# TEST REPORT

## CERTIFICATE OF CONFORMITY

| | |
|---|---|
| **Standard:** | **47 CFR FCC Part 15, Subpart C (Section 15.247)** |
| **Report No.:** | RFBARR-WTW-P24120359-1 |
| **FCC ID:** | RAS-MT7925B14LA |
| **Product:** | 2TX 11be (WiFi7) BW160 + BT/BLE Combo Card |
| **Brand:** | MediaTek |
| **Model No.:** | MT7925B14LA |
| **Received Date:** | 2024/12/11 |
| **Test Date:** | 2024/12/19 ~ 2025/3/21 |
| **Issued Date:** | 2025/4/7 |
| **Applicant:** | MediaTek Inc. |
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| **Issued By:** | Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch<br>Hsin Chu Laboratory |
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| **FCC Registration / Designation Number:** | 723255 / TW2022 |

**Approved by:** _____ , **Date:** 2025/4/7

May Chen / Manager

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Prepared by : Phoenix Huang / Specialist

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# Release Control Record

| Issue No. | Description | Date Issued |
|---|---|---|
| RFBARR-WTW-P24120359-1 | Original release. | 2025/4/7 |

# 1 Certificate

| | |
|---|---|
| **Product:** | 2TX 11be (WiFi7) BW160 + BT/BLE Combo Card |
| **Brand:** | MediaTek |
| **Test Model:** | MT7925B14LA |
| **Sample Status:** | Engineering sample |
| **Applicant:** | MediaTek Inc. |
| **Test Date:** | 2024/12/19 ~ 2025/3/21 |
| **Standard:** | 47 CFR FCC Part 15, Subpart C (Section 15.247) |
| **Measurement procedure:** | ANSI C63.10-2013<br>KDB 558074 D01 15.247 Meas Guidance v05r02<br>KDB 662911 D01 Multiple Transmitter Output v02r01 |

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

## 2 Summary of Test Results

| 47 CFR FCC Part 15, Subpart C (Section 15.247) | | | |
|---|---|---|---|
| Standard / Clause | Test Item | Result | Remark |
| 15.247(b) | RF Output Power | Pass | Meet the requirement of limit. |
| 15.247(e) | Power Spectral Density | Pass | Meet the requirement of limit. |
| 15.247(a)(2) | 6 dB Bandwidth | Pass | Meet the requirement of limit. |
| 15.247(d) | Conducted Out of Band Emissions | Pass | Meet the requirement of limit. |
| 15.207 | AC Power Conducted Emissions | Pass | Minimum passing margin is -8.62 dB at 0.15000 MHz |
| 15.205 / 15.209 / 15.247(d) | Unwanted Emissions below 1 GHz | Pass | Minimum passing margin is -1.8 dB at 286.92 MHz and 696.11 MHz |
| 15.205 / 15.209 / 15.247(d) | Unwanted Emissions above 1 GHz | Pass | Minimum passing margin is -0.04 dB at 23884.9 MHz |
| 15.203 | Antenna Requirement | Pass | Antenna connector is i-pex(MHF) not a standard connector. |

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| Measurement | Specification | Expanded Uncertainty (k=2) (±) |
|---|---|---|
| RF Output Power | - | 1.1 dB |
| Power Spectral Density | - | 1.3 dB |
| 6 dB Bandwidth | - | 1050.00 Hz |
| Conducted Out of Band Emissions | 9 kHz ~ 40 GHz | 2.6 dB |
| AC Power Conducted Emissions | 150 kHz ~ 30 MHz | 1.9 dB |
| Unwanted Emissions below 1 GHz | 9 kHz ~ 30 MHz | 3.1 dB |
| | 30 MHz ~ 1 GHz | 5.5 dB |
| Unwanted Emissions above 1 GHz | 1 GHz ~ 18 GHz | 5.1 dB |
| | 18 GHz ~ 40 GHz | 5.3 dB |

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

### 2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

# 3 General Information

## 3.1 General Description

| | |
|---|---|
| Product | 2TX 11be (WiFi7) BW160 + BT/BLE Combo Card |
| Brand | MediaTek |
| Test Model | MT7925B14LA |
| Status of EUT | Engineering sample |
| Power Supply Rating | 3.3 Vdc from host equipment |
| Modulation Type | CCK, DQPSK, DBPSK for DSSS<br>64QAM, 16QAM, QPSK, BPSK for OFDM<br>256QAM for OFDM in VHT mode<br>1024QAM for OFDMA in 11ax mode<br>4096QAM for OFDMA in 11be mode |
| Modulation Technology | DSSS, OFDM, OFDMA |
| Transfer Rate | 802.11b: up to 11 Mbps<br>802.11g: up to 54 Mbps<br>802.11n: up to 300 Mbps<br>VHT: up to 400 Mbps<br>802.11ax: up to 573.5 Mbps<br>802.11be: up to 688.2 Mbps |
| Operating Frequency | 2.412 GHz ~ 2.472 GHz |
| Number of Channel | 802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20), 802.11be (EHT20): 13<br>802.11n (HT40), VHT40, 802.11ax (HE40), 802.11be (EHT40): 9 |
| Resource Unit (RU) | Single RU: 26-tone, 52-tone, 106-tone, 242-tone, 484-tone<br>Multi-RU (Small RU): 52-tone + 26-tone, 106-tone + 26-tone |
| Output Power | **1TX:** 165.577 mW (22.19 dBm)<br>**2TX:** 231.311 mW (23.64 dBm) |

Note:

1. There are Bluetooth and WLAN (2.4 GHz & 5 GHz & 5.9 GHz & 6 GHz) technology used for the EUT.
2. Simultaneously transmission combination.

| Combination | Technology | |
|---|---|---|
| 1 | WLAN (5 GHz) (2TX) | Bluetooth |
| 2 | WLAN (5.9 GHz) (2TX) | Bluetooth |
| 3 | WLAN (6 GHz) (2TX) | Bluetooth |
| 4 | WLAN (2.4 GHz) (1TX) | WLAN (5 GHz) (1TX) |
| 5 | WLAN (2.4 GHz) (1TX) | WLAN (5.9 GHz) (1TX) |
| 6 | WLAN (2.4 GHz) (1TX) | WLAN (6 GHz) (1TX) |
| Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found. | | |

3. The EUT support OFDMA and Partial RU mode, therefore partial RU combination were investigated and the worst case scenario was identified.
4. The EUT support MRU mode is listed as below.

| BW | Small size | |
|---|---|---|
| | 52+26-tone MRU | 106+26-tone MRU |
| 20 MHz | v | v |
| 40 MHz | v | v |

5. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

### 3.2 Antenna Description of EUT

1. The antenna information is listed as below.

| Antenna Set | RF Chain NO. | Brand | Model | Antenna Net Gain (dBi) | Frequency Range (GHz) | Antenna Type | Connector Type | Cable Length (mm) |
|---|---|---|---|---|---|---|---|---|
| 1 | Chain0 | PSA | RFMTA311020EMMB301 | 1.71<br>4.82<br>4.76<br>4.29<br>4.61<br>4.09 | 2.4 ~ 2.4835<br>5.15 ~ 5.895<br>5.925 ~ 6.425<br>6.425 ~ 6.525<br>6.525 ~ 6.875<br>6.875 ~ 7.125 | PIFA | i-pex(MHF) | 200 |
| | Chain1 | PSA | RFMTA311020EMMB301 | 1.71<br>4.82<br>4.76<br>4.29<br>4.61<br>4.09 | 2.4 ~ 2.4835<br>5.15 ~ 5.895<br>5.925 ~ 6.425<br>6.425 ~ 6.525<br>6.525 ~ 6.875<br>6.875 ~ 7.125 | PIFA | i-pex(MHF) | 200 |
| 2 | Chain0 | INPAQ | RFFPA493517EMAB901 | 6.19 | 2.4 ~ 2.4835 | PIFA | i-pex(MHF) | 125 |
| | Chain1 | INPAQ | RFFPA493517EMAB901 | 6.19 | 2.4 ~ 2.4835 | PIFA | i-pex(MHF) | 125 |
| 3 | Chain0 | INPAQ | RFFPA494517EM5B901 | 8.37 | 5.15 ~ 5.925 | PIFA | i-pex(MHF) | 125 |
| | Chain1 | INPAQ | RFFPA494517EM5B901 | 8.37 | 5.15 ~ 5.925 | PIFA | i-pex(MHF) | 125 |
| 4 | Chain0 | INPAQ | RFFPA494217EM6B901 | 8.37 | 5.925 ~ 7.125 | PIFA | i-pex(MHF) | 125 |
| | Chain1 | INPAQ | RFFPA494217EM6B901 | 8.37 | 5.925 ~ 7.125 | PIFA | i-pex(MHF) | 125 |
| 5 | Chain0 | PSA | RFMTA421230IMMB701 | -13.92<br>-13.91<br>-13.91<br>-14.46 | 5.925 ~ 6.425<br>6.425 ~ 6.525<br>6.525 ~ 6.875<br>6.875 ~ 7.125 | PIFA | i-pex(MHF) | 300 |
| | Chain1 | PSA | RFMTA421230IMMB701 | -13.92<br>-13.91<br>-13.91<br>-14.46 | 5.925 ~ 6.425<br>6.425 ~ 6.525<br>6.525 ~ 6.875<br>6.875 ~ 7.125 | PIFA | i-pex(MHF) | 300 |

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2. The EUT incorporates a MIMO function:

| 2.4 GHz Band | | | | | |
|---|---|---|---|---|---|
| **Modulation Mode** | **TX & RX Configuration** | | | **CDD Mode** | **Beamforming Mode** |
| **802.11b** | SIMO | 1TX (Diversity) | 2RX | - | - |
| **802.11g** | | 1TX (Diversity) | 2RX | - | - |
| **802.11n (HT20)** | | 1TX (Diversity) | 2RX | - | - |
| **802.11n (HT40)** | | 1TX (Diversity) | 2RX | - | - |
| **VHT20** | | 1TX (Diversity) | 2RX | - | - |
| **VHT40** | | 1TX (Diversity) | 2RX | - | - |
| **802.11ax (HE20)** | | 1TX (Diversity) | 2RX | - | - |
| **802.11ax (HE40)** | | 1TX (Diversity) | 2RX | - | - |
| **802.11be (EHT20)** | | 1TX (Diversity) | 2RX | - | - |
| **802.11be (EHT40)** | | 1TX (Diversity) | 2RX | - | - |
| **802.11ax (RU26/52/106/242/484)** | | 1TX (Diversity) | 2RX | - | - |
| **802.11be (RU26/52/106/242/484 MRU52+26/106+26)** | | 1TX (Diversity) | 2RX | - | - |
| **802.11b** | MIMO | 2TX | 2RX | Support | Not Support |
| **802.11g** | | 2TX | 2RX | Support | Not Support |
| **802.11n (HT20)** | | 2TX | 2RX | Support NSS2 | Not Support |
| **802.11n (HT40)** | | 2TX | 2RX | Support NSS2 | Not Support |
| **VHT20** | | 2TX | 2RX | Support NSS2 | Not Support |
| **VHT40** | | 2TX | 2RX | Support NSS2 | Not Support |
| **802.11ax (HE20)** | | 2TX | 2RX | Support NSS2 | Not Support |
| **802.11ax (HE40)** | | 2TX | 2RX | Support NSS2 | Not Support |
| **802.11be (EHT20)** | | 2TX | 2RX | Support NSS2 | Not Support |
| **802.11be (EHT40)** | | 2TX | 2RX | Support NSS2 | Not Support |
| **802.11ax (RU26/52/106/242/484)** | | 2TX | 2RX | Support NSS2 | Not Support |
| **802.11be (RU26/52/106/242/484 MRU52+26/106+26)** | | 2TX | 2RX | Support NSS2 | Not Support |
| Note: The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), VHT mode for 20 MHz (40 MHz), 802.11ax mode for 20 MHz (40 MHz) and 802.11be mode for 20 MHz (40 MHz). Therefore the investigated worst case is the representative mode in test report. | | | | | |

### 3.3 Channel List

13 channels are provided for 802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20), 802.11be (EHT20):

| Channel | Frequency | Channel | Frequency |
|---|---|---|---|
| 1 | 2412 MHz | 8 | 2447 MHz |
| 2 | 2417 MHz | 9 | 2452 MHz |
| 3 | 2422 MHz | 10 | 2457 MHz |
| 4 | 2427 MHz | 11 | 2462 MHz |
| 5 | 2432 MHz | 12 | 2467 MHz |
| 6 | 2437 MHz | 13 | 2472 MHz |
| 7 | 2442 MHz | | |

9 channels are provided for 802.11n (HT40), VHT40, 802.11ax (HE40), 802.11be (EHT40):

| Channel | Frequency | Channel | Frequency |
|---|---|---|---|
| 3 | 2422 MHz | 8 | 2447 MHz |
| 4 | 2427 MHz | 9 | 2452 MHz |
| 5 | 2432 MHz | 10 | 2457 MHz |
| 6 | 2437 MHz | 11 | 2462 MHz |
| 7 | 2442 MHz | | |

### 3.4 Test Mode Applicability and Tested Channel Detail

| | |
|---|---|
| Pre-Scan: | 1. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).<br>2. The worst-case Partial RU modes across all supported bandwidth modes has been determined via pre-scan. The worst case occurs in 20 MHz bandwidth (RU 26/52/106).<br>3. For 1TX diversity configuration, transmit chain 0 and chain 1 have been evaluated, the chain 0 was the worst case and chosen for representative test. |

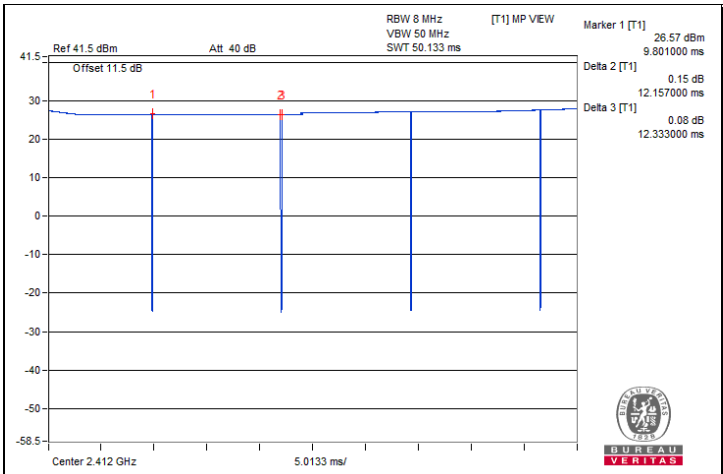
Following channel(s) was (were) selected for the final test as listed below:

| Test Item | EUT Configure Mode | Mode | Signal Mode | Tested Channel | Modulation | Data Rate Parameter | RU/MRU Index |
|---|---|---|---|---|---|---|---|
| RF Output Power | A | 802.11b | 1TX / 2TX | 1, 6, 11, 12, 13 | DBPSK | 1Mb/s | NA |
| | | 802.11g | 1TX / 2TX | 1, 6, 11, 12, 13 | BPSK | 6Mb/s | NA |
| | | VHT20 | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | NA |
| | | VHT40 | 1S1T / 2S2T | 3, 6, 9, 10, 11 | BPSK | MCS0 | NA |
| | | 802.11ax (HE20) | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | NA |
| | | 802.11ax (HE40) | 1S1T / 2S2T | 3, 6, 9, 10, 11 | BPSK | MCS0 | NA |
| | | 802.11be (EHT20) | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | NA |
| | | 802.11be (EHT40) | 1S1T / 2S2T | 3, 6, 9, 10, 11 | BPSK | MCS0 | NA |
| | | 802.11ax (HE20) 26-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 0, 0, 8, 8, 8 |
| | | 802.11ax (HE20) 52-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 37, 37, 40, 40, 40 |
| | | 802.11ax (HE20) 106-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 53, 53, 54, 54, 54 |
| | | 802.11be (EHT20) 26-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 0, 0, 8, 8, 8 |
| | | 802.11be (EHT20) 52-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 37, 37, 40, 40, 40 |
| | | 802.11be (EHT20) 106-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 53, 53, 54, 54, 54 |
| | | 802.11be (EHT20) 52+26-tone MRU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 70, 70, 72, 72,72 |
| | | 802.11be (EHT20) 106+26-tone MRU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 82, 82, 83,83,83 |
| Power Spectral Density | A | 802.11b | 1TX / 2TX | 1, 6, 11, 12, 13 | DBPSK | 1Mb/s | NA |
| | | 802.11g | 1TX / 2TX | 1, 6, 11, 12, 13 | BPSK | 6Mb/s | NA |
| | | 802.11be (EHT20) | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | NA |
| | | 802.11be (EHT40) | 1S1T / 2S2T | 3, 6, 9, 10, 11 | BPSK | MCS0 | NA |
| | | 802.11be (EHT20) 26-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 0, 0, 8, 8, 8 |
| | | 802.11be (EHT20) 52-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 37, 37, 40, 40, 40 |
| | | 802.11be (EHT20) 106-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 53, 53, 54, 54, 54 |
| | | 802.11be (EHT20) 52+26-tone MRU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 70, 70, 72, 72,72 |
| | | 802.11be (EHT20) 106+26-tone MRU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 82, 82, 83,83,83 |

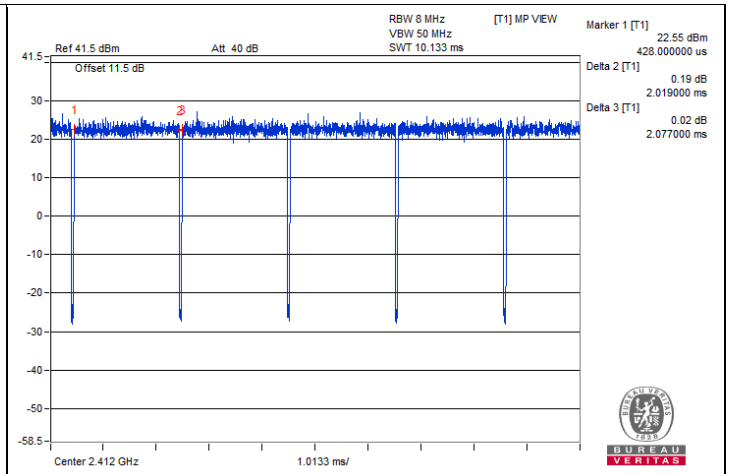
| Test Item | EUT Configure Mode | Mode | Signal Mode | Tested Channel | Modulation | Data Rate Parameter | RU/MRU Index |
|---|---|---|---|---|---|---|---|
| 6 dB Bandwidth | A | 802.11b | 1TX / 2TX | 1, 6, 11, 12, 13 | DBPSK | 1Mb/s | NA |
| | | 802.11g | 1TX / 2TX | 1, 6, 11, 12, 13 | BPSK | 6Mb/s | NA |
| | | 802.11be (EHT20) | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | NA |
| | | 802.11be (EHT40) | 1S1T / 2S2T | 3, 6, 9, 10, 11 | BPSK | MCS0 | NA |
| | | 802.11be (EHT20) 26-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 0, 0, 8, 8, 8 |
| | | 802.11be (EHT20) 52-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 37, 37, 40, 40, 40 |
| | | 802.11be (EHT20) 106-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 53, 53, 54, 54, 54 |
| | | 802.11be (EHT20) 52+26-tone MRU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 70, 70, 72, 72,72 |
| | | 802.11be (EHT20) 106+26-tone MRU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 82, 82, 83,83,83 |
| Conducted Out of Band Emissions | A | 802.11b | 1TX / 2TX | 1, 6, 11, 12, 13 | DBPSK | 1Mb/s | NA |
| | | 802.11g | 1TX / 2TX | 1, 6, 11, 12, 13 | BPSK | 6Mb/s | NA |
| | | 802.11be (EHT20) | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | NA |
| | | 802.11be (EHT40) | 1S1T / 2S2T | 3, 6, 9, 10, 11 | BPSK | MCS0 | NA |
| | | 802.11be (EHT20) 26-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 0, 0, 8, 8, 8 |
| | | 802.11be (EHT20) 52-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 37, 37, 40, 40, 40 |
| | | 802.11be (EHT20) 106-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 53, 53, 54, 54, 54 |
| | | 802.11be (EHT20) 52+26-tone MRU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 70, 70, 72, 72,72 |
| | | 802.11be (EHT20) 106+26-tone MRU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 82, 82, 83,83,83 |
| AC Power Conducted Emissions | C | 802.11g | 1TX | 6 | BPSK | 6Mb/s | NA |
| | | 802.11be (EHT20) | 2S2T | 6 | BPSK | MCS0 | NA |
| Unwanted Emissions below 1 GHz | A, B | 802.11g | 1TX | 6 | BPSK | 6Mb/s | NA |
| | | 802.11be (EHT20) | 2S2T | 6 | BPSK | MCS0 | NA |
| Unwanted Emissions above 1 GHz | A, B | 802.11b | 1TX / 2TX | 1, 6, 11, 12, 13 | DBPSK | 1Mb/s | NA |
| | | 802.11g | 1TX / 2TX | 1, 6, 11, 12, 13 | BPSK | 6Mb/s | NA |
| | | 802.11be (EHT20) | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | NA |
| | | 802.11be (EHT40) | 1S1T / 2S2T | 3, 6, 9, 10, 11 | BPSK | MCS0 | NA |
| | | 802.11be (EHT20) 26-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 0, 0, 8, 8, 8 |
| | | 802.11be (EHT20) 52-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 37, 37, 40, 40, 40 |
| | | 802.11be (EHT20) 106-tone RU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 53, 53, 54, 54, 54 |
| | | 802.11be (EHT20) 52+26-tone MRU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 70, 70, 72, 72,72 |
| | | 802.11be (EHT20) 106+26-tone MRU | 1S1T / 2S2T | 1, 6, 11, 12, 13 | BPSK | MCS0 | 82, 82, 83,83,83 |
| EUT Configure Mode: | A | EUT only (remove 50 ohm terminator and Connect to the appropriate equipment) | | | | | |
| | B | EUT with 50 ohm terminator | | | | | |
| | C | EUT with antenna (PIFA Antenna Set 2) | | | | | |
| Note: Channel puncturing mechanism is not supported. | | | | | | | |

## 3.5 Duty Cycle of Test Signal

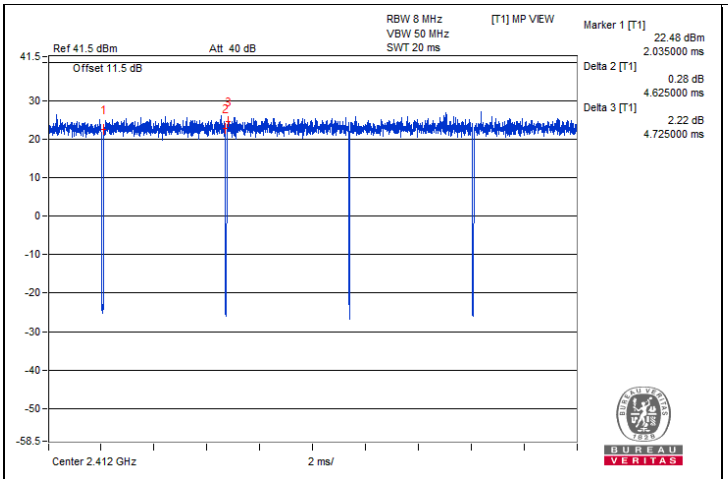
**802.11b 1TX:**
Duty cycle = 12.157 ms / 12.333 ms x 100% = 98.6%
**802.11g 1TX:**
Duty cycle = 2.019 ms / 2.077 ms x 100% = 97.2%, duty factor = 10 * log (1/Duty cycle) = 0.12 dB
**VHT20 1S1T:**
Duty cycle = 4.625 ms / 4.725 ms x 100% = 97.9%, duty factor = 10 * log (1/Duty cycle) = 0.09 dB
**VHT40 1S1T:**
Duty cycle = 4.625 ms / 4.725 ms x 100% = 97.9%, duty factor = 10 * log (1/Duty cycle) = 0.09 dB
**802.11ax (HE20) 1S1T:**
Duty cycle = 4.625 ms / 4.725 ms x 100% = 97.9%, duty factor = 10 * log (1/Duty cycle) = 0.09 dB
**802.11ax (HE40) 1S1T:**
Duty cycle = 4.625 ms / 4.725 ms x 100% = 97.9%, duty factor = 10 * log (1/Duty cycle) = 0.09 dB
**802.11be (EHT20) 1S1T:**
Duty cycle = 4.625 ms / 4.725 ms x 100% = 97.9%, duty factor = 10 * log (1/Duty cycle) = 0.09 dB
**802.11be (EHT40) 1S1T:**
Duty cycle = 4.625 ms / 4.725 ms x 100% = 97.9%, duty factor = 10 * log (1/Duty cycle) = 0.09 dB
**802.11ax (HE20) 26-tone RU 1S1T:**
Duty cycle = 1.596 ms / 1.674 ms x 100% = 95.3%, duty factor = 10 * log (1/Duty cycle) = 0.21 dB
**802.11ax (HE20) 52-tone RU 1S1T:**
Duty cycle = 1.522 ms / 1.608 ms x 100% = 94.7%, duty factor = 10 * log (1/Duty cycle) = 0.24 dB
**802.11ax (HE20) 106-tone RU 1S1T:**
Duty cycle = 1.396 ms / 1.457 ms x 100% = 95.8%, duty factor = 10 * log (1/Duty cycle) = 0.19 dB
**802.11be (EHT20) 26-tone RU 1S1T:**
Duty cycle = 1.596 ms / 1.674 ms x 100% = 95.3%, duty factor = 10 * log (1/Duty cycle) = 0.21 dB
**802.11be (EHT20) 52-tone RU 1S1T:**
Duty cycle = 1.522 ms / 1.608 ms x 100% = 94.7%, duty factor = 10 * log (1/Duty cycle) = 0.24 dB
**802.11be (EHT20) 106-tone RU 1S1T:**
Duty cycle = 1.396 ms / 1.457 ms x 100% = 95.8%, duty factor = 10 * log (1/Duty cycle) = 0.19 dB
**802.11be (EHT20) 52+26-tone MRU 1S1T:**
Duty cycle = 1.492 ms / 1.55 ms x 100% = 96.3%, duty factor = 10 * log (1/Duty cycle) = 0.17 dB
**802.11be (EHT20) 106+26-tone MRU 1S1T:**
Duty cycle = 1.66 ms / 1.728 ms x 100% = 96.1%, duty factor = 10 * log (1/Duty cycle) = 0.17 dB



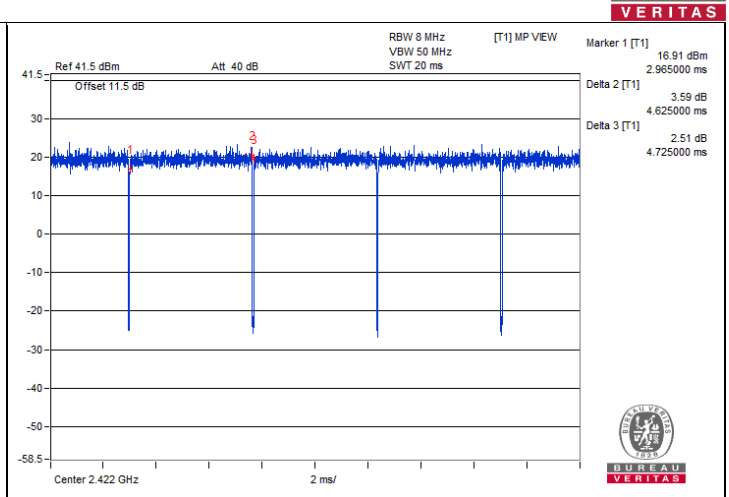
802.11b 1TX



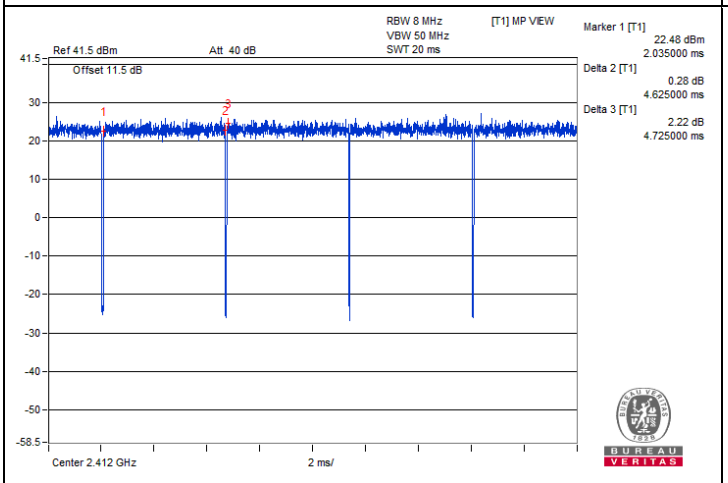
802.11g 1TX



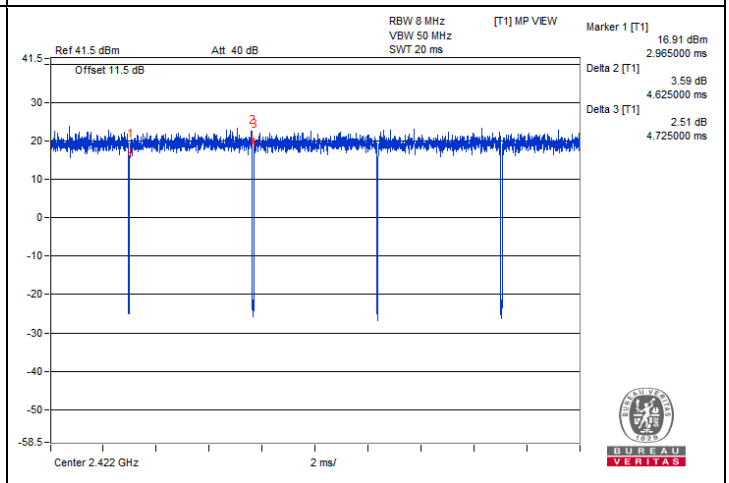

VHT20 1S1T



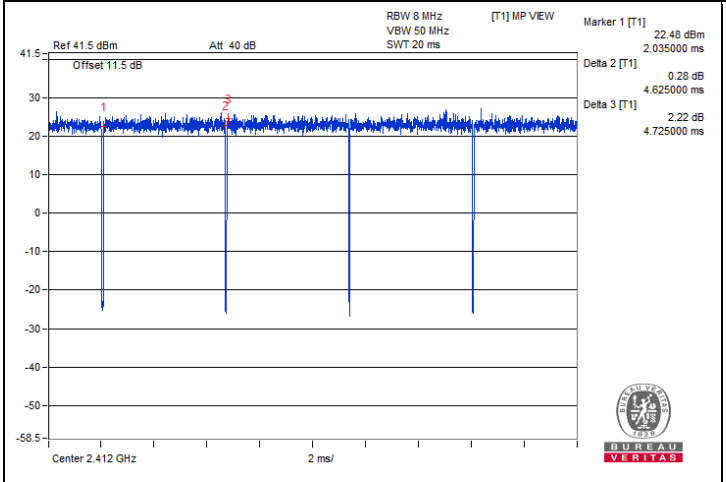

VHT40 1S1T



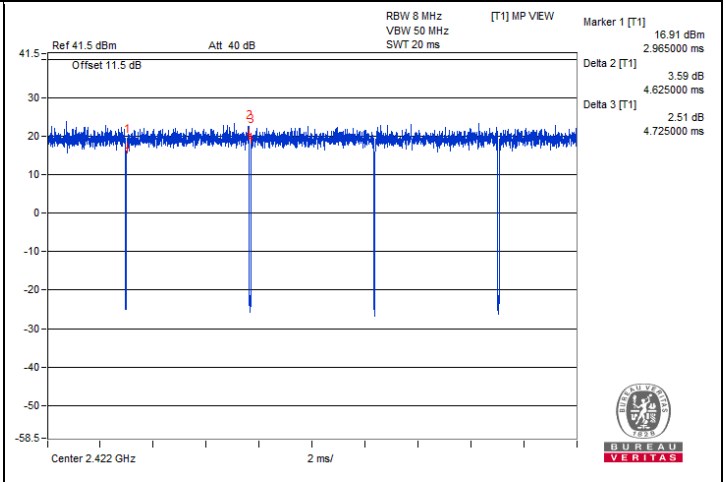

802.11ax (HE20) 1S1T



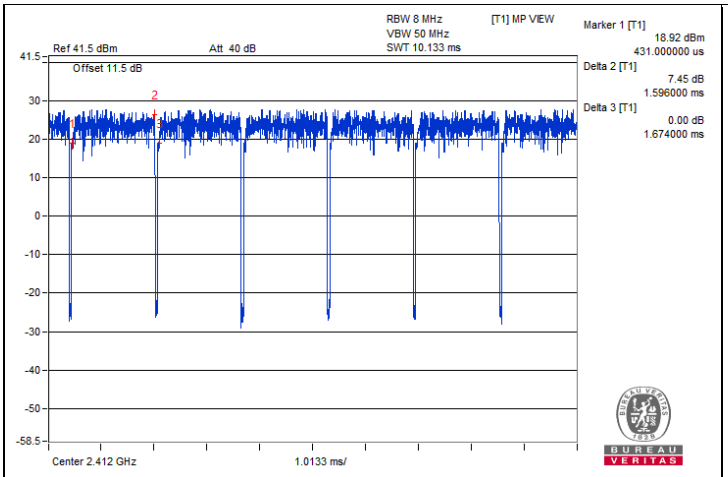

802.11ax (HE40) 1S1T



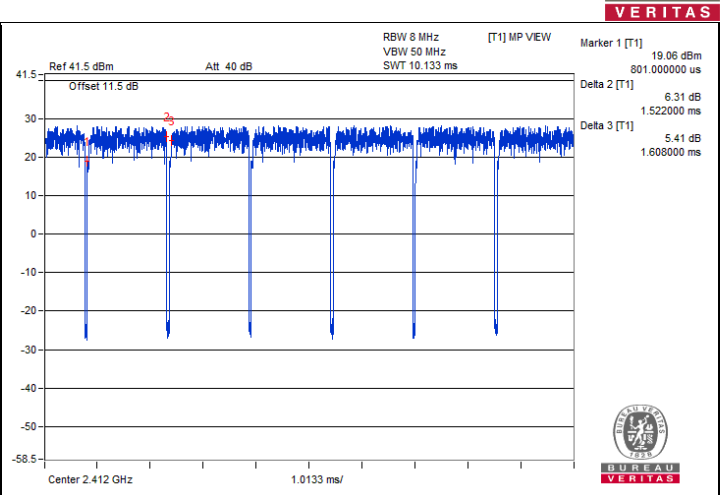

802.11be (EHT20) 1S1T



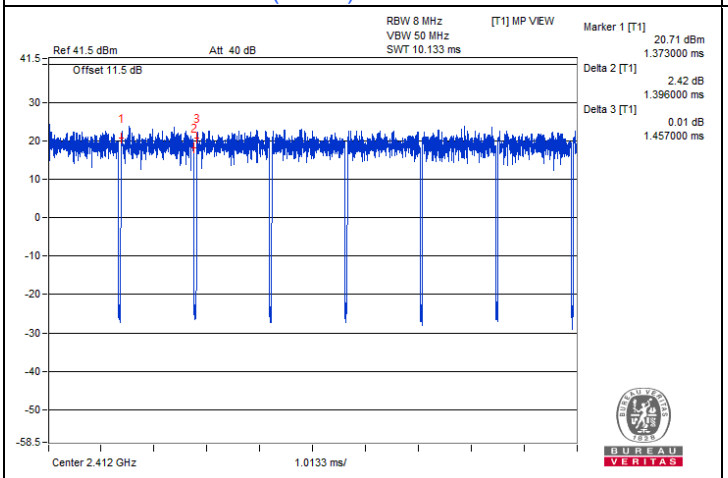

802.11be (EHT40) 1S1T



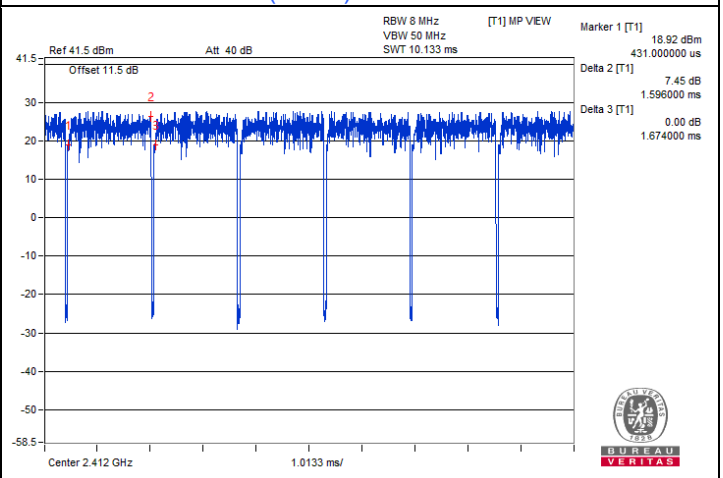

802.11ax (HE20) 26-tone RU 1S1T



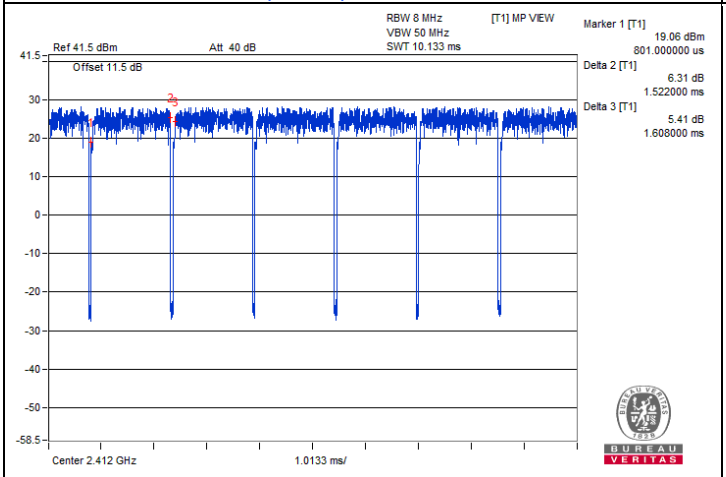

802.11ax (HE20) 52-tone RU 1S1T



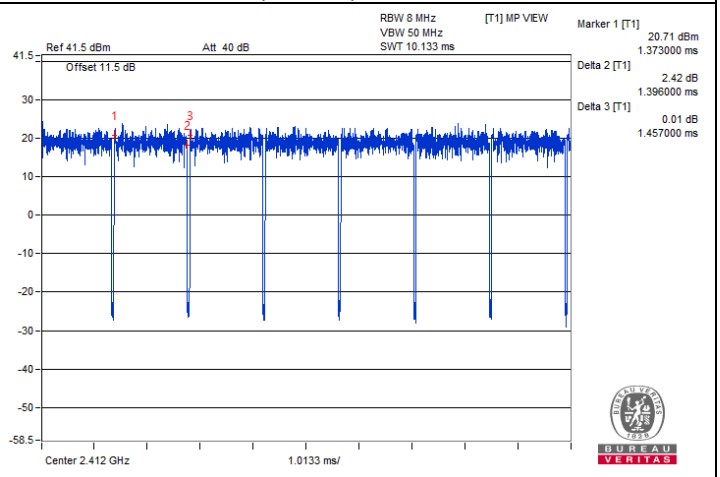

802.11ax (HE20) 106-tone RU 1S1T



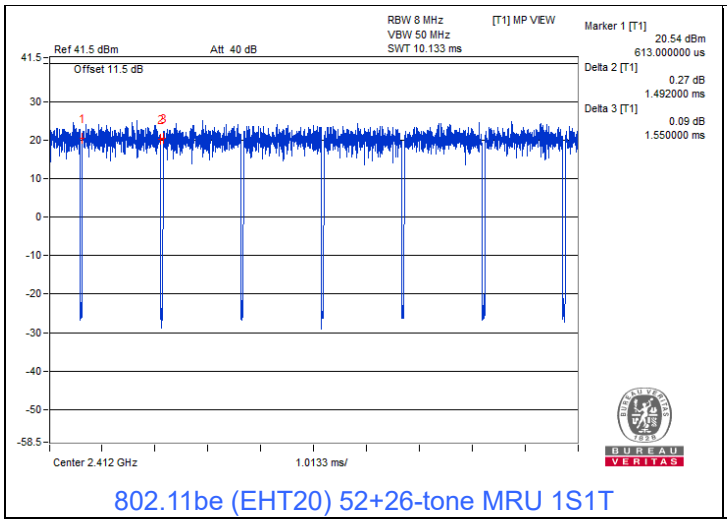

802.11be (EHT20) 26-tone RU 1S1T



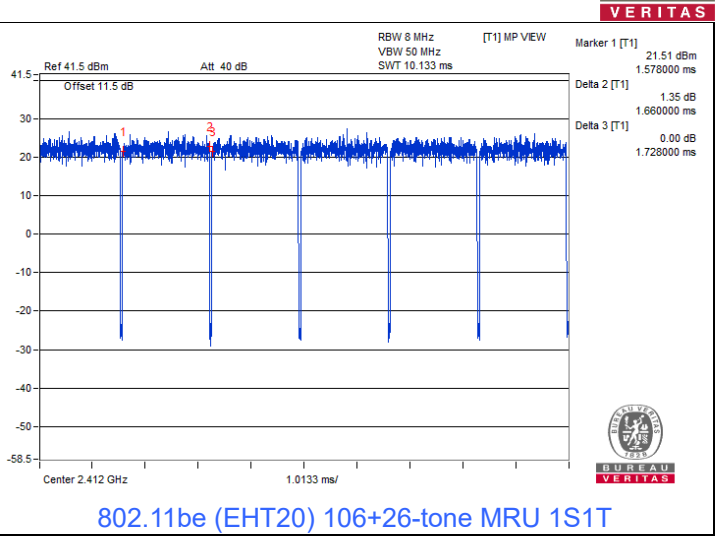

802.11be (EHT20) 52-tone RU 1S1T




802.11be (EHT20) 106-tone RU 1S1T

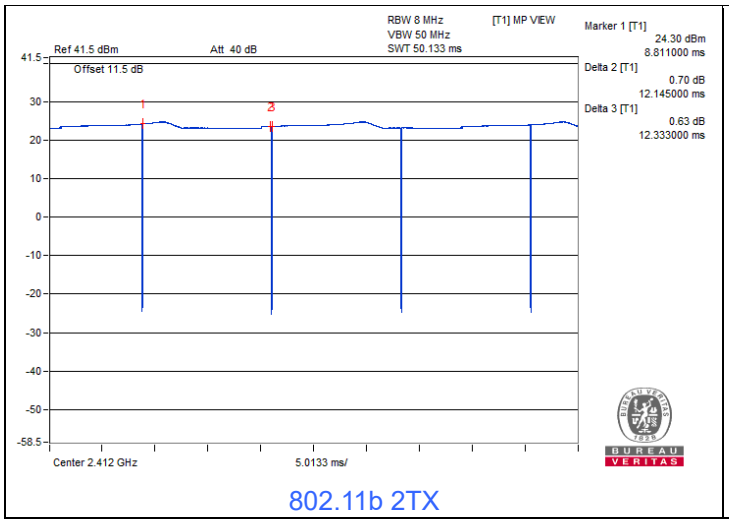



802.11be (EHT20) 52+26-tone MRU 1S1T

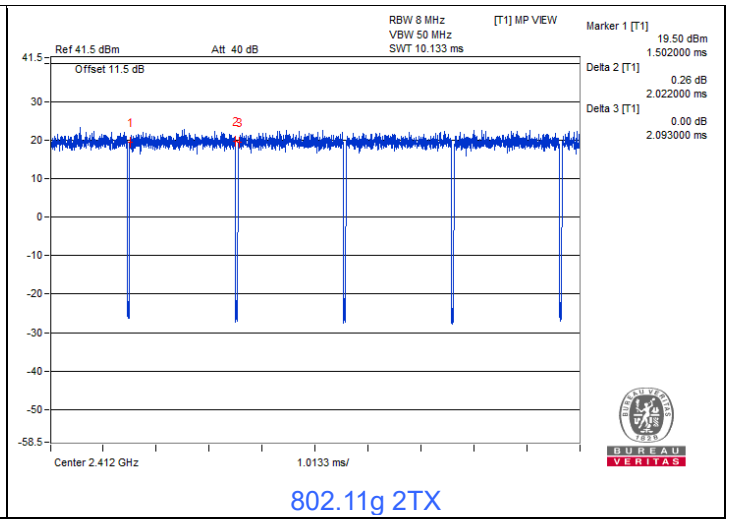



802.11be (EHT20) 106+26-tone MRU 1S1T

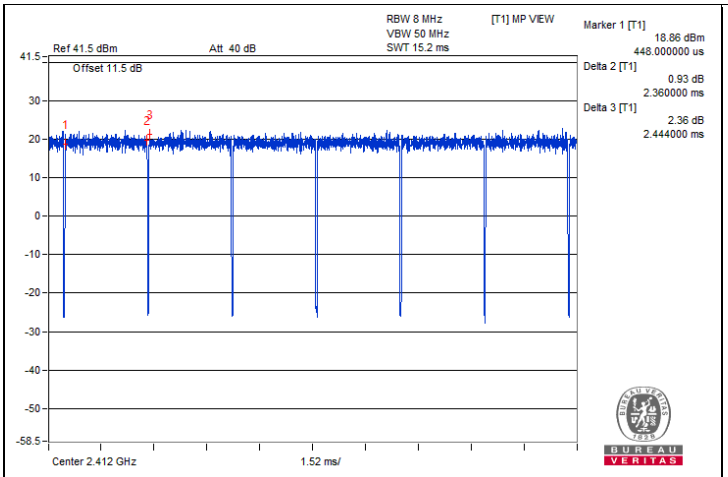
**802.11b 2TX:**
Duty cycle = 12.145 ms / 12.333 ms x 100% = 98.5%
**802.11g 2TX:**
Duty cycle = 2.022 ms / 2.093 ms x 100% = 96.6%, duty factor = 10 * log (1/Duty cycle) = 0.15 dB
**VHT20 2S2T:**
Duty cycle = 2.36 ms / 2.444 ms x 100% = 96.6%, duty factor = 10 * log (1/Duty cycle) = 0.15 dB
**VHT40 2S2T:**
Duty cycle = 2.364 ms / 2.455 ms x 100% = 96.3%, duty factor = 10 * log (1/Duty cycle) = 0.16 dB
**802.11ax (HE20) 2S2T:**
Duty cycle = 2.36 ms / 2.444 ms x 100% = 96.6%, duty factor = 10 * log (1/Duty cycle) = 0.15 dB
**802.11ax (HE40) 2S2T:**
Duty cycle = 2.364 ms / 2.455 ms x 100% = 96.3%, duty factor = 10 * log (1/Duty cycle) = 0.16 dB
**802.11be (EHT20) 2S2T:**
Duty cycle = 2.36 ms / 2.444 ms x 100% = 96.6%, duty factor = 10 * log (1/Duty cycle) = 0.15 dB
**802.11be (EHT40) 2S2T:**
Duty cycle = 2.364 ms / 2.455 ms x 100% = 96.3%, duty factor = 10 * log (1/Duty cycle) = 0.16 dB
**802.11ax (HE20) 26-tone RU 2S2T:**
Duty cycle = 0.852 ms / 0.907 ms x 100% = 93.9%, duty factor = 10 * log (1/Duty cycle) = 0.27 dB
**802.11ax (HE20) 52-tone RU 2S2T:**
Duty cycle = 0.816 ms / 0.888 ms x 100% = 91.9%, duty factor = 10 * log (1/Duty cycle) = 0.37 dB
**802.11ax (HE20) 106-tone RU 2S2T:**
Duty cycle = 0.756 ms / 0.81 ms x 100% = 93.3%, duty factor = 10 * log (1/Duty cycle) = 0.30 dB
**802.11be (EHT20) 26-tone RU 2S2T:**
Duty cycle = 0.852 ms / 0.907 ms x 100% = 93.9%, duty factor = 10 * log (1/Duty cycle) = 0.27 dB
**802.11be (EHT20) 52-tone RU 2S2T:**
Duty cycle = 0.816 ms / 0.888 ms x 100% = 91.9%, duty factor = 10 * log (1/Duty cycle) = 0.37 dB
**802.11be (EHT20) 106-tone RU 2S2T:**
Duty cycle = 0.756 ms / 0.81 ms x 100% = 93.3%, duty factor = 10 * log (1/Duty cycle) = 0.30 dB
**802.11be (EHT20) 52+26-tone MRU 2S2T:**
Duty cycle = 0.799 ms / 0.855 ms x 100% = 93.5%, duty factor = 10 * log (1/Duty cycle) = 0.29 dB
**802.11be (EHT20) 106+26-tone MRU 2S2T:**
Duty cycle = 0.881 ms / 0.937 ms x 100% = 94.0%, duty factor = 10 * log (1/Duty cycle) = 0.27 dB



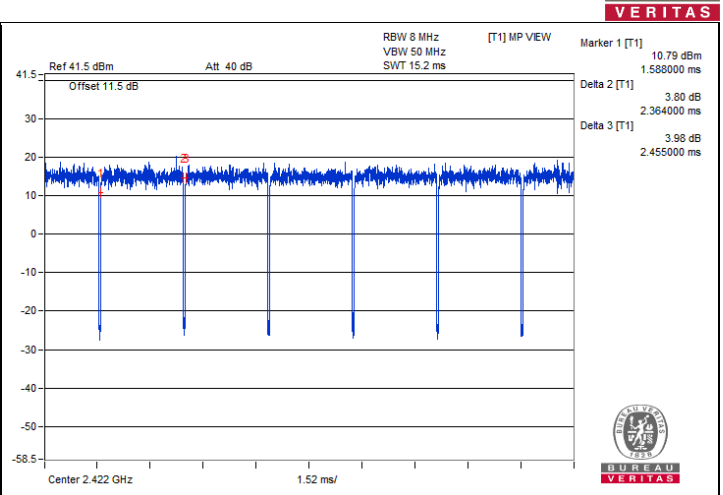
802.11b 2TX



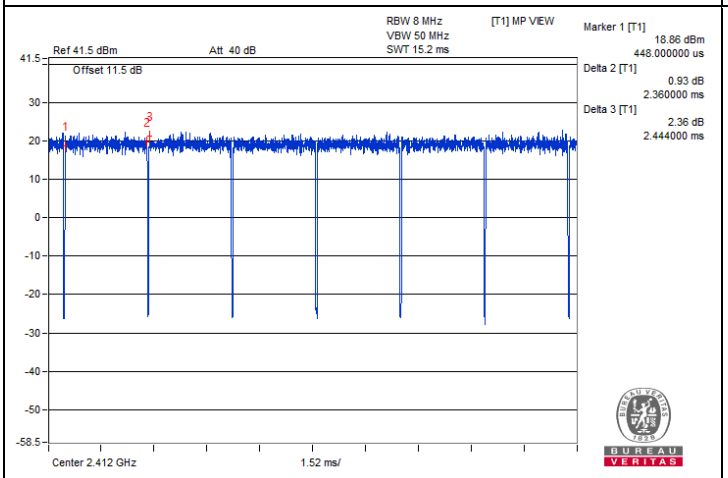
802.11g 2TX



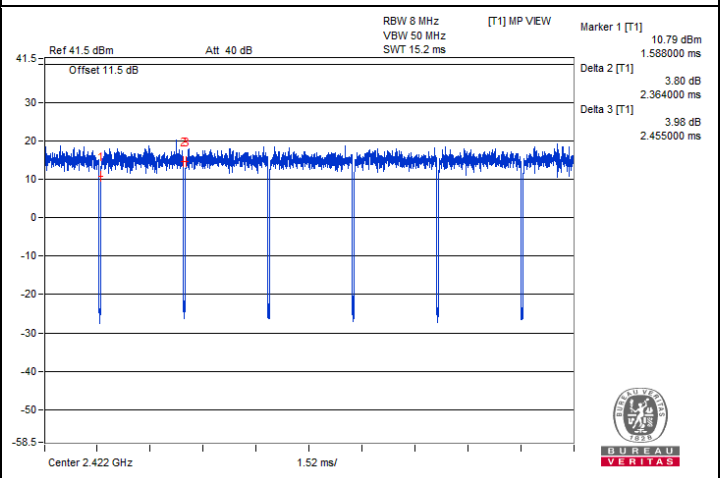

VHT20 2S2T



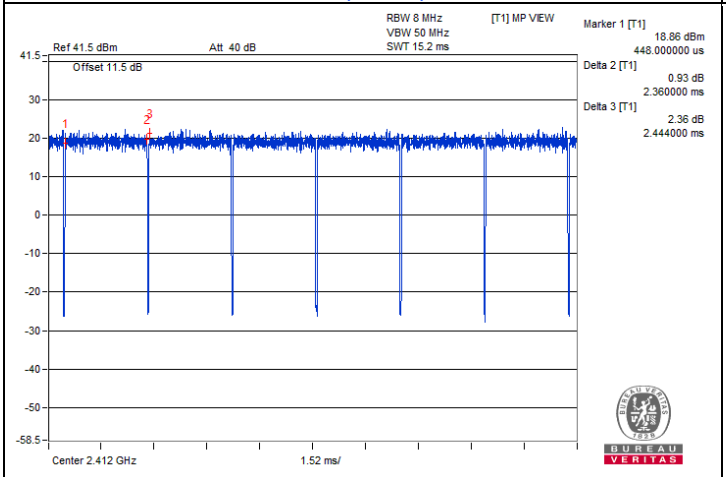

VHT40 2S2T



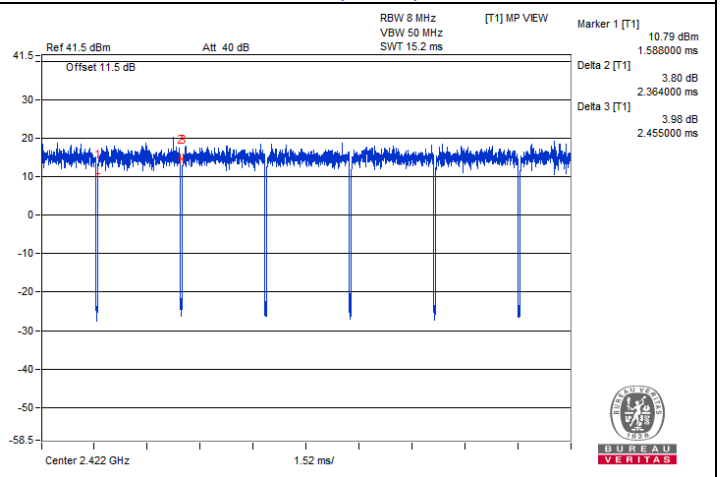

802.11ax (HE20) 2S2T



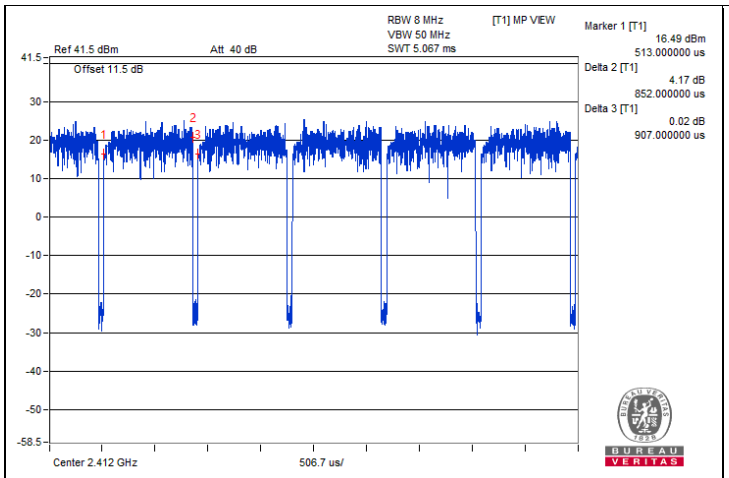

802.11ax (HE40) 2S2T



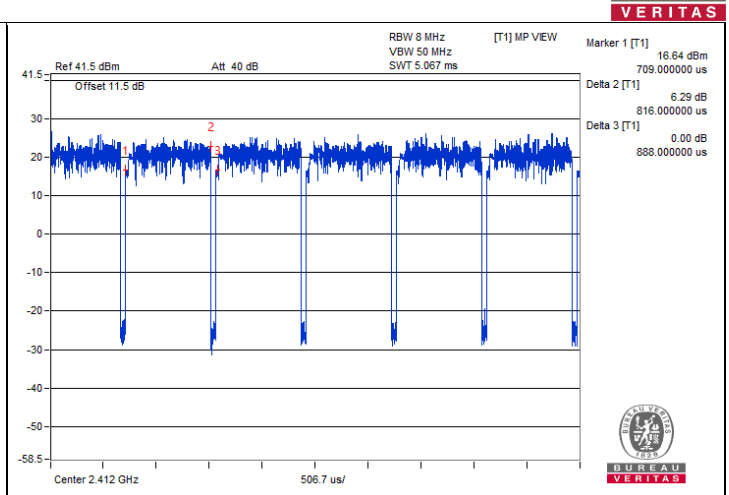

802.11be (EHT20) 2S2T



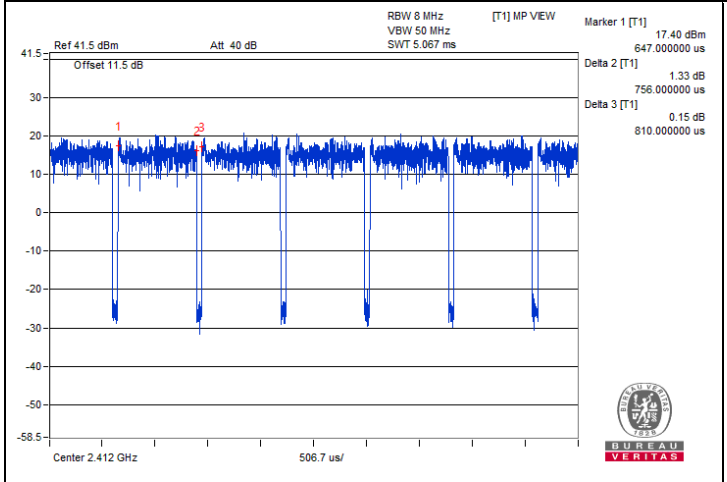

802.11be (EHT40) 2S2T



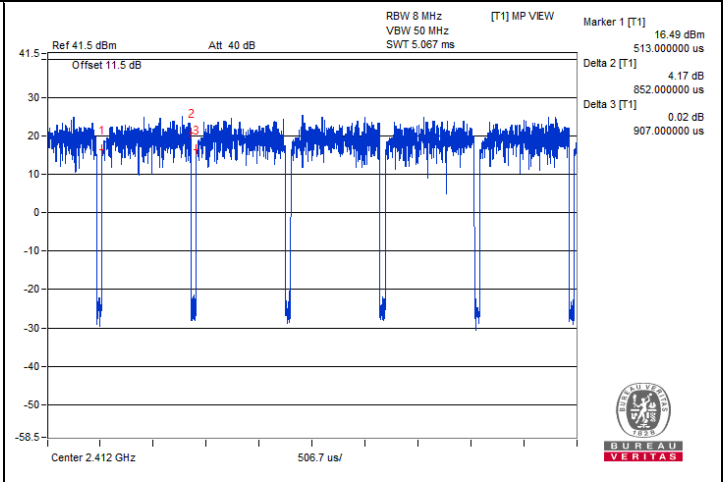

802.11ax (HE20) 26-tone RU 2S2T



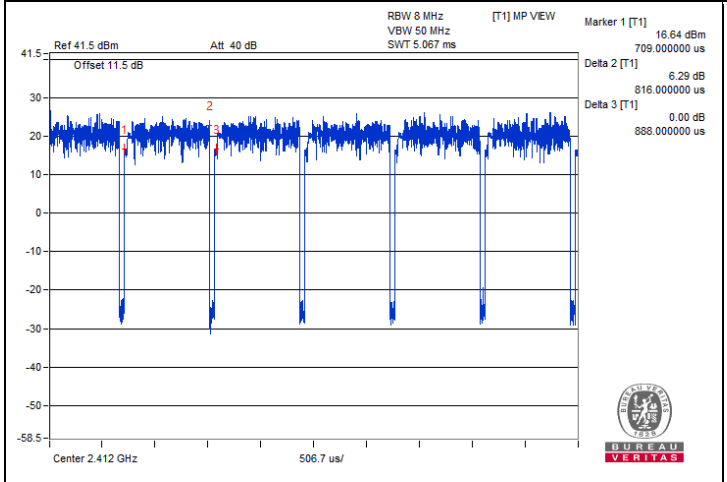

802.11ax (HE20) 52-tone RU 2S2T



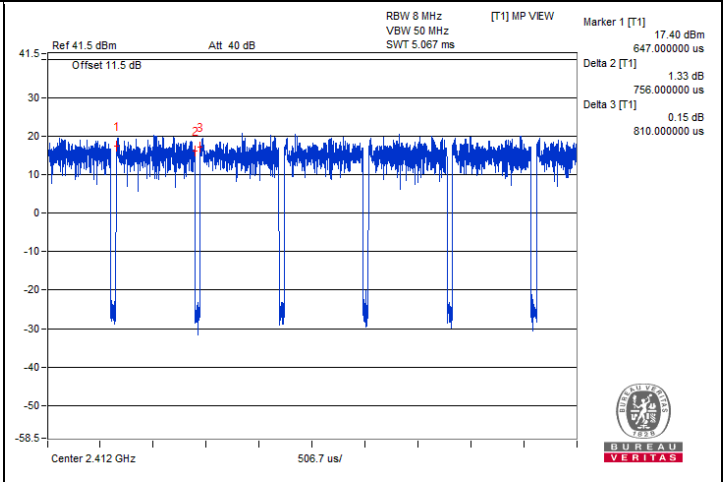

802.11ax (HE20) 106-tone RU 2S2T



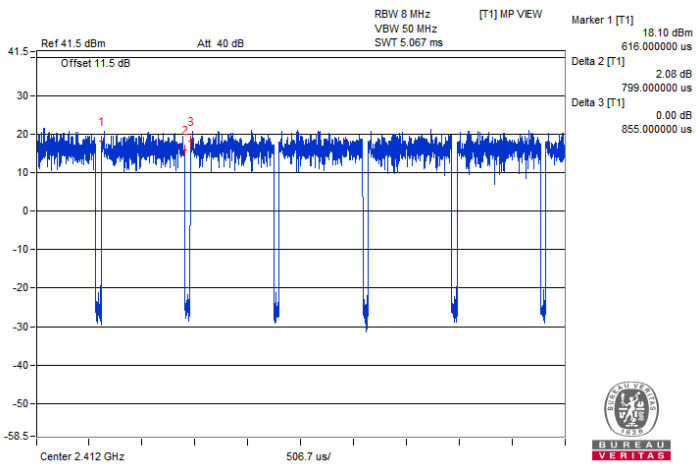

802.11be (EHT20) 26-tone RU 2S2T



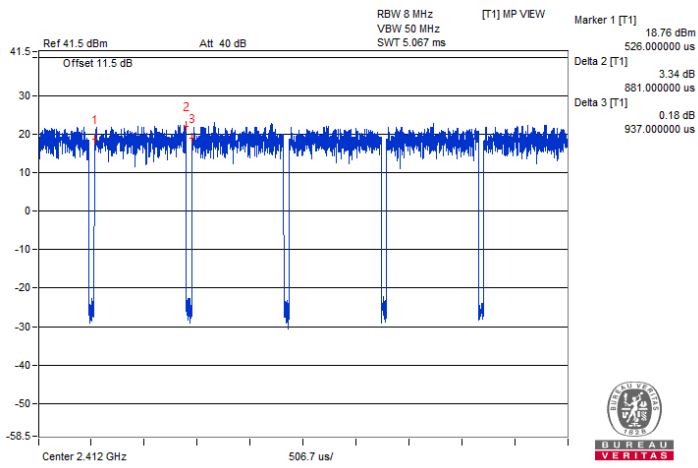

802.11be (EHT20) 52-tone RU 2S2T




802.11be (EHT20) 106-tone RU 2S2T




802.11be (EHT20) 52+26-tone MRU 2S2T



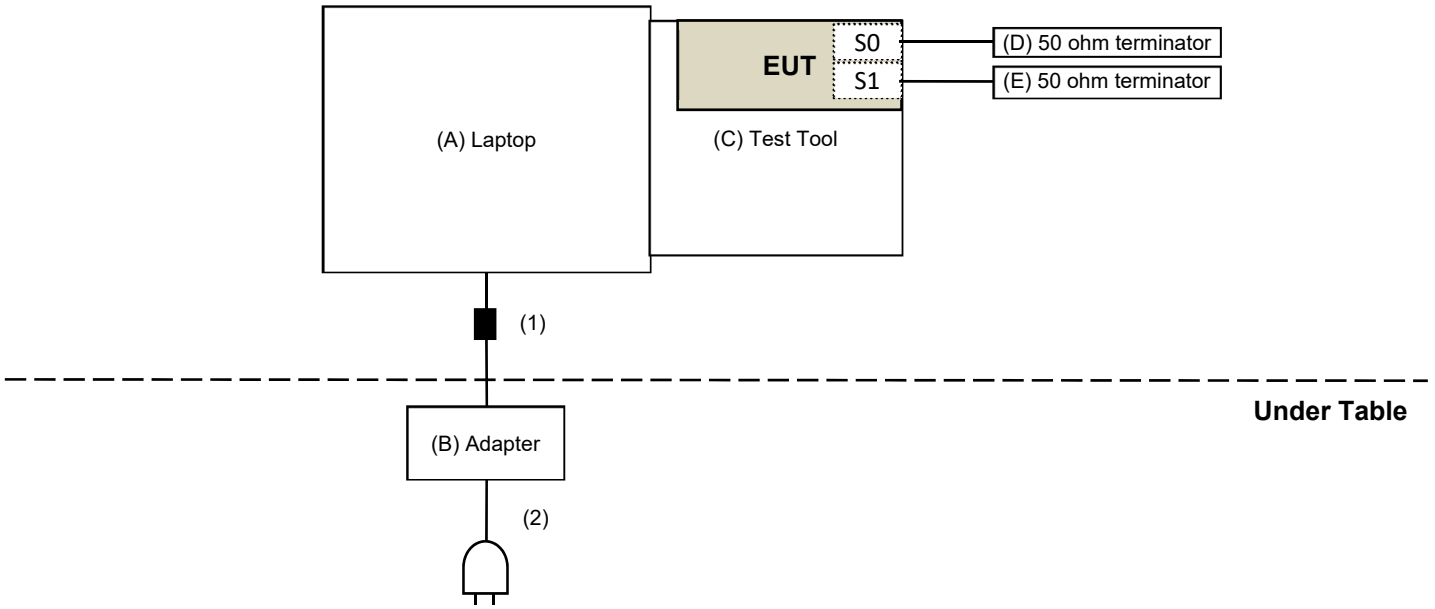

802.11be (EHT20) 106+26-tone MRU 2S2T

### 3.6 Test Program Used and Operation Descriptions

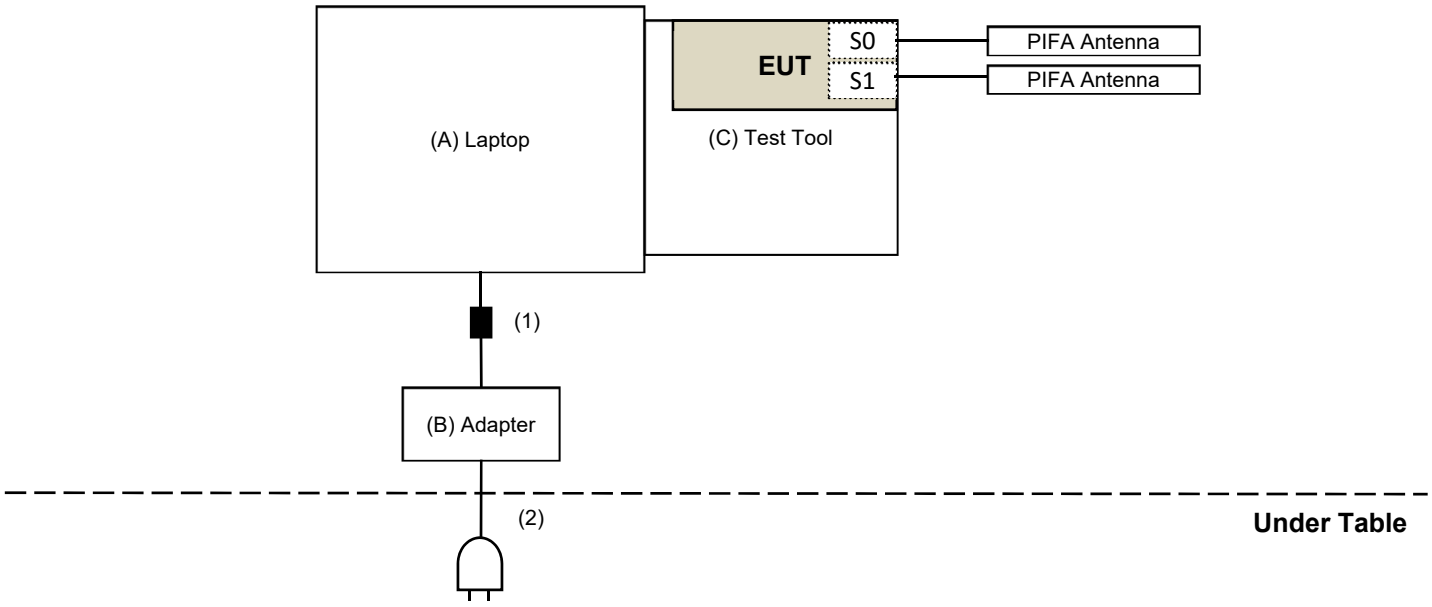
Controlling software (QAtool_V16 (0.0.2.104)) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

### 3.7 Connection Diagram of EUT and Peripheral Devices

**For Unwanted Emission test:**




**For AC Power Conducted Emission test:**



### 3.8 Configuration of Peripheral Devices and Cable Connections

| ID | Product | Brand | Model No. | Serial No. | FCC ID | Remarks |
|---|---|---|---|---|---|---|
| A | Laptop | Lenovo | L440 | R90FM90G | N/A | Provided by Lab |
| B | Adapter | Lenovo | ADLX45DLC3A | N/A | N/A | Provided by Lab |
| C | Test Tool | Mediatek | MTK1849 | N/A | N/A | Supplied by applicant |
| D | 50 Ohm terminator | WOKEN | WTER-18S2 | N/A | N/A | Provided by Lab |
| E | 50 Ohm terminator | WOKEN | WTER-18S2 | N/A | N/A | Provided by Lab |

| ID | Cable Descriptions | Qty. | Length (m) | Shielding (Yes/No) | Cores (Qty.) | Remarks |
|---|---|---|---|---|---|---|
| 1 | DC Cable | 1 | 1.8 | No | 1 | Provided by Lab |
| 2 | AC Cable | 1 | 1 | No | 0 | Provided by Lab |

# 4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

## 4.1 RF Output Power

| Description<br>Manufacturer | Model No. | Serial No. | Calibrated Date | Calibrated Until |
|---|---|---|---|---|
| Pulse Power Sensor<br>Anritsu | MA2411B | 1726434 | 2024/6/7 | 2025/6/6 |
| RF Power Meter<br>Anritsu | ML2495A | 1529002 | 2024/6/7 | 2025/6/6 |

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2025/1/29 ~ 2025/3/20

## 4.2 Power Spectral Density

| Description<br>Manufacturer | Model No. | Serial No. | Calibrated Date | Calibrated Until |
|---|---|---|---|---|
| PXA Signal Analyzer<br>Keysight | N9030A | MY55410176 | 2024/6/12 | 2025/6/11 |
| Software | ADT_RF Test Software V7.6.5.4 | N/A | N/A | N/A |

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2025/1/29 ~ 2025/3/20

## 4.3 6 dB Bandwidth

Refer to section 4.2 to get the tested date and information of the instruments.

