

Product Name: Wireless Access Point	Report No: FCC022022-5921RF1
Product Model: AP 6WB	Security Classification: Open
Version: V1.0	Total Page: 99

TIRT Testing Report



Prepared By:	Checked By:	Approved By:	A circular blue stamp with the text "TIRT Technology Service Co., Ltd" around the perimeter and "TIRT Shenzhen" in the center.
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FCC Radio Test Report

FCC ID: 2A3WK-AP6WB

This report concerns: Original Grant

Project No. : 22022-05921
Equipment : Wireless Access Point
Brand Name : Nomadix
Test Model : AP 6WB
Series Model : NA
Applicant : Nomadix, Inc.
Address : 21600 Oxnard Street - 19th floor, Woodland Hills, California, United States
Manufacturer : Nomadix, Inc.
Address : 21600 Oxnard Street - 19th floor, Woodland Hills, California, United States
Factory : Nomadix, Inc.
Address : 21600 Oxnard Street - 19th floor, Woodland Hills, California, United States
Date of Receipt : Nov. 03, 2022
Date of Test : Nov. 04, 2022~Dec.13, 2022
Issued Date : Dec. 21, 2022
Report Version : V1.0
Test Sample : 20221103020001
Standard(s) : FCC CFR Title 47, Part 15, Subpart C
FCC KDB 558074 D01 15.247 Meas Guidance v05r02
FCC KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2013

- The test result referred exclusively to the presented test model /sample.
- Without written approval of TIRT Inc. the test report shall not reproduced except in full.

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
FCC022022-5921RF1	V1.0	Original Report.	Dec. 21, 2022	Valid

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS	-----
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	-----
15.247(a)(2)	Bandwidth	APPENDIX E	PASS	-----
15.247(b)(3)	Maximum Output Power	APPENDIX F	PASS	-----
15.247(d)	Conducted Spurious Emissions	APPENDIX G	PASS	-----
15.247(e)	Power Spectral Density	APPENDIX H	PASS	-----
15.203	Antenna Requirement	-----	PASS	Note(2)

Note:

- (1) "N/A" denotes test is not applicable in this test report.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

1.1 TEST FACILITY

Company:	Beijing TIRT Technology Service Co.,Ltd Shenzhen
Address:	101, 3 # Factory Building, Gongjin Electronics Shatin Community, Kengzi Street, Pingshan District, Shenzhen, China
CNAS Registration Number:	CNAS L14158
A2LA Registration Number:	6049.01
FCC Accredited Lab. Designation Number:	CN1309
FCC Test Firm Registration Number:	825524
Telephone:	+86-0755-27087573

1.2 MEASUREMENT UNCERTAINTY

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

The TIRT measurement uncertainty as below table:

Uncertainty	
Parameter	Uncertainty
Occupied Channel Bandwidth	$\pm 142.12\text{kHz}$
RF power conducted	$\pm 0.74\text{dB}$
RF power radiated	$\pm 3.25\text{dB}$
Spurious emissions, conducted (9kHz~40GHz)	$\pm 1.78\text{dB}$
Spurious emissions, radiated (9kHz~30MHz)	$\pm 2.8\text{dB}$
Spurious emissions, radiated (30MHz~1GHz)	$\pm 4.6\text{dB}$
Spurious emissions, radiated (1GHz ~ 18GHz)	$\pm 4.9\text{dB}$
Spurious emissions, radiated (18GHz ~ 40GHz)	$\pm 5.54\text{dB}$
Conduction Emissions(150kHz~30MHz)	$\pm 3.1\text{dB}$
Humidity	$\pm 4.6\%$
Temperature	$\pm 0.7^{\circ}\text{C}$
Time	$\pm 1.25\%$

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

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	24°C	54%	AC 120V/60Hz	Stone Tang
Radiated Emissions-9kHz to 30 MHz	25°C	55%	PoE 48V	Stone Tang
Radiated Emissions-30MHz to 1000MHz	23°C	53%	PoE 48V	Stone Tang
Radiated Emissions-Above 1000MHz	25°C	60%	PoE 48V	Stone Tang
Bandwidth	23-25°C	50%	PoE 48V	Stone Tang
Maximum Output Power	23-25°C	50%	PoE 48V	Stone Tang
Conducted Spurious Emissions	23-25°C	50%	PoE 48V	Stone Tang
Power Spectral Density	23-25°C	50%	PoE 48V	Stone Tang

