz ~ 26GHz) | | | |
| Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2. | | | | |

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

| EUT Name | Headphone | | | |
|--------------------------------|------------------------|-------|--|--|
| Model | YH-L700A | | | |
| Technology | Bluetooth - Low Energy | | | |
| Transmit Frequency Range | 2402 MHz ~ 2480 MHz | | | |
| Modulation | GFSK | | | |
| Data Data | LE | 1Mbps | | |
| Data Rate | LE 2M | 2Mbps | | |
| Bluetooth Version | 5.0LE | | | |
| Highest Operation Frequency | 2480MHz | | | |
| Input Rating: | 5V dc max: 200mA | | | |
| Power Supply | Battery DC 3.7V | | | |

5.2. CHANNEL LIST

| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---------|--------------------|---------|--------------------|---------|--------------------|---------|--------------------|
| 0 | 2402 | 11 | 2424 | 22 | 2446 | 33 | 2468 |
| 1 | 2404 | 12 | 2426 | 23 | 2448 | 34 | 2470 |
| 2 | 2406 | 13 | 2428 | 24 | 2450 | 35 | 2472 |
| 3 | 2408 | 14 | 2430 | 25 | 2452 | 36 | 2474 |
| 4 | 2410 | 15 | 2432 | 26 | 2454 | 37 | 2476 |
| 5 | 2412 | 16 | 2434 | 27 | 2456 | 38 | 2478 |
| 6 | 2414 | 17 | 2436 | 28 | 2458 | 39 | 2480 |
| 7 | 2416 | 18 | 2438 | 29 | 2460 | / | / |
| 8 | 2418 | 19 | 2440 | 30 | 2462 | / | / |
| 9 | 2420 | 20 | 2442 | 31 | 2464 | / | / |
| 10 | 2422 | 21 | 2444 | 32 | 2468 | / | / |

5.3. MAXIMUM PEAK OUTPUT POWER

| Bluetooth Mode | Frequency (MHz) | Channel Number | Maximum Peak Output Power (dBm) | Maximum EIRP (dBm) |
|----------------|--------------------|----------------|---------------------------------------|--------------------------|
| LE | 2402 ~ 2480 | 0-39[40] | 0.36 | 4.30 |
| LE 2M | 2402 ~ 2480 | 0-39[40] | 0.41 | 4.35 |

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5.4. TEST CHANNEL CONFIGURATION

| Test Mode | Test Channel | Frequency |
|-----------|---|---------------------------|
| LE | CH 0(Low Channel), CH 19(MID Channel), CH 39(High Channel) | 2402MHz, 2440MHz, 2480MHz |
| LE 2M | CH 0(Low Channel), CH 19(MID Channel), CH 39(High Channel) | 2402MHz, 2440MHz, 2480MHz |

5.5. THE WORSE CASE POWER SETTING PARAMETER

| The Worse Case Power Setting Parameter under 2402 ~ 2480MHz Band | | | | | | |
|--|-------------------|-------------------------|-----------------------------|-------|--|--|
| Test Softwar | e Version | Blue Test3 | | | | |
| Modulation | Transmit | Te | Test Software Setting Value | | | |
| Туре | Antenna Number | CH 0 | CH 19 | CH 39 | | |
| LE | 1 | default default default | | | | |
| LE 2M | 1 | default default default | | | | |

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

| Antenna | Frequency (MHz) | Antenna Type | MAX Antenna Gain (dBi) |
|---------|-----------------|--------------|------------------------|
| 1 | 2402-2480 | PCB Antenna | 3.94 |

| Test Mode | Transmit and Receive Mode | Description |
|-----------|------------------------------|--|
| LE | ⊠1TX, 1RX | Antenna 1 can be used as transmitting/receiving antenna. |
| LE 2M | ⊠1TX, 1RX | Antenna 1 can be used as transmitting/receiving antenna. |

Note: 1. The value of the antenna gain was declared by customer.



5.7. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

| Item | Equipment | Brand Name | Model Name | P/N |
|------|--------------|------------|-------------|---------|
| 1 | PC | Dell | Vostro 3902 | 8KNDDB2 |
| 2 | Mobile Phone | HUAWEI | ALP-AL00 | / |

I/O CABLES

| Cable No | Port | Connector Type | Cable Type | Cable Length(m) | Remarks |
|-------------|------|----------------|------------|-----------------|---------|
| 1 | USB | TYPE C | / | 1.0 | / |
| 2 | AUX | / | / | 1.0 | / |

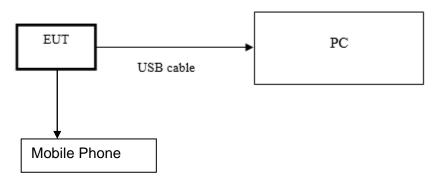
ACCESSORIES

| Item | Accessory | Brand Name | Model Name | Description |
|------|-----------|------------|------------|-------------|
| 1 | / | / | / | / |

TEST SETUP

The EUT can work in engineering mode with a software through a Laptop.

SETUP DIAGRAM FOR TESTS



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6. MEASURING INSTRUMENT AND SOFTWARE USED

| | Conducted Emissions | | | | | | | |
|--------------|--------------------------------|----------------|---|---------|------------|--------------|--------------|--------------|
| | | | Ins | trument | | | | |
| Used | Equipment | Manufacturer | Мос | del No. | Serial No. | | Last Cal. | Next Cal. |
| \checkmark | EMI Test Receiver | R&S | Е | ESR3 | | 961 | Dec.05,2019 | Dec.05,2020 |
| | Two-Line V- Network | R&S | EN | IV216 | 101 | 983 | Dec.05,2019 | Dec.05,2020 |
| | | | Sc | oftware | | | | |
| Used | Desc | ription | | Mai | nufactu | irer | Name | Version |
| \checkmark | Test Software for Co | onducted distu | irband | ce | Farad | | EZ-EMC | Ver. UL-3A1 |
| | | Ra | diate | d Emiss | sions | - | | |
| | | | Ins | trument | | | | |
| Used | Equipment | Manufacturer | Мос | del No. | Seria | al No. | Last Cal. | Next Cal. |
| \checkmark | MXE EMI Receiver | KESIGHT | N9 | 038A | MY564 | 400036 | Dec.06,2019 | Dec.06,2020 |
| V | Hybrid Log Periodic Antenna | TDK | HLP | -3003C | 130 | 960 | Sep.17, 2018 | Sep.17, 2021 |
| \checkmark | Preamplifier | HP | 84 | 147D | 2944A09099 | | Dec.05,2019 | Dec.05,2020 |
| V | EMI Measurement Receiver | R&S | ES | SR26 | 101377 | | Dec.05,2019 | Dec.05,2020 |
| \checkmark | Horn Antenna | TDK | HR | N-0118 | 130 | 939 | Sep.17, 2018 | Sep.17, 2021 |
| | High Gain Horn Antenna | Schwarzbeck | BBH | A-9170 | 691 | | Aug.11, 2018 | Aug.11, 2021 |
| | Preamplifier | TDK | PA-C | 2-0118 | | -305- 066 | Dec.05,2019 | Dec.05,2020 |
| | Preamplifier | TDK | PA | -02-2 | | -307- 003 | Dec.05,2019 | Dec.05,2020 |
| \checkmark | Loop antenna | Schwarzbeck | 15 | 519B | 00 | 008 | Jan.07, 2019 | Jan.07, 2022 |
| | Preamplifier | TDK | | 02-001- | | -302- 050 | Dec.5, 2019 | Dec.5, 2020 |
| | Band Reject Filter | Wainwright | WRCJV8- 2350-2400- 2483.5- 2533.5- 40SS | | | 4 | Dec.05,2019 | Dec.05,2020 |
| | High Pass Filter | Wi | WHKX10- 2700-3000- 18000-40SS | | 2 | 3 | Dec.05,2019 | Dec.05,2020 |
| | | | So | oftware | | | | |
| Used | Descri | | | Manufa | cturer | | Name | Version |
| V | Test Software disturb | | | Fara | ad | E | Z-EMC | Ver. UL-3A1 |

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| | Other instruments | | | | | | |
|--------------|-------------------|--------------|-----------|------------|-------------|-------------|--|
| Used | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. | |
| \checkmark | Spectrum Analyzer | Keysight | N9030A | MY55410512 | Dec.06,2019 | Dec.06,2020 | |
| \checkmark | Spectrum Analyzer | Keysight | N9020A | MY49100060 | Dec.06,2019 | Dec.06,2020 | |
| \checkmark | Power Meter | Keysight | N1911A | MY55416024 | Dec.06,2019 | Dec.06,2020 | |
| \checkmark | Power Sensor | Keysight | U2021XA | MY5100022 | Dec.06,2019 | Dec.06,2020 | |



7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

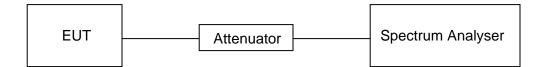
LIMITS

None; for reporting purposes only.

PROCEDURE

Refer to ANSI C63.10-2013 clause 11.6 Zero – Span Spectrum Analyzer method.

TEST SETUP



TEST ENVIRONMENT

| Temperature | 24.9°C | Relative Humidity | 63.1% |
|---------------------|--------|-------------------|---------|
| Atmosphere Pressure | 101kPa | Test Voltage | DC 3.7V |

RESULTS

Please refer to appendix G.



7.2. 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH

<u>LIMITS</u>

| CFR 47FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2 | | | | | |
|---|---------------------------|---------------------------------------|-------------|--|--|
| Section Test Item Limit Frequency Ran (MHz) | | | | | |
| CFR 47 FCC 15.247(a)(2) ISED RSS-247 5.2 (a) | 6dB Bandwidth | ≥ 500kHz | 2400-2483.5 | | |
| ISED RSS-Gen Clause 6.7 | 99% Occupied Bandwidth | None; for reporting purposes only. | 2400-2483.5 | | |

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.8 for DTS bandwidth and clause 6.9 for Occupied Bandwidth.

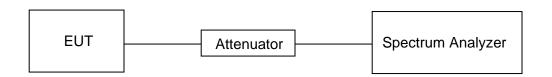
| Center Frequency | The center frequency of the channel under test |
|------------------|--|
| Frequency Span | Between 1.5 times and 5.0 times the OBW |
| Detector | Peak |
| | For 6 dB Bandwidth: 100kHz For 99% Occupied Bandwidth: 1% to 5% of the occupied bandwidth |
| IV BW | For 6dB Bandwidth: ≥3 × RBW For 99% Occupied Bandwidth: ≥3 × RBW |
| Trace | Max hold |
| Sweep | Auto couple |

Connect the EUT to the spectrum analyser and use the following settings:

a) Use the 99% power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.

b) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

TEST SETUP



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TEST ENVIRONMENT

| Temperature | 24.9°C | Relative Humidity | 63.1% |
|---------------------|--------|-------------------|---------|
| Atmosphere Pressure | 101kPa | Test Voltage | DC 3.7V |

RESULTS

Please refer to appendix A & B.



7.3. CONDUCTED OUTPUT POWER

<u>LIMITS</u>

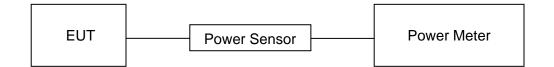
| CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2 | | | |
|--|--------------------------------|-----------------|--------------------------|
| Section Test Item Limit | | | Frequency Range (MHz) |
| CFR 47 FCC 15.247(b)(3) ISED RSS-247 5.4 (d) | Peak Conducted Output Power | 1 watt or 30dBm | 2400-2483.5 |

TEST PROCEDURE

Connect the EUT to a low loss RF cable from the antenna port to the power sensor (video bandwidth is greater than the occupied bandwidth).

Measure peak emission level, the indicated level is the peak output power, after any corrections for external attenuators and cables.

TEST SETUP



TEST ENVIRONMENT

| Temperature | 24.9°C | Relative Humidity | 63.1% |
|---------------------|--------|-------------------|---------|
| Atmosphere Pressure | 101kPa | Test Voltage | DC 3.7V |

<u>RESULTS</u>

Please refer to appendix C.



7.4. POWER SPECTRAL DENSITY

LIMITS

| CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2 | | | |
|--|---------------------------|----------------------------|-------------|
| Section Test Item Limit Frequency Range (MHz) | | | |
| CFR 47 FCC §15.247 (e) ISED RSS-247 5.2 (b) | Power Spectral Density | 8 dBm in any 3 kHz band | 2400-2483.5 |

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.10.

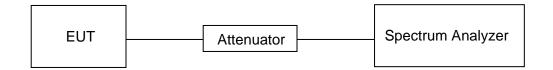
Connect the EUT to the spectrum analyser and use the following settings:

| Center Frequency | The center frequency of the channel under test | |
|------------------|--|--|
| Detector | Peak | |
| RBW | 3 kHz ≤ RBW ≤ 100 kHz | |
| VBW | ≥3 × RBW | |
| Span | 1.5 x DTS bandwidth | |
| Trace | Max hold | |
| Sweep time | Auto couple | |

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST SETUP



TEST ENVIRONMENT

| Temperature | 24.9°C | Relative Humidity | 63.1% |
|---------------------|--------|-------------------|---------|
| Atmosphere Pressure | 101kPa | Test Voltage | DC 3.7V |

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Please refer to appendix D.



7.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

<u>LIMITS</u>

| CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2 | | | |
|--|---|---|--|
| Section | Section Test Item Limit | | |
| CFR 47 FCC §15.247 (d) ISED RSS-247 5.5 | Conducted Bandedge and Spurious Emissions | at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power | |

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.11 and 11.13.

Connect the EUT to the spectrum analyser and use the following settings for reference level measurement:

| Center Frequency | The center frequency of the channel under test | |
|------------------|--|--|
| Detector | Peak | |
| RBW | 100kHz | |
| VBW | ≥3 × RBW | |
| Span | 1.5 x DTS bandwidth | |
| Trace | Max hold | |
| Sweep time | Auto couple. | |

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level.

Change the settings for emission level measurement:

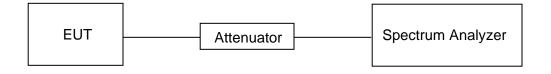
| | Set the center frequency and span to encompass frequency range to be measured |
|--------------------|---|
| Detector | Peak |
| RBW | 100kHz |
| VBW | ≥3 × RBW |
| measurement points | ≥span/RBW |
| Trace | Max hold |
| Sweep time | Auto couple. |

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11.

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TEST SETUP



TEST ENVIRONMENT

| Temperature | 24.9°C | Relative Humidity | 63.9% |
|---------------------|--------|-------------------|---------|
| Atmosphere Pressure | 101kPa | Test Voltage | DC 3.7V |

RESULTS

Please refer to appendix E & F.



8. RADIATED TEST RESULTS

LIMITS

Please refer to CFR 47 FCC §15.205 and §15.209.

Please refer to ISED RSS-GEN Clause 8.9 and Clause 8.10.

Radiation Disturbance Test Limit for FCC (Class B) (9kHz-1GHz)

| Emissions radiated outside of the specified frequency bands above 30MHz | | | |
|---|---------------------------------------|-------------------------|---------|
| Frequency Range (MHz) | Field Strength Limit (uV/m) at 3 m | Field Stren (dBuV/m) | • |
| (101112) | | Quasi-Peak | |
| 30 - 88 | 100 | 40 | |
| 88 - 216 | 150 | 43.5 | |
| 216 - 960 | 200 | 46 | |
| Above 960 | 500 | 54 | |
| Above 1000 | 500 | Peak | Average |
| | 500 | 74 | 54 |

| FCC Emissions radiated outside of the specified frequency bands below 30MHz | | | |
|---|--------------|-----|--|
| Frequency (MHz) Field strength (microvolts/meter) Measurement distance (meters) | | | |
| 0.009-0.490 | 2400/F(kHz) | 300 | |
| 0.490-1.705 | 24000/F(kHz) | 30 | |
| 1.705-30.0 | 30 | 30 | |

ISED General field strength limits at frequencies below 30 MHz

| Table 6 – General field strength limits at frequencies below 30 MHz | | | | | | | |
|---|-------------------|-----|--|--|--|--|--|
| Frequency Magnetic field strength (H-Field) (μA/m) Measurement distance (m) | | | | | | | |
| 9 - 490 kHz ^{Note 1} | 6.37/F (F in kHz) | 300 | | | | | |
| 490 - 1705 kHz | 63.7/F (F in kHz) | 30 | | | | | |
| 1.705 - 30 MHz | 0.08 | 30 | | | | | |

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

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ISED Restricted bands please refer to ISED RSS-GEN Clause 8.10

| | Table 7 – Restricted frequency bands ^k | iote 1 |
|---------------------|---|---------------|
| MHz | MHz | GHz |
| 0.090 - 0.110 | 149.9 - 150.05 | 9.0 - 9.2 |
| 0.495 - 0.505 | 158.52475 - 158.52525 | 9.3 - 9.5 |
| 2.1735 - 2.1905 | 158.7 - 158.9 | 10.6 - 12.7 |
| 3.020 - 3.026 | 162.0125 - 167.17 | 13.25 - 13.4 |
| 4.125 - 4.128 | 167.72 - 173.2 | 14.47 - 14.5 |
| 4.17725 - 4.17775 | 240 - 285 | 15.35 - 16.2 |
| 4.20725 - 4.20775 | 322 - 335.4 | 17.7 - 21.4 |
| 5.677 - 5.683 | 399.9 - 410 | 22.01 - 23.12 |
| 3.215 - 6.218 | 608 - 614 | 23.6 - 24.0 |
| 3.26775 - 6.26825 | 960 - 1427 | 31.2 - 31.8 |
| 3.31175 - 6.31225 | 1435 - 1626.5 | 36.43 - 36.5 |
| 3.291 - 8.294 | 1845.5 - 1848.5 | Above 38.6 |
| 3.362 - 8.366 | 1660 - 1710 | |
| 3.37625 - 8.38675 | 1718.8 - 1722.2 | |
| 3.41425 - 8.41475 | 2200 - 2300 | |
| 12.29 - 12.293 | 2310 - 2390 | |
| 12.51975 - 12.52025 | 2483.5 - 2500 | |
| 12.57675 - 12.57725 | 2855 - 2900 | |
| 13.36 - 13.41 | 3280 - 3287 | |
| 16.42 - 16.423 | 3332 - 3339 | |
| 16.69475 - 16.69525 | 3345.8 - 3358 | |
| 16.80425 - 16.80475 | 3500 - 4400 | |
| 25.5 - 25.67 | 4500 - 5150 | |
| 37.5 - 38.25 | 5350 - 5460 | |
| 73 - 74.6 | 7250 - 7750 | |
| 74.8 - 75.2 | 8025 - 8500 | |
| 108 - 138 | | |

Note 1: Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

FCC Restricted bands of operation refer to FCC §15.205 (a):

| MHz | MHz | MHz | GHz |
|--------------------------|---------------------|---------------|------------------|
| 0.090-0.110 | 16.42-16.423 | 399.9-410 | 4.5-5.15 |
| ¹ 0.495-0.505 | 16.69475-16.69525 | 608-614 | 5.35-5.46 |
| 2.1735-2.1905 | 16.80425-16.80475 | 960-1240 | 7.25-7.75 |
| 4.125-4.128 | 25.5-25.67 | 1300-1427 | 8.025-8.5 |
| 4.17725-4.17775 | 37.5-38.25 | 1435-1626.5 | 9.0-9.2 |
| 4.20725-4.20775 | 73-74.6 | 1645.5-1646.5 | 9.3-9.5 |
| 6.215-6.218 | 74.8-75.2 | 1660-1710 | 10.6-12.7 |
| 6.26775-6.26825 | 108-121.94 | 1718.8-1722.2 | 13.25-13.4 |
| 6.31175-6.31225 | 123-138 | 2200-2300 | 14.47-14.5 |
| 8.291-8.294 | 149.9-150.05 | 2310-2390 | 15.35-16.2 |
| 8.362-8.366 | 156.52475-156.52525 | 2483.5-2500 | 17.7-21.4 |
| 8.37625-8.38675 | 156.7-156.9 | 2690-2900 | 22.01-23.12 |
| 8.41425-8.41475 | 162.0125-167.17 | 3260-3267 | 23.6-24.0 |
| 12.29-12.293 | 167.72-173.2 | 3332-3339 | 31.2-31.8 |
| 12.51975-12.52025 | 240-285 | 3345.8-3358 | 36.43-36.5 |
| 12.57675-12.57725 | 322-335.4 | 3600-4400 | (²) |
| 13.36-13.41 | | | |

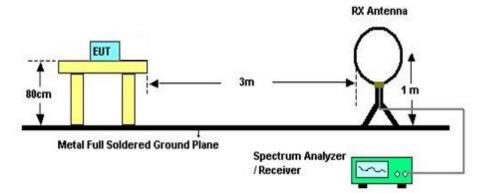
Note: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. ²Above 38.6c

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TEST SETUP AND PROCEDURE

Below 30MHz



The setting of the spectrum analyser

| RBW | 200Hz (From 9kHz to 0.15MHz)/ 9kHz (From 0.15MHz to 30MHz) |
|-------|--|
| VBW | 200Hz (From 9kHz to 0.15MHz)/ 9kHz (From 0.15MHz to 30MHz) |
| Sweep | Auto |
| Trace | Max hold |

1. The testing follows the guidelines in ANSI C63.10-2013 clause 11.11.

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

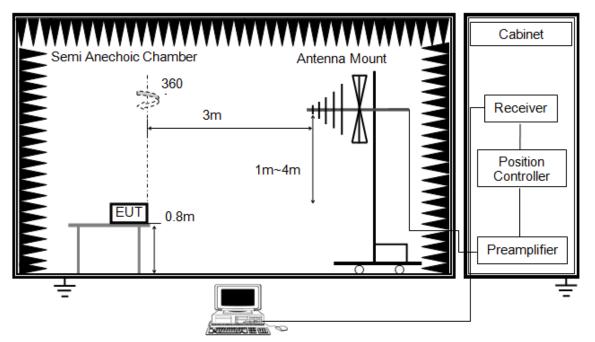
6. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode remeasured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.