## 4.4 Conducted Out of Band Emissions

Refer to section 4.2 to get the tested date and information of the instruments.

## 4.5 AC Power Conducted Emissions

| Description<br>Manufacturer | Model No. | Serial No. | Calibrated Date | Calibrated Until |
|---|---|---|---|---|
| 50 ohm terminal resistance<br>Telegartner | 50 ohm | 3 | 2024/11/1 | 2025/10/31 |
| EMI Test Receiver<br>R&S | ESCS 30 | 100375 | 2024/5/20 | 2025/5/19 |
| Fixed Attenuator<br>STI | STI02-2200-10 | 005 | 2024/2/19 | 2025/2/18 |
| LISN<br>R&S | ESH3-Z5 | 835239/001 | 2024/4/3 | 2025/4/2 |
| | | 848773/004 | 2024/10/7 | 2025/10/6 |
| RF Coaxial Cable<br>JYEBAO | 5D-FB | COCCAB-001 | 2024/2/19 | 2025/2/18 |
| Software<br>BVADT | BVADT_Cond_V7.3.7.4 | N/A | N/A | N/A |

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2024/12/19

## 4.6 Unwanted Emissions below 1 GHz

### Mode A

| Description<br>Manufacturer | Model No. | Serial No. | Calibrated Date | Calibrated Until |
|---|---|---|---|---|
| PXA Signal Analyzer<br>Keysight | N9030A | MY55410176 | 2024/6/12 | 2025/6/11 |
| Software | ADT_RF Test Software V7.6.5.4 | N/A | N/A | N/A |

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2025/2/13

### Mode B

| Description<br>Manufacturer | Model No. | Serial No. | Calibrated Date | Calibrated Until |
|---|---|---|---|---|
| Bi_Log Antenna<br>Schwarzbeck | VULB 9168 | 9168-406 | 2024/10/8 | 2025/10/7 |
| Boresight Antenna Tower & Turn Table<br>Max-Full | MF-7802BS | MF780208530 | N/A | N/A |
| Fixed Attenuator<br>Mini-Circuits | UNAT-5+ | PAD-ATT5-03 | 2024/2/17 | 2025/2/16 |
| Loop Antenna<br>TESEQ | HLA 6121 | 63620 | 2024/10/17 | 2025/10/16 |
| MXE EMI Receiver<br>Agilent | N9038A | MY51210202 | 2024/7/29 | 2025/7/28 |
| Preamplifier<br>EMCI | EMC330N | 980701 | 2024/2/17 | 2025/2/16 |
| | EMC001340 | 980142 | 2024/2/19 | 2025/2/18 |
| RF Coaxial Cable<br>mTJ | 100100-CFD400LW-200 | CFD400-200 | 2024/2/17 | 2025/2/16 |
| | 100100-CFD400LW-400 | CFD400-400 | 2024/2/17 | 2025/2/16 |
| | 100100-CFD400LW-800 | CFD400-800 | 2024/2/17 | 2025/2/16 |
| Software | ADT_Radiated_V8.7.08 | N/A | N/A | N/A |

Notes:

1. The test was performed in 966 Chamber No. 4.
2. Tested Date: 2024/12/19

## 4.7 Unwanted Emissions above 1 GHz

### Mode A

| Description<br>Manufacturer | Model No. | Serial No. | Calibrated Date | Calibrated Until |
|---|---|---|---|---|
| PXA Signal Analyzer<br>Keysight | N9030A | MY55410176 | 2024/6/12 | 2025/6/11 |
| Software | ADT_RF Test Software V7.6.5.4 | N/A | N/A | N/A |

Notes:
1. The test was performed in Oven room 2.
2. Tested Date: 2025/1/6 ~ 2025/3/12

### Mode B

| Description<br>Manufacturer | Model No. | Serial No. | Calibrated Date | Calibrated Until |
|---|---|---|---|---|
| Antenna Tower & Turn Table<br>Max-Full | MF-7802 | MF780208406 | N/A | N/A |
| Fix tool for Boresight antenna tower<br>BV | FBA-01 | FBA_SIP01 | N/A | N/A |
| Horn Antenna<br>Schwarzbeck | BBHA 9120D | 9120D-406 | 2024/11/10 | 2025/11/9 |
| | BBHA 9170 | 9170-739 | 2024/11/10 | 2025/11/9 |
| MXE EMI Receiver<br>Agilent | N9038A | MY50010156 | 2024/6/5 | 2025/6/4 |
| Preamplifier<br>EMCI | EMC12630SE | 980384 | 2025/1/14 | 2026/1/13 |
| | EMC184045SE | 980387 | 2024/8/8 | 2025/8/7 |
| PXA Signal Analyzer<br>Keysight | N9030B | MY57141948 | 2024/5/20 | 2025/5/19 |
| RF Coaxial Cable<br>EMCI | EMC102-KM-KM-1200 | 160924 | 2025/1/24 | 2026/1/23 |
| | EMC102-KM-KM-4000 | 200214 | 2025/1/24 | 2026/1/23 |
| | EMC104-SM-SM-1500 | 180504 | 2025/1/18 | 2026/1/17 |
| | EMC104-SM-SM-2000 | 180601 | 2025/1/18 | 2026/1/17 |
| | EMC104-SM-SM-6000 | 210201 | 2025/1/18 | 2026/1/17 |
| Software | ADT_Radiated_V8.7.08 | N/A | N/A | N/A |

Notes:
1. The test was performed in 966 Chamber No. 3.
2. Tested Date: 2025/3/21

# 5 Limits of Test Items

## 5.1 RF Output Power

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30 dBm)

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any $N_{ANT}$;
Array Gain = 5 log($N_{ANT}/N_{SS}$) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = 10 log($N_{ANT}/N_{SS}$) dB.

## 5.2 Power Spectral Density

The Maximum of Power Spectral Density Measurement is 8 dBm in any 3 kHz.

## 5.3 6 dB Bandwidth

The minimum of 6 dB Bandwidth Measurement is 0.5 MHz.

## 5.4 Conducted Out of Band Emissions

Below 30 dB of the highest emission level of operating band (in 100 kHz Resolution Bandwidth).

## 5.5 AC Power Conducted Emissions

| Frequency (MHz) | Conducted Limit (dBuV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15 - 0.5 | 66 - 56 | 56 - 46 |
| 0.50 - 5.0 | 56 | 46 |
| 5.0 - 30.0 | 60 | 50 |

Notes:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

### 5.6 Unwanted Emissions below 1 GHz

Radiated emissions up to 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30 dB below the highest level of the desired power:

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

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

### 5.7 Unwanted Emissions above 1 GHz

Radiated emissions above 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30 dB below the highest level of the desired power:

| Frequencies (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|---|---|---|
| Above 960 | 500 | 3 |

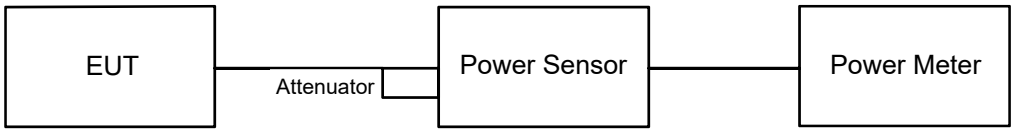
Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

# 6 Test Arrangements

## 6.1 RF Output Power

6.1.1 Test Setup

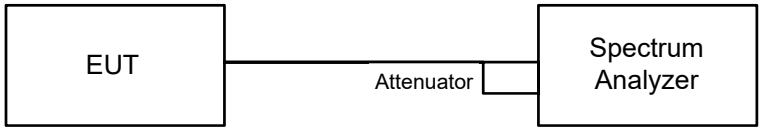



6.1.2 Test Procedure

Average Power:
Average power sensor was used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

## 6.2 Power Spectral Density

6.2.1 Test Setup



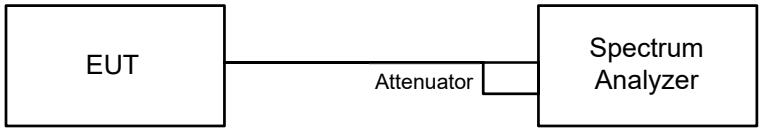

6.2.2 Test Procedure

a. Measure the duty cycle (x).
b. Set instrument center frequency to DTS channel center frequency.
c. Set span to at least 1.5 times the OBW.
d. Set RBW to: 3 kHz.
e. Set VBW ≥3 x RBW.
f. Detector = power averaging (RMS) or sample detector (when RMS not available).
g. Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
h. Sweep time = auto couple.
i. Do not use sweep triggering. Allow sweep to “free run”.
j. Employ trace averaging (RMS) mode over a minimum of 100 traces.
k. Use the peak marker function to determine the maximum amplitude level.

Note: If Duty cycle < 98%, Add 10 log (1/x), where x is the duty cycle measured in step (a, to the measured PSD to compute the average PSD during the actual transmission time.

## 6.3 6 dB Bandwidth

6.3.1 Test Setup

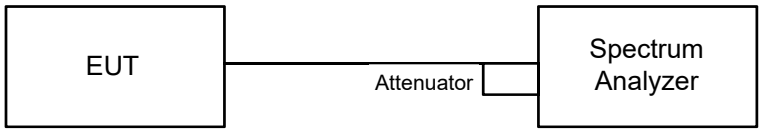



6.3.2 Test Procedure

a. Set resolution bandwidth (RBW) = 100 kHz.
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

## 6.4 Conducted Out of Band Emissions

6.4.1 Test Setup




6.4.2 Test Procedure

**MEASUREMENT PROCEDURE REF**

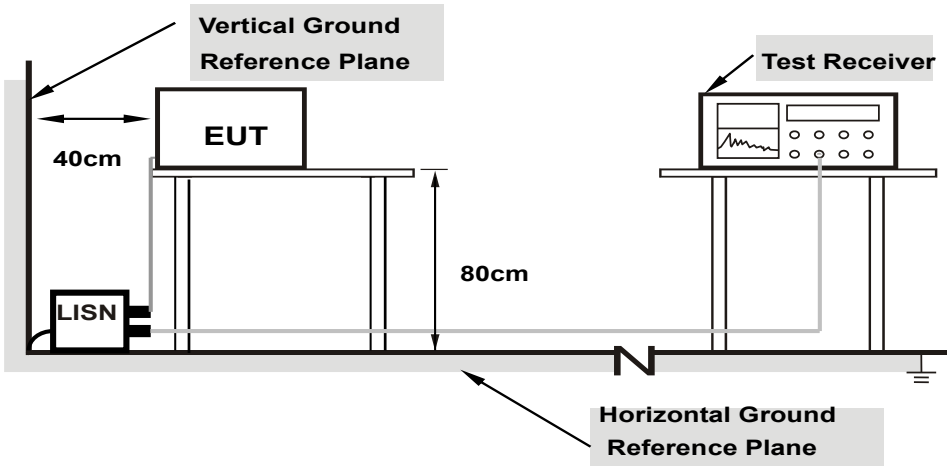
a. Set the RBW = 100 kHz.
b. Set the VBW ≥ 300 kHz.
c. Detector = peak.
d. Sweep time = auto couple.
e. Trace mode = max hold.
f. Allow trace to fully stabilize.
g. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

**MEASUREMENT PROCEDURE OOBE**

a. Set RBW = 100 kHz.
b. Set VBW ≥ 300 kHz.
c. Detector = peak.
d. Sweep = auto couple.
e. Trace Mode = max hold.
f. Allow trace to fully stabilize.
g. Use the peak marker function to determine the maximum amplitude level.

## 6.5 AC Power Conducted Emissions

6.5.1 Test Setup




**Note: 1.Support units were connected to second LISN.**

For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.5.2 Test Procedure

a. The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

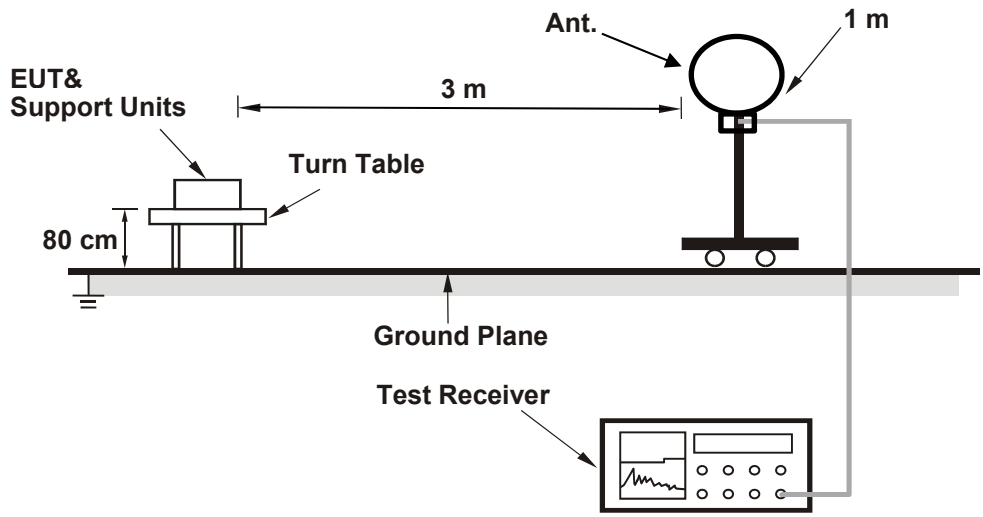
Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz-30 MHz.

## 6.6 Unwanted Emissions below 1 GHz

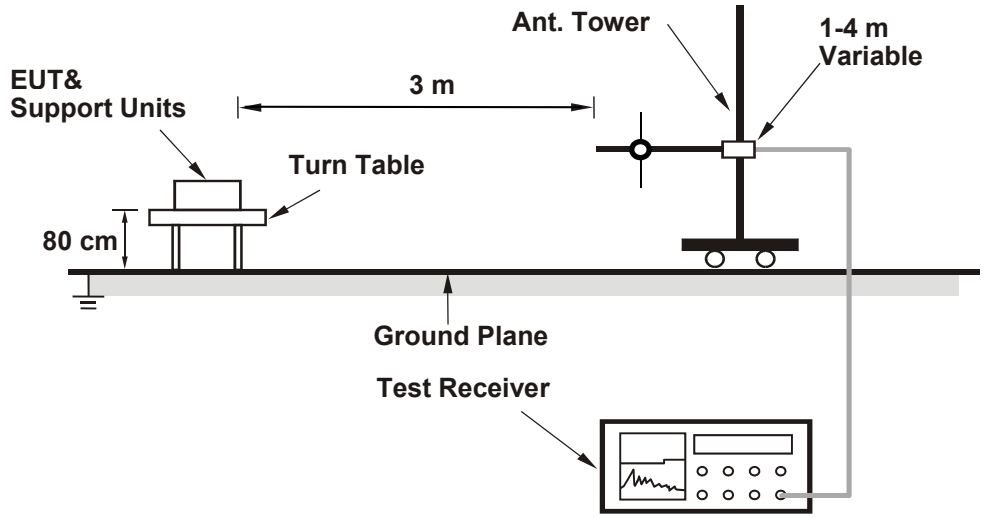
6.6.1 Test Setup

**For Radiated Configuration:**

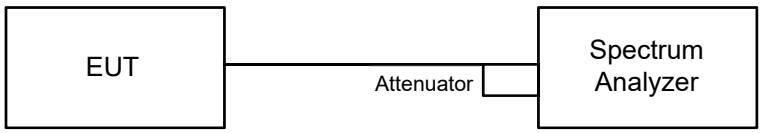
**For Radiated emission below 30 MHz**




**For Radiated emission above 30 MHz**




**For Conducted Configuration:**




For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.6.2 Test Procedure

Radiated versus Conducted Measurement.
The unwanted emission limits in both the restricted and non-restricted bands are based on antenna-port conducted measurements in conjunction with cabinet emissions tests are permitted to demonstrate compliance.
The following steps was performed:

a. Cabinet emissions measurements. Radiated measurement was performed to ensure that cabinet emissions are below the emission limits. For the cabinet-emission measurements the antenna was replaced by a termination matching the nominal impedance of the antenna.
b. Conducted tests was performed using equipment that matches the nominal impedance of the antenna assembly used with the EUT.
c. EIRP calculation. A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater.
d. EIRP adjustments for multiple outputs. (Follow the procedures specified in FCC KDB Publication 662911)
e. For all of Radiation emission test

**For Radiated emission below 30 MHz**

e-1.1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

e-1.2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

e-1.3. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

e-1.4. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e-1.5. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.

**For Radiated emission above 30 MHz**

e-2.1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

e-2.2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

e-2.3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e-2.4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e-2.5. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

Notes:

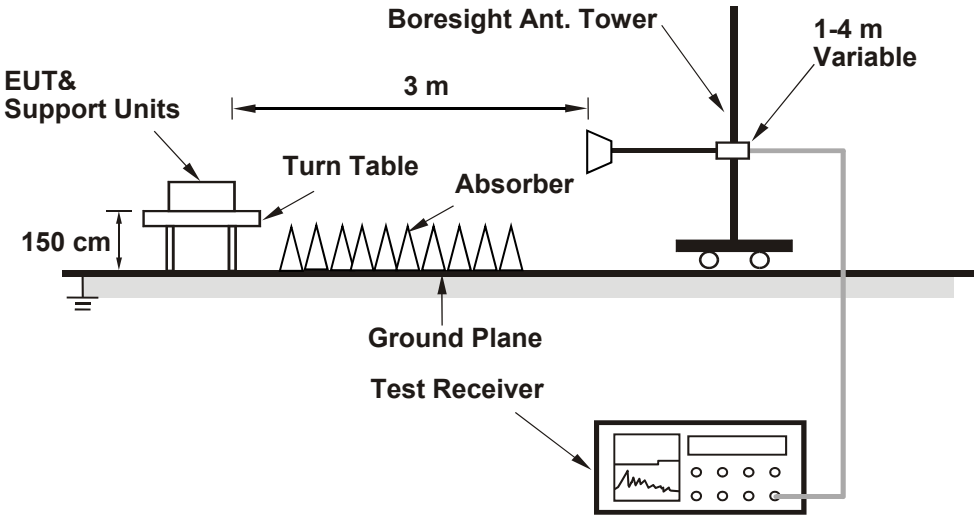
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

| Radiated versus Conducted Measurement |
|---|
| For Radiated measurement:<br>The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation).<br>For Conducted measurement:<br>The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions). |
| **Conducted Unwanted Emission Convert Formula** |
| a. Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8<br>d = measurement distance in 3 meters.<br>b. EIRP Level (dBm) = Raw Value(dBm) + Correction Factor(dB)<br>c. Correction Factor is directional gain, and the composite gain will be used when signal support the correlated signal.<br>For the out of band spurious the gain for the specific band may have been used rather than the highest gain across all bands.<br>For the band edge the gain for the specific band may have been used.<br>Notes:<br>1. In restricted bands below 1000 MHz, add upper bound on ground plane reflection:<br>For frequencies between 30 MHz and 1000 MHz, add 4.7 dB.<br>2. The conducted emission test was considered some factor to compute test result. |

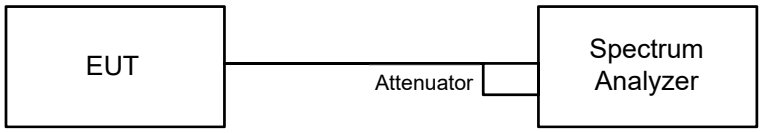
## 6.7 Unwanted Emissions above 1 GHz

6.7.1 Test Setup

**For Radiated Configuration:**




**For Conducted Configuration:**




For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.7.2 Test Procedure

Radiated versus Conducted Measurement.
The unwanted emission limits in both the restricted and non-restricted bands are based on antenna-port conducted measurements in conjunction with cabinet emissions tests are permitted to demonstrate compliance.
The following steps was performed:

a. Cabinet emissions measurements. Radiated measurement was performed to ensure that cabinet emissions are below the emission limits. For the cabinet-emission measurements the antenna was replaced by a termination matching the nominal impedance of the antenna.
b. Conducted tests was performed using equipment that matches the nominal impedance of the antenna assembly used with the EUT.
c. EIRP calculation. A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater.
d. EIRP adjustments for multiple outputs. (Follow the procedures specified in FCC KDB Publication 662911)
e. For all of Radiation emission test

e-1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

e-2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

e-3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e-4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e-5. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Notes:

1. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
2. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10 Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1 GHz.

   For Integration method:

   i. For band edge measurement, the integration method is used, the resolution bandwidth of test spectrum analyzer is 100 kHz and the video bandwidth is 300 kHz. Please refer to the following for other instrument settings.

   ii. Using the detector peak method, refer to ANSI C63.10 section 11.13.3.2, the peak value = peak reading value.

   iii. Using the detector RMS (power averaging) method, refer to ANSI C63.10 section 11.13.3.3 or 11.13.3.4, the Average value = Average Reading + Duty Cycle Correction Factor. For duty cycle correction factor values, see the Test Signal Duty Cycle section in this report.
3. All modes of operation were investigated and the worst-case emissions are reported.

| **Radiated versus Conducted Measurement** |
|---|
| For Radiated measurement:<br>The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation).<br>For Conducted measurement:<br>The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions).<br>For Verified radiated measurement:<br>The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation). |
| **Conducted Unwanted Emission Convert Formula** |
| a. Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8<br>d = measurement distance in 3 meters.<br>b. EIRP Level (dBm) = Raw Value(dBm) + Correction Factor(dB).<br>c. Correction Factor is directional gain, and the composite gain will be used when signal support the correlated signal.<br>For the out of band spurious the gain for the specific band may have been used rather than the highest gain across all bands.<br>For the band edge the gain for the specific band may have been used.<br>Note: The conducted emission test was considered some factor to compute test result. |

# 7 Test Results of Test Item

## 7.1 RF Output Power

| Input Power: | 3.3 Vdc | Environmental Conditions: | 23°C, 64% RH | Tested By: | Katina Lu |
|---|---|---|---|---|---|

### 802.11b 1TX

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 154.525 | 21.89 | 29.81 | Pass |
| 6 | 2437 | 137.721 | 21.39 | 29.81 | Pass |
| 11 | 2462 | 121.06 | 20.83 | 29.81 | Pass |
| 12 | 2467 | 43.152 | 16.35 | 29.81 | Pass |
| 13 | 2472 | 14.962 | 11.75 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11g 1TX

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 78.163 | 18.93 | 29.81 | Pass |
| 6 | 2437 | 165.577 | 22.19 | 29.81 | Pass |
| 11 | 2462 | 84.723 | 19.28 | 29.81 | Pass |
| 12 | 2467 | 61.66 | 17.90 | 29.81 | Pass |
| 13 | 2472 | 39.355 | 15.95 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### VHT20 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 74.131 | 18.70 | 29.81 | Pass |
| 6 | 2437 | 138.357 | 21.41 | 29.81 | Pass |
| 11 | 2462 | 78.705 | 18.96 | 29.81 | Pass |
| 12 | 2467 | 67.608 | 18.30 | 29.81 | Pass |
| 13 | 2472 | 39.537 | 15.97 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### VHT40 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 3 | 2422 | 54.075 | 17.33 | 29.81 | Pass |
| 6 | 2437 | 81.283 | 19.10 | 29.81 | Pass |
| 9 | 2452 | 62.517 | 17.96 | 29.81 | Pass |
| 10 | 2457 | 62.23 | 17.94 | 29.81 | Pass |
| 11 | 2462 | 54.325 | 17.35 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11ax (HE20) 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 77.268 | 18.88 | 29.81 | Pass |
| 6 | 2437 | 143.219 | 21.56 | 29.81 | Pass |
| 11 | 2462 | 81.846 | 19.13 | 29.81 | Pass |
| 12 | 2467 | 70.307 | 18.47 | 29.81 | Pass |
| 13 | 2472 | 40.738 | 16.10 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11ax (HE40) 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 3 | 2422 | 55.976 | 17.48 | 29.81 | Pass |
| 6 | 2437 | 84.14 | 19.25 | 29.81 | Pass |
| 9 | 2452 | 65.313 | 18.15 | 29.81 | Pass |
| 10 | 2457 | 64.565 | 18.10 | 29.81 | Pass |
| 11 | 2462 | 55.59 | 17.45 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 79.799 | 19.02 | 29.81 | Pass |
| 6 | 2437 | 148.594 | 21.72 | 29.81 | Pass |
| 11 | 2462 | 83.946 | 19.24 | 29.81 | Pass |
| 12 | 2467 | 72.444 | 18.60 | 29.81 | Pass |
| 13 | 2472 | 42.267 | 16.26 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT40) 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 3 | 2422 | 58.345 | 17.66 | 29.81 | Pass |
| 6 | 2437 | 86.298 | 19.36 | 29.81 | Pass |
| 9 | 2452 | 66.834 | 18.25 | 29.81 | Pass |
| 10 | 2457 | 66.374 | 18.22 | 29.81 | Pass |
| 11 | 2462 | 58.076 | 17.64 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11ax (HE20) 26-tone RU 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 54.954 | 17.40 | 29.81 | Pass |
| 6 | 2437 | 142.889 | 21.55 | 29.81 | Pass |
| 11 | 2462 | 69.823 | 18.44 | 29.81 | Pass |
| 12 | 2467 | 52.602 | 17.21 | 29.81 | Pass |
| 13 | 2472 | 11.092 | 10.45 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11ax (HE20) 52-tone RU 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 70.146 | 18.46 | 29.81 | Pass |
| 6 | 2437 | 141.906 | 21.52 | 29.81 | Pass |
| 11 | 2462 | 78.705 | 18.96 | 29.81 | Pass |
| 12 | 2467 | 53.333 | 17.27 | 29.81 | Pass |
| 13 | 2472 | 14.028 | 11.47 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11ax (HE20) 106-tone RU 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 68.234 | 18.34 | 29.81 | Pass |
| 6 | 2437 | 139.959 | 21.46 | 29.81 | Pass |
| 11 | 2462 | 76.384 | 18.83 | 29.81 | Pass |
| 12 | 2467 | 66.374 | 18.22 | 29.81 | Pass |
| 13 | 2472 | 15.136 | 11.80 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 26-tone RU 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 57.016 | 17.56 | 29.81 | Pass |
| 6 | 2437 | 147.911 | 21.70 | 29.81 | Pass |
| 11 | 2462 | 72.778 | 18.62 | 29.81 | Pass |
| 12 | 2467 | 54.702 | 17.38 | 29.81 | Pass |
| 13 | 2472 | 11.455 | 10.59 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 52-tone RU 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 72.444 | 18.60 | 29.81 | Pass |
| 6 | 2437 | 148.252 | 21.71 | 29.81 | Pass |
| 11 | 2462 | 80.724 | 19.07 | 29.81 | Pass |
| 12 | 2467 | 55.59 | 17.45 | 29.81 | Pass |
| 13 | 2472 | 14.388 | 11.58 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 106-tone RU 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 71.285 | 18.53 | 29.81 | Pass |
| 6 | 2437 | 145.211 | 21.62 | 29.81 | Pass |
| 11 | 2462 | 79.433 | 19.00 | 29.81 | Pass |
| 12 | 2467 | 69.343 | 18.41 | 29.81 | Pass |
| 13 | 2472 | 15.56 | 11.92 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 52+26-tone MRU 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 71.779 | 18.56 | 29.81 | Pass |
| 6 | 2437 | 145.881 | 21.64 | 29.81 | Pass |
| 11 | 2462 | 79.799 | 19.02 | 29.81 | Pass |
| 12 | 2467 | 70.795 | 18.50 | 29.81 | Pass |
| 13 | 2472 | 36.141 | 15.58 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 106+26-tone MRU 1S1T

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| 1 | 2412 | 71.285 | 18.53 | 29.81 | Pass |
| 6 | 2437 | 142.889 | 21.55 | 29.81 | Pass |
| 11 | 2462 | 77.983 | 18.92 | 29.81 | Pass |
| 12 | 2467 | 71.779 | 18.56 | 29.81 | Pass |
| 13 | 2472 | 20.893 | 13.20 | 29.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

| Input Power: | 3.3 Vdc | Environmental Conditions: | 23°C, 64% RH | Tested By: | Katina Lu |
|---|---|---|---|---|---|

### 802.11b 2TX

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 15.98 | 15.52 | 75.273 | 18.77 | 29.81 | Pass |
| 6 | 2437 | 16.47 | 16.06 | 84.725 | 19.28 | 29.81 | Pass |
| 11 | 2462 | 16.44 | 15.97 | 83.592 | 19.22 | 29.81 | Pass |
| 12 | 2467 | 13.08 | 12.52 | 38.188 | 15.82 | 29.81 | Pass |
| 13 | 2472 | 6.49 | 6.07 | 8.502 | 9.30 | 29.81 | Pass |

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11g 2TX

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 15.85 | 15.36 | 72.815 | 18.62 | 29.81 | Pass |
| 6 | 2437 | 20.03 | 19.79 | 195.973 | 22.92 | 29.81 | Pass |
| 11 | 2462 | 16.42 | 16.02 | 83.848 | 19.23 | 29.81 | Pass |
| 12 | 2467 | 14.52 | 14.07 | 53.841 | 17.31 | 29.81 | Pass |
| 13 | 2472 | 13.33 | 12.90 | 41.026 | 16.13 | 29.81 | Pass |

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### VHT20 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 16.71 | 16.39 | 90.433 | 19.56 | 29.81 | Pass |
| 6 | 2437 | 20.44 | 20.20 | 215.375 | 23.33 | 29.81 | Pass |
| 11 | 2462 | 18.40 | 18.02 | 132.57 | 21.22 | 29.81 | Pass |
| 12 | 2467 | 15.49 | 15.00 | 67.023 | 18.26 | 29.81 | Pass |
| 13 | 2472 | 14.09 | 13.76 | 49.413 | 16.94 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### VHT40 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 3 | 2422 | 14.88 | 14.54 | 59.206 | 17.72 | 29.81 | Pass |
| 6 | 2437 | 17.90 | 17.54 | 118.414 | 20.73 | 29.81 | Pass |
| 9 | 2452 | 16.42 | 16.09 | 84.497 | 19.27 | 29.81 | Pass |
| 10 | 2457 | 15.97 | 15.60 | 75.844 | 18.80 | 29.81 | Pass |
| 11 | 2462 | 15.36 | 14.94 | 65.545 | 18.17 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11ax (HE20) 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 16.83 | 16.54 | 93.276 | 19.70 | 29.81 | Pass |
| 6 | 2437 | 20.55 | 20.40 | 223.149 | 23.49 | 29.81 | Pass |
| 11 | 2462 | 18.51 | 18.13 | 135.971 | 21.33 | 29.81 | Pass |
| 12 | 2467 | 15.64 | 15.19 | 69.681 | 18.43 | 29.81 | Pass |
| 13 | 2472 | 14.20 | 13.93 | 51.02 | 17.08 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11ax (HE40) 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 3 | 2422 | 15.05 | 14.72 | 61.637 | 17.90 | 29.81 | Pass |
| 6 | 2437 | 18.04 | 17.72 | 122.836 | 20.89 | 29.81 | Pass |
| 9 | 2452 | 16.56 | 16.23 | 87.266 | 19.41 | 29.81 | Pass |
| 10 | 2457 | 16.08 | 15.70 | 77.704 | 18.90 | 29.81 | Pass |
| 11 | 2462 | 15.52 | 15.13 | 68.229 | 18.34 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 17.02 | 16.70 | 97.124 | 19.87 | 29.81 | Pass |
| 6 | 2437 | 20.75 | 20.51 | 231.311 | 23.64 | 29.81 | Pass |
| 11 | 2462 | 18.66 | 18.29 | 140.904 | 21.49 | 29.81 | Pass |
| 12 | 2467 | 15.82 | 15.35 | 72.471 | 18.60 | 29.81 | Pass |
| 13 | 2472 | 14.33 | 14.05 | 52.512 | 17.20 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT40) 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 3 | 2422 | 15.25 | 14.82 | 63.835 | 18.05 | 29.81 | Pass |
| 6 | 2437 | 18.21 | 17.87 | 127.457 | 21.05 | 29.81 | Pass |
| 9 | 2452 | 16.67 | 16.36 | 89.703 | 19.53 | 29.81 | Pass |
| 10 | 2457 | 16.22 | 15.84 | 80.25 | 19.04 | 29.81 | Pass |
| 11 | 2462 | 15.71 | 15.33 | 71.358 | 18.53 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11ax (HE20) 26-tone RU 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 15.96 | 15.71 | 76.685 | 18.85 | 29.81 | Pass |
| 6 | 2437 | 20.37 | 20.28 | 215.553 | 23.34 | 29.81 | Pass |
| 11 | 2462 | 16.24 | 16.02 | 82.067 | 19.14 | 29.81 | Pass |
| 12 | 2467 | 15.58 | 14.96 | 67.474 | 18.29 | 29.81 | Pass |
| 13 | 2472 | 7.86 | 7.63 | 11.904 | 10.76 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11ax (HE20) 52-tone RU 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 16.30 | 15.97 | 82.195 | 19.15 | 29.81 | Pass |
| 6 | 2437 | 20.24 | 20.19 | 210.154 | 23.23 | 29.81 | Pass |
| 11 | 2462 | 16.19 | 15.85 | 80.05 | 19.03 | 29.81 | Pass |
| 12 | 2467 | 15.26 | 14.87 | 64.264 | 18.08 | 29.81 | Pass |
| 13 | 2472 | 8.59 | 8.40 | 14.146 | 11.51 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11ax (HE20) 106-tone RU 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 16.65 | 16.26 | 88.505 | 19.47 | 29.81 | Pass |
| 6 | 2437 | 20.17 | 19.86 | 200.82 | 23.03 | 29.81 | Pass |
| 11 | 2462 | 17.74 | 17.30 | 113.132 | 20.54 | 29.81 | Pass |
| 12 | 2467 | 15.30 | 14.74 | 63.67 | 18.04 | 29.81 | Pass |
| 13 | 2472 | 8.90 | 8.54 | 14.907 | 11.73 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 26-tone RU 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 16.10 | 15.89 | 79.553 | 19.01 | 29.81 | Pass |
| 6 | 2437 | 20.56 | 20.45 | 224.68 | 23.52 | 29.81 | Pass |
| 11 | 2462 | 16.36 | 16.12 | 84.177 | 19.25 | 29.81 | Pass |
| 12 | 2467 | 15.68 | 15.13 | 69.566 | 18.42 | 29.81 | Pass |
| 13 | 2472 | 8.06 | 7.73 | 12.327 | 10.91 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 52-tone RU 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 16.45 | 16.15 | 85.367 | 19.31 | 29.81 | Pass |
| 6 | 2437 | 20.41 | 20.30 | 217.053 | 23.37 | 29.81 | Pass |
| 11 | 2462 | 16.34 | 15.95 | 82.408 | 19.16 | 29.81 | Pass |
| 12 | 2467 | 15.38 | 15.01 | 66.21 | 18.21 | 29.81 | Pass |
| 13 | 2472 | 8.74 | 8.58 | 14.693 | 11.67 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 106-tone RU 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 16.81 | 16.43 | 91.928 | 19.63 | 29.81 | Pass |
| 6 | 2437 | 20.34 | 20.02 | 208.605 | 23.19 | 29.81 | Pass |
| 11 | 2462 | 17.88 | 17.42 | 116.584 | 20.67 | 29.81 | Pass |
| 12 | 2467 | 15.40 | 14.93 | 65.791 | 18.18 | 29.81 | Pass |
| 13 | 2472 | 9.09 | 8.69 | 15.506 | 11.90 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 52+26-tone MRU 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 16.82 | 16.55 | 93.27 | 19.70 | 29.81 | Pass |
| 6 | 2437 | 20.41 | 20.10 | 212.23 | 23.27 | 29.81 | Pass |
| 11 | 2462 | 18.39 | 17.88 | 130.4 | 21.15 | 29.81 | Pass |
| 12 | 2467 | 15.41 | 15.03 | 66.596 | 18.23 | 29.81 | Pass |
| 13 | 2472 | 12.81 | 12.26 | 35.925 | 15.55 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

### 802.11be (EHT20) 106+26-tone MRU 2S2T

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Power Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | 16.90 | 16.52 | 93.852 | 19.72 | 29.81 | Pass |
| 6 | 2437 | 20.37 | 20.04 | 209.818 | 23.22 | 29.81 | Pass |
| 11 | 2462 | 18.30 | 17.96 | 130.126 | 21.14 | 29.81 | Pass |
| 12 | 2467 | 15.39 | 15.01 | 66.29 | 18.21 | 29.81 | Pass |
| 13 | 2472 | 10.01 | 9.70 | 19.356 | 12.87 | 29.81 | Pass |

Note: The directional gain is 6.19 dBi > 6 dBi, so the output power limit shall be reduced to 30-(6.19-6) = 29.81 dBm.

## 7.2 Power Spectral Density

| Input Power: | 3.3 Vdc | Environmental Conditions: | 23°C, 64% RH | Tested By: | Katina Lu |
|---|---|---|---|---|---|

### 802.11b 1TX

| Chan. | Chan. Freq. (MHz) | PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|
| 1 | 2412 | -7.25 | 7.81 | Pass |
| 6 | 2437 | -7.98 | 7.81 | Pass |
| 11 | 2462 | -8.36 | 7.81 | Pass |
| 12 | 2467 | -13.26 | 7.81 | Pass |
| 13 | 2472 | -16.92 | 7.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

### 802.11g 1TX

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | Duty Factor (dB) | PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|
| 1 | 2412 | -12.61 | 0.12 | -12.49 | 7.81 | Pass |
| 6 | 2437 | -9.16 | 0.12 | -9.04 | 7.81 | Pass |
| 11 | 2462 | -13.21 | 0.12 | -13.09 | 7.81 | Pass |
| 12 | 2467 | -14.39 | 0.12 | -14.27 | 7.81 | Pass |
| 13 | 2472 | -15.61 | 0.12 | -15.49 | 7.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

### 802.11be (EHT20) 1S1T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | Duty Factor (dB) | PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|
| 1 | 2412 | -16.36 | 0.09 | -16.27 | 7.81 | Pass |
| 6 | 2437 | -13.54 | 0.09 | -13.45 | 7.81 | Pass |
| 11 | 2462 | -15.07 | 0.09 | -14.98 | 7.81 | Pass |
| 12 | 2467 | -16.82 | 0.09 | -16.73 | 7.81 | Pass |
| 13 | 2472 | -19.17 | 0.09 | -19.08 | 7.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

### 802.11be (EHT40) 1S1T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | Duty Factor (dB) | PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|
| 3 | 2422 | -21.13 | 0.09 | -21.04 | 7.81 | Pass |
| 6 | 2437 | -18.46 | 0.09 | -18.37 | 7.81 | Pass |
| 9 | 2452 | -20.46 | 0.09 | -20.37 | 7.81 | Pass |
| 10 | 2457 | -20.71 | 0.09 | -20.62 | 7.81 | Pass |
| 11 | 2462 | -20.63 | 0.09 | -20.54 | 7.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

### 802.11be (EHT20) 26-tone RU 1S1T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | Duty Factor (dB) | PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|
| 1 | 2412 | -5.68 | 0.21 | -5.47 | 7.81 | Pass |
| 6 | 2437 | -2.36 | 0.21 | -2.15 | 7.81 | Pass |
| 11 | 2462 | -4.98 | 0.21 | -4.77 | 7.81 | Pass |
| 12 | 2467 | -6.2 | 0.21 | -5.99 | 7.81 | Pass |
| 13 | 2472 | -13.93 | 0.21 | -13.72 | 7.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

### 802.11be (EHT20) 52-tone RU 1S1T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | Duty Factor (dB) | PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|
| 1 | 2412 | -8.53 | 0.24 | -8.29 | 7.81 | Pass |
| 6 | 2437 | -5.25 | 0.24 | -5.01 | 7.81 | Pass |
| 11 | 2462 | -8.08 | 0.24 | -7.84 | 7.81 | Pass |
| 12 | 2467 | -8.15 | 0.24 | -7.91 | 7.81 | Pass |
| 13 | 2472 | -15.1 | 0.24 | -14.86 | 7.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

### 802.11be (EHT20) 106-tone RU 1S1T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | Duty Factor (dB) | PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|
| 1 | 2412 | -11.59 | 0.19 | -11.40 | 7.81 | Pass |
| 6 | 2437 | -7.35 | 0.19 | -7.16 | 7.81 | Pass |
| 11 | 2462 | -10.75 | 0.19 | -10.56 | 7.81 | Pass |
| 12 | 2467 | -11.4 | 0.19 | -11.21 | 7.81 | Pass |
| 13 | 2472 | -17.43 | 0.19 | -17.24 | 7.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

## 802.11be (EHT20) 52+26-tone MRU 1S1T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | Duty Factor (dB) | PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|
| 1 | 2412 | -10.19 | 0.17 | -10.02 | 7.81 | Pass |
| 6 | 2437 | -6.04 | 0.17 | -5.87 | 7.81 | Pass |
| 11 | 2462 | -9.22 | 0.17 | -9.05 | 7.81 | Pass |
| 12 | 2467 | -10.01 | 0.17 | -9.84 | 7.81 | Pass |
| 13 | 2472 | -12.92 | 0.17 | -12.75 | 7.81 | Pass |

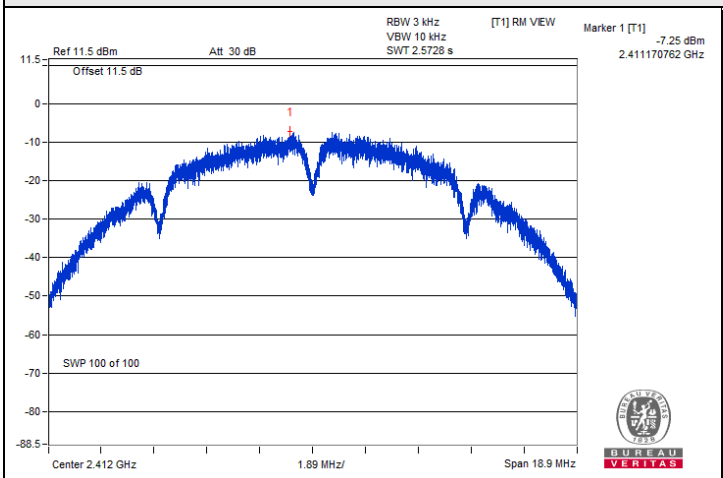
Note: The antenna gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

## 802.11be (EHT20) 106+26-tone MRU 1S1T

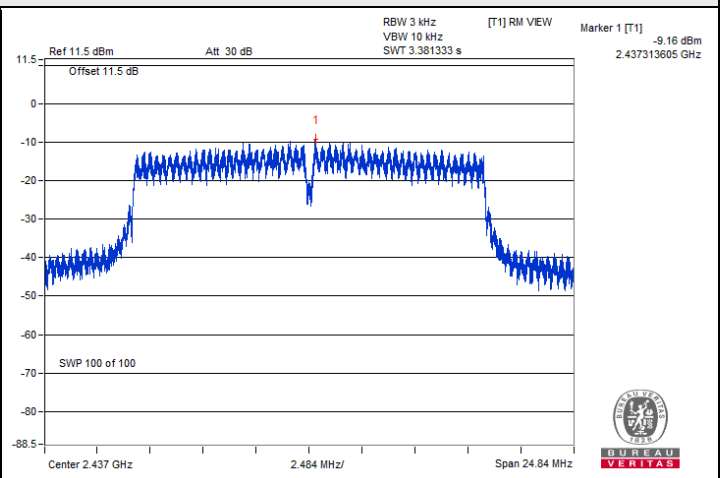
| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | Duty Factor (dB) | PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|
| 1 | 2412 | -11.6 | 0.17 | -11.43 | 7.81 | Pass |
| 6 | 2437 | -8.21 | 0.17 | -8.04 | 7.81 | Pass |
| 11 | 2462 | -9.41 | 0.17 | -9.24 | 7.81 | Pass |
| 12 | 2467 | -11.29 | 0.17 | -11.12 | 7.81 | Pass |
| 13 | 2472 | -17.15 | 0.17 | -16.98 | 7.81 | Pass |

Note: The antenna gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

Spectrum Plot of Maximum Value

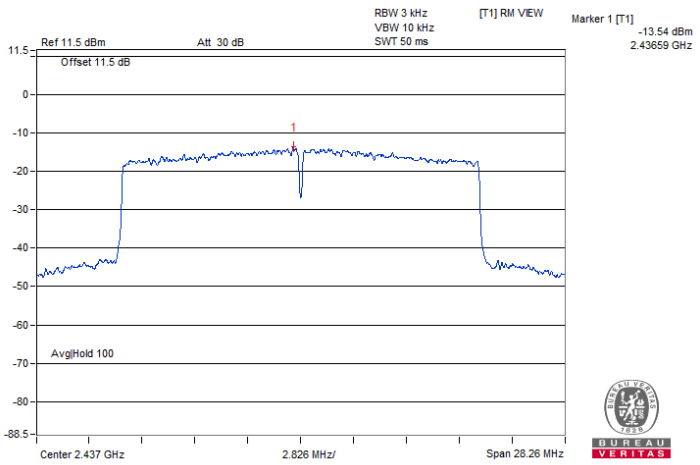



802.11b 1TX : CH 1

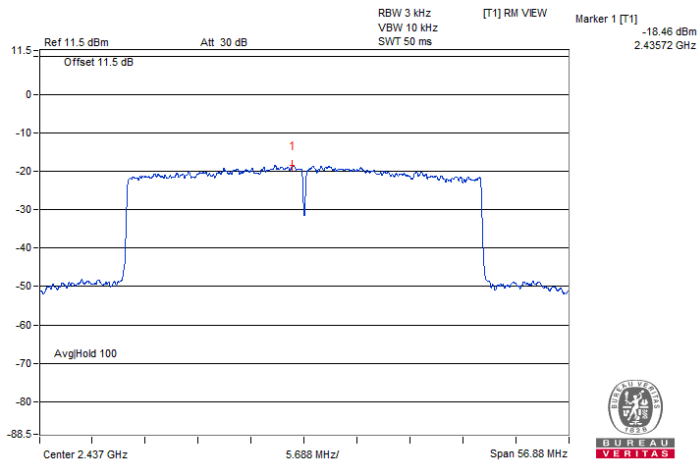



802.11g 1TX : CH 6

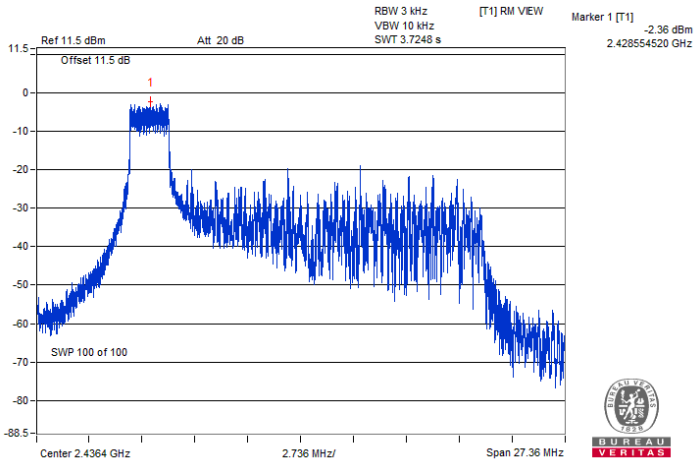
## Spectrum Plot of Maximum Value



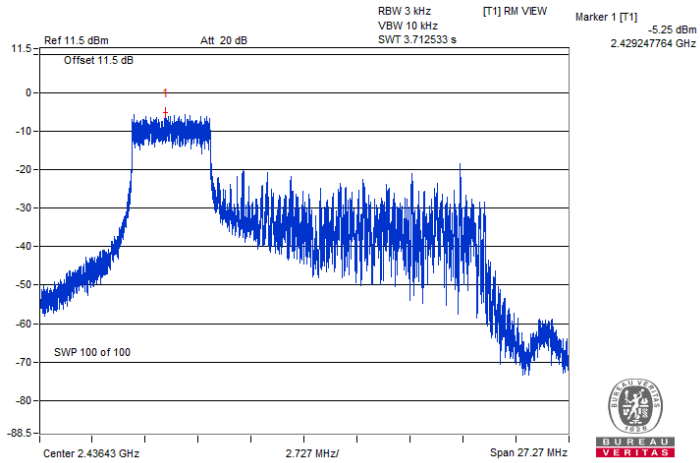

802.11be (EHT20) 1S1T : CH 6



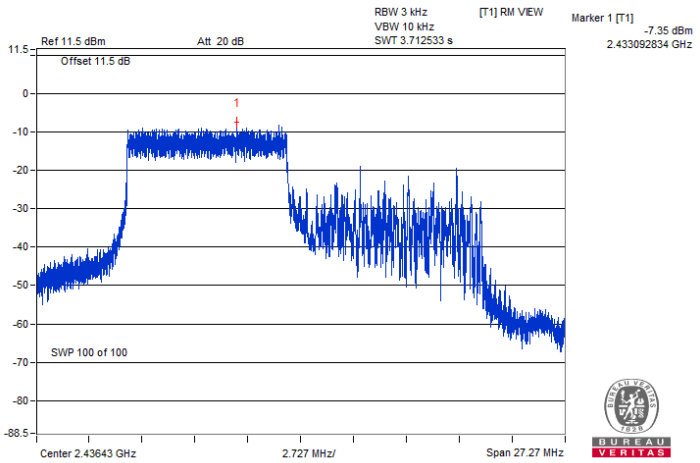

802.11be (EHT40) 1S1T : CH 6



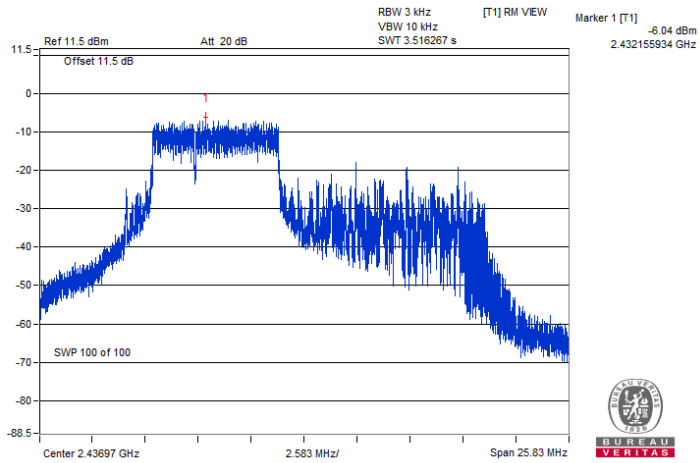

802.11be (EHT20) 26-tone RU 1S1T : CH 6




802.11be (EHT20) 52-tone RU 1S1T : CH 6

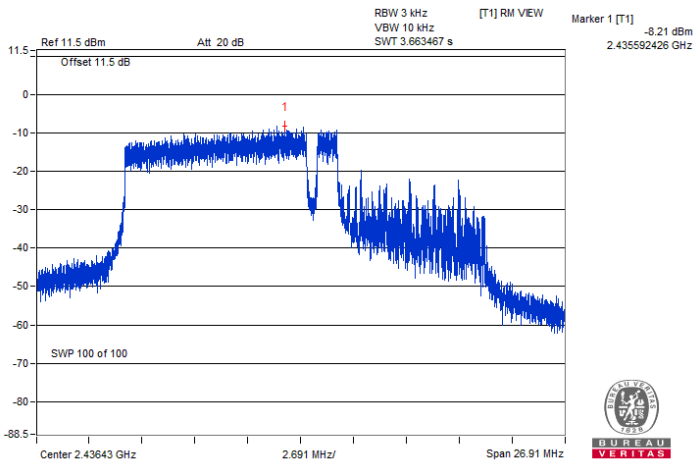



802.11be (EHT20) 106-tone RU 1S1T : CH 6




802.11be (EHT20) 52+26-tone MRU 1S1T : CH 6

## Spectrum Plot of Maximum Value




802.11be (EHT20) 106+26-tone MRU 1S1T : CH 6

| Input Power: | 3.3 Vdc | Environmental Conditions: | 23°C, 64% RH | Tested By: | Katina Lu |
|---|---|---|---|---|---|

### 802.11b 2TX

| Chan. | Chan. Freq. (MHz) | PSD (dBm/3kHz) | | Total PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | |
| 1 | 2412 | -15.76 | -16.10 | -12.92 | 4.8 | Pass |
| 6 | 2437 | -15.45 | -15.69 | -12.56 | 4.8 | Pass |
| 11 | 2462 | -15.31 | -15.45 | -12.37 | 4.8 | Pass |
| 12 | 2467 | -18.36 | -18.11 | -15.22 | 4.8 | Pass |
| 13 | 2472 | -25.34 | -24.85 | -22.08 | 4.8 | Pass |

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
3. The directional gain is 9.2 dBi > 6 dBi, so the power density limit shall be reduced to 8-(9.2-6) = 4.8 dBm/3kHz.

### 802.11g 2TX

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | | Duty Factor (dB) | Total PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | -18.30 | -20.44 | 0.15 | -16.08 | 4.8 | Pass |
| 6 | 2437 | -14.31 | -14.43 | 0.15 | -11.21 | 4.8 | Pass |
| 11 | 2462 | -17.59 | -19.84 | 0.15 | -15.41 | 4.8 | Pass |
| 12 | 2467 | -19.99 | -19.26 | 0.15 | -16.45 | 4.8 | Pass |
| 13 | 2472 | -20.78 | -21.63 | 0.15 | -18.02 | 4.8 | Pass |

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
3. The directional gain is 9.2 dBi > 6 dBi, so the power density limit shall be reduced to 8-(9.2-6) = 4.8 dBm/3kHz.

### 802.11be (EHT20) 2S2T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | | Duty Factor (dB) | Total PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | -17.67 | -17.78 | 0.15 | -14.56 | 7.81 | Pass |
| 6 | 2437 | -13.39 | -13.59 | 0.15 | -10.33 | 7.81 | Pass |
| 11 | 2462 | -16.03 | -15.98 | 0.15 | -12.84 | 7.81 | Pass |
| 12 | 2467 | -17.18 | -19.45 | 0.15 | -15.01 | 7.81 | Pass |
| 13 | 2472 | -20.43 | -20.28 | 0.15 | -17.19 | 7.81 | Pass |

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

### 802.11be (EHT40) 2S2T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | | Duty Factor (dB) | Total PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 3 | 2422 | -23.61 | -23.73 | 0.16 | -20.50 | 7.81 | Pass |
| 6 | 2437 | -20.39 | -20.42 | 0.16 | -17.23 | 7.81 | Pass |
| 9 | 2452 | -22.16 | -22.12 | 0.16 | -18.97 | 7.81 | Pass |
| 10 | 2457 | -22.79 | -22.49 | 0.16 | -19.47 | 7.81 | Pass |
| 11 | 2462 | -23.37 | -22.94 | 0.16 | -19.98 | 7.81 | Pass |

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

### 802.11be (EHT20) 26-tone RU 2S2T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | | Duty Factor (dB) | Total PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | -8.77 | -8.28 | 0.27 | -5.24 | 7.81 | Pass |
| 6 | 2437 | -3.20 | -2.64 | 0.27 | 0.37 | 7.81 | Pass |
| 11 | 2462 | -7.79 | -6.40 | 0.27 | -3.76 | 7.81 | Pass |
| 12 | 2467 | -9.08 | -7.83 | 0.27 | -5.13 | 7.81 | Pass |
| 13 | 2472 | -16.29 | -15.68 | 0.27 | -12.69 | 7.81 | Pass |

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

### 802.11be (EHT20) 52-tone RU 2S2T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | | Duty Factor (dB) | Total PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | -10.21 | -10.01 | 0.37 | -6.73 | 7.81 | Pass |
| 6 | 2437 | -5.53 | -5.22 | 0.37 | -1.99 | 7.81 | Pass |
| 11 | 2462 | -11.23 | -9.31 | 0.37 | -6.78 | 7.81 | Pass |
| 12 | 2467 | -11.61 | -10.16 | 0.37 | -7.44 | 7.81 | Pass |
| 13 | 2472 | -18.39 | -16.94 | 0.37 | -14.22 | 7.81 | Pass |

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

### 802.11be (EHT20) 106-tone RU 2S2T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | | Duty Factor (dB) | Total PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | -11.22 | -11.14 | 0.30 | -7.87 | 7.81 | Pass |
| 6 | 2437 | -7.96 | -7.89 | 0.30 | -4.61 | 7.81 | Pass |
| 11 | 2462 | -10.72 | -10.05 | 0.30 | -7.06 | 7.81 | Pass |
| 12 | 2467 | -13.81 | -12.83 | 0.30 | -9.98 | 7.81 | Pass |
| 13 | 2472 | -20.00 | -19.16 | 0.30 | -16.25 | 7.81 | Pass |

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

### 802.11be (EHT20) 52+26-tone MRU 2S2T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | | Duty Factor (dB) | Total PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | -10.60 | -9.78 | 0.29 | -6.87 | 7.81 | Pass |
| 6 | 2437 | -5.92 | -4.09 | 0.29 | -1.61 | 7.81 | Pass |
| 11 | 2462 | -8.99 | -8.05 | 0.29 | -5.19 | 7.81 | Pass |
| 12 | 2467 | -12.40 | -11.91 | 0.29 | -8.85 | 7.81 | Pass |
| 13 | 2472 | -14.51 | -13.88 | 0.29 | -10.88 | 7.81 | Pass |

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

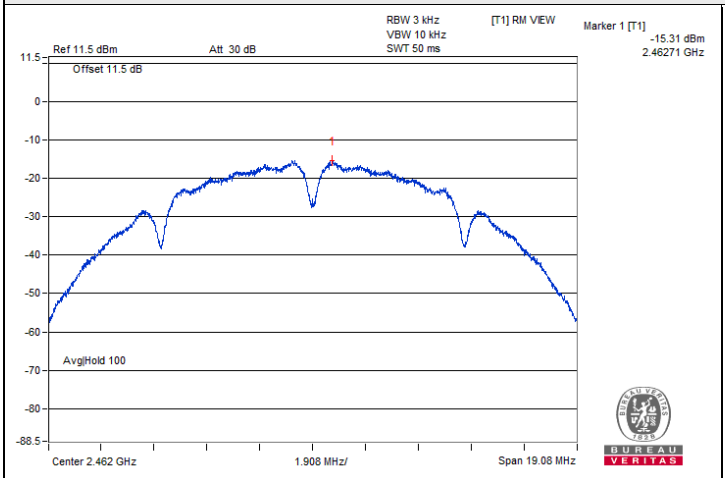
## 802.11be (EHT20) 106+26-tone MRU 2S2T

| Chan. | Chan. Freq. (MHz) | PSD w/o Duty Factor (dBm/3kHz) | | Duty Factor (dB) | Total PSD (dBm/3kHz) | PSD Limit (dBm/3kHz) | Test Result |
|---|---|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | | | |
| 1 | 2412 | -12.80 | -12.28 | 0.27 | -9.25 | 7.81 | Pass |
| 6 | 2437 | -7.97 | -7.85 | 0.27 | -4.63 | 7.81 | Pass |
| 11 | 2462 | -11.15 | -10.40 | 0.27 | -7.48 | 7.81 | Pass |
| 12 | 2467 | -13.74 | -13.71 | 0.27 | -10.44 | 7.81 | Pass |
| 13 | 2472 | -19.38 | -17.47 | 0.27 | -15.04 | 7.81 | Pass |

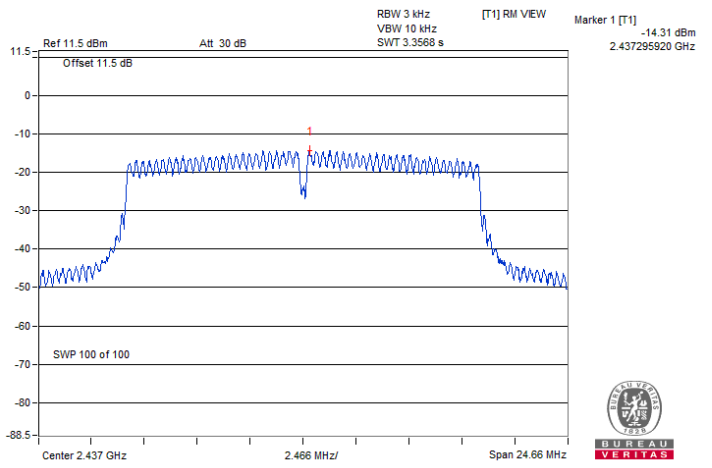
Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional gain is 6.19 dBi > 6 dBi, so the power density limit shall be reduced to 8-(6.19-6) = 7.81 dBm/3kHz.