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless Access Point
Brand Name	Nomadix
Test Model	AP 6WB
Series Model	NA
Model Difference(s)	NA
Software Version	NA
Hardware Version	NA
Power Source	PoE supplied.
Power Rating	Input Rating:DC 48V 0.6A, PoE Output Rating:DC48V 0.3A, PSE
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM IEEE 802.11ax: OFDMA
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 300 Mbps IEEE 802.11ax: up to 573.6 Mbps
Maximum Output Power	IEEE 802.11b: 25.73 dBm (0.3741 W)

Note:

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

2. Channel List:

CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n(HT20), IEEE 802.11ax(HE20)							
CH03 - CH09 for IEEE 802.11n(HT40), IEEE 802.11ax(HE40)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Wanshih	TW2WFI0036A	PIFA	MHF	3.7
2	Wanshih	TW2WFI0037A	PIFA	MHF	5.6

Note:

- 1) This EUT supports MIMO 2X2, any transmit signals are correlated with each other, so Directional gain= $10\log[(10^{G1/20}+10^{G2/20})^2/N]$ dBi, that is Directional gain= $10\log[(10^{3.7/20}+10^{5.6/20})^2/2]$ dBi =7.71. So, the output power limit is 30-(7.71-6)=28.29, the power spectral density limit is 8-(7.71-6)=6.29
- 2) The antenna gain and beamforming gain are provided by the manufacturer.

4. Table for Antenna Configuration:

Operating Mode	1TX	2TX
TX Mode		
IEEE 802.11b	-	V(Ant. 1 + Ant. 2)
IEEE 802.11g	-	V(Ant. 1 + Ant. 2)
IEEE 802.11n(HT20)	-	V(Ant. 1 + Ant. 2)
IEEE 802.11n(HT40)	-	V(Ant. 1 + Ant. 2)
IEEE 802.11ax(HE20)	-	V(Ant. 1 + Ant. 2)
IEEE 802.11ax(HE40)	-	V(Ant. 1 + Ant. 2)

2.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09
Mode 5	TX AX(HE20) Mode Channel 01/06/11
Mode 6	TX AX(HE40) Mode Channel 03/06/09
Mode 7	TX B Mode Channel 06

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

AC power line conducted emissions test	
Final Test Mode	Description
Mode 7	TX B Mode Channel 11

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 7	TX B Mode Channel 11

Radiated emissions test- Above 1GHz	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09
Mode 5	TX AX(HE20) Mode Channel 01/06/11
Mode 6	TX AX(HE40) Mode Channel 03/06/09

Conducted test	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11

Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09
Mode 5	TX AX(HE20) Mode Channel 01/06/11
Mode 6	TX AX(HE40) Mode Channel 03/06/09

NOTE:

- (1) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
- (2) For AC power line conducted emissions and radiated emission below 1 GHz test, the TX B Mode Channel 06 is found to be the worst case and recorded.
- (3) For radiated emission above 1 GHz test, the spurious points of 1GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB. For radiated emission above 1 GHz test, the polarization of Vertical and Horizontal are evaluated, the worst case is Vertical for bandedge and recorded, the worst case is Horizontal for harmonic and recorded.
- (4) For AC power line conducted emissions and radiated emissions below 1 GHz test, all adapters had been pre-tested and in this report only recorded the worst case.
- (5) IEEE 802.11ax mode only supports full RU, so only the full RU is evaluated and measured inside report.

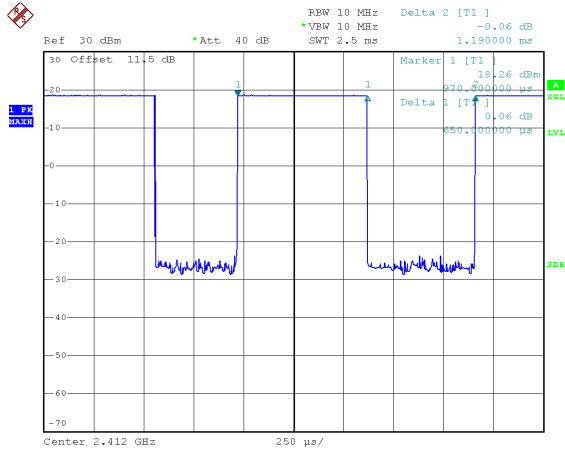
2.3 PARAMETERS OF TEST SOFTWARE

Test Software Version	QDART-Connectivity1.0-00078		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	20	22	21.5
IEEE 802.11g	18	18.5	18
IEEE 802.11n(HT20)	18	19.5	19
IEEE 802.11ax(HE20)	16	19.5	17
Frequency (MHz)	2422	2437	2452
IEEE 802.11n(HT40)	18	17.5	17.5
IEEE 802.11ax(HE40)	15	16.5	15

2.4 DUTY CYCLE

If duty cycle is $\geq 98\%$, duty factor is not required.
 If duty cycle is $< 98\%$, duty factor shall be considered.
 The output power = measured power + duty factor.