7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.

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Below 1G and above 30MHz



The setting of the spectrum analyser

| RBW | 120kHz |
|----------|----------|
| VBW | 300kHz |
| Sweep | Auto |
| Detector | Peak/QP |
| Trace | Max hold |

1. The testing follows the guidelines in ANSI C63.10-2013 clause 11.11.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

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Above 1G

The setting of the spectrum analyser

| RBW | 1MHz |
|----------|-------------------------------|
| VBW | PEAK: 3MHz AVG: see note 6 |
| Sweep | Auto |
| Detector | Peak |
| Trace | Max hold |

1. The testing follows the guidelines in ANSI C63.10-2013 clause 11.11 and 11.12.

2. The EUT was arranged to its worst case and then tune the antenna tower (1.5 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 1.5m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

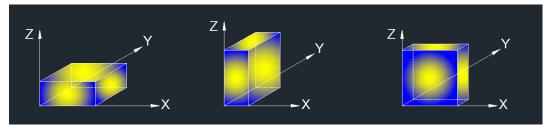
5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

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X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

TEST ENVIRONMENT

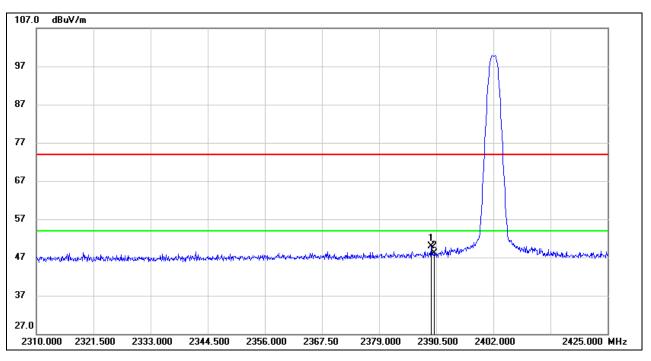
| Temperature | 22.3°C | Relative Humidity | 59% |
|---------------------|--------|-------------------|---------|
| Atmosphere Pressure | 101kPa | Test Voltage | DC 3.7V |

RESULTS



8.1. RESTRICTED BANDEDGE

8.1.1. LE MODE



RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 2389.465 | 16.89 | 32.94 | 49.83 | 74.00 | -24.17 | peak |
| 2 | 2390.000 | 15.09 | 32.94 | 48.03 | 74.00 | -25.97 | peak |

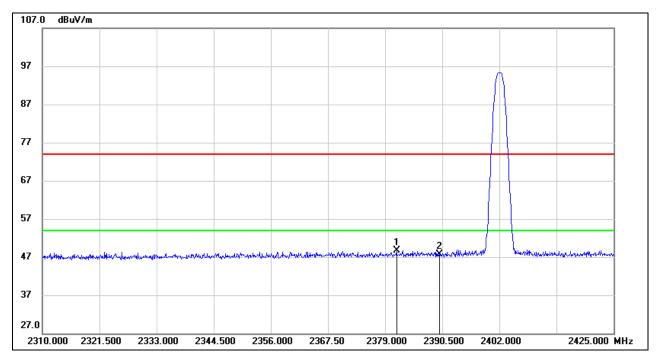
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 2381.300 | 15.86 | 32.92 | 48.78 | 74.00 | -25.22 | peak |
| 2 | 2390.000 | 14.78 | 32.94 | 47.72 | 74.00 | -26.28 | peak |

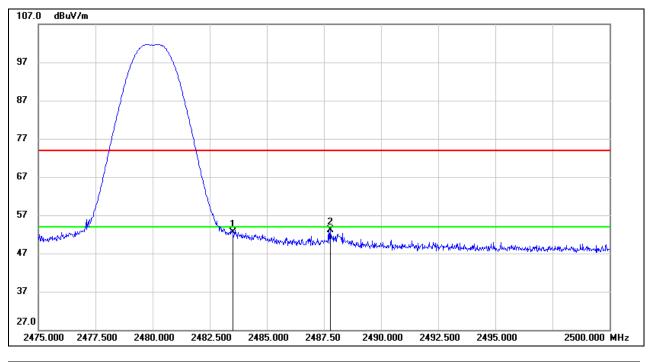
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 2483.500 | 19.00 | 33.58 | 52.58 | 74.00 | -21.42 | peak |
| 2 | 2487.775 | 19.53 | 33.61 | 53.14 | 74.00 | -20.86 | peak |

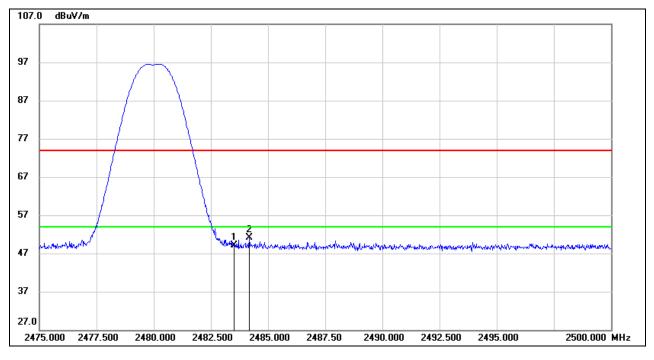
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 2483.500 | 15.48 | 33.58 | 49.06 | 74.00 | -24.94 | peak |
| 2 | 2484.175 | 17.45 | 33.58 | 51.03 | 74.00 | -22.97 | peak |

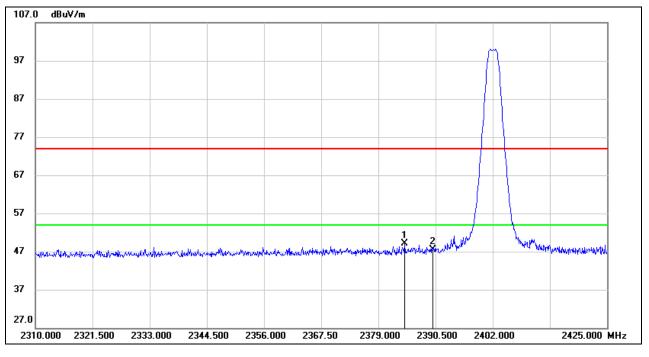
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



8.1.2. LE 2M MODE



RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 2384.290 | 16.18 | 32.92 | 49.10 | 74.00 | -24.90 | peak |
| 2 | 2390.000 | 14.52 | 32.94 | 47.46 | 74.00 | -26.54 | peak |

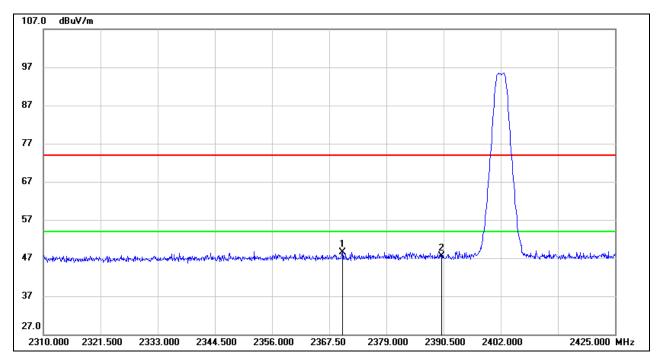
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 2370.145 | 15.72 | 32.88 | 48.60 | 74.00 | -25.40 | peak |
| 2 | 2390.000 | 14.56 | 32.94 | 47.50 | 74.00 | -26.50 | peak |

Note: 1. Measurement = Reading Level + Correct Factor.

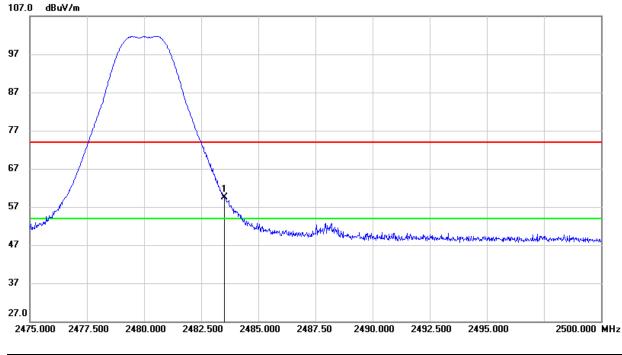
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

<u>PEAK</u>



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 2483.500 | 25.87 | 33.58 | 59.45 | 74.00 | -14.55 | peak |

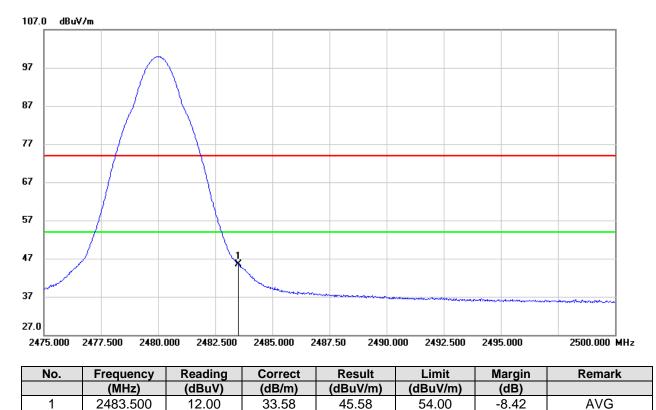
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



AVG



Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

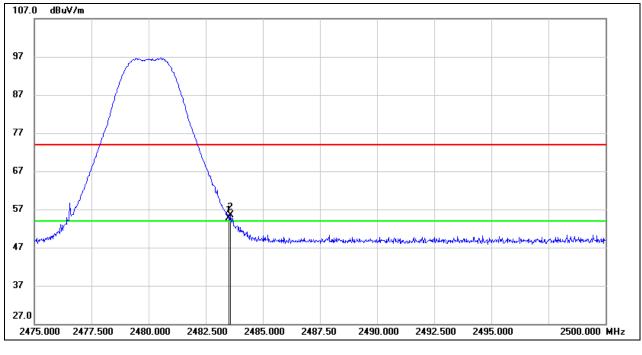
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

<u>PEAK</u>



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 2483.500 | 21.20 | 33.58 | 54.78 | 74.00 | -19.22 | peak |
| 2 | 2483.575 | 21.98 | 33.58 | 55.56 | 74.00 | -18.44 | peak |

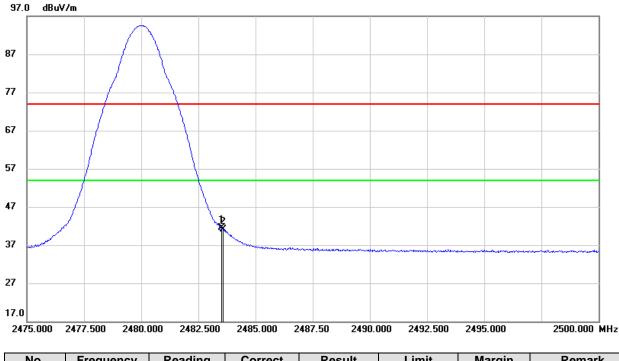
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



<u>AVG</u>



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 2483.500 | 7.94 | 33.58 | 41.52 | 54.00 | -12.48 | AVG |
| 2 | 2483.575 | 7.60 | 33.58 | 41.18 | 54.00 | -12.82 | AVG |

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

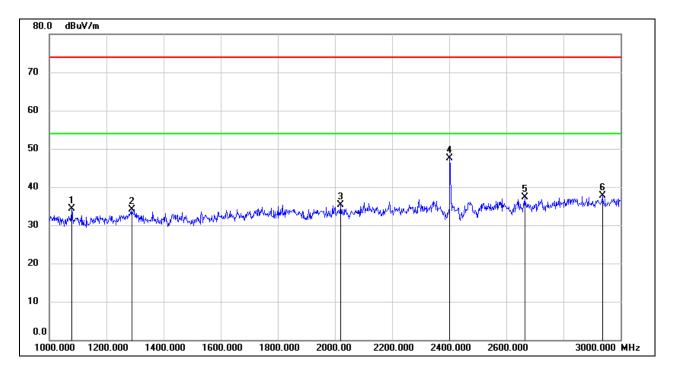
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.

6. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



8.2. SPURIOUS EMISSIONS (1GHz ~ 3GHz)

8.2.1. LE MODE



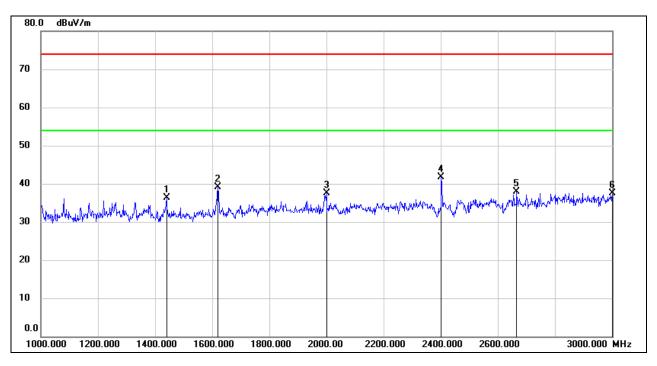
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1078.000 | 47.90 | -13.53 | 34.37 | 74.00 | -39.63 | peak |
| 2 | 1288.000 | 46.44 | -12.38 | 34.06 | 74.00 | -39.94 | peak |
| 3 | 2020.000 | 45.08 | -9.68 | 35.40 | 74.00 | -38.60 | peak |
| 4 | 2402.000 | 55.36 | -7.85 | 47.51 | / | / | fundamental |
| 5 | 2664.000 | 44.72 | -7.34 | 37.38 | 74.00 | -36.62 | peak |
| 6 | 2936.000 | 43.24 | -5.44 | 37.80 | 74.00 | -36.20 | peak |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.







| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1440.000 | 48.63 | -12.32 | 36.31 | 74.00 | -37.69 | peak |
| 2 | 1620.000 | 50.36 | -11.29 | 39.07 | 74.00 | -34.93 | peak |
| 3 | 2000.000 | 47.31 | -9.82 | 37.49 | 74.00 | -36.51 | peak |
| 4 | 2402.000 | 49.52 | -7.85 | 41.67 | / | / | fundamental |
| 5 | 2666.000 | 45.22 | -7.32 | 37.90 | 74.00 | -36.10 | peak |
| 6 | 3000.000 | 42.90 | -5.30 | 37.60 | 74.00 | -36.40 | peak |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

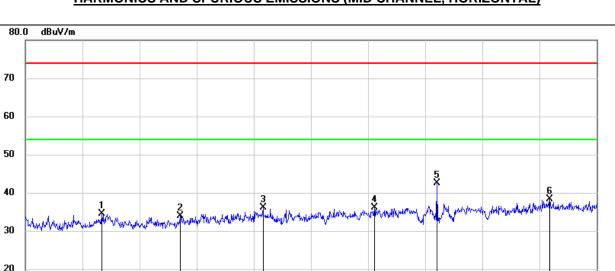


10

0.0

1200.000

1400.000



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1268.000 | 46.92 | -12.45 | 34.47 | 74.00 | -39.53 | peak |
| 2 | 1542.000 | 45.77 | -11.87 | 33.90 | 74.00 | -40.10 | peak |
| 3 | 1832.000 | 46.08 | -9.93 | 36.15 | 74.00 | -37.85 | peak |
| 4 | 2222.000 | 44.72 | -8.56 | 36.16 | 74.00 | -37.84 | peak |
| 5 | 2440.000 | 50.12 | -7.59 | 42.53 | / | / | fundamental |
| 6 | 2836.000 | 44.18 | -5.87 | 38.31 | 74.00 | -35.69 | peak |

2000.00

2200.000

2400.000

2600.000

3000.000 MHz

Note: 1. Peak Result = Reading Level + Correct Factor.

1600.000

1800.000

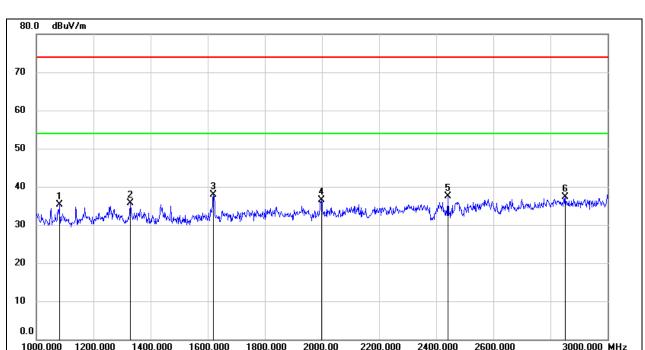
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the

authorized band was not corrected for Band reject filter losses.





HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1080.000 | 48.79 | -13.53 | 35.26 | 74.00 | -38.74 | peak |
| 2 | 1328.000 | 48.15 | -12.36 | 35.79 | 74.00 | -38.21 | peak |
| 3 | 1620.000 | 49.24 | -11.29 | 37.95 | 74.00 | -36.05 | peak |
| 4 | 1998.000 | 46.32 | -9.83 | 36.49 | 74.00 | -37.51 | peak |
| 5 | 2440.000 | 45.14 | -7.59 | 37.55 | / | / | fundamental |
| 6 | 2852.000 | 43.05 | -5.78 | 37.27 | 74.00 | -36.73 | peak |

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

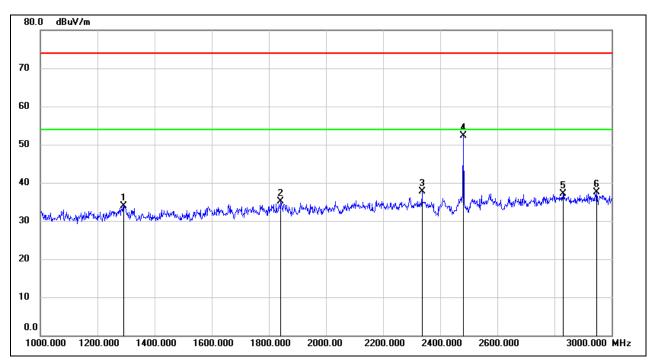
3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the

authorized band was not corrected for Band reject filter losses.







| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1292.000 | 46.34 | -12.36 | 33.98 | 74.00 | -40.02 | peak |
| 2 | 1842.000 | 44.99 | -9.93 | 35.06 | 74.00 | -38.94 | peak |
| 3 | 2336.000 | 45.70 | -8.07 | 37.63 | 74.00 | -36.37 | peak |
| 4 | 2480.000 | 59.70 | -7.31 | 52.39 | / | / | fundamental |
| 5 | 2830.000 | 42.90 | -5.89 | 37.01 | 74.00 | -36.99 | peak |
| 6 | 2948.000 | 42.91 | -5.42 | 37.49 | 74.00 | -36.51 | peak |

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses.



20

10

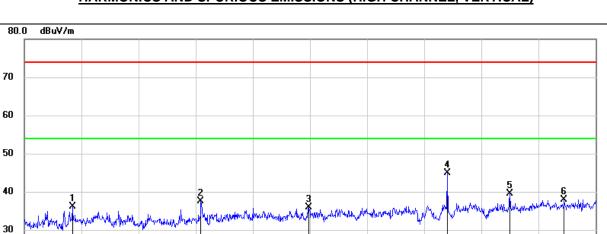
0.0

1200.000

1400.000

1600.000

1800.000



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1168.000 | 49.05 | -12.95 | 36.10 | 74.00 | -37.90 | peak |
| 2 | 1618.000 | 48.89 | -11.31 | 37.58 | 74.00 | -36.42 | peak |
| 3 | 1996.000 | 45.81 | -9.83 | 35.98 | 74.00 | -38.02 | peak |
| 4 | 2480.000 | 52.12 | -7.31 | 44.81 | / | / | fundamental |
| 5 | 2700.000 | 46.70 | -7.13 | 39.57 | 74.00 | -34.43 | peak |
| 6 | 2890.000 | 43.53 | -5.58 | 37.95 | 74.00 | -36.05 | peak |

2000.00

2200.000

2400.000

2600.000

3000.000 MHz

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

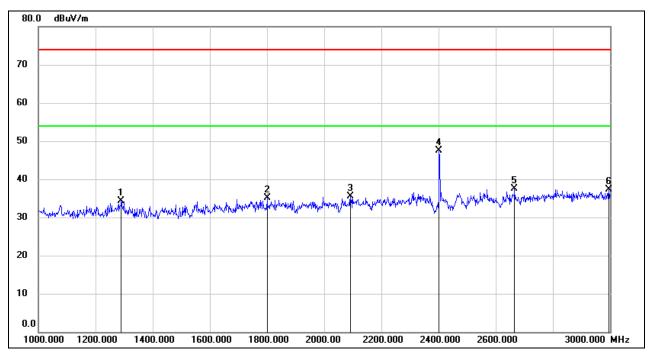
3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses.