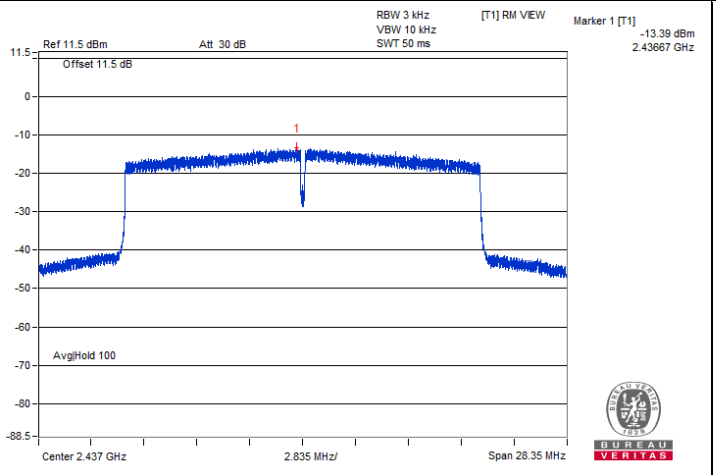
Spectrum Plot of Maximum Value



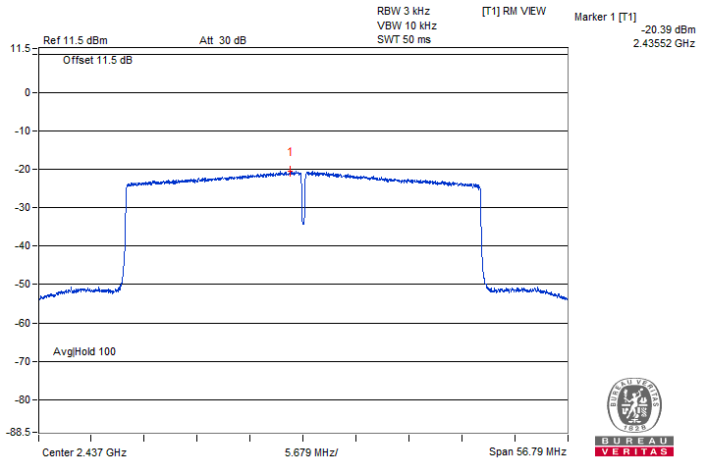

802.11b 2TX / Chain 0 : CH 11




802.11g 2TX / Chain 0 : CH 6

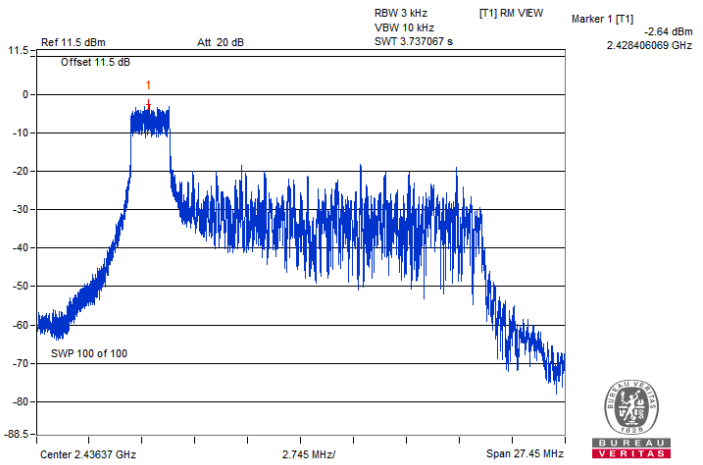



802.11be (EHT20) 2S2T / Chain 0 : CH 6

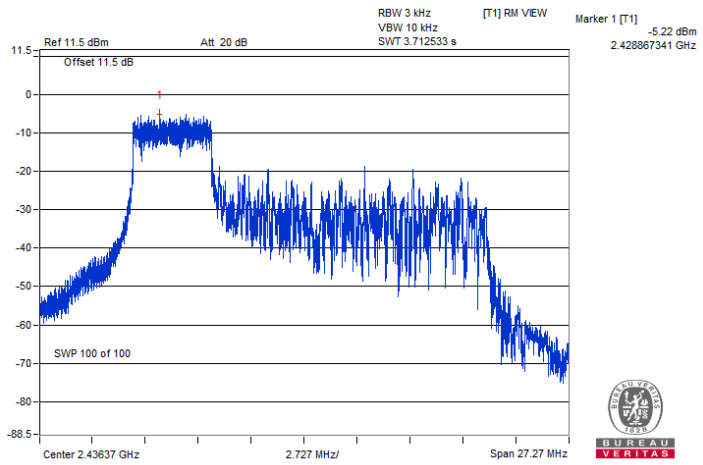



802.11be (EHT40) 2S2T / Chain 0 : CH 6

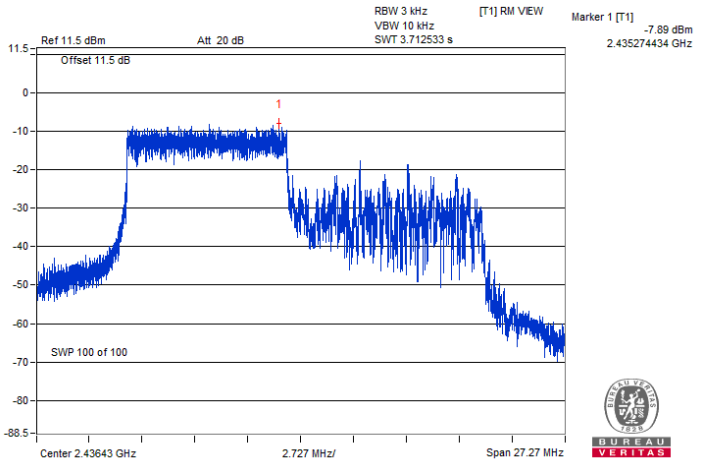
## Spectrum Plot of Maximum Value



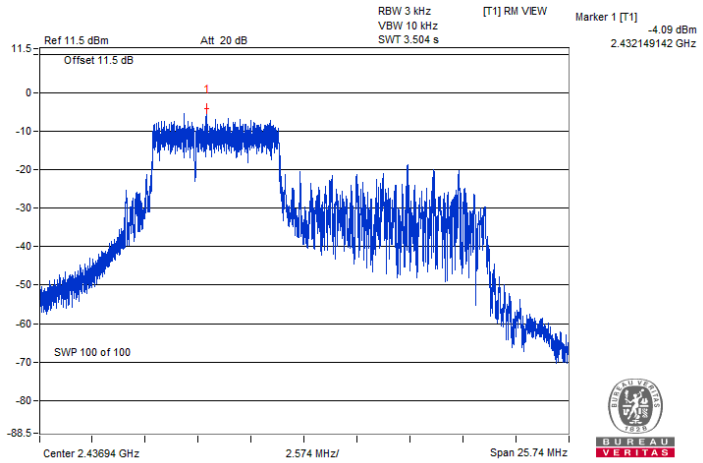

802.11be (EHT20) 26-tone RU 2S2T / Chain 1 : CH 6



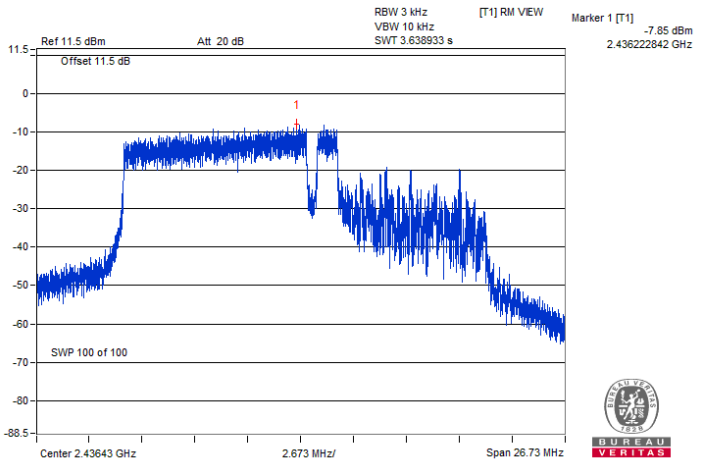

802.11be (EHT20) 52-tone RU 2S2T / Chain 1 : CH 6




802.11be (EHT20) 106-tone RU 2S2T / Chain 1 : CH 6




802.11be (EHT20) 52+26-tone MRU 2S2T / Chain 1 : CH 6




802.11be (EHT20) 106+26-tone MRU 2S2T / Chain 1 : CH 6

## 7.3 6 dB Bandwidth

| Input Power: | 3.3 Vdc | Environmental Conditions: | 23°C, 64% RH | Tested By: | Katina Lu |
|---|---|---|---|---|---|

### 802.11b 1TX

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|
| 1 | 2412 | 8.06 | 0.5 | Pass |
| 6 | 2437 | 8.07 | 0.5 | Pass |
| 11 | 2462 | 8.08 | 0.5 | Pass |
| 12 | 2467 | 8.08 | 0.5 | Pass |
| 13 | 2472 | 8.08 | 0.5 | Pass |

### 802.11g 1TX

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|
| 1 | 2412 | 15.93 | 0.5 | Pass |
| 6 | 2437 | 15.66 | 0.5 | Pass |
| 11 | 2462 | 15.8 | 0.5 | Pass |
| 12 | 2467 | 15.91 | 0.5 | Pass |
| 13 | 2472 | 16.08 | 0.5 | Pass |

### 802.11be (EHT20) 1S1T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|
| 1 | 2412 | 18.46 | 0.5 | Pass |
| 6 | 2437 | 18.58 | 0.5 | Pass |
| 11 | 2462 | 18.48 | 0.5 | Pass |
| 12 | 2467 | 18.37 | 0.5 | Pass |
| 13 | 2472 | 18.65 | 0.5 | Pass |

### 802.11be (EHT40) 1S1T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|
| 3 | 2422 | 37.5 | 0.5 | Pass |
| 6 | 2437 | 37.57 | 0.5 | Pass |
| 9 | 2452 | 37.11 | 0.5 | Pass |
| 10 | 2457 | 37.3 | 0.5 | Pass |
| 11 | 2462 | 37.63 | 0.5 | Pass |

### 802.11be (EHT20) 26-tone RU 1S1T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|
| 1 | 2412 | 2.16 | 0.5 | Pass |
| 6 | 2437 | 2.12 | 0.5 | Pass |
| 11 | 2462 | 2.14 | 0.5 | Pass |
| 12 | 2467 | 2.14 | 0.5 | Pass |
| 13 | 2472 | 2.14 | 0.5 | Pass |

### 802.11be (EHT20) 52-tone RU 1S1T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|
| 1 | 2412 | 17.1 | 0.5 | Pass |
| 6 | 2437 | 17.01 | 0.5 | Pass |
| 11 | 2462 | 17.09 | 0.5 | Pass |
| 12 | 2467 | 17.07 | 0.5 | Pass |
| 13 | 2472 | 17.07 | 0.5 | Pass |

### 802.11be (EHT20) 106-tone RU 1S1T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|
| 1 | 2412 | 17.17 | 0.5 | Pass |
| 6 | 2437 | 17.18 | 0.5 | Pass |
| 11 | 2462 | 17.16 | 0.5 | Pass |
| 12 | 2467 | 17.16 | 0.5 | Pass |
| 13 | 2472 | 17.18 | 0.5 | Pass |

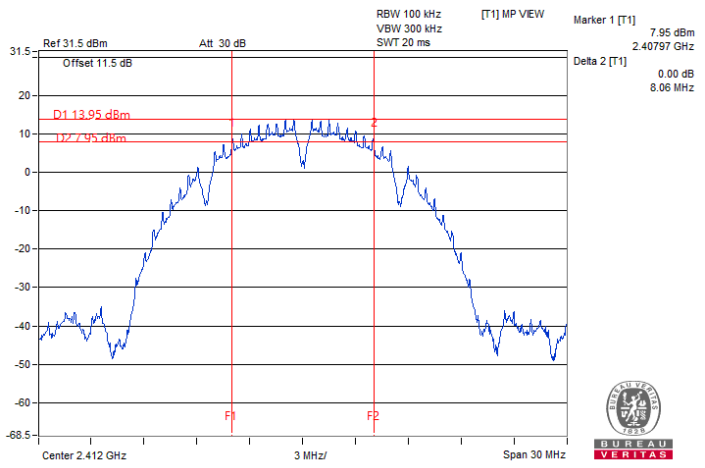
### 802.11be (EHT20) 52+26-tone MRU 1S1T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|
| 1 | 2412 | 15.14 | 0.5 | Pass |
| 6 | 2437 | 15.14 | 0.5 | Pass |
| 11 | 2462 | 15.17 | 0.5 | Pass |
| 12 | 2467 | 15.15 | 0.5 | Pass |
| 13 | 2472 | 15.14 | 0.5 | Pass |

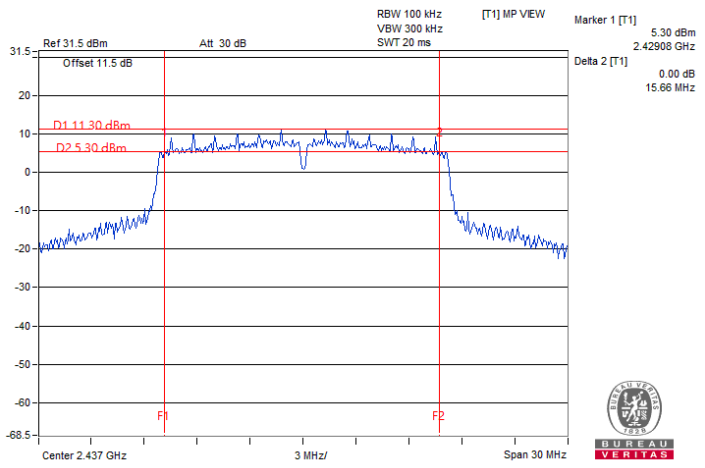
## 802.11be (EHT20) 106+26-tone MRU 1S1T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|
| 1 | 2412 | 17.08 | 0.5 | Pass |
| 6 | 2437 | 17.12 | 0.5 | Pass |
| 11 | 2462 | 17.11 | 0.5 | Pass |
| 12 | 2467 | 17.12 | 0.5 | Pass |
| 13 | 2472 | 17.09 | 0.5 | Pass |

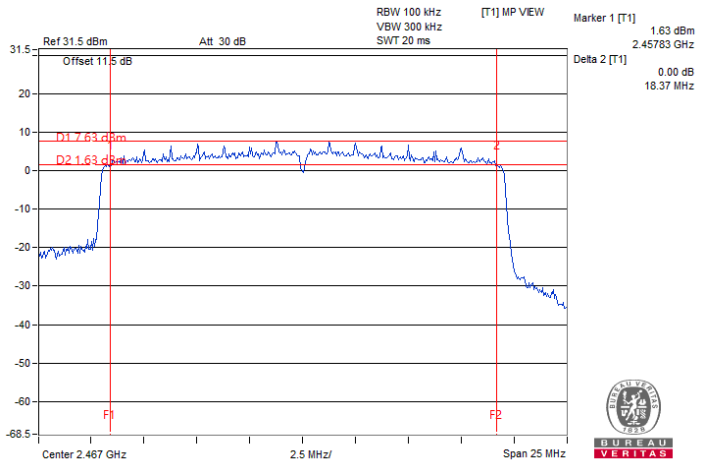
Spectrum Plot of Minimum Value



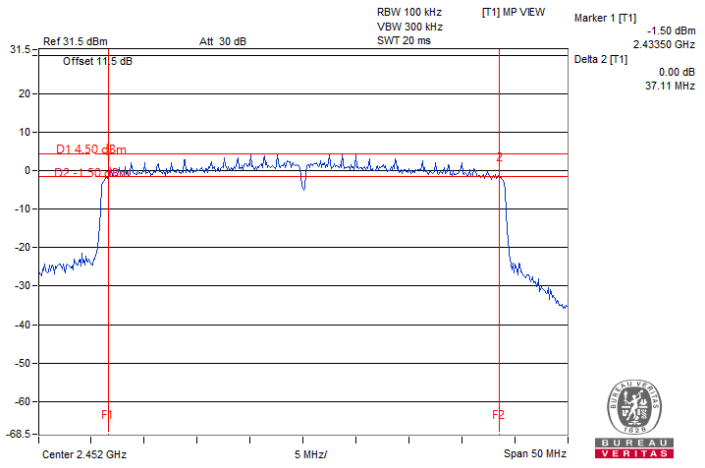

802.11b 1TX : CH 1




802.11g 1TX : CH 6

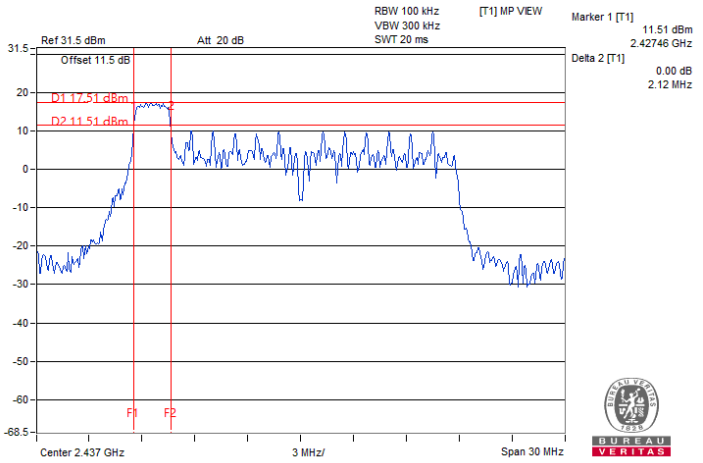



802.11be (EHT20) 1S1T : CH 12

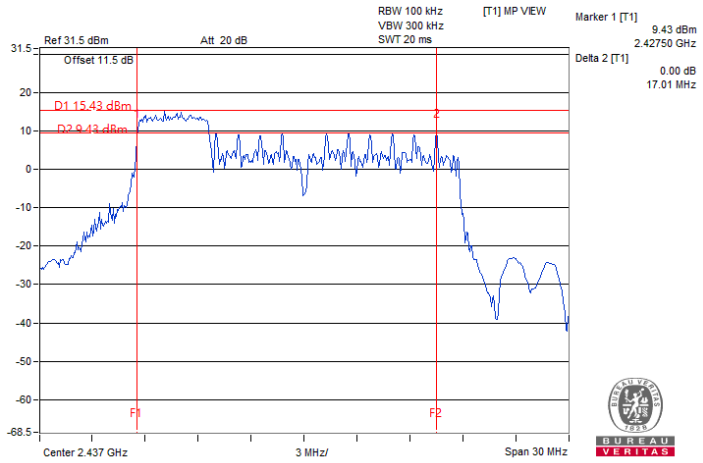



802.11be (EHT40) 1S1T : CH 9

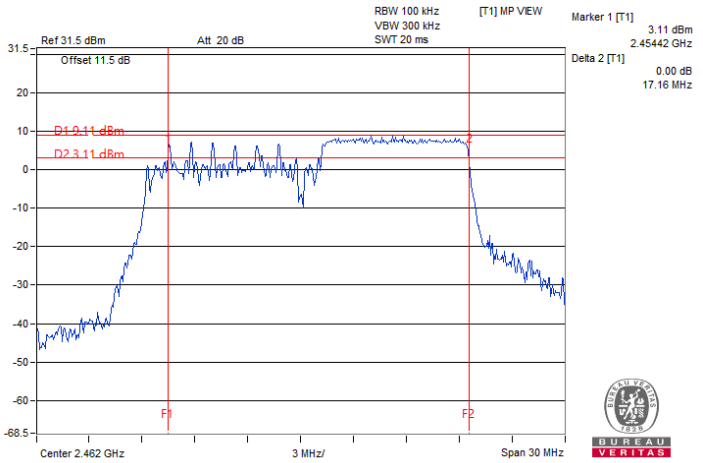
## Spectrum Plot of Minimum Value



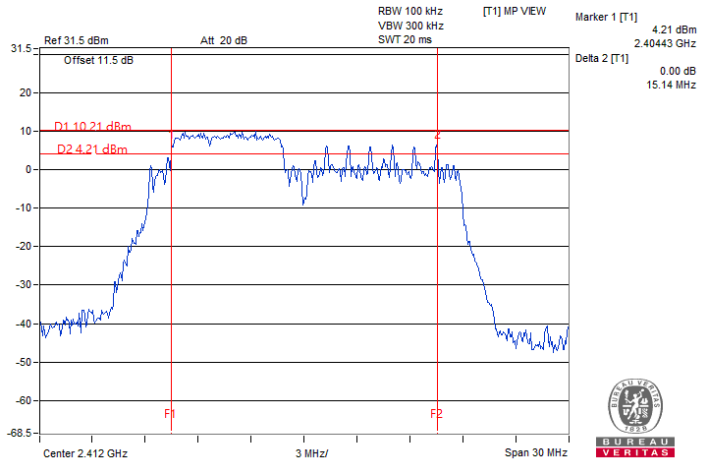

802.11be (EHT20) 26-tone RU 1S1T : CH 6



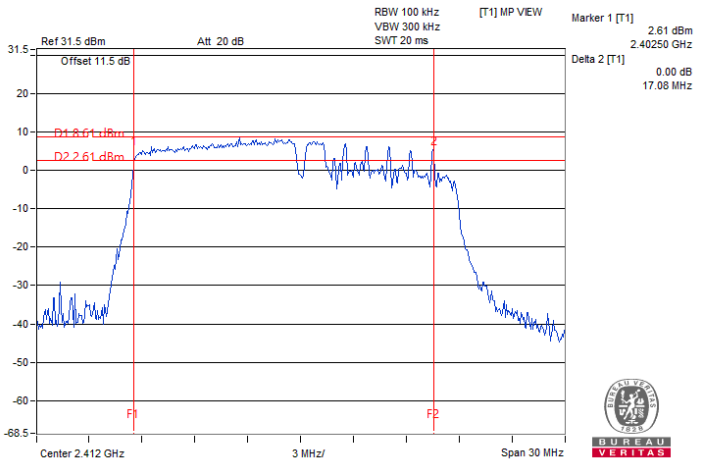

802.11be (EHT20) 52-tone RU 1S1T : CH 6




802.11be (EHT20) 106-tone RU 1S1T : CH 11




802.11be (EHT20) 52+26-tone MRU 1S1T : CH 1




802.11be (EHT20) 106+26-tone MRU 1S1T : CH 1

| Input Power: | 3.3 Vdc | Environmental Conditions: | 23°C, 64% RH | Tested By: | Katina Lu |
|---|---|---|---|---|---|

### 802.11b 2TX

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | |
| 1 | 2412 | 8.08 | 8.08 | 0.5 | Pass |
| 6 | 2437 | 8.05 | 8.08 | 0.5 | Pass |
| 11 | 2462 | 8.09 | 8.08 | 0.5 | Pass |
| 12 | 2467 | 8.09 | 8.07 | 0.5 | Pass |
| 13 | 2472 | 8.09 | 8.09 | 0.5 | Pass |

### 802.11g 2TX

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | |
| 1 | 2412 | 15.93 | 16.45 | 0.5 | Pass |
| 6 | 2437 | 15.48 | 16.32 | 0.5 | Pass |
| 11 | 2462 | 15.76 | 16.45 | 0.5 | Pass |
| 12 | 2467 | 16.26 | 16.31 | 0.5 | Pass |
| 13 | 2472 | 16.31 | 16.32 | 0.5 | Pass |

### 802.11be (EHT20) 2S2T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | |
| 1 | 2412 | 18.28 | 18.64 | 0.5 | Pass |
| 6 | 2437 | 18.74 | 18.84 | 0.5 | Pass |
| 11 | 2462 | 18.60 | 18.73 | 0.5 | Pass |
| 12 | 2467 | 18.45 | 18.64 | 0.5 | Pass |
| 13 | 2472 | 18.68 | 18.84 | 0.5 | Pass |

### 802.11be (EHT40) 2S2T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | |
| 3 | 2422 | 37.23 | 37.75 | 0.5 | Pass |
| 6 | 2437 | 37.65 | 37.30 | 0.5 | Pass |
| 9 | 2452 | 37.17 | 37.17 | 0.5 | Pass |
| 10 | 2457 | 37.56 | 37.63 | 0.5 | Pass |
| 11 | 2462 | 37.62 | 37.80 | 0.5 | Pass |

### 802.11be (EHT20) 26-tone RU 2S2T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | |
| 1 | 2412 | 2.12 | 2.14 | 0.5 | Pass |
| 6 | 2437 | 2.15 | 2.14 | 0.5 | Pass |
| 11 | 2462 | 2.12 | 2.14 | 0.5 | Pass |
| 12 | 2467 | 2.14 | 2.14 | 0.5 | Pass |
| 13 | 2472 | 2.13 | 2.10 | 0.5 | Pass |

### 802.11be (EHT20) 52-tone RU 2S2T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | |
| 1 | 2412 | 17.09 | 17.06 | 0.5 | Pass |
| 6 | 2437 | 17.03 | 17.05 | 0.5 | Pass |
| 11 | 2462 | 17.09 | 17.09 | 0.5 | Pass |
| 12 | 2467 | 17.10 | 17.10 | 0.5 | Pass |
| 13 | 2472 | 17.07 | 17.04 | 0.5 | Pass |

### 802.11be (EHT20) 106-tone RU 2S2T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | |
| 1 | 2412 | 17.17 | 17.15 | 0.5 | Pass |
| 6 | 2437 | 17.18 | 17.17 | 0.5 | Pass |
| 11 | 2462 | 17.15 | 17.17 | 0.5 | Pass |
| 12 | 2467 | 17.15 | 17.18 | 0.5 | Pass |
| 13 | 2472 | 17.16 | 17.16 | 0.5 | Pass |

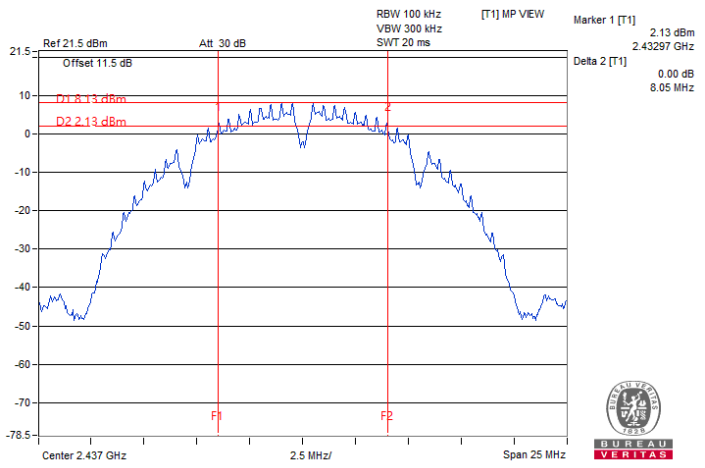
### 802.11be (EHT20) 52+26-tone MRU 2S2T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | |
| 1 | 2412 | 15.14 | 15.15 | 0.5 | Pass |
| 6 | 2437 | 15.14 | 15.15 | 0.5 | Pass |
| 11 | 2462 | 15.16 | 15.13 | 0.5 | Pass |
| 12 | 2467 | 15.14 | 15.15 | 0.5 | Pass |
| 13 | 2472 | 15.15 | 15.15 | 0.5 | Pass |

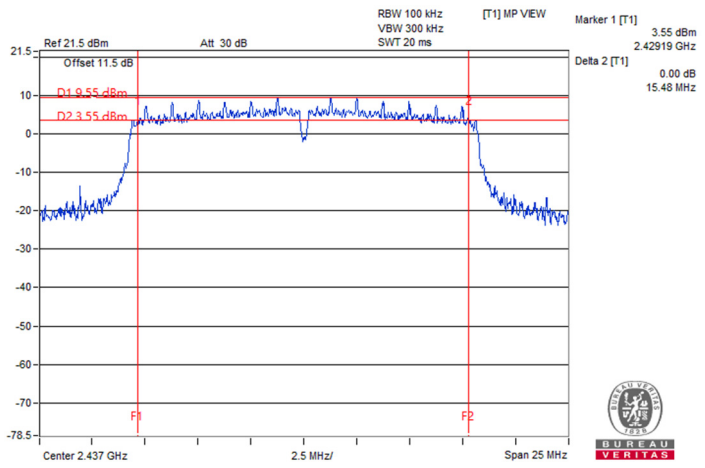
## 802.11be (EHT20) 106+26-tone MRU 2S2T

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | | Minimum Limit (MHz) | Test Result |
|---|---|---|---|---|---|
| | | Chain 0 | Chain 1 | | |
| 1 | 2412 | 17.12 | 17.14 | 0.5 | Pass |
| 6 | 2437 | 17.10 | 17.13 | 0.5 | Pass |
| 11 | 2462 | 17.05 | 17.03 | 0.5 | Pass |
| 12 | 2467 | 17.13 | 17.09 | 0.5 | Pass |
| 13 | 2472 | 17.07 | 17.12 | 0.5 | Pass |

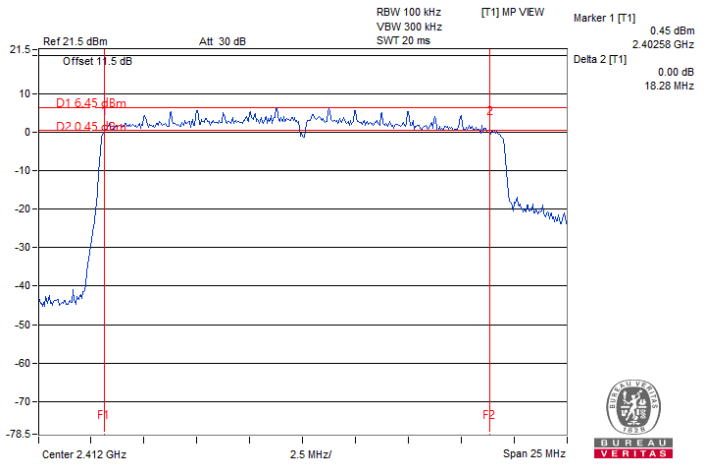
Spectrum Plot of Minimum Value



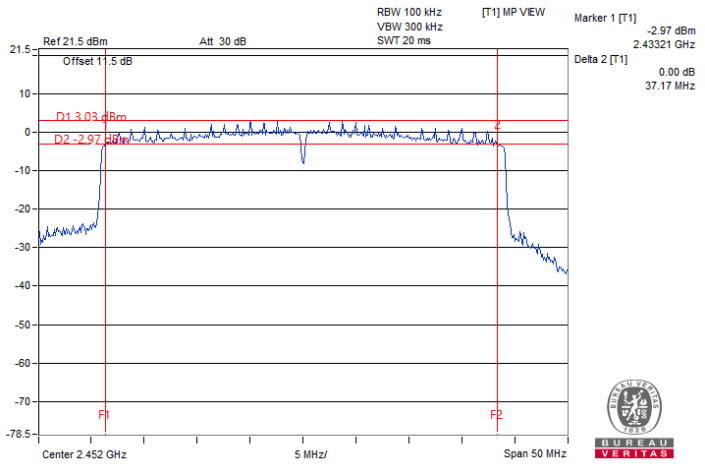

802.11b 2TX / Chain 0 : CH 6




802.11g 2TX / Chain 0 : CH 6

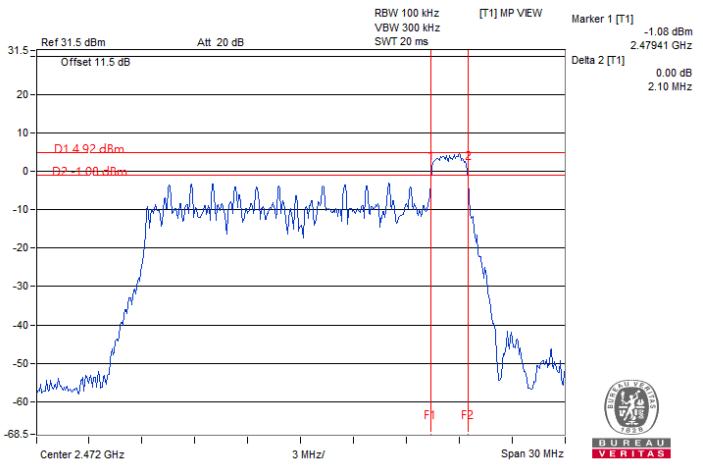



802.11be (EHT20) 2S2T / Chain 0 : CH 1

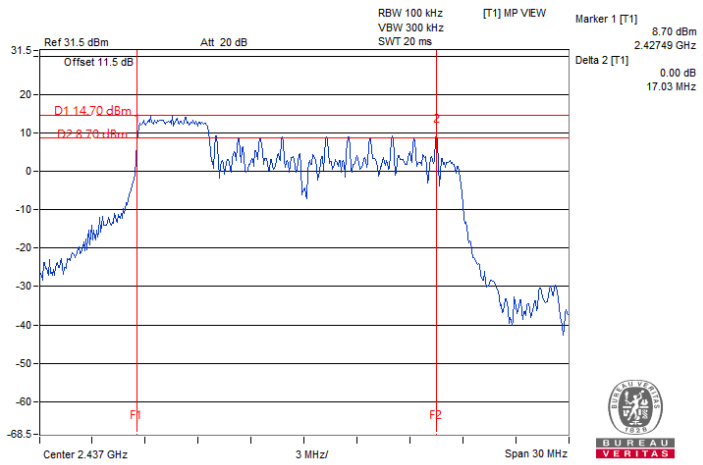



802.11be (EHT40) 2S2T / Chain 0 : CH 9

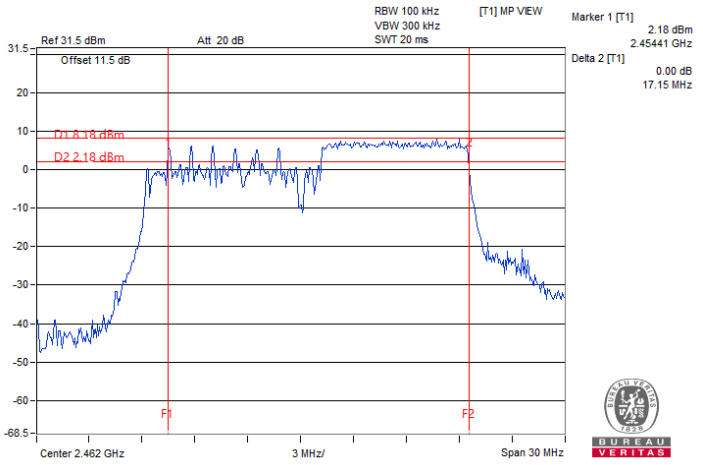
## Spectrum Plot of Minimum Value



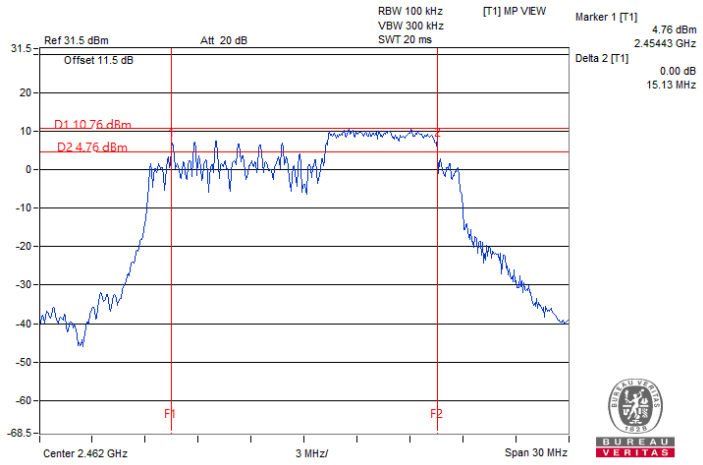

802.11be (EHT20) 26-tone RU 2S2T / Chain 1 : CH 13



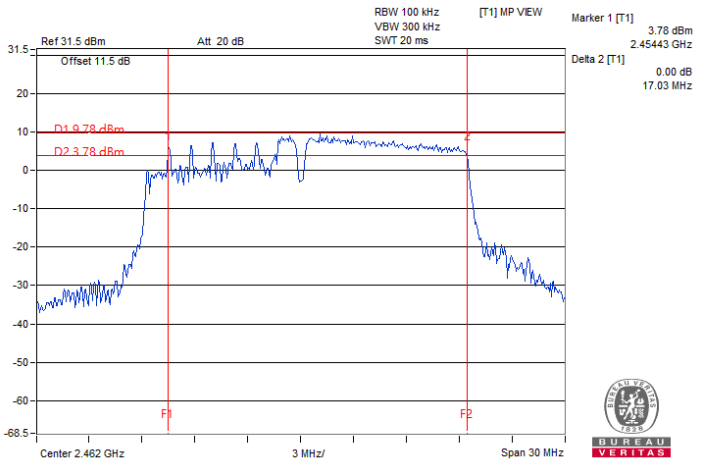

802.11be (EHT20) 52-tone RU 2S2T / Chain 0 : CH 6




802.11be (EHT20) 106-tone RU 2S2T / Chain 0 : CH 11




802.11be (EHT20) 52+26-tone MRU 2S2T / Chain 1 : CH 11

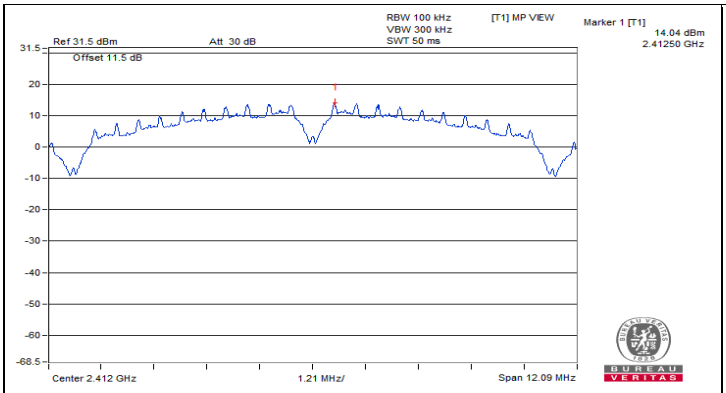



802.11be (EHT20) 106+26-tone MRU 2S2T / Chain 1 : CH 11

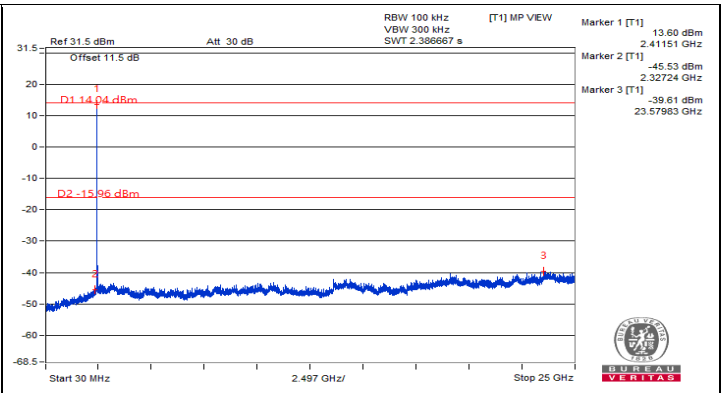
## 7.4 Conducted Out of Band Emissions

| Input Power: | 3.3 Vdc | Environmental Conditions: | 23°C, 64% RH | Tested By: | Katina Lu |
|---|---|---|---|---|---|

