



FCC Radio Test Report

FCC ID: 2AOHHTURBOXC4290

This report concerns: Original Grant

Project No. : 2205C022

Equipment: TurboX C4290 SOM

Brand Name : N/A

Test Model : TurboX C4290

Series Model : N/A

Applicant: Thundercomm Technology Co., Ltd

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Manufacturer : Thundercomm Technology Co., Ltd

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Date of Receipt : May 07, 2022

Date of Test : May 19, 2022 ~ Jun. 13, 2022

Issued Date : Jun. 27, 2022

Report Version : R00

Test Sample : Engineering Sample No.: DG2022051887 for conducted,

DG2022051846 for radiated and AC power line conducted emissions.

Standard(s) : FCC CFR Title 47, Part 15, Subpart E

FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

ANSI C63.10-2013

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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TESTING CERT #5123.02

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The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective. Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.



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REPORT ISSUED HISTORY

| Report No. | Version | Description | Issued Date | Note |
|---------------------|---------|-----------------|---------------|-------|
| BTL-FCCP-4-2205C022 | R00 | Original Report | Jun. 27, 2022 | Valid |



1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

| | FCC CFR Title 47, Part 15, Subpart E | | | |
|-------------------------------------|---|--|----------|----------|
| Standard(s) Section | Test Item | Test Result | Judgment | Remark |
| 15.207 15.407(b) | AC Power Line Conducted Emissions | APPENDIX A | PASS | |
| 15.407(b) 15.205(a) 15.209(a) | Radiated Emissions | APPENDIX B APPENDIX C APPENDIX D | PASS | |
| 15.407(a) 15.407(e) | Bandwidth | APPENDIX E | PASS | |
| 15.407(a) | Maximum Output Power | APPENDIX F | PASS | |
| 15.407(a) | Power Spectral Density | APPENDIX G | PASS | |
| 15.407(g) | Frequency Stability | APPENDIX H | PASS | |
| 15.203 | Antenna Requirements | | PASS | NOTE (2) |
| 15.407(c) | Automatically Discontinue Transmission | | PASS | NOTE (3) |

Note:

- (1) "N/A" denotes test is not applicable in this test report.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.
- (3) During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. the EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

| | transmitting from remote device and verify with |
|-----|---|
| (4) | For UNII-1 this device was functioned as a |
| | ☐ Outdoor access point device |
| | ☐ Indoor access point device |
| | ☐ Fixed point-to-point access points device |
| | |



1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China.

BTL's Registration Number for FCC: 357015 BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

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

The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

| Test Site | Method | Measurement Frequency Range | U,(dB) |
|-----------|--------|-----------------------------|--------|
| DG-C02 | CISPR | 150kHz ~ 30MHz | 2.60 |

B. Radiated emissions test:

| Test Site | Method | Measurement Frequency Range | U,(dB) |
|-----------|--------|-----------------------------|--------|
| DG-CB01 | CISPR | 9kHz ~ 30MHz | 2.36 |

| Test Site | Method | Measurement Frequency Range | Ant. H / V | U,(dB) |
|-----------------------|--------|-----------------------------|---------------|--------|
| DG-CB03 (3m) CISPR | | 30MHz ~ 200MHz | ٧ | 4.36 |
| | CISPR | 30MHz ~ 200MHz | Н | 3.32 |
| | | 200MHz ~ 1,000MHz | V | 4.08 |
| | | 200MHz ~ 1,000MHz | Н | 3.96 |

| Test Site | Method | Measurement Frequency Range | U,(dB) |
|-----------|---------------|-----------------------------|--------|
| DG-CB03 | DG-CB03 CISPR | 1GHz ~ 6GHz | 3.80 |
| (3m) | CIOPK | 6GHz ~ 18GHz | 4.82 |

| Test Site | Method | Measurement Frequency Range | U,(dB) |
|-----------|---------|-----------------------------|--------|
| DG-CB03 | 3 0,000 | 18 ~ 26.5 GHz | 3.62 |
| (1m) | CISPR | 26.5 ~ 40 GHz | 4.00 |



C. Other Measurement test:

| Test Item | Uncertainty |
|------------------------|-------------|
| Bandwidth | ±3.8 % |
| Maximum Output Power | ±0.95 dB |
| Power Spectral Density | ±0.86 dB |
| Frequency Stability | ±0.16 dB |
| Temperature | ±0.08 °C |
| Humidity | ±1.5% |

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

| Test Item | Temperature | Humidity | Test Voltage | Tested By |
|-------------------------------------|---------------------|-------------|---------------------|-------------|
| AC Power Line Conducted Emissions | 26°C | 58% | AC 120V/60Hz | Jeter Wang |
| Radiated Emissions-9kHz to 30MHz | 24°C | 58% | DC 3.8V | Rod Tang |
| Radiated Emissions-30MHz to 1000MHz | 26°C | 58% | DC 3.8V | Eli Chen |
| Radiated Emissions-Above 1000 MHz | 22°C | 50% | DC 3.8V | Eli Chen |
| Bandwidth | 23°C~24°C | 55%~64% | DC 3.8V | Kwok Guo |
| Maximum Output Power | 22.5°C~24.5°C | 57.6%~65.8% | DC 3.8V | Complex Qin |
| Power Spectral Density | 23°C~24°C | 55%~64% | DC 3.8V | Kwok Guo |
| Frequency Stability | Normal & Extreme | 55%~64% | Normal & Extreme | Kwok Guo |



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

| Equipment | TurboX C4290 SOM |
|-------------------------------|--|
| Brand Name | N/A |
| Test Model | TurboX C4290 |
| Series Model | N/A |
| Model Difference(s) | N/A |
| Software Version | FlatBuild_Turbox-CM4290_c4290_32go_la1.0.1.D.userdebug.20220 430.0337 |
| Hardware Version | V01 |
| Power Source | DC voltage supplied from external power supply. |
| Power Rating | Input Rating: DC 3.8~4.2V |
| Operation Frequency Band(s) | UNII-1: 5150 MHz ~ 5250 MHz UNII-2A: 5250 MHz ~ 5350 MHz UNII-2C: 5470 MHz ~ 5725 MHz UNII-3: 5725 MHz ~ 5850 MHz |
| Modulation Type | IEEE 802.11a/n/ac: OFDM |
| Bit Rate of Transmitter | IEEE 802.11a: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 150 Mbps IEEE 802.11ac: up to 433.3 Mbps |
| Maximum Output Power _UNII-1 | IEEE 802.11a: 15.92 dBm (0.0391 W) |
| Maximum Output Power _UNII-2A | IEEE 802.11a: 15.92 dBm (0.0391 W) |
| Maximum Output Power _UNII-2C | IEEE 802.11a: 16.29 dBm (0.0426 W) |
| Maximum Output Power _UNII-3 | IEEE 802.11a: 16.06 dBm (0.0404 W) |

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.



2. Channel List:

| IEEE 802.1 IEEE 802.11 | 1n(HT20) | IEEE 802.11n(HT40) IEEE 802.11ac(VHT40) | | IEEE 802.1 | 1ac(VHT80) |
|---------------------------|--------------------|--|--------------------|------------|--------------------|
| UNI | I-1 | UN | II-1 | UN | II-1 |
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 36 | 5180 | 38 | 5190 | 42 | 5210 |
| 40 | 5200 | 46 | 5230 | | |
| 44 | 5220 | | | | |
| 48 | 5240 | | | | |

| IEEE 802.1 | IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20) | | 11n(HT40) 1ac(VHT40) | IEEE 802.11 | 1ac(VHT80) |
|------------|--|---------|-------------------------|-------------|--------------------|
| UNII | -2A | UNI | I-2A | UNI | I-2A |
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 52 | 5260 | 54 | 5270 | 58 | 5290 |
| 56 | 5280 | 62 | 5310 | | |
| 60 | 5300 | | | | |
| 64 | 5320 | | | | |

| IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20) | | IEEE 802.11n(HT40) IEEE 802.11ac(VHT40) | | IEEE 802.11ac(VHT80) | |
|--|--------------------|--|--------------------|----------------------|--------------------|
| UNII | -2C | UNI | I-2C | UNII-2C | |
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 100 | 5500 | 102 | 5510 | 106 | 5530 |
| 104 | 5520 | 110 | 5550 | 122 | 5610 |
| 108 | 5540 | 118 | 5590 | | |
| 112 | 5560 | 126 | 5630 | | |
| 116 | 5580 | 134 | 5670 | | |
| 120 | 5600 | | | | |
| 124 | 5620 | | | | |
| 128 | 5640 | | | | |
| 132 | 5660 | | | | |
| 136 | 5680 | | | | |
| 140 | 5700 | | | | |

| IEEE 802.1 | IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20) | | 11n(HT40) 1ac(VHT40) | IEEE 802.11 | 1ac(VHT80) |
|------------|--|---------|-------------------------|-------------|--------------------|
| UNI | I-3 | UN | II-3 | UN | II-3 |
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 149 | 5745 | 151 | 5755 | 155 | 5775 |
| 153 | 5765 | 159 | 5795 | | |
| 157 | 5785 | | | | |
| 161 | 5805 | | | | |
| 165 | 5825 | | | | |



3. Table for Filed Antenna:

| Ant. | Brand | P/N | Antenna Type | Connector | Gain (dBi) |
|------|-------|------------|--------------|-----------|------------|
| 1 | molex | 1461531100 | FPC | N/A | 4.0 |

Note: The antenna gain is provided by the manufacturer.



2.2 TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

| Pretest Mode | Description |
|--------------|---|
| Mode 1 | TX A Mode Channel 36/40/48 (UNII-1) |
| Mode 2 | TX N(HT20) Mode Channel 36/40/48 (UNII-1) |
| Mode 3 | TX N(HT40) Mode Channel 38/46 (UNII-1) |
| Mode 4 | TX AC(VHT20) Mode Channel 36/40/48 (UNII-1) |
| Mode 5 | TX AC(VHT40) Mode Channel 38/46 (UNII-1) |
| Mode 6 | TX AC(VHT80) Mode Channel 42 (UNII-1) |
| Mode 10 | TX A Mode Channel 52/60/64 (UNII-2A) |
| Mode 11 | TX N(HT20) Mode Channel 52/60/64 (UNII-2A) |
| Mode 12 | TX N(HT40) Mode Channel 54/62 (UNII-2A) |
| Mode 13 | TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A) |
| Mode 14 | TX AC(VHT40) Mode Channel 54/62 (UNII-2A) |
| Mode 15 | TX AC(VHT80) Mode Channel 58 (UNII-2A) |
| Mode 21 | TX A Mode Channel 100/116/140 (UNII-2C) |
| Mode 22 | TX N(HT20) Mode Channel 100/116/140 (UNII-2C) |
| Mode 23 | TX N(HT40) Mode Channel 102/110/134 (UNII-2C) |
| Mode 24 | TX AC(VHT20) Mode Channel 100/116/140 (UNII-2C) |
| Mode 25 | TX AC(VHT40) Mode Channel 102/110/134 (UNII-2C) |
| Mode 26 | TX AC(VHT80) Mode Channel 106/122 (UNII-2C) |
| Mode 27 | TX A Mode Channel 149/157/165 (UNII-3) |
| Mode 28 | TX N(HT20) Mode Channel 149/157/165 (UNII-3) |
| Mode 29 | TX N(HT40) Mode Channel 151/159 (UNII-3) |
| Mode 30 | TX AC(VHT20) Mode Channel 149/157/165 (UNII-3) |
| Mode 31 | TX AC(VHT40) Mode Channel 151/159 (UNII-3) |
| Mode 32 | TX AC(VHT80) Mode Channel 155 (UNII-3) |
| Mode 33 | TX A Mode Channel 116 (UNII-2C) |



Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

| AC power line conducted emissions test | | |
|---|-------------|--|
| Final Test Mode | Description | |
| Mode 38 TX A Mode Channel 116 (UNII-2C) | | |

| Radiated Emissions Test - Below 1GHz | | |
|--------------------------------------|---------------------------------|--|
| Final Test Mode | Description | |
| Mode 38 | TX A Mode Channel 116 (UNII-2C) | |

| | Radiated Emissions Test - Above 1GHz | | |
|-----------------|---|--|--|
| Final Test Mode | Description | | |
| Mode 1 | TX A Mode Channel 36/40/48 (UNII-1) | | |
| Mode 4 | TX AC(VHT20) Mode Channel 36/40/48 (UNII-1) | | |
| Mode 5 | TX AC(VHT40) Mode Channel 38/46 (UNII-1) | | |
| Mode 6 | TX AC(VHT80) Mode Channel 42 (UNII-1) | | |
| Mode 10 | TX A Mode Channel 52/60/64 (UNII-2A) | | |
| Mode 13 | TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A) | | |
| Mode 14 | TX AC(VHT40) Mode Channel 54/62 (UNII-2A) | | |
| Mode 15 | TX AC(VHT80) Mode Channel 58 (UNII-2A) | | |
| Mode 21 | TX A Mode Channel 100/116/140 (UNII-2C) | | |
| Mode 24 | TX AC(VHT20) Mode Channel 100/116/140 (UNII-2C) | | |
| Mode 25 | TX AC(VHT40) Mode Channel 102/110/134 (UNII-2C) | | |
| Mode 26 | TX AC(VHT80) Mode Channel 106/122 (UNII-2C) | | |
| Mode 27 | TX A Mode Channel 149/157/165 (UNII-3) | | |
| Mode 30 | TX AC(VHT20) Mode Channel 149/157/165 (UNII-3) | | |
| Mode 31 | TX AC(VHT40) Mode Channel 151/159 (UNII-3) | | |
| Mode 32 | TX AC(VHT80) Mode Channel 155 (UNII-3) | | |



| | Maximum Output Power Test | | | |
|-----------------|---|--|--|--|
| Final Test Mode | Description | | | |
| Mode 1 | TX A Mode Channel 36/40/48 (UNII-1) | | | |
| Mode 2 | TX N(HT20) Mode Channel 36/40/48 (UNII-1) | | | |
| Mode 3 | TX N(HT40) Mode Channel 38/46 (UNII-1) | | | |
| Mode 4 | TX AC(VHT20) Mode Channel 36/40/48 (UNII-1) | | | |
| Mode 5 | TX AC(VHT40) Mode Channel 38/46 (UNII-1) | | | |
| Mode 6 | TX AC(VHT80) Mode Channel 42 (UNII-1) | | | |
| Mode 10 | TX A Mode Channel 52/60/64 (UNII-2A) | | | |
| Mode 11 | TX N(HT20) Mode Channel 52/60/64 (UNII-2A) | | | |
| Mode 12 | TX N(HT40) Mode Channel 54/62 (UNII-2A) | | | |
| Mode 13 | TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A) | | | |
| Mode 14 | TX AC(VHT40) Mode Channel 54/62 (UNII-2A) | | | |
| Mode 15 | TX AC(VHT80) Mode Channel 58 (UNII-2A) | | | |
| Mode 21 | TX A Mode Channel 100/116/140 (UNII-2C) | | | |
| Mode 22 | TX N(HT20) Mode Channel 100/116/140 (UNII-2C) | | | |
| Mode 23 | TX N(HT40) Mode Channel 102/110/134 (UNII-2C) | | | |
| Mode 24 | TX AC(VHT20) Mode Channel 100/116/140 (UNII-2C) | | | |
| Mode 25 | TX AC(VHT40) Mode Channel 102/110/134 (UNII-2C) | | | |
| Mode 26 | TX AC(VHT80) Mode Channel 106/122 (UNII-2C) | | | |
| Mode 27 | TX A Mode Channel 149/157/165 (UNII-3) | | | |
| Mode 28 | TX N(HT20) Mode Channel 149/157/165 (UNII-3) | | | |
| Mode 29 | TX N(HT40) Mode Channel 151/159 (UNII-3) | | | |
| Mode 30 | TX AC(VHT20) Mode Channel 149/157/165 (UNII-3) | | | |
| Mode 31 | TX AC(VHT40) Mode Channel 151/159 (UNII-3) | | | |
| Mode 32 | TX AC(VHT80) Mode Channel 155 (UNII-3) | | | |



| Other Conducted Test | | |
|----------------------|---|--|
| Final Test Mode | Description | |
| Mode 1 | TX A Mode Channel 36/40/48 (UNII-1) | |
| Mode 4 | TX AC(VHT20) Mode Channel 36/40/48 (UNII-1) | |
| Mode 5 | TX AC(VHT40) Mode Channel 38/46 (UNII-1) | |
| Mode 6 | TX AC(VHT80) Mode Channel 42 (UNII-1) | |
| Mode 10 | TX A Mode Channel 52/60/64 (UNII-2A) | |
| Mode 13 | TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A) | |
| Mode 14 | TX AC(VHT40) Mode Channel 54/62 (UNII-2A) | |
| Mode 15 | TX AC(VHT80) Mode Channel 58 (UNII-2A) | |
| Mode 21 | TX A Mode Channel 100/116/140 (UNII-2C) | |
| Mode 24 | TX AC(VHT20) Mode Channel 100/116/140 (UNII-2C) | |
| Mode 25 | TX AC(VHT40) Mode Channel 102/110/134 (UNII-2C) | |
| Mode 26 | TX AC(VHT80) Mode Channel 106/122 (UNII-2C) | |
| Mode 27 | TX A Mode Channel 149/157/165 (UNII-3) | |
| Mode 30 | TX AC(VHT20) Mode Channel 149/157/165 (UNII-3) | |
| Mode 31 | TX AC(VHT40) Mode Channel 151/159 (UNII-3) | |
| Mode 32 | TX AC(VHT80) Mode Channel 155 (UNII-3) | |