8.2.2. LE 2M MODE



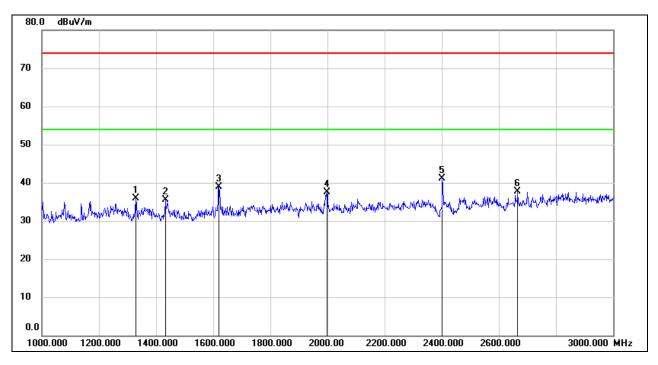


| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1290.000 | 46.78 | -12.38 | 34.40 | 74.00 | -39.60 | peak |
| 2 | 1800.000 | 44.97 | -9.91 | 35.06 | 74.00 | -38.94 | peak |
| 3 | 2092.000 | 44.62 | -9.20 | 35.42 | 74.00 | -38.58 | peak |
| 4 | 2402.000 | 55.28 | -7.85 | 47.43 | / | / | fundamental |
| 5 | 2666.000 | 44.80 | -7.32 | 37.48 | 74.00 | -36.52 | peak |
| 6 | 2996.000 | 42.59 | -5.30 | 37.29 | 74.00 | -36.71 | peak |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





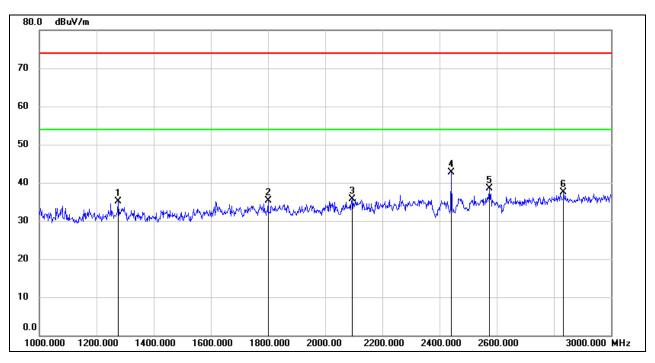


| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1330.000 | 48.31 | -12.36 | 35.95 | 74.00 | -38.05 | peak |
| 2 | 1432.000 | 47.82 | -12.33 | 35.49 | 74.00 | -38.51 | peak |
| 3 | 1620.000 | 50.11 | -11.29 | 38.82 | 74.00 | -35.18 | peak |
| 4 | 1998.000 | 47.38 | -9.83 | 37.55 | 74.00 | -36.45 | peak |
| 5 | 2402.000 | 48.94 | -7.85 | 41.09 | / | / | fundamental |
| 6 | 2666.000 | 44.96 | -7.32 | 37.64 | 74.00 | -36.36 | peak |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





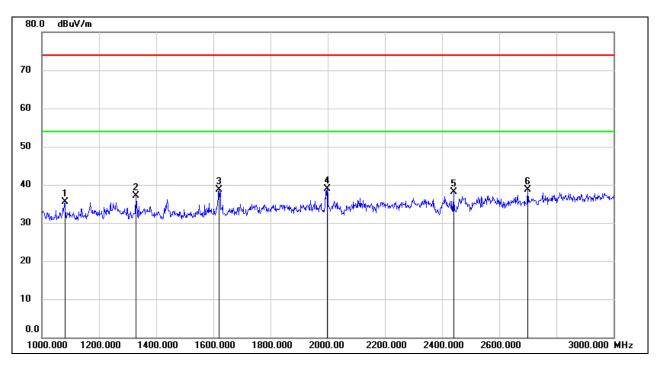


| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1276.000 | 47.48 | -12.42 | 35.06 | 74.00 | -38.94 | peak |
| 2 | 1800.000 | 45.17 | -9.91 | 35.26 | 74.00 | -38.74 | peak |
| 3 | 2094.000 | 44.85 | -9.20 | 35.65 | 74.00 | -38.35 | peak |
| 4 | 2440.000 | 50.21 | -7.59 | 42.62 | / | / | fundamental |
| 5 | 2574.000 | 45.97 | -7.56 | 38.41 | 74.00 | -35.59 | peak |
| 6 | 2834.000 | 43.33 | -5.88 | 37.45 | 74.00 | -36.55 | peak |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





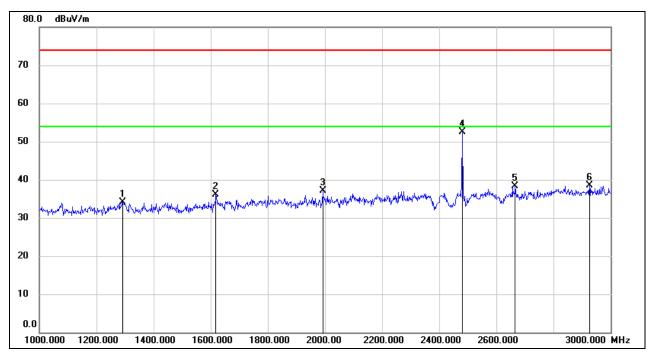


| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1080.000 | 49.00 | -13.53 | 35.47 | 74.00 | -38.53 | peak |
| 2 | 1328.000 | 49.52 | -12.36 | 37.16 | 74.00 | -36.84 | peak |
| 3 | 1620.000 | 49.90 | -11.29 | 38.61 | 74.00 | -35.39 | peak |
| 4 | 1998.000 | 48.74 | -9.83 | 38.91 | 74.00 | -35.09 | peak |
| 5 | 2440.000 | 45.78 | -7.59 | 38.19 | / | / | fundamental |
| 6 | 2700.000 | 45.91 | -7.13 | 38.78 | 74.00 | -35.22 | peak |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

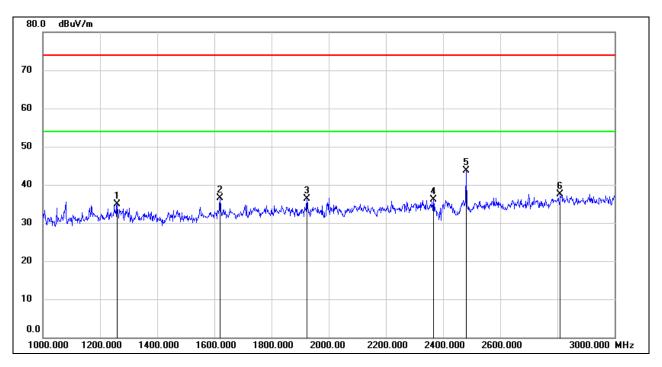


| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1292.000 | 46.38 | -12.36 | 34.02 | 74.00 | -39.98 | peak |
| 2 | 1618.000 | 47.35 | -11.31 | 36.04 | 74.00 | -37.96 | peak |
| 3 | 1992.000 | 46.91 | -9.83 | 37.08 | 74.00 | -36.92 | peak |
| 4 | 2480.000 | 59.72 | -7.31 | 52.41 | / | / | fundamental |
| 5 | 2666.000 | 45.67 | -7.32 | 38.35 | 74.00 | -35.65 | peak |
| 6 | 2926.000 | 44.00 | -5.47 | 38.53 | 74.00 | -35.47 | peak |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.







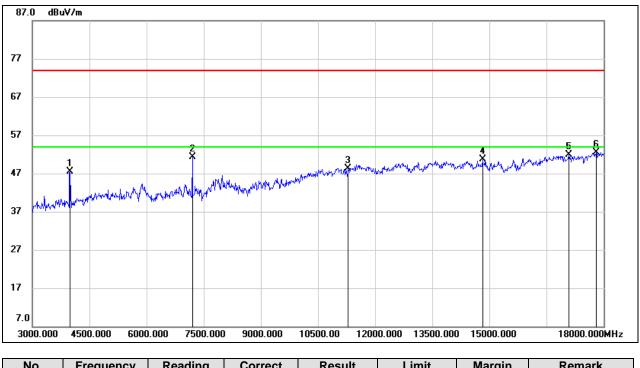
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 1260.000 | 47.47 | -12.48 | 34.99 | 74.00 | -39.01 | peak |
| 2 | 1620.000 | 47.75 | -11.29 | 36.46 | 74.00 | -37.54 | peak |
| 3 | 1924.000 | 46.33 | -9.93 | 36.40 | 74.00 | -37.60 | peak |
| 4 | 2366.000 | 44.06 | -7.97 | 36.09 | 74.00 | -37.91 | peak |
| 5 | 2480.000 | 51.09 | -7.31 | 43.78 | / | / | fundamental |
| 6 | 2810.000 | 43.54 | -6.00 | 37.54 | 74.00 | -36.46 | peak |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



8.3.1. LE MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 3990.000 | 50.36 | -2.89 | 47.47 | 74.00 | -26.53 | peak |
| 2 | 7200.000 | 45.47 | 5.82 | 51.29 | 74.00 | -22.71 | peak |
| 3 | 11295.000 | 36.04 | 12.34 | 48.38 | 74.00 | -25.62 | peak |
| 4 | 14820.000 | 34.71 | 15.94 | 50.65 | 74.00 | -23.35 | peak |
| 5 | 17085.000 | 31.26 | 20.60 | 51.86 | 74.00 | -22.14 | peak |
| 6 | 17805.000 | 29.11 | 23.31 | 52.42 | 74.00 | -21.58 | peak |

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

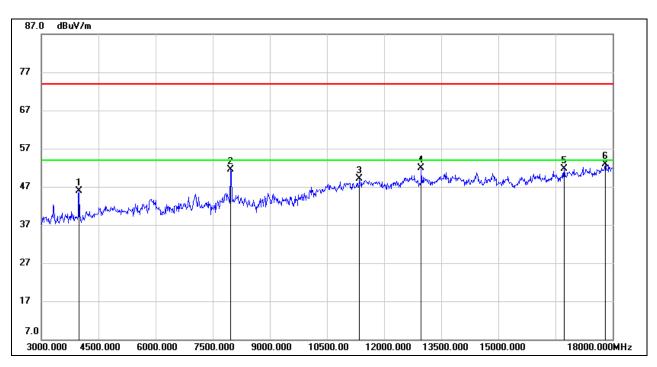
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.





| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 3990.000 | 48.82 | -2.89 | 45.93 | 74.00 | -28.07 | peak |
| 2 | 7965.000 | 44.44 | 7.00 | 51.44 | 74.00 | -22.56 | peak |
| 3 | 11355.000 | 36.62 | 12.48 | 49.10 | 74.00 | -24.90 | peak |
| 4 | 12975.000 | 36.96 | 14.93 | 51.89 | 74.00 | -22.11 | peak |
| 5 | 16725.000 | 31.80 | 19.93 | 51.73 | 74.00 | -22.27 | peak |
| 6 | 17805.000 | 29.56 | 23.31 | 52.87 | 74.00 | -21.13 | peak |

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.



87.0 dBuV/m 77 67 57 3 47 37 27 17 7.0 3000.000 4500.000 6000.000 7500.000 9000.000 10500.00 12000.000 13500.000 15000.000 18000.000MHz

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 3990.000 | 50.48 | -2.89 | 47.59 | 74.00 | -26.41 | peak |
| 2 | 7320.000 | 46.17 | 6.14 | 52.31 | 74.00 | -21.69 | peak |
| 3 | 11730.000 | 36.43 | 13.02 | 49.45 | 74.00 | -24.55 | peak |
| 4 | 14400.000 | 34.61 | 16.35 | 50.96 | 74.00 | -23.04 | peak |
| 5 | 16815.000 | 32.30 | 19.96 | 52.26 | 74.00 | -21.74 | peak |
| 6 | 17715.000 | 30.54 | 22.56 | 53.10 | 74.00 | -20.90 | peak |

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

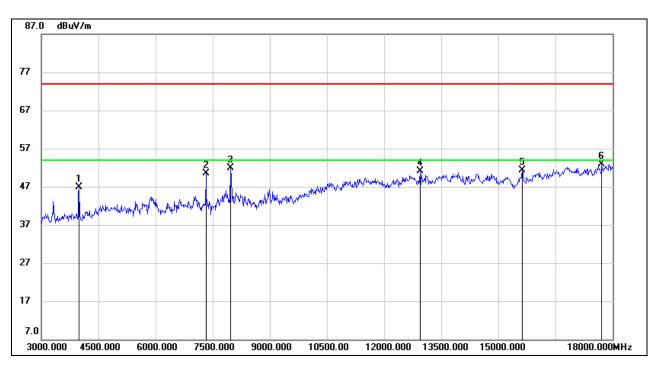
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.





| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 3990.000 | 49.72 | -2.89 | 46.83 | 74.00 | -27.17 | peak |
| 2 | 7320.000 | 44.46 | 6.14 | 50.60 | 74.00 | -23.40 | peak |
| 3 | 7965.000 | 44.86 | 7.00 | 51.86 | 74.00 | -22.14 | peak |
| 4 | 12945.000 | 36.09 | 14.92 | 51.01 | 74.00 | -22.99 | peak |
| 5 | 15630.000 | 34.36 | 16.89 | 51.25 | 74.00 | -22.75 | peak |
| 6 | 17715.000 | 30.37 | 22.56 | 52.93 | 74.00 | -21.07 | peak |

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

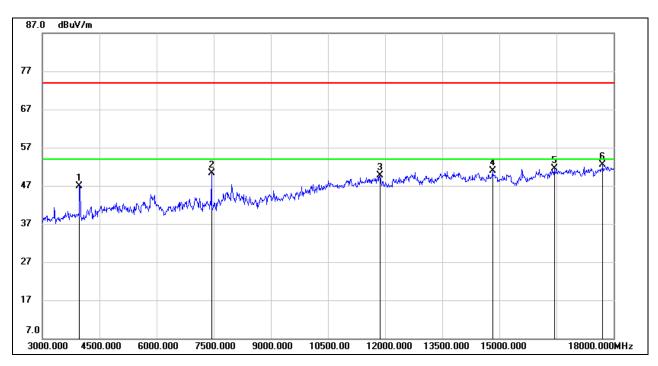
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.





HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 3975.000 | 49.89 | -2.90 | 46.99 | 74.00 | -27.01 | peak |
| 2 | 7440.000 | 43.96 | 6.32 | 50.28 | 74.00 | -23.72 | peak |
| 3 | 11865.000 | 36.42 | 13.21 | 49.63 | 74.00 | -24.37 | peak |
| 4 | 14820.000 | 35.03 | 15.94 | 50.97 | 74.00 | -23.03 | peak |
| 5 | 16455.000 | 32.47 | 19.00 | 51.47 | 74.00 | -22.53 | peak |
| 6 | 17715.000 | 29.96 | 22.56 | 52.52 | 74.00 | -21.48 | peak |

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

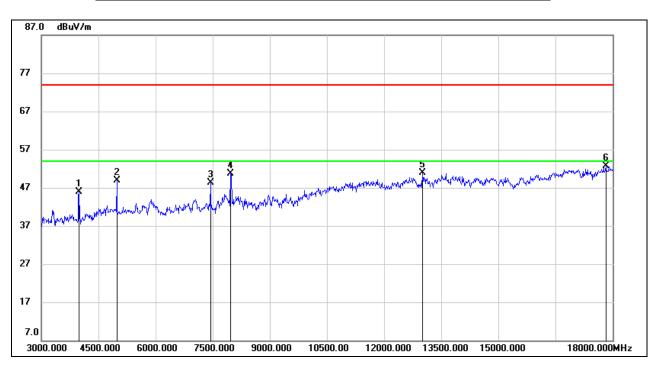
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.





| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 3990.000 | 48.70 | -2.89 | 45.81 | 74.00 | -28.19 | peak |
| 2 | 4980.000 | 47.66 | 1.29 | 48.95 | 74.00 | -25.05 | peak |
| 3 | 7440.000 | 41.93 | 6.32 | 48.25 | 74.00 | -25.75 | peak |
| 4 | 7965.000 | 43.73 | 7.00 | 50.73 | 74.00 | -23.27 | peak |
| 5 | 13005.000 | 35.95 | 14.95 | 50.90 | 74.00 | -23.10 | peak |
| 6 | 17820.000 | 29.33 | 23.30 | 52.63 | 74.00 | -21.37 | peak |

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

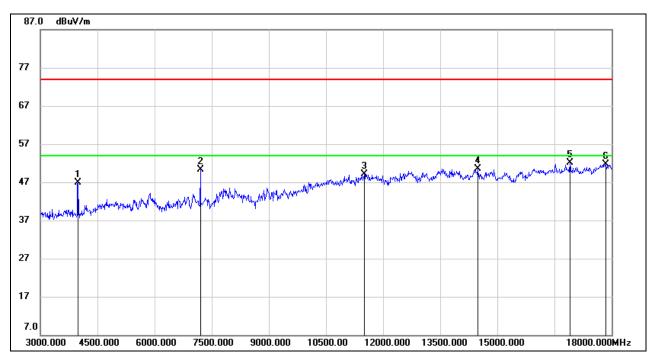
5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.



8.3.2. LE 2M MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 3990.000 | 49.84 | -2.89 | 46.95 | 74.00 | -27.05 | peak |
| 2 | 7200.000 | 44.51 | 5.82 | 50.33 | 74.00 | -23.67 | peak |
| 3 | 11505.000 | 35.70 | 13.42 | 49.12 | 74.00 | -24.88 | peak |
| 4 | 14490.000 | 34.11 | 16.37 | 50.48 | 74.00 | -23.52 | peak |
| 5 | 16905.000 | 32.08 | 19.99 | 52.07 | 74.00 | -21.93 | peak |
| 6 | 17850.000 | 28.44 | 23.32 | 51.76 | 74.00 | -22.24 | peak |

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

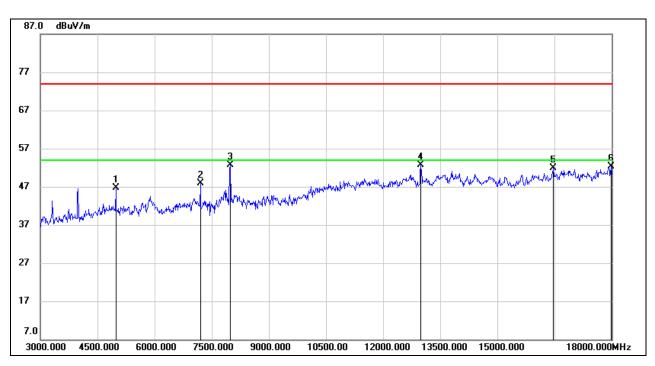
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.





| HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL) |
|--|
|--|

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 4980.000 | 45.41 | 1.29 | 46.70 | 74.00 | -27.30 | peak |
| 2 | 7200.000 | 42.16 | 5.82 | 47.98 | 74.00 | -26.02 | peak |
| 3 | 7995.000 | 45.77 | 6.89 | 52.66 | 74.00 | -21.34 | peak |
| 4 | 12990.000 | 37.82 | 14.92 | 52.74 | 74.00 | -21.26 | peak |
| 5 | 16470.000 | 32.86 | 19.06 | 51.92 | 74.00 | -22.08 | peak |
| 6 | 17985.000 | 28.84 | 23.44 | 52.28 | 74.00 | -21.72 | peak |

If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.



87.0 dBuV/m 77 67 57 3 X 47 Mandra Manar Howard 37 27 17 7.0 3000.000 4500.000 6000.000 7500.000 9000.000 10500.00 12000.000 13500.000 15000.000 18000.000MHz

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 3975.000 | 50.07 | -2.90 | 47.17 | 74.00 | -26.83 | peak |
| 2 | 7320.000 | 46.39 | 6.14 | 52.53 | 74.00 | -21.47 | peak |
| 3 | 11535.000 | 36.26 | 13.33 | 49.59 | 74.00 | -24.41 | peak |
| 4 | 13980.000 | 35.02 | 16.07 | 51.09 | 74.00 | -22.91 | peak |
| 5 | 16890.000 | 32.54 | 19.97 | 52.51 | 74.00 | -21.49 | peak |
| 6 | 17745.000 | 29.70 | 22.82 | 52.52 | 74.00 | -21.48 | peak |

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

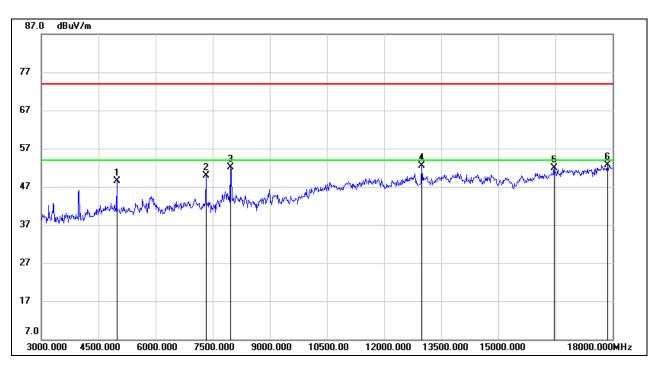
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.





| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 4980.000 | 47.31 | 1.29 | 48.60 | 74.00 | -25.40 | peak |
| 2 | 7320.000 | 43.84 | 6.14 | 49.98 | 74.00 | -24.02 | peak |
| 3 | 7965.000 | 45.14 | 7.00 | 52.14 | 74.00 | -21.86 | peak |
| 4 | 12990.000 | 37.50 | 14.92 | 52.42 | 74.00 | -21.58 | peak |
| 5 | 16470.000 | 32.93 | 19.06 | 51.99 | 74.00 | -22.01 | peak |
| 6 | 17865.000 | 29.41 | 23.33 | 52.74 | 74.00 | -21.26 | peak |

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

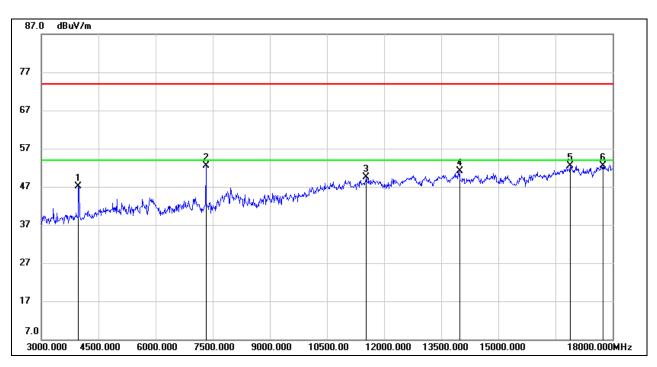
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.





| HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL) |
|---|
|---|

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 3975.000 | 50.07 | -2.90 | 47.17 | 74.00 | -26.83 | peak |
| 2 | 7320.000 | 46.39 | 6.14 | 52.53 | 74.00 | -21.47 | peak |
| 3 | 11535.000 | 36.26 | 13.33 | 49.59 | 74.00 | -24.41 | peak |
| 4 | 13980.000 | 35.02 | 16.07 | 51.09 | 74.00 | -22.91 | peak |
| 5 | 16890.000 | 32.54 | 19.97 | 52.51 | 74.00 | -21.49 | peak |
| 6 | 17745.000 | 29.70 | 22.82 | 52.52 | 74.00 | -21.48 | peak |

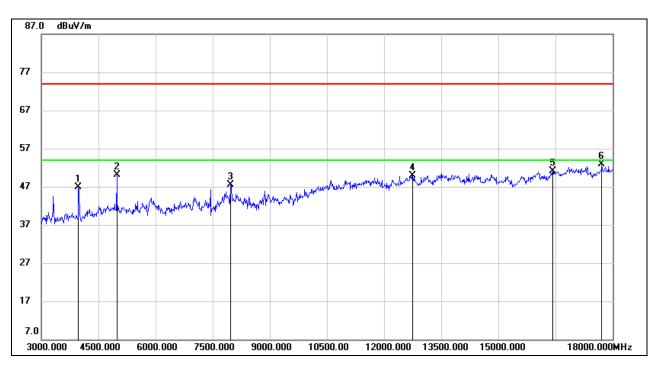
If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.





| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 3975.000 | 49.73 | -2.90 | 46.83 | 74.00 | -27.17 | peak |
| 2 | 4980.000 | 48.89 | 1.29 | 50.18 | 74.00 | -23.82 | peak |
| 3 | 7965.000 | 40.55 | 7.00 | 47.55 | 74.00 | -26.45 | peak |
| 4 | 12750.000 | 35.00 | 14.98 | 49.98 | 74.00 | -24.02 | peak |
| 5 | 16425.000 | 32.25 | 18.88 | 51.13 | 74.00 | -22.87 | peak |
| 6 | 17715.000 | 30.27 | 22.56 | 52.83 | 74.00 | -21.17 | peak |

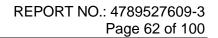
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

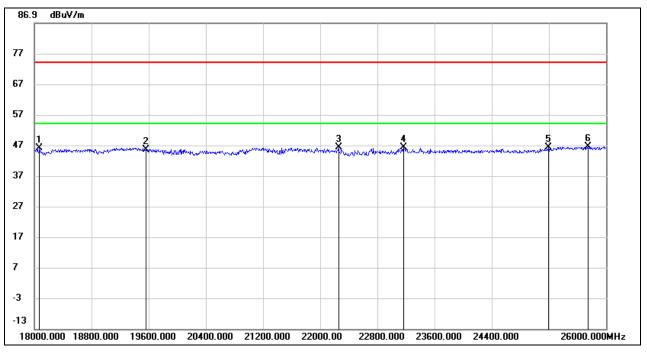
5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.