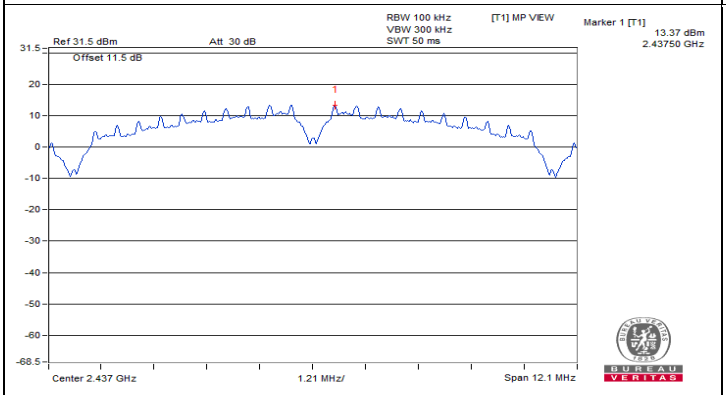
### 802.11b 1TX



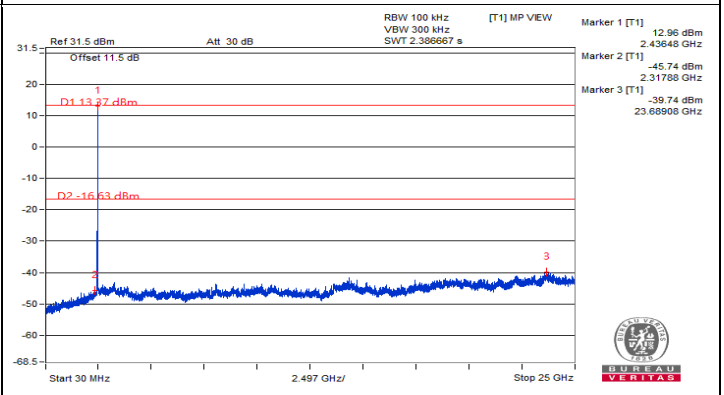

CH 1



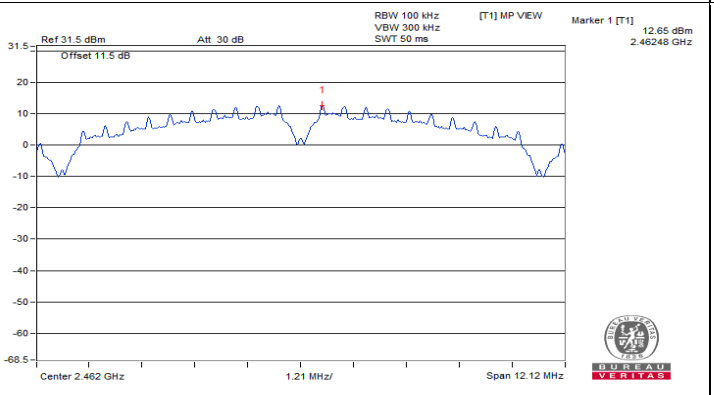

CH 1



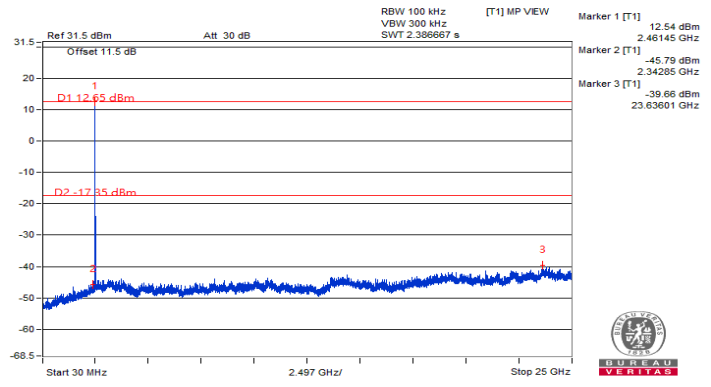

CH 6



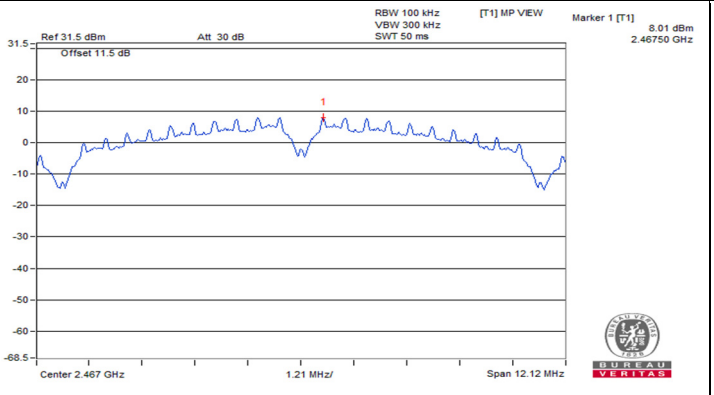

CH 6



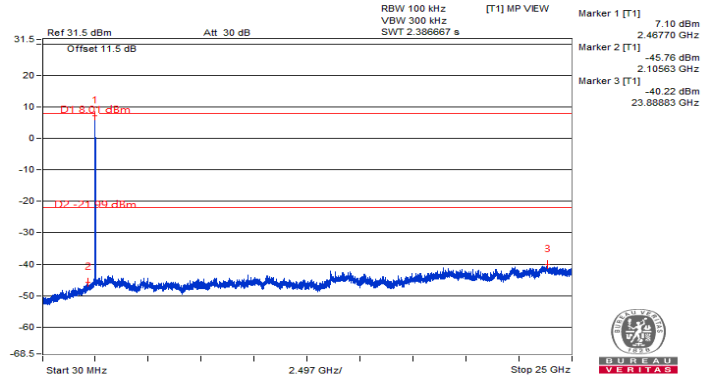

CH 11



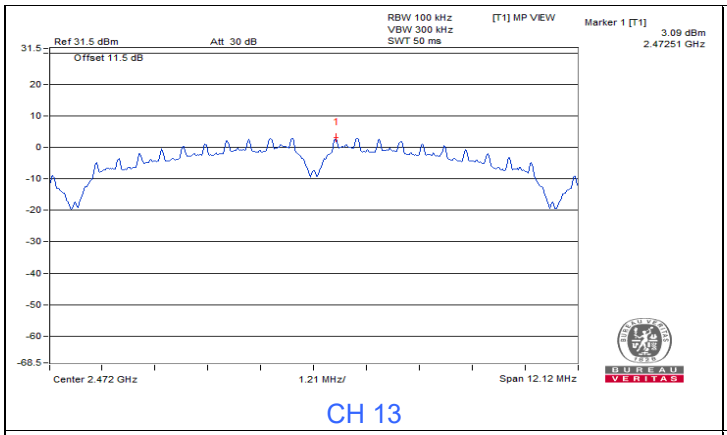

CH 11



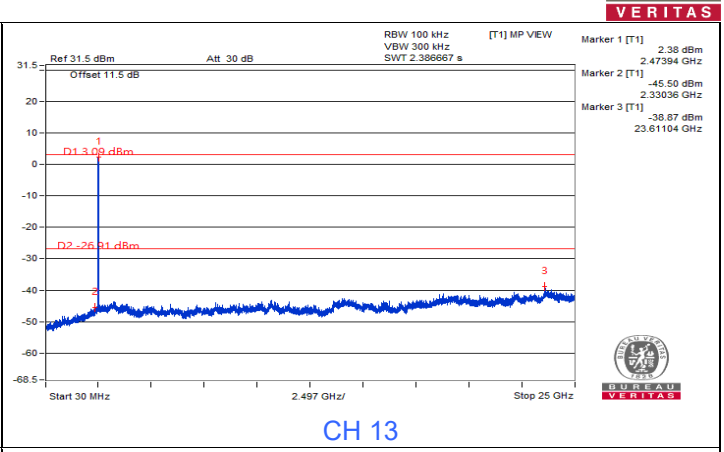

CH 12



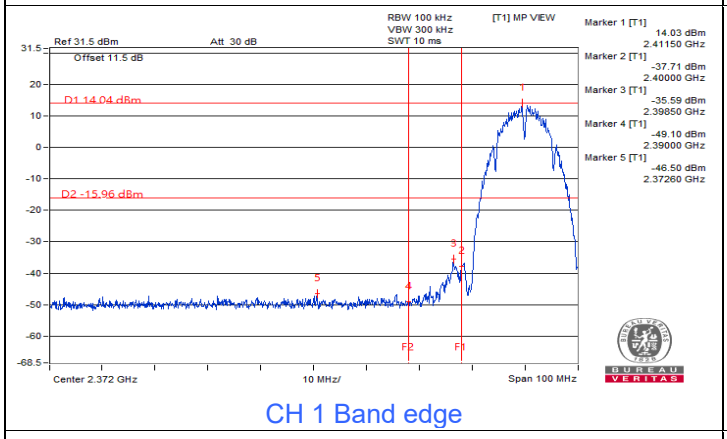

CH 12



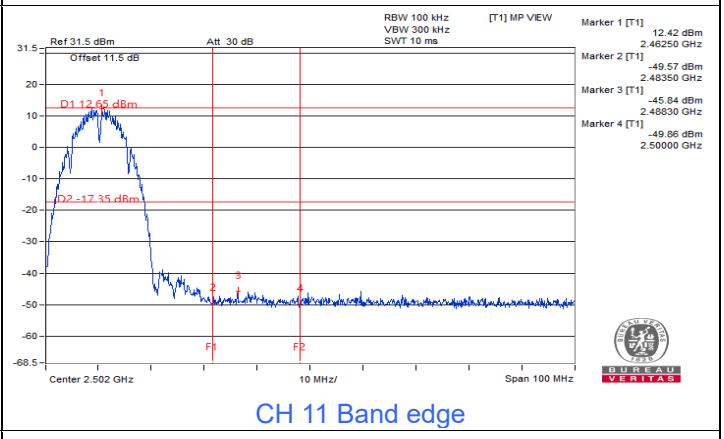

CH 13



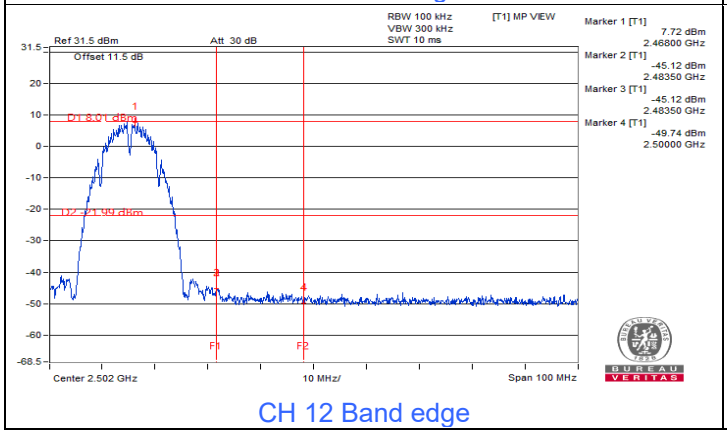

CH 13



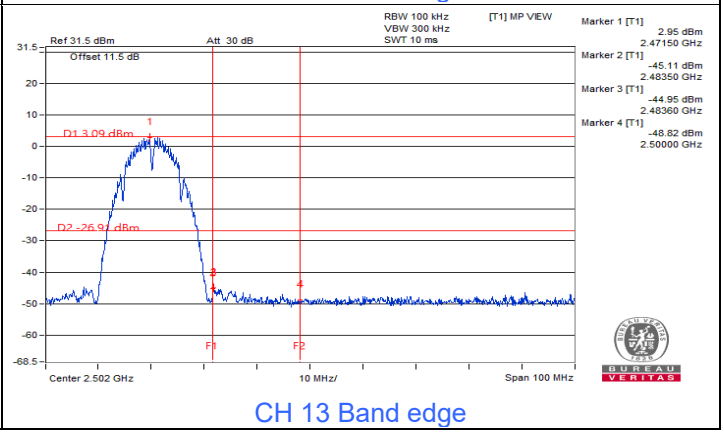

CH 1 Band edge




CH 11 Band edge

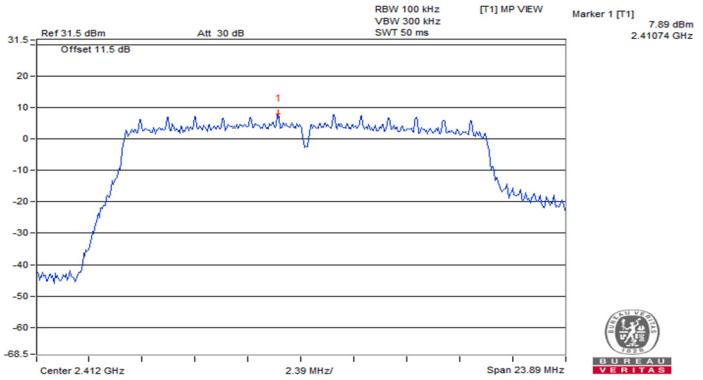



CH 12 Band edge

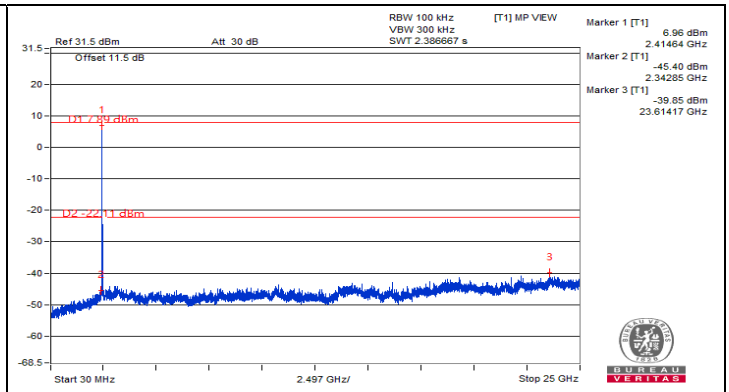



CH 13 Band edge

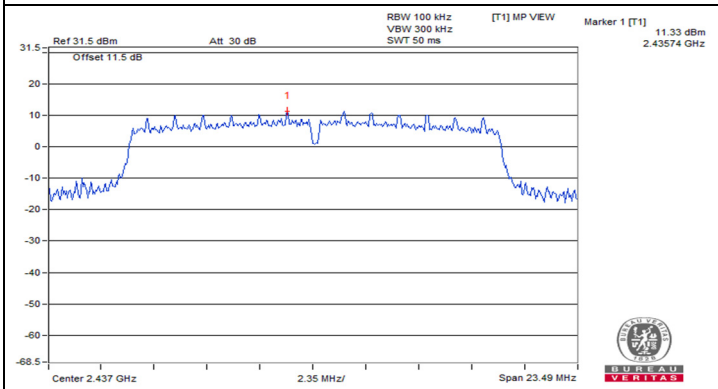
## 802.11g 1TX



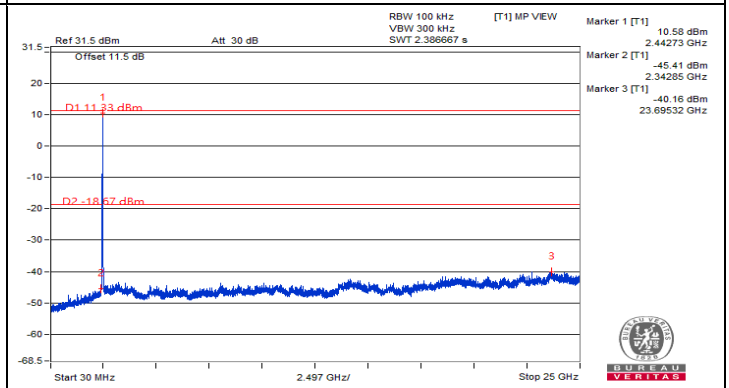

CH 1



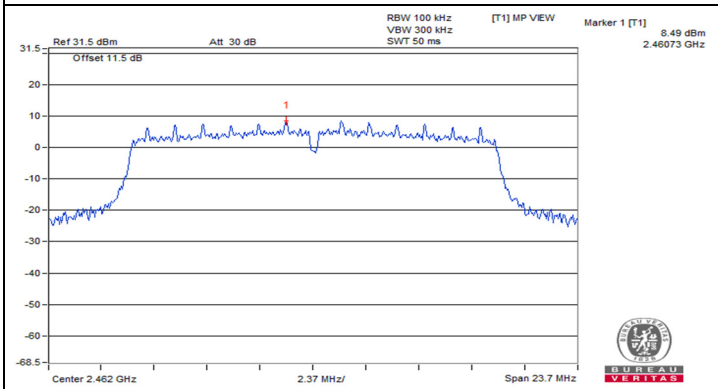

CH 1



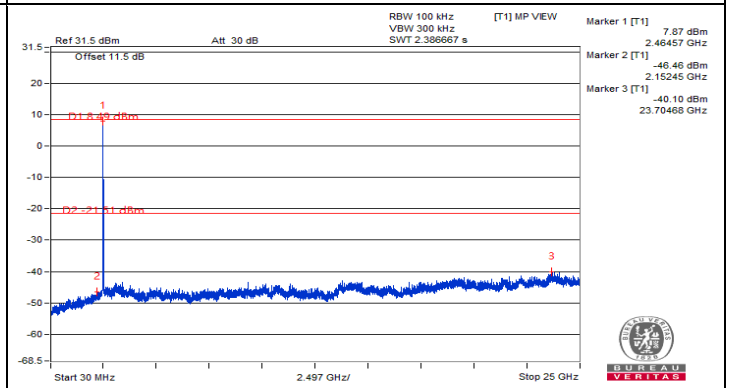

CH 6



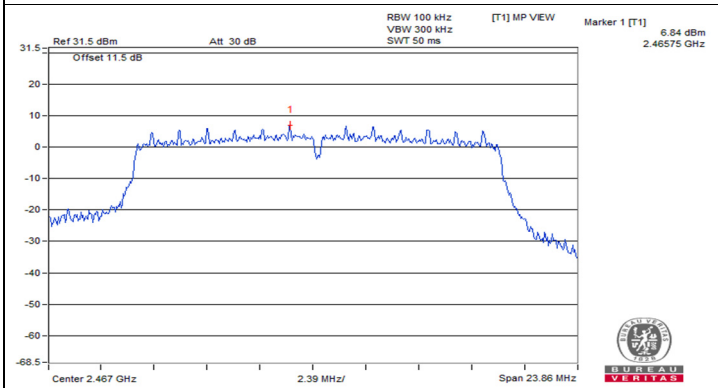

CH 6



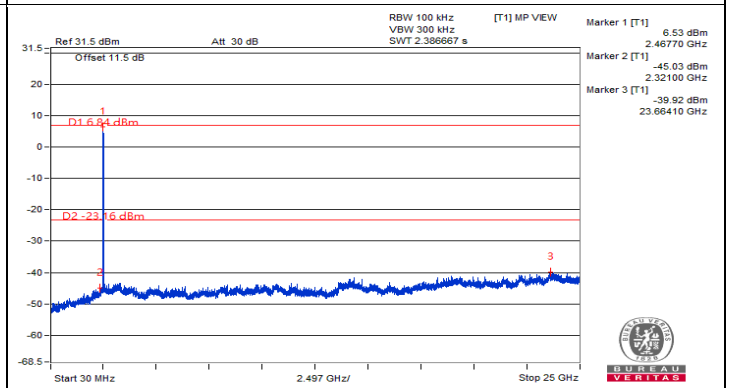

CH 11



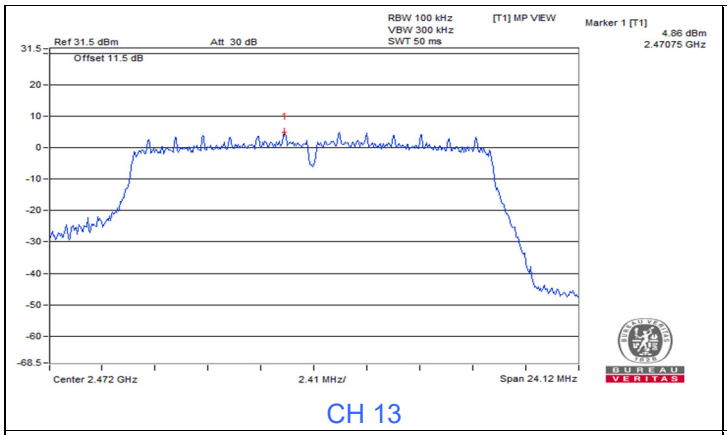

CH 11



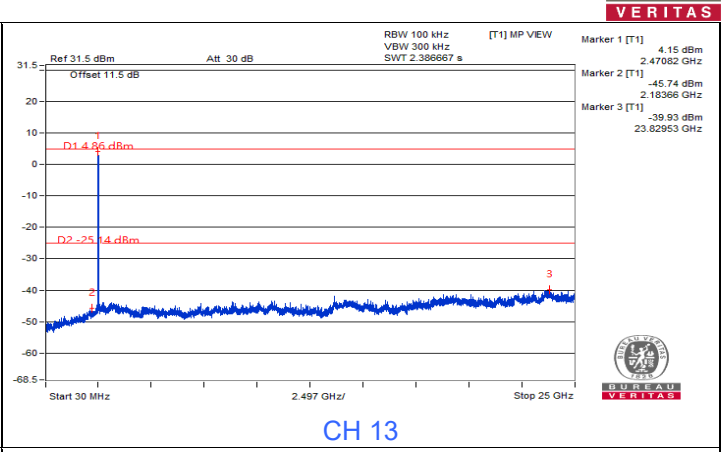

CH 12



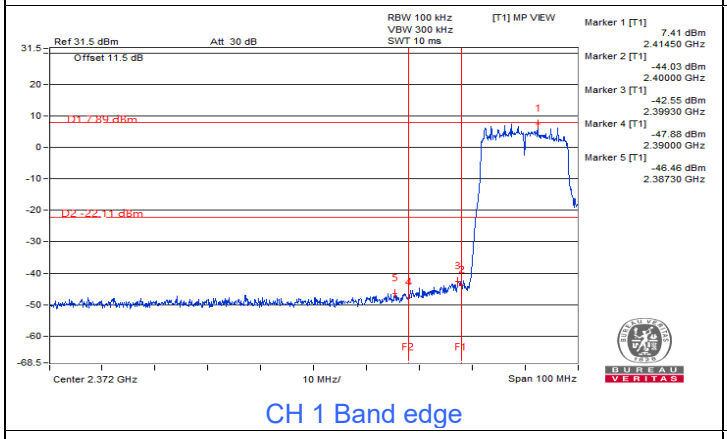

CH 12



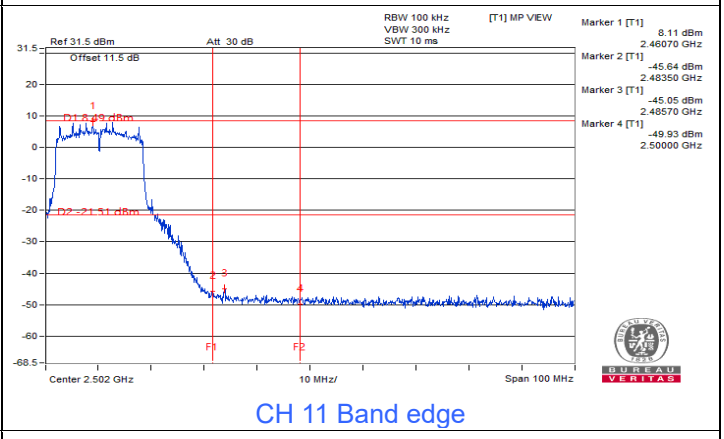

CH 13



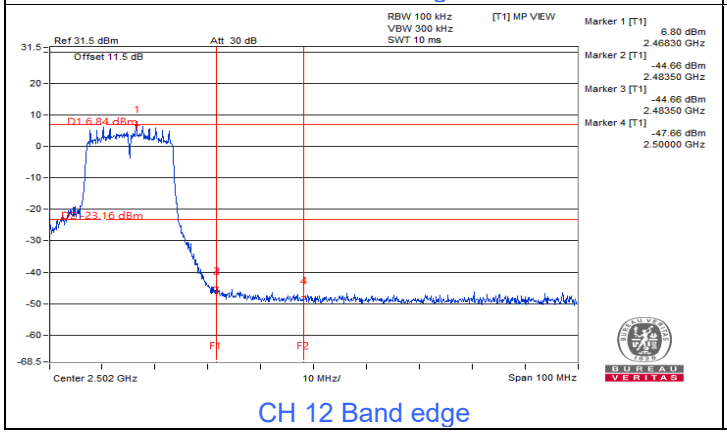

CH 13



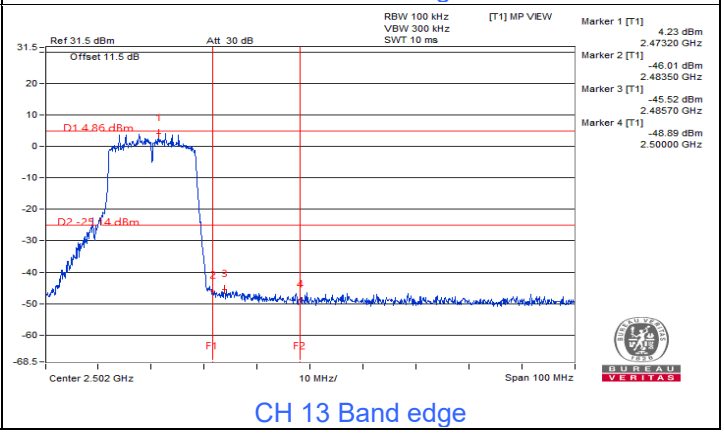

CH 1 Band edge




CH 11 Band edge

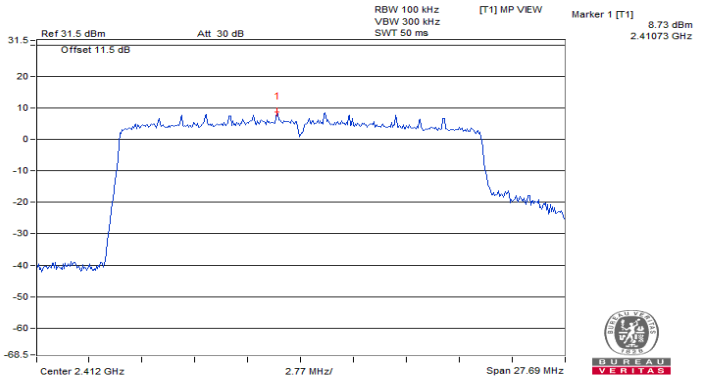



CH 12 Band edge

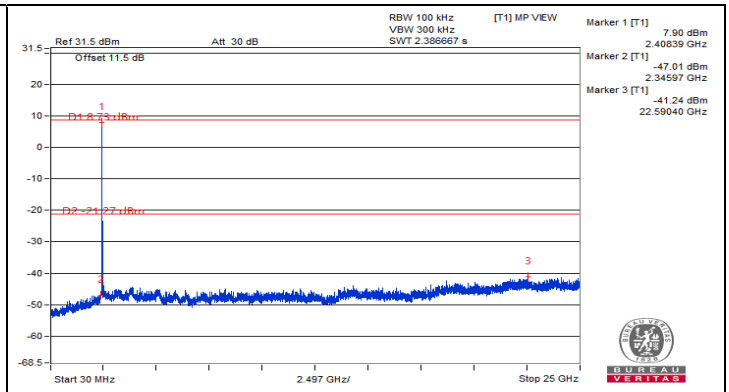



CH 13 Band edge

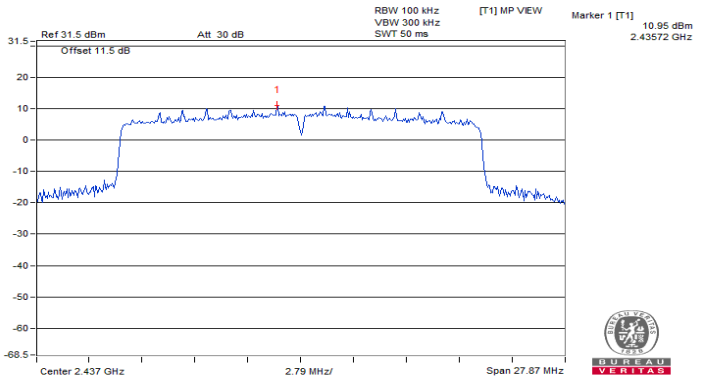
## 802.11be (EHT20) 1S1T



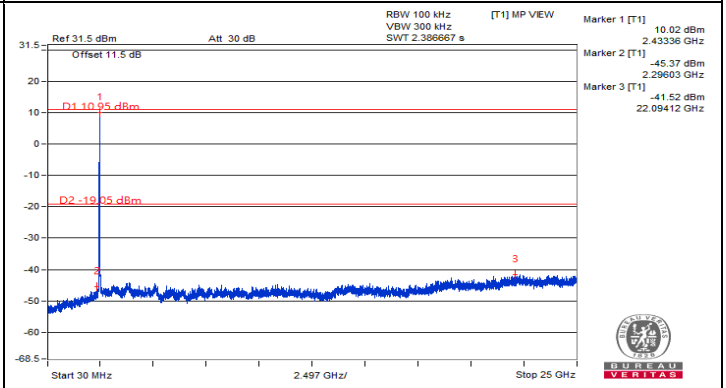

CH 1



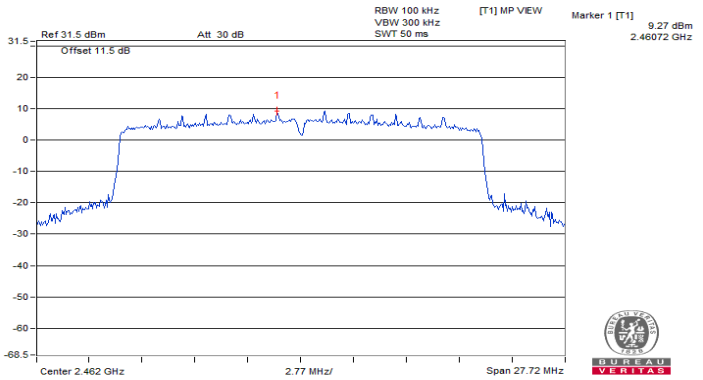

CH 1



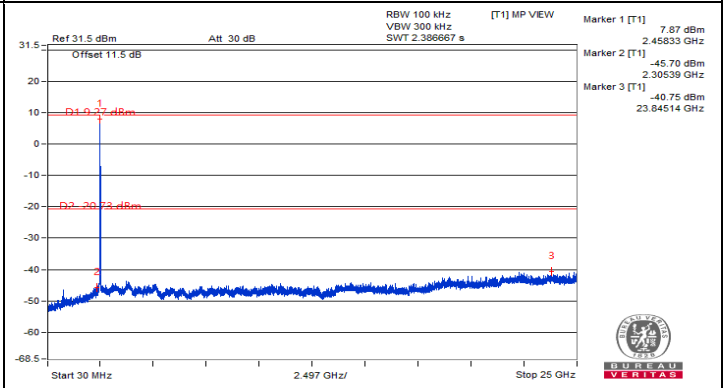

CH 6



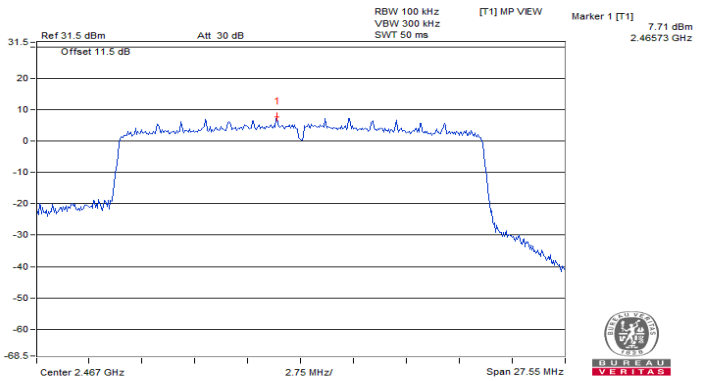

CH 6



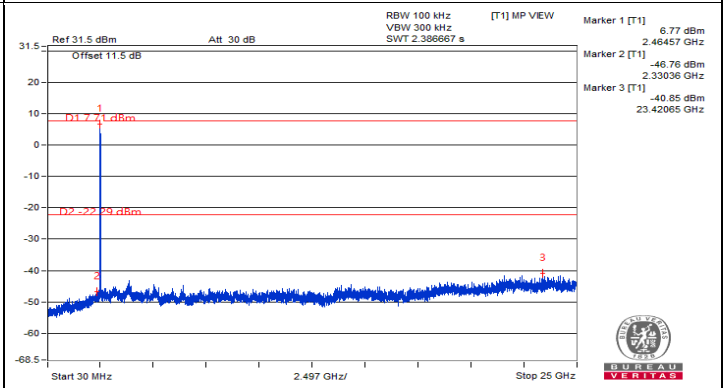

CH 11



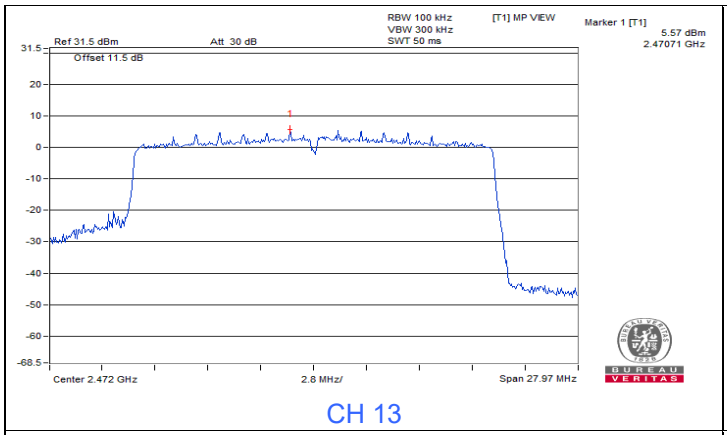

CH 11



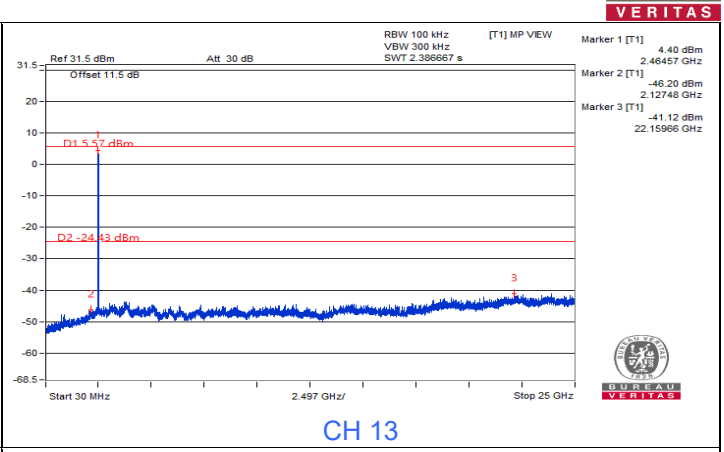

CH 12



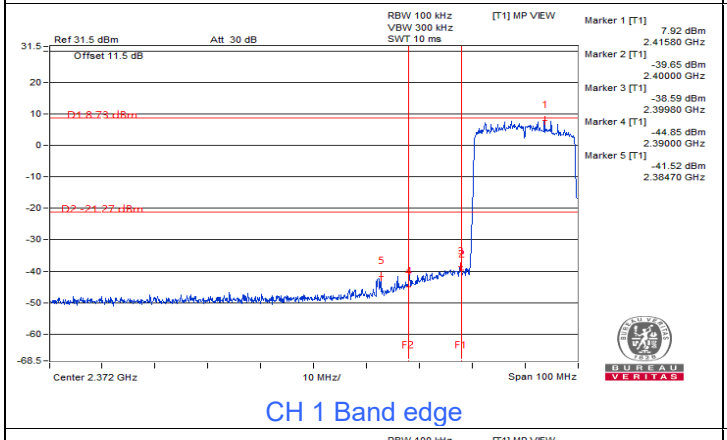

CH 12



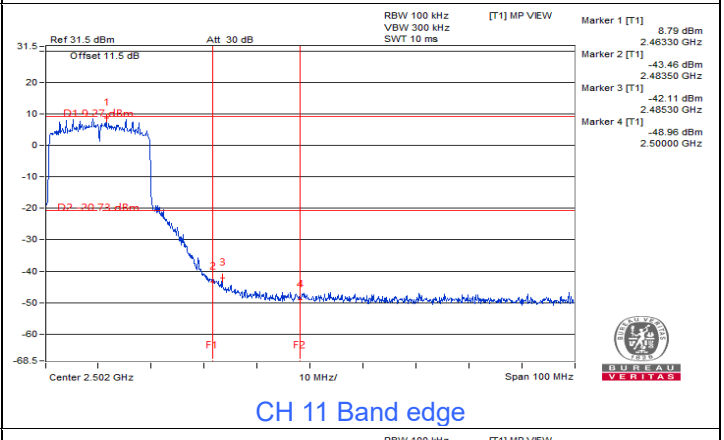

CH 13



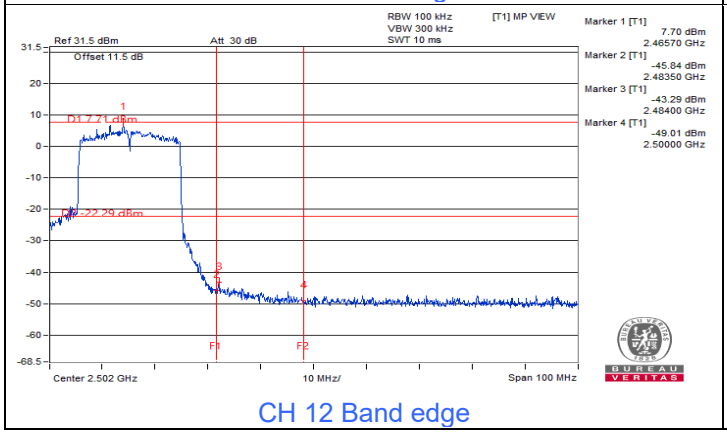

CH 13



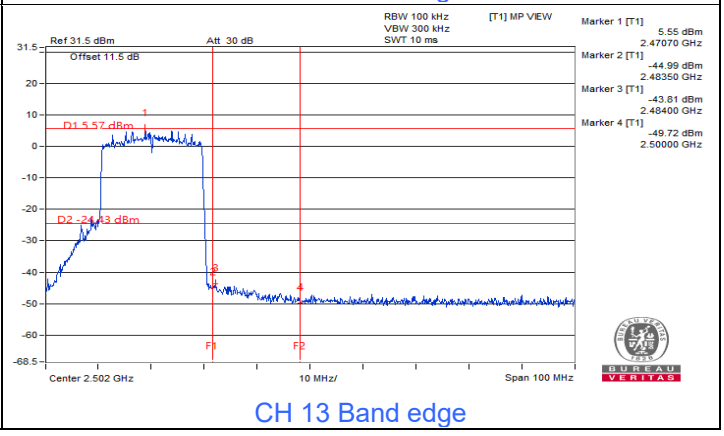

CH 1 Band edge




CH 11 Band edge

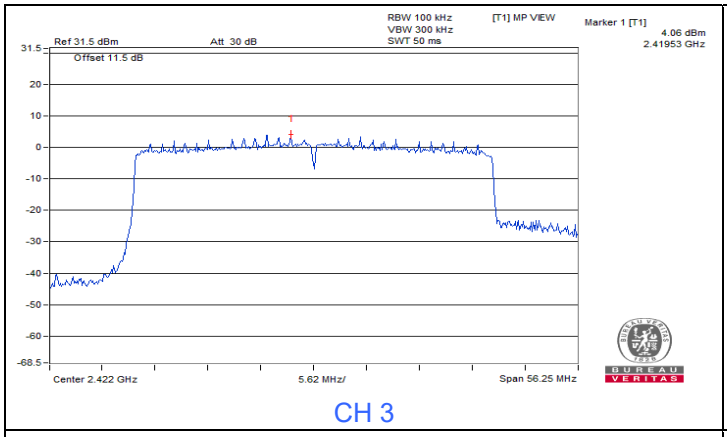



CH 12 Band edge

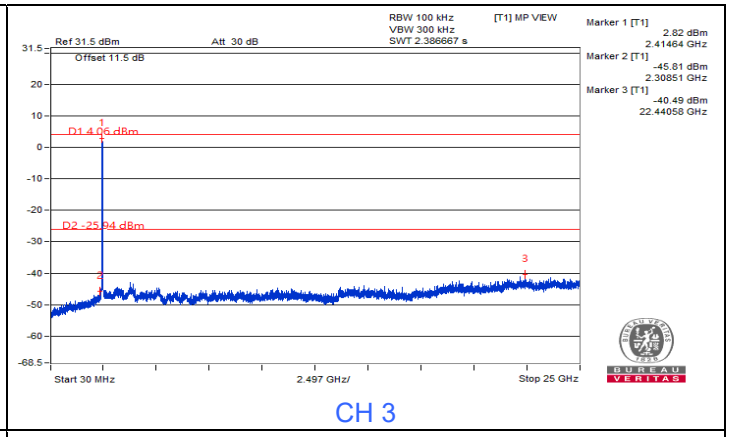



CH 13 Band edge

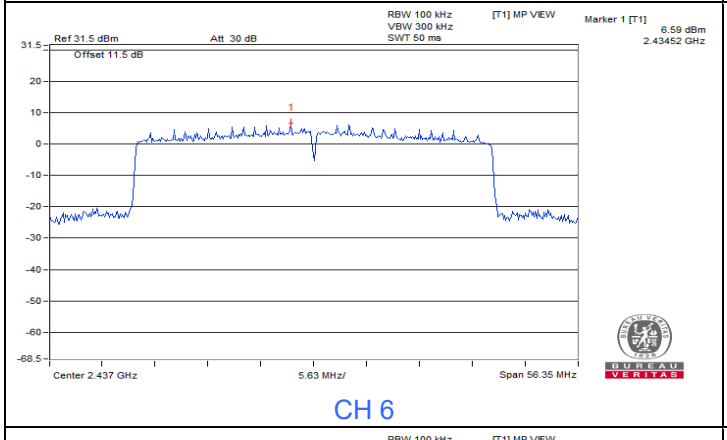
## 802.11be (EHT40) 1S1T



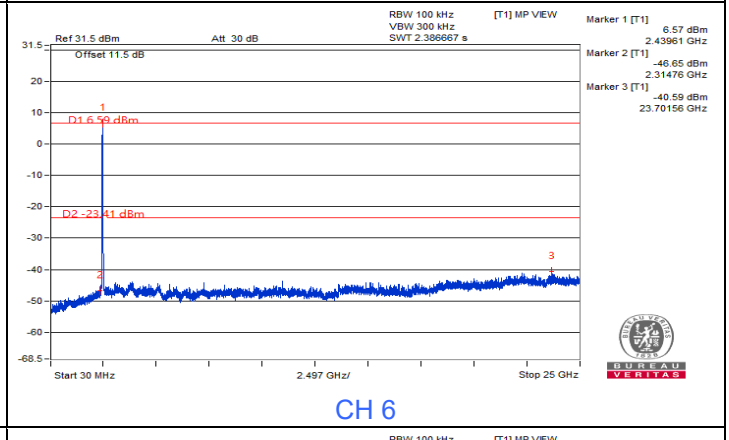

CH 3



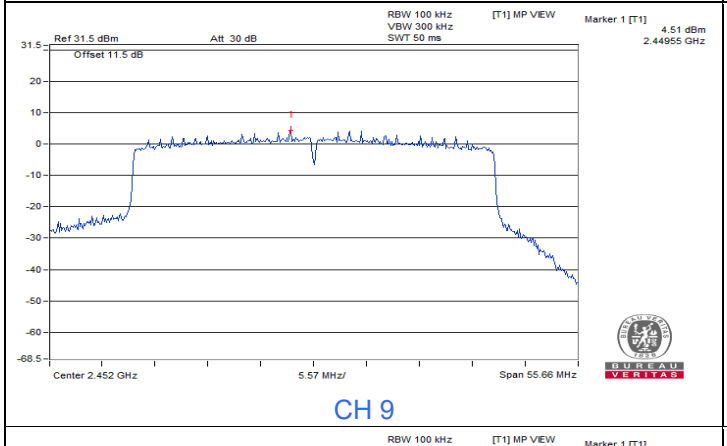

CH 3



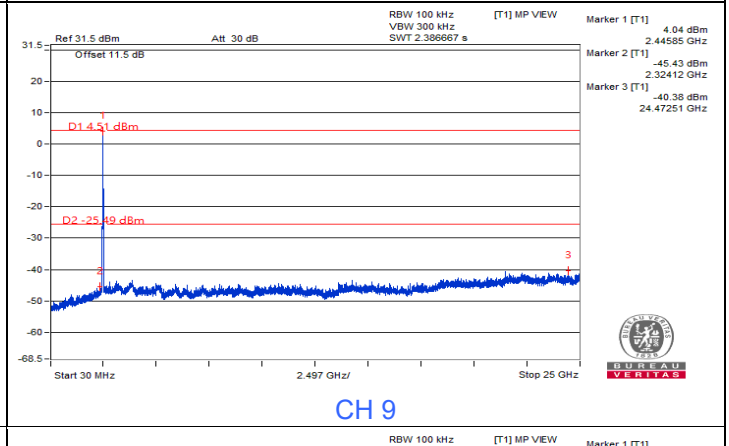

CH 6



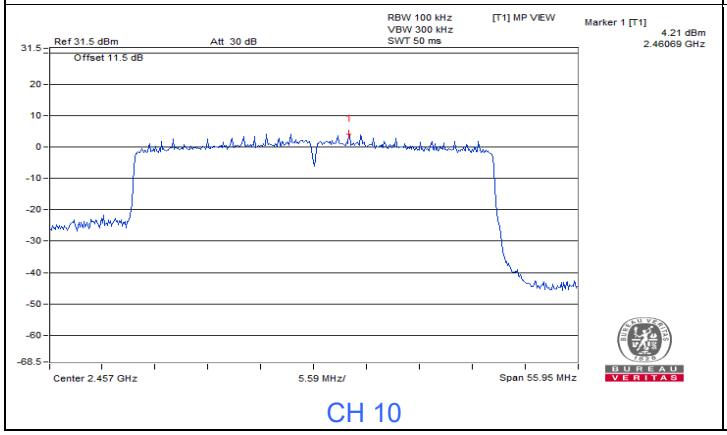

CH 6



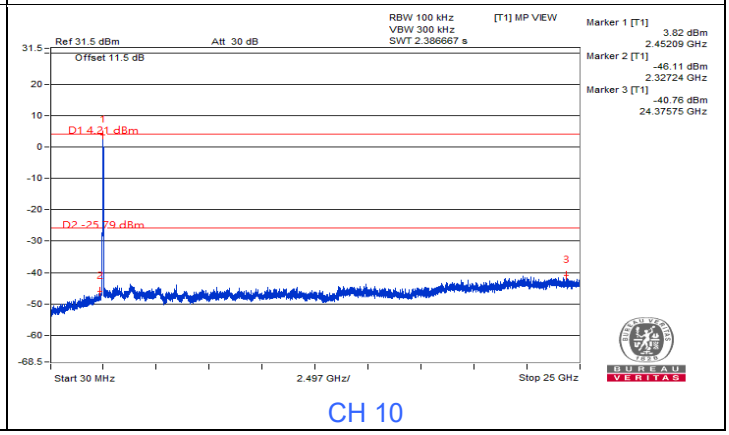

CH 9



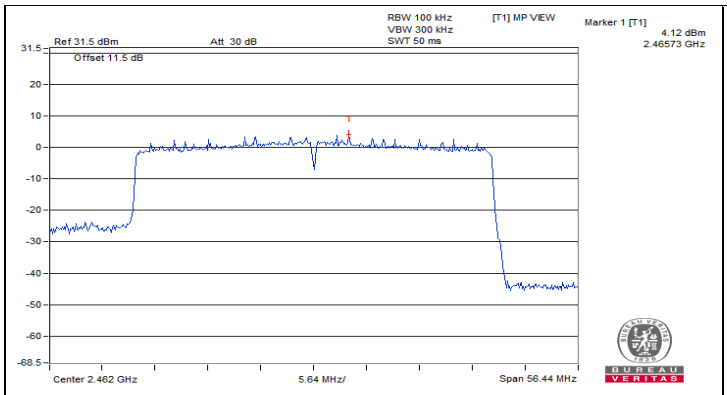

CH 9



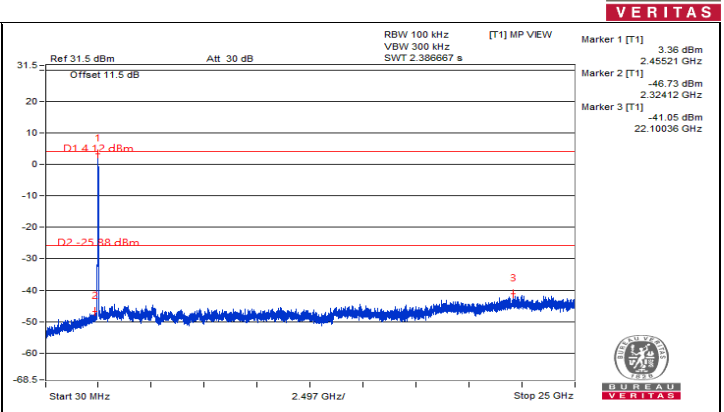

CH 10



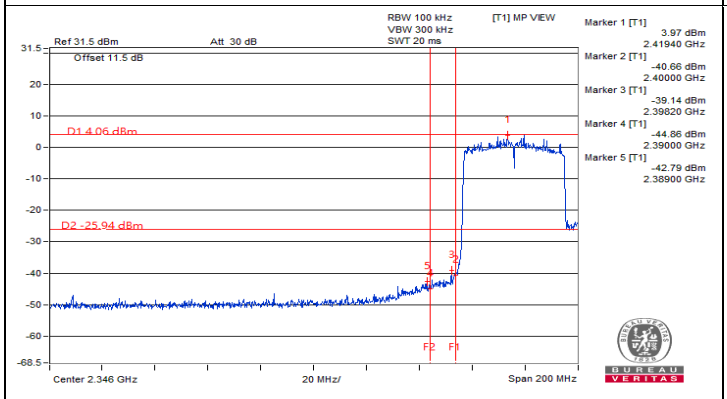

CH 10



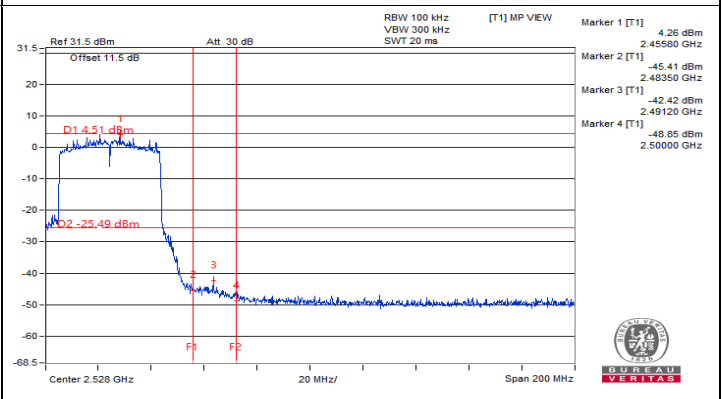

CH 11



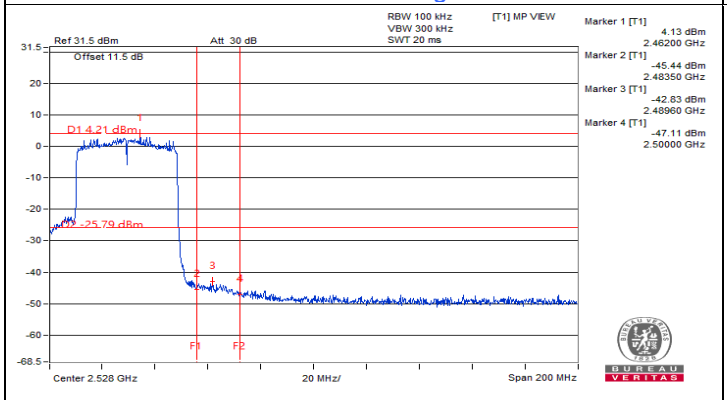

CH 11



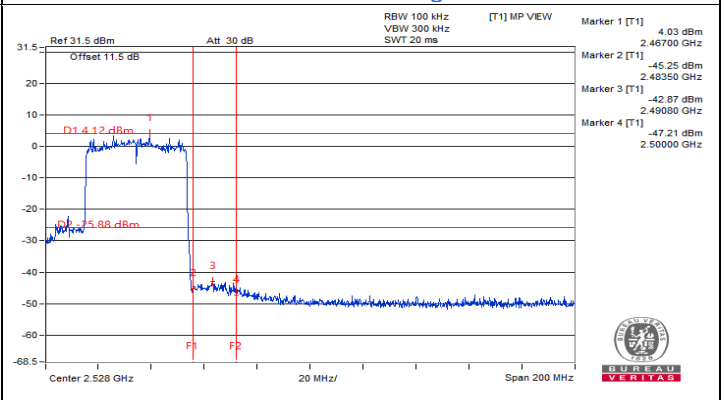

CH 3 Band edge




CH 9 Band edge

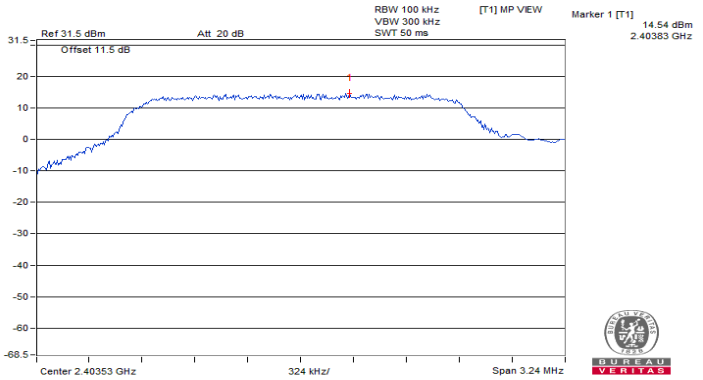



CH 10 Band edge

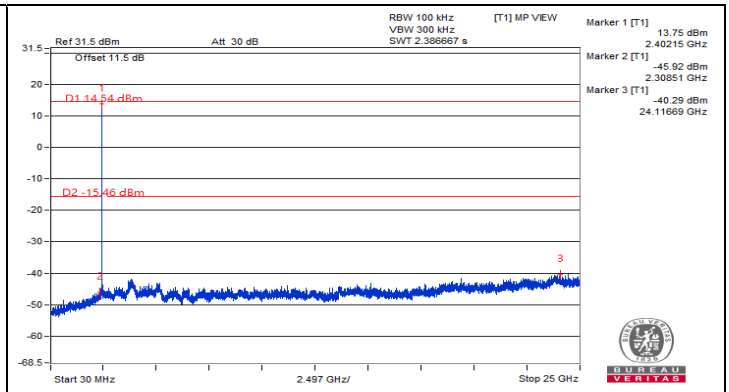



CH 11 Band edge

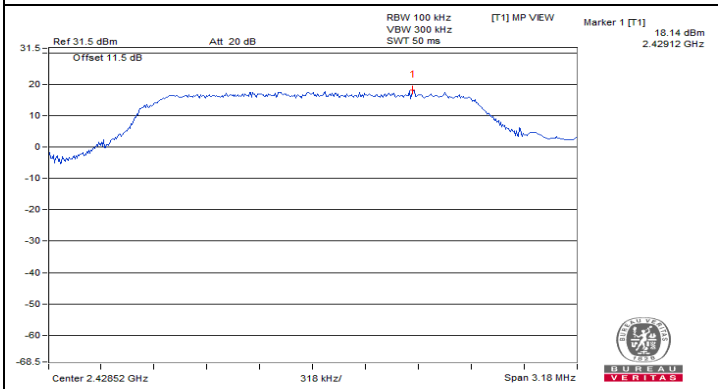
## 802.11be (EHT20) 26-tone RU 1S1T



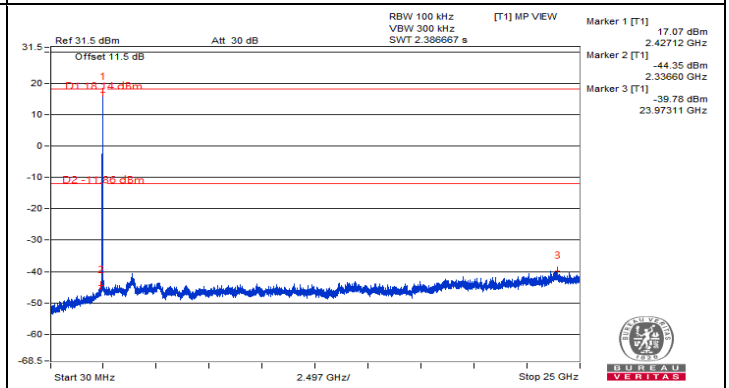

CH 1



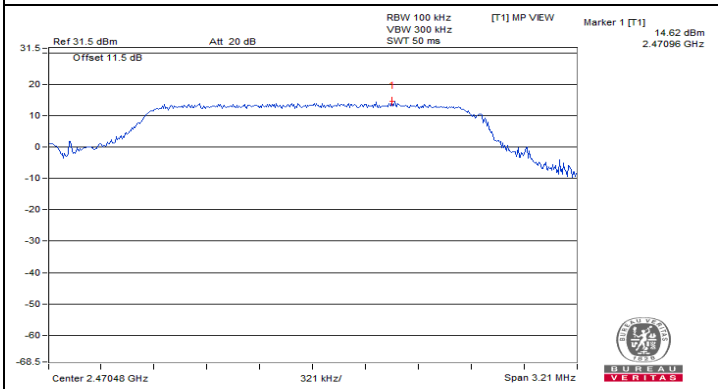

CH 1



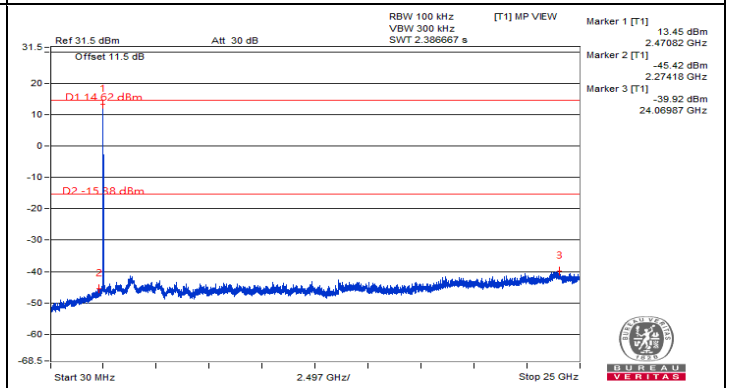

CH 6



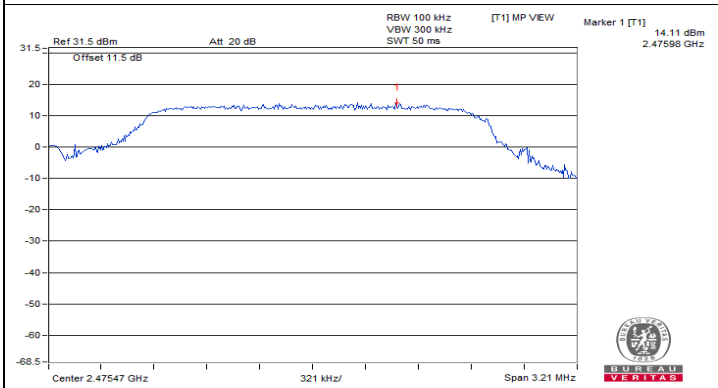

CH 6



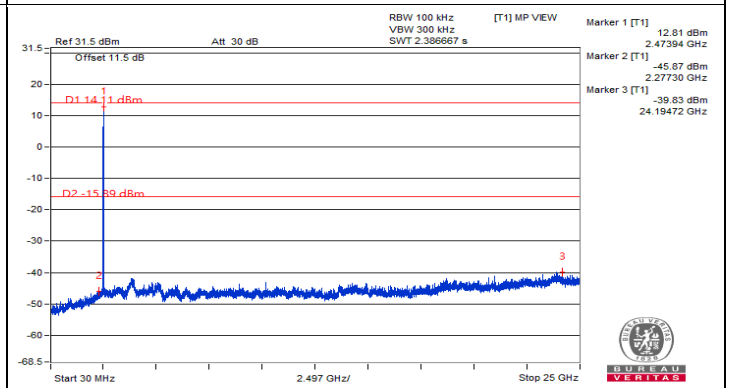

CH 11



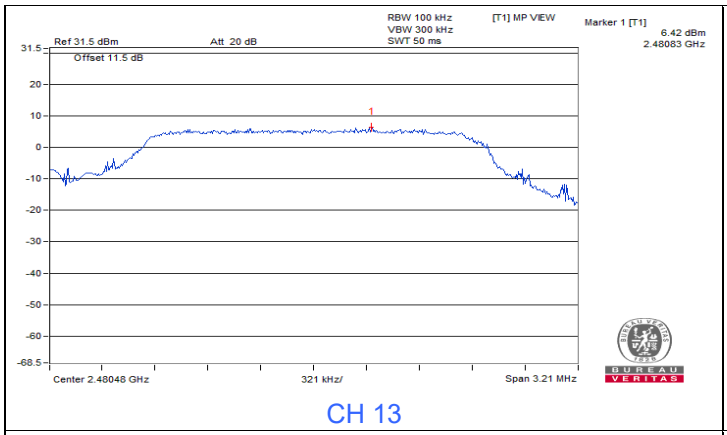

CH 11



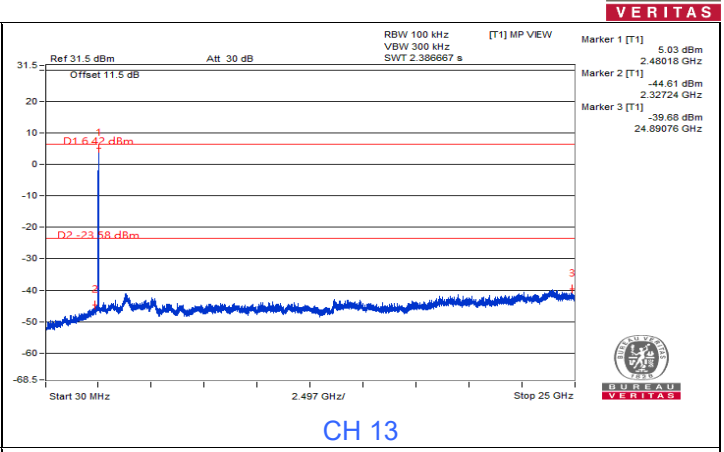

CH 12



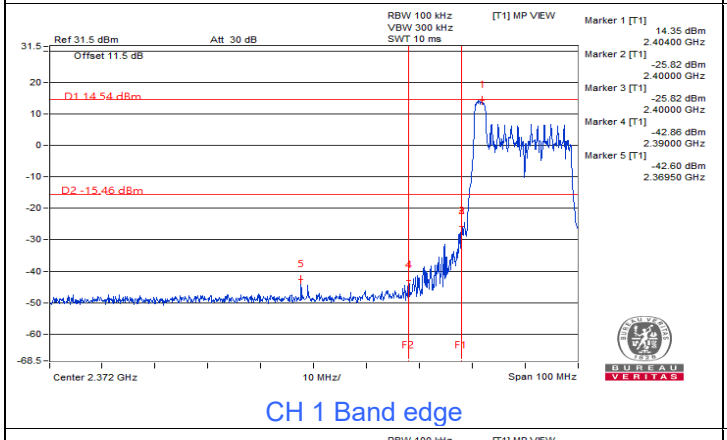

CH 12



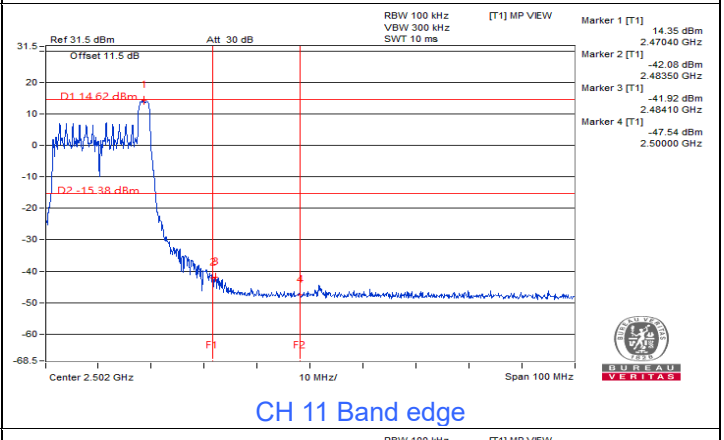

CH 13



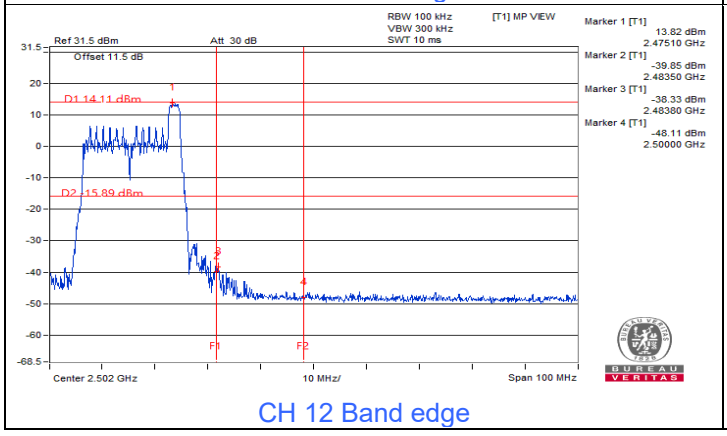

CH 13



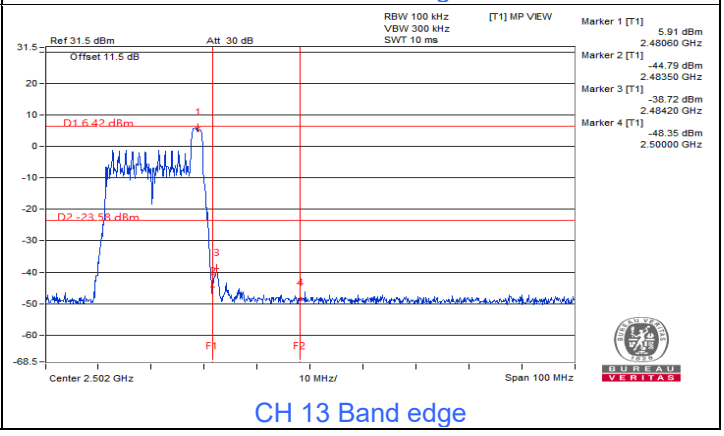

CH 1 Band edge




CH 11 Band edge

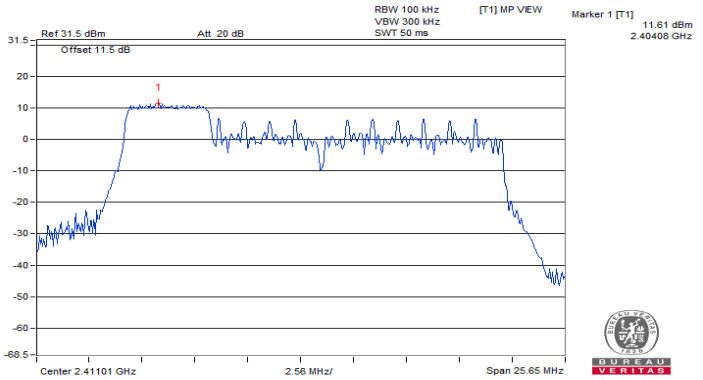



CH 12 Band edge

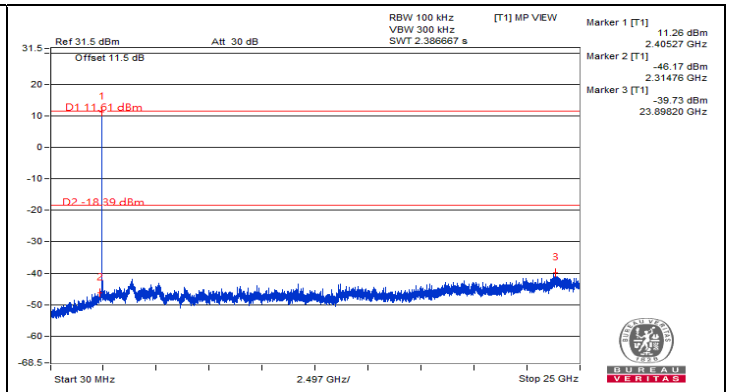



CH 13 Band edge

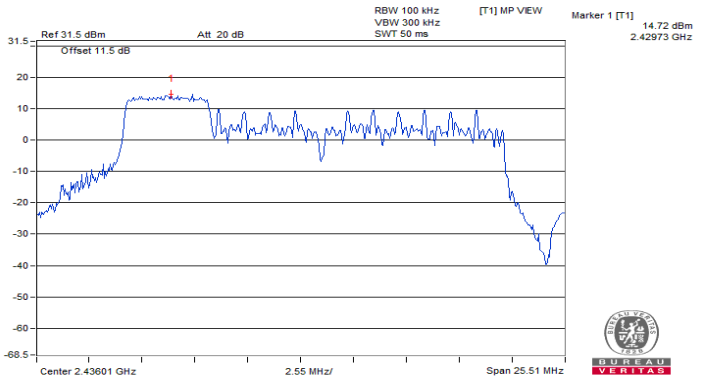
## 802.11be (EHT20) 52-tone RU 1S1T



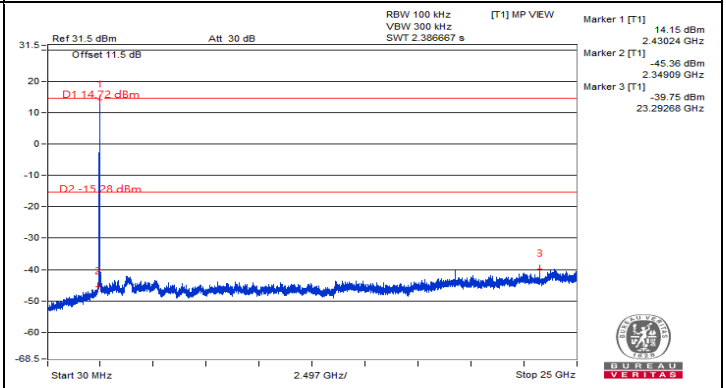

CH 1



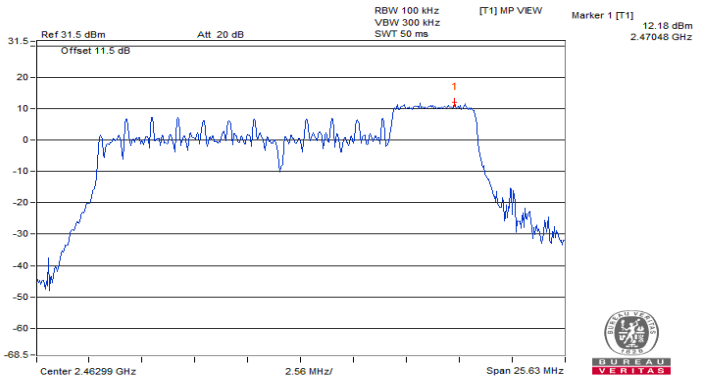

CH 1



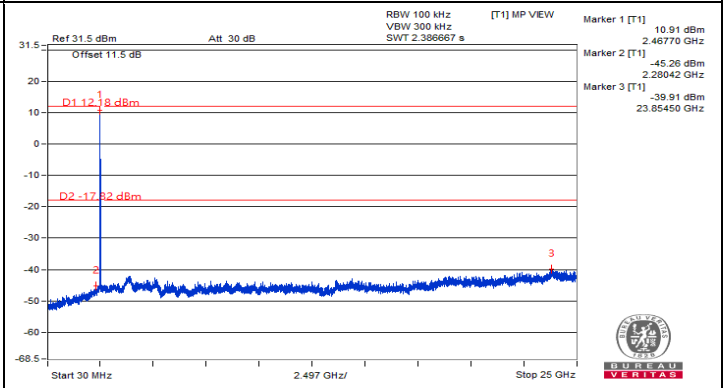

CH 6



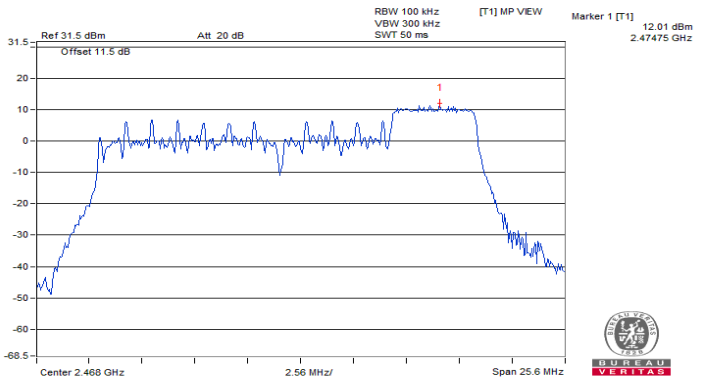

CH 6



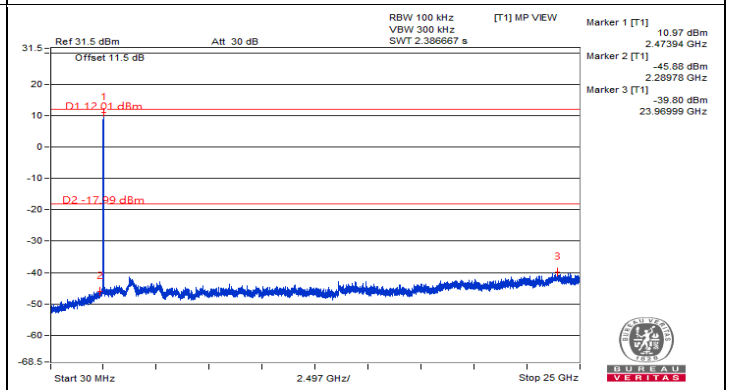

CH 11



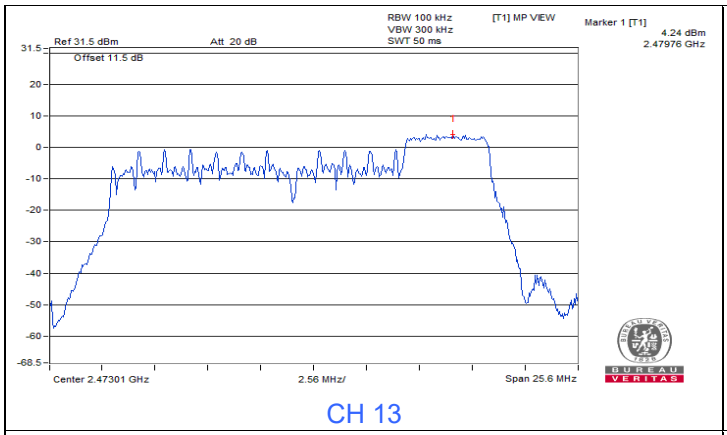

CH 11



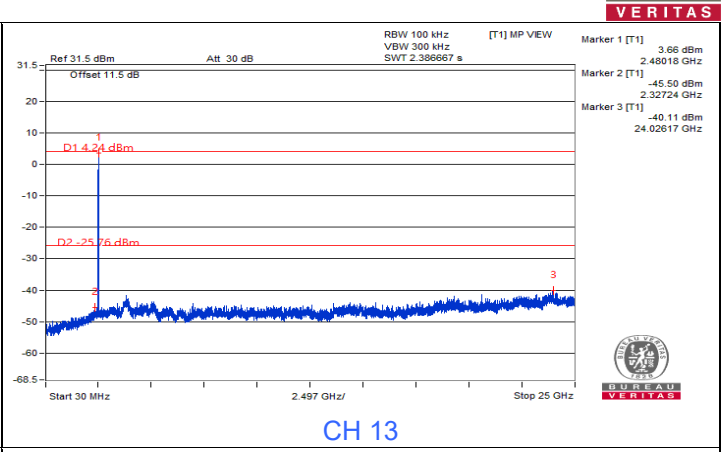

CH 12



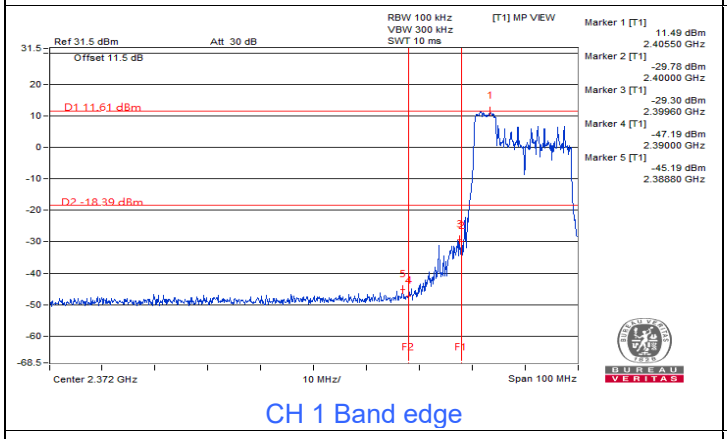

CH 12



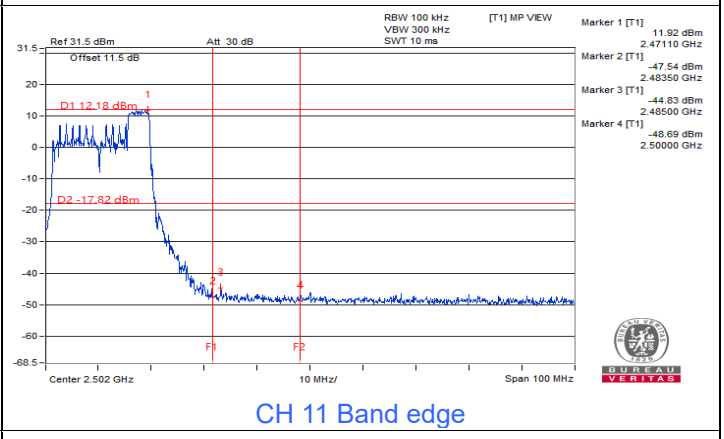

CH 13



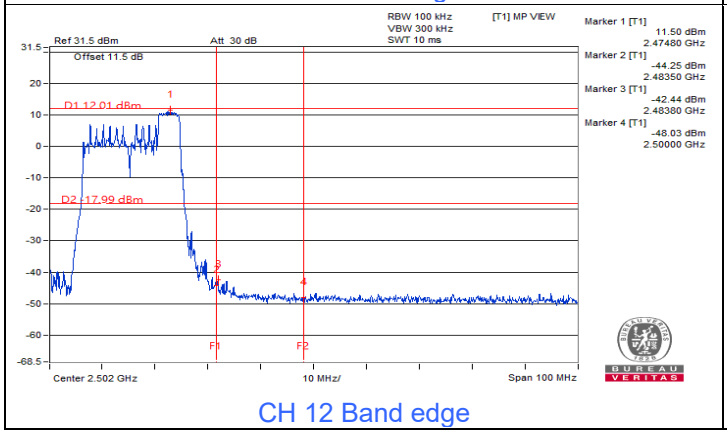

CH 13



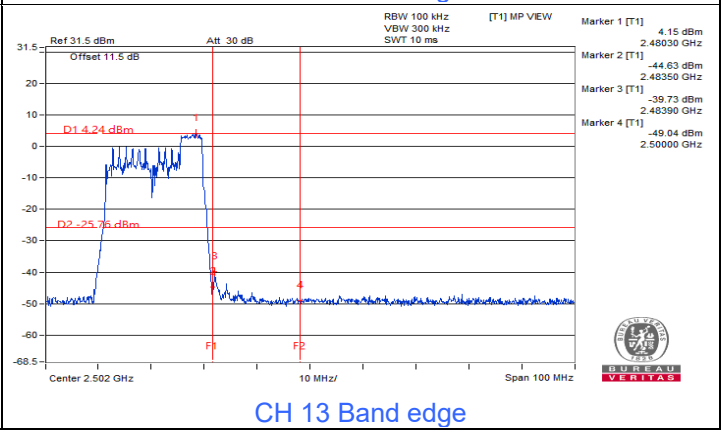

CH 1 Band edge




CH 11 Band edge

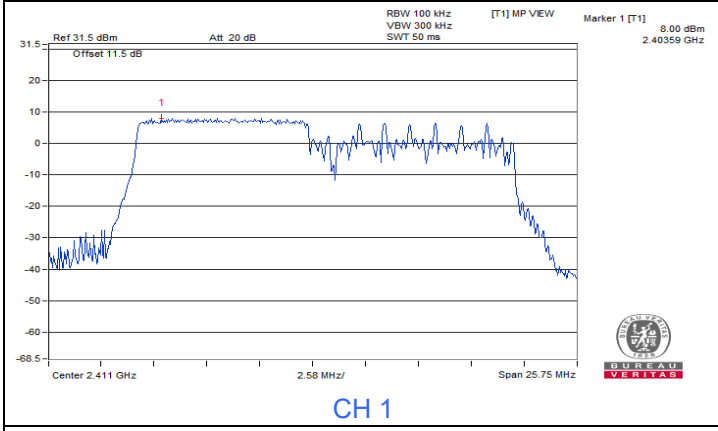



CH 12 Band edge

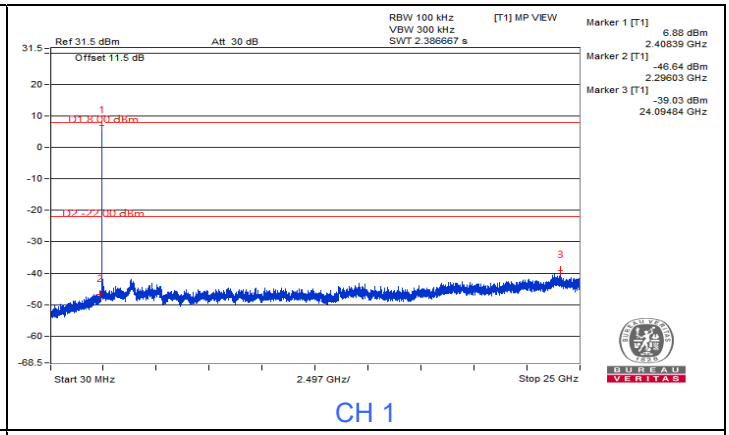



CH 13 Band edge

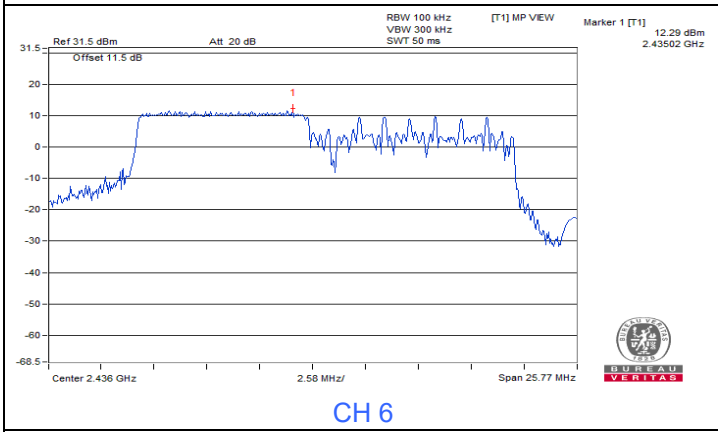
## 802.11be (EHT20) 106-tone RU 1S1T



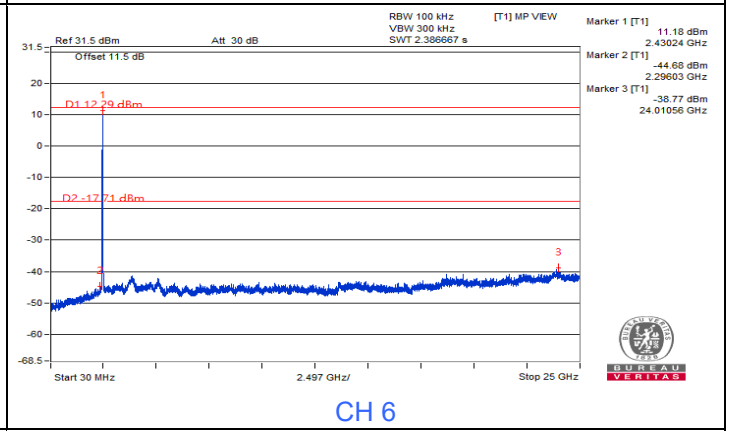

CH 1



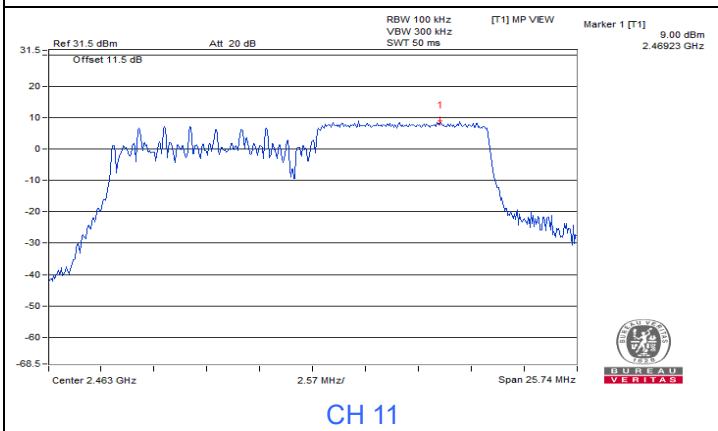

CH 1



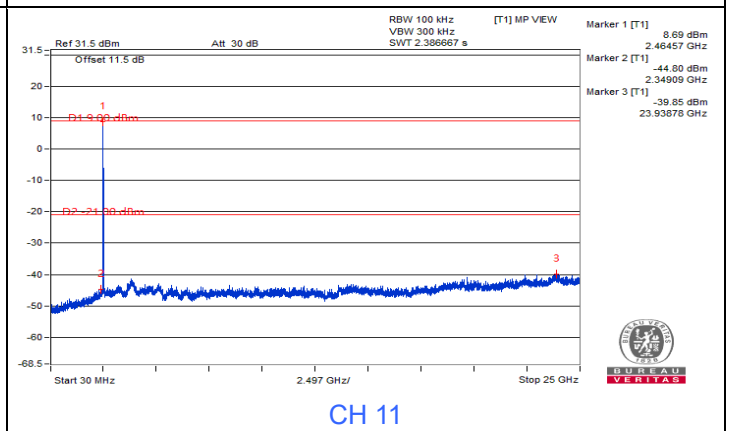

CH 6



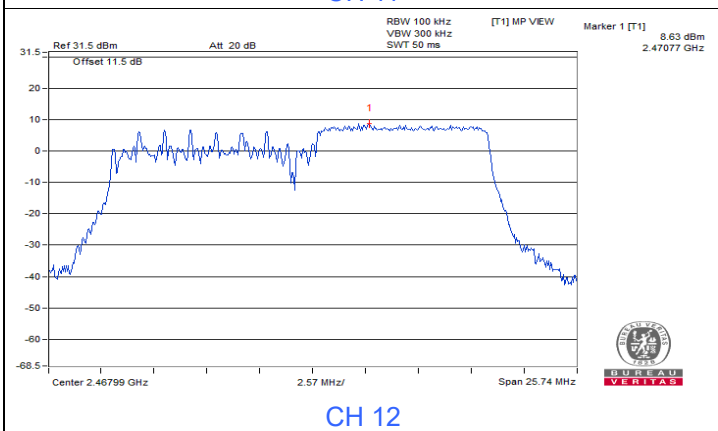

CH 6



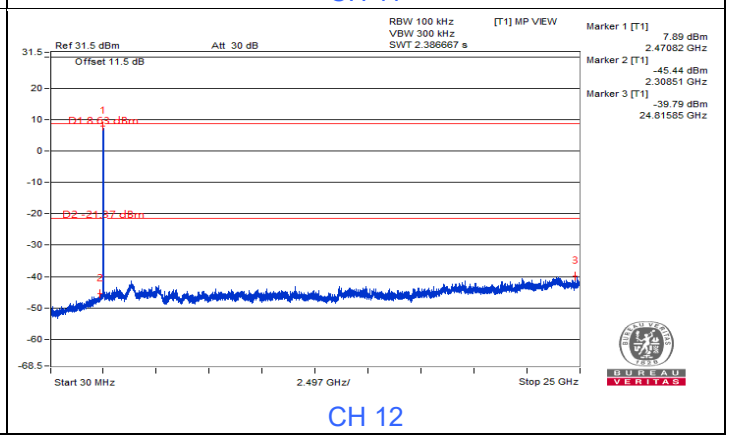

CH 11




CH 11




CH 12

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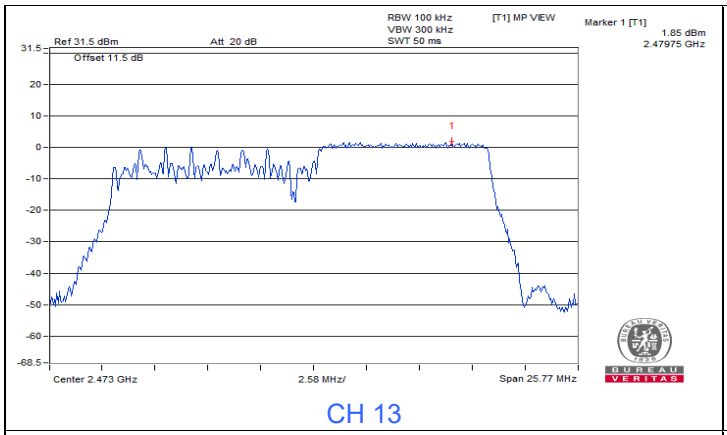
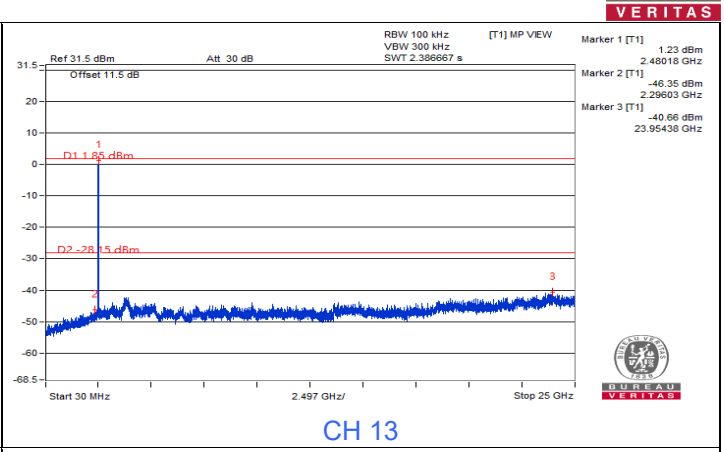
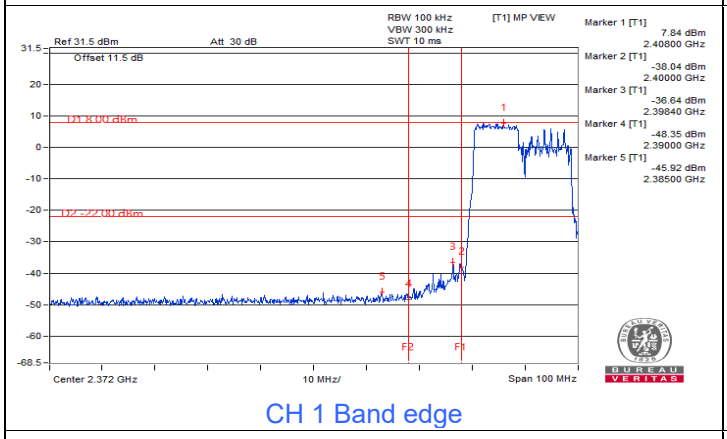