Note

- (1) For AC power line conducted emissions and radiated emission below 1 GHz test, the TX A Mode Channel 116 (UNII-2C) is found to be the worst case and recorded.
- (2) For radiated emission above 1 GHz test, the spurious points of 1GHz~26.5GHz and 26.5GHz~40GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.
- (3) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
- (4) The measurements for Output Power are tested, the worst case are IEEE 802.11a mode, IEEE 802.11ac(VHT20) mode, IEEE 802.11ac(VHT40) mode, IEEE 802.11ac(VHT80) mode, only the worst cases are documented for other test items.
- (5) For radiated emission above 1 GHz test: The polarization of vertical and horizontal are evaluated, the worst case is horizontal and recorded.



2.3 PARAMETERS OF TEST SOFTWARE

| UNII-1 | | | |
|-----------------------|------|-------|------|
| Test Software Version | | QRCT5 | |
| Frequency (MHz) | 5180 | 5200 | 5240 |
| IEEE 802.11a | 16 | 16 | 16 |
| IEEE 802.11n(HT20) | 15 | 15 | 15 |
| IEEE 802.11ac(VHT20) | 15 | 15 | 15 |
| Frequency (MHz) | 5190 | 5230 | |
| IEEE 802.11n(HT40) | 15 | 15 | |
| IEEE 802.11ac(VHT40) | 15 | 15 | |
| Frequency (MHz) | 5210 | | |
| IEEE 802.11ac(VHT80) | 14 | | |

| UNII-2A | | | |
|-----------------------|-------|------|------|
| Test Software Version | QRCT5 | | |
| Frequency (MHz) | 5260 | 5300 | 5320 |
| IEEE 802.11a | 16 | 16 | 16 |
| IEEE 802.11n(HT20) | 15 | 15 | 15 |
| IEEE 802.11ac(VHT20) | 15 | 15 | 15 |
| Frequency (MHz) | 5270 | 5310 | |
| IEEE 802.11n(HT40) | 15 | 15 | |
| IEEE 802.11ac(VHT40) | 15 | 15 | |
| Frequency (MHz) | 5290 | | |
| IEEE 802.11ac(VHT80) | 13 | | |

| UNII-2C | | | |
|-----------------------|------|-------|------|
| Test Software Version | | QRCT5 | |
| Frequency (MHz) | 5500 | 5580 | 5700 |
| IEEE 802.11a | 16 | 16 | 16 |
| IEEE 802.11n(HT20) | 15 | 15 | 15 |
| IEEE 802.11ac(VHT20) | 15 | 15 | 15 |
| Frequency (MHz) | 5510 | 5550 | 5670 |
| IEEE 802.11n(HT40) | 15 | 15 | 15 |
| IEEE 802.11ac(VHT40) | 15 | 15 | 15 |
| Frequency (MHz) | 5530 | 5610 | |
| IEEE 802.11ac(VHT80) | 12 | 15 | |



| UNII-3 | | | |
|-----------------------|-------|------|------|
| Test Software Version | QRCT5 | | |
| Frequency (MHz) | 5745 | 5785 | 5825 |
| IEEE 802.11a | 16 | 16 | 16 |
| IEEE 802.11n(HT20) | 15 | 15 | 15 |
| IEEE 802.11ac(VHT20) | 15 | 15 | 15.5 |
| Frequency (MHz) | 5755 | 5795 | |
| IEEE 802.11n(HT40) | 15 | 15 | |
| IEEE 802.11ac(VHT40) | 15 | 15 | |
| Frequency (MHz) | 5775 | | |
| IEEE 802.11ac(VHT80) | 15 | | |



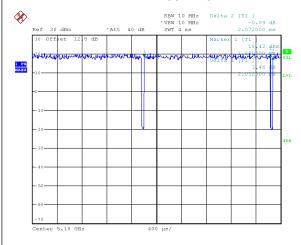
2.4 DUTY CYCLE

If duty cycle is \geq 98 %, duty factor is not required. If duty cycle is < 98 %, duty factor shall be considered.

The output power = measured power + duty factor.

The power spectral density = measured power spectral density + duty factor.

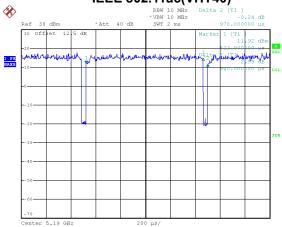
IEEE 802.11a



Date: 26.MAY.2022 17:22:13

Duty cycle = 2.032 ms / 2.072 ms = 98.07% Duty Factor = 10 log(1 / Duty cycle) = 0.00

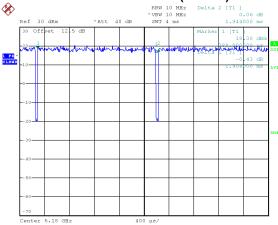
IEEE 802.11n(HT40) IEEE 802.11ac(VHT40)



Date: 26.MAY.2022 17:32:18

Duty cycle = 0.940 ms / 0.978 ms = 96.11% Duty Factor = 10 log(1 / Duty cycle) = 0.17

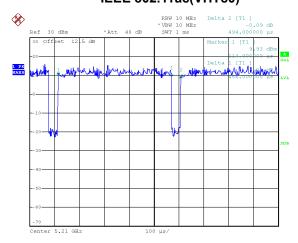
IEEE 802.11n(HT20) IEEE 802.11ac(VHT20)



Date: 26.MAY.2022 17:33:57

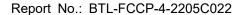
Duty cycle = 1.904 ms / 1.944 ms = 97.94% Duty Factor = 10 log(1 / Duty cycle) = 0.09

IEEE 802.11ac(VHT80)



Date: 26.MAY.2022 17:30:08

Duty cycle = 0.456 ms / 0.494 ms = 92.31%Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.35$





NOTE:

For IEEE 802.11a:

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle ≥ 98%).

For IEEE 802.11n(HT20):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle < 98%).

For IEEE 802.11n(HT40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 2 kHz (Duty cycle < 98%).

For IEEE 802.11ac(VHT20):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 525 Hz (Duty cycle < 98%).

For IEEE 802.11ac(VHT40):

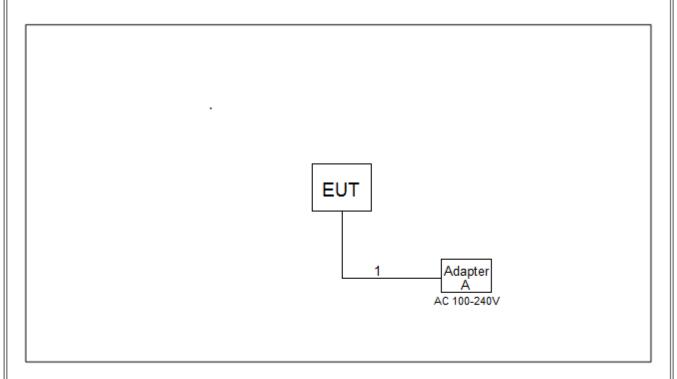
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1064 Hz (Duty cycle < 98%).

For IEEE 802.11ac(VHT80):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 2193 Hz (Duty cycle < 98%).



2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.6 SUPPORT UNITS

| Item | Equipment | Brand | Model No. | Series No. |
|------|-----------|-------|-----------|------------|
| Α | Adapter | N/A | N/A | N/A |

| Item | Cable Type | Shielded Type | Ferrite Core | Length |
|------|------------|---------------|--------------|--------|
| 1 | DC Cable | NO | NO | 1.5m |



3. AC POWER LINE CONDUCTED EMISSIONS

3.1 LIMIT

| Frequency | Limit (dBµV) | |
|------------|--------------|-----------|
| (MHz) | Quasi-peak | Average |
| 0.15 - 0.5 | 66 to 56* | 56 to 46* |
| 0.5 - 5.0 | 56 | 46 |
| 5.0 - 30.0 | 60 | 50 |

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

3.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

The following table is the setting of the receiver:

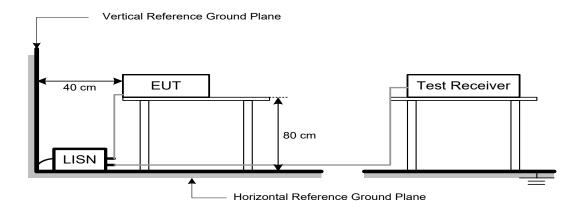
| Receiver Parameter | Setting |
|--------------------|----------|
| Start Frequency | 0.15 MHz |
| Stop Frequency | 30 MHz |
| IF Bandwidth | 9 kHz |

3.3 DEVIATION FROM TEST STANDARD

No deviation



3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

The EUT was programmed to be in continuously transmitting/TX mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.



4. RADIATED EMISSIONS

4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSIONS MEASUREMENT (9 kHz to 1000 MHz)

| Frequency | Field Strength | Measurement Distance |
|-------------|--------------------|----------------------|
| (MHz) | (microvolts/meter) | (meters) |
| 0.009-0.490 | 2400/F(kHz) | 300 |
| 0.490-1.705 | 24000/F(kHz) | 30 |
| 1.705-30.0 | 30 | 30 |
| 30-88 | 100 | 3 |
| 88-216 | 150 | 3 |
| 216-960 | 200 | 3 |
| Above 960 | 500 | 3 |

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS (Above 1000 MHz)

| LIMITO OF GIVVAIVED LIMICOID | N OOT OF THE RESTRICTED BAIN | 30 (Above 1000 MHz) |
|------------------------------|------------------------------|---------------------------------|
| Frequency | EIRP Limit | Equivalent Field Strength at 3m |
| (MHz) | (dBm/MHz) | (dBµV/m) |
| 5150-5250 | -27 | 68.2 |
| 5250-5350 | -27 | 68.2 |
| 5470-5725 | -27 | 68.2 |
| | -27 | 68.2 |
| 5725-5850 | 10 | 105.2 |
| NOTE (2) | 15.6 | 110.8 |
| | 27 | 122.2 |

NOTE:

(1) The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E=rac{1000000\sqrt{30P}}{2}$$
µV/m, where P is the eirp (Watts)

(2) According to 15.407(b)(4)(i), all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.



4.2 TEST PROCEDURE

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1 GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)
- i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

The following table is the setting of the receiver:

| Spectrum Parameters | Setting |
|------------------------|---------------------------------|
| Start ~ Stop Frequency | 9 kHz~150 kHz for RBW 200 Hz |
| Start ~ Stop Frequency | 0.15 MHz~30 MHz for RBW 9 kHz |
| Start ~ Stop Frequency | 30 MHz~1000 MHz for RBW 100 kHz |

| Spectrum Parameters | Setting |
|-------------------------------|---|
| Start Frequency | 1000 MHz |
| Stop Frequency | 10th carrier harmonic or 40 GHz, whichever is lower |
| RBW / VBW | 1 MHz / 3 MHz for PK value |
| (Emission in restricted band) | 1 MHz / 1/T Hz for AVG value |

| Receiver Parameters | Setting |
|------------------------|-------------------------------------|
| Start ~ Stop Frequency | 9 kHz~90 kHz for PK/AVG detector |
| Start ~ Stop Frequency | 90 kHz~110 kHz for QP detector |
| Start ~ Stop Frequency | 110 kHz~490 kHz for PK/AVG detector |
| Start ~ Stop Frequency | 490 kHz~30 MHz for QP detector |
| Start ~ Stop Frequency | 30 MHz~1000 MHz for QP detector |
| Start ~ Stop Frequency | 1 GHz~40 GHz for PK/AVG detector |

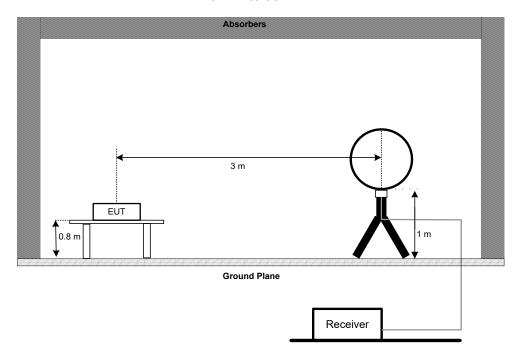


4.3 DEVIATION FROM TEST STANDARD

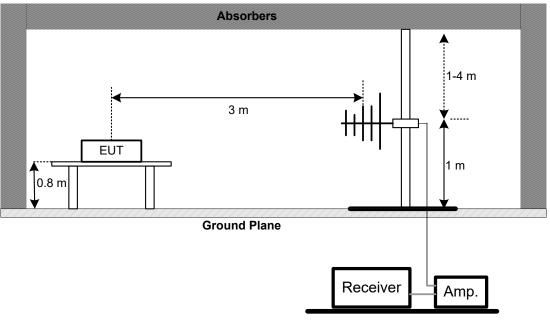
No deviation.

4.4 TEST SETUP

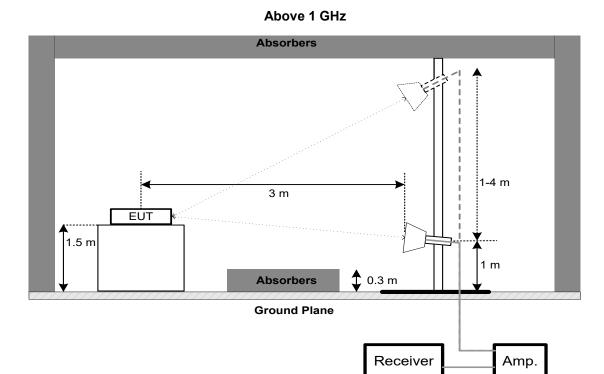
9 kHz to 30 MHz



30 MHz to 1 GHz







4.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 3.5 unless otherwise a special operating condition is specified in the follows during the testing.