8.4. SPURIOUS EMISSIONS (18GHz ~ 26GHz)

8.4.1. LE MODE



SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)

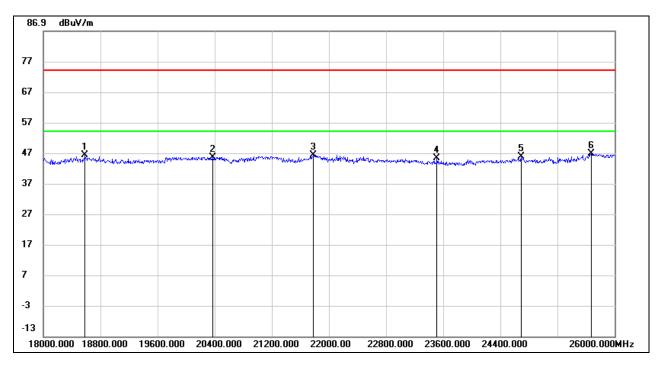
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 18072.000 | 50.05 | -4.02 | 46.03 | 74.00 | -27.97 | peak |
| 2 | 19560.000 | 50.31 | -4.69 | 45.62 | 74.00 | -28.38 | peak |
| 3 | 22256.000 | 52.45 | -6.06 | 46.39 | 74.00 | -27.61 | peak |
| 4 | 23168.000 | 51.59 | -5.38 | 46.21 | 74.00 | -27.79 | peak |
| 5 | 25192.000 | 47.49 | -1.16 | 46.33 | 74.00 | -27.67 | peak |
| 6 | 25752.000 | 48.00 | -1.35 | 46.65 | 74.00 | -27.35 | peak |

Note: 1. Peak Result = Reading Level + Correct Factor.

If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 Peak: Peak detector.



SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 18584.000 | 50.69 | -4.53 | 46.16 | 74.00 | -27.84 | peak |
| 2 | 20368.000 | 50.54 | -4.91 | 45.63 | 74.00 | -28.37 | peak |
| 3 | 21784.000 | 52.20 | -5.82 | 46.38 | 74.00 | -27.62 | peak |
| 4 | 23512.000 | 50.01 | -4.76 | 45.25 | 74.00 | -28.75 | peak |
| 5 | 24688.000 | 47.89 | -2.11 | 45.78 | 74.00 | -28.22 | peak |
| 6 | 25672.000 | 48.23 | -1.48 | 46.75 | 74.00 | -27.25 | peak |

Note: 1. Peak Result = Reading Level + Correct Factor.

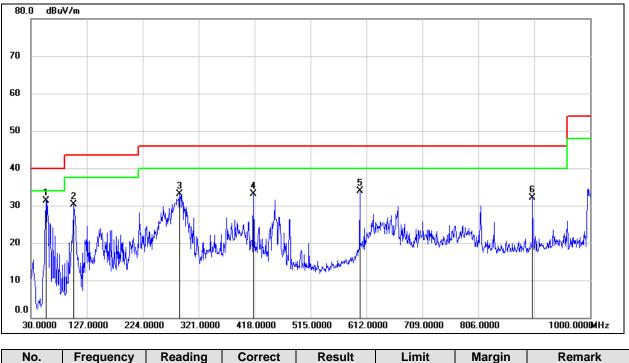
If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 Peak: Peak detector.

Note: All the modes have been tested, only the worst data was recorded in the report.



8.5. SPURIOUS EMISSIONS (30MHz ~ 1GHz)

8.5.1. LE MODE



SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)

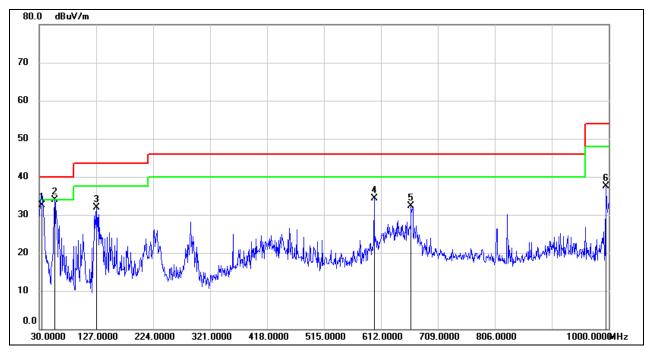
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 56.1900 | 52.01 | -20.73 | 31.28 | 40.00 | -8.72 | QP |
| 2 | 104.6900 | 51.23 | -20.95 | 30.28 | 40.00 | -9.72 | QP |
| 3 | 288.0200 | 49.58 | -16.51 | 33.07 | 47.00 | -13.93 | QP |
| 4 | 416.0600 | 46.26 | -13.11 | 33.15 | 47.00 | -13.85 | QP |
| 5 | 600.3600 | 43.80 | -9.91 | 33.89 | 47.00 | -13.11 | QP |
| 6 | 900.0900 | 37.74 | -5.65 | 32.09 | 47.00 | -14,91 | QP |

Note: 1. Result Level = Read Level + Correct Factor.

2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.



SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 1 | 34.8500 | 52.00 | -19.49 | 32.51 | 40.00 | -7.49 | QP |
| 2 | 56.1900 | 54.61 | -20.73 | 33.88 | 40.00 | -6.12 | QP |
| 3 | 127.9700 | 51.62 | -19.68 | 31.94 | 40.00 | -8.06 | QP |
| 4 | 600.3600 | 44.24 | -9.91 | 34.33 | 47.00 | -12.67 | QP |
| 5 | 663.4099 | 41.39 | -9.18 | 32.21 | 47.00 | -14.79 | QP |
| 6 | 995.1500 | 42.35 | -4.77 | 37.58 | 47.00 | -9.42 | QP |

Note: 1. Result Level = Read Level + Correct Factor.

2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

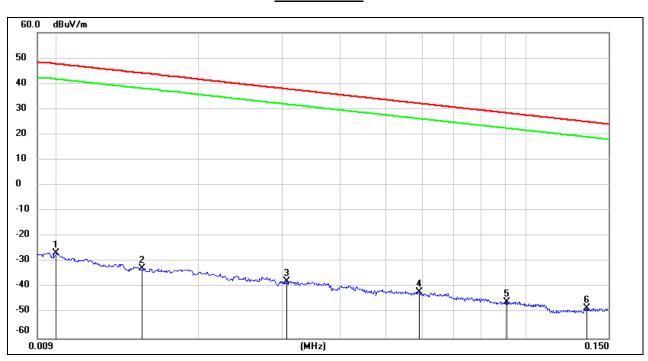
Note: All the modes have been tested, only the worst data was recorded in the report.



8.6. SPURIOUS EMISSIONS BELOW 30MHz

8.6.1. LE MODE

SPURIOUS EMISSIONS (LOW CHANNEL, LOOP ANTENNA FACE ON TO THE EUT, WORST-CASE CONFIGURATION)



9kHz~ 150kHz

| No. | Frequency | Reading | Correct | FCC | FCC | ISED | ISED | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|----------|----------|--------|--------|
| | | | | Result | Limit | Result | Limit | | |
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dBuA/m) | (dBuA/m) | (dB) | |
| 1 | 0.0100 | 74.72 | -101.40 | -26.68 | 47.60 | -78.18 | -3.90 | -74.28 | peak |
| 2 | 0.0151 | 68.71 | -101.37 | -32.66 | 44.02 | -84.16 | -7.48 | -76.68 | peak |
| 3 | 0.0307 | 63.76 | -101.39 | -37.63 | 37.86 | -89.13 | -13.64 | -75.49 | peak |
| 4 | 0.0589 | 59.81 | -101.52 | -41.71 | 32.20 | -93.21 | -19.30 | -73.91 | peak |
| 5 | 0.0911 | 56.11 | -101.72 | -45.61 | 28.41 | -97.11 | -23.09 | -74.02 | peak |
| 6 | 0.1348 | 53.41 | -101.68 | -48.27 | 25.01 | -99.77 | -26.49 | -73.28 | peak |

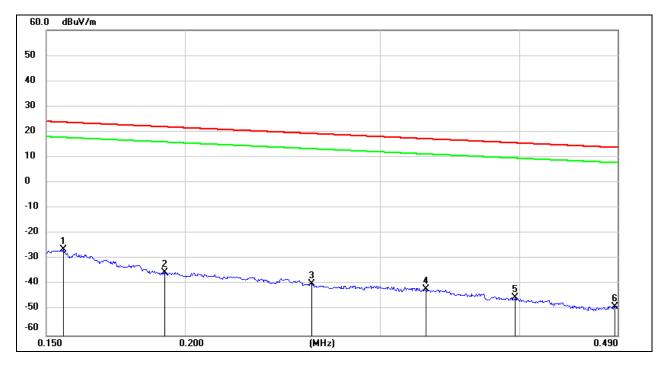
Note: 1. Measurement = Reading Level + Correct Factor ($dBuA/m = dBuV/m - 20Log10[120\pi] = dBuV/m - 51.5$).

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

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<u>150kHz ~ 490kHz</u>



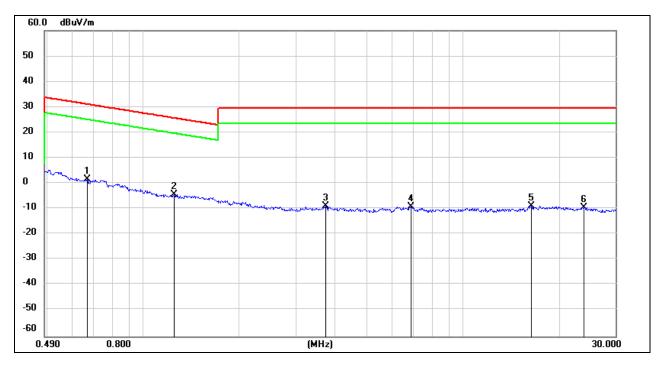
| No. | Frequency | Reading | Correct | FCC | FCC | ISED | ISED | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|----------|----------|--------|--------|
| | | | | Result | Limit | Result | Limit | | |
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dBuA/m) | (dBuA/m) | (dB) | |
| 1 | 0.1554 | 75.27 | -101.65 | -26.38 | 23.77 | -77.88 | -27.73 | -50.15 | peak |
| 2 | 0.1917 | 66.54 | -101.70 | -35.16 | 21.95 | -86.66 | -29.55 | -57.11 | peak |
| 3 | 0.2600 | 62.12 | -101.81 | -39.69 | 19.30 | -91.19 | -32.20 | -58.99 | peak |
| 4 | 0.3300 | 59.97 | -101.88 | -41.91 | 17.23 | -93.41 | -34.27 | -59.14 | peak |
| 5 | 0.3966 | 56.68 | -101.96 | -45.28 | 15.63 | -96.78 | -35.87 | -60.91 | peak |
| 6 | 0.4873 | 53.39 | -102.06 | -48.67 | 13.85 | -100.17 | -37.65 | -62.52 | peak |

Note: 1. Measurement = Reading Level + Correct Factor ($dBuA/m = dBuV/m - 20Log10[120\pi] = dBuV/m - 51.5$).

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

<u>490kHz ~ 30MHz</u>



| No. | Frequency | Reading | Correct | FCC | FCC | ISED | ISED | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|----------|----------|--------|--------|
| | | | | Result | Limit | Result | Limit | | |
| | (MHz) | (dBuV) | (dB/m) | (dBuV/m) | (dBuV/m) | (dBuA/m) | (dBuA/m) | (dB) | |
| 1 | 0.6671 | 63.75 | -62.10 | 1.65 | 31.12 | -49.85 | -20.38 | -29.47 | peak |
| 2 | 1.2460 | 57.75 | -62.16 | -4.41 | 25.70 | -55.91 | -25.80 | -30.11 | peak |
| 3 | 3.7100 | 52.70 | -61.41 | -8.71 | 29.54 | -60.21 | -21.96 | -38.25 | peak |
| 4 | 6.8936 | 52.09 | -61.22 | -9.13 | 29.54 | -60.63 | -21.96 | -38.67 | peak |
| 5 | 16.3959 | 52.17 | -60.96 | -8.79 | 29.54 | -60.29 | -21.96 | -38.33 | peak |
| 6 | 23.9800 | 51.17 | -60.53 | -9.36 | 29.54 | -60.86 | -21.96 | -38.90 | peak |

Note: 1. Measurement = Reading Level + Correct Factor ($dBuA/m = dBuV/m - 20Log10[120\pi] = dBuV/m - 51.5$).

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

Note: All the modes have been tested, only the worst data was recorded in the report.



9. AC POWER LINE CONDUCTED EMISSIONS

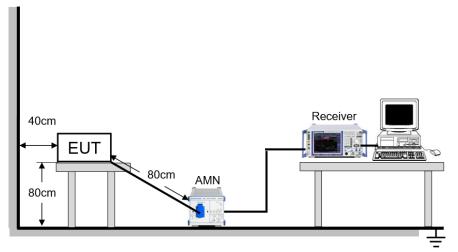
LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

| FREQUENCY (MHz) | Quasi-peak | Average |
|-----------------|------------|-----------|
| 0.15 -0.5 | 66 - 56 * | 56 - 46 * |
| 0.50 -5.0 | 56.00 | 46.00 |
| 5.0 -30.0 | 60.00 | 50.00 |

TEST SETUP AND PROCEDURE

Refer to ANSI C63.10-2013 clause 6.2.



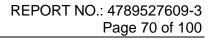
The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST ENVIRONMENT

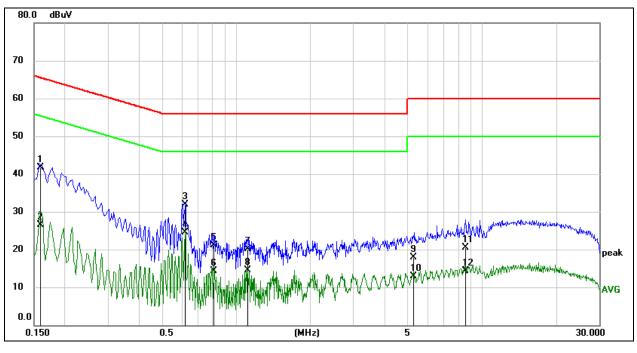
| Temperature | 23.6°C | Relative Humidity | 64.6% |
|---------------------|--------|-------------------|-------------|
| Atmosphere Pressure | 101kPa | Test Voltage | AC120V,60Hz |

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9.1. LE MODE



LINE L RESULTS (LOW CHANNEL, WORST-CASE CONFIGURATION)

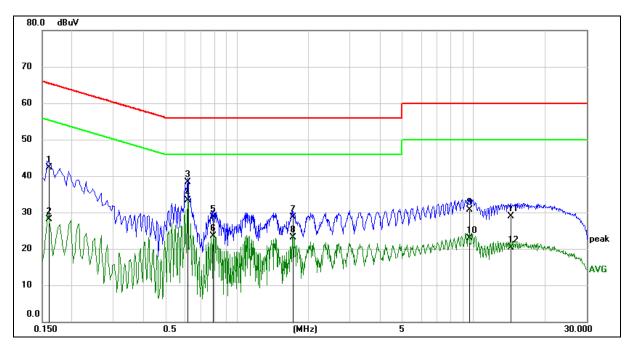
| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|--------|--------|--------|--------|
| | (MHz) | (dBuV) | (dB) | (dBuV) | (dBuV) | (dB) | |
| 1 | 0.1592 | 32.03 | 9.61 | 41.64 | 65.51 | -23.87 | QP |
| 2 | 0.1592 | 16.92 | 9.61 | 26.53 | 55.51 | -28.98 | AVG |
| 3 | 0.6175 | 22.34 | 9.60 | 31.94 | 56.00 | -24.06 | QP |
| 4 | 0.6175 | 14.86 | 9.60 | 24.46 | 46.00 | -21.54 | AVG |
| 5 | 0.8129 | 11.46 | 9.61 | 21.07 | 56.00 | -34.93 | QP |
| 6 | 0.8129 | 4.73 | 9.61 | 14.34 | 46.00 | -31.66 | AVG |
| 7 | 1.1129 | 10.44 | 9.61 | 20.05 | 56.00 | -35.95 | QP |
| 8 | 1.1129 | 4.81 | 9.61 | 14.42 | 46.00 | -31.58 | AVG |
| 9 | 5.2669 | 8.22 | 9.68 | 17.90 | 60.00 | -42.10 | QP |
| 10 | 5.2669 | 3.24 | 9.68 | 12.92 | 50.00 | -37.08 | AVG |
| 11 | 8.5312 | 10.75 | 9.73 | 20.48 | 60.00 | -39.52 | QP |
| 12 | 8.5312 | 4.52 | 9.73 | 14.25 | 50.00 | -35.75 | AVG |

Note: 1. Result = Reading +Correct Factor.

- 2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 200 Hz (9 kHz-150 kHz), 9 kHz (150 kHz-30 MHz).
- 4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.



LINE N RESULTS (LOW CHANNEL, WORST-CASE CONFIGURATION)



| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|--------|--------|--------|--------|
| | (MHz) | (dBuV) | (dB) | (dBuV) | (dBuV) | (dB) | |
| 1 | 0.1597 | 32.73 | 9.60 | 42.33 | 65.48 | -23.15 | QP |
| 2 | 0.1597 | 18.58 | 9.60 | 28.18 | 55.48 | -27.30 | AVG |
| 3 | 0.6180 | 28.75 | 9.60 | 38.35 | 56.00 | -17.65 | QP |
| 4 | 0.6180 | 23.69 | 9.60 | 33.29 | 46.00 | -12.71 | AVG |
| 5 | 0.7954 | 19.07 | 9.60 | 28.67 | 56.00 | -27.33 | QP |
| 6 | 0.7954 | 13.81 | 9.60 | 23.41 | 46.00 | -22.59 | AVG |
| 7 | 1.7311 | 19.12 | 9.62 | 28.74 | 56.00 | -27.26 | QP |
| 8 | 1.7311 | 13.56 | 9.62 | 23.18 | 46.00 | -22.82 | AVG |
| 9 | 9.5636 | 21.05 | 9.75 | 30.80 | 60.00 | -29.20 | QP |
| 10 | 9.5636 | 13.23 | 9.75 | 22.98 | 50.00 | -27.02 | AVG |
| 11 | 14.3295 | 19.05 | 9.87 | 28.92 | 60.00 | -31.08 | QP |
| 12 | 14.3295 | 10.41 | 9.87 | 20.28 | 50.00 | -29.72 | AVG |

Note: 1. Result = Reading +Correct Factor.

- 2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
- 4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.