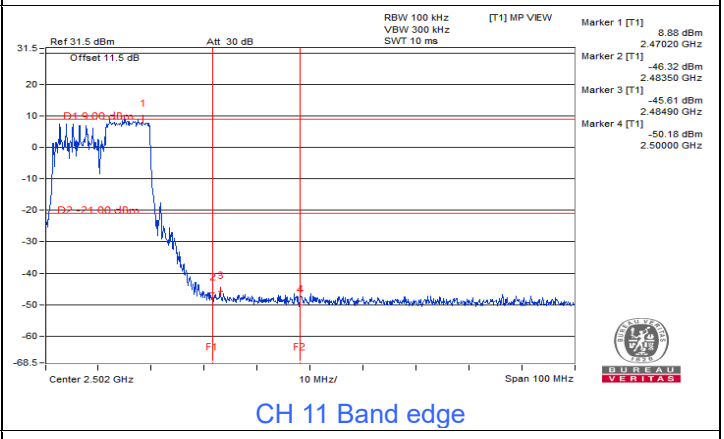

CH 13



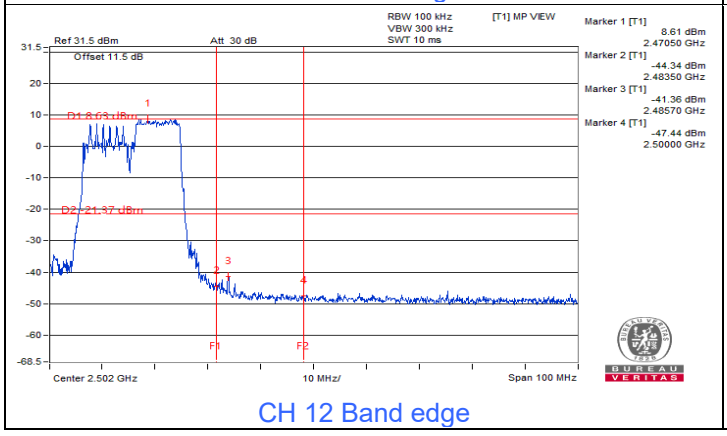

CH 13



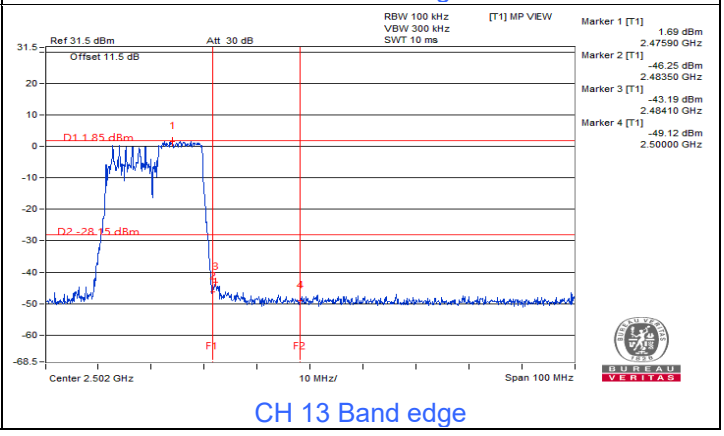

CH 1 Band edge




CH 11 Band edge

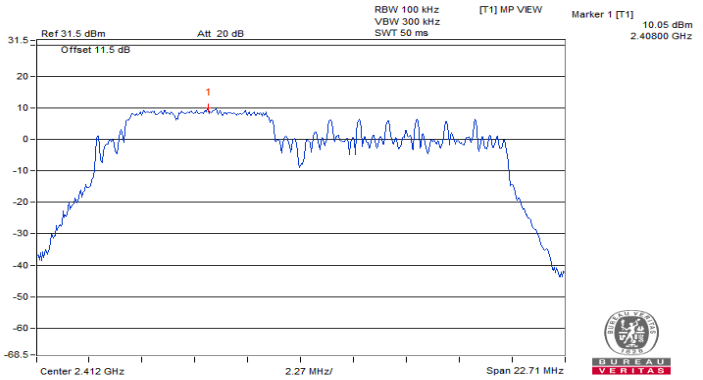



CH 12 Band edge

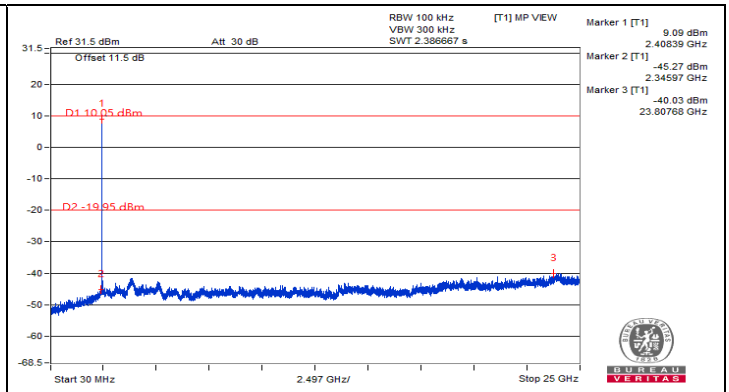



CH 13 Band edge

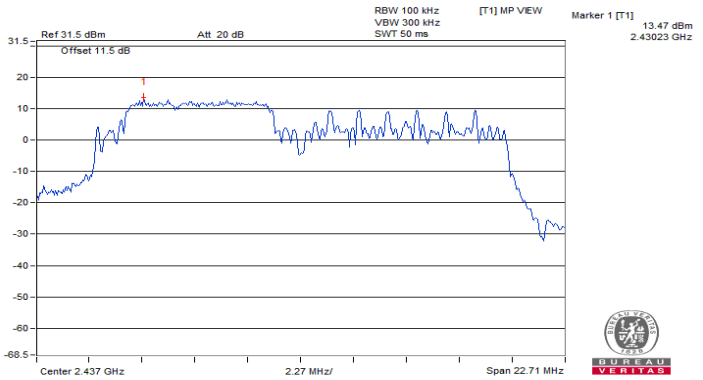
## 802.11be (EHT20) 52+26-tone MRU 1S1T



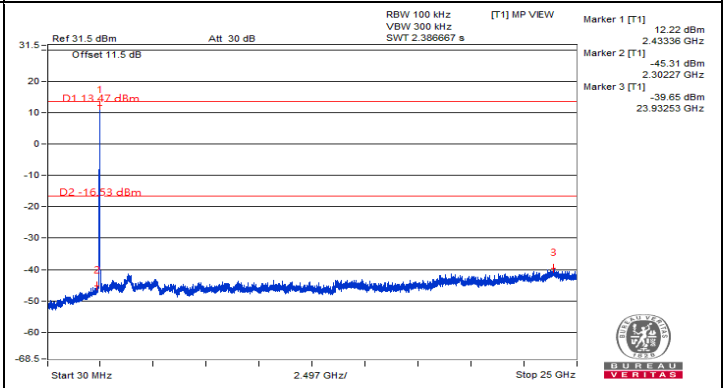

CH 1



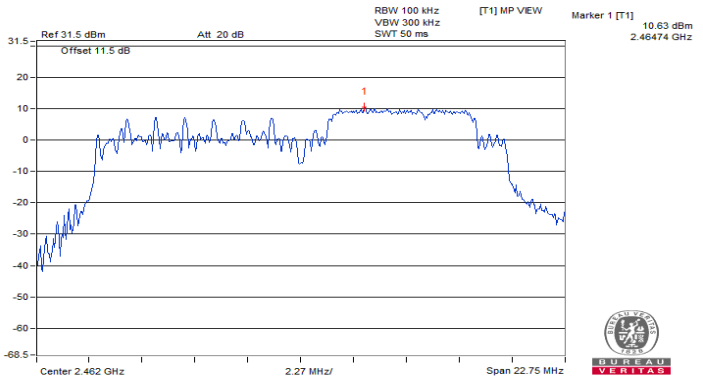

CH 1



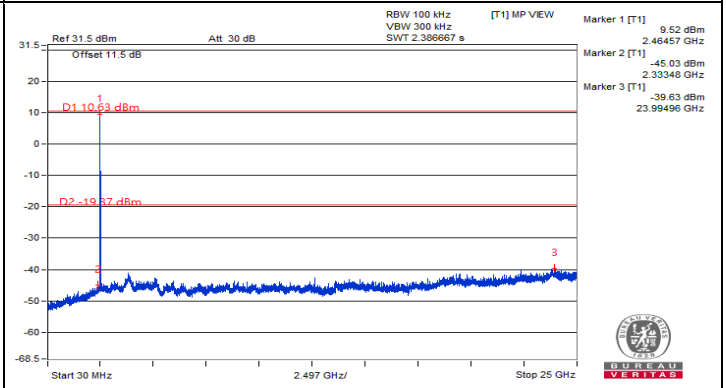

CH 6



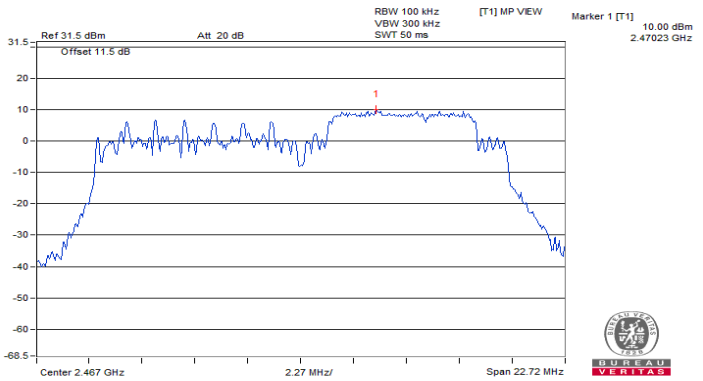

CH 6



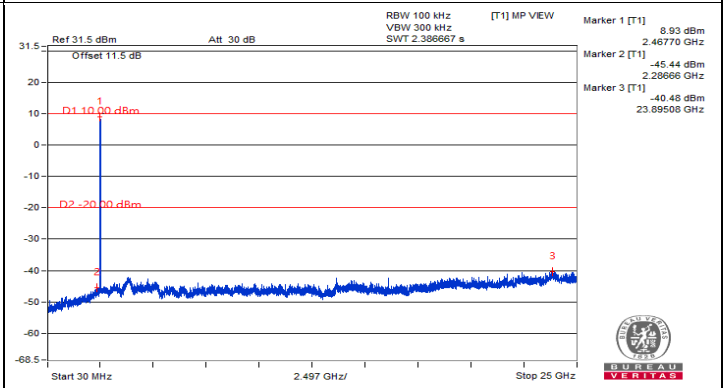

CH 11



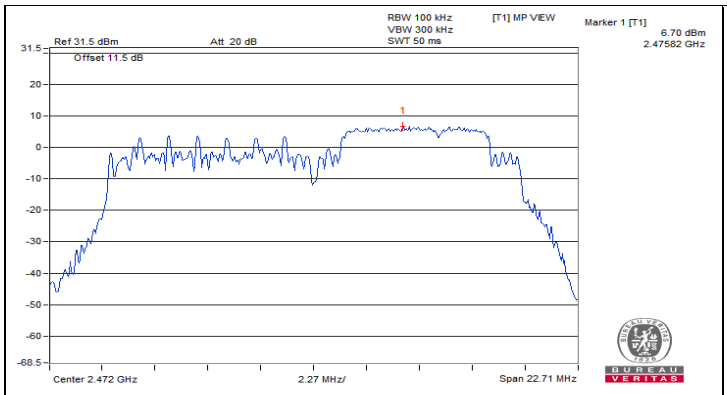

CH 11



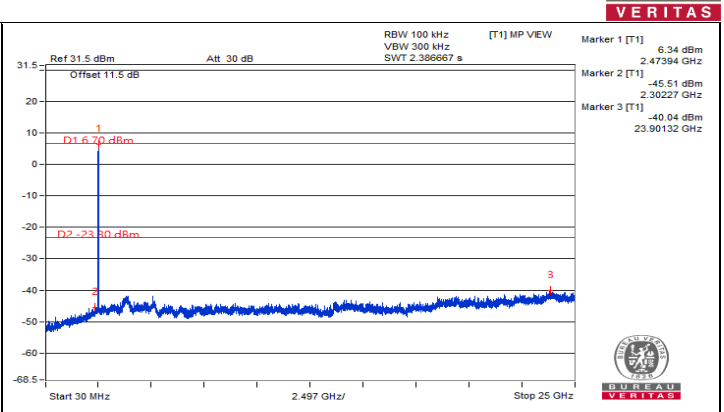

CH 12



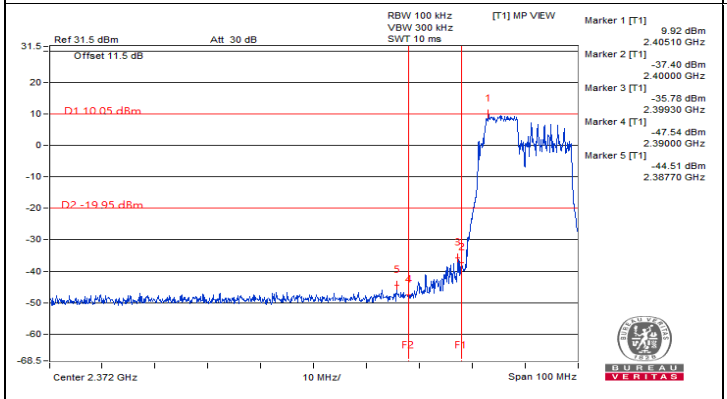

CH 12



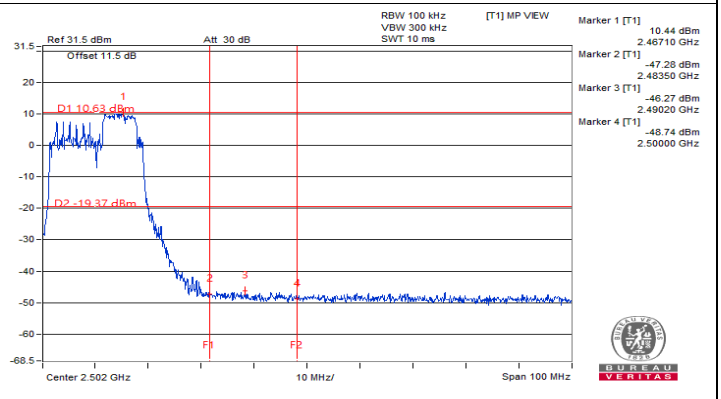

CH 13



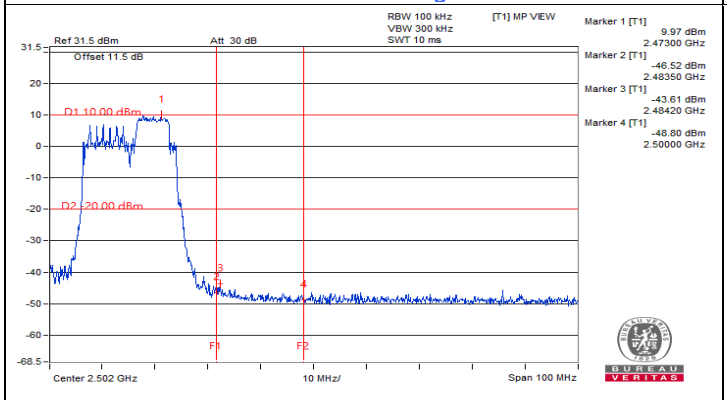

CH 13



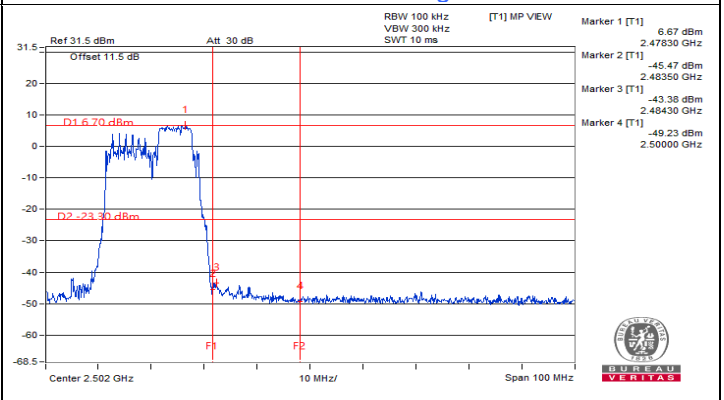

CH 1 Band edge




CH 11 Band edge

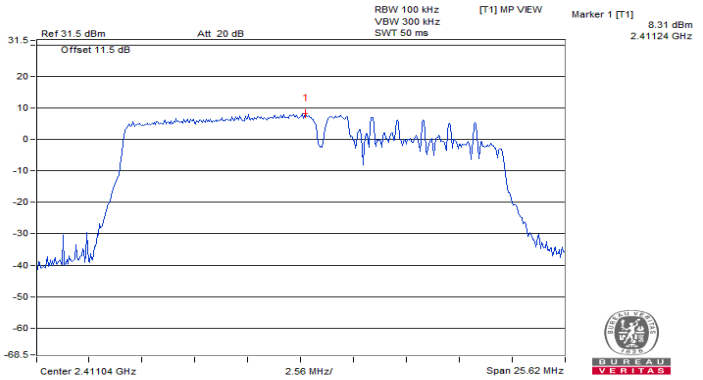



CH 12 Band edge

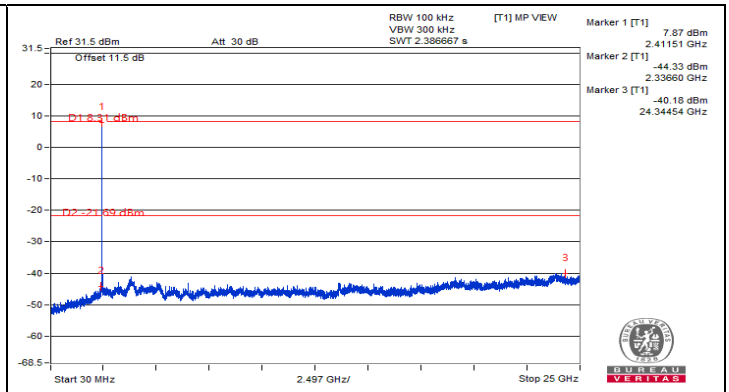



CH 13 Band edge

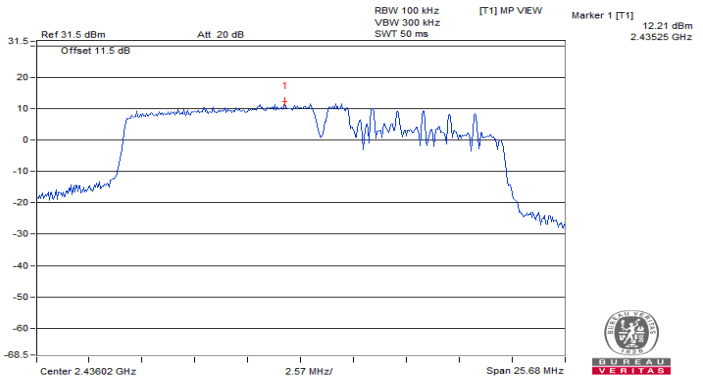
## 802.11be (EHT20) 106+26-tone MRU 1S1T



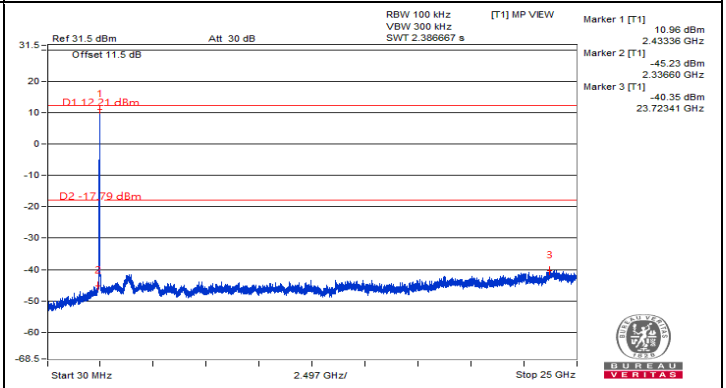

CH 1



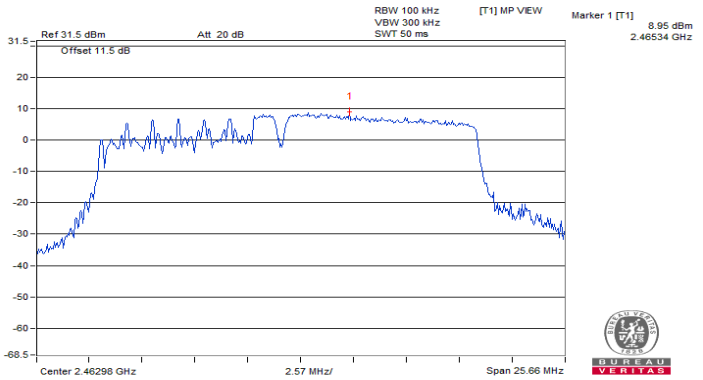

CH 1



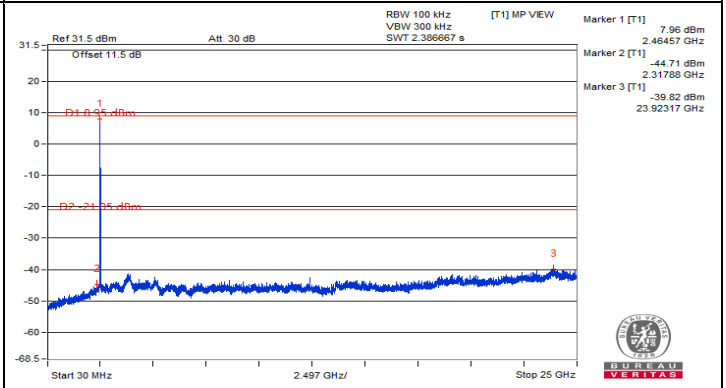

CH 6



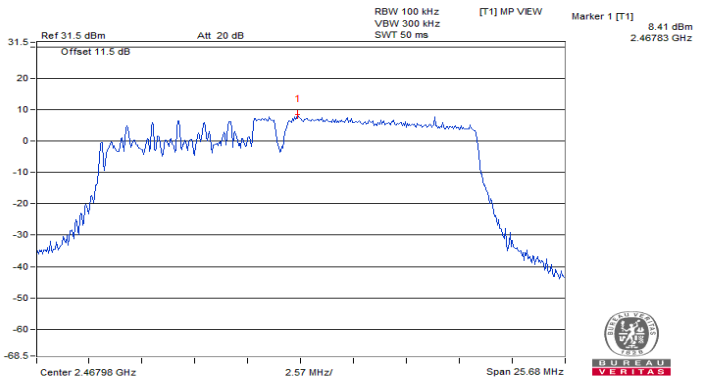

CH 6



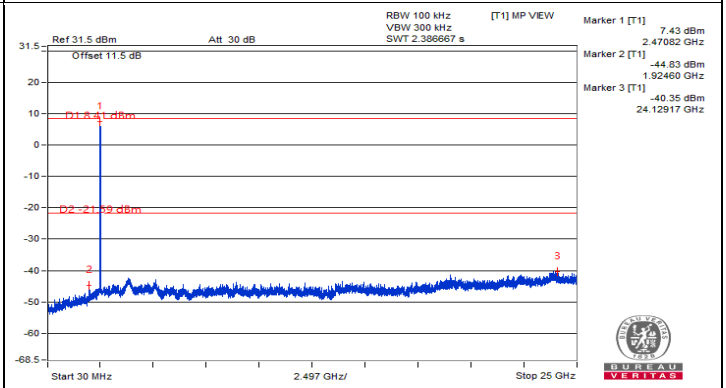

CH 11



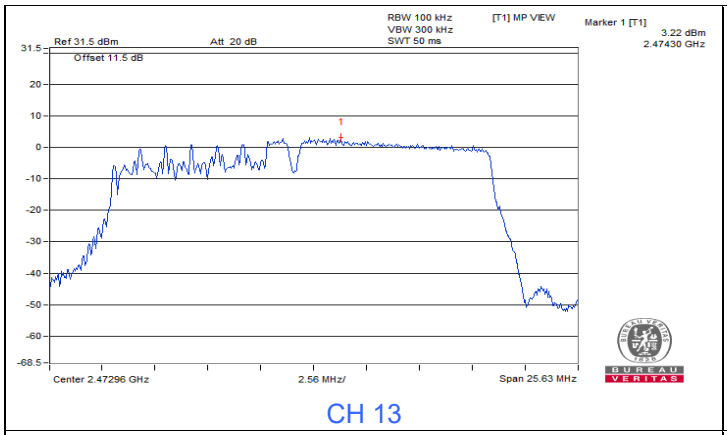

CH 11



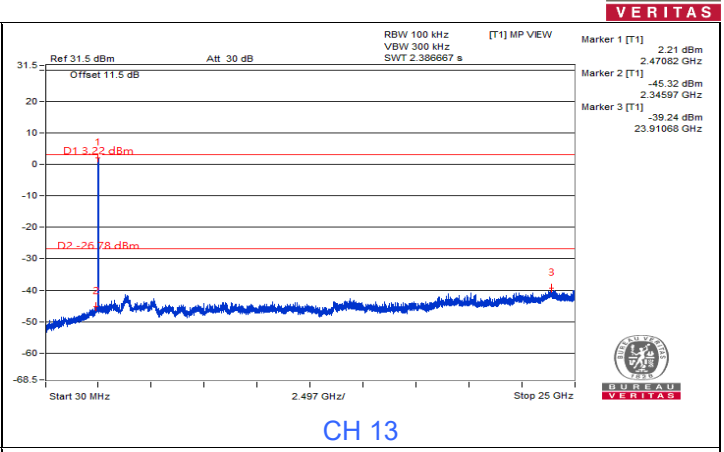

CH 12



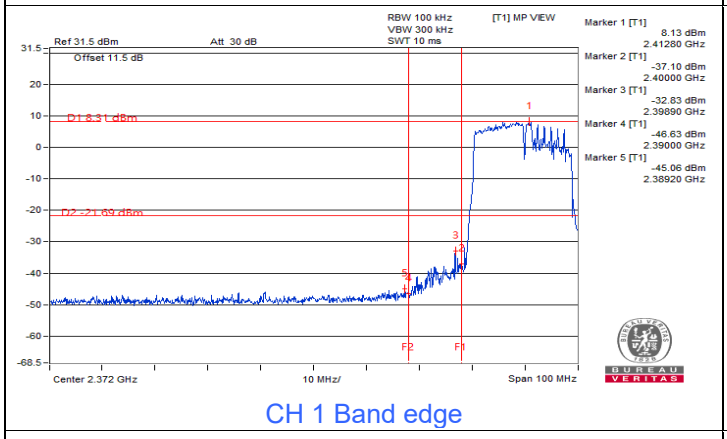

CH 12



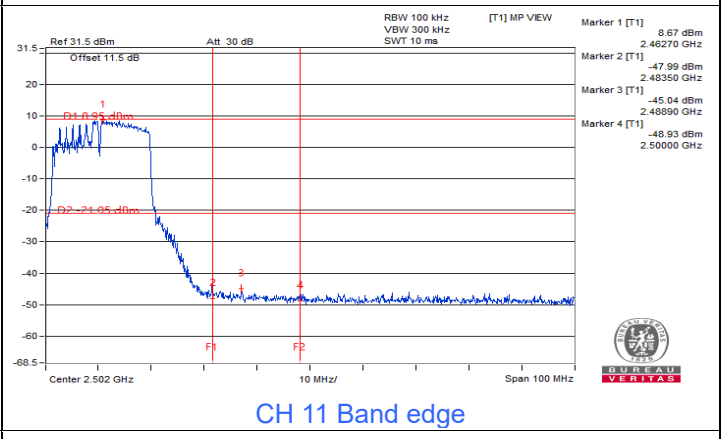

CH 13



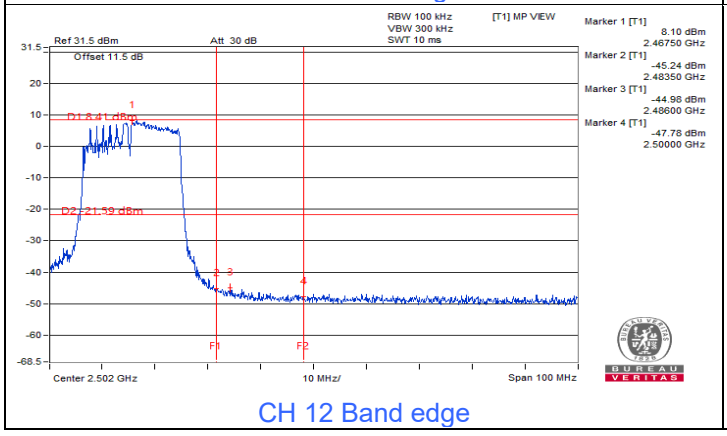

CH 13



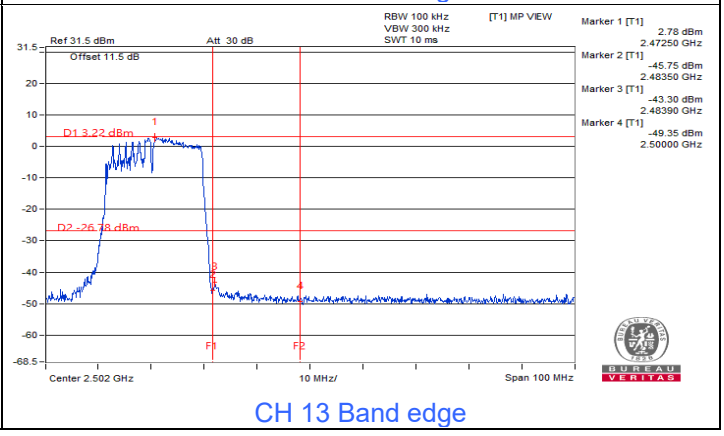

CH 1 Band edge




CH 11 Band edge



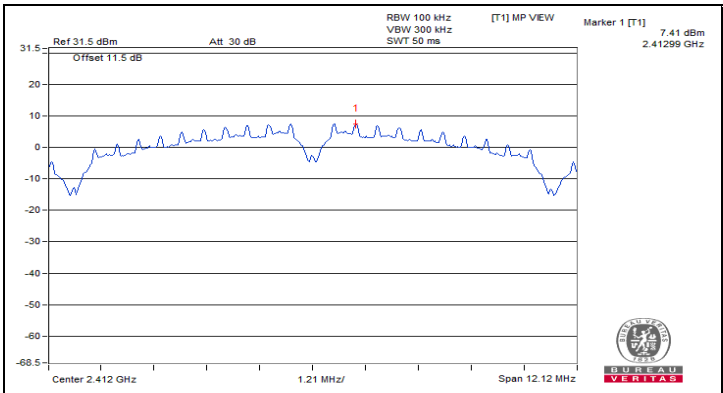

CH 12 Band edge



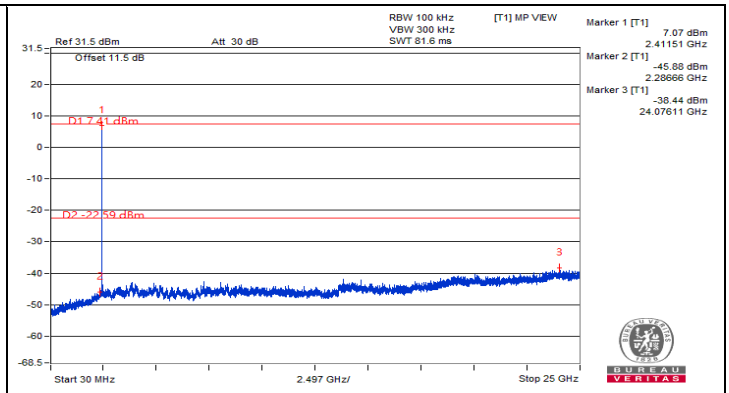

CH 13 Band edge

| Input Power: | 3.3 Vdc | Environmental Conditions: | 23°C, 64% RH | Tested By: | Katina Lu |
|---|---|---|---|---|---|

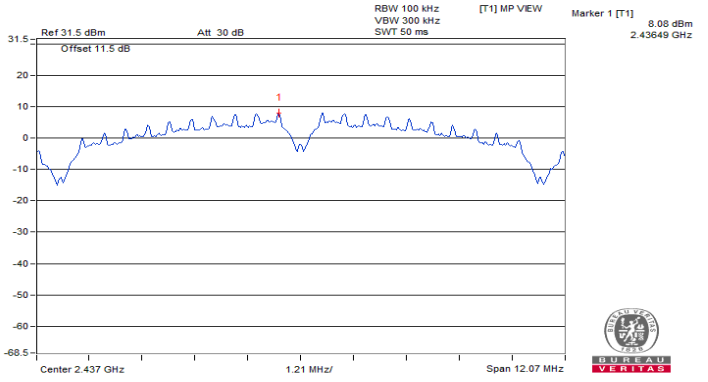
## 802.11b 2TX



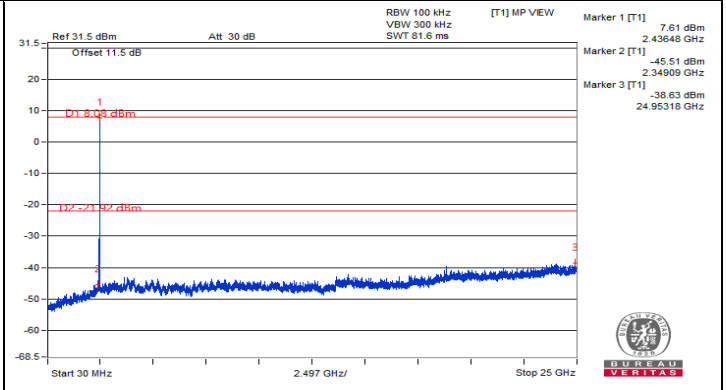

Chain 0 : CH 1



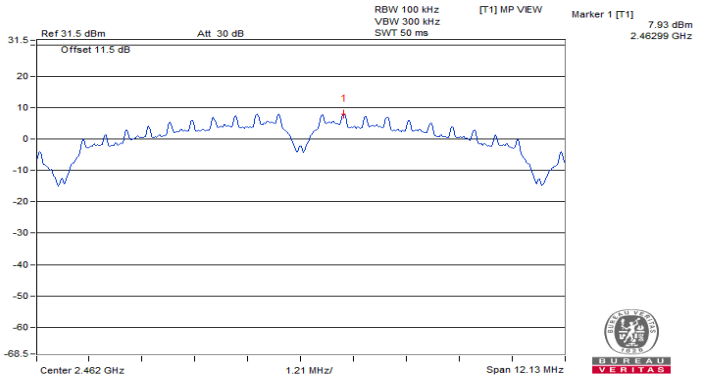

Chain 0 : CH 1



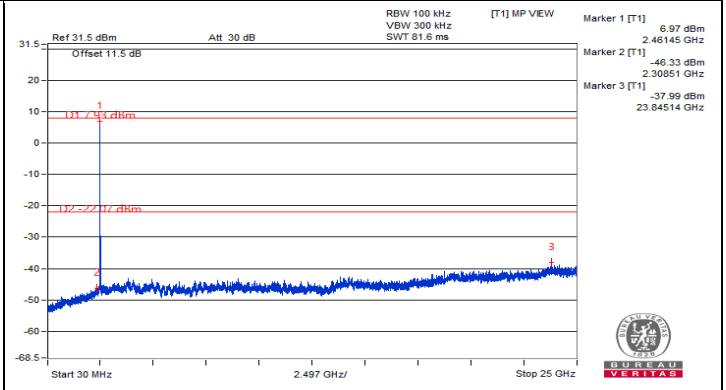

Chain 0 : CH 6



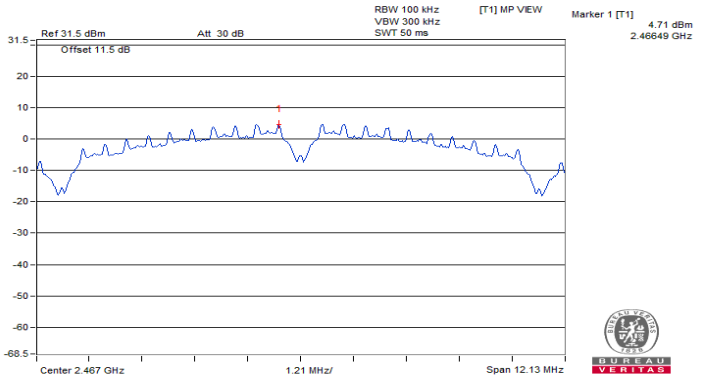

Chain 0 : CH 6



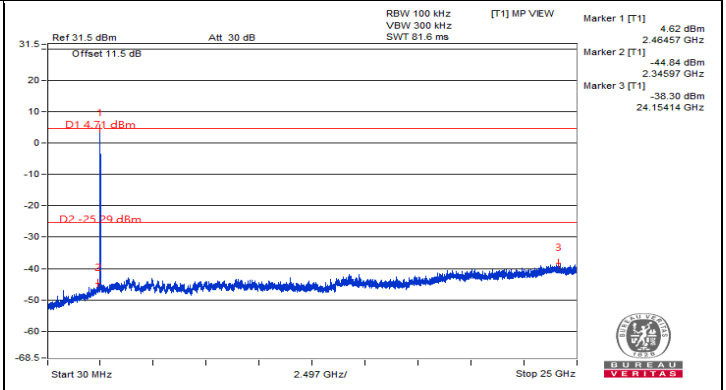

Chain 0 : CH 11



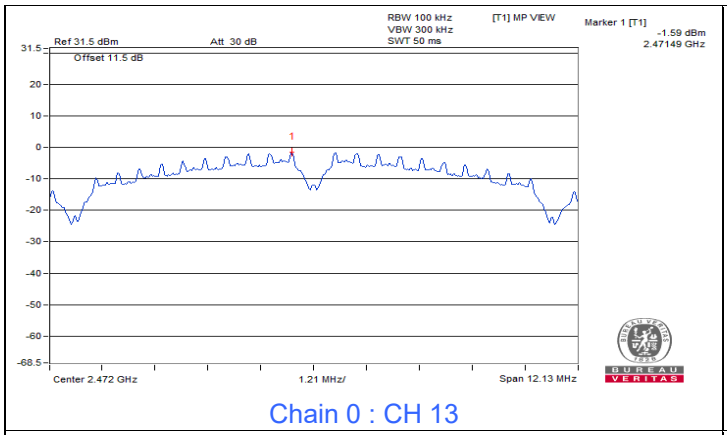

Chain 0 : CH 11



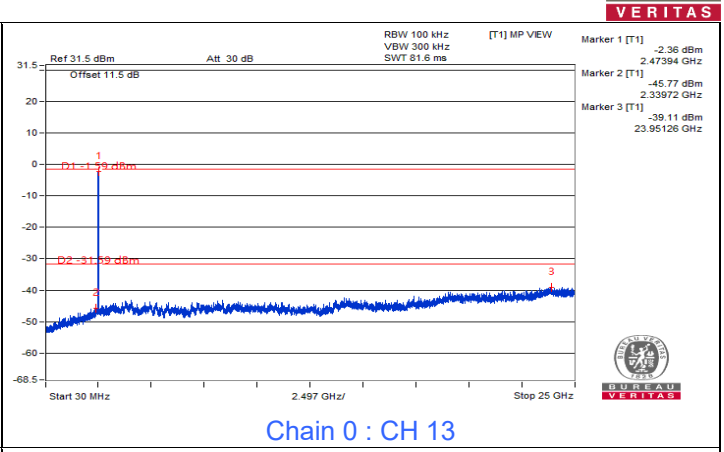

Chain 0 : CH 12



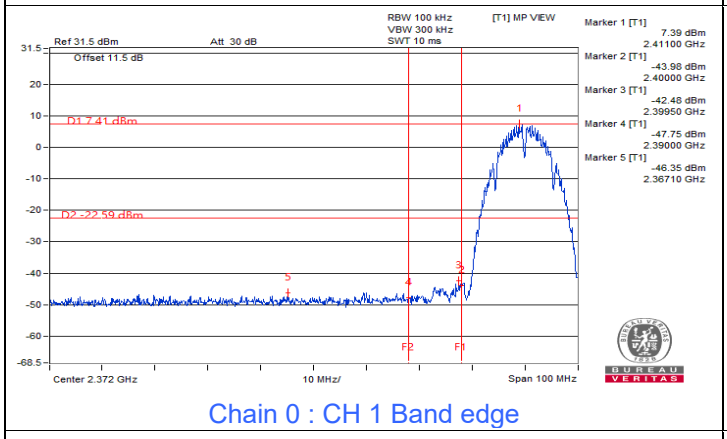

Chain 0 : CH 12



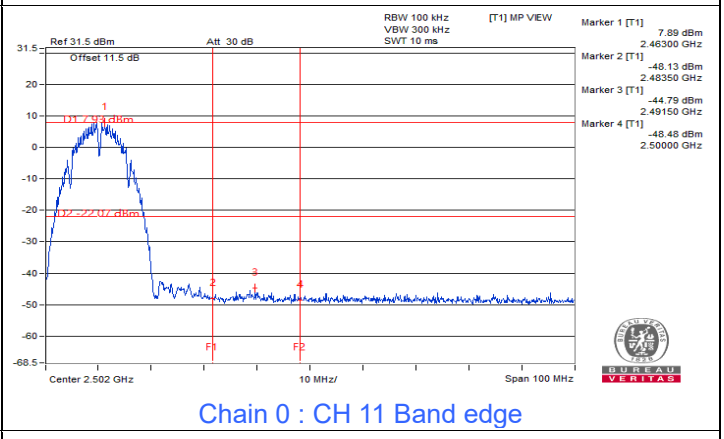

Chain 0 : CH 13



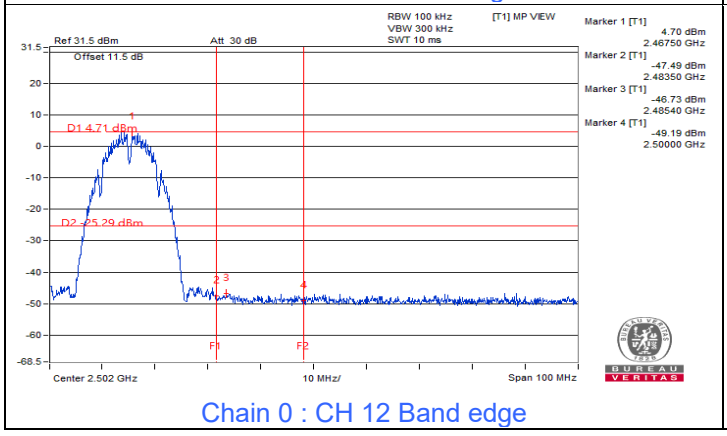

Chain 0 : CH 13



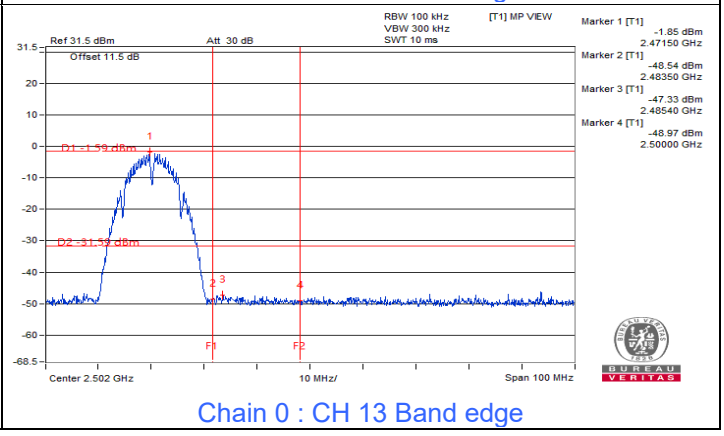

Chain 0 : CH 1 Band edge



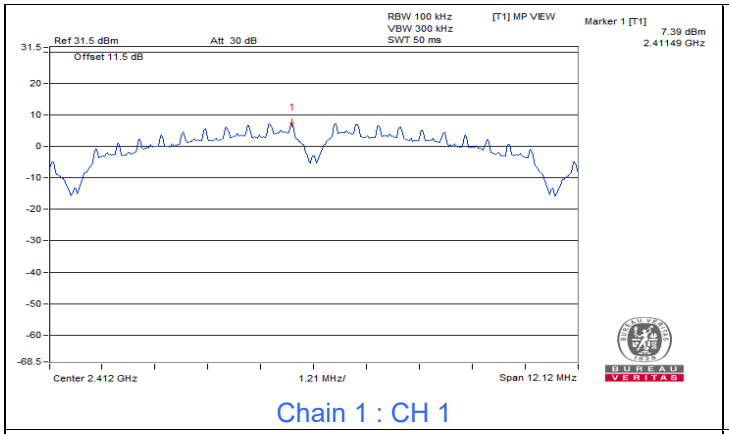

Chain 0 : CH 11 Band edge



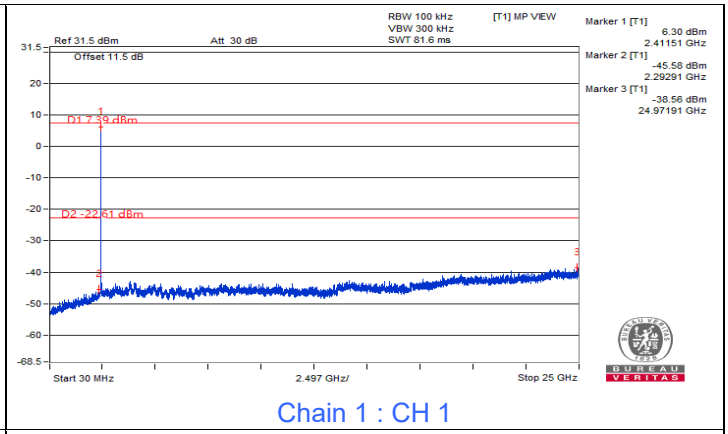

Chain 0 : CH 12 Band edge



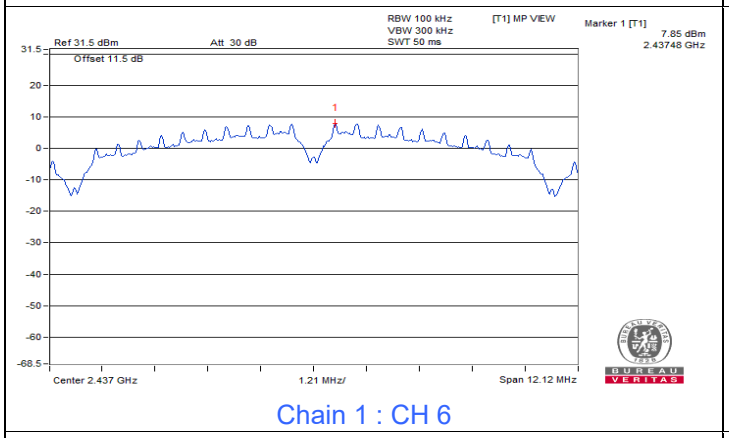

Chain 0 : CH 13 Band edge



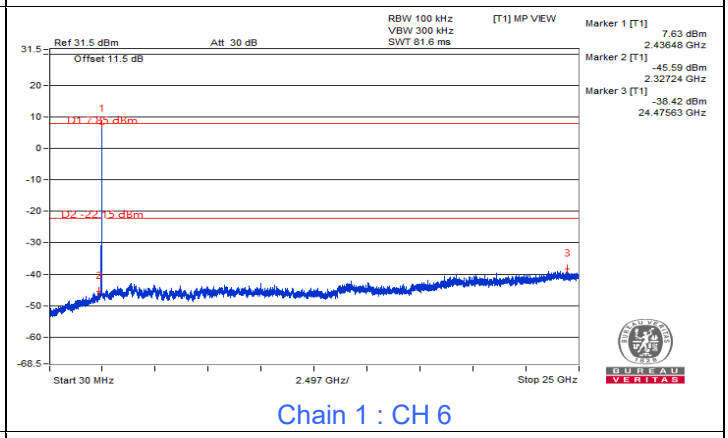

Chain 1 : CH 1



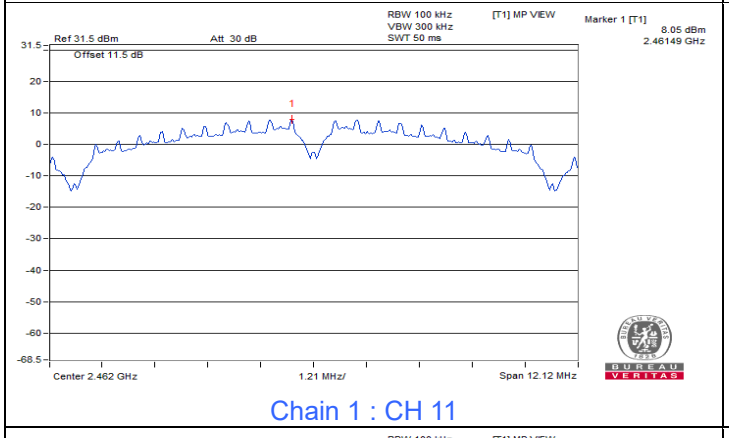

Chain 1 : CH 1



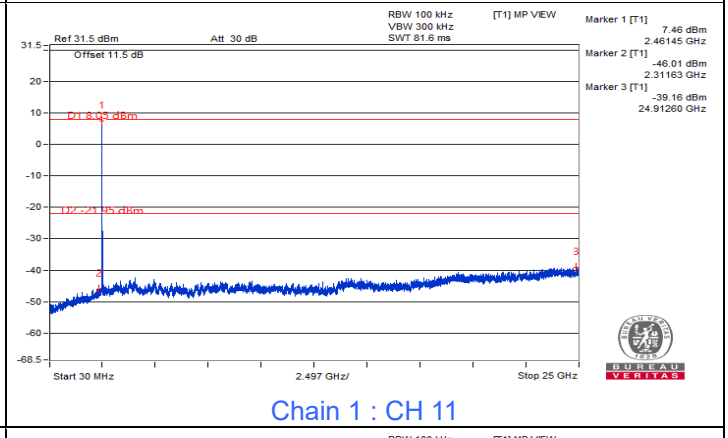

Chain 1 : CH 6



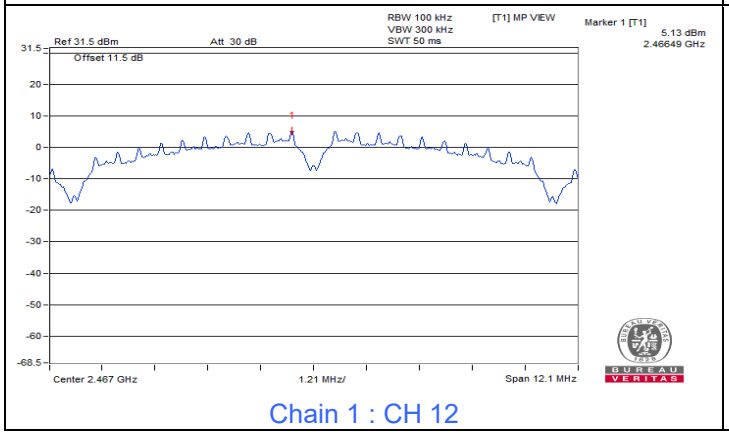

Chain 1 : CH 6



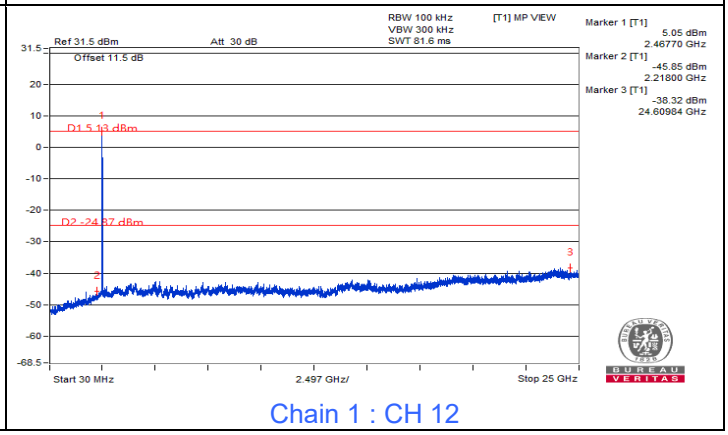

Chain 1 : CH 11



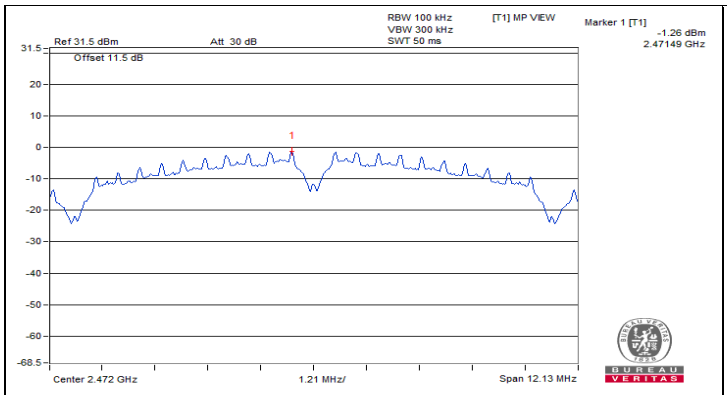

Chain 1 : CH 11



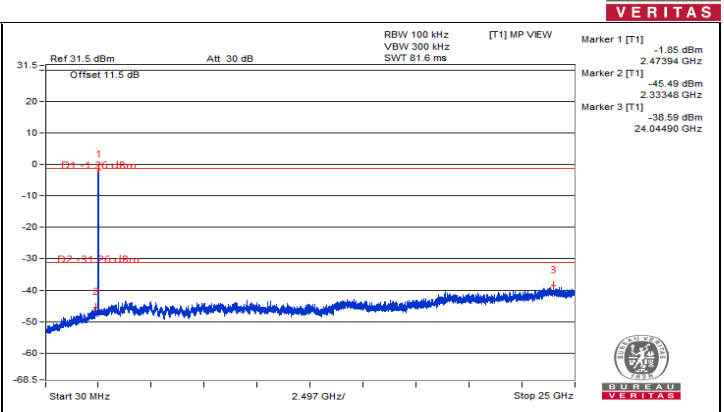

Chain 1 : CH 12



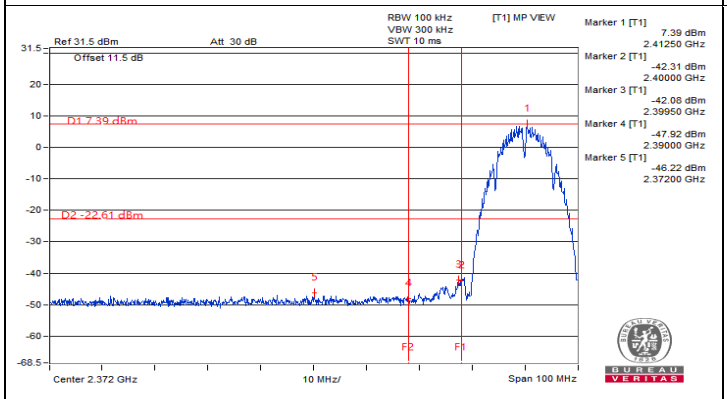

Chain 1 : CH 12



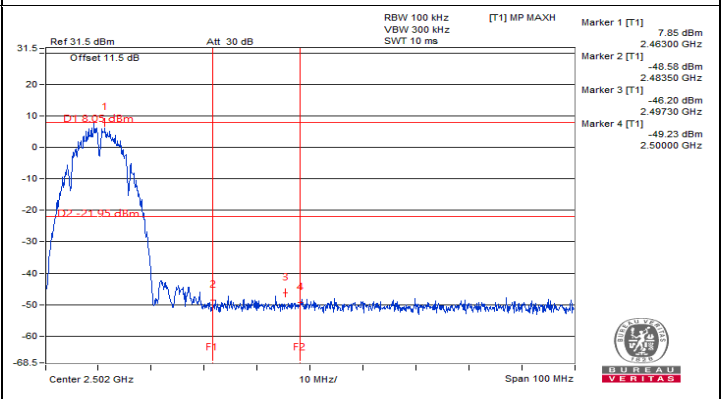

Chain 1 : CH 13



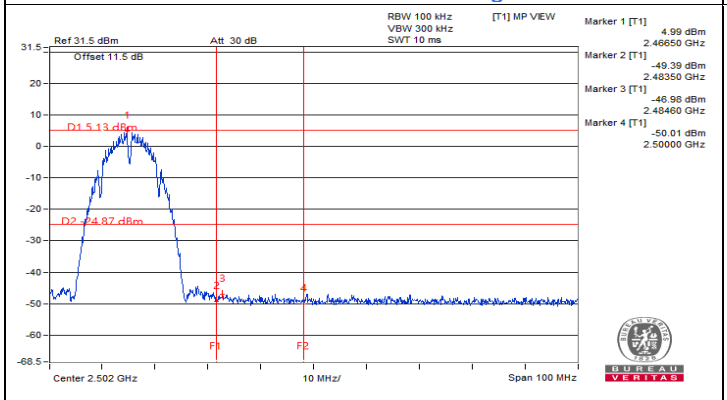

Chain 1 : CH 13



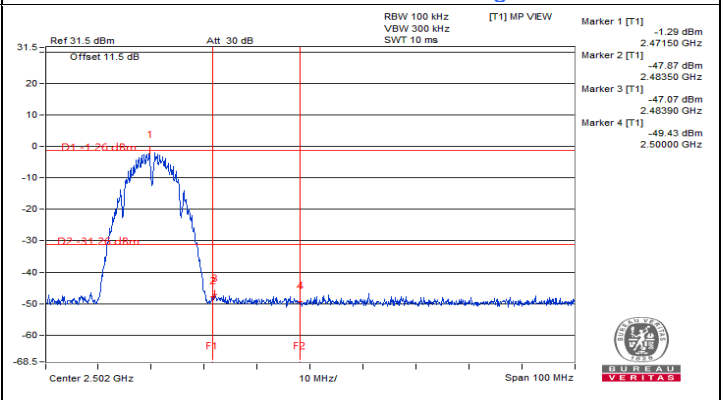

Chain 1 : CH 1 Band edge




Chain 1 : CH 11 Band edge




Chain 1 : CH 12 Band edge




Chain 1 : CH 13 Band edge

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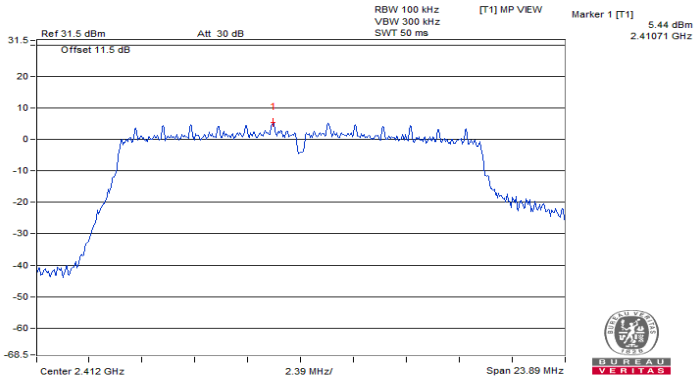
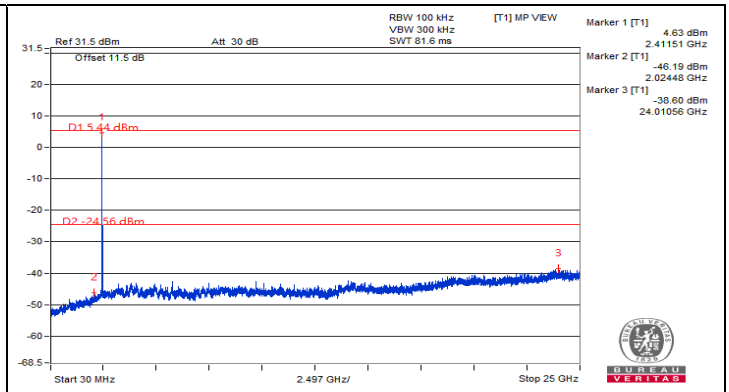
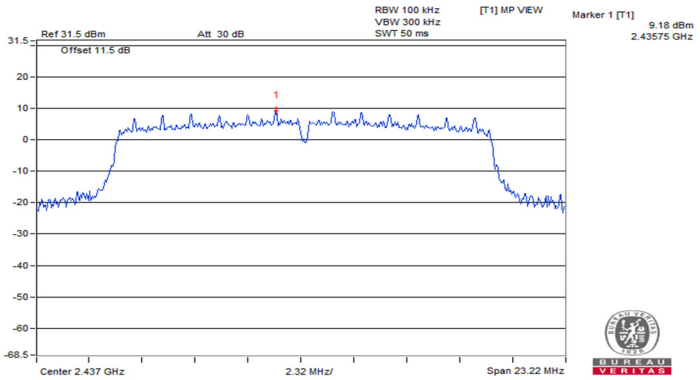