4.6 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B.

Remark:

- (1) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
- (2) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

(1) No limit: This is fundamental signal, the judgment is not applicable. For fundamental signal judgment was referred to Peak output test.



5. BANDWIDTH

5.1 LIMIT

| Section | Test Item | Limit | Frequency Range (MHz) |
|---------------|-----------------|-----------------|--------------------------|
| | 26 dB Bandwidth | - | 5150-5250 |
| FCC 15.407(a) | 26 dB Bandwidth | - | 5250-5350 |
| FCC 15.407(e) | 26 dB Bandwidth | - | 5470-5725 |
| | 6 dB Bandwidth | Minimum 500 kHz | 5725-5850 |

5.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below

b. Spectrum Setting: For UNII-1, UNII-2A, UNII-2C:

| Spectrum Parameter | Setting |
|--------------------|--|
| Span Frequency | > 26 dB Bandwidth |
| RBW | Appromiximately 1% of the emission bandwidth |
| VBW | > RBW |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

For UNII-3:

| Spectrum Parameter | Setting |
|--------------------|------------------|
| Span Frequency | > 6 dB Bandwidth |
| RBW | 100 kHz |
| VBW | 300 kHz |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

For 99% Occupied Bandwidth:

| Spectrum Parameter | Setting |
|--------------------|------------------------------|
| Span Frequency | 1.5 times to 5 times the OBW |
| RBW | 1% to 5% of the OBW |
| VBW | ≥3*RBW |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

c. Measured the spectrum width with power higher than 26 dB / 6 dB below carrier.

5.3 DEVIATION FROM STANDARD

No deviation.



5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.



6. MAXIMUM OUTPUT POWER

6.1 LIMIT

| Section | Test Item | Limit | Frequency Range (MHz) |
|----------------------------------|----------------------|---|--------------------------|
| | | AP device: 1 Watt (30 dBm) Client device: 250 mW (23.98 dBm) | 5150-5250 |
| FCC 15.407(a) Maximum Output Pov | Maximum Output Power | 250 mW (23.98 dBm) | 5250-5350 |
| | | 250 mW (23.98 dBm) | 5470-5725 |
| | | 1 Watt (30dBm) | 5725-5850 |

Note:

- a. For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- b. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26dB Bandwidth in megahertz.

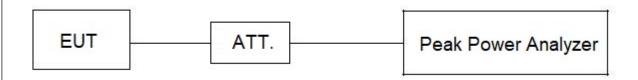
6.2 TEST PROCEDURE

- a. The EUT was directly connected to the peak power analyzer and antenna output port as show in the block diagram below.
- b. Test test was performed in accordance with method of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX F.



7. POWER SPECTRAL DENSITY

7.1 LIMIT

| Section | Test Item | Limit | Frequency Range (MHz) |
|---------------|--|----------------|--------------------------|
| | AP device: 17 dBm/MHz Client device: 11 dBm/MHz | 5150-5250 | |
| FCC 15.407(a) | FCC 15.407(a) Power Spectral Density | 11 dBm/MHz | 5250-5350 |
| | | 11 dBm/MHz | 5470-5725 |
| | | 30 dBm/500 kHz | 5725-5850 |

7.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting:

For UNII-1, UNII-2A, UNII-2C:

| Spectrum Parameter | Setting |
|--------------------|--|
| Span Frequency | Encompass the entire emissions bandwidth (EBW) of the signal |
| RBW | 1 MHz. |
| VBW | 3 MHz. |
| Detector | RMS |
| Trace average | 100 trace |
| Sweep Time | Auto |

For UNII-3:

| Spectrum Parameter | Setting |
|--------------------|--|
| Span Fraguenay | Encompass the entire emissions bandwidth (EBW) |
| Span Frequency | of the signal |
| RBW | 100 kHz. |
| VBW | 300 kHz. |
| Detector | RMS |
| Trace average | 100 trace |
| Sweep Time | Auto |

Note:

- 1. For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v02r01, section II.F.5., it is acceptable to set RBW at 100kHz and VBW at 300kHz if the spectrum analyzer does not have 500 kHz RBW. Then, add 10 log (500 kHz/100 kHz) to the measured result, i.e. 7 dB.
- 2. During the test of U-NII 3 PSD, the measurement result with RBW=100kHz has been added 7 dB by compensating offset. For example, the cable loss is 13 dB, and the final offset is 13 + 7 = 20 dB when RBW=100kHz is used.

7.3 DEVIATION FROM STANDARD

No deviation.



7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX G.



8. FREQUENCY STABILITY

8.1 LIMIT

| Section | Test Item | Limit | Frequency Range (MHz) |
|---------------|---------------------|---|--|
| FCC 15.407(g) | Frequency Stability | An emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual. | 5150-5250 5250-5350 5470-5725 5725-5850 |

8.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting:

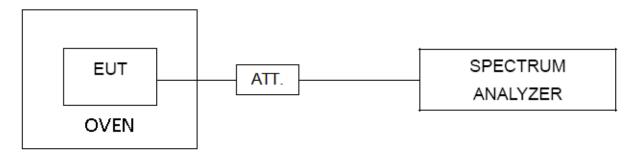
| Spectrum Parameter | Setting |
|--------------------|--|
| Span Frequency | Entire absence of modulation emissions bandwidth |
| RBW | 10 kHz |
| VBW | 10 kHz |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

- c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
- d. User manual temperature is -25°C~75°C.

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX H.



9. MEASUREMENT INSTRUMENTS LIST

| | AC Power Line Conducted Emissions | | | | | | |
|------|-----------------------------------|--------------|--------------------------|------------|------------------|--|--|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until | | |
| 1 | EMI Test Receiver | R&S | ESCI | 100382 | Jan. 22, 2023 | | |
| 2 | LISN | EMCO | 3816/2 | 52765 | Jan. 23, 2023 | | |
| 3 | TWO-LINE V-NETWORK | R&S | ENV216 | 101447 | Jan. 23, 2023 | | |
| 4 | 50Ω Terminator | SHX | TF5-3 | 15041305 | N/A | | |
| 5 | Measurement Software | Farad | EZ-EMC Ver.NB-03A1-01 | N/A | N/A | | |
| 6 | Cable | N/A | RG223 | 12m | Mar. 08, 2023 | | |
| 7 | 643 Shield Room | ETS | 6*4*3 | N/A | N/A | | |

| | Radiated Emissions - 9 kHz to 30 MHz | | | | | | |
|------|--------------------------------------|--------------|--------------------------|------------|------------------|--|--|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until | | |
| 1 | MXE EMI Receiver | Keysight | N9038A | MY56400091 | Jan. 22, 2023 | | |
| 2* | Active Loop Antenna | R&S | HFH2-Z2 | 830749/020 | Aug. 23, 2024 | | |
| 3 | Cable | N/A | RG 213/U(9kHz~1GHz) | N/A | May 27, 2022 | | |
| 4 | Measurement Software | Farad | EZ-EMC Ver.NB-03A1-01 | N/A | N/A | | |
| 5 | 966 Chamber Room | ETS | 9*6*6 | N/A | Jul. 17, 2022 | | |

| | Radiated Emissions - 30 MHz to 1 GHz | | | | | | |
|------|--------------------------------------|--------------|--------------------------|-------------|------------------|--|--|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until | | |
| 1 | Antenna | Schwarzbeck | VULB9160 | 9160-3232 | Mar. 03, 2023 | | |
| 2 | Amplifier | HP | 8447D | 2944A08742 | Jan. 22, 2023 | | |
| 3 | Cable | emci | LMR-400 | N/A | Nov. 30, 2022 | | |
| 4 | Controller | CT | SC100 | N/A | N/A | | |
| 5 | Controller | MF | MF-7802 | MF780208416 | N/A | | |
| 6 | Receiver | Agilent | N9038A | MY52130039 | Jan. 22, 2023 | | |
| 7 | Measurement Software | Farad | EZ-EMC Ver.NB-03A1-01 | N/A | N/A | | |
| 8 | 966 Chamber Room | RM | 9*6*6 | N/A | Jul. 24, 2022 | | |



| | Radiated Emissions - Above 1 GHz | | | | | | |
|------|----------------------------------|------------------|--------------------------|-------------|------------------|--|--|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until | | |
| 1 | Double Ridged Horn Antenna | ARA | DRG-118A | 16554 | Apr. 18, 2023 | | |
| 2 | Broad-Band Horn Antenna | Schwarzbeck | BBHA 9170 | 9170319 | Jun. 30, 2022 | | |
| 3 | Amplifier | Agilent | 8449B | 3008A02584 | Jul. 10, 2022 | | |
| 4 | Controller | CT | SC100 | N/A | N/A | | |
| 5 | Controller | MF | MF-7802 | MF780208416 | N/A | | |
| 6 | Receiver | Agilent | N9038A | MY52130039 | Jan. 22, 2023 | | |
| 7 | EXA Spectrum Analyzer | Keysight | N9010A | MY56480488 | Jan. 22, 2023 | | |
| 8 | Low Noise Amplifier | CONNPHY | CLN-18G40G-4330 -K | 619413 | Jul. 16, 2022 | | |
| 9 | Cable | Talent microwave | A81-SMAMSMAM- 12.5M | N/A | Oct. 15, 2022 | | |
| 10 | Cable | Talent microwave | A40-2.92M2.92M-2. 5M | N/A | Nov. 30, 2022 | | |
| 11* | Band Reject Filter | Micro-Tronics | BRC50704-01 | 8 | Feb. 27, 2024 | | |
| 12* | Band Reject Filter | Micro-Tronics | BRC50703-01 | 7 | Feb. 27, 2024 | | |
| 13* | Band Reject Filter | Micro-Tronics | BRC50705-01 | 10 | Feb. 27, 2024 | | |
| 14 | Measurement Software | Farad | EZ-EMC Ver.NB-03A1-01 | N/A | N/A | | |
| 15 | 966 Chamber Room | RM | 9*6*6 | N/A | Jul. 24, 2022 | | |

| Bandwidth & Power Spectral Density | | | | | | | |
|------------------------------------|--|--------------|---------|-----------|---------------|--|--|
| Item | Item Kind of Equipment Manufacturer Type No. Serial No. Calibrated u | | | | | | |
| 1 | Spectrum Analyzer | R&S | FSP40 | 100185 | Jul. 10, 2022 | | |
| 2 | Attenuator | WOKEN | 6SM3502 | VAS1214NL | N/A | | |
| 3 | RF Cable | Tongkaichuan | N/A | N/A | N/A | | |
| 4 | DC Block | Mini | N/A | N/A | N/A | | |

| | Maximum Output Power | | | | | | |
|------|------------------------|--------------|----------|------------|------------------|--|--|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until | | |
| 1 | Peak Power Analyzer | Keysight | 8990B | MY51000506 | Jul. 10, 2022 | | |
| 2 | Wideband power sensor | Keysight | N1923A | MY58310004 | Jul. 10, 2022 | | |
| 3 | Attenuator | WOKEN | 6SM3502 | VAS1214NL | N/A | | |
| 4 | RF Cable | Tongkaichuan | N/A | N/A | N/A | | |

| | Frequency Stability | | | | | | |
|------|--------------------------|--------------|--------------|------------|------------------|--|--|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until | | |
| 1 | Spectrum Analyzer | R&S | FSP40 | 100185 | Jul. 10, 2022 | | |
| 2 | Precision Oven Tester | CEPREI | CEEC-M64T-40 | 15-008 | Jan. 22, 2023 | | |
| 3 | Attenuator | WOKEN | 6SM3502 | VAS1214NL | N/A | | |
| 4 | RF Cable | Tongkaichuan | N/A | N/A | N/A | | |
| 5 | DC Block | Mini | N/A | N/A | N/A | | |

Remark: "N/A" denotes no model name, serial no. or calibration specified.

"*" calibration period of equipment list is three year.

Except * item, all calibration period of equipment list is one year.