10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Complies



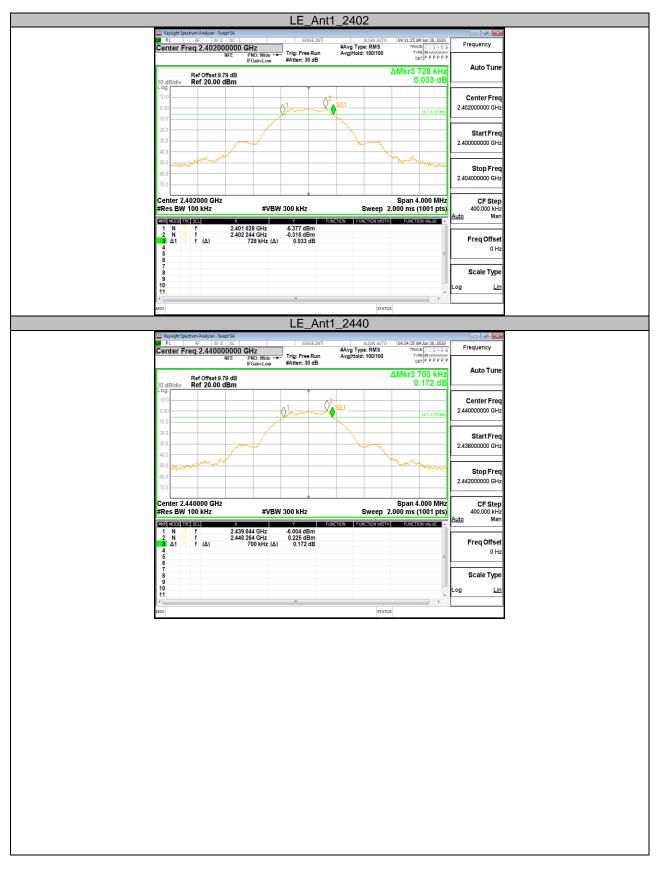
11. Appendix

11.1. Appendix A: DTS Bandwidth

| | | | Test R | esult | | | |
|-----------|---------|---------|--------------|----------|----------|------------|---------|
| Test Mode | Antenna | Channel | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
| | | 2402 | 0.728 | 2401.628 | 2402.356 | 0.5 | PASS |
| LE | Ant1 | 2440 | 0.700 | 2439.644 | 2440.344 | 0.5 | PASS |
| | | 2480 | 0.704 | 2479.644 | 2480.348 | 0.5 | PASS |
| | | 2402 | 1.256 | 2401.340 | 2402.596 | 0.5 | PASS |
| LE 2M | Ant1 | 2440 | 1.256 | 2439.336 | 2440.592 | 0.5 | PASS |
| | | 2480 | 1.196 | 2479.408 | 2480.604 | 0.5 | PASS |

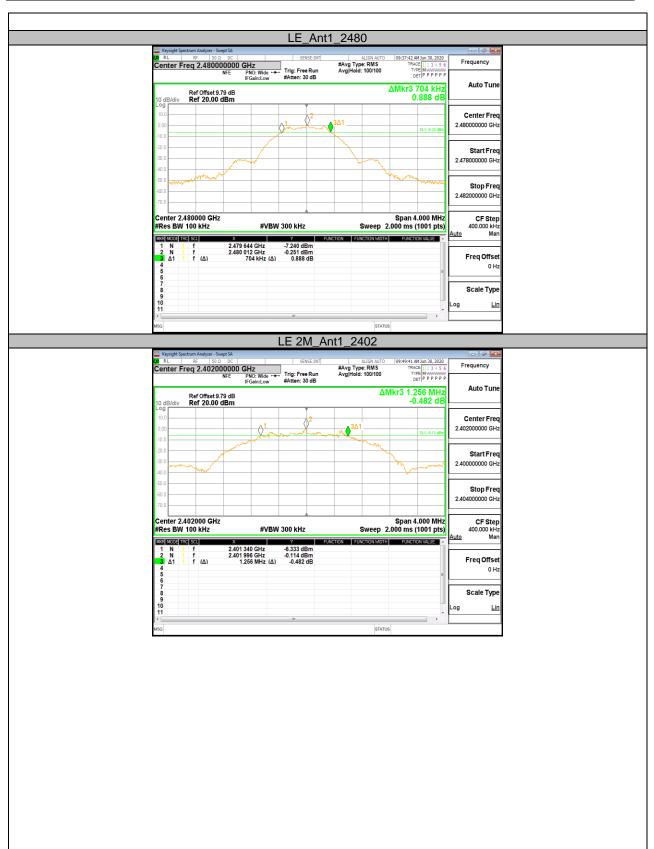


11.1.1. Test Graphs





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11.2. Appendix B: Occupied Channel Bandwidth 11.2.1. Test Result

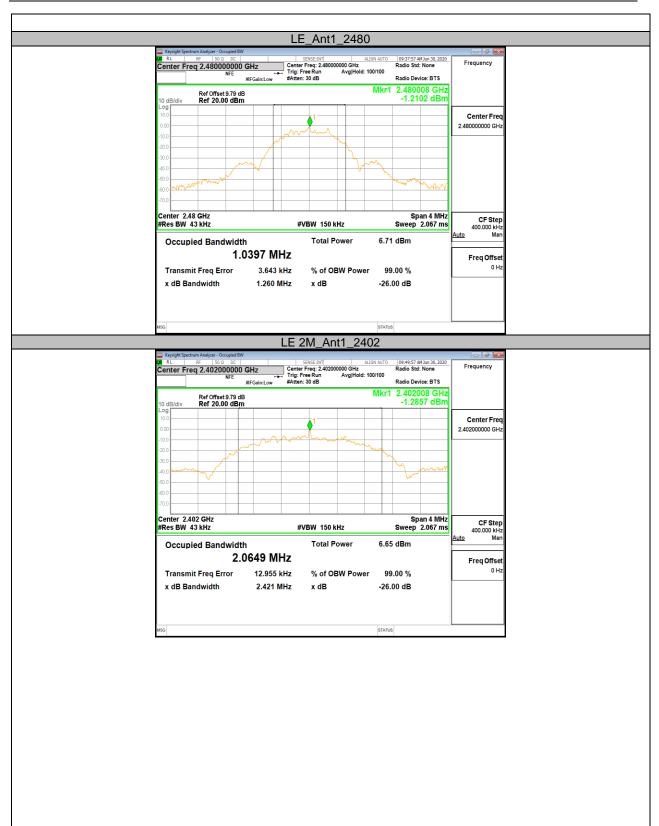
| Test Mode | Antenna | Channel | OCB [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|-----------|---------|---------|-----------|----------|----------|------------|---------|
| | | 2402 | 1.0482 | 2401.478 | 2402.526 | | PASS |
| LE | Ant1 | 2440 | 1.0471 | 2439.477 | 2440.524 | | PASS |
| | | 2480 | 1.0397 | 2479.484 | 2480.523 | | PASS |
| | | 2402 | 2.0649 | 2400.981 | 2403.045 | | PASS |
| LE 2M | Ant1 | 2440 | 2.0571 | 2438.983 | 2441.040 | | PASS |
| | | 2480 | 2.0519 | 2478.987 | 2481.039 | | PASS |



11.2.2. Test Graphs

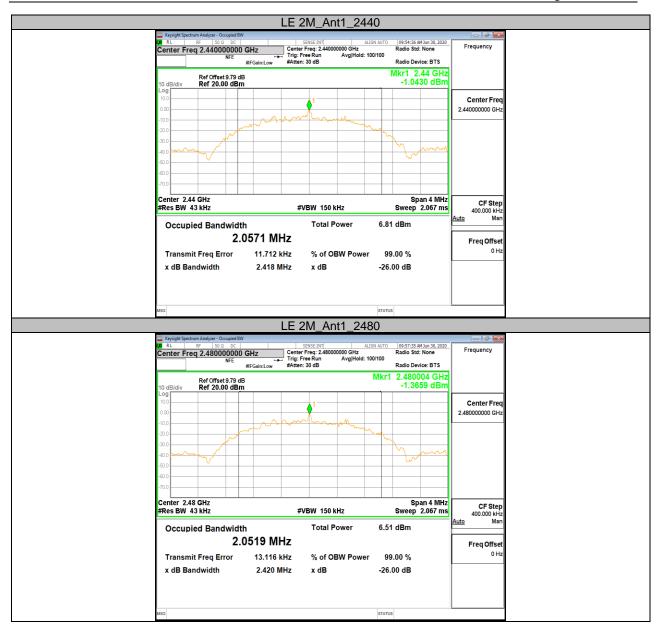








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| Test Mode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|---------|-------------|------------|---------|
| | | 2402 | 0.24 | <=30 | PASS |
| LE | Ant1 | 2440 | 0.36 | <=30 | PASS |
| | | 2480 | 0.06 | <=30 | PASS |
| | | 2402 | 0.30 | <=30 | PASS |
| LE 2M | Ant1 | 2440 | 0.41 | <=30 | PASS |
| | | 2480 | 0.08 | <=30 | PASS |

11.3. Appendix C: Maximum Peak conducted output power 11.3.1. Test Result

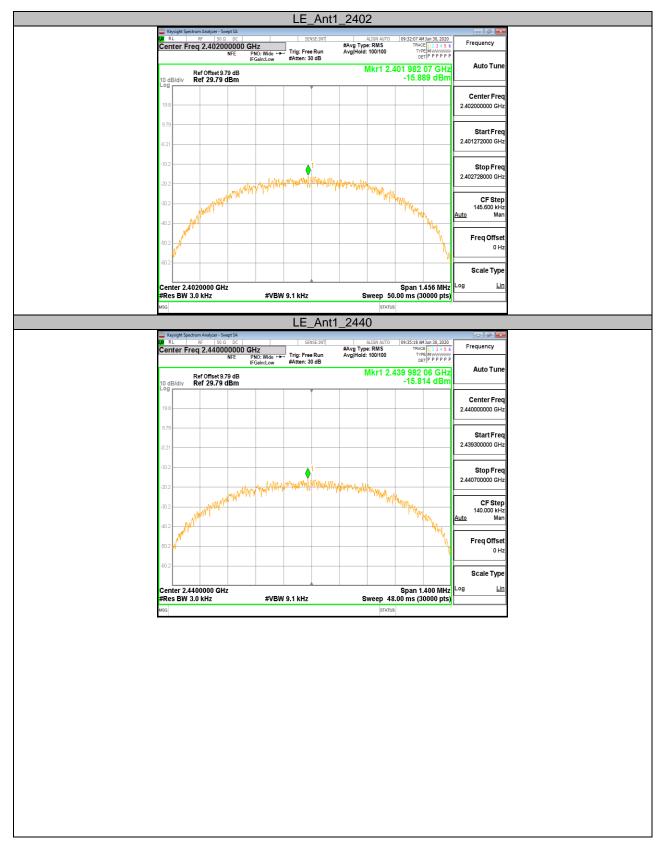


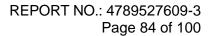
| Test Mode | Antenna | Channel | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|---------|------------------|-----------------|---------|
| | | 2402 | -15.89 | <=8 | PASS |
| LE | Ant1 | 2440 | -15.81 | <=8 | PASS |
| | | 2480 | -16.11 | <=8 | PASS |
| | | 2402 | -17.14 | <=8 | PASS |
| LE 2M | Ant1 | 2440 | -16.98 | <=8 | PASS |
| | | 2480 | -17.31 | <=8 | PASS |

11.4. Appendix D: Maximum power spectral density 11.4.1. Test Result

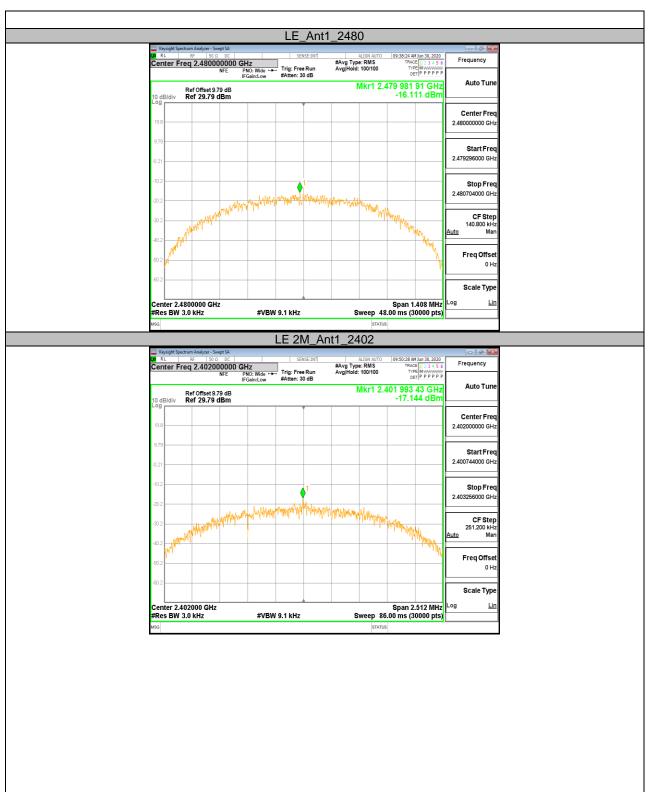


11.4.2. Test Graphs



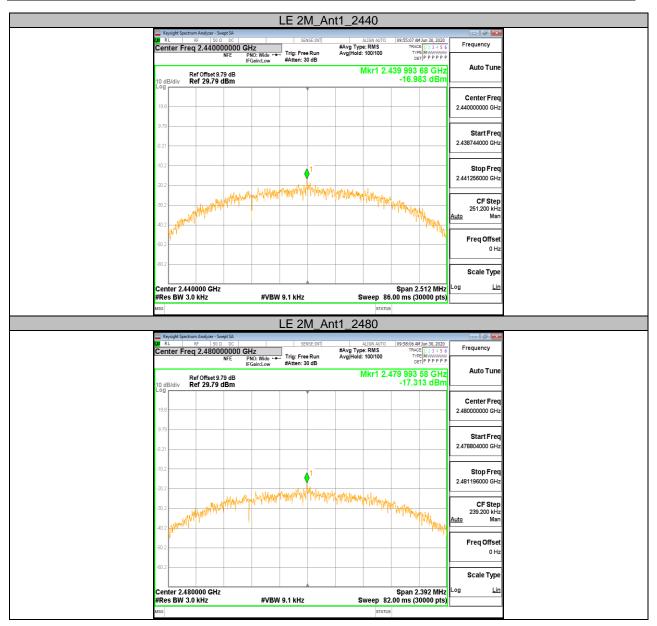








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11.5. Appendix E: Band edge measurements 11.5.1. Test Result

| | Test Mode | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|---|-----------|---------|--------|---------|---------------|-------------|------------|---------|
| ĺ | LE | Ant1 | Low | 2402 | -0.33 | -51.3 | <=-20.33 | PASS |
| | LC | Anti | High | 2480 | -0.77 | -50.62 | <=-20.77 | PASS |
| ĺ | LE 2M | Ant1 | Low | 2402 | -0.01 | -31.44 | <=-20.01 | PASS |
| | | AILI | High | 2480 | -1.48 | -50.67 | <=-21.48 | PASS |