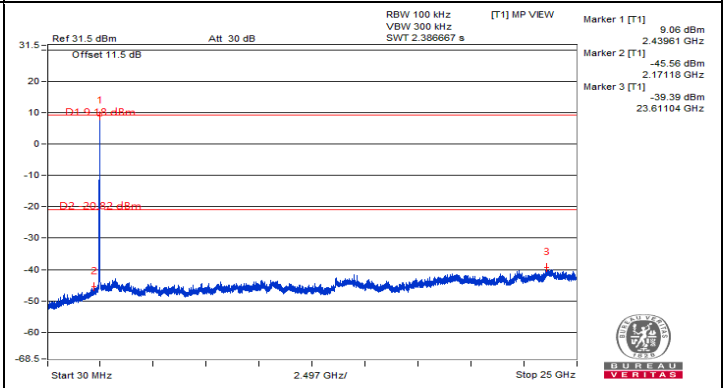

Chain 0 : CH 1



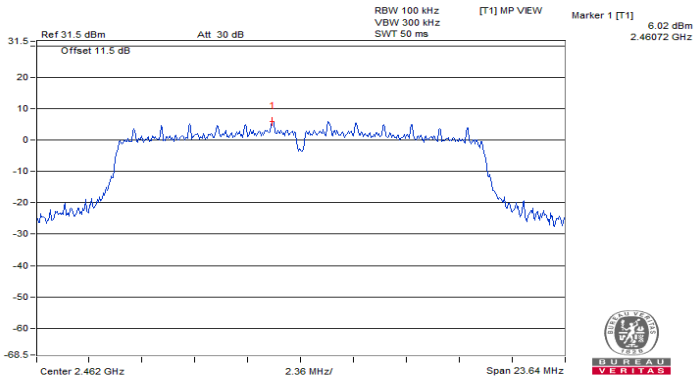

Chain 0 : CH 1



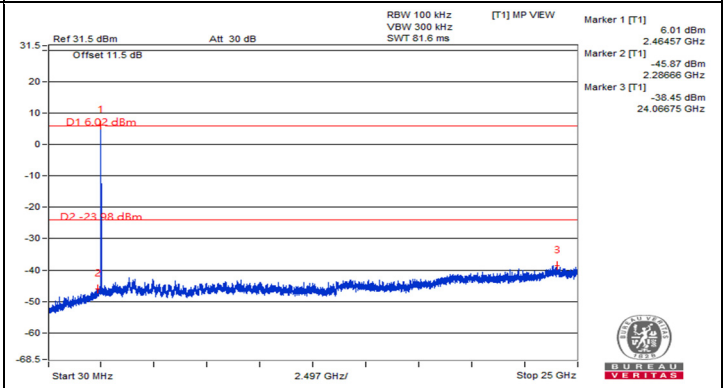

Chain 0 : CH 6



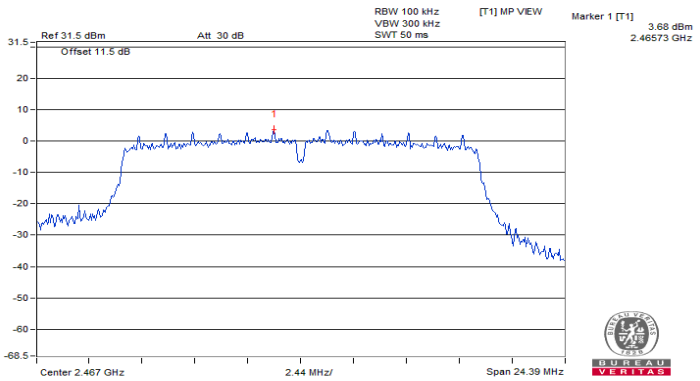

Chain 0 : CH 6



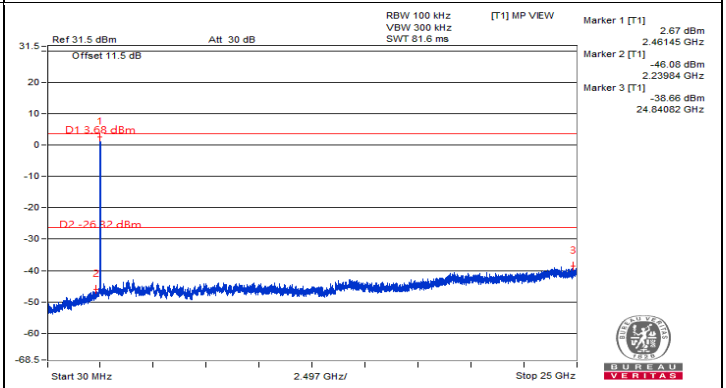

Chain 0 : CH 11



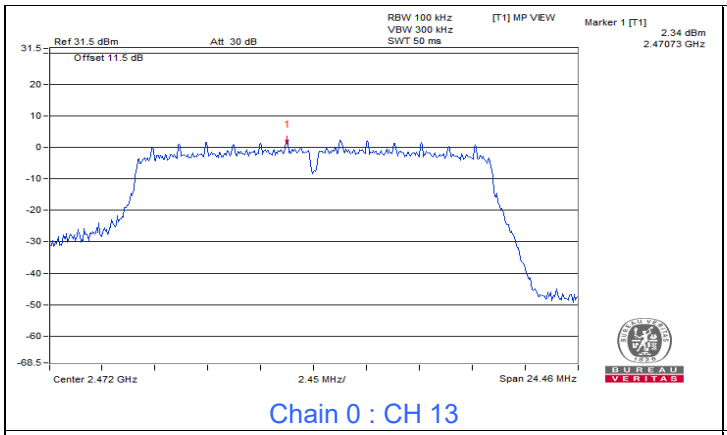

Chain 0 : CH 11



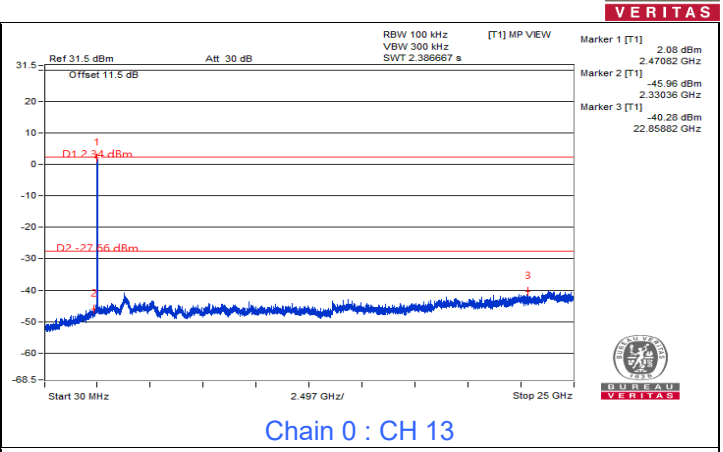

Chain 0 : CH 12



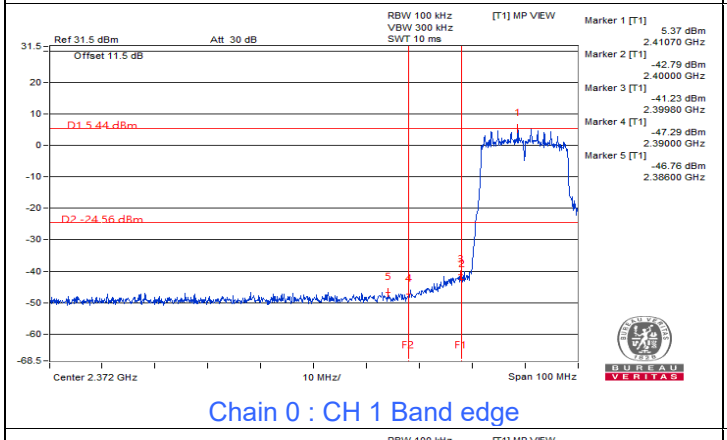

Chain 0 : CH 12



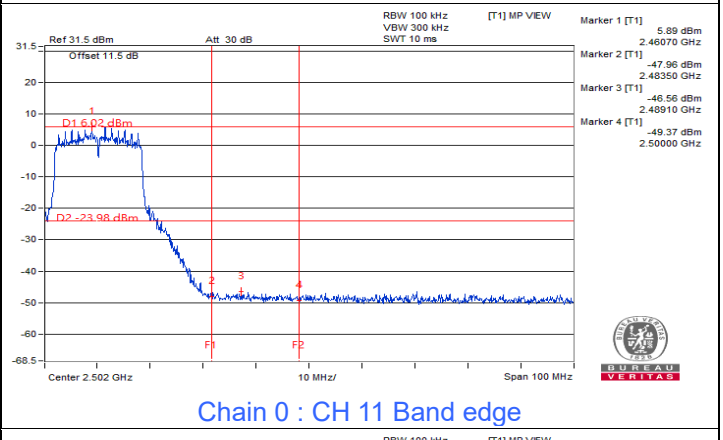

Chain 0 : CH 13



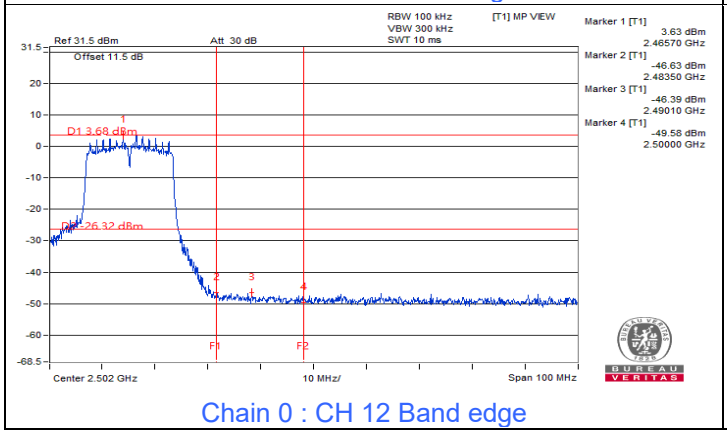

Chain 0 : CH 13



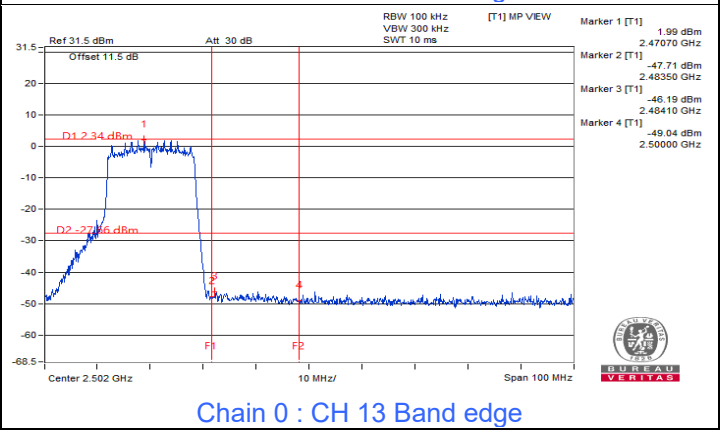

Chain 0 : CH 1 Band edge



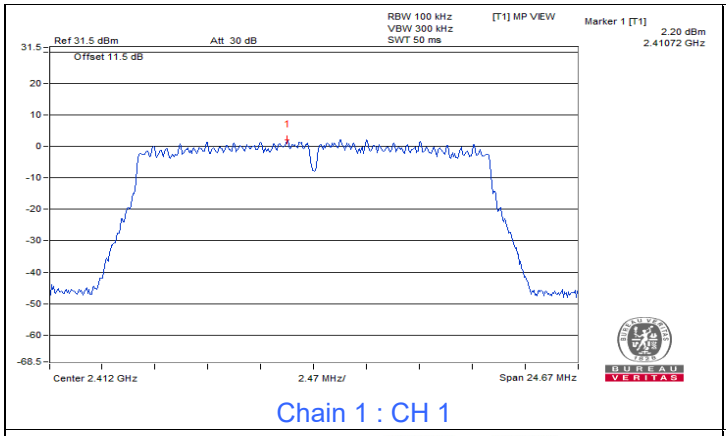

Chain 0 : CH 11 Band edge



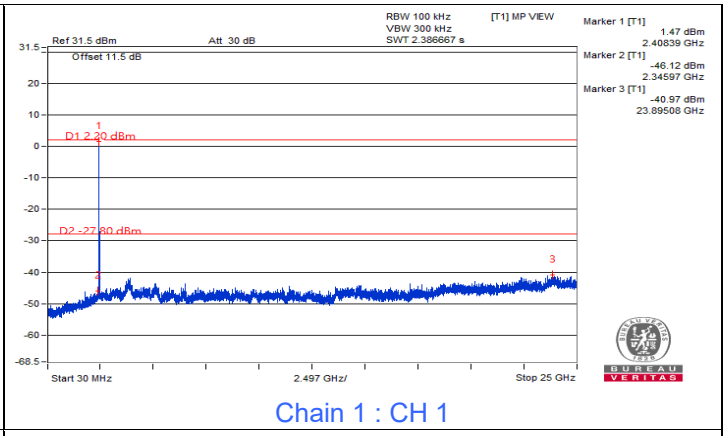

Chain 0 : CH 12 Band edge



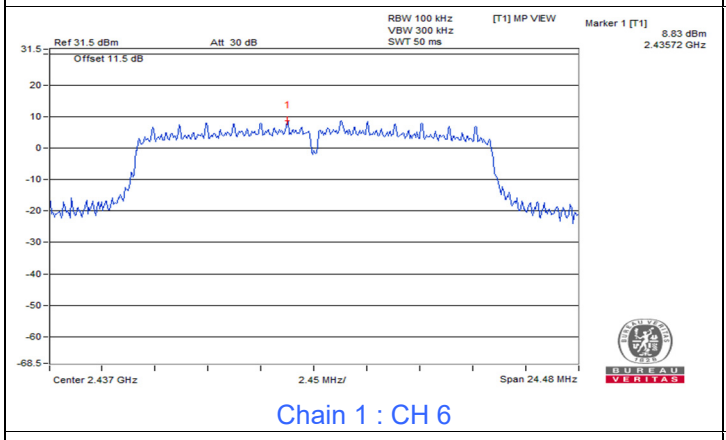

Chain 0 : CH 13 Band edge



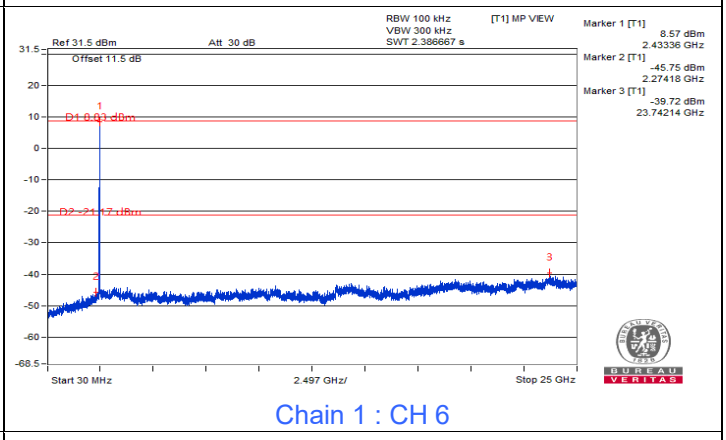

Chain 1 : CH 1



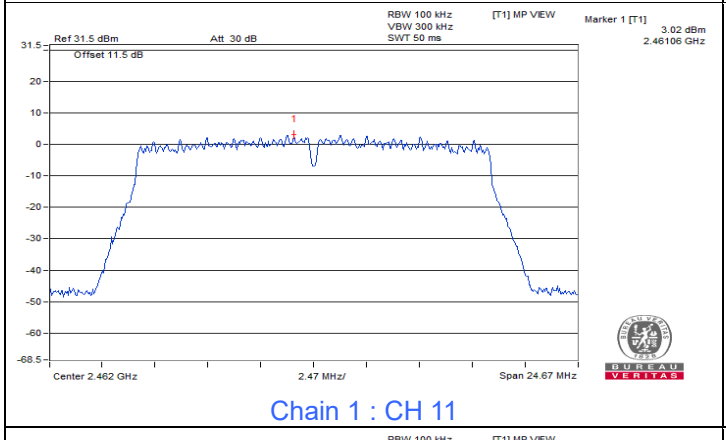

Chain 1 : CH 1



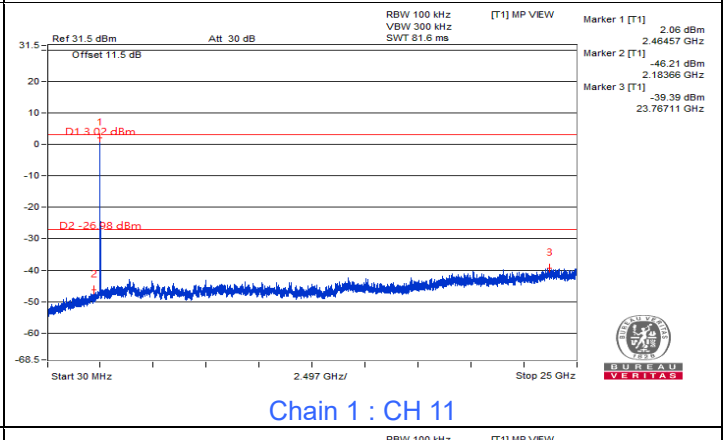

Chain 1 : CH 6



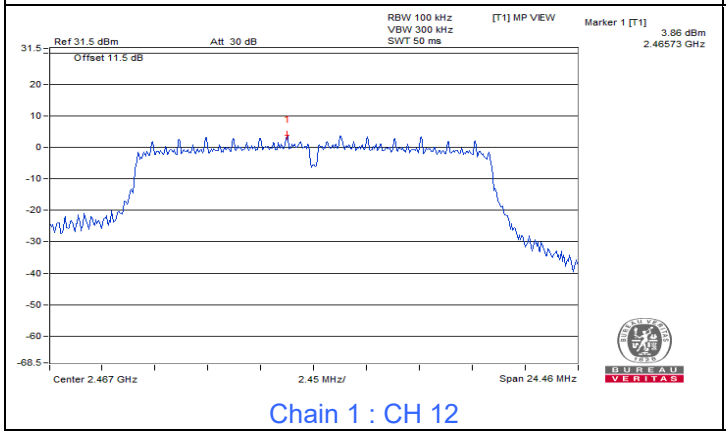

Chain 1 : CH 6



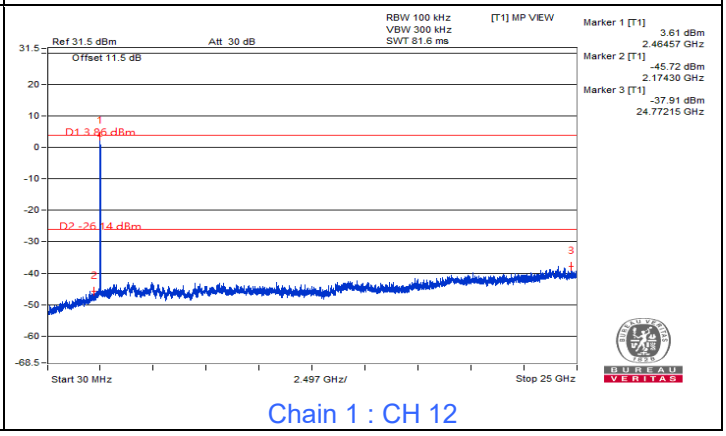

Chain 1 : CH 11



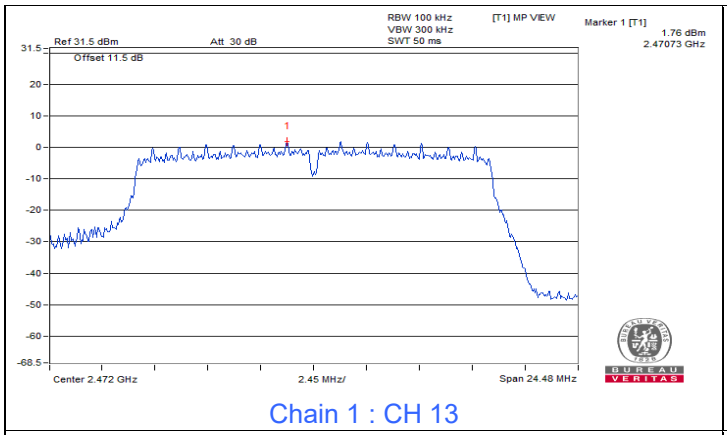

Chain 1 : CH 11



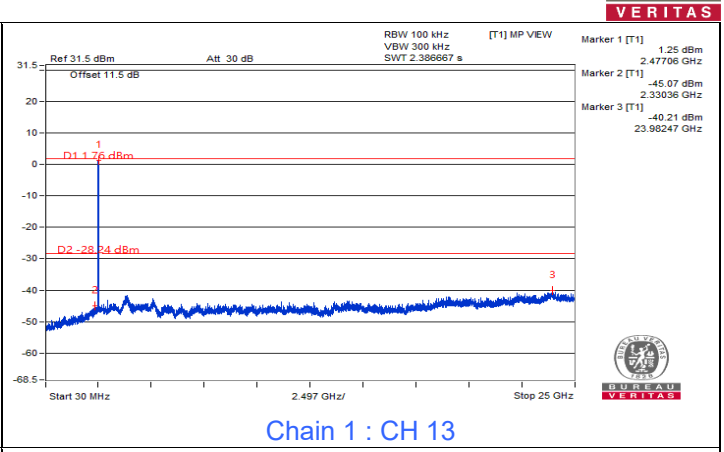

Chain 1 : CH 12



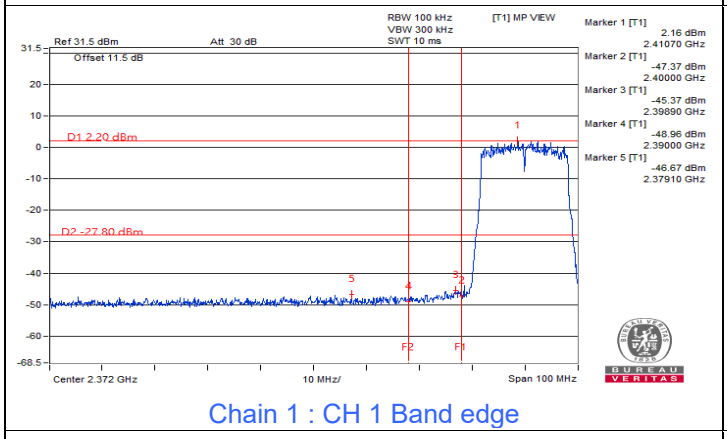

Chain 1 : CH 12



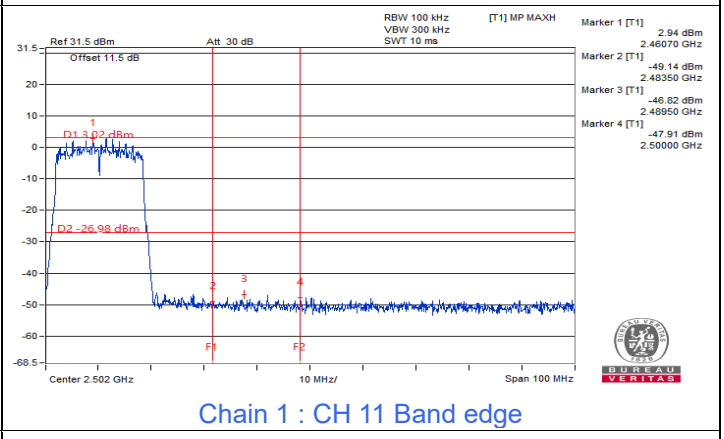

Chain 1 : CH 13



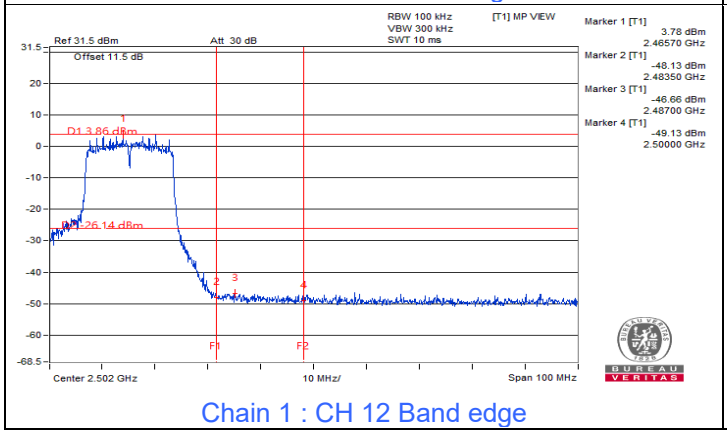

Chain 1 : CH 13



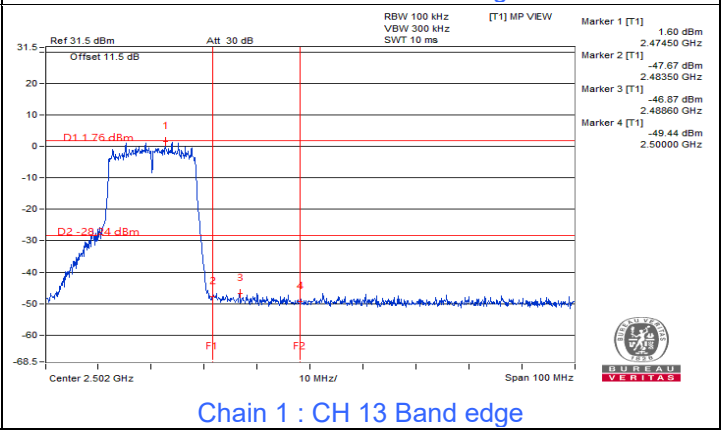

Chain 1 : CH 1 Band edge




Chain 1 : CH 11 Band edge

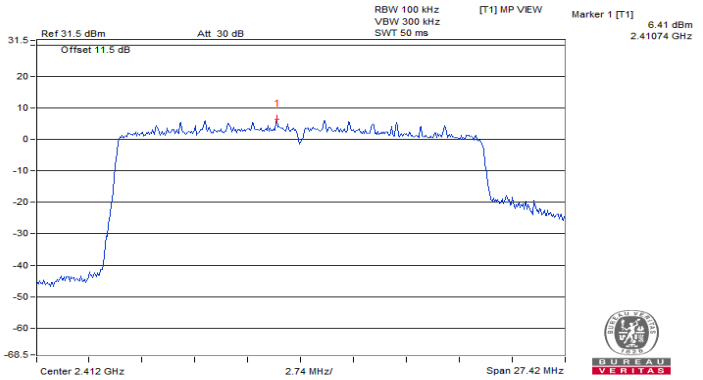



Chain 1 : CH 12 Band edge

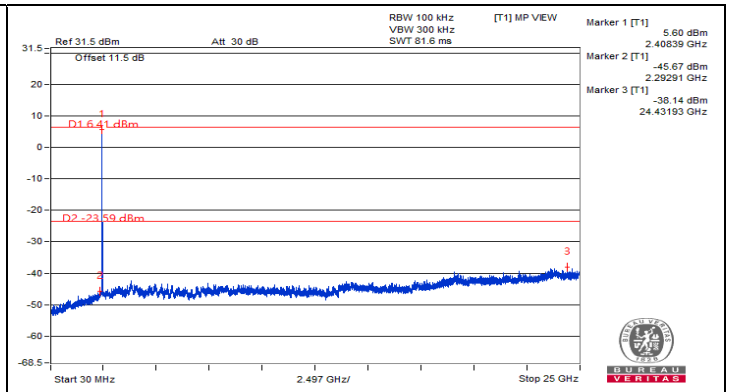



Chain 1 : CH 13 Band edge

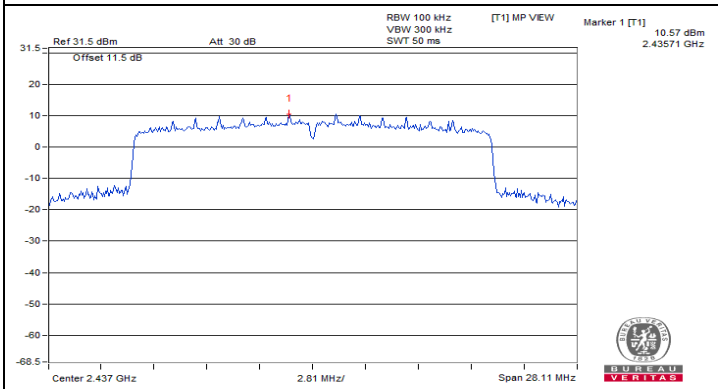
## 802.11be (EHT20) 2S2T



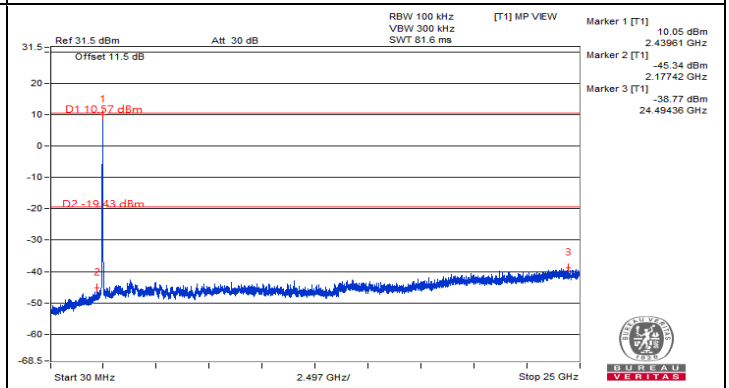

Chain 0 : CH 1



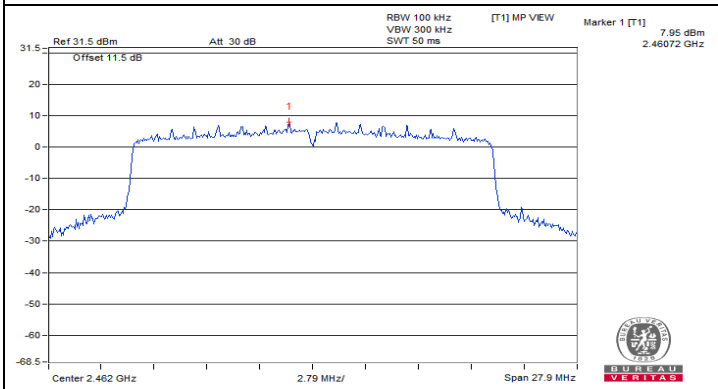

Chain 0 : CH 1



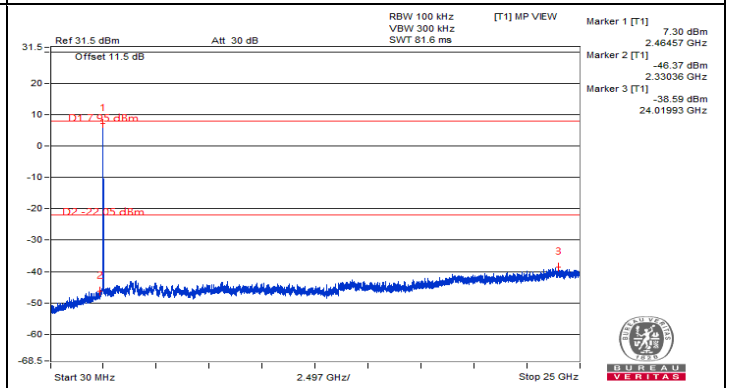

Chain 0 : CH 6



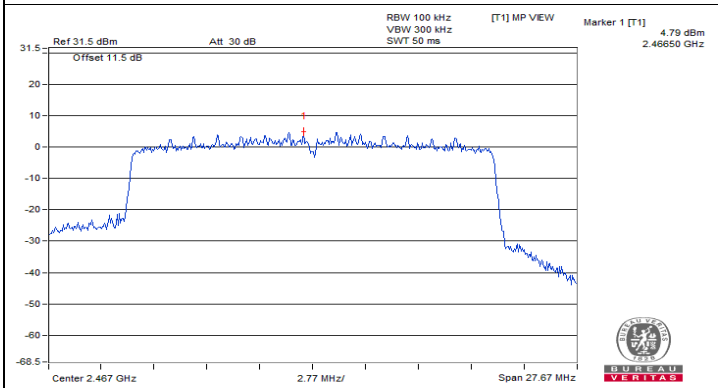

Chain 0 : CH 6



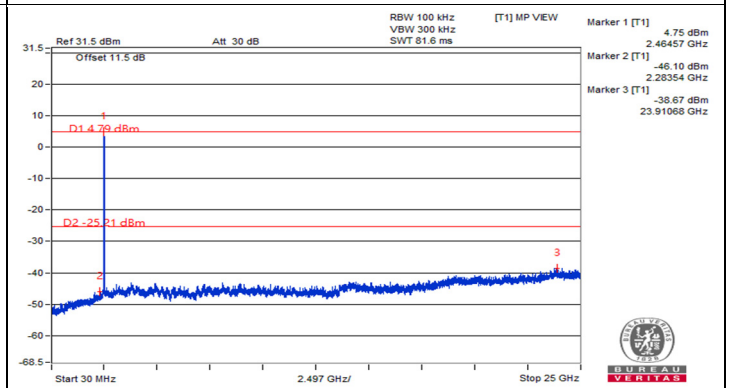

Chain 0 : CH 11



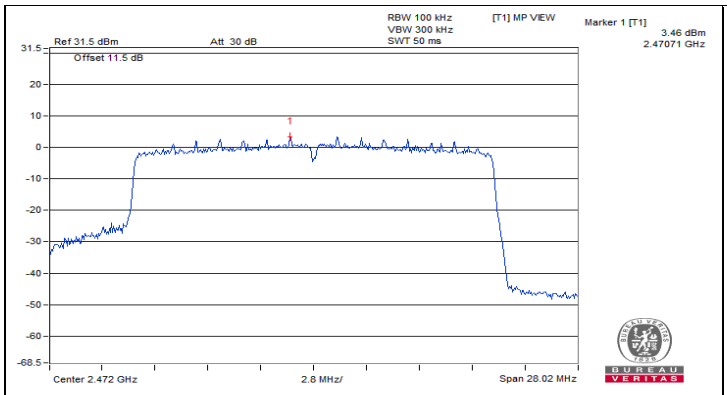

Chain 0 : CH 11



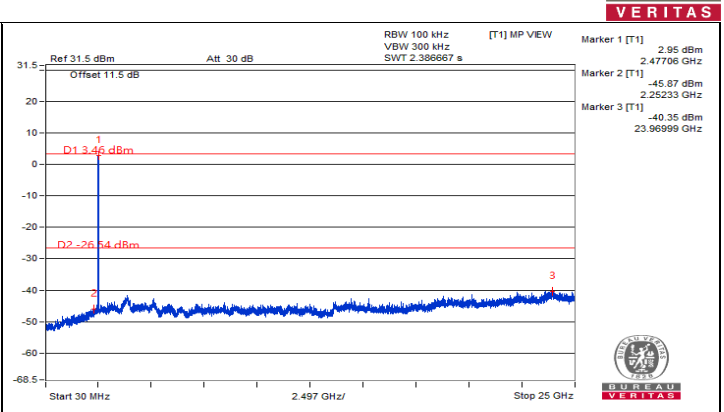

Chain 0 : CH 12



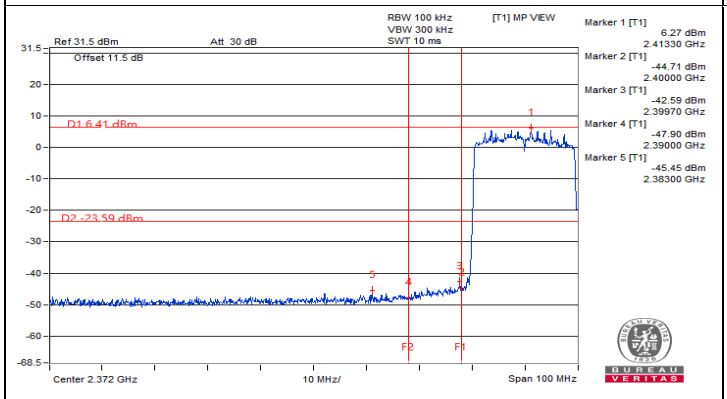

Chain 0 : CH 12



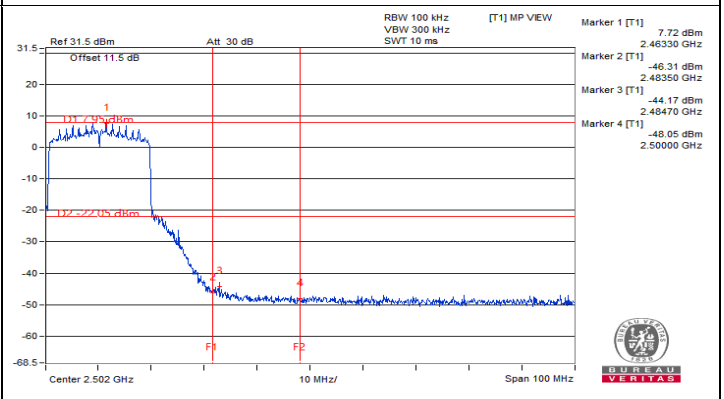

Chain 0 : CH 13



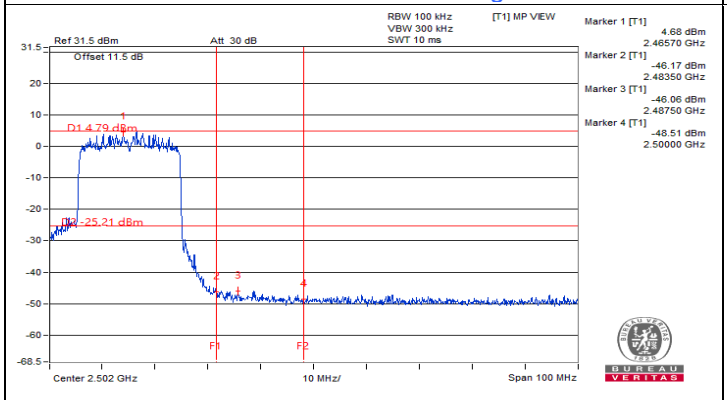

Chain 0 : CH 13



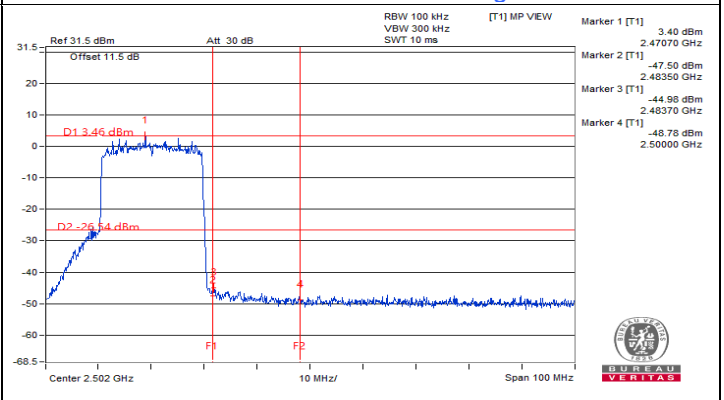

Chain 0 : CH 1 Band edge



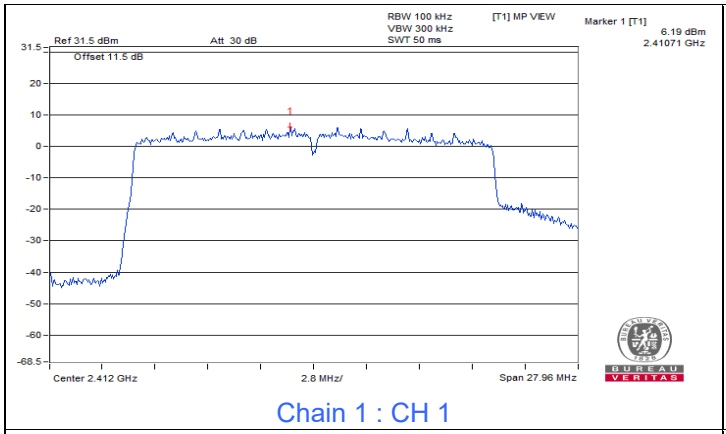

Chain 0 : CH 11 Band edge



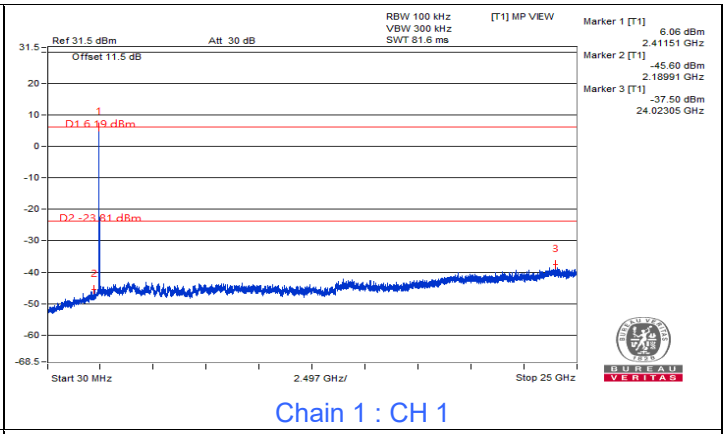

Chain 0 : CH 12 Band edge



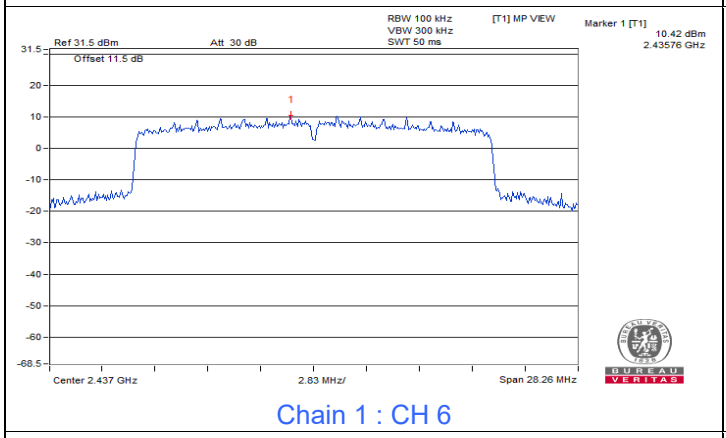

Chain 0 : CH 13 Band edge



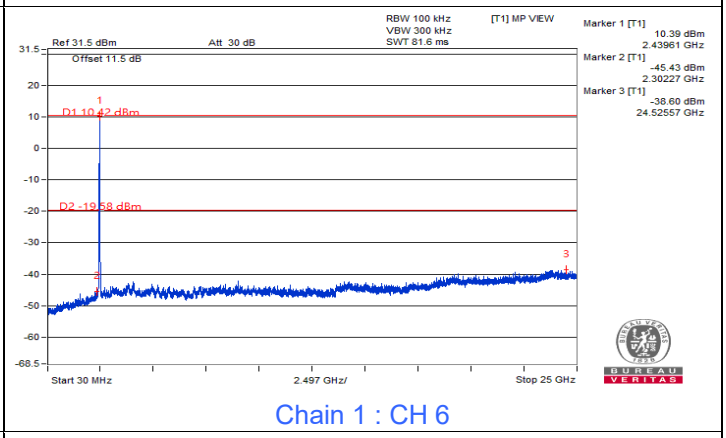

Chain 1 : CH 1



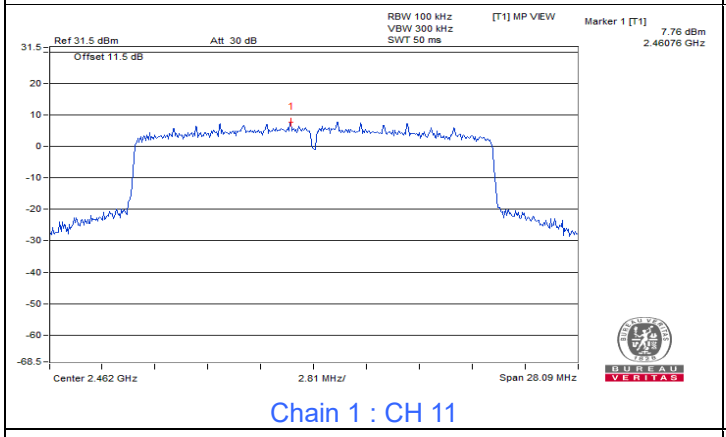

Chain 1 : CH 1



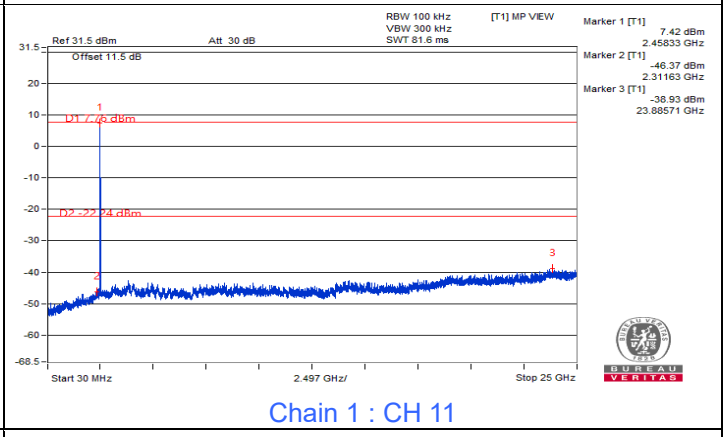

Chain 1 : CH 6



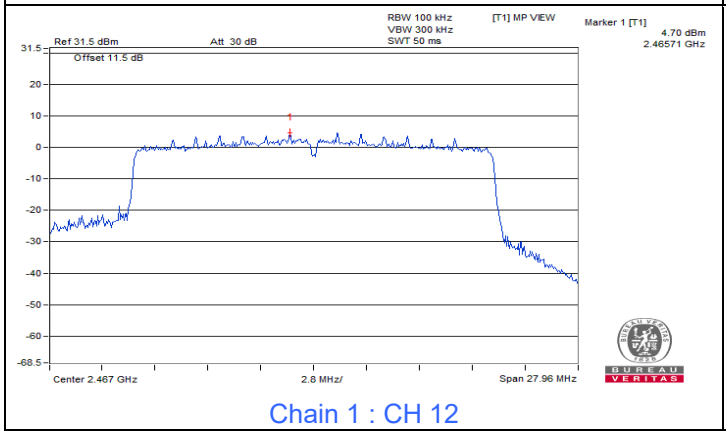

Chain 1 : CH 6



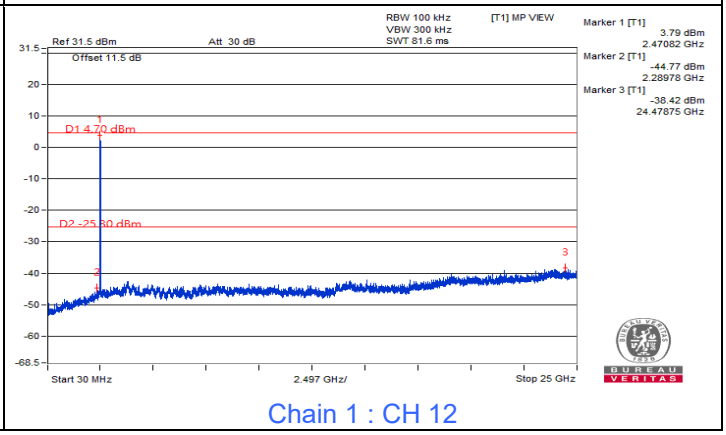

Chain 1 : CH 11



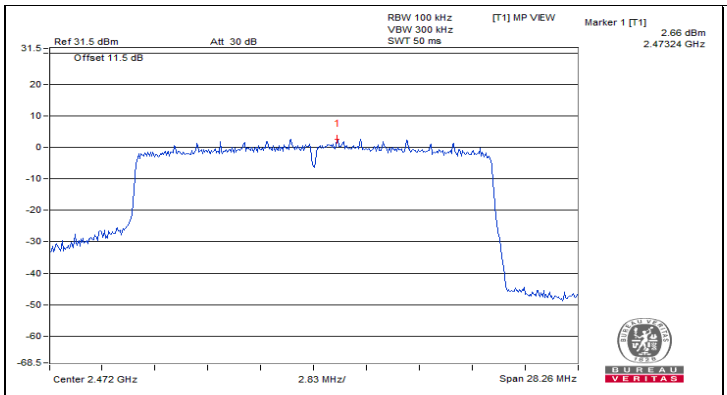

Chain 1 : CH 11



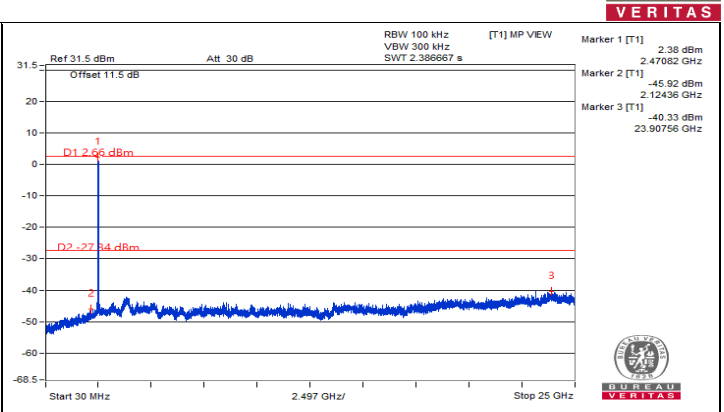

Chain 1 : CH 12



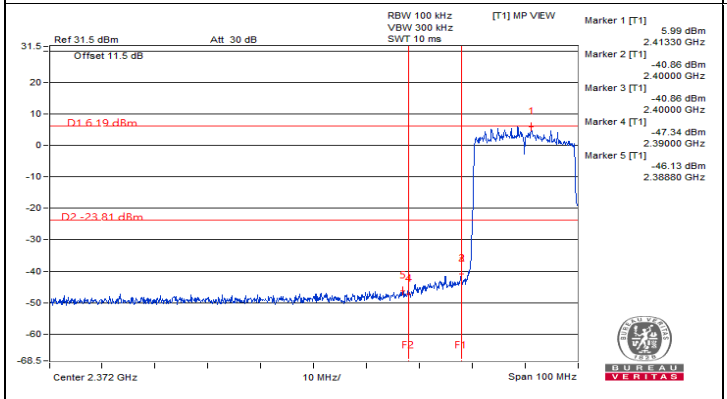

Chain 1 : CH 12



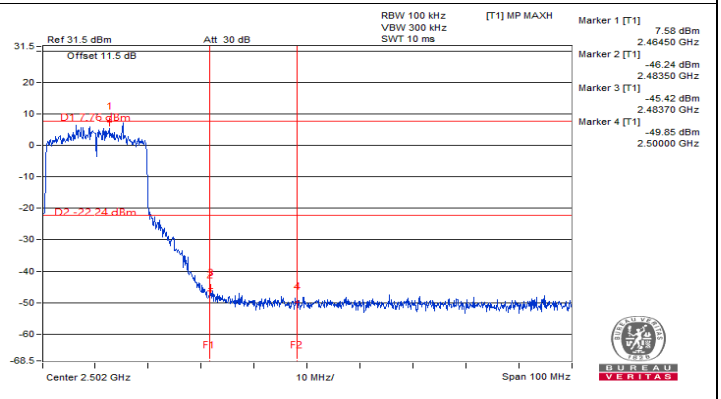

Chain 1 : CH 13



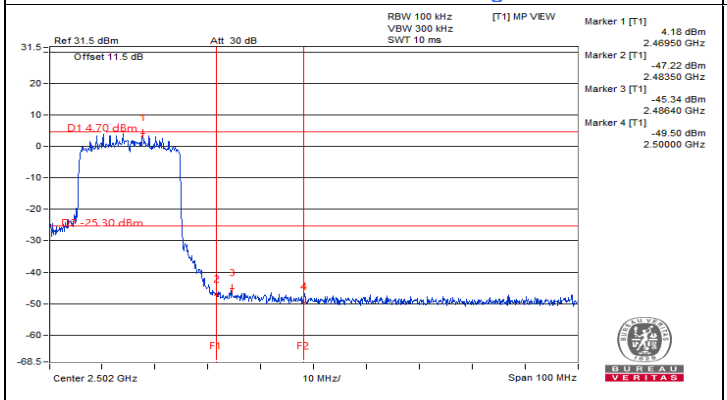

Chain 1 : CH 13



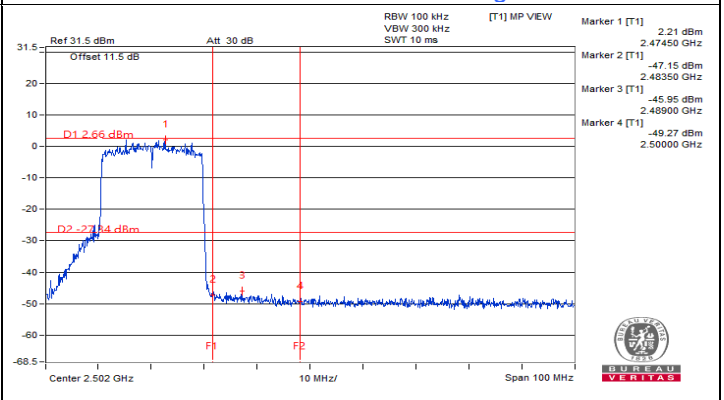

Chain 1 : CH 1 Band edge




Chain 1 : CH 11 Band edge

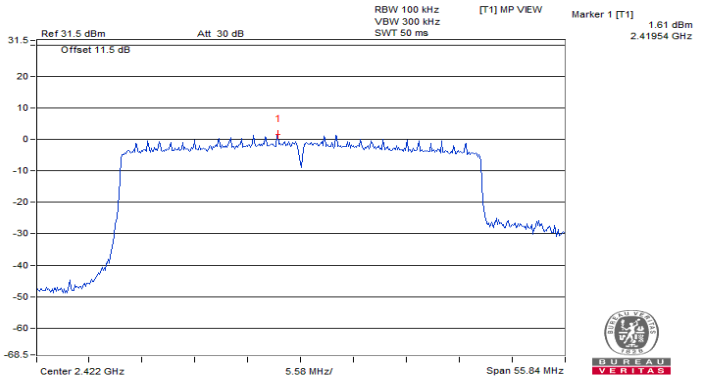



Chain 1 : CH 12 Band edge

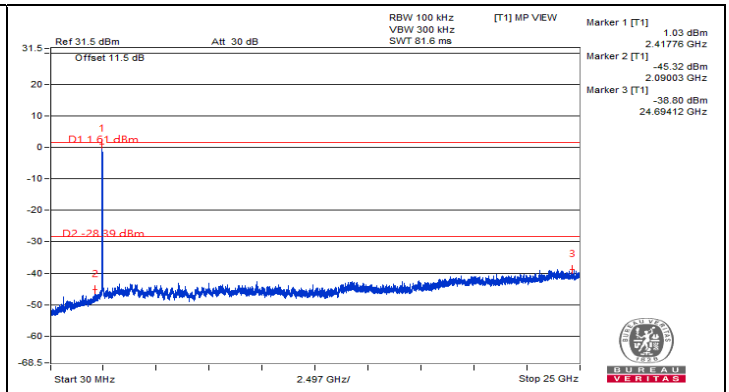



Chain 1 : CH 13 Band edge

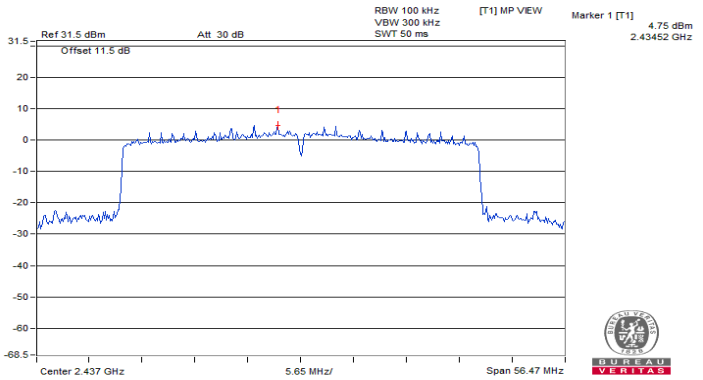
## 802.11be (EHT40) 2S2T



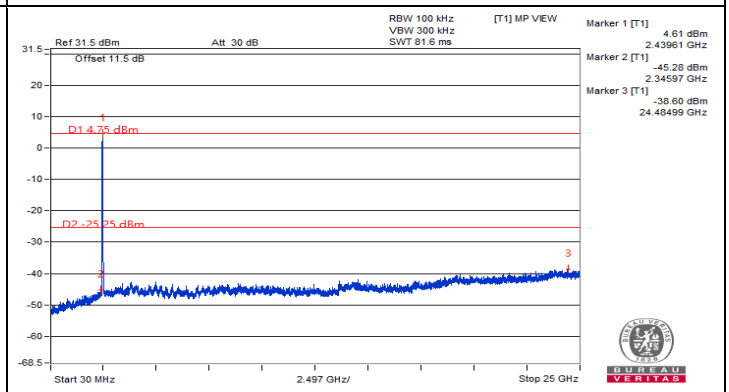

Chain 0 : CH 3



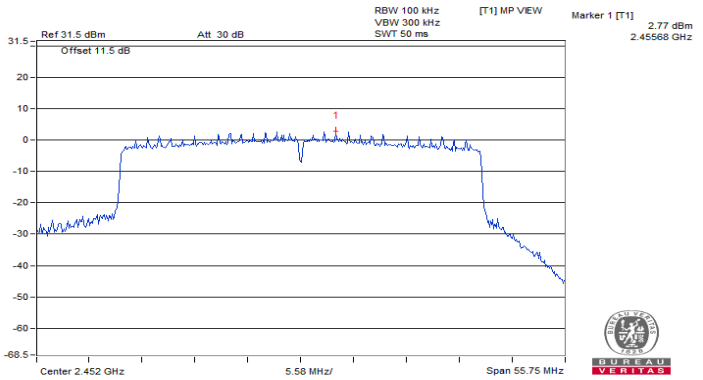

Chain 0 : CH 3



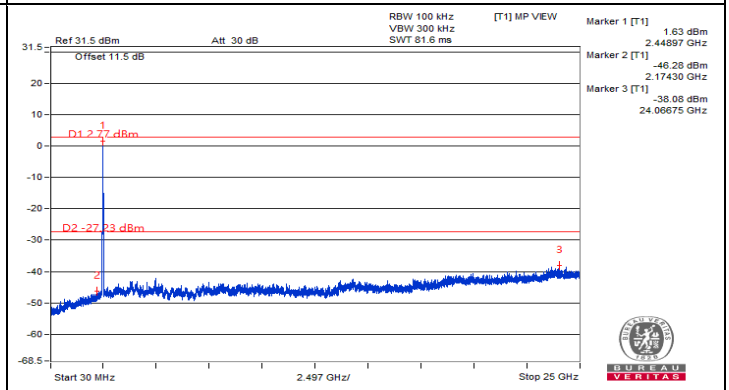

Chain 0 : CH 6



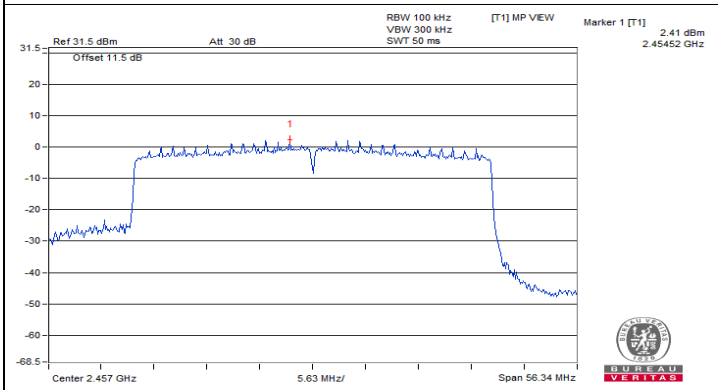

Chain 0 : CH 6



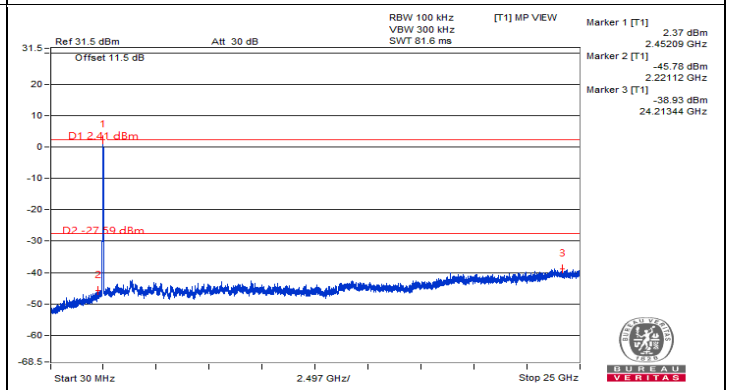

Chain 0 : CH 9



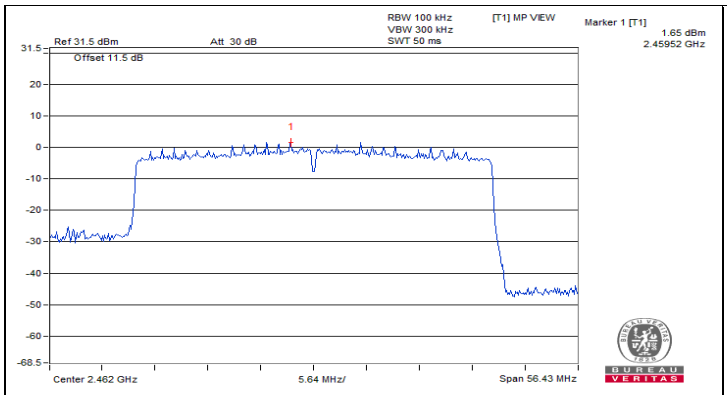

Chain 0 : CH 9



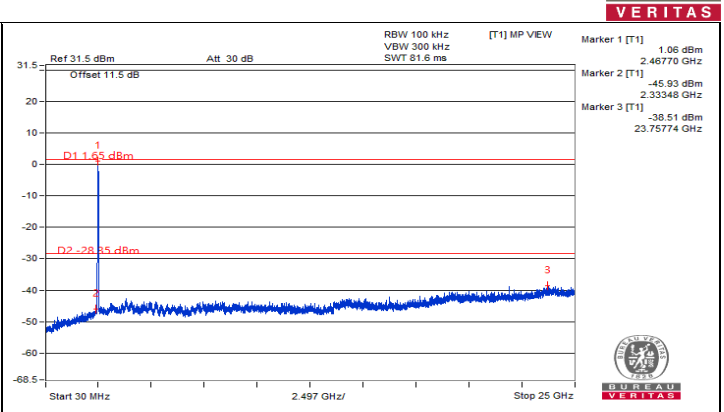

Chain 0 : CH 10



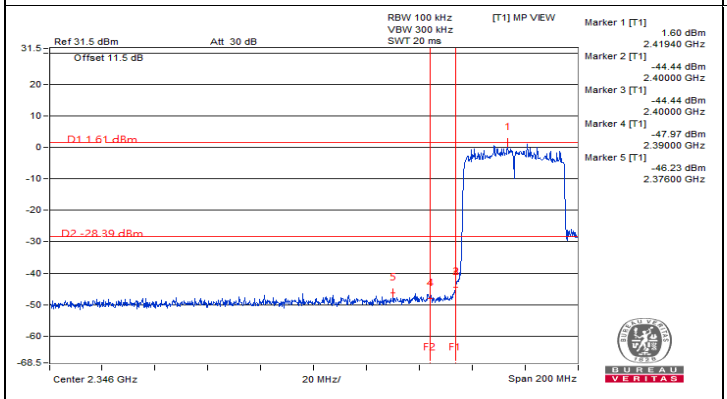

Chain 0 : CH 10



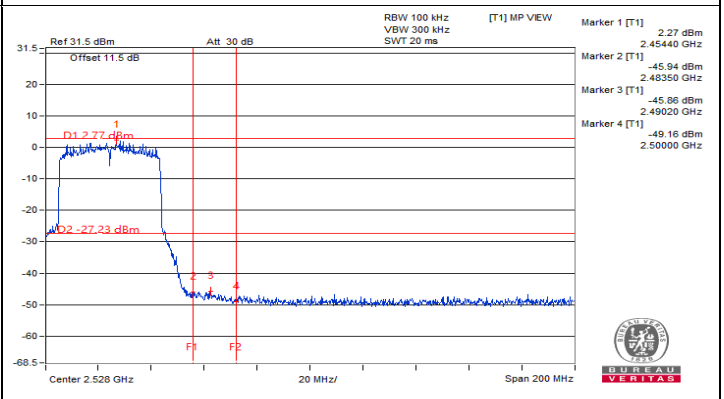

Chain 0 : CH 11



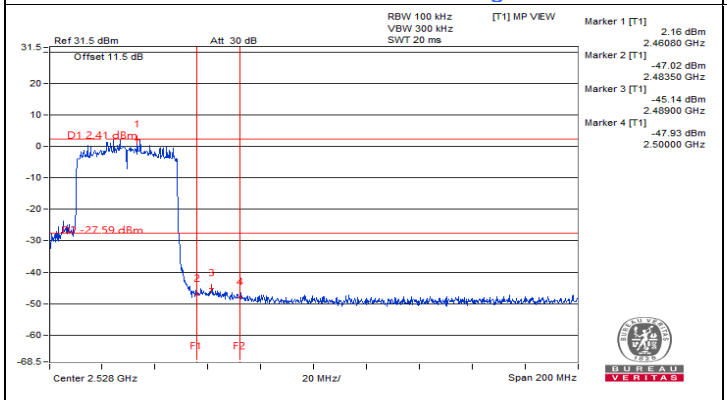