10. EUT TEST PHOTOS



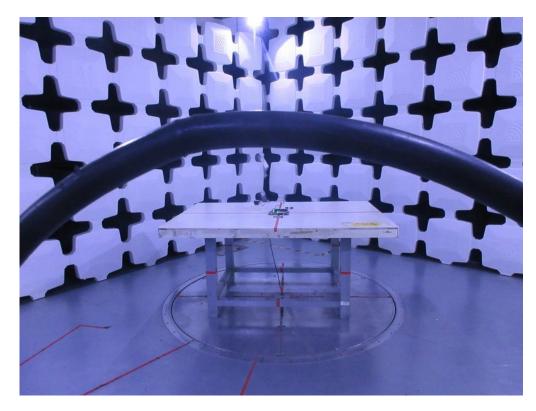


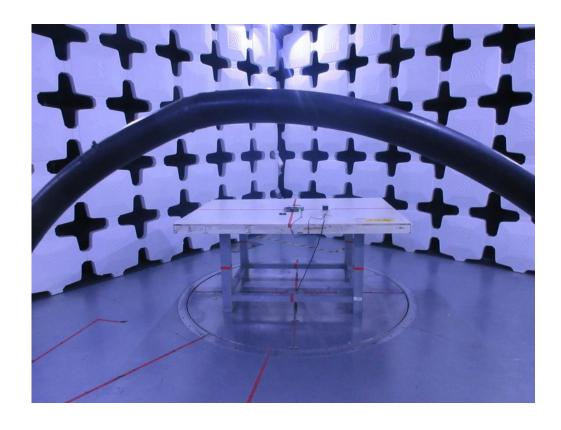




Radiated Emissions Test Photos

9 kHz to 30 MHz



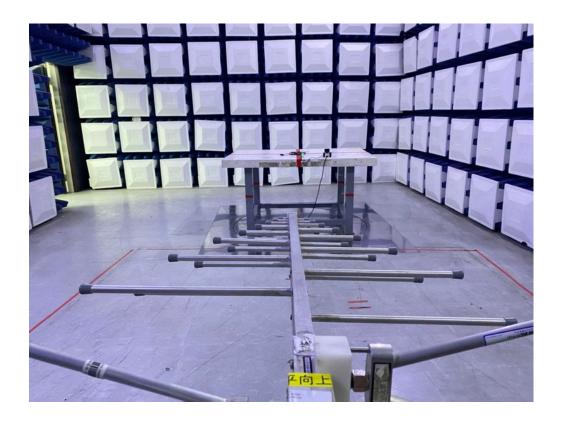




Radiated Emissions Test Photos

30 MHz to 1 GHz



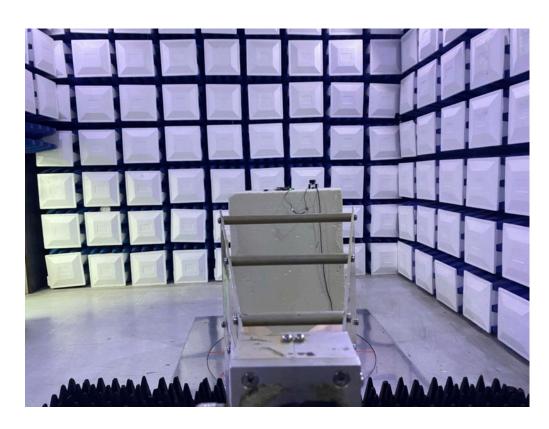




Radiated Emissions Test Photos

Above 1 GHz

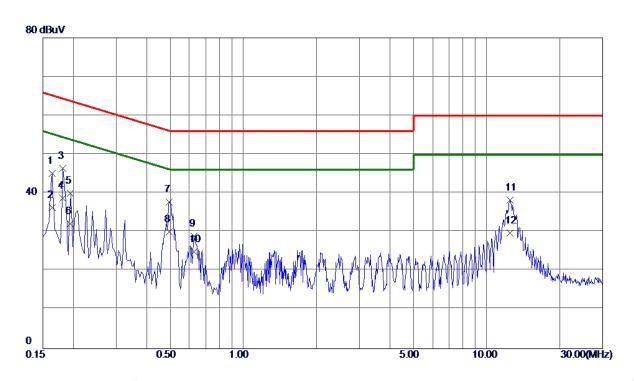










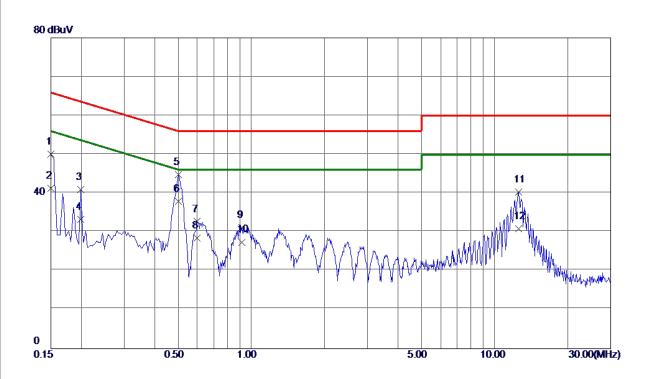


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|----------|------------------|-------------------|-----------------|---------------|---------|----------|---------|
| | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | 0. 1635 | 35. 49 | 9. 67 | 45. 16 | 65. 28 | -20. 12 | QP | |
| 2 | 0. 1635 | 26. 70 | 9. 67 | 36. 37 | 55. 28 | -18. 91 | AVG | |
| 3 | 0. 1815 | 36. 77 | 9. 68 | 46. 45 | 64. 42 | -17. 97 | QP | |
| 4 * | 0. 1815 | 29. 09 | 9. 68 | 38. 77 | 54. 42 | -15. 65 | AVG | |
| 5 | 0. 1949 | 30. 31 | 9. 69 | 40.00 | 63.83 | -23. 83 | QP | |
| 6 | 0. 1949 | 22. 40 | 9. 69 | 32. 09 | 53.83 | -21. 74 | AVG | |
| 7 | 0. 4965 | 28. 05 | 9. 76 | 37. 81 | 56. 06 | -18. 25 | QP | |
| 8 | 0. 4965 | 20. 30 | 9. 76 | 30. 06 | 46.06 | -16. 00 | AVG | |
| 9 | 0.6270 | 19. 23 | 9. 79 | 29.02 | 56.00 | -26. 98 | QP | |
| 10 | 0.6270 | 15. 10 | 9. 79 | 24. 89 | 46.00 | -21. 11 | AVG | |
| 11 | 12. 4575 | 27. 71 | 10. 54 | 38. 25 | 60.00 | -21. 75 | QP | |
| 12 | 12. 4575 | 19. 19 | 10. 54 | 29. 73 | 50.00 | -20. 27 | AVG | |

- Measurement Value = Reading Level + Correct Factor.
 Margin Level = Measurement Value Limit Value.
 The test result has included the cable loss.







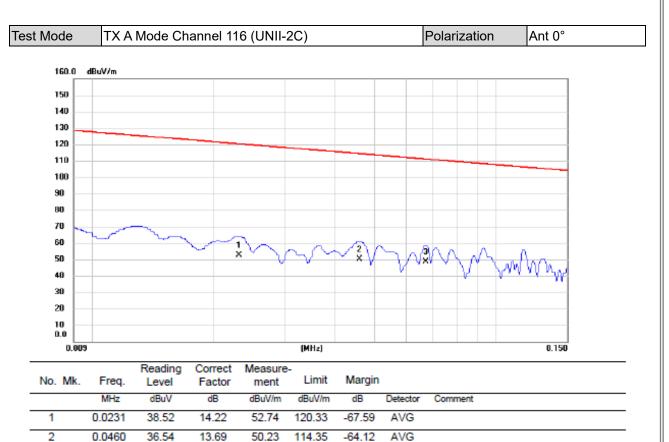
| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|----------|------------------|-------------------|-----------------|--------|----------------|----------|---------|
| | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | 0. 1500 | 40. 33 | 9. 70 | 50. 03 | 66. 00 | -15. 97 | QP | |
| 2 | 0. 1500 | 31.61 | 9. 70 | 41. 31 | 56.00 | -14. 69 | AVG | |
| 3 | 0. 1995 | 31. 16 | 9. 73 | 40.89 | 63. 63 | -22. 74 | QP | |
| 4 | 0. 1995 | 23. 50 | 9. 73 | 33. 23 | 53. 63 | -20. 40 | AVG | |
| 5 | 0. 5010 | 34. 96 | 9. 79 | 44. 75 | 56. 00 | -11. 25 | QP | |
| 6 * | 0. 5010 | 28. 10 | 9. 79 | 37. 89 | 46.00 | -8. 11 | AVG | |
| 7 | 0.6000 | 22. 90 | 9.82 | 32. 72 | 56.00 | -23. 28 | QP | |
| 8 | 0.6000 | 18. 70 | 9.82 | 28. 52 | 46.00 | -17. 48 | AVG | |
| 9 | 0.9150 | 21. 42 | 9.84 | 31. 26 | 56.00 | -24. 74 | QP | |
| 10 | 0. 9150 | 17. 60 | 9. 84 | 27. 44 | 46.00 | −18. 56 | AVG | |
| 11 | 12. 5475 | 29. 79 | 10. 56 | 40. 35 | 60.00 | -19. 65 | QP | |
| 12 | 12. 5475 | 20. 30 | 10. 56 | 30. 86 | 50.00 | -19. 14 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value. (3) The test result has included the cable loss.



APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ





AVG

-62.30

REMARKS:

3

0.0670

(1) Measurement Value = Reading Level + Correct Factor.

13.61

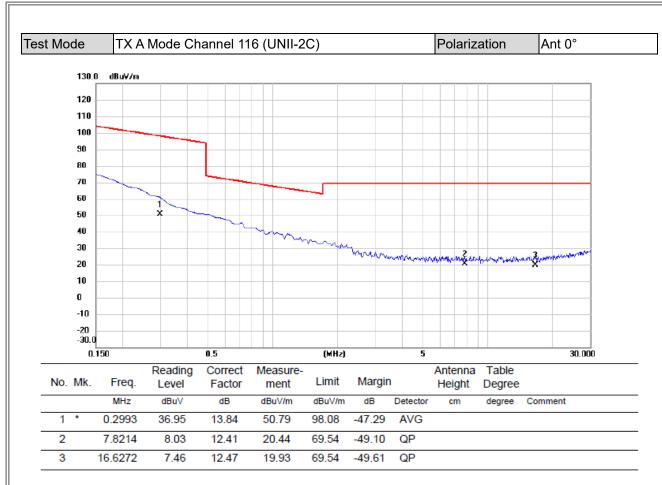
48.78

111.08

(2) Margin Level = Measurement Value - Limit Value.

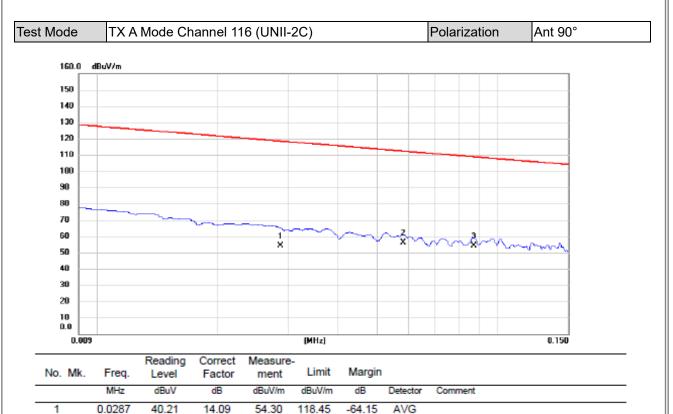
35.17





- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





2

3 *

0.0581

0.0871

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.

42.51

40.73

13.60

13.64

56.11

54.37

112.32

108.80

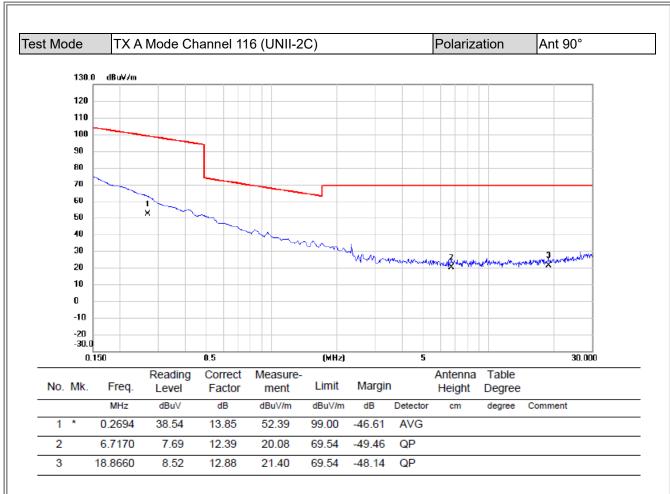
-56.21

-54.43

AVG

AVG



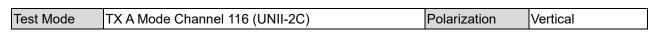


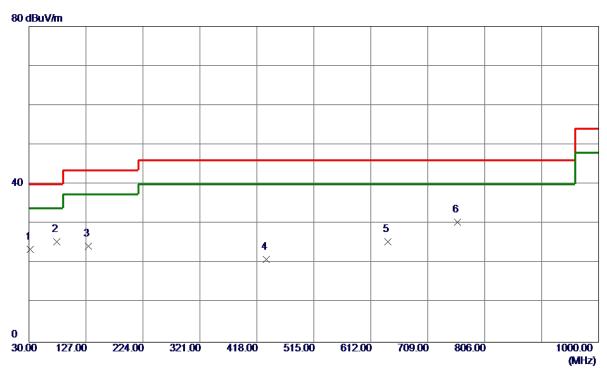
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



| APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ |
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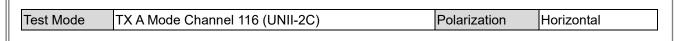


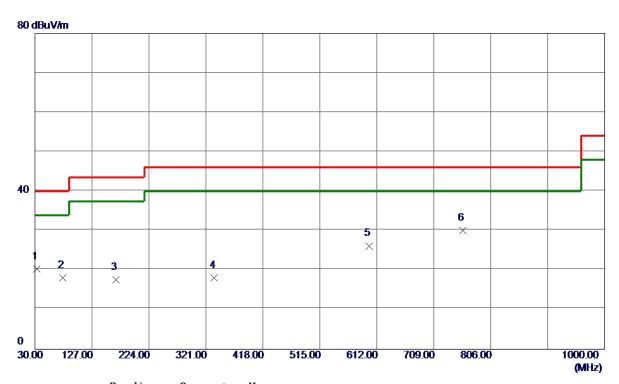


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-----------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 31. 9400 | 39. 20 | −15. 74 | 23. 46 | 40.00 | -16. 54 | Peak | |
| 2 * | 77. 5300 | 43. 33 | -17. 92 | 25. 41 | 40.00 | -14. 59 | Peak | |
| 3 | 130.8800 | 38. 06 | -13. 67 | 24. 39 | 43. 50 | -19. 11 | Peak | |
| 4 | 434. 4900 | 28. 96 | -7. 96 | 21.00 | 46.00 | -25.00 | Peak | |
| 5 | 641. 1000 | 29. 63 | -4. 15 | 25. 48 | 46.00 | -20. 52 | Peak | |
| 6 | 759. 4400 | 32. 10 | -1. 73 | 30. 37 | 46.00 | -15. 63 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.







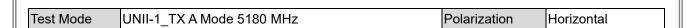
| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-----------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 32.9100 | 35. 92 | -15. 63 | 20. 29 | 40.00 | -19. 71 | Peak | |
| 2 | 77. 5300 | 36. 00 | -17. 92 | 18. 08 | 40.00 | -21. 92 | Peak | |
| 3 | 167. 7400 | 30. 58 | -12. 94 | 17. 64 | 43. 50 | -25. 86 | Peak | |
| 4 | 335. 5500 | 28. 66 | -10. 52 | 18. 14 | 46.00 | -27. 86 | Peak | |
| 5 | 599. 3900 | 30. 96 | -4. 80 | 26. 16 | 46. 00 | -19. 84 | Peak | |
| 6 * | 758. 4699 | 31. 76 | -1. 73 | 30. 03 | 46. 00 | -15. 97 | Peak | |

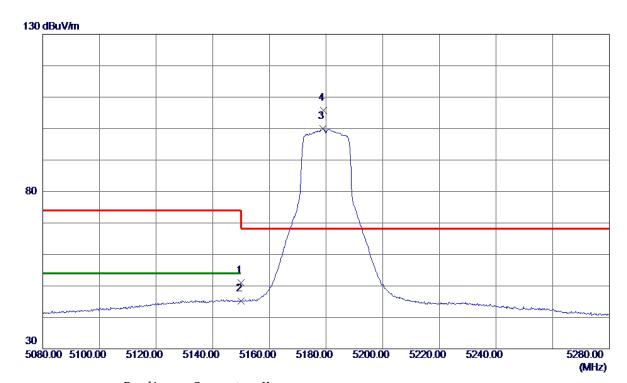
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ







| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5150. 0000 | 38. 19 | 12. 79 | 50. 98 | 74.00 | -23. 02 | Peak | |
| 2 | 5150.0000 | 32. 43 | 12. 79 | 45 . 22 | 54.00 | -8. 78 | AVG | |
| 3 | 5178. 8000 | 87. 11 | 12. 80 | 99. 91 | 999. 00 | -899. 09 | AVG | No Limit |
| 4 * | 5179. 1000 | 93. 00 | 12. 80 | 105. 80 | 68. 20 | 37. 60 | Peak | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.