11.5.2. Test Graphs





| | | | 0.400 | |
|--|---|---|--|---|
| | LE | 2M_Ant1_Low | _2402 | |
| 🤤 Keysight | t Spectrum Analyzer - Swept SA | | | - 3 💌 |
| Center | RF 50 Ω DC | SENSE:INT #Avg Ty | ALIGN AUTO 09:50:43 AM Jun 30, 2020 pe: RMS TRACE 1 2 3 4 5 | 6 Frequency |
| Conton | NFE PNO: Fast +++ | Trig: Free Run Avg Hol #Atten: 30 dB | PE: RMS TRACE 1 2 3 4 5 d: 300/300 TYPE M | P |
| | | #Atten: 30 dB | | - A |
| | Ref Offset 9.79 dB v Ref 20.00 dBm | | Mkr5 2.399 960 GH: -31.436 dBn | 41 |
| 10 dB/di Log | | Y I | | |
| 10.0 | | | | Center Freq |
| 0.00 | | | Ŷ | 2.352500000 GHz |
| -10.0 | | | | |
| -20.0 | | | DL1 -20.0 / 49/ | Start Freq |
| -30.0 | | | (| 2.30000000 GHz |
| -40.0 | | | p r | 2.000000000000 |
| -50.0 | 4 | | and a state of the | |
| -60.0 | anterior for the state of the second of the second s | handlanderstand In standerstanderstanderstanderstanderstanderstanderstanderstanderstanderstanderstanderstanderstanderstanderstan | www.drawa.dom.a.duprocular | Stop Freq |
| -70.0 | | | | 2.405000000 GHz |
| 10.0 | | | | |
| Start 2. | .30000 GHz | | Stop 2.40500 GH | |
| #Res B | W 100 kHz #VBW 3 | 300 kHz | Sweep 3.867 ms (1001 pts | |
| MKR MODE | | Y FUNCTION FL | JNCTION WDTH FUNCTION VALUE | Auto Man |
| 1 N 2 N 3 N | 1 f 2.401 955 GHz 1 f 2.400 000 GHz - | -0.012 dBm -31.436 dBm | | |
| 3 N 4 N | 1 f 2.390 000 GHz - | -54.642 dBm | | Freq Offset |
| 5 N | 1 f 2.310 000 GHz - 1 f 2.399 960 GHz - | -54.348 dBm -31.436 dBm | | 0 Hz |
| 6 | | | | |
| 8 | | | | Scale Type |
| 9 10 | | | | Log <u>Lin</u> |
| 11 | | | | |
| MSG | | | STATUS | |
| M3/3 | | | | |
| | | | 0.400 | |
| | | 2M_Ant1_High | _2480 | |
| Keysight | t Spectrum Analyzer - Swept SA | | — | - 3 × |
| CO KL | t Spectrum Analyzer - Swept SA № 50 Ω DC | SENSE:INT #Avg Tv | ALIGN AUTO 09:58:20 AM Jun 30, 2020 | |
| CO KL | t Spectrum Analyzer - Swept SA RF 50 Ω DC Freq 2.510000000 GHz NFE PN0: Fast +++ | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO 09:58:20 AM Jun 30, 2020 | |
| CO KL | t Spectrum Analyzer - Swept SA | SENSE:INT #Avg Tv | ALIGN AUTO 09:58:20 AM Jun 30,2020 pe: RMS TRACE 1 2 3 4 5 d: 300/300 TVPE M WWWW DET P P P P P | Frequency |
| Center | tSpectrum Analyzer - Swept SA | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO 09:58:20 AM Jun 30, 2020 pe: RMS TRACE 1: 23 4:5 trype Maximum oper P P P P Mkr4 2.525 36 GH: | Frequency |
| 10 dB/di | tSpectrum Analyzer - Swept SA ■ FF S0 Ω DC ■ Freq 2.510000000 GHZ NFE PN0: Fast → IFGain:Low | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO 09:58:20 AM Jun 30,2020 pe: RMS TRACE 1 2 3 4 5 d: 300/300 TVPE M WWWW DET P P P P P | Frequency |
| 10 dB/di | tSpectrum Analyzer - Swept SA | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO 09:58:20 AM Jun 30, 2020 pe: RMS TRACE 1: 23 4:5 trype Maximum oper P P P P Mkr4 2.525 36 GH: | Auto Tune |
| Center 10 dB/di Log | tSpectrum Analyzer - Swept SA | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO 09:58:20 AM Jun 30, 2020 pe: RMS TRACE 1: 23 4:5 trype Maximum oper P P P P Mkr4 2.525 36 GH: | 6 Frequency |
| | tSpectrum Analyzer - Swept SA | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO 09:58:20 AM Jun 30, 2020 pe: RMS TRACE 2345 d: 300/300 TVPE MWWWW DET P P P P Mkr4 2.525 36 GH: | Auto Tune |
| | tSpectrum Analyzer - Swept SA | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO 09:58:20 AM Jun 30, 2020 pe: RMS TRACE 2345 d: 300/300 TVPE MWWWW DET P P P P Mkr4 2.525 36 GH: | Auto Tune |
| 10 dB/di 100 | tSpectrum Analyzer - Swept SA | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO [09:58:20 M43un 30,2022 pe: RMS TRACE[12:3 4:5 TRACE[12:3 4:5 TR | Auto Tune |
| 10 dB/di 10 dB/di 10 0 10 0 -10 0 -20 0 | t Spectrum Analyzer - Swept SA | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO [09:58:20 M43un 30,2022 pe: RMS TRACE[12:3 4:5 TRACE[12:3 4:5 TR | Auto Tune |
| 10 dB/dl 100 | t Spectrum Analyzer - Swept SA | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO [09:58:20 M43un 30,2022 pe: RMS TRACE[12:3 4:5 TRACE[12:3 4:5 TR | Auto Tune |
| 10.0 | t Spectrum Analyzer - Swept SA | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO [09:58:20 M43un 30,2022 pe: RMS TRACE[12:3 4:5 TRACE[12:3 4:5 TR | Auto Tune Auto Tune Center Freq 2.51000000 GHz Attrice Carter Start Freq 2.47000000 GHz Stop Freq |
| 10.0 | t Spectrum Analyzer - Swept SA | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO [09:58:20 M43un 30,2022 pe: RMS TRACE[12:3 4:5 TRACE[12:3 4:5 TR | Auto Tune Center Freq 2.51000000 GHz C47000000 GHz |
| 10.0 | t Spectrum Analyzer - Swept SA | SENSE:INT #Avg Ty Trig: Free Run Avg Hol | ALIGN AUTO [09:58:20 M43un 30,2022 pe: RMS TRACE[12:3 4:5 TRACE[12:3 4:5 TR | Auto Tune Auto Tune Center Freq 2.51000000 GHz Attrice Carter Start Freq 2.47000000 GHz Stop Freq |
| 10 dB/df Log 100 .000 .000 .000 .000 .000 .000 .000 | tspectrum Analyzer - Skept SA RF 150 2 DC Freq 2.510000000 GHz PRC PRC - Fast → Ref Offset 9.79 dB Ref 20.00 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 | SENSE.INT Trig: Free Run #Avg Ty Avg(hol #Avg ty Avg(hol #Avg(hol | ALION AUTO 09:58:20 M1 Jan 30, 202 per RMS 114:00 114 2, 21 4 3 114:00 1170 114 2, 21 4 3 114:00 1170 114 2, 21 4 3 114:00 114 114 114 114 114 114 114 114 114 1 | Frequency Auto Tune Center Freq 2.51000000 GHz 2.47000000 GHz 2.55000000 GHz CF Step |
| 100 dB/di 000 | tspectrum Analyzer - Skept SA RF 150 2 DC Freq 2.510000000 GHz PRC PRC - Fast → Ref Offset 9.79 dB Ref 20.00 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 | SENSE.INT Trig: Free Run #Avg Ty Avg(hol #Avg ty Avg(hol #Avg(hol | ALION AUTO (9958:20 AMJun 30, 202 pe: RMS TRACE (12.3.4.5 TRACE (12.3.4.5) TRACE (12.3.4.5) | Frequency Auto Tune Auto Tune Center Freq 2.51000000 GHz Start Freq 2.47000000 GHz Stop Freq 2.55000000 GHz CF Step 8.00000 MHz |
| 10 dB/dl 10 dB/ | tspectrum Analyzer - Swept SA RF 50 0 DC Freq 2.510000000 GHz NFE PRO: Fast →→ IFGainLow Ref 20.00 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 | SENSE.INT Trig: Free Run #Atten: 30 dB | ALION AUTO 09:58:20 M1 Jan 30, 202 per RMS 114:00 114 2, 21 4 3 114:00 1170 114 2, 21 4 3 114:00 1170 114 2, 21 4 3 114:00 114 114 114 114 114 114 114 114 114 1 | Frequency Auto Tune Center Freq 2.51000000 GHz 2.47000000 GHz 2.55000000 GHz CF Step |
| 10 dB/di 10 dB/ | tspectrum Analyzer - Swept SA RF 150 0 DC Freq 2.510000000 GHz NFE PRO: Fast →→ IFGainLow Ref 20.00 dBm 1 0 0 0 Hz 47000 GHz W 100 KHz #VBW : 1 0 2 483 00 Hz | SENSE INT Trig: Free Run #Atten: 30 dB | ALION AUTO 09:58:20 M13m 30,202 per RMS 110:02 11 (2,3,4,5 12:000300 110:02 11 (2,3,4,5 10:00000 110:02 11 (2,3,4,5 10:000000 110:02 11 (2,3,4,5 10:0000000 110:02 11 (2,3,4,5 10:0000000 110:02 11 (2,3,4,5 10:00000000000000000000000000000000000 | Frequency Auto Tune Auto Tune Center Freq 2.51000000 GHz Start Freq 2.47000000 GHz Stop Freq 2.55000000 GHz CF Step 8.00000 MHz Man |
| 10 dB/di Log 10.0 10. | t Spectrum Analyzer - Swept SA RF 150 0 100 1000000 GHZ Freq 2.510000000 GHZ Ref 20.00 dBm Ref 20.00 dBm 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | SENSE.INT Trig: Free Run #Avg[Hol #Atten: 30 dB | ALION AUTO 09:58:20 M13m 30,202 per RMS 110:02 11 (2,3,4,5 12:000300 110:02 11 (2,3,4,5 10:00000 110:02 11 (2,3,4,5 10:000000 110:02 11 (2,3,4,5 10:0000000 110:02 11 (2,3,4,5 10:0000000 110:02 11 (2,3,4,5 10:00000000000000000000000000000000000 | Auto Tune Auto Tune Center Freq 2.510000000 GHz Carter Freq 2.550000000 GHz CF Step 8.000000 MHz Auto Man Freq Offset |
| 10 dB/dl 10 dB/dl 100 100 100 100 100 100 100 10 | tspectrum Analyzer - Swept SA RF 150.0 toC Freq 2.510000000 GHz NFE PRC: Fast → Ref Offset 9.79 dB v Ref 20.00 dBm 2 Af7000 GHz W 100 kHz #VBW : 1 f 2.480 48 GHz 4.5000 GHz 1 f 2.480 48 GHz 2 5000 00 Hz | SENSE INT Trig: Free Run #Atten: 30 dB | ALION AUTO 09:58:20 M1 Jan 30, 202 per RMS 1100 CE 11, 21, 45 1200300 1100 CE 11, 21, 45 100000 1100 CE 11, 21, 45 100000 1100 CE 11, 21, 45 100000 CE 11, 21, 45 1000000 CE 11, 21, 45 1000000 CE 11, 21, 45 100000000 CE 11, 21, 45 1000000000000000000000000000000000000 | Frequency Auto Tune Auto Tune Center Freq 2.51000000 GHz Start Freq 2.47000000 GHz Stop Freq 2.55000000 GHz CF Step 8.00000 MHz Man |
| Center 100 BJd1 100 0 100 0 100 0 100 0 100 0 100 0 100 0 100 0 100 0 100 0 400 0 400 0 400 0 400 0 400 0 400 0 400 0 400 0 400 0 400 0 400 0 400 0 400 0 500 0 200 0 200 0 200 0 200 0 200 0 200 0 201 0 202 0 203 0 | t Spectrum Analyzer - Swept SA RF 150 0 100 1000000 GHZ Freq 2.510000000 GHZ Ref 20.00 dBm Ref 20.00 dBm 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | SENSE.INT Trig: Free Run #Avg[Hol #Atten: 30 dB | ALION AUTO 09:58:20 M1 Jan 30, 202 per RMS 1100 CE 11, 21, 45 1200300 1100 CE 11, 21, 45 100000 1100 CE 11, 21, 45 100000 1100 CE 11, 21, 45 100000 CE 11, 21, 45 1000000 CE 11, 21, 45 1000000 CE 11, 21, 45 100000000 CE 11, 21, 45 1000000000000000000000000000000000000 | Auto Tune Auto Tune Center Freq 2.510000000 GHz Carter Freq 2.550000000 GHz CF Step 8.000000 MHz Auto Man Freq Offset |
| 10 dB/di 10 dB/di 10 dB/di 10 d 10 d | t Spectrum Analyzer - Swept SA RF 150 0 100 1000000 GHZ Freq 2.510000000 GHZ Ref 20.00 dBm Ref 20.00 dBm 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | SENSE.INT Trig: Free Run #Avg[Hol #Atten: 30 dB | ALION AUTO 09:58:20 M1 Jan 30, 202 per RMS 1100 CE 11, 21, 45 1200300 1100 CE 11, 21, 45 100000 1100 CE 11, 21, 45 100000 1100 CE 11, 21, 45 100000 CE 11, 21, 45 1000000 CE 11, 21, 45 1000000 CE 11, 21, 45 100000000 CE 11, 21, 45 1000000000000000000000000000000000000 | Auto Tune Auto Tune Center Freq 2.510000000 GHz Carter Freq 2.550000000 GHz CF Step 8.000000 MHz Auto Man Freq Offset |
| 10 dB/di 10 dB/di 10 dB/di 10 g 10 0 10 0 | t Spectrum Analyzer - Swept SA RF 150 0 100 1000000 GHZ Freq 2.510000000 GHZ Ref 20.00 dBm Ref 20.00 dBm 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | SENSE.INT Trig: Free Run #Avg[Hol #Atten: 30 dB | ALION AUTO 09:58:20 M1 Jan 30, 202 per RMS 1100 CE 11, 21, 45 1200300 1100 CE 11, 21, 45 100000 1100 CE 11, 21, 45 100000 1100 CE 11, 21, 45 100000 CE 11, 21, 45 1000000 CE 11, 21, 45 1000000 CE 11, 21, 45 100000000 CE 11, 21, 45 1000000000000000000000000000000000000 | Frequency Auto Tune Center Freq 2.510000000 GHz Start Freq 2.470000000 GHz Stop Freq 2.550000000 GHz CF Step 8.00000 MHz Auto Man Freq Offset 0 Hz Scale Type |
| 10 dB/dl 10 dB/dl 10 dB/dl 10 d 10 d | t Spectrum Analyzer - Swept SA RF 150 0 100 1000000 GHZ Freq 2.510000000 GHZ Ref 20.00 dBm Ref 20.00 dBm 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | SENSE.INT Trig: Free Run #Avg[Hol #Atten: 30 dB | ALION AUTO 09:58:20 M1 Jan 30, 202 per RMS 1100 CE 11, 21, 45 1200300 1100 CE 11, 21, 45 100000 1100 CE 11, 21, 45 100000 1100 CE 11, 21, 45 100000 CE 11, 21, 45 1000000 CE 11, 21, 45 1000000 CE 11, 21, 45 100000000 CE 11, 21, 45 1000000000000000000000000000000000000 | Frequency Auto Tune Center Freq 2.510000000 GHz Start Freq 2.470000000 GHz Stop Freq 2.55000000 GHz CF Step 8.00000 MHz Auto Freq Offset 0 Hz |
| 10 dB/di 10 dB/di 10 dB/di 10 0 000 000 000 000 000 000 00 | t Spectrum Analyzer - Swept SA RF 150 0 100 1000000 GHZ Freq 2.510000000 GHZ Ref 20.00 dBm Ref 20.00 dBm 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | SENSE.INT Trig: Free Run #Avg[Hol #Atten: 30 dB | ALION AUTO 09:58:20 MJ Jun 30, 202 per RMS Trace 1, 2, 3, 5 Trace 1, 2, 3 Trace 1, 3 Trac | Frequency Auto Tune Center Freq 2.510000000 GHz Start Freq 2.470000000 GHz Stop Freq 2.550000000 GHz CF Step 8.00000 MHz Auto Man Freq Offset 0 Hz Scale Type |

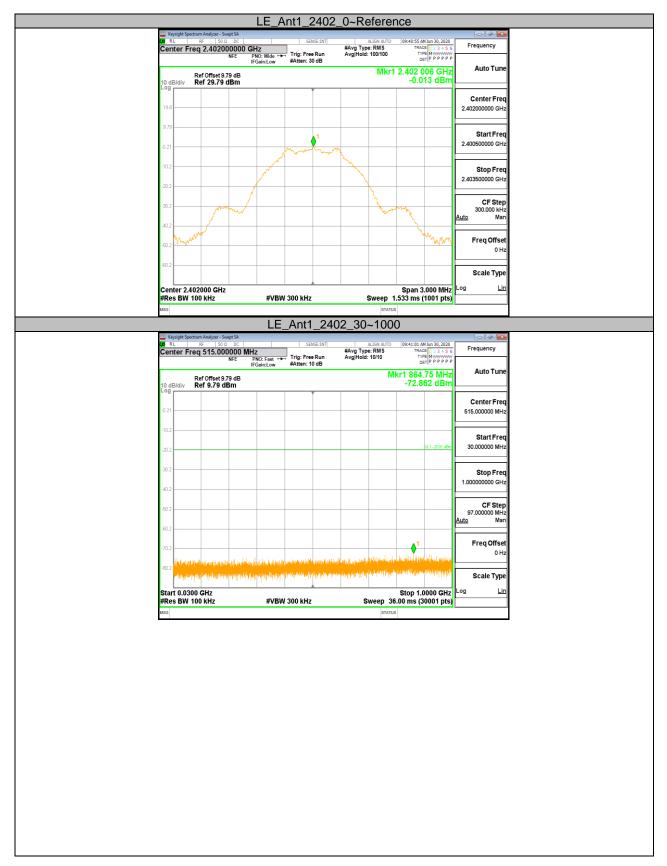


| Test Mode | Antenna | Channel | FreqRange [MHz] | RefLevel [dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|---------|--------------------|-------------------|-------------|------------|---------|
| | | | Reference | -0.01 | -0.01 | | PASS |
| | | 2402 | 30~1000 | 30~1000 | -72.862 | <=-20.013 | PASS |
| | | | 1000~26500 | 1000~26500 | -53.239 | <=-20.013 | PASS |
| | | | Reference | -0.48 | -0.48 | | PASS |
| LE | Ant1 | 2440 | 30~1000 | 30~1000 | -73.139 | <=-20.483 | PASS |
| | | | 1000~26500 | 1000~26500 | -54.679 | <=-20.483 | PASS |
| | | | Reference | -0.05 | -0.05 | | PASS |
| | | 2480 | 30~1000 | 30~1000 | -73.511 | <=-20.051 | PASS |
| | | | 1000~26500 | 1000~26500 | -55.896 | <=-20.051 | PASS |
| | | | Reference | -0.53 | -0.53 | | PASS |
| | | 2402 | 30~1000 | 30~1000 | -72.282 | <=-20.532 | PASS |
| | | | 1000~26500 | 1000~26500 | -34.357 | <=-20.532 | PASS |
| | | | Reference | 0.05 | 0.05 | | PASS |
| LE 2M | Ant1 | 2440 | 30~1000 | 30~1000 | -72.79 | <=-19.952 | PASS |
| | | | 1000~26500 | 1000~26500 | -58.993 | <=-19.952 | PASS |
| | | | Reference | -0.47 | -0.47 | | PASS |
| | | 2480 | 30~1000 | 30~1000 | -73.034 | <=-20.47 | PASS |
| | | | 1000~26500 | 1000~26500 | -57.076 | <=-20.47 | PASS |

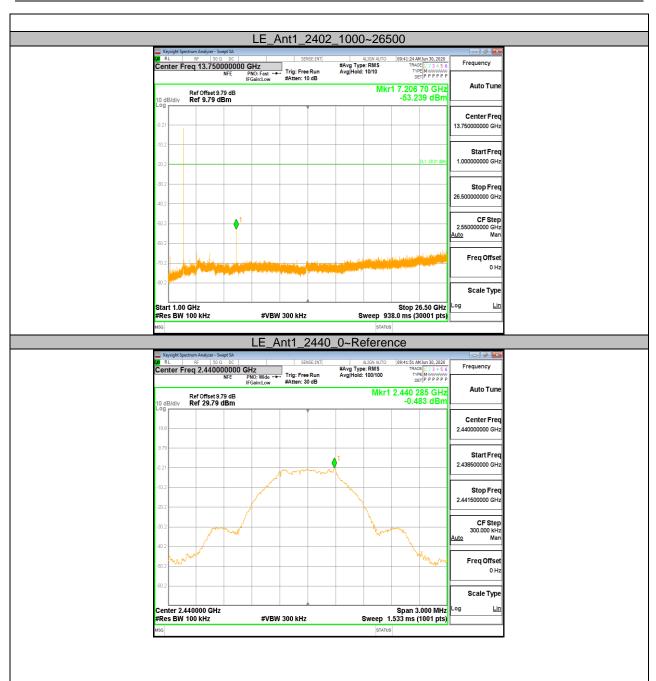
11.6. Appendix F: Conducted Spurious Emission 11.6.1. Test Result



11.6.2. Test Graphs









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| | | | | LE | _Ant1_ | 2440 |)_30~ | 1000 |) | | |
|--|-------------|---|----------------------------------|---|--|--------------|------------------------------|--|--|--|--|
| Keysigl | ht Spectrur | m Analyzer - Swept | SA | | 05005 | - TATE | | | 100-00-00-00 | | - 2 × |
| Cente | r Freq | RF 50 Ω 515.0000 NF | E P | NO: Fast 🔸 | Trig: Free R #Atten: 10 d | tun / | #Avg Type: F Avg Hold: 10 | RMS | TRAC TYP | M Jun 30, 2020 E 1 2 3 4 5 6 E M WHITE T P P P P P P P | Frequency |
| 10 dB/d | R | ef Offset 9.79 ef 9.79 dBn | dB | Gain:Low | #Atten: 10 d | 10 | | Mk | r1 853. | 69 MHz 39 dBm | Auto Tune |
| | IIV R | ei 9.79 übli | 1 | | · · · · · | | | | | | |
| -0.21 | | | | | | | | | | | Center Freq 515.000000 MHz |
| -10.2 | | | | | | | | | | | |
| -20.2 | | | | | | | | | | DL1 - 20.48 dBm | Start Freq 30.000000 MHz |
| -30.2 | | | | | | | | | | | |
| | | | | | | | | | | | Stop Freq 1.00000000 GHz |
| -40.2 | | | | | | | | | | | 05.04.0 |
| -50.2 | | | | | | | | | | | CF Step 97.000000 MHz <u>Auto</u> Man |
| -60.2 | | | | | | | | | | | |
| -70.2 | | | | | | | | | ∮ 1 | | Freq Offset 0 Hz |
| -80.2 | hallbal | handhainneilyi | hilable | holomouth | handania | (hendela) a | he alter the | del (genel) A de la conte | na fan fallen. Bernal lenk | e de lipsol Record | |
| | | a la la la la constante de la c | ing <mark>ba</mark> | i (ilidada) Internetional Internetional | a filmentari pr | ounded holds | Heather ic | | | | Scale Type |
| Start 0 #Res E | | | | #VBV | / 300 kHz | | Swe | | | 0000 GHz 0001 pts) | Log <u>Lin</u> |
| | | | | | | | | | | | |
| MSG | | | | | | | | STATUS | | | |
| MSG | | | | LE A | Ant1 24 | 440 <i>*</i> | 1000~ | STATUS | | | |
| | ht Spectrur | m Analyzer - Swept | SA | LE_A | Ant1_2 | | 1000~ | STATUS | | | - 3 × |
| Keysigl | | m Analyzer - Swept RF 50 Ω 1 13.750000 NF | DC 0000 C | SHz NO: Fast ↔ | SENSE | EINT tun | | STATUS -2650 GN AUTO RM S | 00:42:20 AI TRAC | MJun 30, 2020 E 1 2 3 4 5 6 E M V P P P P P | Frequency |
| Keysigi (X RL Cente | er Freq | RF 50 Ω 13.75000 NF ef Offset 9.79 | DC 0000 (E F IF | SHz | SENSE | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | E 1 2 3 4 5 6 M W W W W P P P P P P 90 GHz | |
| Keysigl | er Freq | RF 50 Ω 13.75000 NF | DC 0000 (E F IF | SHz NO: Fast ↔ | SENSE | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | E 1 2 3 4 5 6 E M WWWWW T P P P P P P | Frequency Auto Tune |
| Keysigi M RL Cente | er Freq | RF 50 Ω 13.75000 NF ef Offset 9.79 | DC 0000 (E F IF | SHz NO: Fast ↔ | SENSE | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | E 1 2 3 4 5 6 M W W W W P P P P P P 90 GHz | Frequency |
| 10 dB/d | er Freq | RF 50 Ω 13.75000 NF ef Offset 9.79 | DC 0000 (E F IF | SHz NO: Fast ↔ | SENSE | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | E 1 2 3 4 5 6 M W W W W P P P P P P 90 GHz | Frequency Auto Tune Center Freq |
| 10 dB/d -0.21 | er Freq | RF 50 Ω 13.75000 NF ef Offset 9.79 | DC 0000 (E F IF | SHz NO: Fast ↔ | SENSE | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | E 1 2 3 4 5 6 M W W W W P P P P P P 90 GHz | Frequency Auto Tune Center Freq |
| 10 dB/d Log -0.21 | er Freq | RF 50 Ω 13.75000 NF ef Offset 9.79 | DC 0000 (E F IF | SHz NO: Fast ↔ | SENSE | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | 90 GHz 79 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq |
| 10 dB/d -0.21 | er Freq | RF 50 Ω 13.75000 NF ef Offset 9.79 | DC 0000 (E F IF | SHz NO: Fast ↔ | SENSE | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | 90 GHz 79 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 1.00000000 GHz Stop Freq |
| 10 dB/d Log -0.21 | er Freq | RF 50 Ω 13.75000 NF ef Offset 9.79 | DC 0000 (E F IF | SHz NO: Fast ↔ | SENSE | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | 90 GHz 79 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz 1.00000000 GHz Stop Freq 26.50000000 GHz |
| 10 dB/d -0.21 -0.22 -30.2 | er Freq | RF 50 Ω 13.75000 NF ef Offset 9.79 | DC 0000 (E F IF | SHz NO: Fast ↔ | SENSE | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | 90 GHz 79 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 1.00000000 GHz Stop Freq 26.50000000 GHz 2.550000000 GHz |
| 10 dB/d 21 RL 20 2 -0.21 -0.2 -0.2 -0.2 -0.2 | er Freq | RF 50 Ω 13.75000 NF ef Offset 9.79 | DC 0000 (E F IF | SHz NO: Fast ↔ | SENSE | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | 90 GHz 79 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 26.50000000 GHz CF Step |
| Image: Second | er Freq | Pre 150 Ω 11.3.750000 NF ef Offset 9.79 dBn 9.79 dBn | DC 0000 (E F IF | SHZ NO: Fast → Gain:Low | SENSE | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | 90 GHz 79 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 26.50000000 GHz 26.50000000 GHz 2.550000000 GHz Auto Man Freq Offset |
| Image: Second | er Freq | Pre 150 Ω 11.3.750000 NF ef Offset 9.79 dBn 9.79 dBn | 0000 C F F F IB dB n | SHZ NO: Fast → Gain:Low | Selise Trig: Free R #Atten: 10 d | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 00 09:42:20 AU TRAC TYF DE 7.318 | 90 GHz 79 dBm | Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 26.50000000 GHz 255000000 GHz CF Step 2.55000000 GHz |
| Image: Second | er Freq | Pre 150 Ω 11.3.750000 NF ef Offset 9.79 dBn 9.79 dBn | 0000 C F F F IB dB n | SHZ NO: Fast → Gain:Low | Selise | EINT tun | ALI #Avg Type: F | STATUS -2650 GN AUTO RMS V10 | 000 (8:42:0: A (1) 1740 1740 1731 17.318 -54.6 | 21 23 43 6 6 21 P P P P P P 90 GHz 79 dBm D.1 -20 48 dbe | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 1.00000000 GHz Stop Freq 25.50000000 GHz CF Step 2.55000000 GHz Man Freq Offset 0 Hz Scale Type |
| Image: Second | | Pre 50 Ω 1 37.750000 Pref 9.79 dBn 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0000 C F F F IB dB n | SHz NO: Fast -> Gain:Low | Selise | EINT tun | Augura Type: E | ятатия 2650 2010 2010 2010 2010 2010 2010 2010 20 | 000 09:4220 AU 1740 17318 -54.6 | 90 GHz 79 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 1.00000000 GHz Stop Freq 25.50000000 GHz CF Step 2.55000000 GHz Man Freq Offset 0 Hz Scale Type |