Chain 0 : CH 11



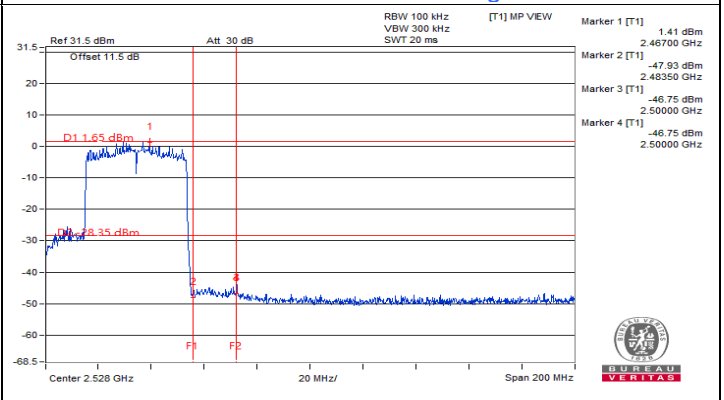

Chain 0 : CH 3 Band edge



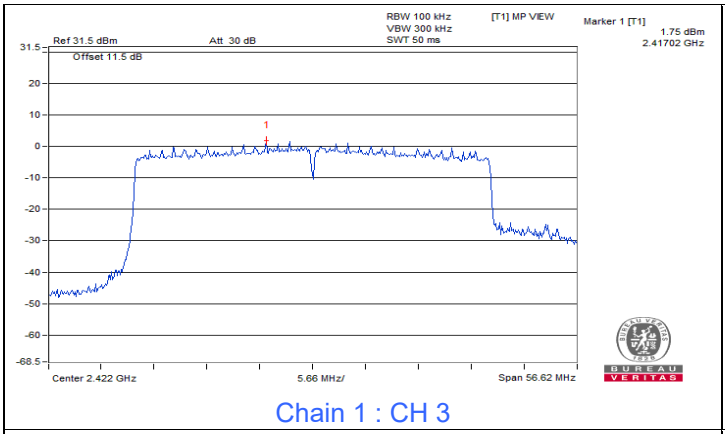

Chain 0 : CH 9 Band edge



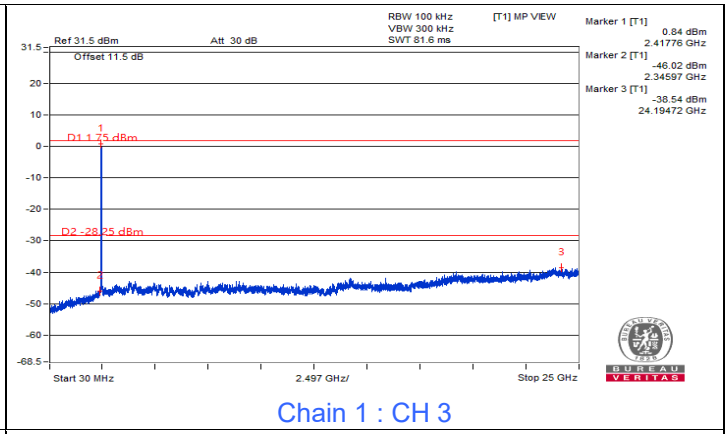

Chain 0 : CH 10 Band edge



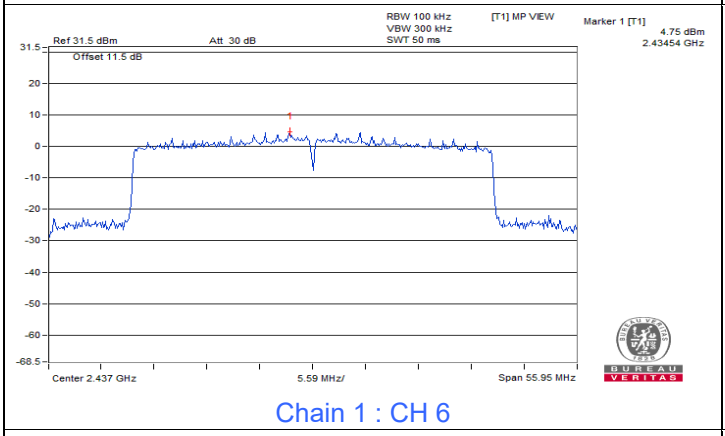

Chain 0 : CH 11 Band edge



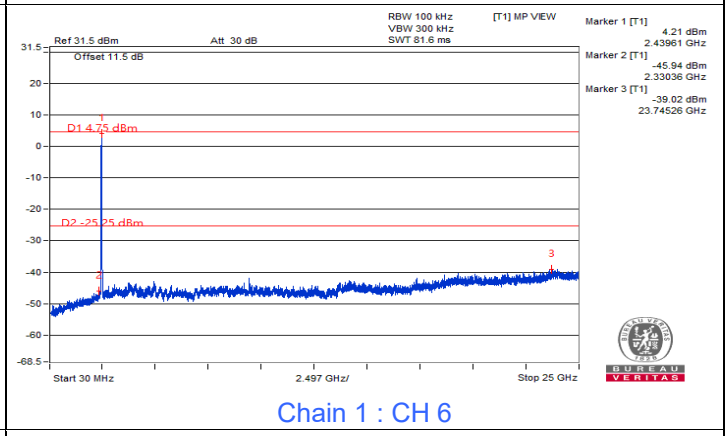

Chain 1 : CH 3



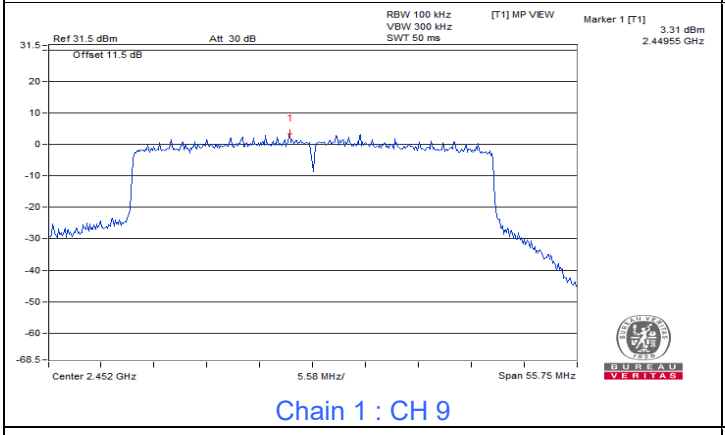

Chain 1 : CH 3



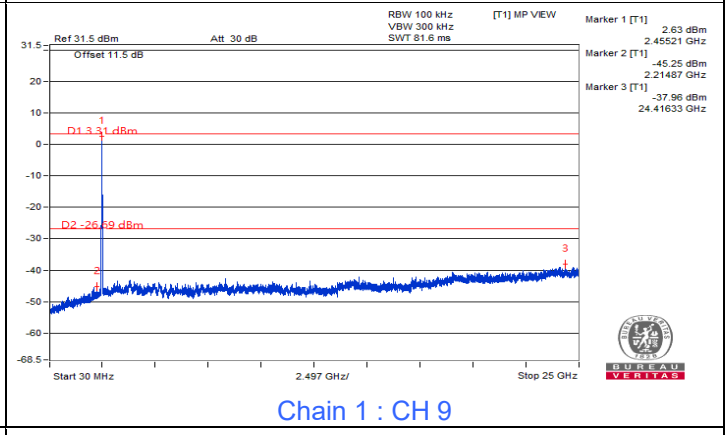

Chain 1 : CH 6



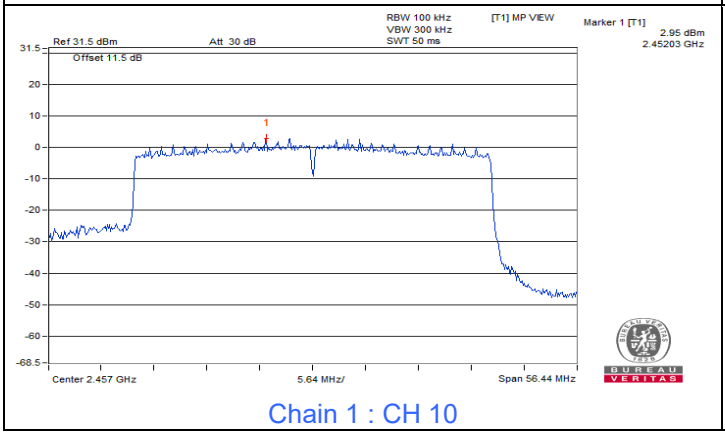

Chain 1 : CH 6



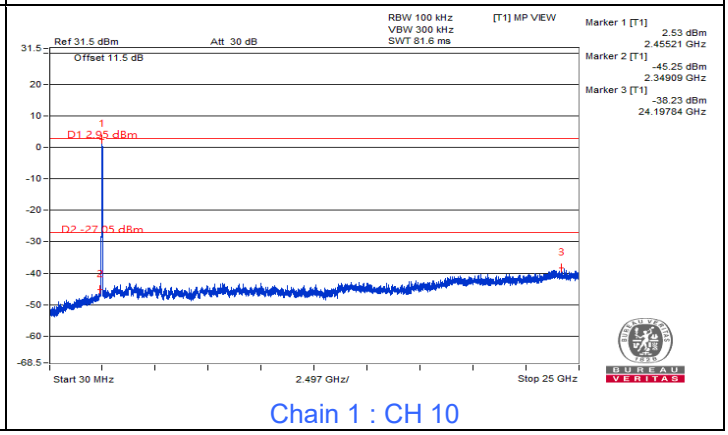

Chain 1 : CH 9



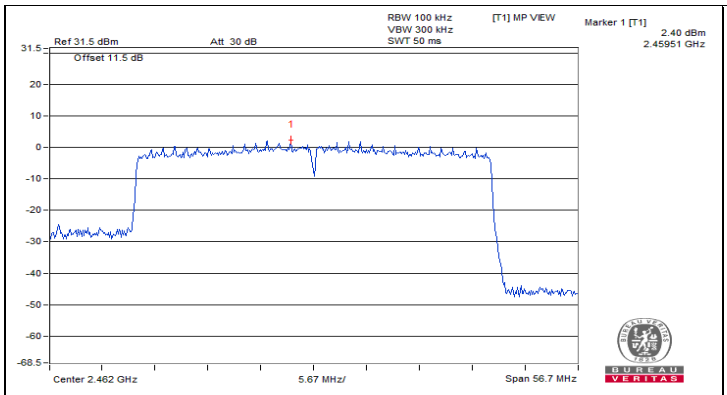

Chain 1 : CH 9



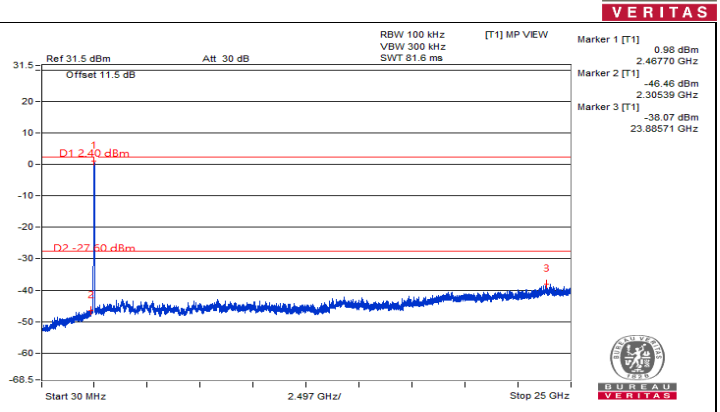

Chain 1 : CH 10



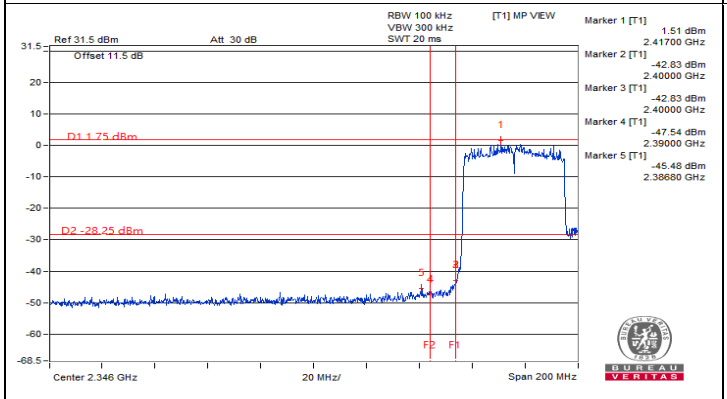

Chain 1 : CH 10



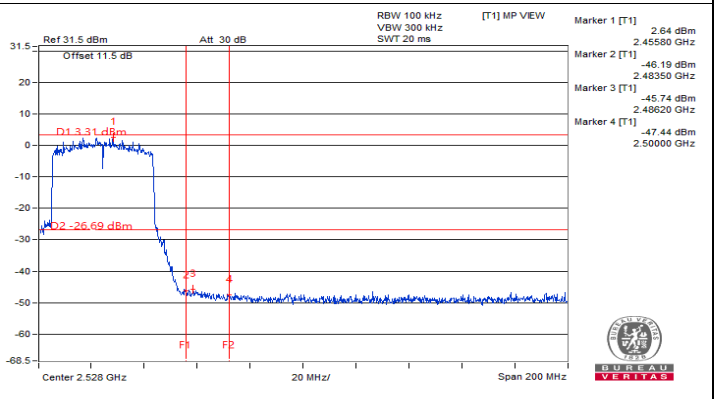

Chain 1 : CH 11



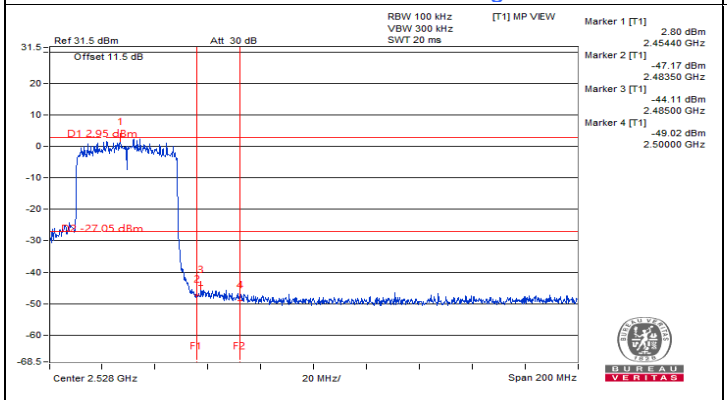

Chain 1 : CH 11



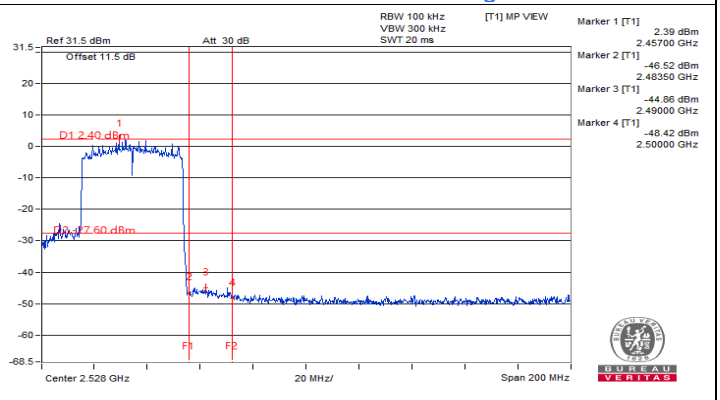

Chain 1 : CH 3 Band edge




Chain 1 : CH 9 Band edge

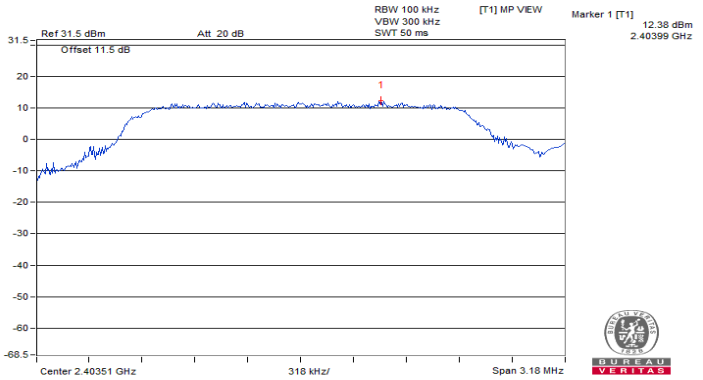



Chain 1 : CH 10 Band edge

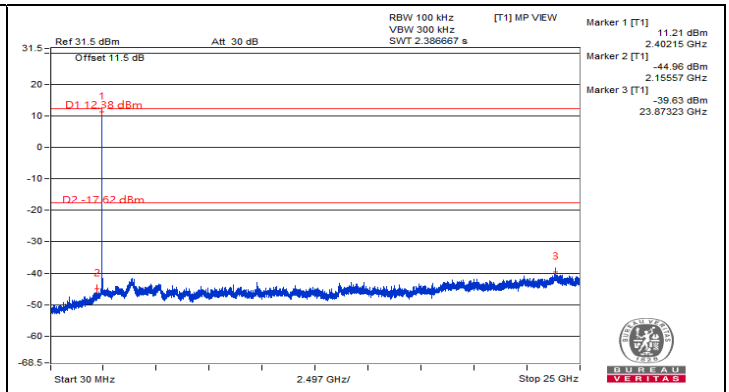



Chain 1 : CH 11 Band edge

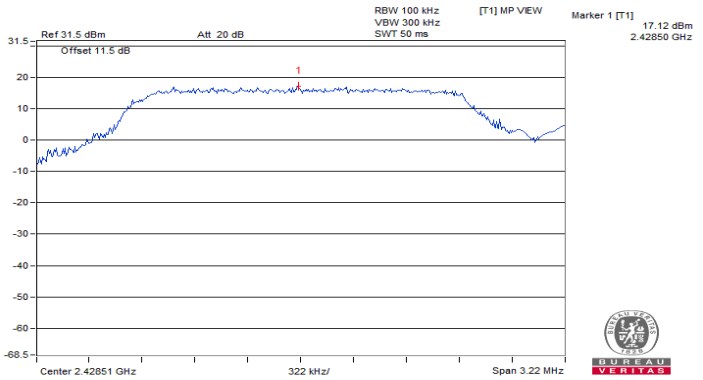
## 802.11be (EHT20) 26-tone RU 2S2T



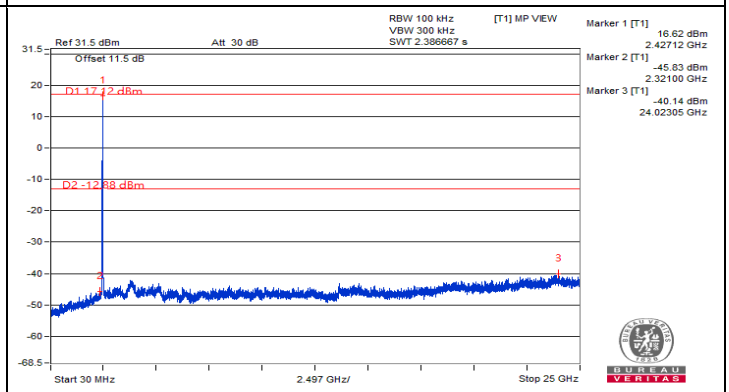

Chain 0 : CH 1



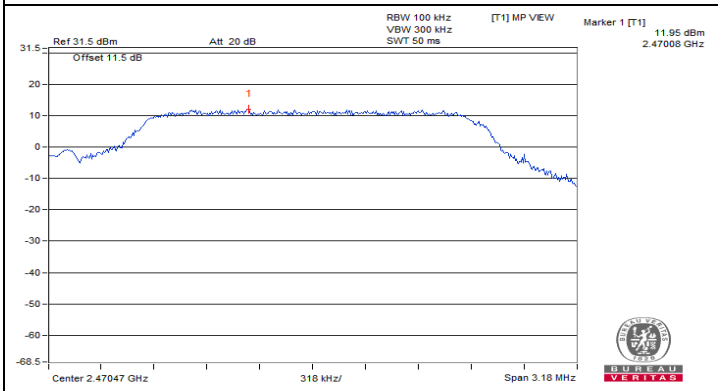

Chain 0 : CH 1



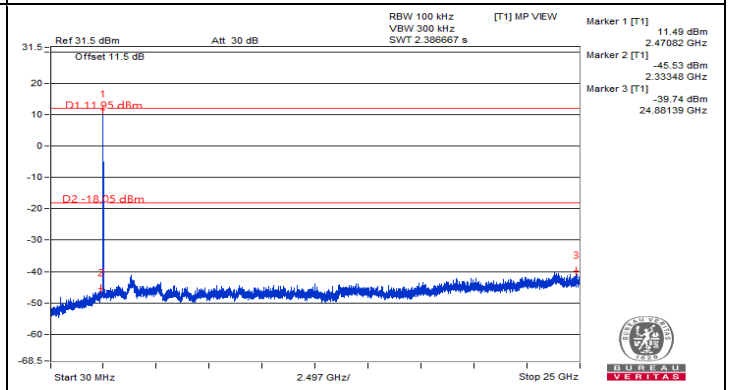

Chain 0 : CH 6



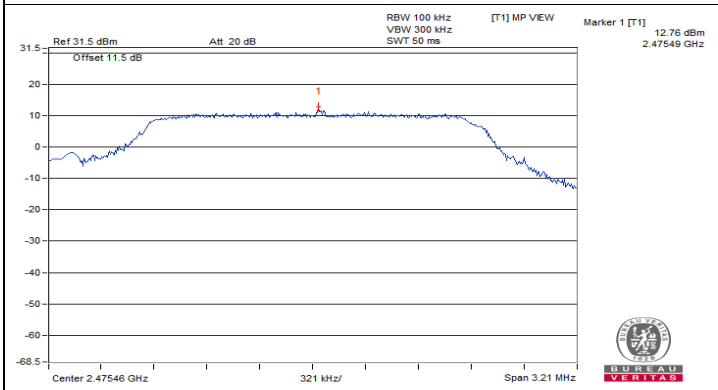

Chain 0 : CH 6



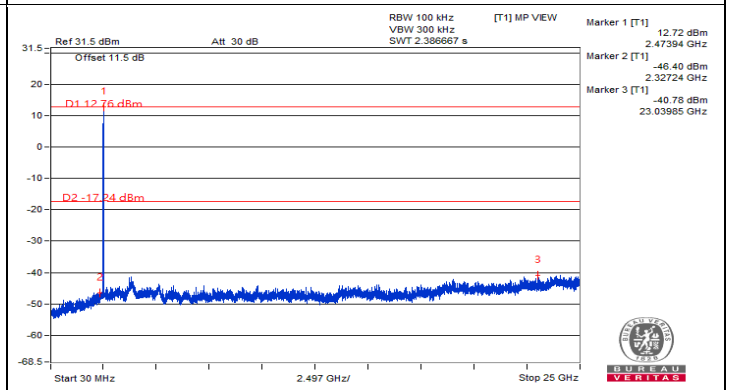

Chain 0 : CH 11



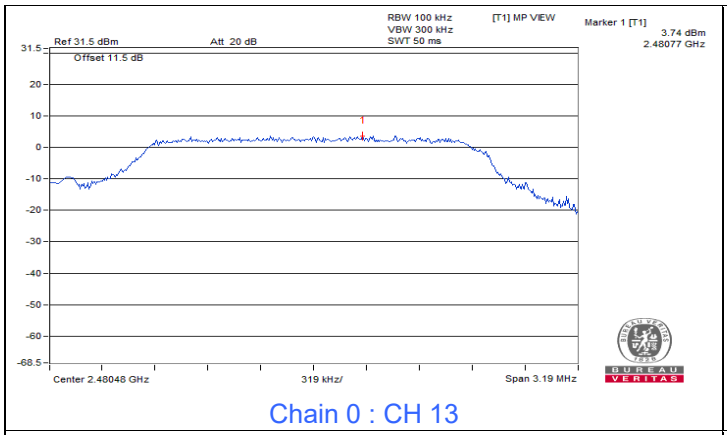

Chain 0 : CH 11



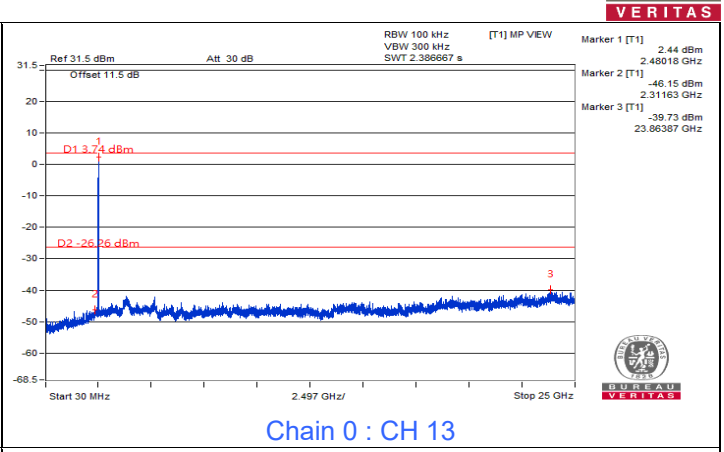

Chain 0 : CH 12



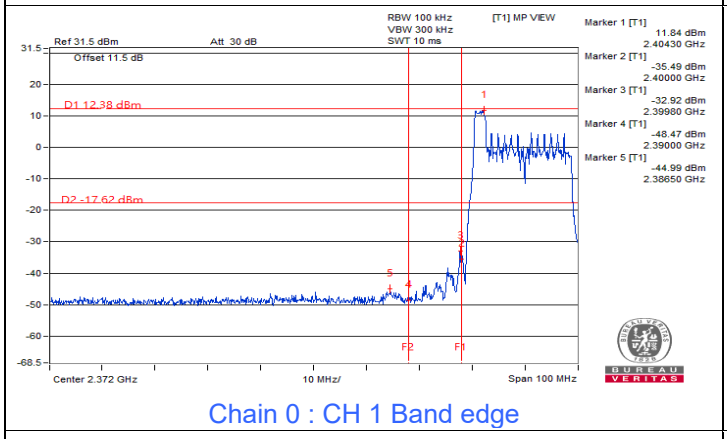

Chain 0 : CH 12



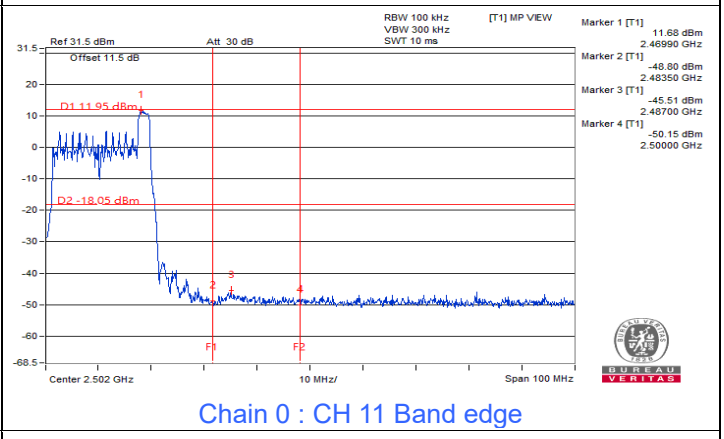

Chain 0 : CH 13



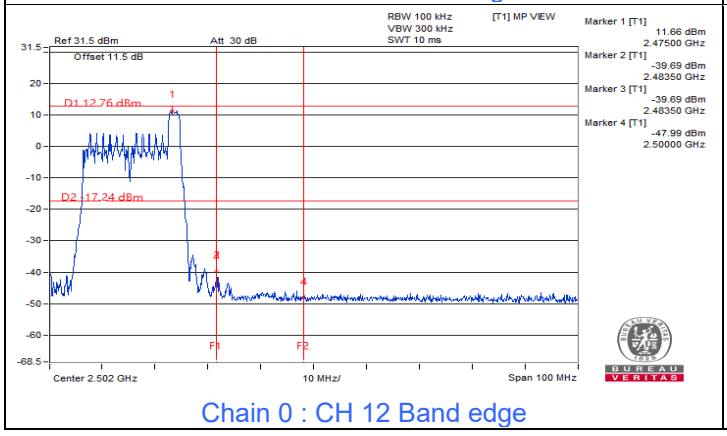

Chain 0 : CH 13



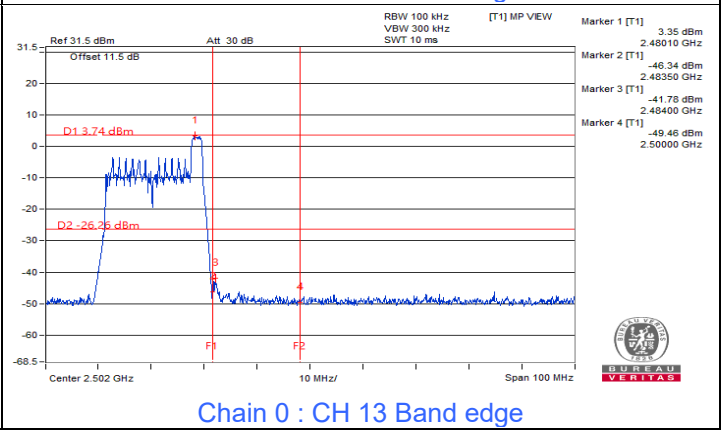

Chain 0 : CH 1 Band edge



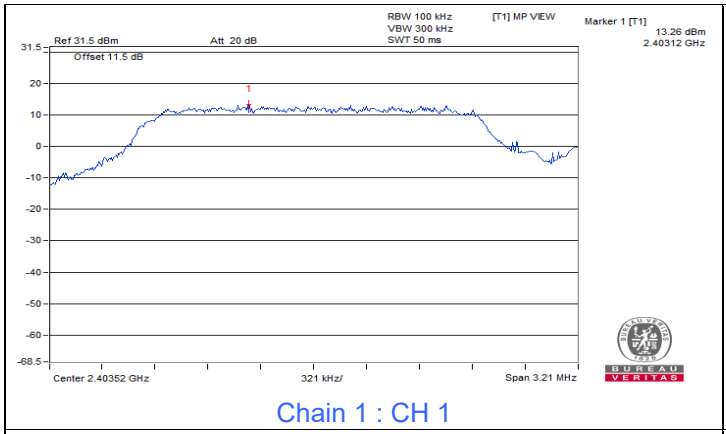

Chain 0 : CH 11 Band edge



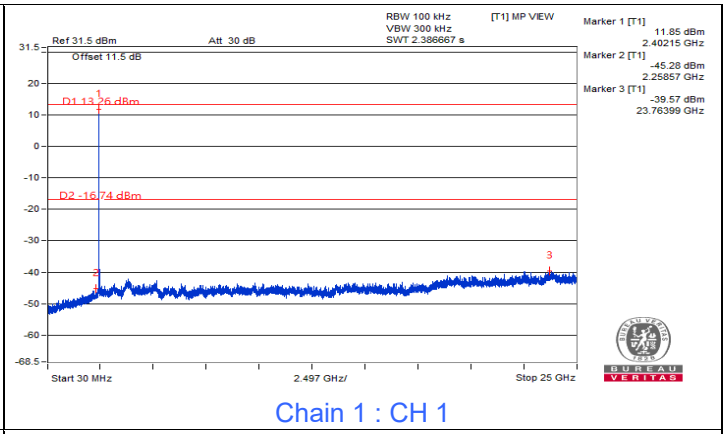

Chain 0 : CH 12 Band edge



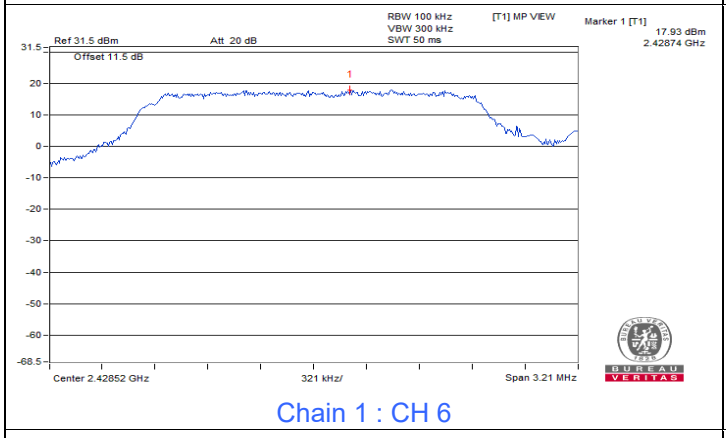

Chain 0 : CH 13 Band edge



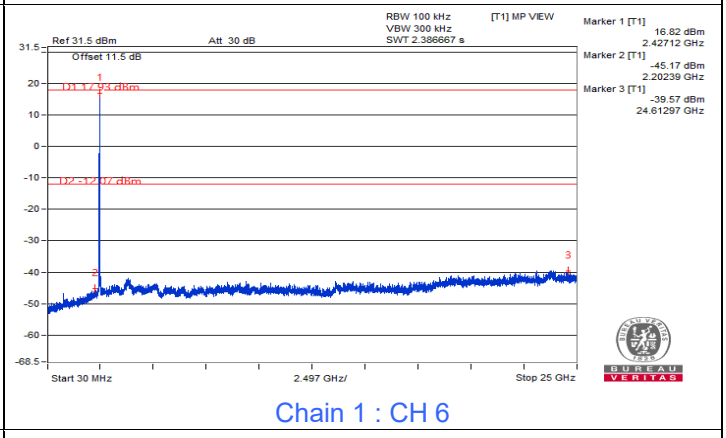

Chain 1 : CH 1



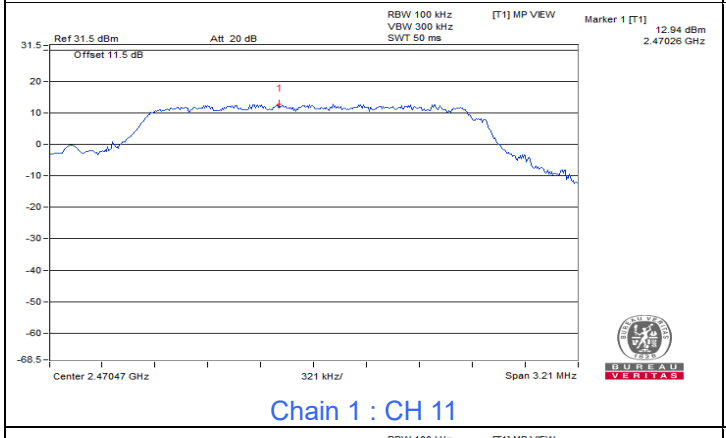

Chain 1 : CH 1



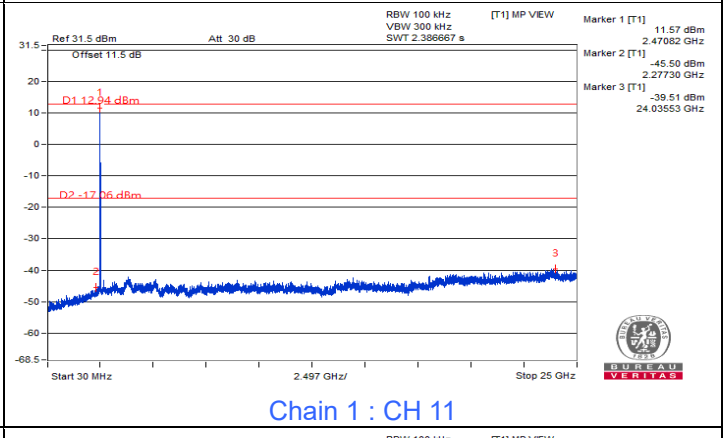

Chain 1 : CH 6



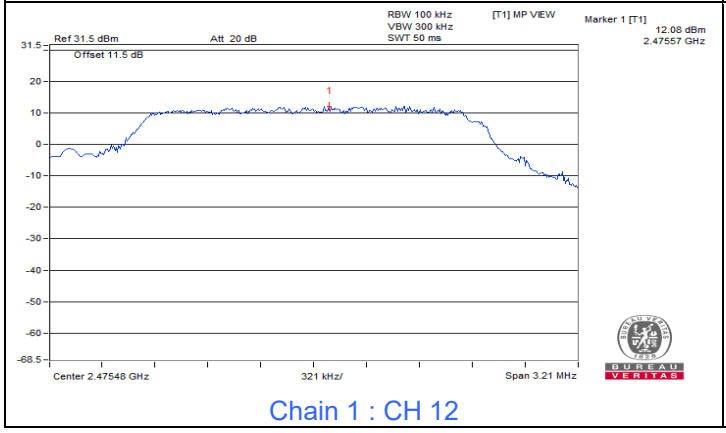

Chain 1 : CH 6



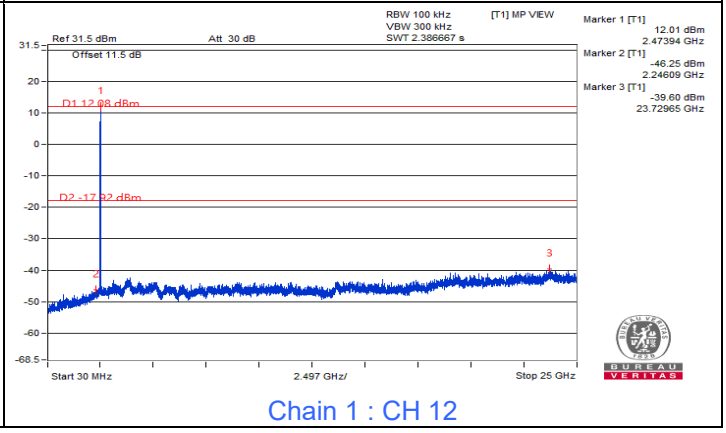

Chain 1 : CH 11



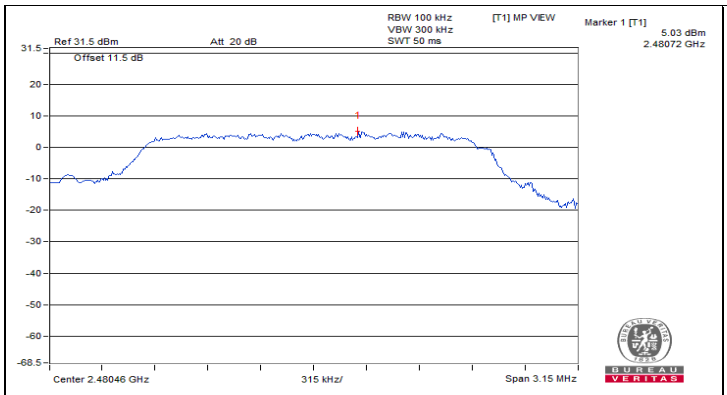

Chain 1 : CH 11



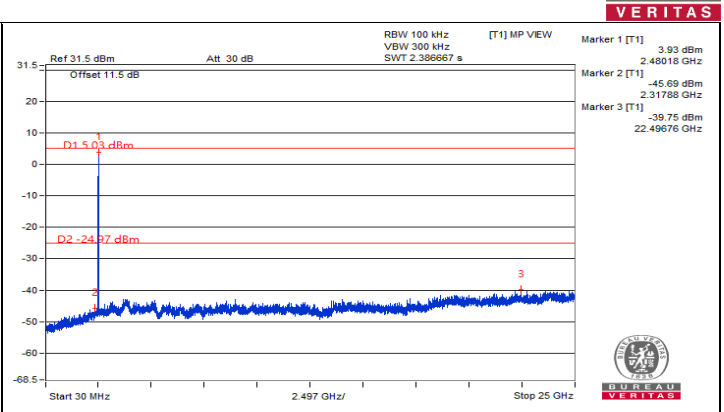

Chain 1 : CH 12



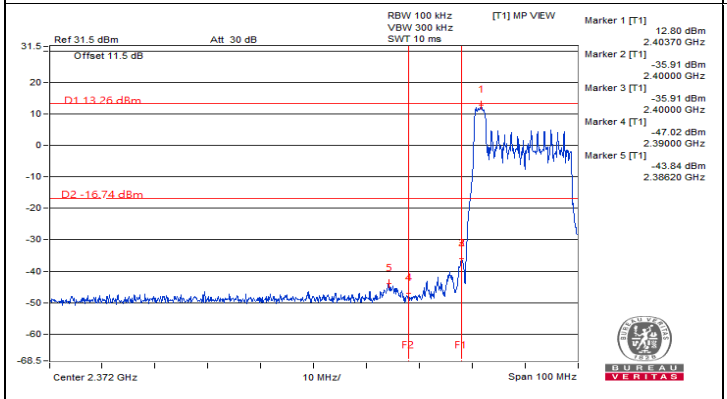

Chain 1 : CH 12



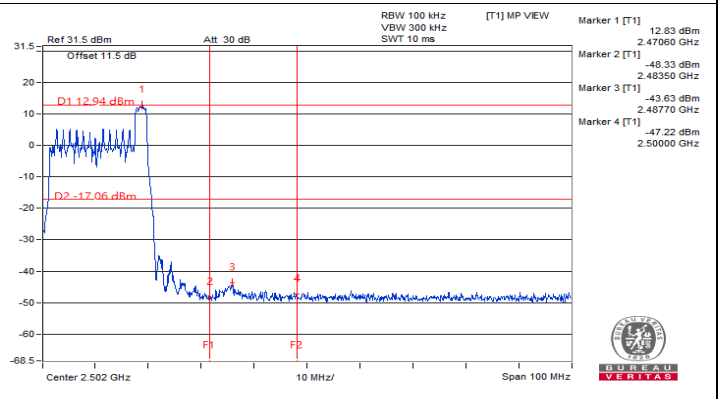

Chain 1 : CH 13



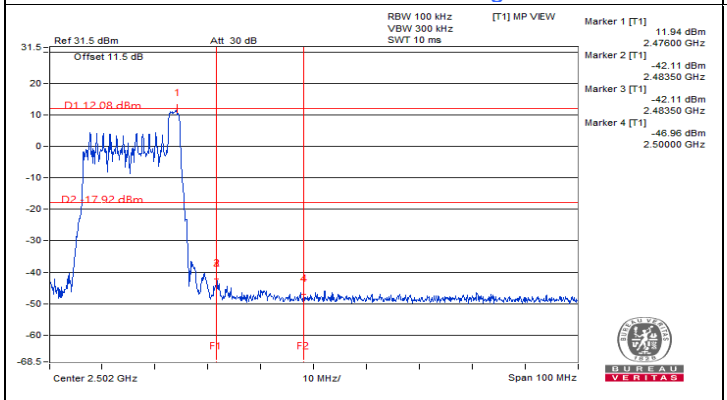

Chain 1 : CH 13



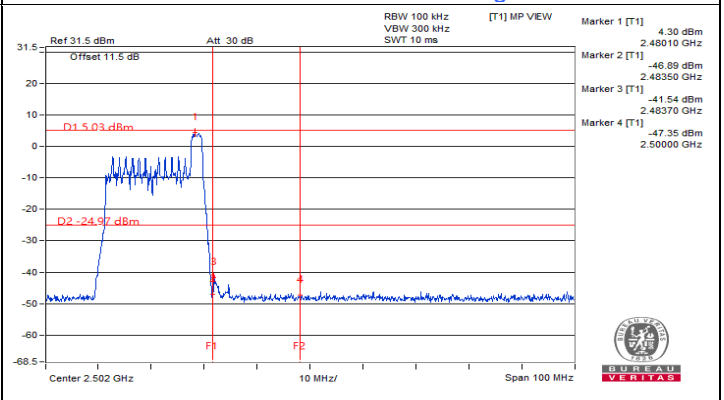

Chain 1 : CH 1 Band edge




Chain 1 : CH 11 Band edge

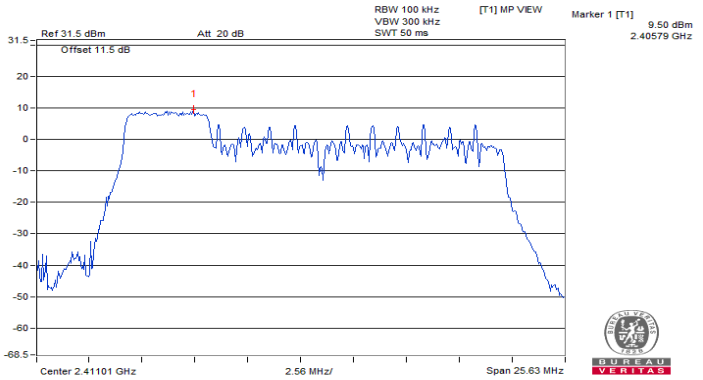



Chain 1 : CH 12 Band edge

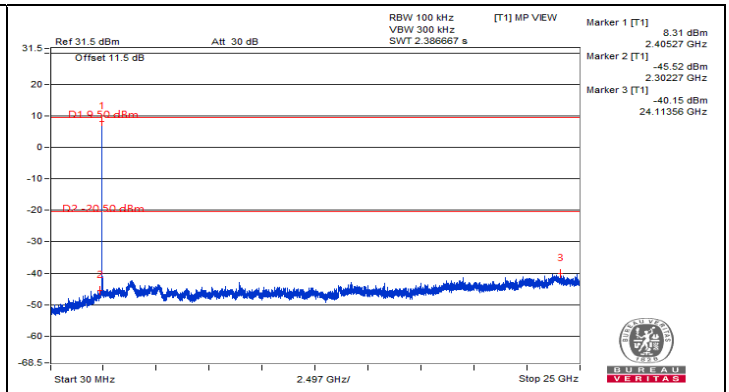



Chain 1 : CH 13 Band edge

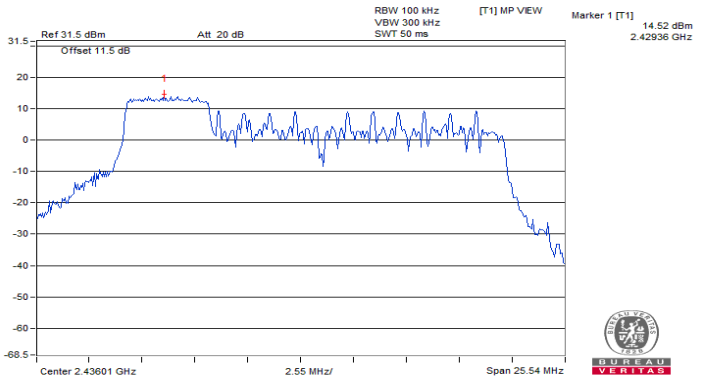
## 802.11be (EHT20) 52-tone RU 2S2T



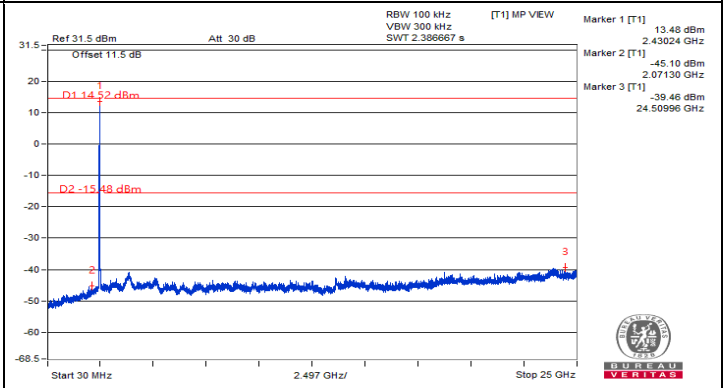

Chain 0 : CH 1



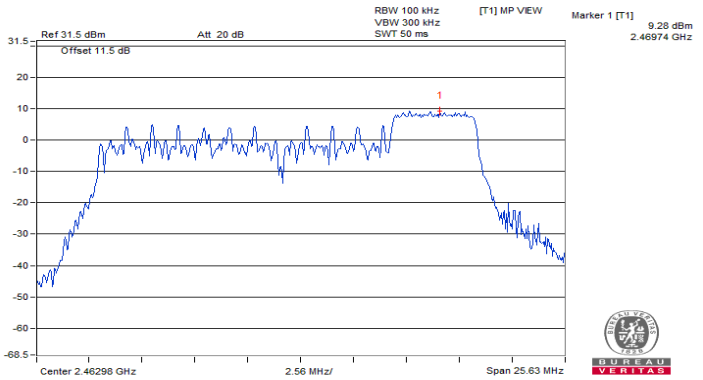

Chain 0 : CH 1



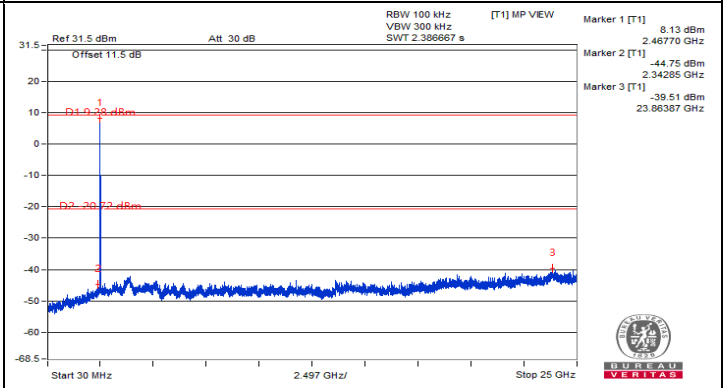

Chain 0 : CH 6



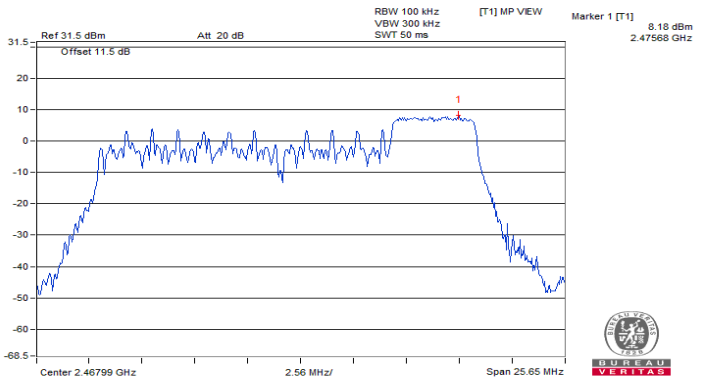

Chain 0 : CH 6



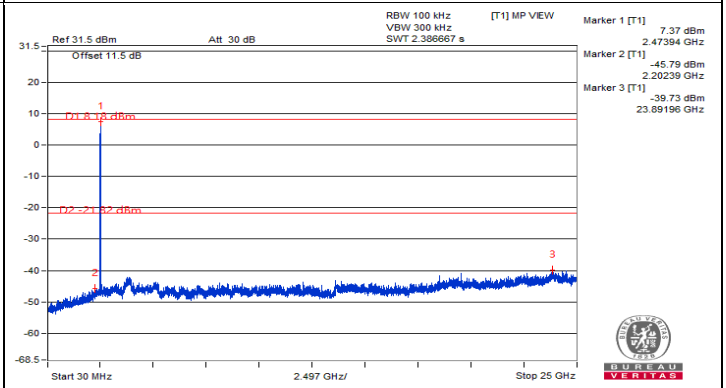

Chain 0 : CH 11



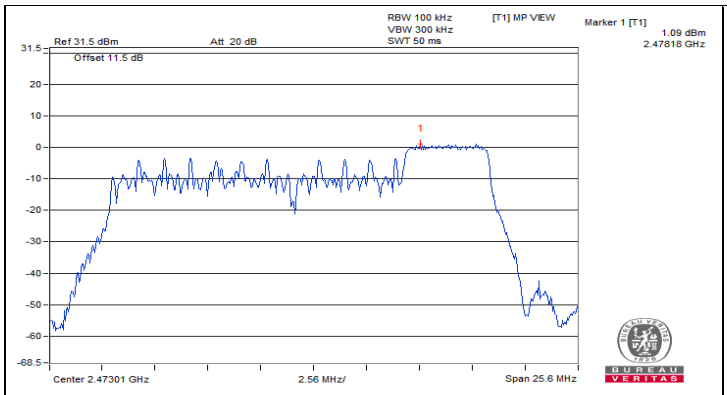

Chain 0 : CH 11



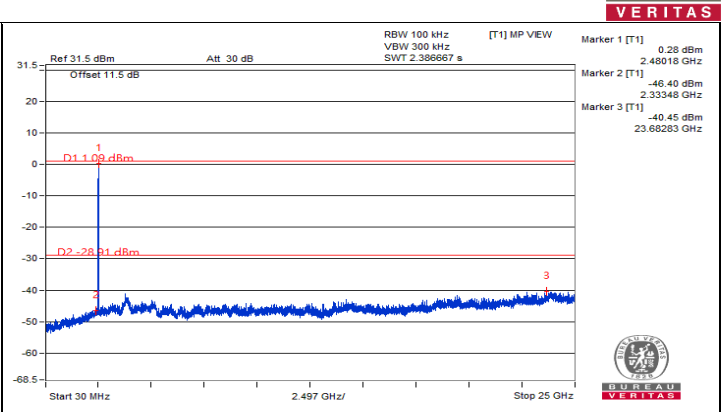

Chain 0 : CH 12



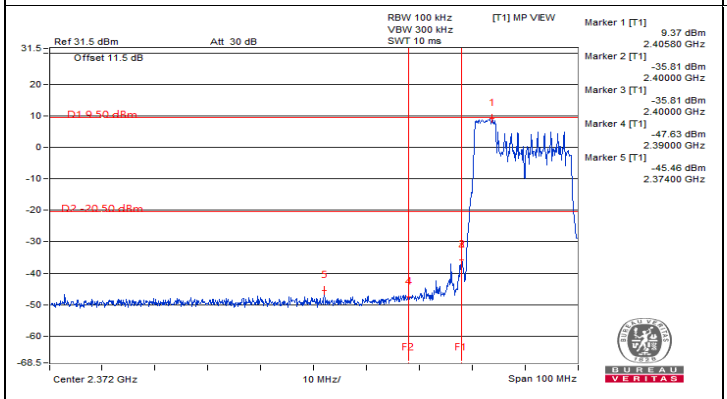

Chain 0 : CH 12



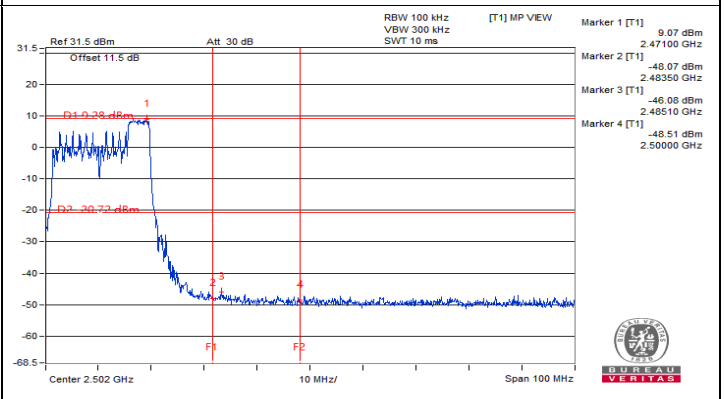

Chain 0 : CH 13



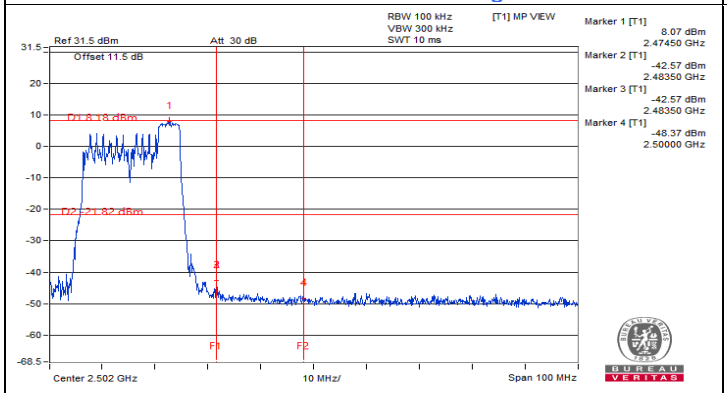

Chain 0 : CH 13



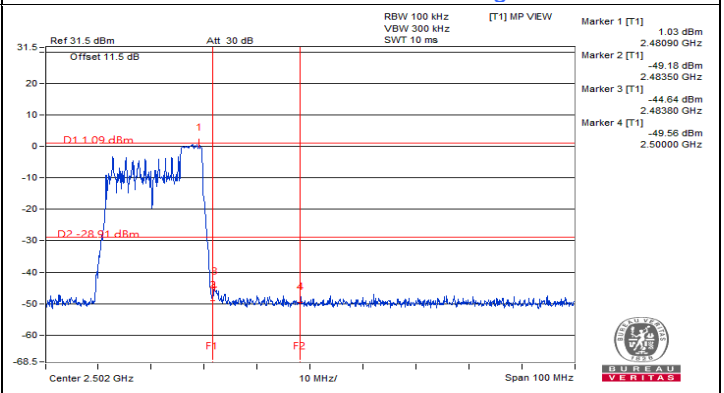

Chain 0 : CH 1 Band edge



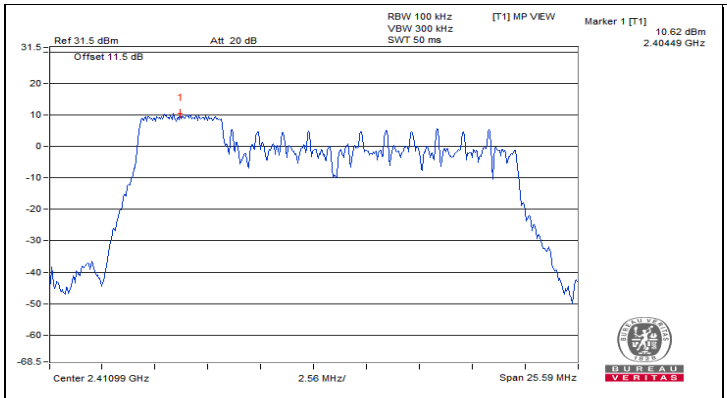

Chain 0 : CH 11 Band edge



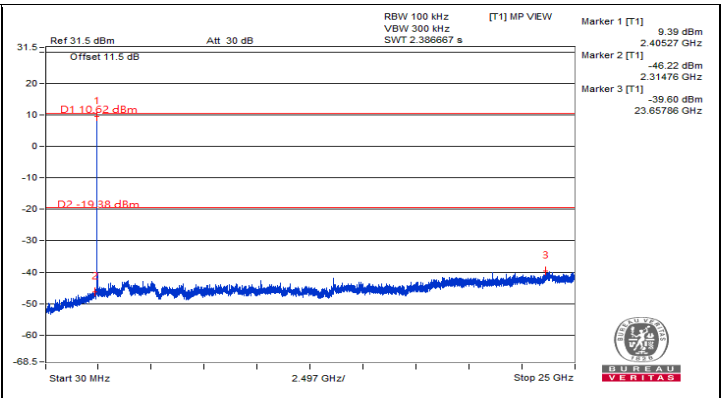

Chain 0 : CH 12 Band edge



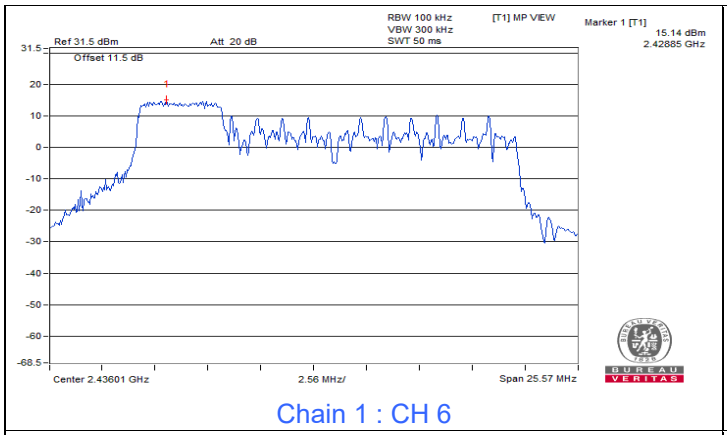

Chain 0 : CH 13 Band edge



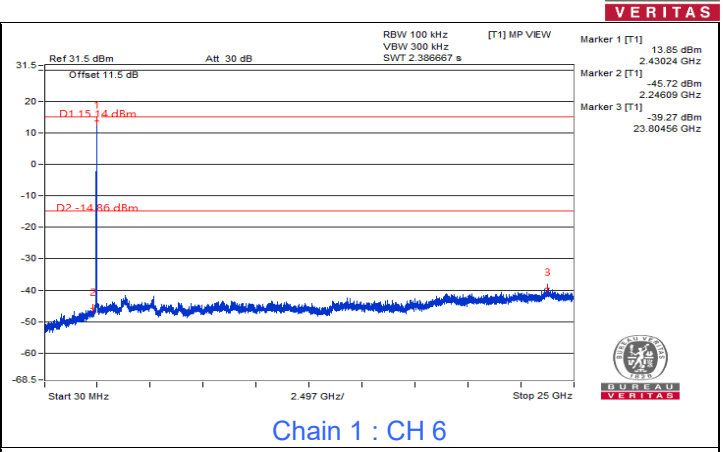

Chain 1 : CH 1



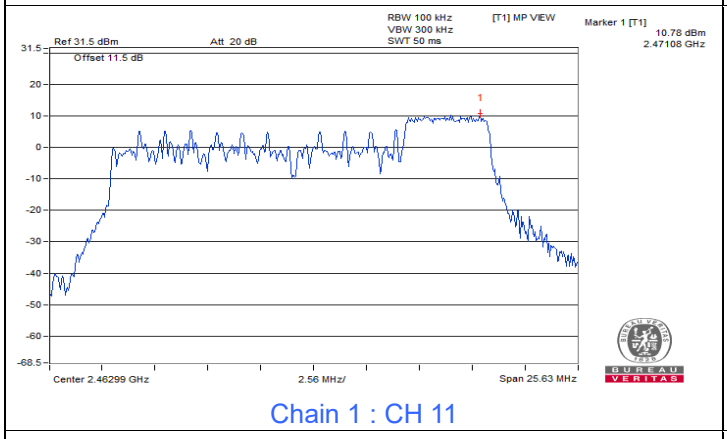

Chain 1 : CH 1



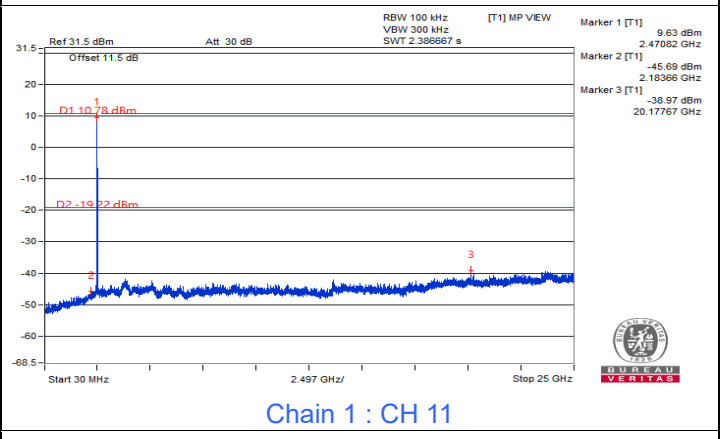

Chain 1 : CH 6



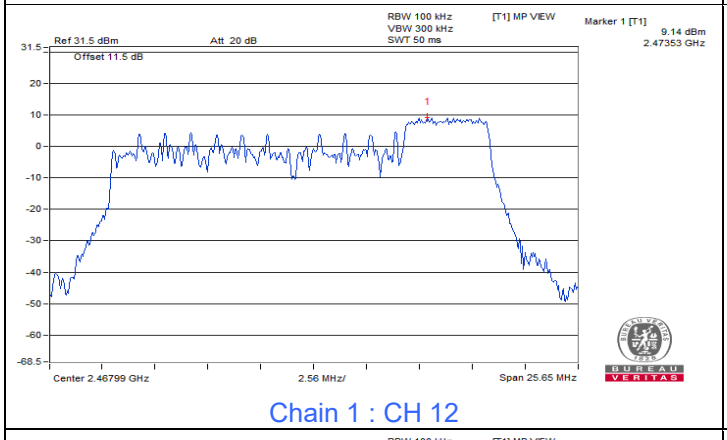