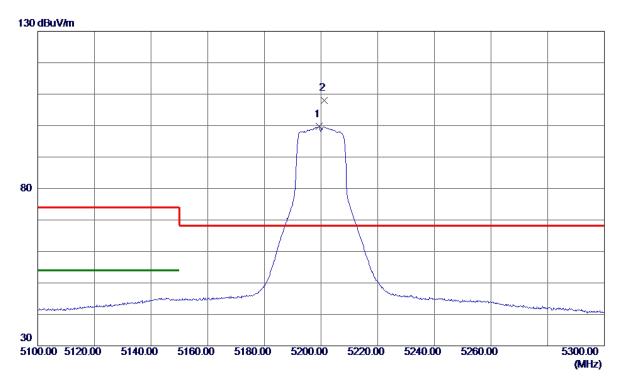


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 10360. 2300 | 32. 61 | 7. 49 | 40. 10 | 54.00 | -13. 90 | AVG | |
| 2 | 10360. 3300 | 42. 56 | 7. 49 | 50. 05 | 68. 20 | -18. 15 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





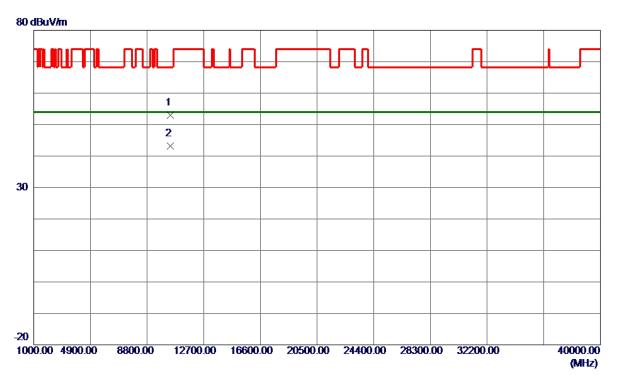


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5199. 3000 | 86. 89 | 12.81 | 99. 70 | 999.00 | -899. 30 | AVG | No Limit |
| 2 * | 5201. 1000 | 95. 21 | 12. 81 | 108. 02 | 68. 20 | 39. 82 | Peak | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.







| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10393. 9700 | 45. 43 | 7. 49 | 52. 92 | 68. 20 | -15. 28 | Peak | |
| 2 * | 10399. 9700 | 35. 70 | 7. 49 | 43. 19 | 54.00 | -10.81 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



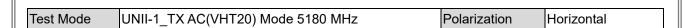


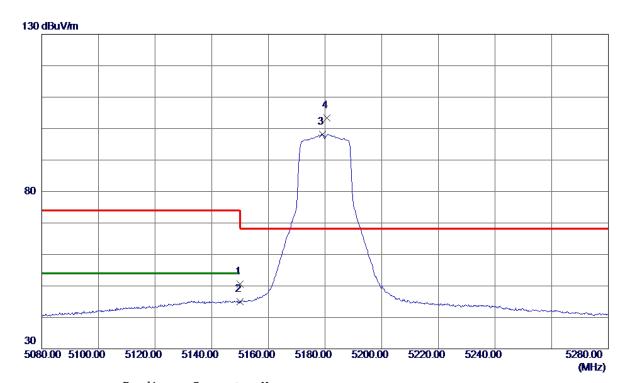


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 10479. 9300 | 35. 79 | 7. 47 | 43. 26 | 54.00 | -10. 74 | AVG | |
| 2 | 10479. 9600 | 45. 83 | 7. 47 | 53. 30 | 68. 20 | -14. 90 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



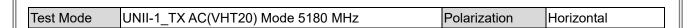




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5150. 0000 | 37. 83 | 12. 79 | 50. 62 | 74.00 | -23. 38 | Peak | |
| 2 | 5150.0000 | 32. 16 | 12. 79 | 44. 95 | 54.00 | -9. 05 | AVG | |
| 3 | 5179. 2000 | 85. 44 | 12.80 | 98. 24 | 999. 00 | -900. 76 | AVG | No Limit |
| 4 * | 5180. 7000 | 90. 61 | 12. 80 | 103. 41 | 68. 20 | 35. 21 | Peak | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



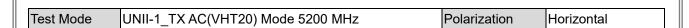


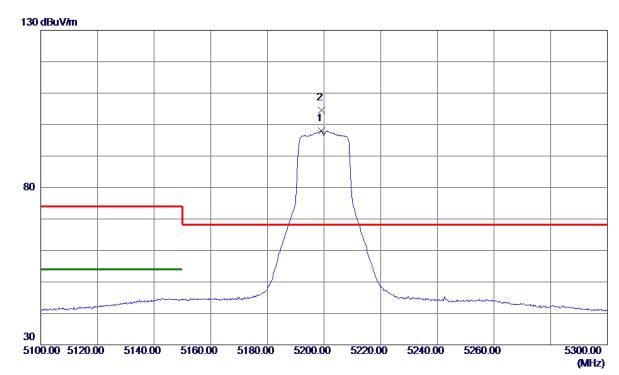


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 6906. 4200 | 38. 58 | 7. 05 | 45. 63 | 68. 20 | -22. 57 | Peak | |
| 2 * | 6906. 6900 | 31. 91 | 7. 05 | 38. 96 | 54.00 | -15. 04 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



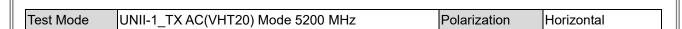




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5199. 1000 | 85. 29 | 12.81 | 98. 10 | 999. 00 | -900. 90 | AVG | No Limit |
| 2 * | 5199. 2000 | 91. 72 | 12. 81 | 104. 53 | 68. 20 | 36. 33 | Peak | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



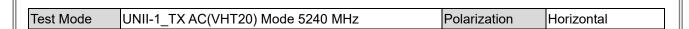




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10399. 1700 | 42. 95 | 7. 49 | 50. 44 | 68. 20 | -17. 76 | Peak | |
| 2 * | 10399. 9000 | 33. 43 | 7. 49 | 40. 92 | 54.00 | -13. 08 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



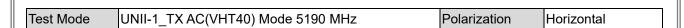


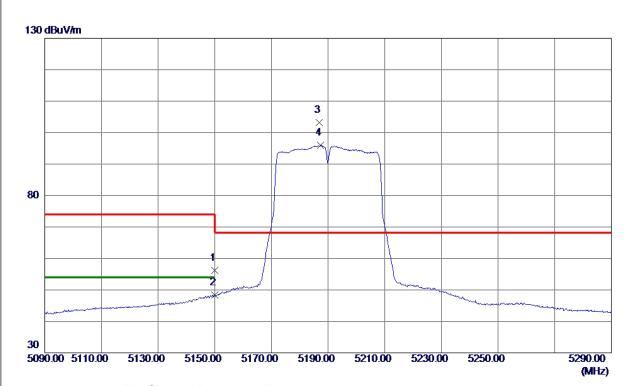


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|----------------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 10479. 9400 | 33. 97 | 7. 47 | 41. 44 | 54.00 | -12. 56 | AVG | |
| 2 | 10485. 2100 | 43. 33 | 7. 47 | 50. 80 | 68. 20 | −17. 40 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



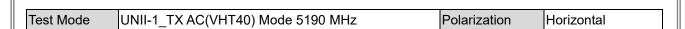


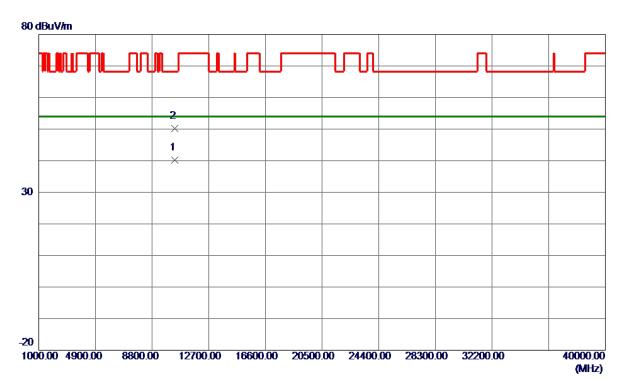


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|---------------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5150. 0000 | 43. 40 | 12. 79 | 56. 19 | 74.00 | -17. 81 | Peak | |
| 2 | 5150.0000 | 35. 61 | 12. 79 | 48. 40 | 54.00 | -5. 60 | AVG | |
| 3 * | 5186. 8000 | 90. 42 | 12.80 | 103. 22 | 68. 20 | 35. 02 | Peak | No Limit |
| 4 | 5187. 4000 | 83. 28 | 12. 80 | 96. 08 | 999. 00 | -902. 92 | AVG | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



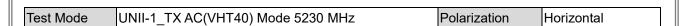


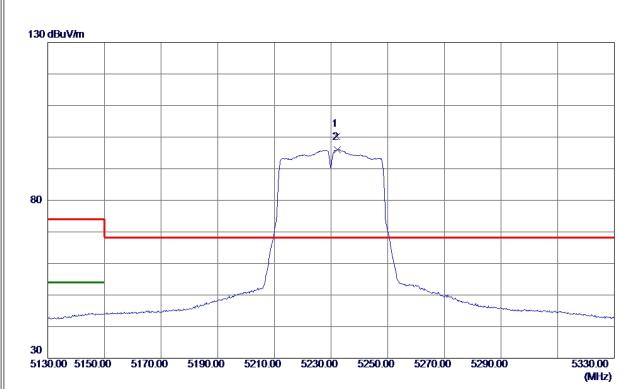


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 10379. 9700 | 32. 74 | 7. 49 | 40. 23 | 54.00 | -13. 77 | AVG | |
| 2 | 10380. 3900 | 42. 80 | 7. 49 | 50. 29 | 68. 20 | -17. 91 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



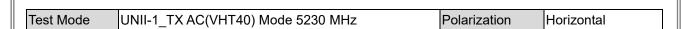




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5232. 1000 | 87. 35 | 12.82 | 100. 17 | 68. 20 | 31. 97 | Peak | No Limit |
| 2 | 5232. 2000 | 83. 23 | 12.82 | 96. 05 | 999. 00 | -902. 95 | AVG | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



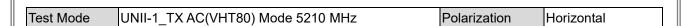


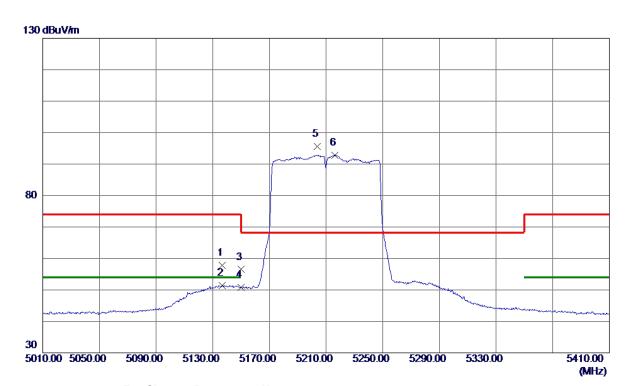


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 10459. 8200 | 32. 50 | 7. 48 | 39. 98 | 54.00 | -14.02 | AVG | |
| 2 | 10466. 7600 | 41.71 | 7. 48 | 49. 19 | 68. 20 | -19. 01 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



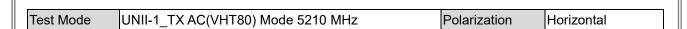


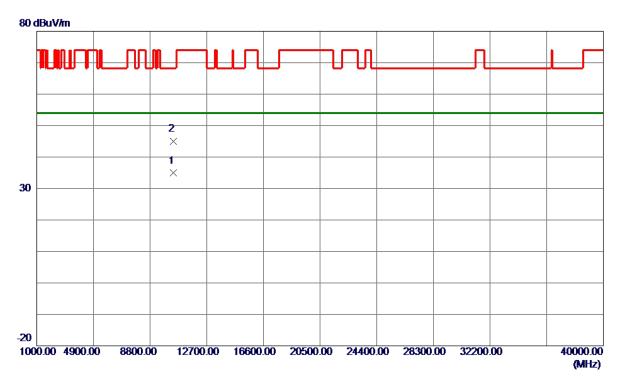


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------------|----------------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5136. 8000 | 44. 94 | 12. 78 | 57. 72 | 74.00 | -16. 28 | Peak | |
| 2 | 5136. 8000 | 38. 69 | 12. 78 | 51. 47 | 54.00 | -2. 53 | AVG | |
| 3 | 5150. 0000 | 43. 71 | 12. 79 | 56. 50 | 74.00 | −17. 50 | Peak | |
| 4 | 5150. 0000 | 38. 02 | 12. 79 | 50. 81 | 54.00 | -3. 19 | AVG | |
| 5 * | 5203. 6000 | 82. 84 | 12. 81 | 95. 65 | 68. 20 | 27. 45 | Peak | No Limit |
| 6 | 5216. 4000 | 80. 01 | 12.81 | 92. 82 | 999.00 | -906. 18 | AVG | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.





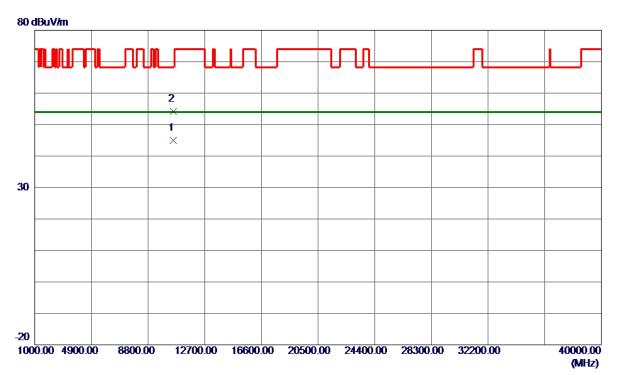


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 10419. 8700 | 27. 42 | 7. 48 | 34. 90 | 54.00 | -19. 10 | AVG | |
| 2 | 10424. 6600 | 37. 45 | 7. 48 | 44. 93 | 68. 20 | -23. 27 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





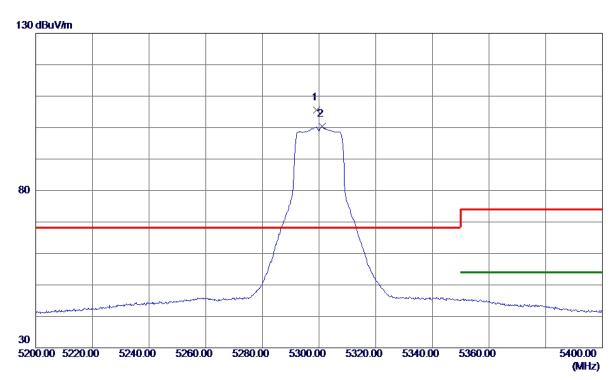


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|-----------------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 10519. 7300 | 37. 58 | 7. 50 | 45. 08 | 54.00 | -8 . 9 2 | AVG | |
| 2 | 10527. 2000 | 46. 71 | 7. 51 | 54 . 22 | 68. 20 | -13. 98 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.







| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5299. 1000 | 92. 80 | 12.85 | 105. 65 | 68. 20 | 37. 45 | Peak | No Limit |
| 2 | 5301. 2000 | 87. 51 | 12.85 | 100. 36 | 999.00 | -898. 64 | AVG | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.