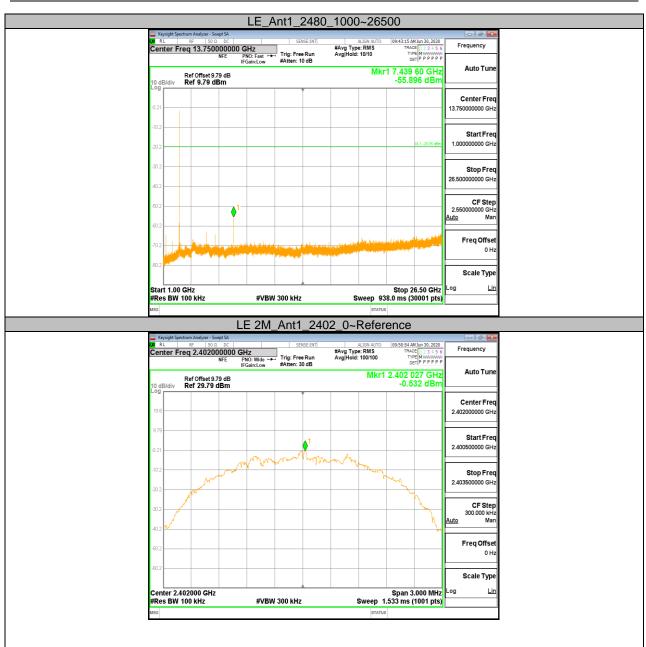


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| | dista f | | | LE_A | \IIII_⊿ | 2400 | _0~Re | terer | nce | | |
|--|---------------|--|---------------------------------------|----------------------------------|------------------------|---------------|------------------------|--------------------------------|---|--|--|
| LXI R | L | um Analyzer - Si RF 50 9 | 2 DC | | SE | NSE:INT | A | LIGN AUTO | 09:42:47 A | MJun 30, 2020 | Frequency |
| Cer | iter Fre | q 2.4800 | NFE | FHZ PNO: Wide ↔ IFGain:Low | Trig: Fre #Atten: 3 | e Run 0 dB | #Avg Type Avg Hold: | 100/100 | TYP | 2E 1 2 3 4 5 6 PE M WWWW ET P P P P P P | linguing |
| 10 d | B/div | Ref Offset 9 Ref 29.79 | .79 dB | | | | | Mkr1 | | 258 GHz 51 dBm | Auto Tune |
| Log | | 20110 | | | | Ť. | | | | | |
| 19.8 | | | | | | | | | | | Center Freq 2.48000000 GHz |
| 9.79 | | | | | | | | | | | |
| 0.10 | | | | | | | 1 | | | | Start Freq |
| -0.21 | <u> </u> | | | | m | m | 5 | | | | 2.478500000 GHz |
| -10.2 | | | | | | | | | | | Stop Freq |
| -20.2 | | | | | | | No. | | | | 2.481500000 GHz |
| | | | 1 | 1 | | | | ζ | | | CF Step |
| -30.2 | | AM. | mut | | | | | har | mm | | 300.000 kHz Auto Man |
| -40.2 | | | | | | | | | - À | | |
| -50.2 | man | 44 | | | | | | | | mant | Freq Offset |
| | | | | | | | | | | | 0 Hz |
| -60.2 | | | | | | | | | | | Scale Type |
| Cer | ter 2.48 | 0000 GHz | : | | | <u> </u> | | | Span 3 | .000 MHz | Log <u>Lin</u> |
| #Re | s BW 1 | 00 kHz | | #VBV | / 300 kHz | | S | weep 1 | .533 ms (| (1001 pts) | |
| MSG | | | | | | | | STATUS | 5 | | |
| | | | | | Ant1 | 249 | 20 20 | 100 | 0 | | |
| Ki | ysight Spects | um Analyzer - Si | vept SA | LE | _Ant1 | _248 | 30_30~ | -100 | 0 | | - 2 × |
| LXI R | L | um Analyzer - Si RF 50 S | 2 DC 0000 MH | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO | 09:42:52 M | M Jun 30, 2020)= 1 2 3 4 5 6 | Frequency |
| LXI R | L | RF 50 9 | 2 DC 0000 MH | | SE | NSE:INT | A | LIGN AUTO : RMS 10/10 | 09:42:52 A TRAC TYF DE | 2E 1 2 3 4 5 6 PE M WWWWWW ET P P P P P P | Frequency |
| (20 F | ter Fre | RF 50 9 | 2 DC 0000 MH NFE 79 dB | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO : RMS 10/10 | 09:42:52 AU TRAC TYP DE kr1 727. | MJun 30,2020 ≆ 1 2 3 4 5 6 ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ | |
| Cer | ter Fre | RF 50 5 q 515.00 | 2 DC 0000 MH NFE 79 dB | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO : RMS 10/10 | 09:42:52 AU TRAC TYP DE kr1 727. | 22 1 2 3 4 5 6 PE M WWWW ET P P P P P P 20 MHz | Frequency Auto Tune |
| (20 F | ter Fre | RF 50 5 q 515.00 | 2 DC 0000 MH NFE 79 dB | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO : RMS 10/10 | 09:42:52 AU TRAC TYP DE kr1 727. | 22 1 2 3 4 5 6 PE M WWWW ET P P P P P P 20 MHz | Frequency |
| Cer 10 d Log | ter Fre | RF 50 5 q 515.00 | 2 DC 0000 MH NFE 79 dB | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO : RMS 10/10 | 09:42:52 AU TRAC TYP DE kr1 727. | 22 1 2 3 4 5 6 PE M WWWW ET P P P P P P 20 MHz | Frequency Auto Tune Center Freq 515.000000 MHz |
| 10 d Log -0.21 | ter Fre | RF 50 5 q 515.00 | 2 DC 0000 MH NFE 79 dB | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO : RMS 10/10 | 09:42:52 AU TRAC TYP DE kr1 727. | 22 1 2 3 4 5 6 PE M WWWW ET P P P P P P 20 MHz | Frequency Auto Tune Center Freq |
| 10 d 10 d -0.21 -10.2 | ter Fre | RF 50 5 q 515.00 | 2 DC 0000 MH NFE 79 dB | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO : RMS 10/10 | 09:42:52 AU TRAC TYP DE kr1 727. | 20 MHz 20 MHz | Frequency Auto Tune Center Freq 515.00000 MHz Start Freq |
| 10 d Log -0.21 | ter Fre | RF 50 5 q 515.00 | 2 DC 0000 MH NFE 79 dB | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO : RMS 10/10 | 09:42:52 AU TRAC TYP DE kr1 727. | 20 MHz 20 MHz | Frequency Auto Tune Center Freq 515.00000 MHz 30.00000 MHz 30.00000 MHz Stop Freq |
| 10 d 10 d -0.21 -10.2 | ter Fre | RF 50 5 q 515.00 | 2 DC 0000 MH NFE 79 dB | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO : RMS 10/10 | 09:42:52 AU TRAC TYP DE kr1 727. | 20 MHz 20 MHz | Frequency Auto Tune Center Freq 515.00000 MHz Start Freq 30.00000 MHz |
| 10 d 10 d -0.21 -10.2 -20.2 -30.2 | ter Fre | RF 50 5 q 515.00 | 2 DC 0000 MH NFE 79 dB | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO : RMS 10/10 | 09:42:52 AU TRAC TYP DE kr1 727. | 20 MHz 20 MHz | Frequency Auto Tune Center Freq 515.00000 MHz 30.000000 MHz 30.000000 MHz Stop Freq 1.000000000 GHz CF Step |
| 10 d 10 d -0.21 -10.2 -20.2 -30.2 -40.2 -50.2 | ter Fre | RF 50 5 q 515.00 Ref Offset 9 | 2 DC 0000 MH NFE 79 dB | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO : RMS 10/10 | 09:42:52 AU TRAC TYP DE kr1 727. | 20 MHz 20 MHz | Frequency Auto Tune Center Freq 515.00000 MHz 30.00000 MHz Stop Freq 1.00000000 GHz |
| 10 d 10 d -0.21 -10.2 -20.2 -30.2 -40.2 | ter Fre | RF 50 5 q 515.00 Ref Offset 9 | 2 DC 0000 MH NFE 79 dB | łz | SE | NSE:INT | A #Avg Type | LIGN AUTO : RMS 10/10 | 09:42:52 AU TRAC TYP DE kr1 727. | 20 MHz 20 MHz | Frequency Auto Tune Center Freq 515.00000 MHz Start Freq 30.00000 MHz Stop Freq 1.000000000 GHz CF Step 97.00000 MHz Auto Man |
| 10 d 10 d -0.21 -10.2 -20.2 -30.2 -40.2 -50.2 | Błdiv | Ref Offset 9 Ref Offset 9 Ref 9.79 d | 2 DC 0000 MI NFE 79 dB Bm | IZ → PRO: Fast → FGain1.ow | Trig: Free #Atten: 1 | eRun 0 dB | #Avg Type AvgHold: | IION AUTO RMS IO/IO M | 09:42:52 M | E1 22 3 4 5 6 MWWWWWTP TP P P P P P 20 MHz 11 dBm | Frequency Auto Tune Center Freq 515.00000 MHz Start Freq 30.00000 MHz Stop Freq 1.00000000 GHz CF Step 97.000000 MHz |
| 10 d 10 d 10 d 10 d -0.21 -10.2 -20.2 -30.2 -40.2 -60.2 | Bldiv I | № \$50.1 Q 515.00 Ref Offset9 \$80.1 Ref 9.79 d \$80.1 | 2 DC 0000 MI NFE 79 dB Bm | IZ → PRO: Fast → FGain.Low | Trig: Free #Atten: 1 | NGEINT | #Avg Type AvgHold: | IION AUTO RMS 10/10 M | 09-42-52 AI TRAC TYP OD kr1 727. -73.5 | E 1 23 4 5 6 MWHWWWWFTP P P P P P 20 MHz 11 dBm E 1 - 2005 dBm | Frequency Auto Tune Center Freq 515.00000 MHz 30.00000 MHz 30.00000 GHz 1.00000000 GHz 97.00000 MHz Auto Man Freq Offset 0 Hz |
| Image: Control 10 dg -0.21 -0.2 -0 | | Ref Offset 9 Ref 9.79 d | 2 DC 0000 MI NFE 79 dB Bm | IZ → PRO: Fast → FGain.Low | Trig: Free #Atten: 1 | NGEINT | #Avg Type AvgHold: | IION AUTO RMS 10/10 M | (09-42-52 Al TRACE YOR Kr1 727. -73.5 | 20 MHz 11 dBm pt - 205 dbn pt - 205 dbn pt - 205 dbn | Frequency Auto Tune Center Freq 515.00000 MHz 30.00000 MHz 30.00000 0Hz 1.00000000 GHz 1.0000000 GHz CF Step 97.00000 MHz Auto Man Freq Offset 0 Hz Scale Type |
| Image: Non-State Image: Non-State< | Bldiv I | Ref Offset 9 Ref 9.79 d | 2 DC 0000 MI NFE 79 dB Bm | IZ → PRO: Fast → FGainLow → | Trig: Free #Atten: 1 | | | In AUTO | (19.42.52 M TRAC TRAC TRAC TRAC TRAC TRAC TRAC TRAC | E 1 23 4 5 6 MWHWWWWFTP P P P P P 20 MHz 11 dBm E 1 - 2005 dBm | Frequency Auto Tune Center Freq 515.00000 MHz 30.00000 MHz 30.00000 0Hz 1.00000000 GHz 1.0000000 GHz CF Step 97.00000 MHz Auto Man Freq Offset 0 Hz Scale Type |



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| - Key | sight Spectro | ım Analyzer - S | wept SA | | M_An | .1_27 | 02_0 | 0 10 | | | _ 0 0 |
|--|---------------------|---|--|--------------------------------|---------------------------------|-------------|-----------|--|--|-----------------------|---|
| 🗶 RL | | | Ω DC | -17 | | ISE:INT | #Avg Type | LIGN AUTO | 09:50:59 AM Ju TRACE 1 | in 30, 2020 | Frequency |
| | | | NFE | PNO: Fast -> IFGain:Low | Trig: Free #Atten: 10 | Run 0 dB | Avg Hold: | 10/10 | TYPE M DET P | PPPPP | |
| | F | Ref Offset 9 | .79 dB | | | | | M | kr1 778.97 -72.282 | 7 MHz | Auto Tune |
| 10 dE Log | 3/div | Ref 9.79 d | lBm | | | | | | -12.282 | | |
| -0.21 | | | | | | | | | | | Center Freq 515.000000 MHz |
| 0.21 | | | | | | | | | | | 515.00000 MH2 |
| -10.2 | | | | | | | | | | | Start Freq |
| -20.2 | | | | | | | | | 0.1 | 1 -20.53 dBm | 30.000000 MHz |
| -30.2 | | | | | | | | | | | |
| -30.2 | | | | | | | | | | | Stop Freq 1.00000000 GHz |
| -40.2 | | | - | | | | | | | | |
| -50.2 | | | | | | | | | | | CF Step 97.000000 MHz |
| | | | | | | | | | | | Auto Man |
| -60.2 | | | | | | | | | | | From 0 10 - 11 |
| -70.2 | | | | | | | | •••• | | | Freq Offset 0 Hz |
| -80.2 | unddood | 6 when the | a a subpla | r har and | and pillion de | huldenlitet | d plat p | AL AND A | ale stady of | an an an ta | |
| | elinut | e-Weitche | aldy point it. | habababbabb | applanteer. | anan kaluni | ideadhan | da banar b | determination of | o atomolio | Scale Type |
| Stari | t 0.0300 s BW 10 | GHZ | | #\/D\ | / 300 kHz | | | 4000 26 | Stop 1.000 .00 ms (300 | | Log <u>Lin</u> |
| MSG | | | | #404 | 1 JUU KHZ | | 0 | weeh 10 | .00 IIIS (300 | o i pisj | |
| | | | | | | | | STATUS | | | |
| | | | l | E 2M | Ant1 | 2402 | 2 100 | | | | |
| E Key | sight Spectro | ım Analyzer - S | wept SA | E 2M | | | | 00~26 | 6500 | | - 2 - |
| Key | | um Analyzer - S RF 50 : q 13.750 | wept SA Ω DC 00000 | GHz | SEN | ISE:INT | #Avg Type | | 6500 | in 30, 2020 | Frequency |
| Key | | RF 50 9 | wept SA Ω DC 10000000 NFE | | SEN | ISE:INT | | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AMJU TRACE 1 TYPE M DET P | 23456 M PPPPPPP | Frequency |
| Cent | ter Fre | RF 50 9 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 6500 | 5 GHz | |
| Cent | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul 09:51:21 AM Jul TRACE TYPE 0ET P 1 2.399 9 | 5 GHz | Frequency Auto Tune |
| Cent | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul 09:51:21 AM Jul TRACE TYPE 0ET P 1 2.399 9 | 5 GHz | Frequency |
| 10 dE | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul 09:51:21 AM Jul TRACE TYPE 0ET P 1 2.399 9 | 5 GHz | Frequency Auto Tune Center Freq 13.75000000 GHz |
| 10 dE -0.21 - | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul TRACE [TYPE] 1 2.399 95 -34.357 | 5 GHz 7 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq |
| 10 dE Log -0.21 | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul TRACE [TYPE] 1 2.399 95 -34.357 | 5 GHz | Frequency Auto Tune Center Freq 13.75000000 GHz |
| 10 dE -0.21 - | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul TRACE [TYPE] 1 2.399 95 -34.357 | 5 GHz 7 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq |
| 10 dE -0.21 - -10.2 - | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul TRACE [TYPE] 1 2.399 95 -34.357 | 5 GHz 7 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 1.00000000 GHz |
| Key W Rt Key W R | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul TRACE [TYPE] 1 2.399 95 -34.357 | 5 GHz 7 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 1.00000000 GHz Stop Freq 25.50000000 GHz |
| 10 dE -0.21 - -20.2 - -30.2 - | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul TRACE [TYPE] 1 2.399 95 -34.357 | 5 GHz 7 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 1.00000000 GHz Stop Freq 26.50000000 GHz 2.55000000 GHz |
| Key W Rt Key W R | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul TRACE [TYPE] 1 2.399 95 -34.357 | 5 GHz 7 dBm | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 1.00000000 GHz Stop Freq 25.50000000 GHz |
| Log -0.21 -002 -002 -002 -002 -002 -002 | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEN | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul TRACE [TYPE] 1 2.399 95 -34.357 | 5 GHz 7 dBm | Start Freq 26.000000 GHz 13.75000000 GHz 10.00000000 GHz 26.50000000 GHz 26.5000000 GHz 25.5000000 GHz 25.5000000 GHz 26.5000000 GHz 26.5000000 GHz 26.5000000 GHz 26.5000000 GHz 26.5000000 GHz 27.5000000 GHz 28.5000000 GHz 29.5000000 GHz 29.5000000 GHz 29.5000000 GHz 20.5000000 GHz 20.50000 GHz |
| 10 dE 10 dE -0.21 -0.2 -0. | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEM | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul TRACE [TYPE] 1 2.399 95 -34.357 | 5 GHz 7 dBm | Start Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 1.00000000 GHz Stop Freq 26.50000000 GHz 2.550000000 GHz 2.550000000 GHz |
| Key Key 04 RL 10 de 10 de -0.21 - -10.2 - -30.2 - -60.2 - -80.2 - | ter Fre | RF 50 : q 13.750 | wept SA Ω DC 10000000 NFE .79 dB | GHz PNO: Fast ↔ | SEM | ISE:INT | #Avg Type | 00~26 LIGN AUTO 2: RMS 10/10 | 09:51:21 AM Jul TRACE [TYPE] 1 2.399 95 -34.357 | 5 GHz 7 dBm | Start Freq 26.000000 GHz 13.75000000 GHz 10.00000000 GHz 26.50000000 GHz 26.5000000 GHz 25.5000000 GHz 25.5000000 GHz 26.5000000 GHz 26.5000000 GHz 26.5000000 GHz 26.5000000 GHz 26.5000000 GHz 27.5000000 GHz 28.5000000 GHz 29.5000000 GHz 29.5000000 GHz 29.5000000 GHz 20.5000000 GHz 20.50000 GHz |
| 10 dE Centra 10 dE | | Ref 0.075et 9 | wept SA Ω DC 10000000 NFE .79 dB | GHz PRO: Fast → FGainLow | SEN Trig: Free #Atten: 10 | ISE:INT | stvo Type | Mise and the second sec | 65500 | 50 GHz | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 1.000000000 GHz Stop Freq 25.50000000 GHz Auto Participan Freq Offset 0 Hz Scale Type |
| 10 dE Centra 10 dE | | Ref 0.075et 9 | wept SA Ω DC 10000000 NFE .79 dB | GHz PRO: Fast → FGainLow | SEM | ISE:INT | stvo Type | Mise and the second sec | 5500 | 50 GHz | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq 1.000000000 GHz Stop Freq 25.50000000 GHz Auto Participan Freq Offset 0 Hz Scale Type |