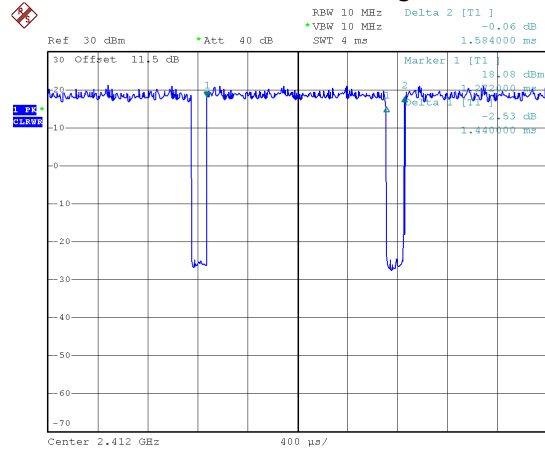
IEEE 802.11b



Date: 14.NOV.2022 11:25:58

Duty cycle = 0.650 ms / 1.190 ms = 54.62%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 2.63$

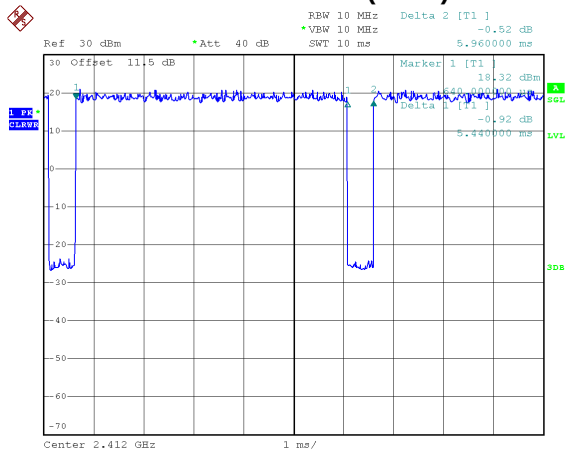
IEEE 802.11g



Date: 14.NOV.2022 11:26:58

Duty cycle = 1.440 ms / 1.584 ms = 90.91%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.41$

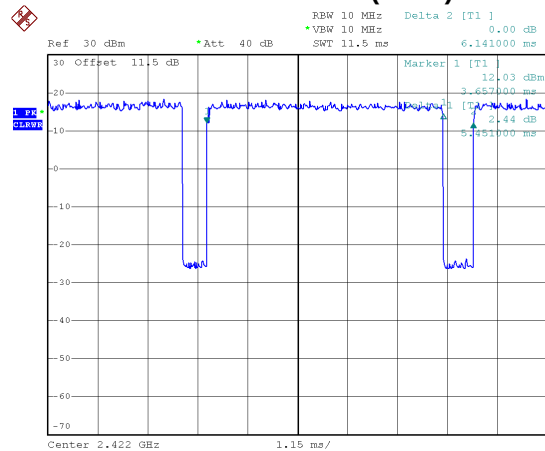
IEEE 802.11n(HT20)



Date: 14.NOV.2022 11:27:51

Duty cycle = 5.440 ms / 5.960 ms = 91.28%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.40$

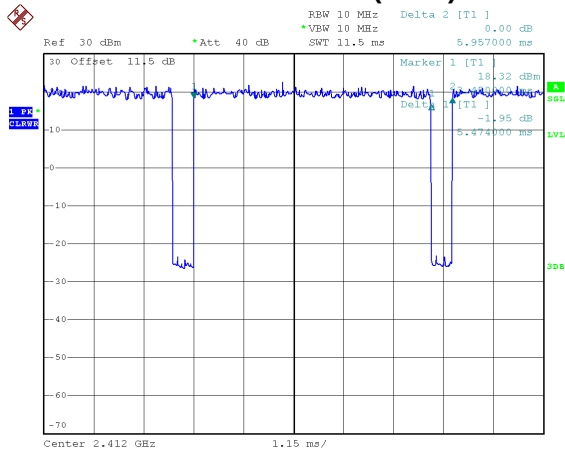
IEEE 802.11n(HT40)



Date: 14.NOV.2022 11:28:39

Duty cycle = 5.451 ms / 6.141 ms = 88.76%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.52$