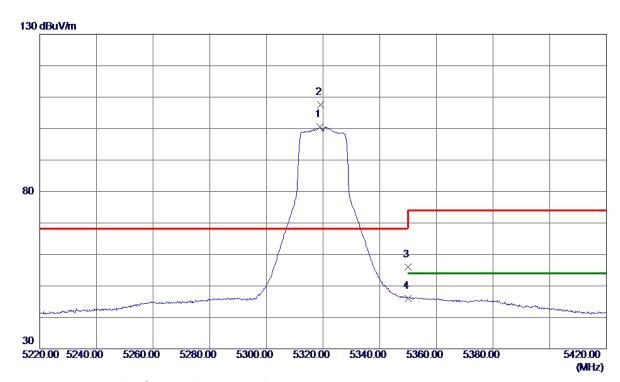


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10599. 2200 | 45. 49 | 7. 60 | 53. 09 | 68. 20 | -15. 11 | Peak | |
| 2 * | 10599. 7600 | 36. 26 | 7. 61 | 43. 87 | 54.00 | -10. 13 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





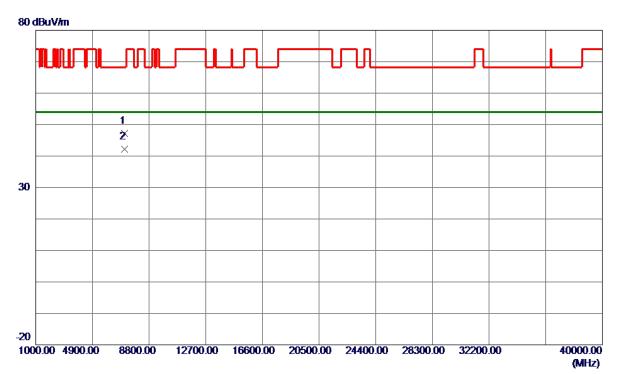


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|------------------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5318. 9000 | 87. 70 | 12.85 | 100. 55 | 999.00 | − 898. 45 | AVG | No Limit |
| 2 * | 5319. 1000 | 94. 66 | 12.85 | 107. 51 | 68. 20 | 39. 31 | Peak | No Limit |
| 3 | 5350. 0000 | 43. 16 | 12.87 | 56. 03 | 74.00 | -17. 97 | Peak | |
| 4 | 5350. 0000 | 33. 22 | 12. 87 | 46. 09 | 54. 00 | -7. 91 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



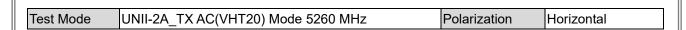




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|--------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 7093. 0300 | 39. 86 | 7. 26 | 47. 12 | 68. 20 | -21.08 | Peak | |
| 2 * | 7093. 2800 | 34. 97 | 7. 26 | 42. 23 | 54.00 | -11.77 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



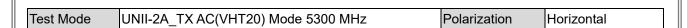


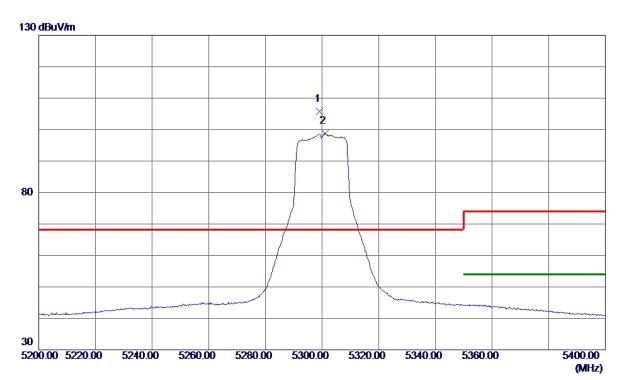


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 10519. 9700 | 34. 19 | 7. 50 | 41. 69 | 54.00 | -12. 31 | AVG | |
| 2 | 10523. 8600 | 44. 24 | 7. 50 | 51. 74 | 68. 20 | -16. 46 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



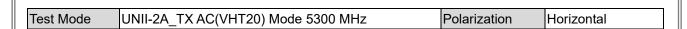




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5299. 2000 | 92. 87 | 12. 85 | 105. 72 | 68. 20 | 37. 52 | Peak | No Limit |
| 2 | 5301. 0000 | 85. 93 | 12. 85 | 98. 78 | 999. 00 | -900. 22 | AVG | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



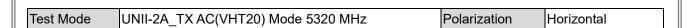


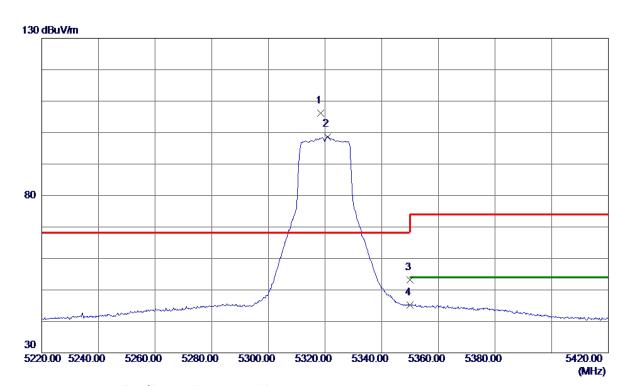


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 10599. 9100 | 33. 51 | 7. 61 | 41. 12 | 54.00 | -12.88 | AVG | |
| 2 | 10600. 2000 | 42. 66 | 7. 61 | 50. 27 | 74.00 | -23. 73 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



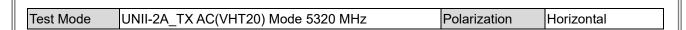




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5318. 4000 | 93. 32 | 12.85 | 106. 17 | 68. 20 | 37. 97 | Peak | No Limit |
| 2 | 5320. 9000 | 85. 84 | 12.86 | 98. 70 | 999.00 | -900. 30 | AVG | No Limit |
| 3 | 5350. 0000 | 40. 32 | 12.87 | 53. 19 | 74.00 | -20.81 | Peak | |
| 4 | 5350. 0000 | 32. 28 | 12. 87 | 45. 15 | 54. 00 | -8. 85 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



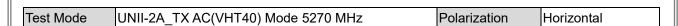


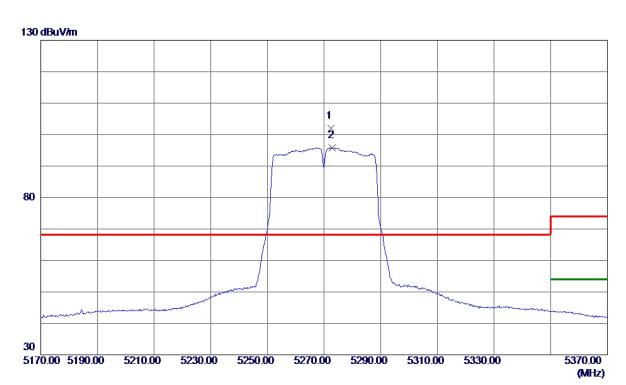


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10638. 1100 | 43. 92 | 7. 66 | 51. 58 | 74.00 | -22. 42 | Peak | |
| 2 * | 10639. 9900 | 33. 95 | 7. 66 | 41.61 | 54. 00 | -12. 39 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



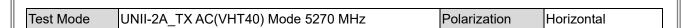




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5272. 5000 | 89. 13 | 12. 84 | 101. 97 | 68. 20 | 33. 77 | Peak | No Limit |
| 2 | 5273. 0000 | 83. 01 | 12. 84 | 95. 85 | 999. 00 | -903. 15 | AVG | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



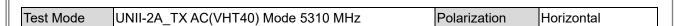


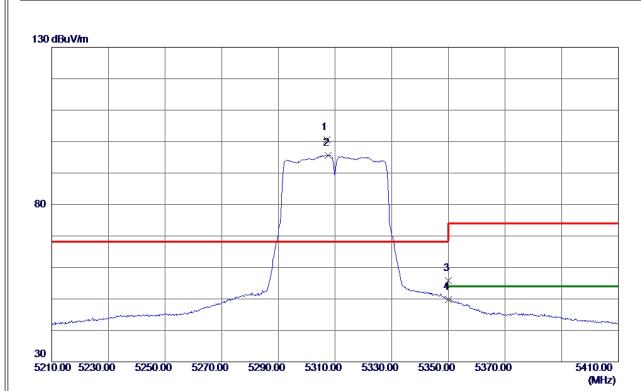


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10534. 3600 | 42. 25 | 7. 52 | 49. 77 | 68. 20 | -18. 43 | Peak | |
| 2 * | 10539. 8700 | 33. 01 | 7. 52 | 40. 53 | 54.00 | -13. 47 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



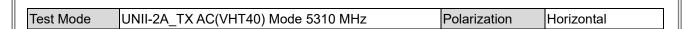




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5307. 0000 | 87. 70 | 12. 85 | 100. 55 | 68. 20 | 32. 35 | Peak | No Limit |
| 2 | 5307. 5000 | 82. 83 | 12. 85 | 95. 68 | 999. 00 | -903. 32 | AVG | No Limit |
| 3 | 5350.0000 | 42. 99 | 12. 87 | 55. 86 | 74.00 | -18. 14 | Peak | |
| 4 | 5350. 0000 | 36. 86 | 12. 87 | 49. 73 | 54.00 | -4. 27 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



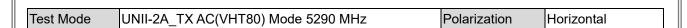


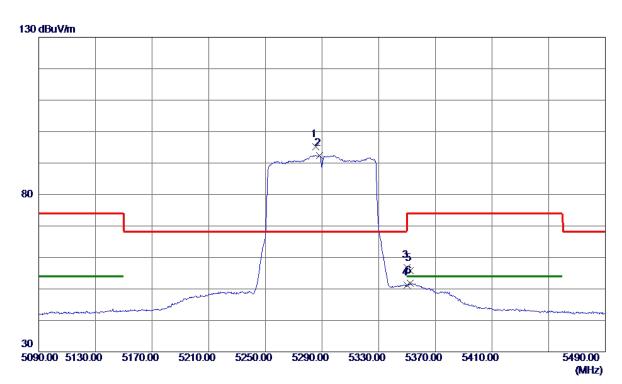


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 10619. 9500 | 33. 10 | 7. 63 | 40. 73 | 54.00 | -13. 27 | AVG | |
| 2 | 10627. 4000 | 41. 17 | 7. 64 | 48. 81 | 74.00 | -25. 19 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



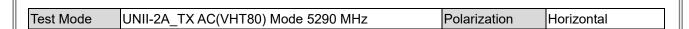




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5285. 6000 | 82. 32 | 12.84 | 95. 16 | 68. 20 | 26. 96 | Peak | No Limit |
| 2 | 5288. 2000 | 79. 62 | 12.84 | 92. 46 | 999. 00 | -906. 54 | AVG | No Limit |
| 3 | 5350. 0000 | 44. 02 | 12.87 | 56. 89 | 74.00 | -17. 11 | Peak | |
| 4 | 5350. 0000 | 38. 41 | 12.87 | 51. 28 | 54.00 | -2.72 | AVG | |
| 5 | 5352. 2000 | 42. 86 | 12. 87 | 55. 73 | 74. 00 | -18. 27 | Peak | |
| 6 | 5352. 2000 | 38. 88 | 12.87 | 51. 75 | 54.00 | -2. 25 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.





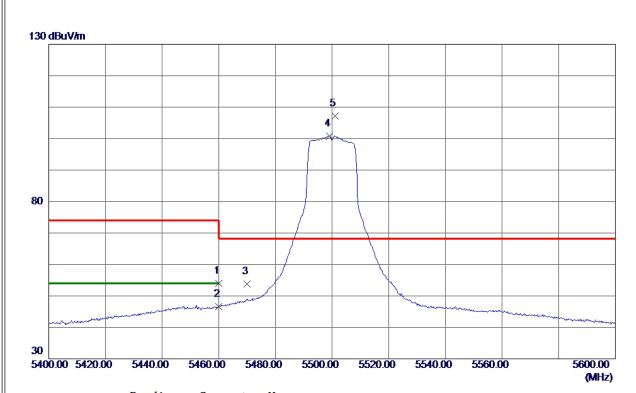


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 7053. 2100 | 37. 36 | 7. 21 | 44. 57 | 68. 20 | -23. 63 | Peak | |
| 2 * | 7053. 2800 | 30. 29 | 7. 21 | 37. 50 | 54.00 | -16. 50 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.







| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5460.0000 | 41.08 | 12. 91 | 53. 99 | 74.00 | -20. 01 | Peak | |
| 2 | 5460. 0000 | 33. 62 | 12. 91 | 46. 53 | 54.00 | -7. 47 | AVG | |
| 3 | 5470.0000 | 40. 90 | 12. 91 | 53. 81 | 68. 20 | -14. 39 | Peak | |
| 4 | 5499. 1000 | 87. 92 | 12. 92 | 100. 84 | 999. 00 | -898. 16 | AVG | No Limit |
| 5 * | 5501. 0000 | 94. 34 | 12. 93 | 107. 27 | 68. 20 | 39. 07 | Peak | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.







| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 7333. 2700 | 37. 66 | 7. 56 | 45. 22 | 54.00 | -8. 78 | AVG | |
| 2 | 7333, 3300 | 42. 01 | 7. 56 | 49. 57 | 74. 00 | -24. 43 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





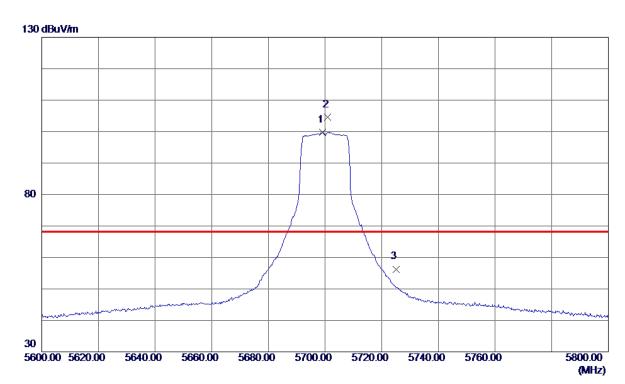


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 7439.8100 | 40.60 | 7. 69 | 48. 29 | 74.00 | -25. 71 | Peak | |
| 2 * | 7439. 9200 | 36. 96 | 7. 69 | 44. 65 | 54.00 | -9. 35 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



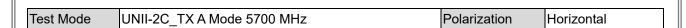




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5699. 1000 | 86. 31 | 13. 55 | 99. 86 | 999.00 | -899. 14 | AVG | No Limit |
| 2 * | 5700. 8000 | 91. 10 | 13. 55 | 104. 65 | 68. 20 | 36. 45 | Peak | No Limit |
| 3 | 5725. 0000 | 42.67 | 13. 63 | 56. 30 | 68. 20 | -11. 90 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



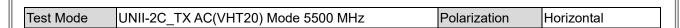


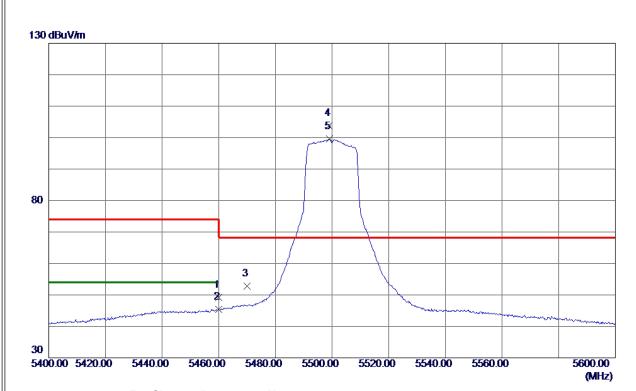


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 7599. 9200 | 42. 91 | 7. 72 | 50. 63 | 74.00 | -23. 37 | Peak | |
| 2 * | 7599. 9200 | 39. 58 | 7. 72 | 47. 30 | 54.00 | -6. 70 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



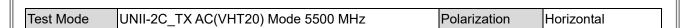




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5460. 0000 | 36. 33 | 12. 91 | 49. 24 | 74.00 | -24. 76 | Peak | |
| 2 | 5460.0000 | 32. 50 | 12. 91 | 45. 41 | 54.00 | -8. 59 | AVG | |
| 3 | 5470.0000 | 39. 96 | 12. 91 | 52. 87 | 68. 20 | -15. 33 | Peak | |
| 4 * | 5499. 0000 | 90. 92 | 12. 92 | 103. 84 | 68. 20 | 35. 64 | Peak | No Limit |
| 5 | 5499. 1000 | 86. 60 | 12. 92 | 99. 52 | 999. 00 | -899. 48 | AVG | No Limit |
| | | | | | | | | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



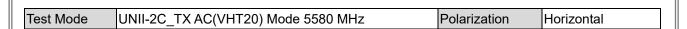




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 10999. 9500 | 32. 05 | 8. 15 | 40. 20 | 54.00 | -13. 80 | AVG | |
| 2 | 11001. 5599 | 42. 58 | 8. 15 | 50. 73 | 74.00 | -23. 27 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