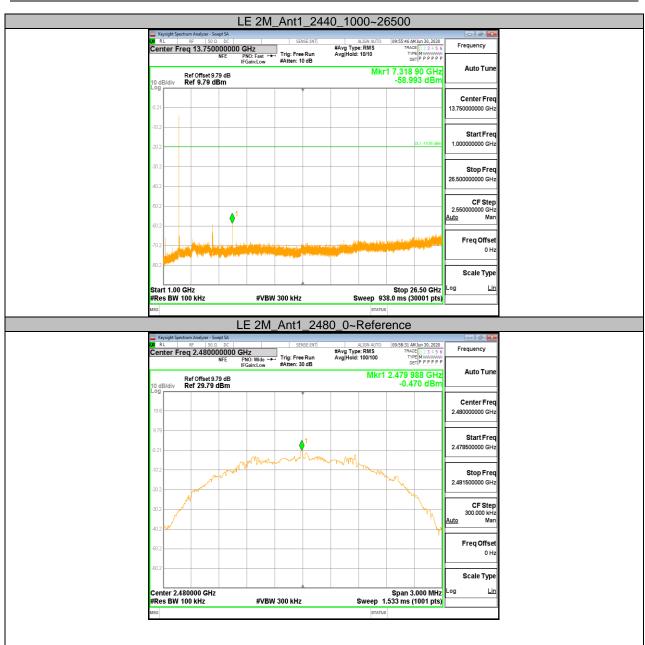


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| L XI | RL | RF 50 eq 2.440 | | GHz | SE | NSE:INT | #Avg Type Avg Hold: | IGN AUTO | 09:55:18 / TRA | M Jun 30, 2020 CE 1 2 3 4 5 6 | Frequency |
|--|--|--|---|--|-------------|---------------|------------------------|--|--|--|---|
| F | | Ref Offset | NFE | PNO: Wide ↔ IFGain:Low | #Atten: 3 | e Run 0 dB | Avg Hold: | | 2.439 | CE 1 2 3 4 5 6 PE MWWWWW ET P P P P P P 997 GHz | A |
| 10 Lo | dB/div | Ref 29.79 | dBm | | | | | | 0.0 |)48 dBm | |
| 19 | 8 | | | | | | | | | | Center Freq 2.440000000 GHz |
| 9.1 | 9 | _ | _ | | | | | | | | Start Freq |
| -0.2 | 1 | _ | | | manth | mon . | ~ Ama | | | | 2.438500000 GHz |
| -10 | 2 | | mand | m www | | | 2 1 S 1 1 | Mallon of a | ~A.1 | | Stop Freq |
| -20 | 2 | 1 and the second the | | | | | | | - Jones | Yr, | 2.441500000 GHz |
| -30 | 2 | / | | | | | | | | Jun | CF Step 300.000 kHz Auto Man |
| -40 | 2 🖌 | _ | | | | | | | | | Freq Offset |
| -50 | 2 | | | | | | | | | | 0 Hz |
| -60 | 2 | | | | | | | | | | Scale Type |
| Ce | nter 2.4 | 40000 GH | z | #\/D)/ | V 300 kHz | | s | ween 1 | Span 3 .533 ms | 3.000 MHz (1001 pts) | Log <u>Lin</u> |
| #R | es BW | 100 kHz | | #404 | | | | | | | |
| #R | _ | 100 kHz | | | | +1 2/ | | STATUS | | , | |
| MSG | Keysight Spe | trum Analyzer - | Swept SA | | M_An | | 440_3 | status 0~10 | 00 | M Jun 30, 2020 | - 3 - |
| MSG | Keysight Spe R L | | 00000 M | LE 2 | M_An | NSE:INT | 440_3 | STATUS 0~10 LIGN AUTO RMS | 000 | M Jun 30, 2020 CE 1 2 3 4 5 6 PE M W P P P P | Frequency |
| MSG Ge 10 | Keysight Spe RL nter Fr | trum Analyzer - RF 50 | 00000 M NFE | LE 2 Hz PNO: Fast → | M_An | NSE:INT | 440_3 #Avg Type | STATUS 0~10 IGN AUTO RMS 10/10 | 000 09:55:22 / TRA TD C Kr1 883 | M Jun 30, 2020 CE 1 2 3 4 5 6 | Frequency |
| мsg (л Се 10 Lo | Keysight Spe RL nter Fr | trum Analyzer - RF 50 eq 515.0 Ref Offset: | 00000 M NFE | LE 2 Hz PNO: Fast → | M_An | NSE:INT | 440_3 #Avg Type | STATUS 0~10 IGN AUTO RMS 10/10 | 000 09:55:22 / TRA TD C Kr1 883 | MJun 30, 2020 CE 1 2 3 4 5 6 PE M M ET P P P P P 89 MHz | Auto Tune |
| MSG Ge 10 | dB/div | trum Analyzer - RF 50 eq 515.0 Ref Offset: | 00000 M NFE | LE 2 Hz PNO: Fast → | M_An | NSE:INT | 440_3 #Avg Type | STATUS 0~10 IGN AUTO RMS 10/10 | 000 09:55:22 / TRA TD C Kr1 883 | MJun 30, 2020 CE 1 2 3 4 5 6 PE M M ET P P P P P 89 MHz | Frequency Auto Tune |
| мsg (л Се 10 10 | dB/div | trum Analyzer - RF 50 eq 515.0 Ref Offset: | 00000 M NFE | LE 2 Hz PNO: Fast → | M_An | NSE:INT | 440_3 #Avg Type | STATUS 0~10 IGN AUTO RMS 10/10 | 000 09:55:22 / TRA TD C Kr1 883 | MJun 30, 2020 CE 1 2 3 4 5 6 PE M M ET P P P P P 89 MHz | Auto Tune |
| 10 -0.2 -10 | dB/div | trum Analyzer - RF 50 eq 515.0 Ref Offset: | 00000 M NFE | LE 2 Hz PNO: Fast → | M_An | NSE:INT | 440_3 #Avg Type | STATUS 0~10 IGN AUTO RMS 10/10 | 000 09:55:22 / TRA TD C Kr1 883 | ₩Jun 30, 2020 cc 1 2 3 4 5 6 rc M www. rc M www. re M www. re M http://www. re M http://wwww. re M http://www. re M http://wwwwwwwwwwwwwwww. | Frequency Auto Tune Center Freq 515,00000 MHz Start Freq 30,00000 MHz |
| MSG 20 10 -0.2 -10 -20 | dB/div | trum Analyzer - RF 50 eq 515.0 Ref Offset: | 00000 M NFE | LE 2 Hz PNO: Fast → | M_An | NSE:INT | 440_3 #Avg Type | STATUS 0~10 IGN AUTO RMS 10/10 | 000 09:55:22 / TRA TD C Kr1 883 | ₩Jun 30, 2020 cc 1 2 3 4 5 6 rc M www. rc M www. re M www. re M http://www. re M http://wwww. re M http://www. re M http://wwwwwwwwwwwwwwww. | Auto Tune Center Freq 515.00000 MHz Start Freq |
| MSG U Ce -10 -10 -10 -30 | Keysight Specific Spe | trum Analyzer - RF 50 eq 515.0 Ref Offset: | 00000 M NFE | LE 2 Hz PNO: Fast → | M_An | NSE:INT | 440_3 #Avg Type | STATUS 0~10 IGN AUTO RMS 10/10 | 000 09:55:22 / TRA TD C Kr1 883 | ₩Jun 30, 2020 cc 1 2 3 4 5 6 rc M www. rc M www. re M www. re M http://www. re M http://wwww. re M http://www. re M http://wwwwwwwwwwwwwwww. | Frequency Auto Tune Center Freq 515.00000 MHz Start Freq 30.00000 GHz Stop Freq 1.00000000 GHz CF Step 97.000000 MHz |
| 100 -100 -200 -400 | dB/div | trum Analyzer - RF 50 eq 515.0 Ref Offset: | 00000 M NFE | LE 2 Hz PNO: Fast → | M_An | NSE:INT | 440_3 #Avg Type | STATUS 0~10 IGN AUTO RMS 10/10 | 000 09:55:22 / TRA TD C Kr1 883 | ₩Jun 30, 2020 cc 1 2 3 4 5 6 rc M www. rc M www. re M www. re M http://www. re M http://wwww. re M http://www. re M http://wwwwwwwwwwwwwwww. | Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.00000000 GHz CF Step 97.000000 MHz Auto |
| 4.500 4.000 -4.000 | dB/dlv dB/dlv dB/dlv d2 2 2 2 2 2 2 2 2 2 2 2 2 2 | trum Analyzer _ St Re _ St 515.0 Ref Offset Ref 9,79 | R DC 000000 MFE 0.79 dB dBm | LE 2 Hz PNC: Fast → IFGeint.low | M_An | RE:INT | 440_3 | STATUS | 000 | Miam 30, 2020 CE 112 3 4 5 6 CE 112 3 4 5 6 CE 112 3 4 5 6 CE 112 3 4 5 6 P P P P P P P P P P S 9 MHz 90 dBm DL1 -1955 dbm | Frequency Auto Tune Center Freq 515.00000 MHz Start Freq 30.00000 GHz Stop Freq 1.00000000 GHz CF Step 97.000000 MHz |
| 10 C C C C C C C C C C C C C C C C C C C | dB/div | trum Analyzer St Reg 515.0 Ref Offset Ref 9.79 | R DC 0000 M NFE | LE 2 Hz PNC: Fast → IFGaint.low | M_An see | escint | | STATUS | 000 | Milum 30, 2020 GE 11, 2, 3, 4, 5, 6 H P P P P P P H P P P P P 90 dBm DL1-1995 dbm 1 1 | Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Mark Man Freq Offset |
| 100 100 100 100 100 100 100 100 | Ceptight Spectra | trum Analyzer - Re Store See Store Ref Offset Ref 9,79 | R DC 0000 M NFE | LE 2 Hz PNC Fast → IFGainLow | M_An see | escint | 440_3 | STATUS | 000 | Milum 30, 2020 GE 11, 2, 3, 4, 5, 6 H P P P P P P H P P P P P 90 dBm DL1-1995 dbm 1 1 | Frequency Auto Tune Center Freq 515.00000 MH2 Start Freq 30.00000 MH2 Stop Freq 1.0000000 MH2 CF Step 97.00000 MH2 Preq OffSel 0 H2 Scale Type Log |



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| | | | LE 21 | M_Ant1_ | 2480_30~1 | 000 | |
|--|---|---|-------------------------------------|-------------------|---|---|---|
| | Keysight 9 | Spectrum Analyzer - Swept SA RF 50 Ω DC | | | | | - 8 💌 |
| (XI | RL | RF 50 Ω DC | | SENSE:INT | ALIGN AUTO #Avg Type: RMS | 09:58:36 AM Jun 30, 2020 | Frequency |
| Ce | nter | Freq 515.000000 | | Trig: Free Run | Avg Hold: 10/10 | TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P P | |
| | | NPL. | IFGain:Low | #Atten: 10 dB | | DET PPPPF | |
| | | Ref Offset 9.79 dB | | | N | /kr1 929.51 MHz | Auto Tune |
| 10 (| dB/div | Ref 9.79 dBm | | | | -73.034 dBm | |
| Log | g | | | Ť | | | |
| | | | | | | | Center Freq |
| -0.2 | 21 | | | | | | 515.000000 MHz |
| | | | | | | | |
| -10.3 | .2 | | | | | | Start Freq |
| | | | | | | DL1 -20.47 dBm | 30.000000 MHz |
| -20.3 | 2 | | | | | DC1 -20.47 0Dm | 30.000000 Mi112 |
| | | | | | | | |
| -30.1 | .2 | | | | | | Stop Freq |
| | | | | | | | 1.00000000 GHz |
| -40. | 2 | | | | | | |
| 1 | | | | | | | CF Step |
| -50.3 | 2 | | | | | | 97.000000 MHz |
| I | | | | | | | <u>Auto</u> Man |
| -60.3 | 2 | | | | | | |
| | | | | | | ▲ 1 | Freq Offset |
| -70. | ~ | | | | | | 0 Hz |
| | 6.00 | وطوال وروسنا لمرتف يتاولو والأرينا وا | ويتأفعنا والمائك ويأويا أف | pp.y., i bibi iii | gan kan pangkala kan kita | site separation for the second second | |
| -80.1 | .2 | | | | naala jõol _{ele j} enindis atsiliid tekk | | Scale Type |
| | Land, | and the second second second second | و المراجع المراجع المراجع | | out officer and a | | Scale Type |
| Sta | art 0.0 | 0300 GHz | | | | Stop 1.0000 GHz | Log <u>Lin</u> |
| #R | es BV | N 100 kHz | #VBW | 300 kHz | Sweep 3 | 6.00 ms (30001 pts) | |
| MSG | i | | | | STAT | us | |
| | | | | | | | |
| | | | | A -+ 1 2 | 100 1000 0 | DEE00 | |
| _ | | | | _Ant1_2 | 480_1000~2 | 26500 | |
| | Keysight S | Spectrum Analyzer - Swept SA | | | | | _ @ <mark>×</mark> |
| ()(1 | RL | RF 50 Ω DC | | SENSE:INT | ALIGN AUTO #Avg Type: RMS | 09:58:59 AM Jun 30, 2020 | |
| L XI | RL | Spectrum Analyzer - Swept SA RF 50 Ω DC Freq 13.7500000 NFE | 00 GHz | SENSE:INT | | | Frequency |
| ()(1 | RL | RF 50Ω DC Freq 13.7500000 NFE | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | 09:58:59 AM Jun 30, 2020 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P F | Frequency |
| Ce | nter | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | 09:58:59 AM Jun 30,2020 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P F r1 7.438 75 GHz | Frequency |
| Ce | nter | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | 09:58:59 AM Jun 30, 2020 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P F | Frequency |
| 00 Ce | nter | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | 09:58:59 AM Jun 30,2020 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P F r1 7.438 75 GHz | Frequency |
| | dB/div | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | 09:58:59 AM Jun 30,2020 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P F r1 7.438 75 GHz | Auto Tune |
| 00 Ce | dB/div | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | 09:58:59 AM Jun 30,2020 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P F r1 7.438 75 GHz | Auto Tune |
| 10 (Log | dB/div | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | 09:58:59 AM Jun 30,2020 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P F r1 7.438 75 GHz | Frequency Auto Tune Center Freq 13.75000000 GHz |
| Ce 10 c -0.2 | dB/div | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | (9:56:59 AH Jun 30, 2020) TRACE 1:3:4:5 (THE WATCH IN THE WATCH INTERNAL IN THE WATCH INTERNAL I | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq |
| Ce 10 c -0.2 | dB/div | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | 09:58:59 AM Jun 30,2020 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P F r1 7.438 75 GHz | Frequency Auto Tune Center Freq 13.75000000 GHz |
| 4 Ce 10 c -0.2 -10.1 | dB/div | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | (9:56:59 AH Jun 30, 2020) TRACE 1:3:4:5 (THE WATCH IN THE WATCH INTERNAL IN THE WATCH INTERNAL I | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq |
| 10 Ce 10 c -0.2 -10.5 | dB/div g | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | (9:56:59 AH Jun 30, 2020) TRACE 1:3:4:5 (THE WATCH IN THE WATCH INTERNAL IN THE WATCH INTERNAL I | Auto Tune Center Freq 13.75000000 GHz Start Freq 1.00000000 GHz |
| 10 Ce 10 2 -0.2 -10. -20. | dB/div g | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | (9:56:59 AH Jun 30, 2020) TRACE 1:3:4:5 (THE WATCH IN THE WATCH INTERNAL IN THE WATCH INTERNAL I | Frequency Auto Tune Center Freq 13.75000000 GHz Start Freq |
| 10 Ce 10 c -0.2 -10. -20. | BL enter | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | (9:56:59 AH Jun 30, 2020) TRACE 1:3:4:5 (THE WATCH IN THE WATCH INTERNAL IN THE WATCH INTERNAL I | Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 1.00000000 GHz Stop Freq |
| 4.2 10.0 10.0 10.0 10.0 10.0 10.0 10.0 | BL enter | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | (9:56:59 AH Jun 30, 2020) TRACE 1:3:4:5 (THE WATCH IN THE WATCH INTERNAL IN THE WATCH INTERNAL I | Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 1.00000000 GHz 26.50000000 GHz |
| 10 g -0.2 -10. -20. -30. | dB/div g 2 2 2 2 | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | (9:56:59 AH Jun 30, 2020) TRACE 1:3:4:5 (THE WATCH IN THE WATCH INTERNAL IN THE WATCH INTERNAL I | Center Freq 1375000000 GHz Start Freq 1.00000000 GHz 2650000000 GHz CF Step |
| 0 Ce 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 | dB/div g 2 2 2 2 | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | (9:56:59 AH Jun 30, 2020) TRACE 1:3:4:5 (THE WATCH IN THE WATCH INTERNAL IN THE WATCH INTERNAL I | Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 1.00000000 GHz 26.50000000 GHz |
| 0. 20 10 0 10 0 10 0 10 0 10 0 10 0 10 0 1 | dB/div g 2 2 2 2 | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | (9:56:59 AH Jun 30, 2020) TRACE 1:3:4:5 (THE WATCH IN THE WATCH INTERNAL IN THE WATCH INTERNAL I | Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 1.00000000 GHz Stop Freq 26.50000000 GHz CF Step 2.550000000 GHz |
| 2000 2000 2000 2000 2000 2000 2000 200 | dB/div g 2 2 2 2 | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALSON AUTO #Avg Type: RNS Avg/Hold: 10/10 Mk | (0-5859 M-3un 30, 2020) TRACE [1 3 3 4 5 4 THE [0 P P P P F ref 7.438 75 GHz -57.076 dBm | Frequency Auto Tune Center Freq 1.375000000 GHz Start Freq 26 50000000 GHz CF Step 2.550000000 GHz |
| 2000 1000 1000 1000 1000 1000 1000 1000 | dB/div g g 2 2 2 2 2 2 2 2 2 | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALIGN AUTO #Avg Type: RMS Avg Hold: 10/10 | (0-5859 M-3un 30, 2020) TRACE [1 3 3 4 5 4 THE [0 P P P P F ref 7.438 75 GHz -57.076 dBm | Frequency Auto Tune Center Freq 1375000000 GHz Start Freq 1.0000000 GHz Stop Freq 255000000 GHz 255000000 GHz CF Step 255000000 GHz Man Freq Offset |
| 202 100 100 100 100 100 100 100 100 100 | Bl/div dB/div g 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALSON AUTO #Avg Type: RNS Avg/Hold: 10/10 Mk | (0-5859 M-3un 30, 2020) TRACE [1 3 3 4 5 4 THE [0 P P P P F ref 7.438 75 GHz -57.076 dBm | Frequency Auto Tune Center Freq 1.375000000 GHz Start Freq 26 50000000 GHz CF Step 2.550000000 GHz |
| 2000 2005 -10. -10. -10. -10. -10. -10. -10. -10. | Bl/div dB/div g 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALSON AUTO #Avg Type: RNS Avg/Hold: 10/10 Mk | (0-5859 M-3un 30, 2020) TRACE [1 3 3 4 5 4 THE [0 P P P P F ref 7.438 75 GHz -57.076 dBm | Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 1.00000000 GHz Stop Freq 2550000000 GHz Auto Man Freq Offset 0 Hz |
| 202 10: 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 | Bl/div dB/div g 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALSON AUTO #Avg Type: RNS Avg/Hold: 10/10 Mk | (0-5859 M-3un 30, 2020) TRACE [1 3 3 4 5 4 THE [0 P P P P F ref 7.438 75 GHz -57.076 dBm | Frequency Auto Tune Center Freq 1375000000 GHz Start Freq 1.0000000 GHz Stop Freq 255000000 GHz 255000000 GHz CF Step 255000000 GHz Man Freq Offset |
| 2000 2010 2010 2010 2010 2010 2010 2010 | RL inter dB/div g 2 <td< td=""><td>RF 30 a DC Freq 13.7500000 NFE Ref Offset 9.79 dB Ref 9.79 dB</td><td>OO GHz PNO: Fast ↔ IFGain:Low</td><td>SENSE:INT</td><td>ALSON AUTO #Avg Type: RNS Avg/Hold: 10/10 Mk</td><td>(1958 59 M3m 30, 2020 TR45E 11 2 3 4 5 4 Tr45E 12 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4</td><td>Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 1.00000000 GHz Stop Freq 25.50000000 GHz 25.50000000 GHz CF Step 2.550000000 GHz Man Freq Offset 0 Hz Scale Type</td></td<> | RF 30 a DC Freq 13.7500000 NFE Ref Offset 9.79 dB Ref 9.79 dB | OO GHz PNO: Fast ↔ IFGain:Low | SENSE:INT | ALSON AUTO #Avg Type: RNS Avg/Hold: 10/10 Mk | (1958 59 M3m 30, 2020 TR45E 11 2 3 4 5 4 Tr45E 12 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 | Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 1.00000000 GHz Stop Freq 25.50000000 GHz 25.50000000 GHz CF Step 2.550000000 GHz Man Freq Offset 0 Hz Scale Type |
| 2000 2000 -100 -100 -100 -100 -100 -100 | RL Inter dB/div 2 <td< td=""><td>RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB</td><td>00 GHz PRC: Fast → IFGainLow</td><td>SENSE:INT</td><td>ALSON AUTO #Avg Type: RNS Avg Hold: 1010 Mk</td><td>(0-5859 M-3un 30, 2020) TRACE [1 3 3 4 5 4 THE [0 P P P P F ref 7.438 75 GHz -57.076 dBm</td><td>Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 1.00000000 GHz 255000000 GHz 255000000 GHz Auto Tune Preq Offset 0 Hz Scale Type Log Lin</td></td<> | RF 50 Ω DC Freq 13.7500000 NFE Ref Offset 9.79 dB | 00 GHz PRC: Fast → IFGainLow | SENSE:INT | ALSON AUTO #Avg Type: RNS Avg Hold: 1010 Mk | (0-5859 M-3un 30, 2020) TRACE [1 3 3 4 5 4 THE [0 P P P P F ref 7.438 75 GHz -57.076 dBm | Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 1.00000000 GHz 255000000 GHz 255000000 GHz Auto Tune Preq Offset 0 Hz Scale Type Log Lin |
| 2000 2005 2005 2005 2007 200 200 | RL Inter dB/div 2 <td< td=""><td>RF 30 0 DC Freq 13.7500000 NFE Ref 0ffset 9.79 dBm NFE</td><td>00 GHz PRC: Fast → IFGainLow</td><td>SENSE:INT</td><td>ALSON AUTO #Avg Type: RNS Avg Hold: 1010 Mk</td><td>(19:58:59 AM Jun 30: 2020) 7876CE 10:3:4:54 7876CE 10:3:4:54 78776CE 10:3:4:54 787776CE 10:3:4:54 7877777777777777777777777777777777777</td><td>Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 1.00000000 GHz 255000000 GHz 255000000 GHz Auto Tune Preq Offset 0 Hz Scale Type Log Lin</td></td<> | RF 30 0 DC Freq 13.7500000 NFE Ref 0ffset 9.79 dBm NFE | 00 GHz PRC: Fast → IFGainLow | SENSE:INT | ALSON AUTO #Avg Type: RNS Avg Hold: 1010 Mk | (19:58:59 AM Jun 30: 2020) 7876CE 10:3:4:54 7876CE 10:3:4:54 78776CE 10:3:4:54 787776CE 10:3:4:54 7877777777777777777777777777777777777 | Frequency Auto Tune Center Freq 13.76000000 GHz Start Freq 1.00000000 GHz 255000000 GHz 255000000 GHz Auto Tune Preq Offset 0 Hz Scale Type Log Lin |



11.7. Appendix G: Duty Cycle 11.7.1. Test Result

| Mode | On Time (msec) | Period (msec) | Duty Cycle x (Linear) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | 1/T Minimum VBW (KHz) | Final setting For VBW (KHz) |
|-------|----------------------|------------------|--------------------------------|----------------------|--|--------------------------------|--------------------------------------|
| LE | 2.140 | 2.500 | 0.856 | 85.6 | 0.68 | 0.47 | 0.5 |
| LE 2M | 1.083 | 1.875 | 0.578 | 57.8 | 2.38 | 0.92 | 1 |

Note:

Duty Cycle Correction Factor=10log(1/x).

Where: x is Duty Cycle (Linear)

Where: T is On Time (transmit duration)

If that calculated VBW is not available on the analyzer then the next higher value should be used.



11.7.2. Test Graphs



END OF REPORT