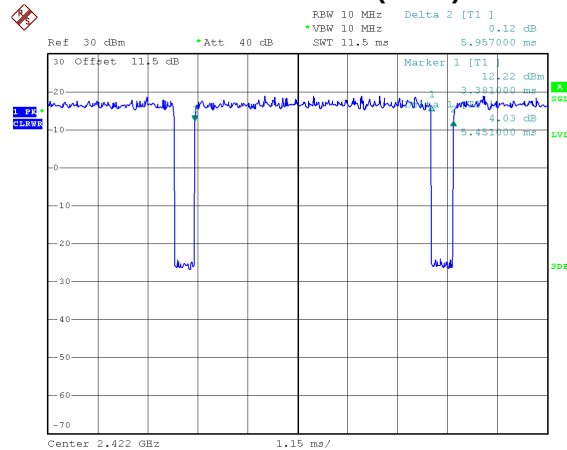
IEEE 802.11ax(HE20)



Date: 14.NOV.2022 11:34:17

Duty cycle = 5.474 ms / 5.957 ms = 91.89%
Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.37$

IEEE 802.11ax(HE40)



Date: 14.NOV.2022 11:34:55

Duty cycle = 5.451 ms / 5.957 ms = 91.51%
Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.39$

NOTE:

For IEEE 802.11b:

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 2kHz.

For IEEE 802.11g:

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1kHz.

For IEEE 802.11n(HT20):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 200Hz.

For IEEE 802.11n(HT40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 200Hz.

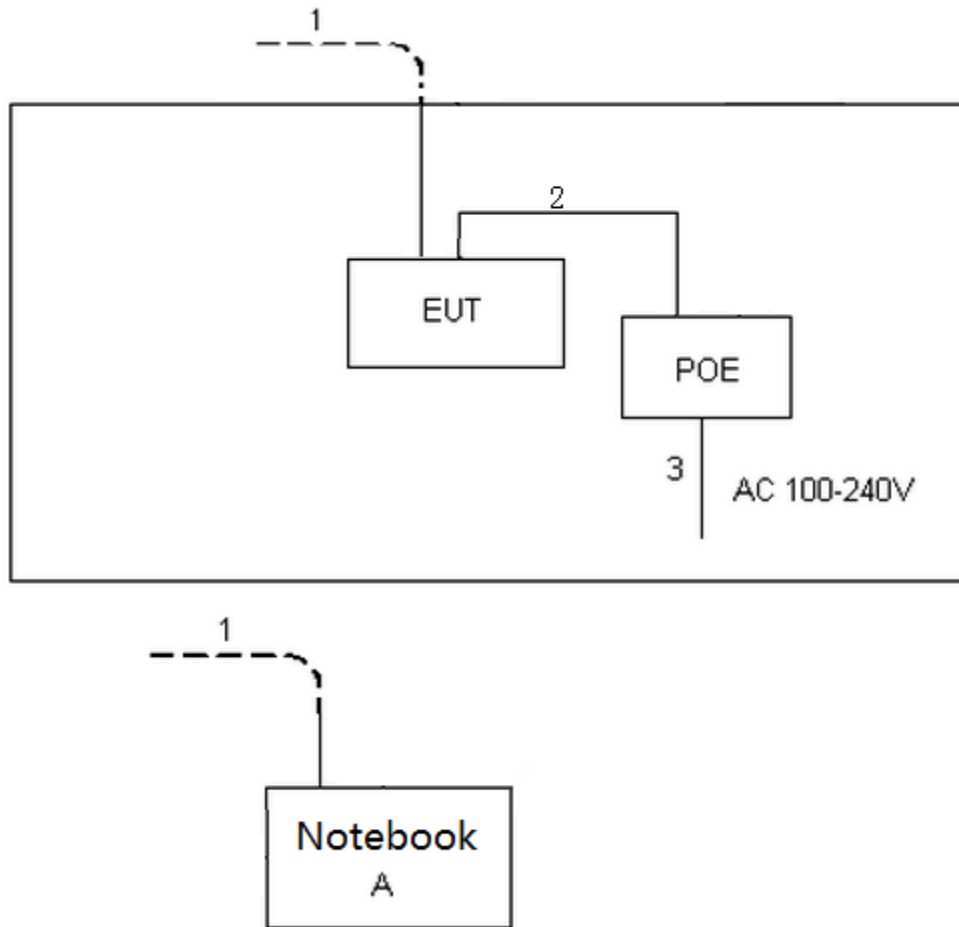
For IEEE 802.11ax(HE20):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 200Hz..

For IEEE 802.11ax(HE40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 200Hz..