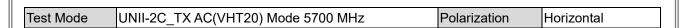


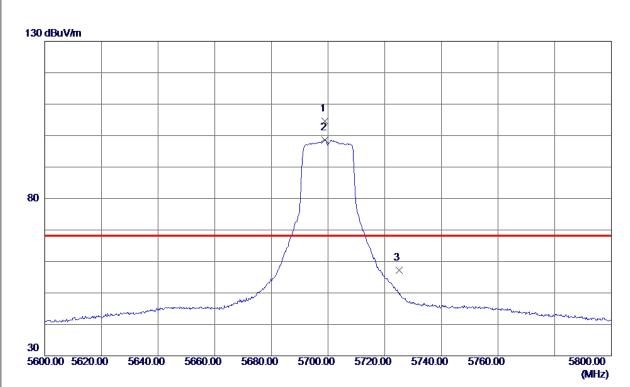


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11157. 7400 | 44. 04 | 8. 32 | 52. 36 | 74.00 | -21. 64 | Peak | |
| 2 * | 11159. 9400 | 33. 78 | 8. 32 | 42. 10 | 54.00 | -11. 90 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



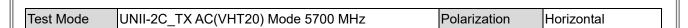




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5698. 8000 | 91. 02 | 13. 55 | 104. 57 | 68. 20 | 36. 37 | Peak | No Limit |
| 2 | 5699. 0000 | 85. 12 | 13. 55 | 98. 67 | 999. 00 | -900. 33 | AVG | No Limit |
| 3 | 5725. 0000 | 43. 58 | 13. 63 | 57. 21 | 68. 20 | -10. 99 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



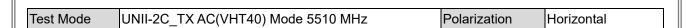


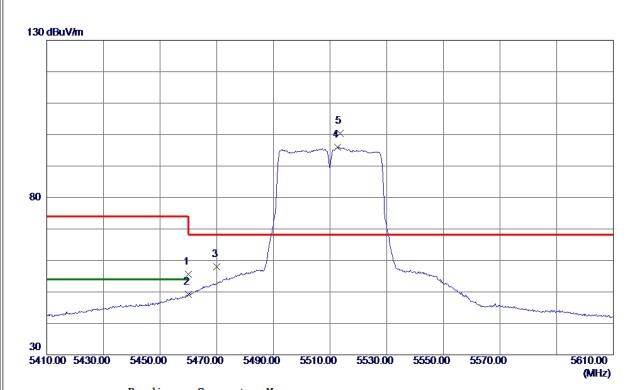


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11399. 5199 | 42. 50 | 8. 58 | 51. 08 | 74.00 | -22. 92 | Peak | |
| 2 * | 11400. 2000 | 31. 17 | 8. 58 | 39. 75 | 54.00 | -14. 25 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



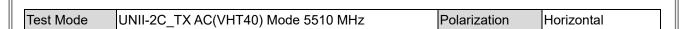




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|-----------------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5460.0000 | 42. 62 | 12. 91 | 55. 53 | 74.00 | −18. 47 | Peak | |
| 2 | 5460.0000 | 36. 23 | 12. 91 | 49. 14 | 54.00 | -4. 86 | AVG | |
| 3 | 5470.0000 | 45. 11 | 12. 91 | 58. 0 2 | 68. 20 | -10. 18 | Peak | |
| 4 | 5512. 6000 | 83. 02 | 12. 96 | 95. 98 | 999.00 | -903. 02 | AVG | No Limit |
| 5 * | 5513. 6000 | 87. 52 | 12. 97 | 100. 49 | 68. 20 | 32. 29 | Peak | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



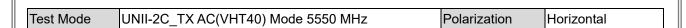




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 11019. 8800 | 31. 39 | 8. 17 | 39. 56 | 54.00 | -14. 44 | AVG | |
| 2 | 11020. 2600 | 40. 92 | 8. 17 | 49. 09 | 74.00 | -24. 91 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



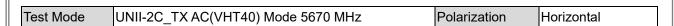


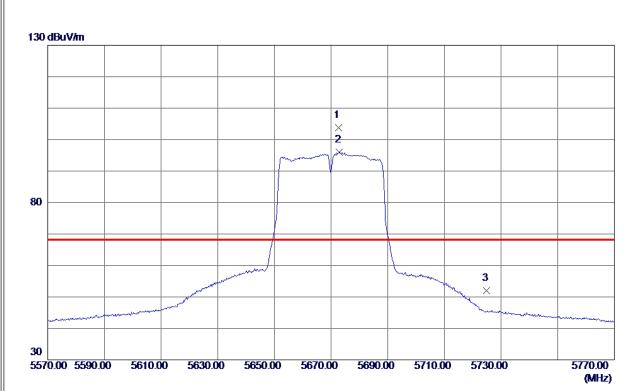


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11096.6300 | 41. 50 | 8. 25 | 49. 75 | 74.00 | -24. 25 | Peak | |
| 2 * | 11099. 8300 | 31. 82 | 8. 26 | 40.08 | 54.00 | -13. 92 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



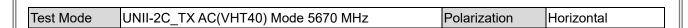




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5672. 7000 | 90. 38 | 13. 47 | 103. 85 | 68. 20 | 35. 65 | Peak | No Limit |
| 2 | 5673. 0000 | 82. 45 | 13. 47 | 95. 92 | 999. 00 | -903. 08 | AVG | No Limit |
| 3 | 5725. 0000 | 38. 45 | 13. 63 | 52. 08 | 68. 20 | -16. 12 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



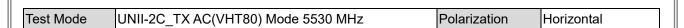


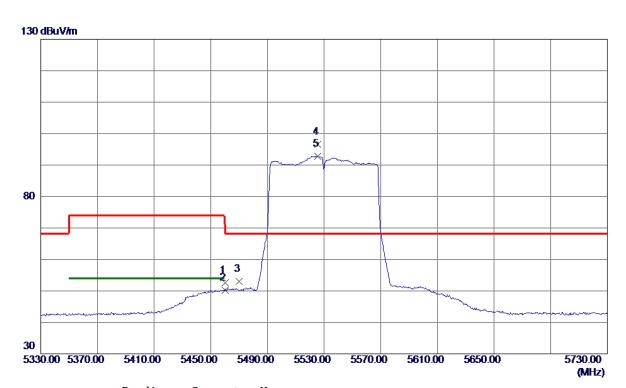


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 11340. 1200 | 29. 72 | 8. 51 | 38. 23 | 54.00 | -15. 77 | AVG | |
| 2 | 11345. 3000 | 39. 83 | 8. 52 | 48. 35 | 74.00 | -25. 65 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



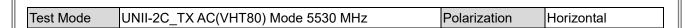




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5460. 0000 | 39. 67 | 12. 91 | 52. 58 | 74.00 | -21.42 | Peak | |
| 2 | 5460. 0000 | 37. 35 | 12. 91 | 50. 26 | 54.00 | -3. 74 | AVG | |
| 3 | 5470.0000 | 40.02 | 12. 91 | 52. 93 | 68. 20 | -15. 27 | Peak | |
| 4 * | 5525. 4000 | 83. 62 | 13. 00 | 96. 62 | 68. 20 | 28. 42 | Peak | No Limit |
| 5 | 5525. 6000 | 79. 87 | 13. 01 | 92. 88 | 999. 00 | -906. 12 | AVG | No Limit |
| | | | | | | | | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



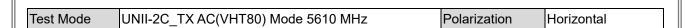


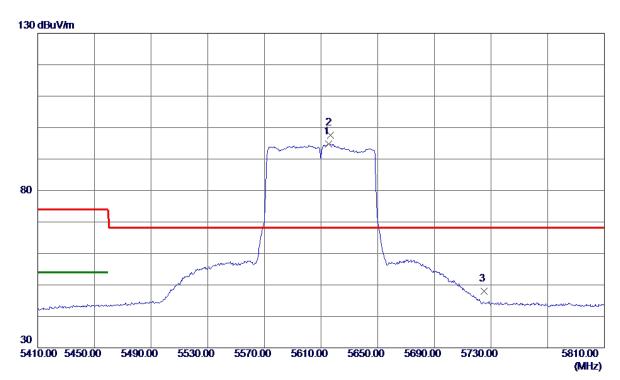


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 7373. 2600 | 29. 98 | 7. 61 | 37. 59 | 54.00 | -16. 41 | AVG | |
| 2 | 7373. 6000 | 37. 57 | 7. 61 | 45. 18 | 74. 00 | -28. 82 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



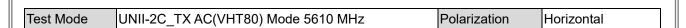




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|----------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5615. 4000 | 81. 42 | 13. 29 | 94. 71 | 999.00 | -904. 29 | AVG | No Limit |
| 2 * | 5616. 6000 | 84. 35 | 13. 29 | 97. 64 | 68. 20 | 29. 44 | Peak | No Limit |
| 3 | 5725. 0000 | 34. 37 | 13. 63 | 48.00 | 68. 20 | -20. 20 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.





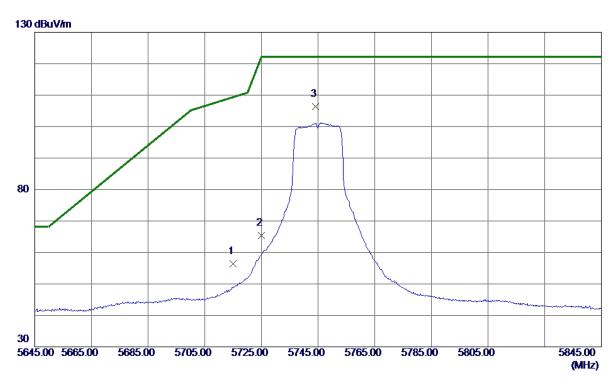


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 7479. 7200 | 37. 89 | 7. 74 | 45. 63 | 74.00 | -28. 37 | Peak | |
| 2 * | 7479. 9000 | 27. 91 | 7. 74 | 35. 65 | 54. 00 | -18. 35 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



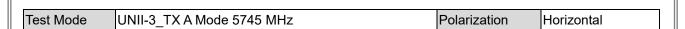
| Test Mode | UNII-3_TX A Mode 5745 MHz | Polarization | Horizontal |
|-----------|---------------------------|--------------|------------|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|----------------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5715. 0000 | 42.89 | 13.60 | 56. 49 | 109.40 | −52. 91 | Peak | |
| 2 | 5725. 0000 | 51. 79 | 13.63 | 65. 42 | 122. 20 | −56. 78 | Peak | |
| 3 * | 5744. 1000 | 92. 80 | 13. 69 | 106. 49 | 122. 20 | -15. 71 | Peak | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.







| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|--------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 7659. 9500 | 40.82 | 7. 70 | 48. 52 | 74.00 | -25.48 | Peak | |
| 2 * | 7659. 9600 | 36. 29 | 7. 70 | 43. 99 | 54.00 | -10.01 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





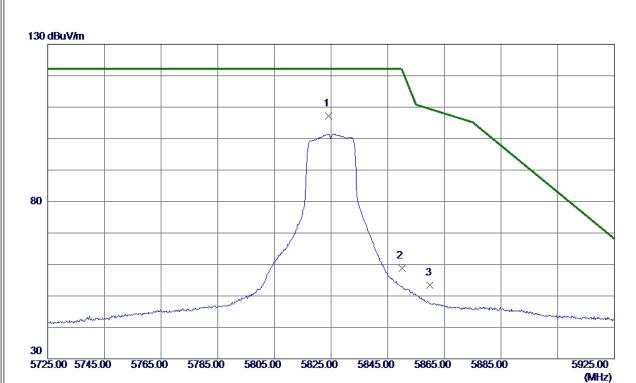


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 7713. 2300 | 41. 48 | 7. 67 | 49. 15 | 74.00 | -24. 85 | Peak | |
| 2 * | 7713. 2700 | 37. 42 | 7. 67 | 45. 09 | 54.00 | -8. 91 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





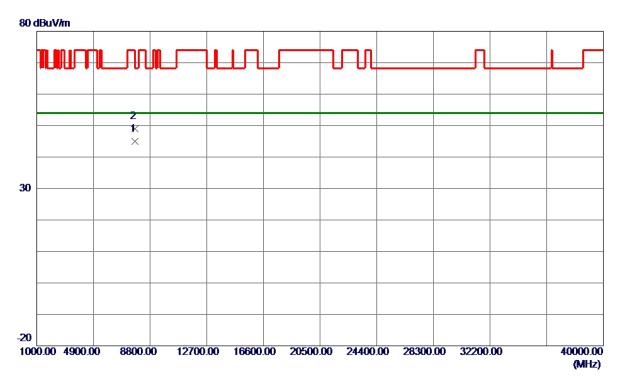


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|---------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5824. 1000 | 93. 32 | 13. 94 | 107. 26 | 122. 20 | -14. 94 | Peak | No Limit |
| 2 | 5850. 0000 | 44. 84 | 14. 02 | 58. 86 | 122. 20 | -63. 34 | Peak | |
| 3 | 5860. 0000 | 39. 42 | 14. 05 | 53. 47 | 109. 40 | -55. 93 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



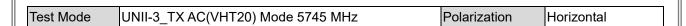


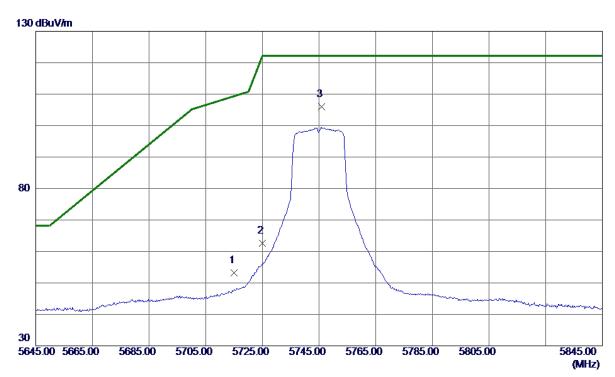


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 7766. 5600 | 37. 31 | 7. 65 | 44. 96 | 54.00 | -9. 04 | AVG | |
| 2 | 7766. 6100 | 41. 32 | 7. 65 | 48. 97 | 68. 20 | -19. 23 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



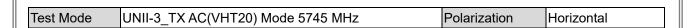




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|---------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5715. 0000 | 39. 51 | 13.60 | 53. 11 | 109. 40 | -56. 29 | Peak | |
| 2 | 5725. 0000 | 49. 01 | 13.63 | 62. 64 | 122. 20 | -59. 56 | Peak | |
| 3 * | 5745. 9000 | 92. 29 | 13. 69 | 105. 98 | 122. 20 | -16. 22 | Peak | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



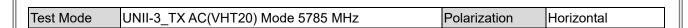


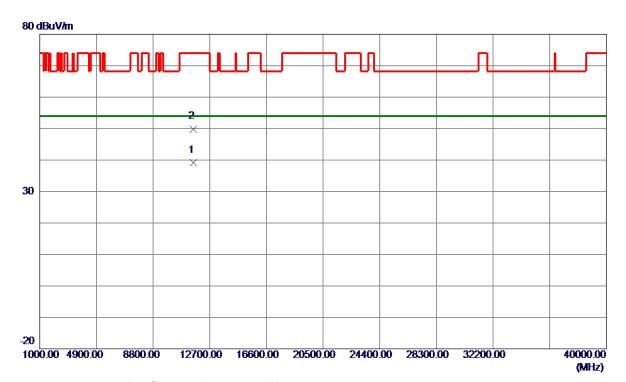


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11488. 3700 | 40. 99 | 8. 67 | 49. 66 | 74.00 | -24. 34 | Peak | |
| 2 * | 11489. 6800 | 30. 81 | 8. 67 | 39. 48 | 54.00 | -14. 52 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



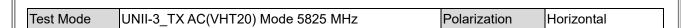


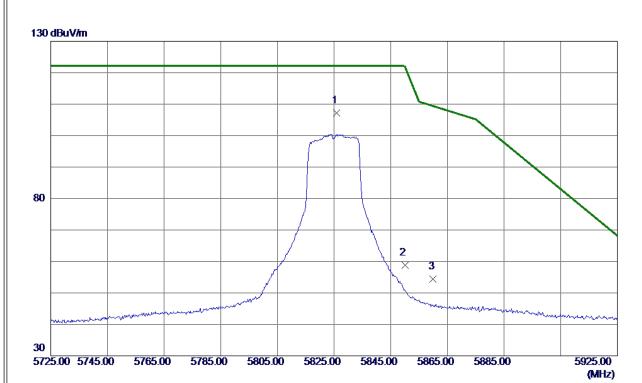


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 11569. 6900 | 30. 64 | 8. 63 | 39. 27 | 54.00 | -14. 73 | AVG | |
| 2 | 11575. 5100 | 41. 28 | 8. 62 | 49. 90 | 74.00 | -24. 10 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



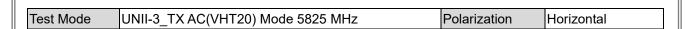




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|---------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5825. 9000 | 93. 16 | 13. 95 | 107. 11 | 122. 20 | -15. 09 | Peak | No Limit |
| 2 | 5850. 0000 | 44. 82 | 14. 02 | 58. 84 | 122. 20 | -63. 36 | Peak | |
| 3 | 5860. 0000 | 40. 41 | 14. 05 | 54. 46 | 109. 40 | -54. 94 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.