Chain 1 : CH 6



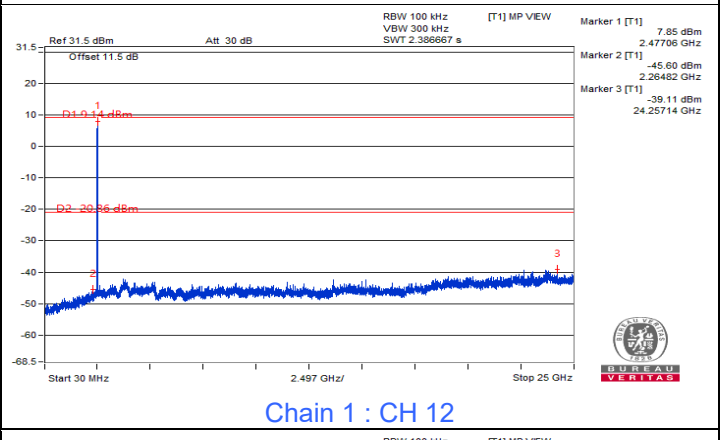

Chain 1 : CH 11



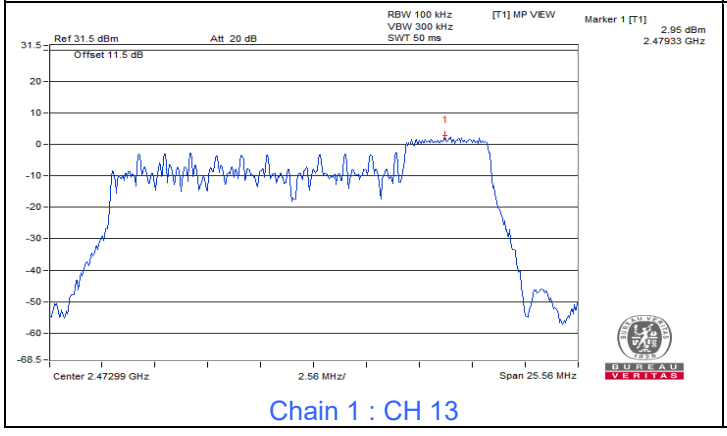

Chain 1 : CH 11



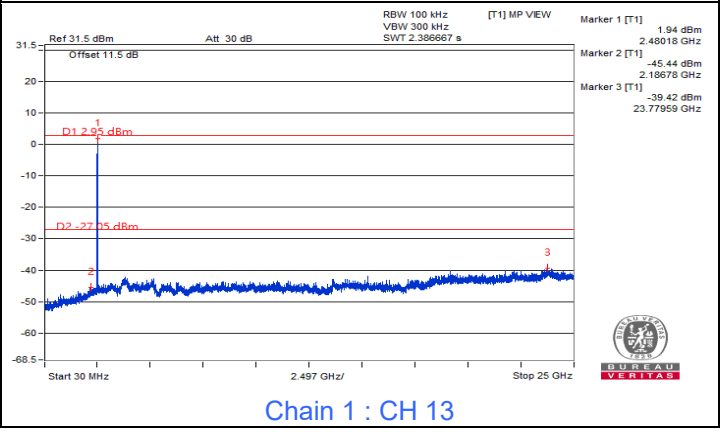

Chain 1 : CH 12



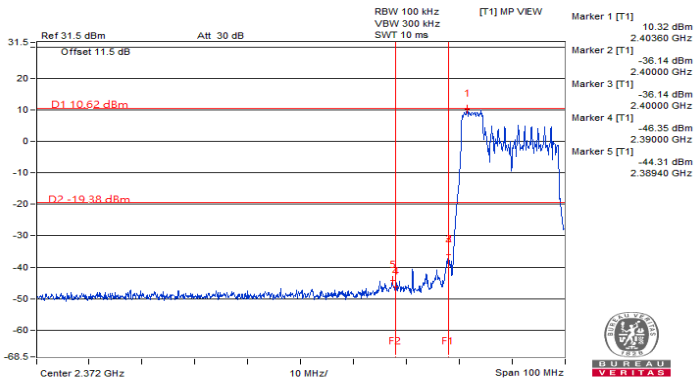

Chain 1 : CH 12



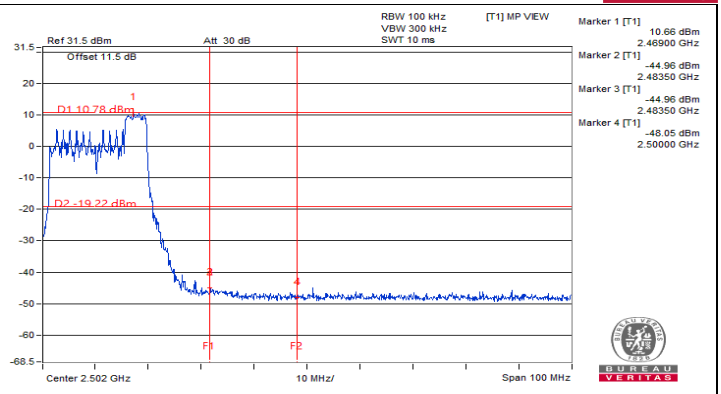

Chain 1 : CH 13



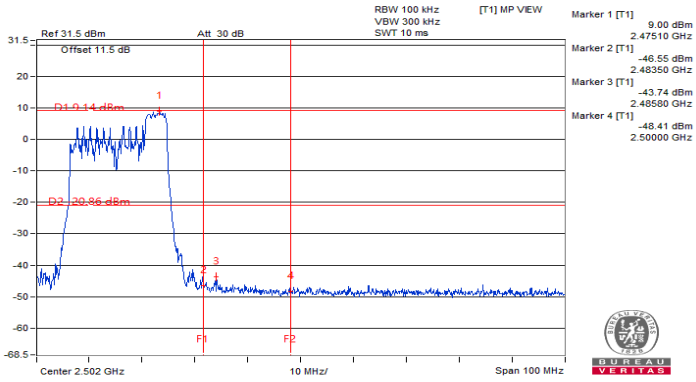

Chain 1 : CH 13



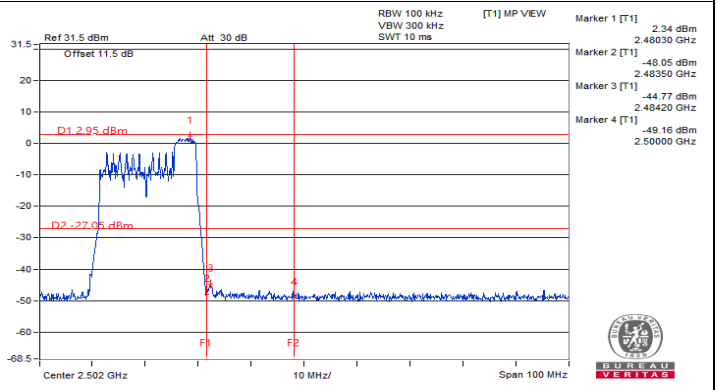

Chain 1 : CH 1 Band edge




Chain 1 : CH 11 Band edge

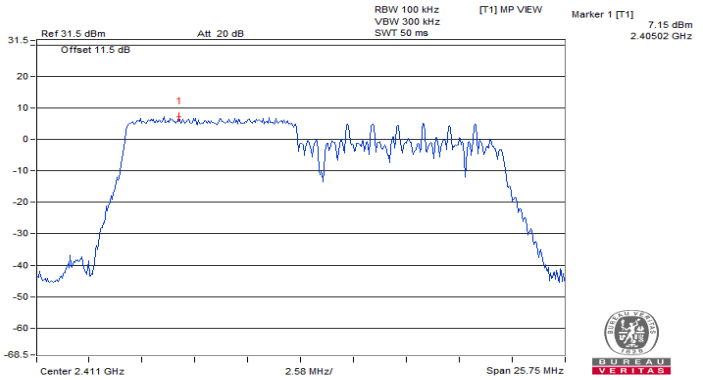



Chain 1 : CH 12 Band edge

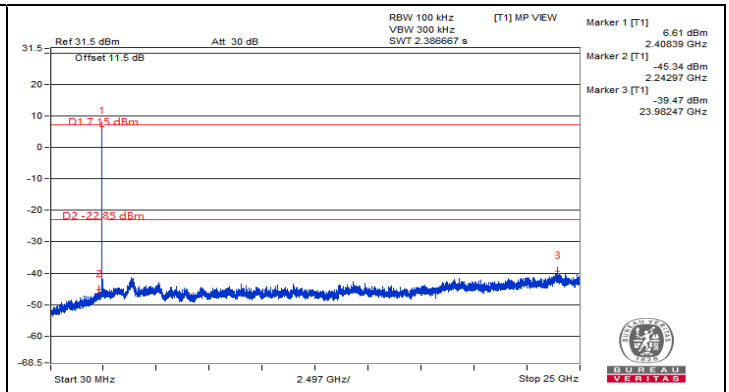



Chain 1 : CH 13 Band edge

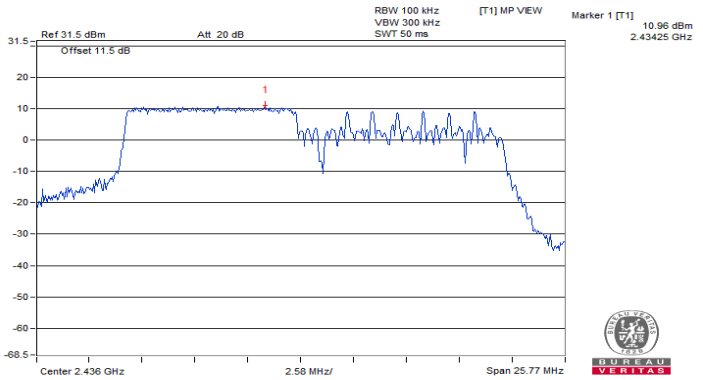
## 802.11be (EHT20) 106-tone RU 2S2T



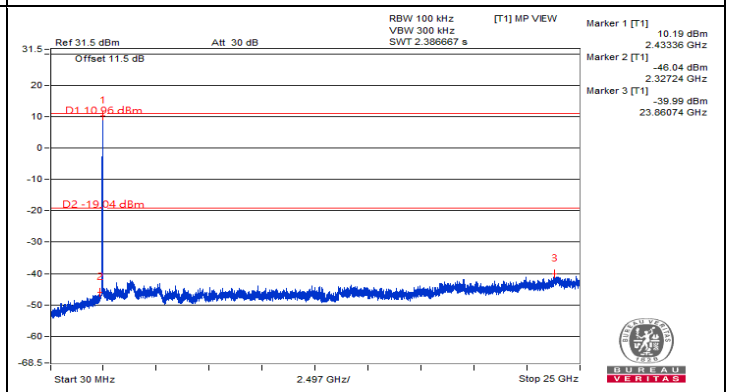

Chain 0 : CH 1



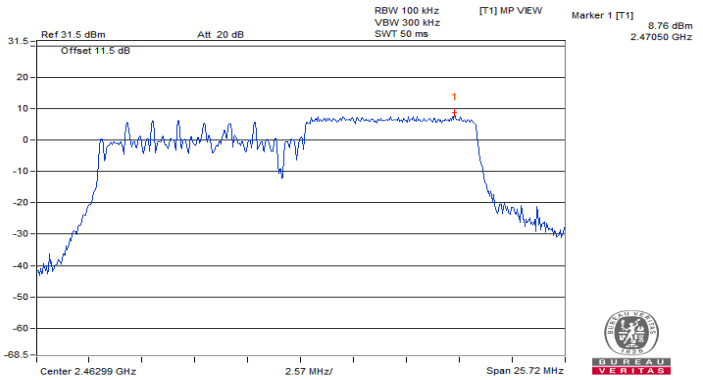

Chain 0 : CH 1



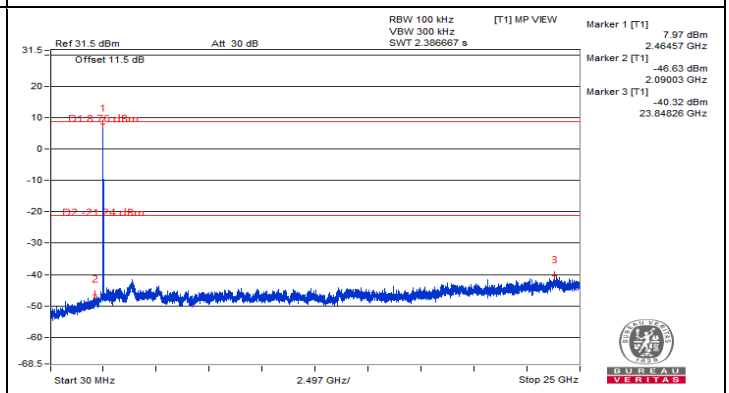

Chain 0 : CH 6



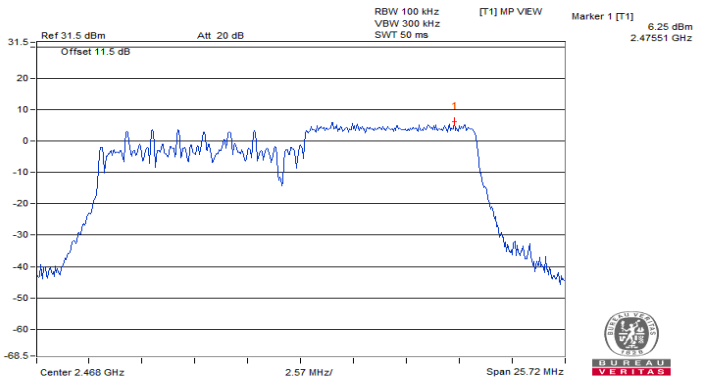

Chain 0 : CH 6



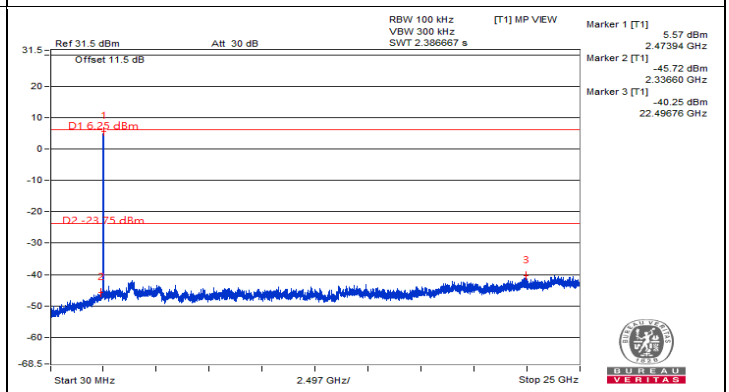

Chain 0 : CH 11



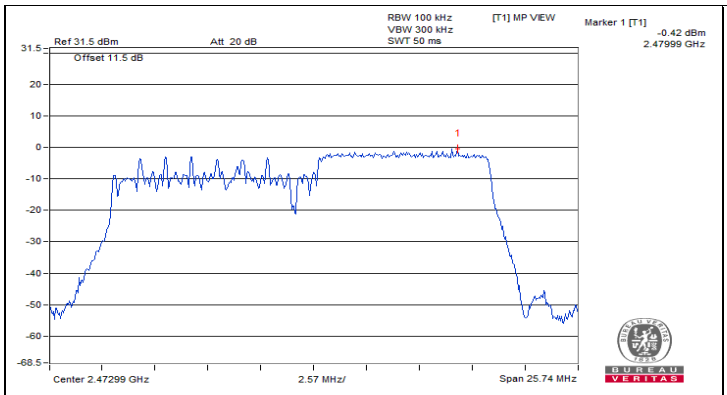

Chain 0 : CH 11



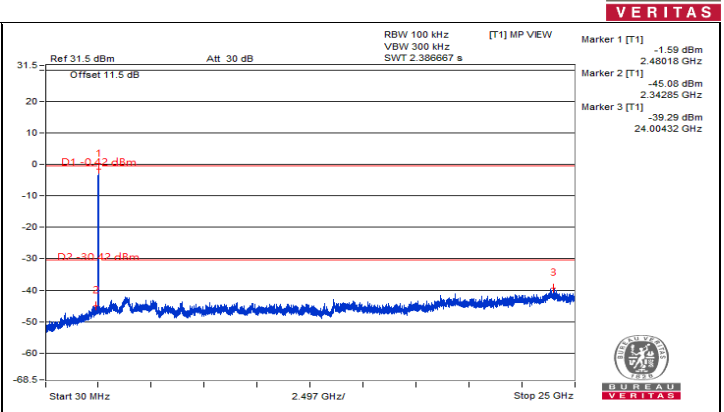

Chain 0 : CH 12



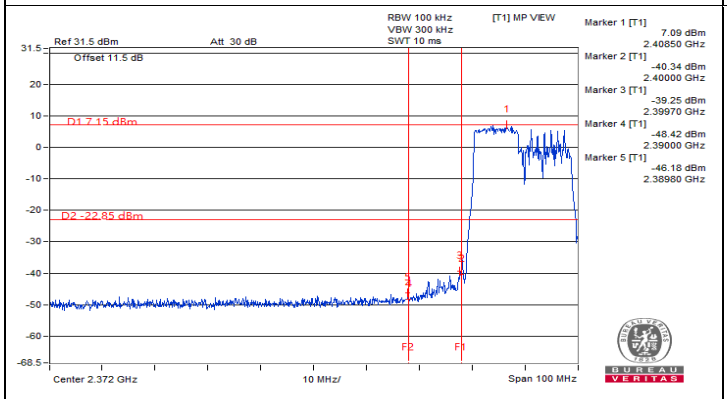

Chain 0 : CH 12



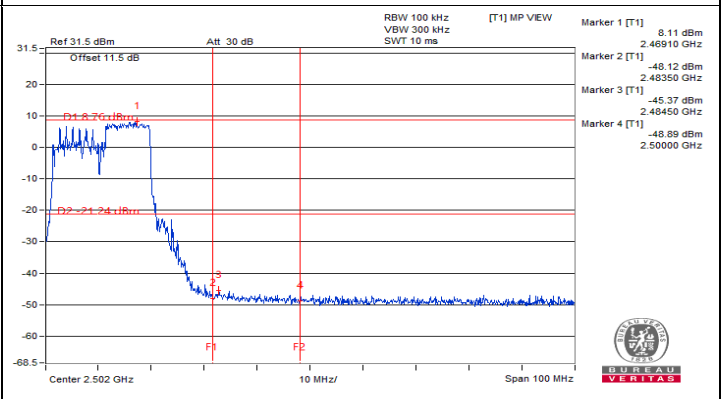

Chain 0 : CH 13



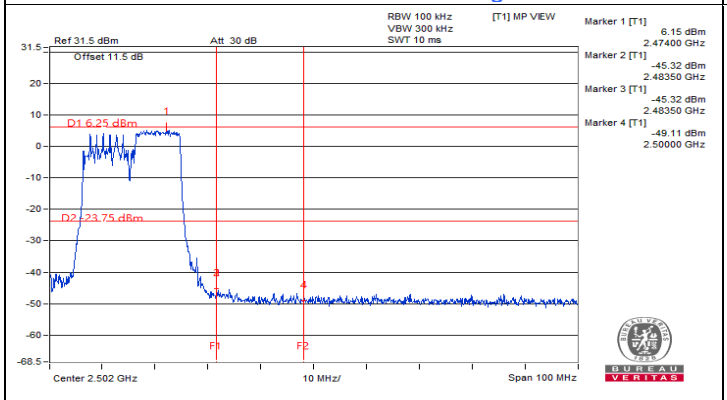

Chain 0 : CH 13



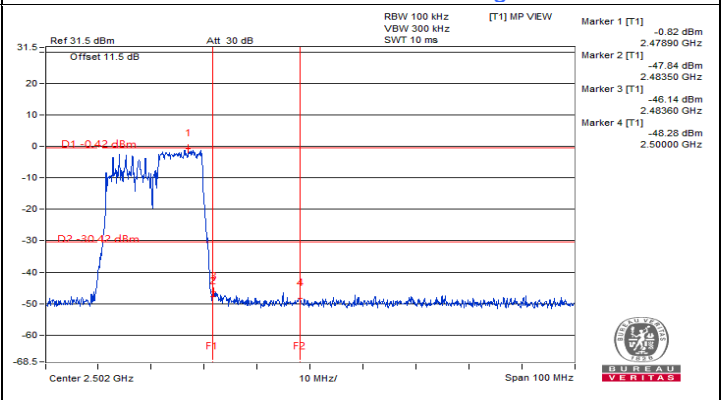

Chain 0 : CH 1 Band edge



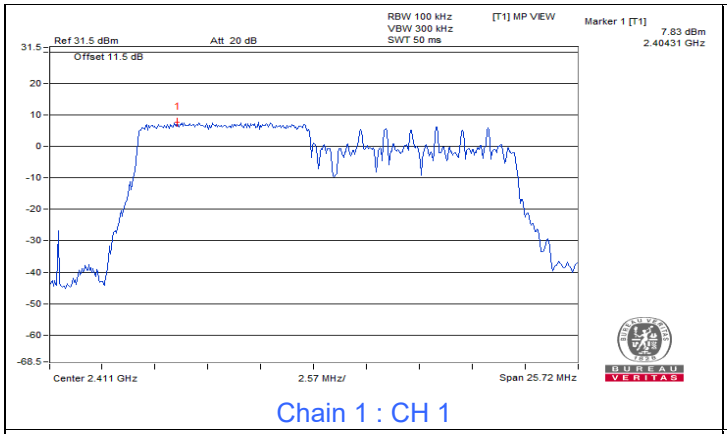

Chain 0 : CH 11 Band edge



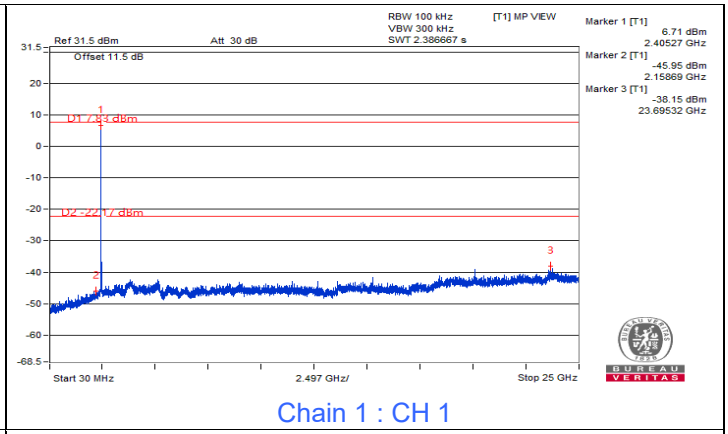

Chain 0 : CH 12 Band edge



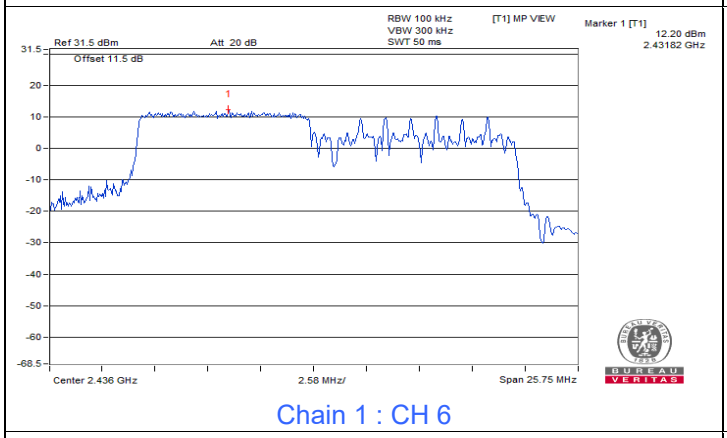

Chain 0 : CH 13 Band edge



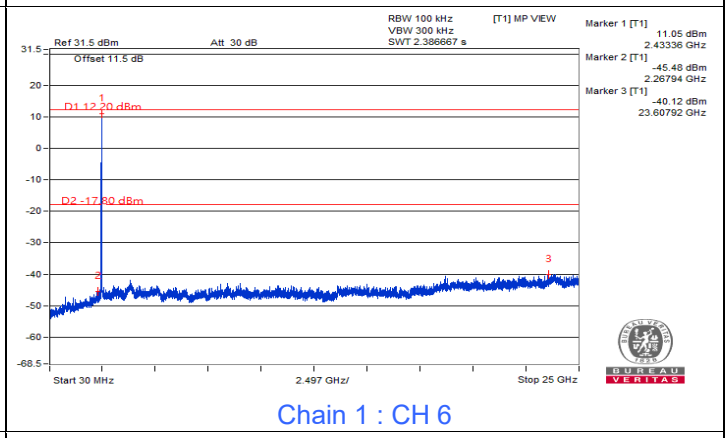

Chain 1 : CH 1



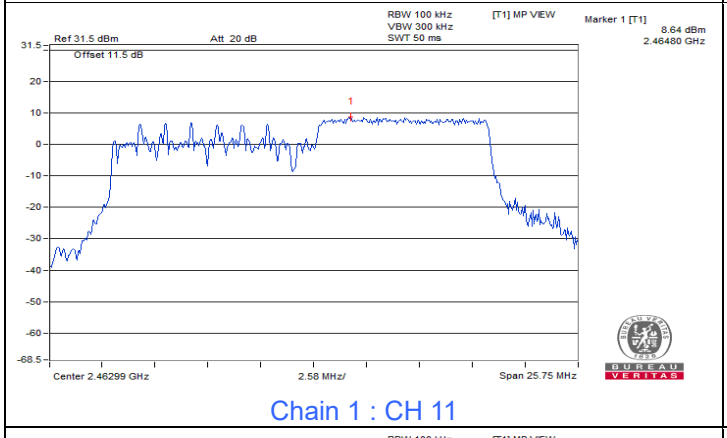

Chain 1 : CH 1



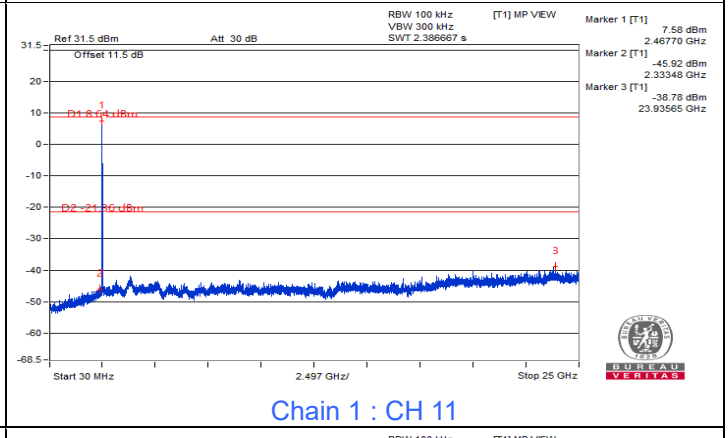

Chain 1 : CH 6



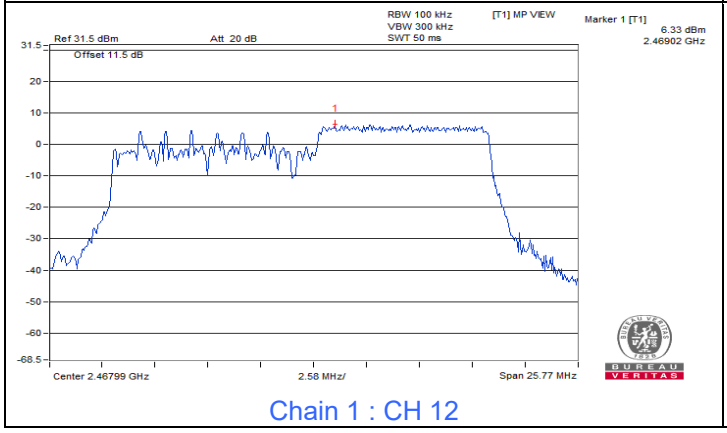

Chain 1 : CH 6



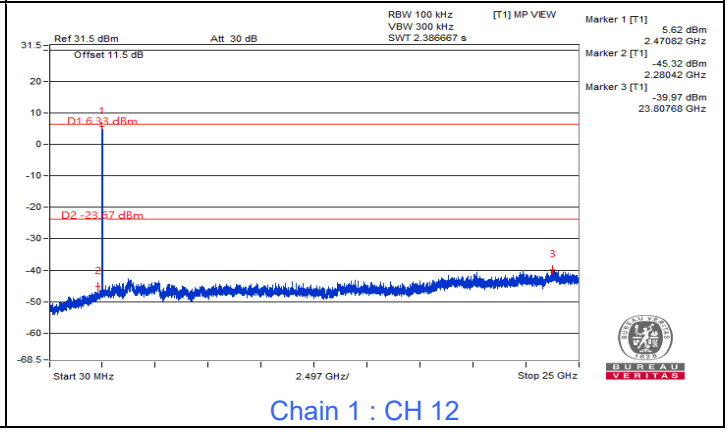

Chain 1 : CH 11



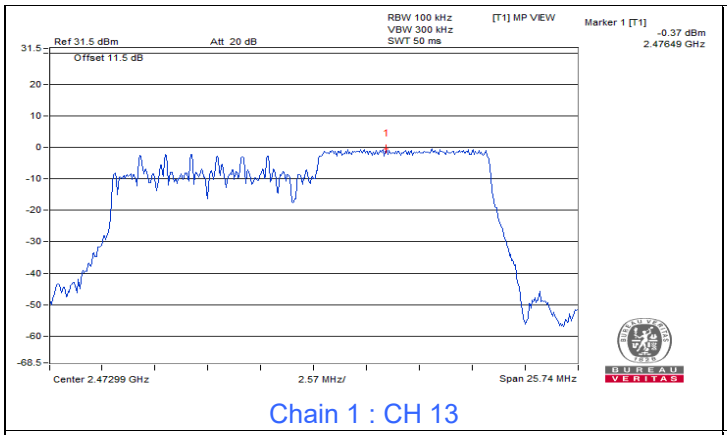

Chain 1 : CH 11



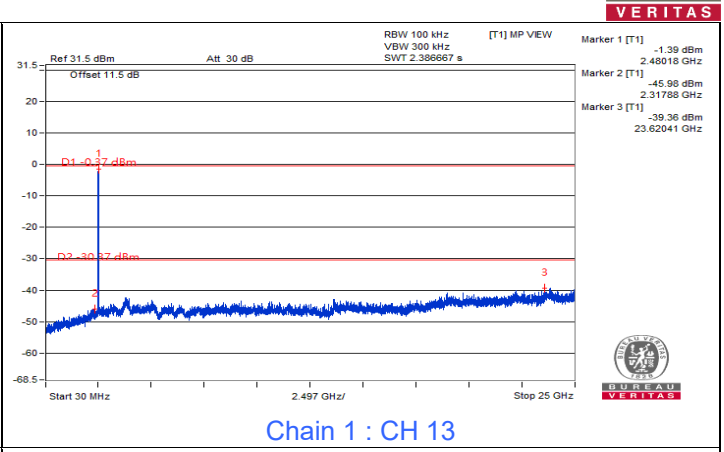

Chain 1 : CH 12



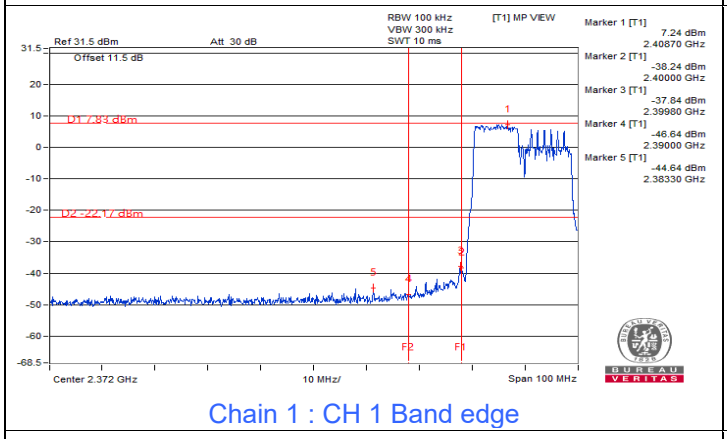

Chain 1 : CH 12



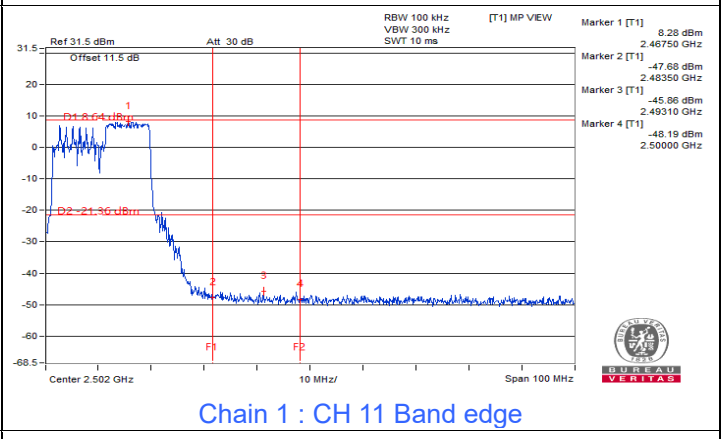

Chain 1 : CH 13



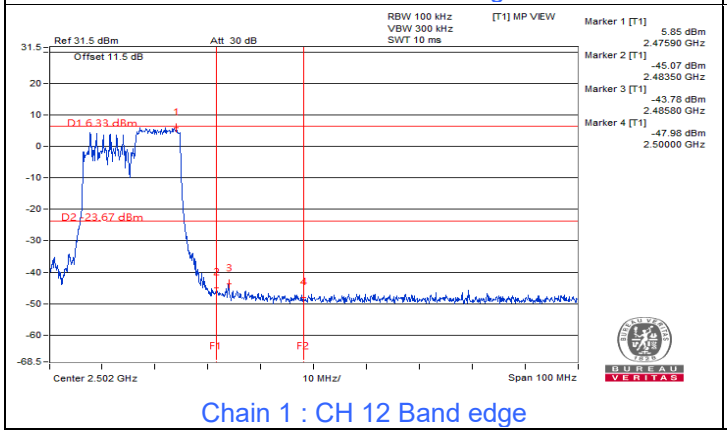

Chain 1 : CH 13



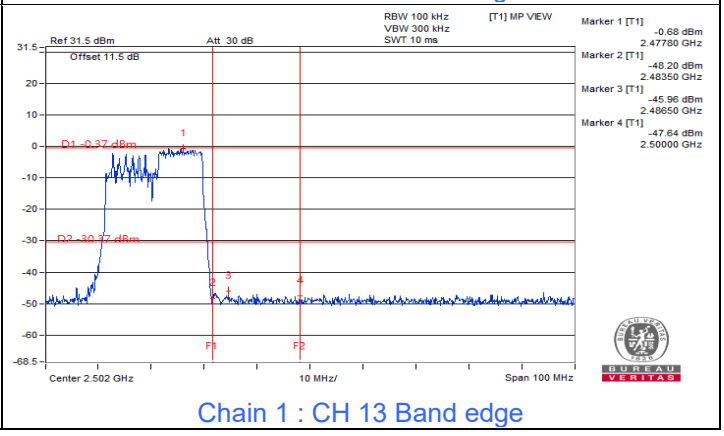

Chain 1 : CH 1 Band edge




Chain 1 : CH 11 Band edge

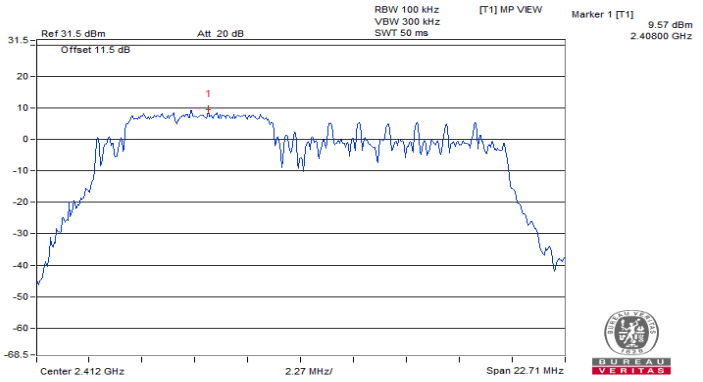



Chain 1 : CH 12 Band edge

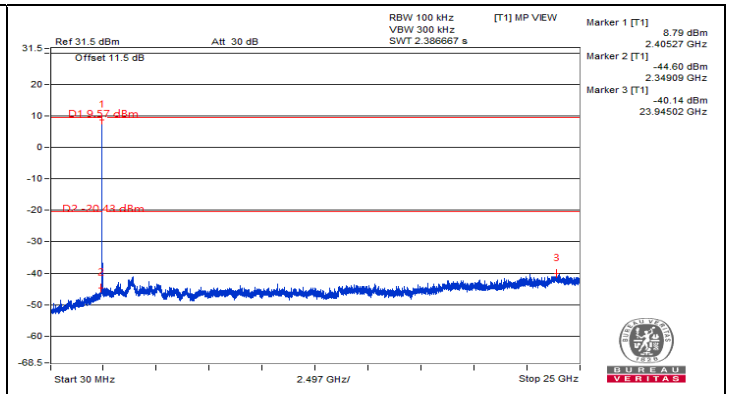



Chain 1 : CH 13 Band edge

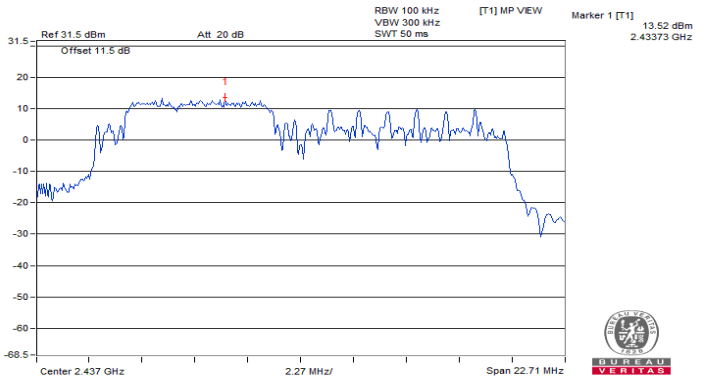
## 802.11be (EHT20) 52+26-tone MRU 2S2T



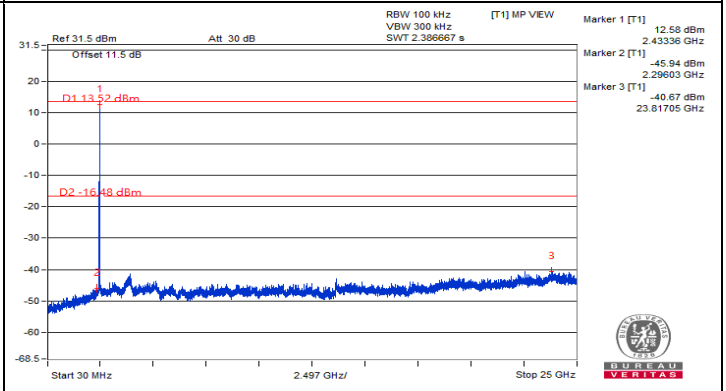

Chain 0 : CH 1



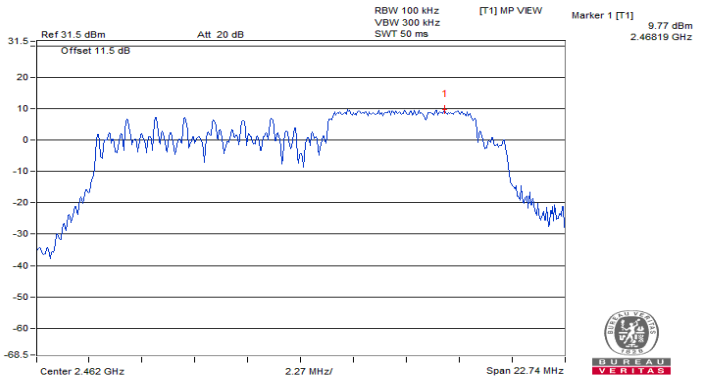

Chain 0 : CH 1



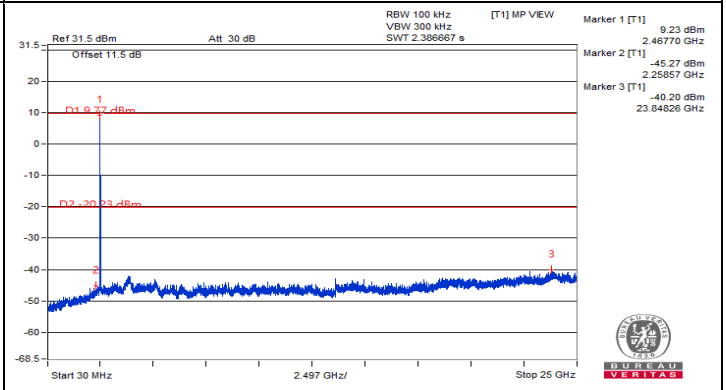

Chain 0 : CH 6



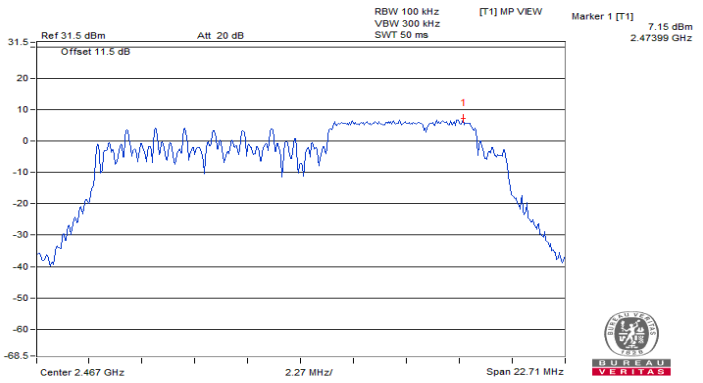

Chain 0 : CH 6



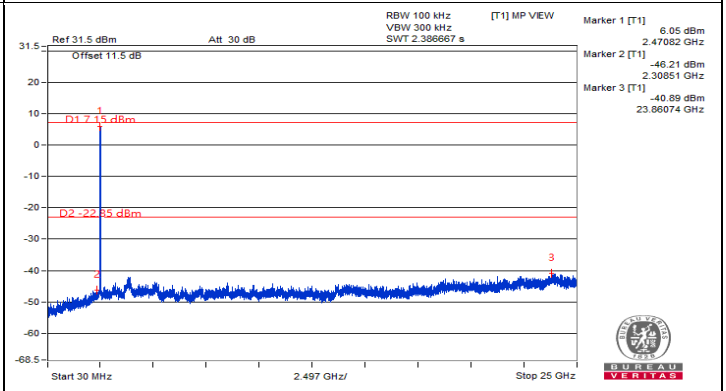

Chain 0 : CH 11



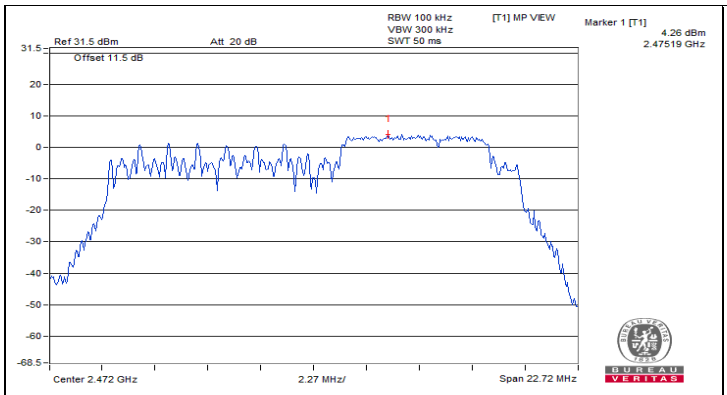

Chain 0 : CH 11



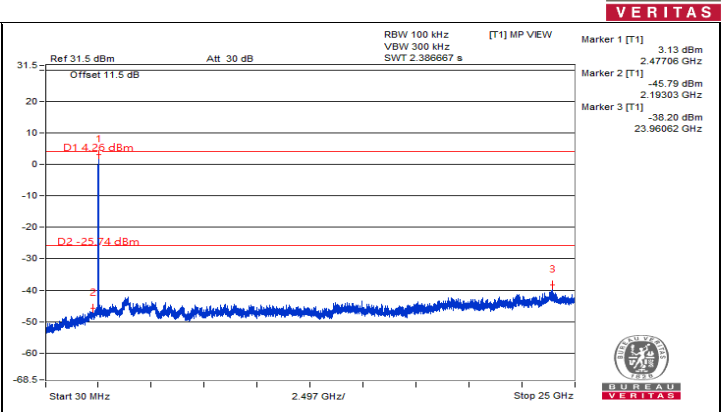

Chain 0 : CH 12



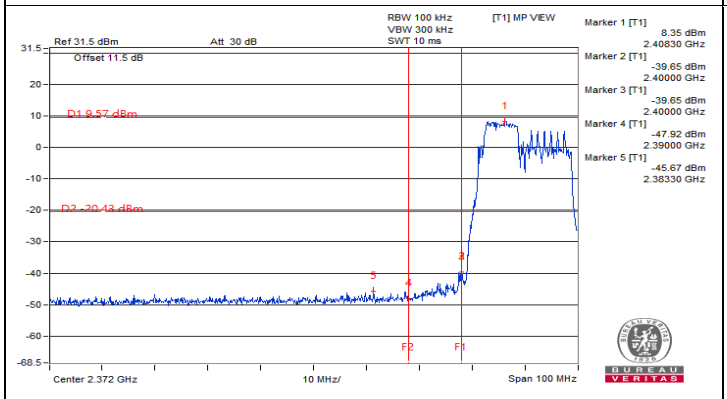

Chain 0 : CH 12



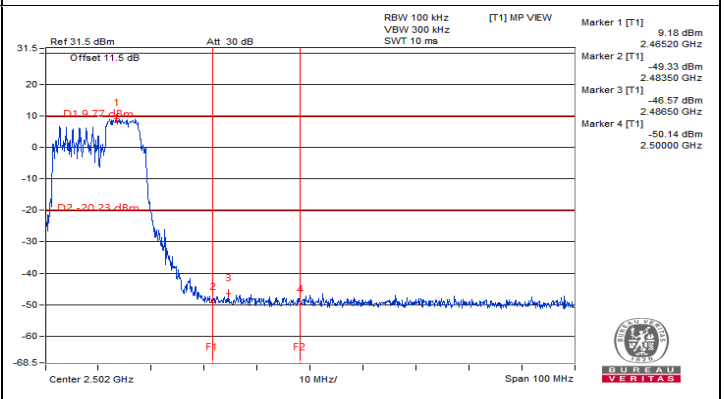

Chain 0 : CH 13



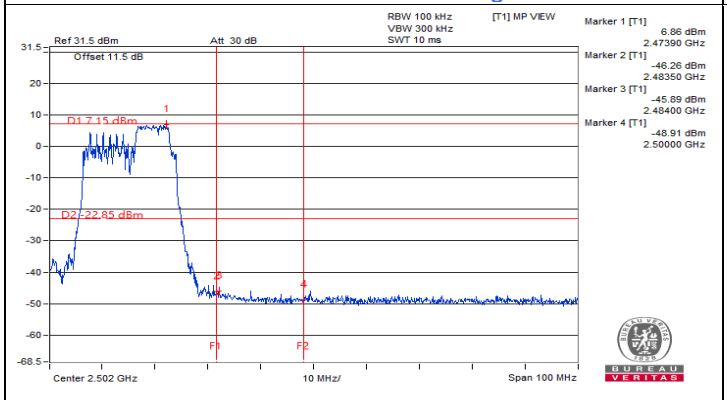

Chain 0 : CH 13



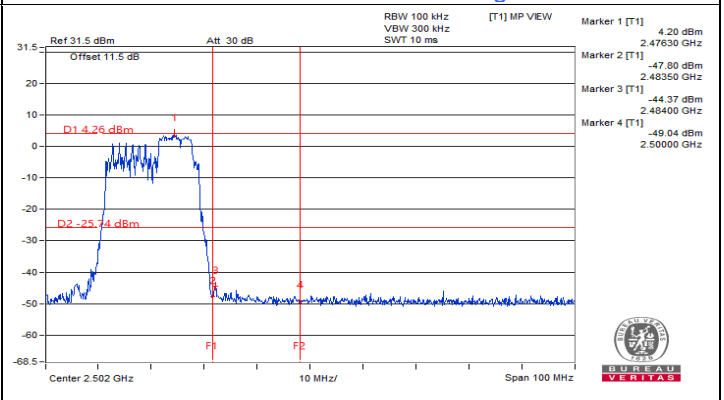

Chain 0 : CH 1 Band edge



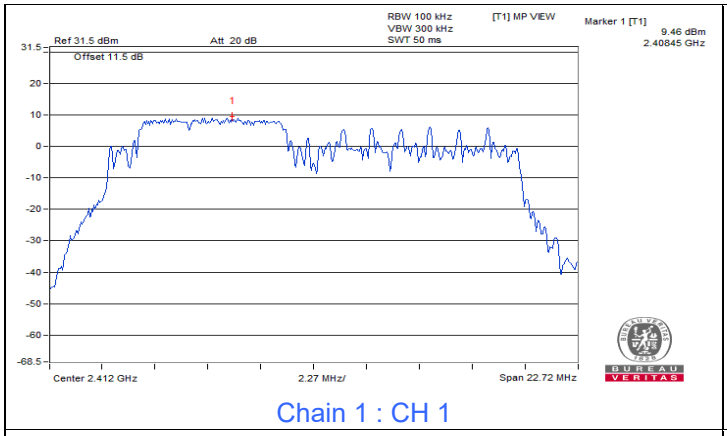

Chain 0 : CH 11 Band edge



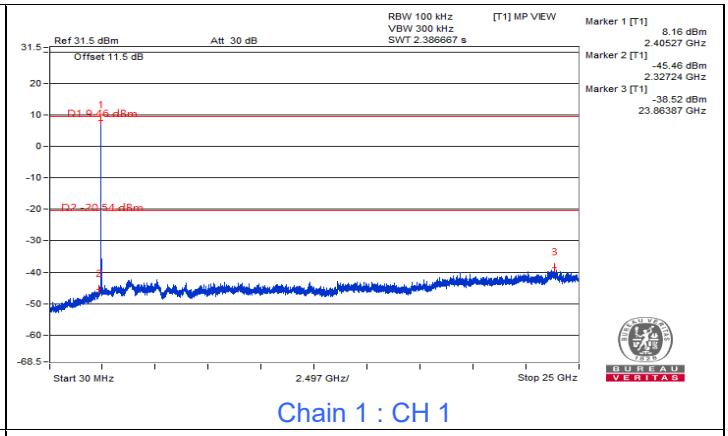

Chain 0 : CH 12 Band edge



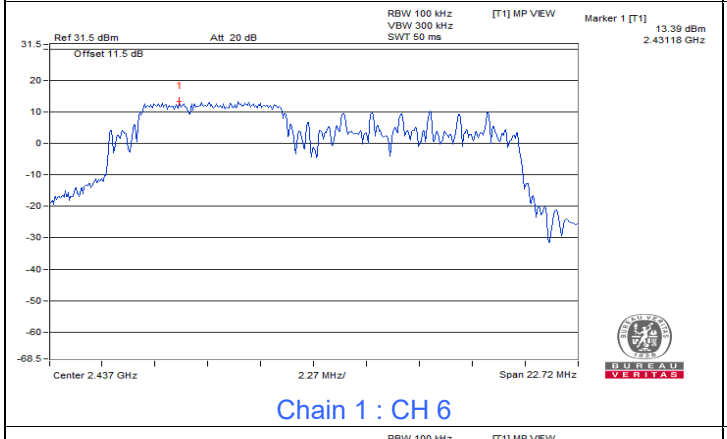

Chain 0 : CH 13 Band edge



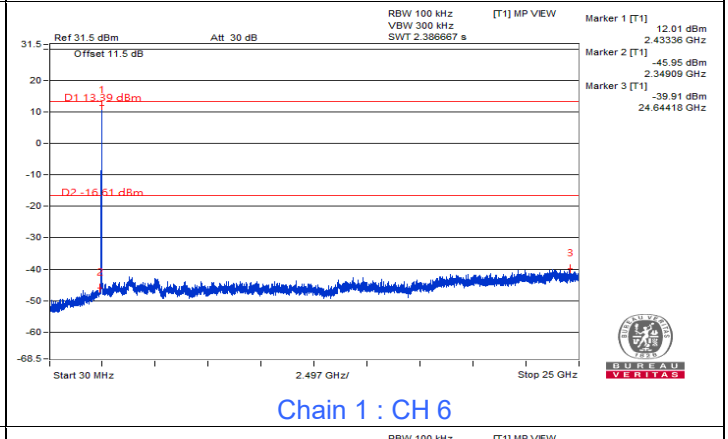

Chain 1 : CH 1



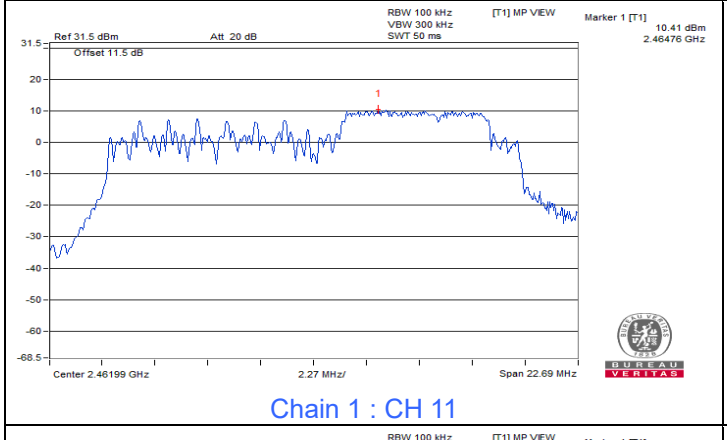

Chain 1 : CH 1



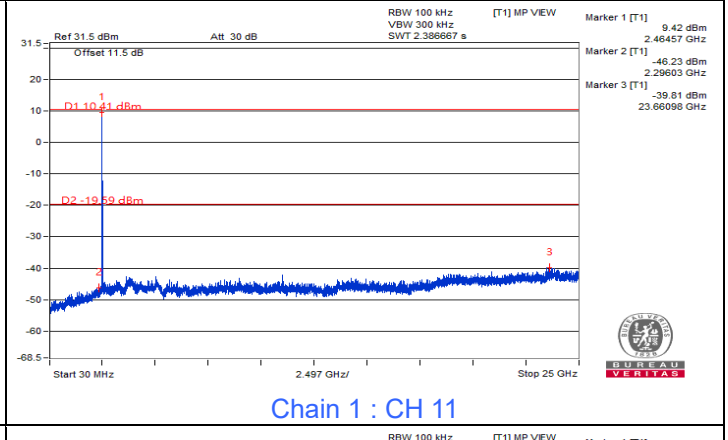

Chain 1 : CH 6



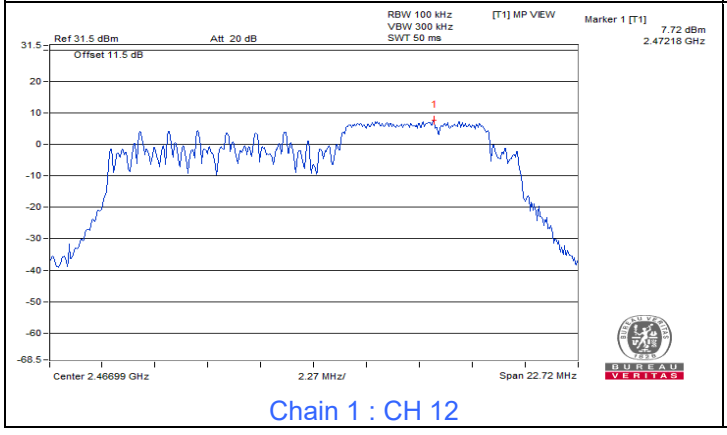

Chain 1 : CH 6



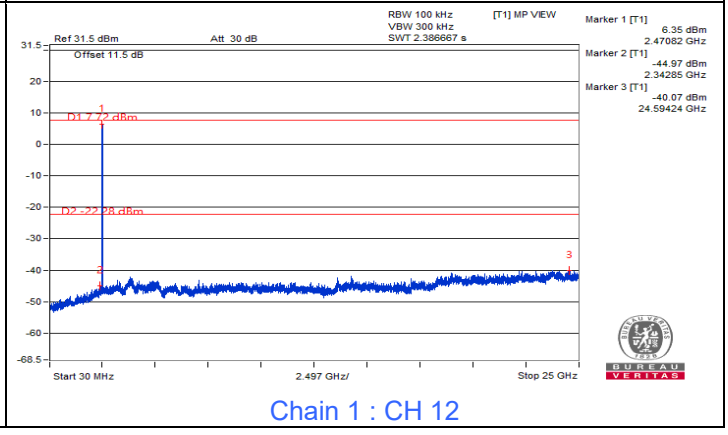

Chain 1 : CH 11



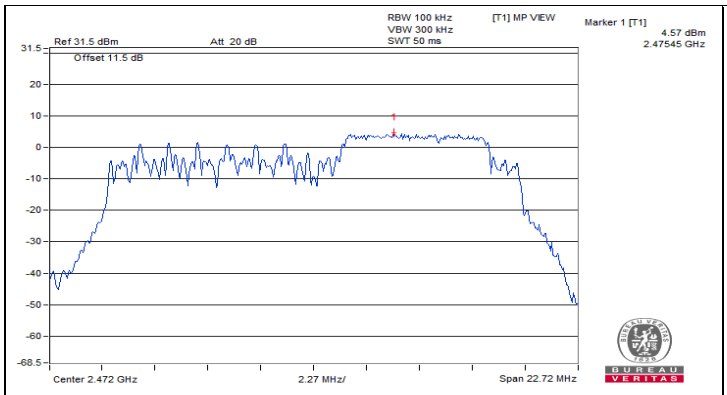

Chain 1 : CH 11



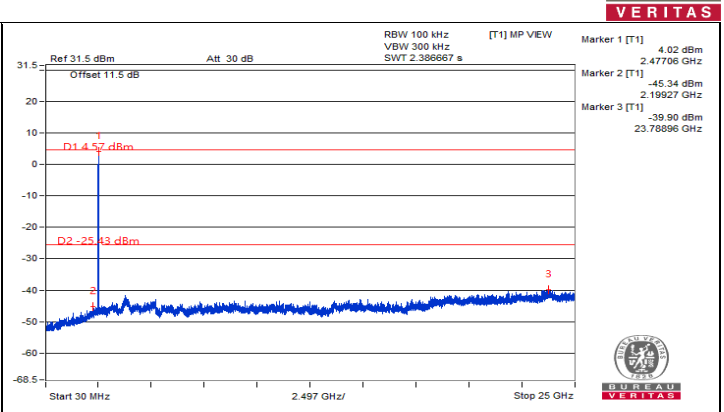

Chain 1 : CH 12



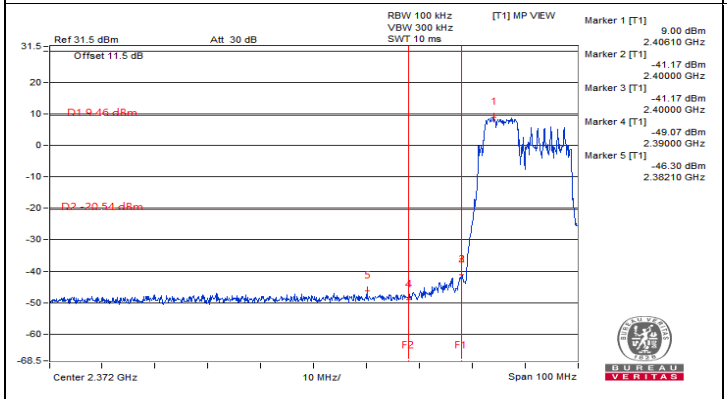

Chain 1 : CH 12



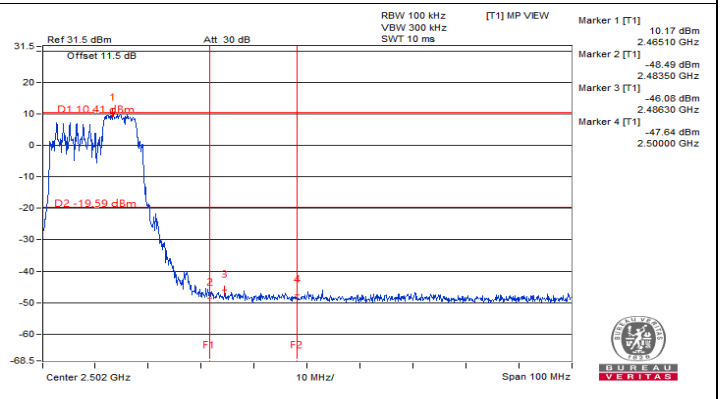

Chain 1 : CH 13



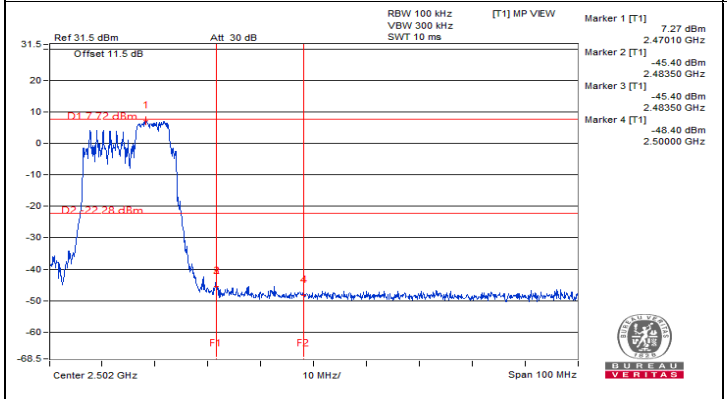

Chain 1 : CH 13



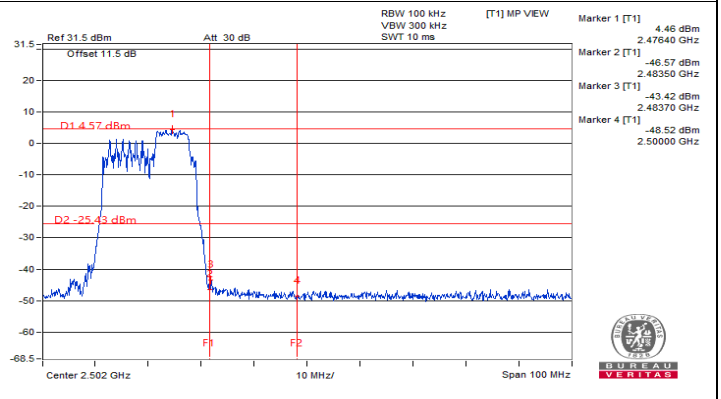

Chain 1 : CH 1 Band edge




Chain 1 : CH 11 Band edge




Chain 1 : CH 12 Band edge




Chain 1 : CH 13 Band edge