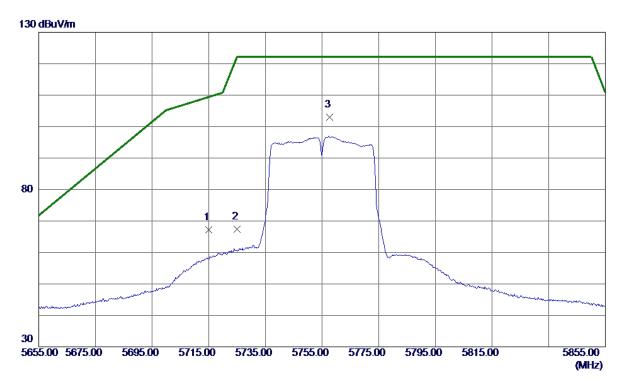


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 11649. 7500 | 30. 66 | 8. 56 | 39. 22 | 54.00 | -14. 78 | AVG | |
| 2 | 11651. 6100 | 40. 75 | 8. 56 | 49. 31 | 74.00 | -24. 69 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



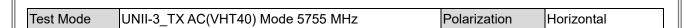
| Test Mode | UNII-3_TX AC(VHT40 |)) Mode 5755 MHz | Polarization | Horizontal |
|-----------|--------------------|------------------|--------------|------------|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|---------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5715. 0000 | 53. 53 | 13. 60 | 67. 13 | 109. 40 | -42. 27 | Peak | |
| 2 | 5725. 0000 | 53. 80 | 13. 63 | 67. 43 | 122. 20 | -54. 77 | Peak | |
| 3 * | 5757. 6000 | 89. 34 | 13. 73 | 103. 07 | 122. 20 | -19. 13 | Peak | No Limit |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



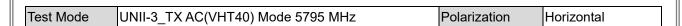


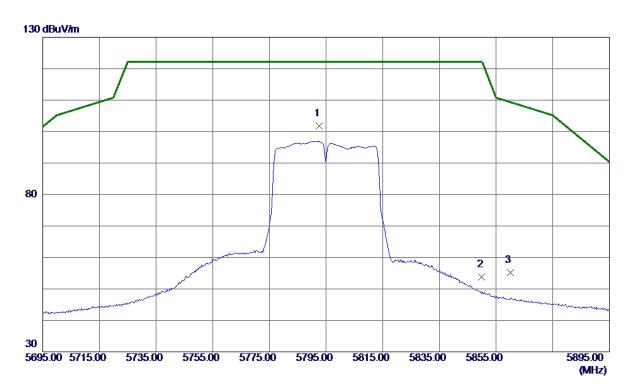


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11508. 7500 | 40. 26 | 8. 68 | 48. 94 | 74.00 | -25.06 | Peak | |
| 2 * | 11509.8500 | 29. 74 | 8. 68 | 38. 42 | 54.00 | -15. 58 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



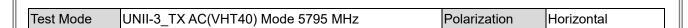




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|---------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5792. 5000 | 87. 93 | 13. 84 | 101. 77 | 122. 20 | -20. 43 | Peak | No Limit |
| 2 | 5850. 0000 | 39. 81 | 14. 02 | 53. 83 | 122. 20 | -68. 37 | Peak | |
| 3 | 5860. 0000 | 41. 09 | 14. 05 | 55. 14 | 109. 40 | -54. 26 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



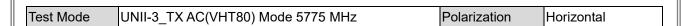


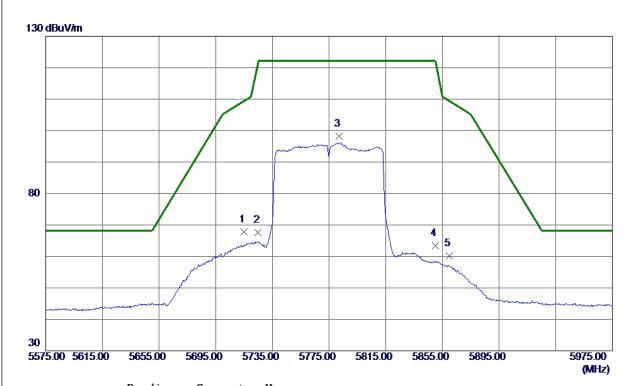


| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11586. 9300 | 41.02 | 8. 61 | 49. 63 | 74.00 | -24. 37 | Peak | |
| 2 * | 11596. 1600 | 29. 96 | 8. 61 | 38. 57 | 54. 00 | -15. 43 | AVG | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



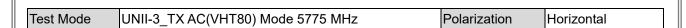




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|------------|------------------|-------------------|-----------------|---------|---------|----------|----------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5715. 0000 | 54. 23 | 13. 60 | 67. 83 | 109. 40 | -41. 57 | Peak | |
| 2 | 5725. 0000 | 54. 06 | 13. 63 | 67. 69 | 122. 20 | -54. 51 | Peak | |
| 3 * | 5782. 0000 | 84. 46 | 13. 81 | 98. 27 | 122. 20 | -23. 93 | Peak | No Limit |
| 4 | 5850. 0000 | 49. 40 | 14. 02 | 63. 42 | 122. 20 | -58. 78 | Peak | |
| 5 | 5860. 0000 | 46. 07 | 14. 05 | 60. 12 | 109. 40 | -49. 28 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.







| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|-----|-------------|------------------|-------------------|-----------------|--------|---------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 11551. 1900 | 27. 52 | 8. 64 | 36. 16 | 54.00 | -17. 84 | AVG | |
| 2 | 11558. 9400 | 37. 56 | 8. 64 | 46. 20 | 74.00 | -27. 80 | Peak | |

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.

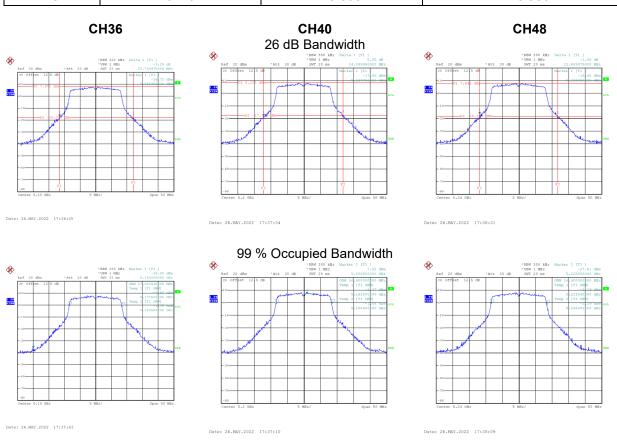


| APPENDIX E - BANDWIDTH | |
|------------------------|--|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |



| Test Mode | UNII-1_TX A Mode |
|-----------|------------------|

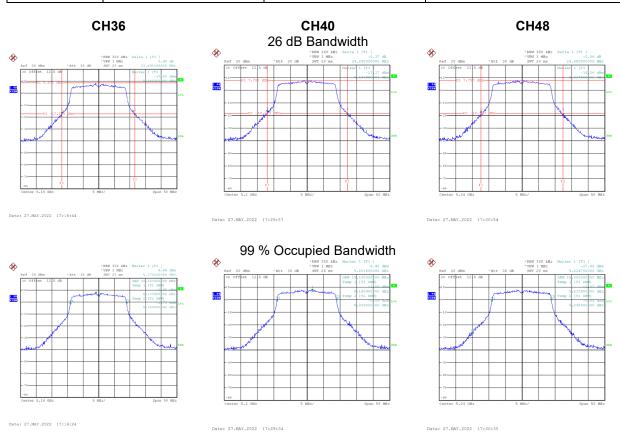
| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) | 99 % Occupied Bandwidth (MHz) |
|---------|--------------------|--------------------------|----------------------------------|
| 36 | 5180 | 23.750 | 17.000 |
| 40 | 5200 | 24.100 | 16.900 |
| 48 | 5240 | 23.690 | 16.900 |





| Test Mode UNII-1_TX AC(VHT20) M |
|---------------------------------|
|---------------------------------|

| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) | 99 % Occupied Bandwidth (MHz) |
|---------|--------------------|--------------------------|----------------------------------|
| 36 | 5180 | 23.498 | 18.100 |
| 40 | 5200 | 24.290 | 18.100 |
| 48 | 5240 | 24.850 | 18.000 |



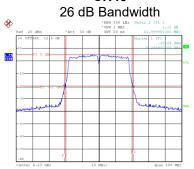


| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) | 99 % Occupied Bandwidth (MHz) |
|---------|--------------------|--------------------------|----------------------------------|
| 38 | 5190 | 41.390 | 36.800 |
| 46 | 5230 | 42.000 | 36.800 |



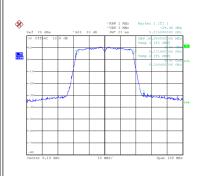
**NAM 300 ANE Delta 1 [71.] **NAM 300 ANE Delta 1 [71.] **NAM 1 Max 30 ANE Delta 1 ANE Del

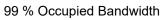
CH46



Date: 27.MAY.2022 17:42:29









Date: 27.MAY.2022 17:42:01

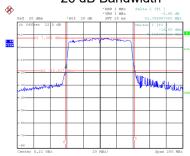
Date: 27.MAY.2022 17:43:10



| Test Mode | UNII-1 TX AC(VHT80) Mode | |
|-------------|------------------------------|--|
| I LEST MODE | IDINII-I IA ACIVIII 007 MOGE | |

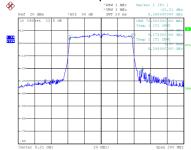
| Channel | Frequency | 26 dB Bandwidth | 99 % Occupied Bandwidth |
|---------|-----------|-----------------|-------------------------|
| | (MHz) | (MHz) | (MHz) |
| 42 | 5210 | 83.800 | 76.000 |

CH42 26 dB Bandwidth



Date: 27.MAY.2022 17:54:34

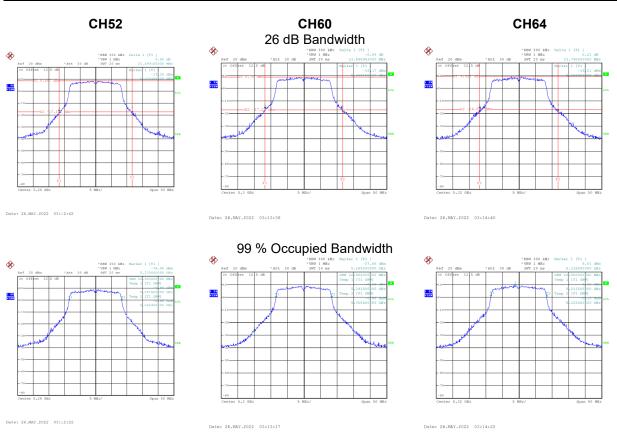
99 % Occupied Bandwidth



Date: 27.MAY.2022 17:54:09



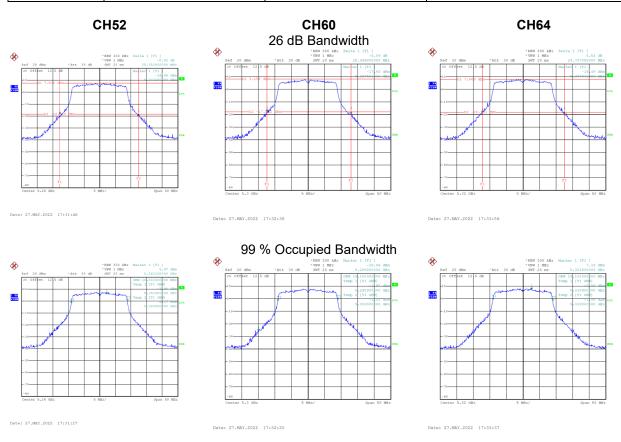
| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) | 99 % Occupied Bandwidth (MHz) |
|---------|--------------------|--------------------------|----------------------------------|
| 52 | 5260 | 23.499 | 16.900 |
| 60 | 5300 | 23.599 | 16.900 |
| 64 | 5320 | 23.790 | 16.900 |





| Test Mode UNII-2A_TX AC(VHT20) Mod |
|------------------------------------|
|------------------------------------|

| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) | 99 % Occupied Bandwidth (MHz) |
|---------|--------------------|--------------------------|----------------------------------|
| 52 | 5260 | 25.350 | 18.000 |
| 60 | 5300 | 25.449 | 18.100 |
| 64 | 5320 | 24.707 | 18.100 |



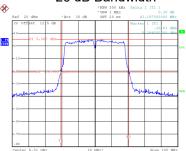


| Test Mode UNII-2A_TX | AC(VHT40) Mode |
|----------------------|----------------|
|----------------------|----------------|

| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) | 99 % Occupied Bandwidth (MHz) |
|---------|--------------------|--------------------------|----------------------------------|
| 54 | 5270 | 41.200 | 36.600 |
| 62 | 5310 | 41.197 | 36.800 |

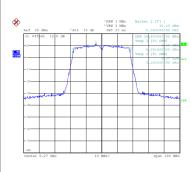


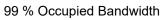
CH62 26 dB Bandwidth

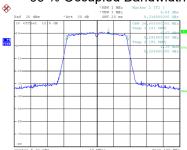


Date: 27.MAY.2022 17:44:39









Date: 27.MAY.2022 17:44:12

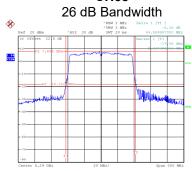
Date: 27.MAY.2022 17:45:17



| Test Mode | JNII-2A TX AC(VHT80) Mode |
|------------|---------------------------|
| 103t Widde | |

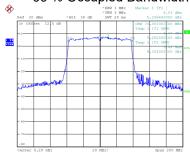
| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) | 99 % Occupied Bandwidth (MHz) |
|---------|--------------------|--------------------------|----------------------------------|
| 58 | 5290 | 84.600 | 76.000 |

CH58



Date: 27.MAY.2022 17:55:3

99 % Occupied Bandwidth



Date: 27.MAY.2022 17:55:13



| Test Mode UNII-2C TX A Mode | |
|-----------------------------|--|
|-----------------------------|--|

| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) | 99 % Occupied Bandwidth (MHz) |
|---------|--------------------|--------------------------|----------------------------------|
| 100 | 5500 | 23.490 | 16.900 |
| 116 | 5580 | 24.200 | 16.900 |
| 140 | 5700 | 23.290 | 16.900 |