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
A	Notebook	Dell	Inspiron 15-7559	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	RJ45 Cable	NO	NO	10m
2	RJ45 Cable	NO	NO	1m
3	AC Cable	NO	NO	1.5m

3. AC POWER LINE CONDUCTED EMISSIONS

3.1 LIMIT

Frequency of Emission (MHz)	Limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

NOTE:

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

3.2 TEST PROCEDURE

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

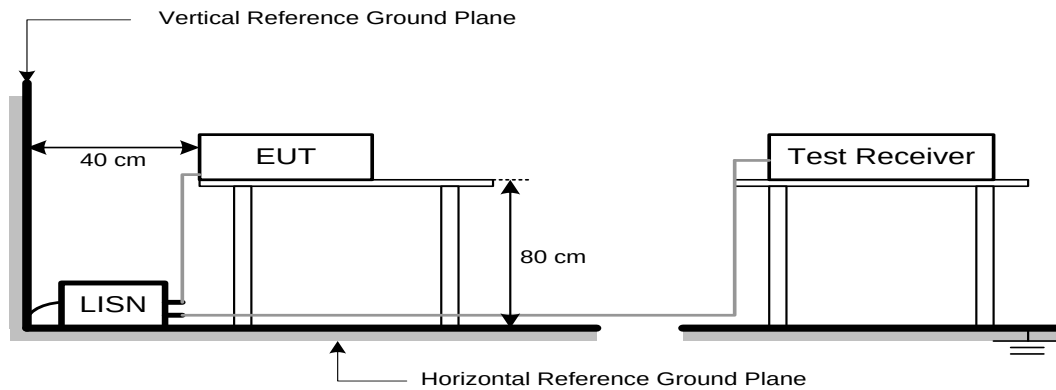
The following table is the setting of the receiver:

Receiver Parameters	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.3 DEVIATION FROM TEST STANDARD

No deviation.

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS

4.1 LIMIT

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

LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000 MHz)

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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

Frequency (MHz)	(dBuV/m at 3 m)	
	Peak	Average
Above 1000	74	54

NOTE:

- (1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

4.2 TEST PROCEDURE

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

The following table is the setting of the receiver:

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

Spectrum Parameters	Setting
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1 MHz / 3 MHz for PK value 1 MHz / 1/T Hz for AVG value

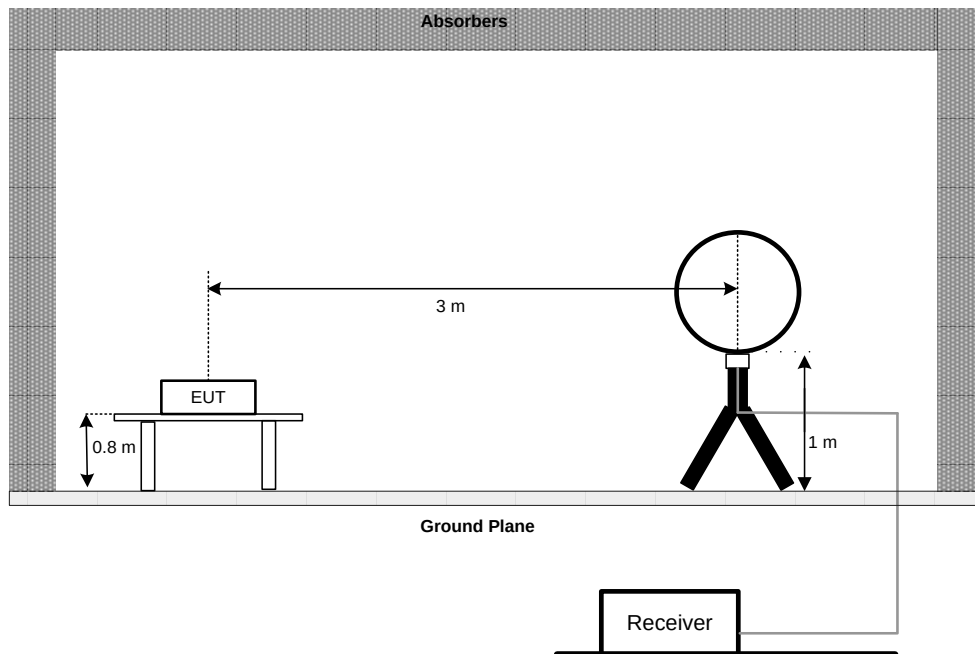
Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector
Start ~ Stop Frequency	1 GHz~26.5 GHz for PK/AVG detector

4.3 DEVIATION FROM TEST STANDARD

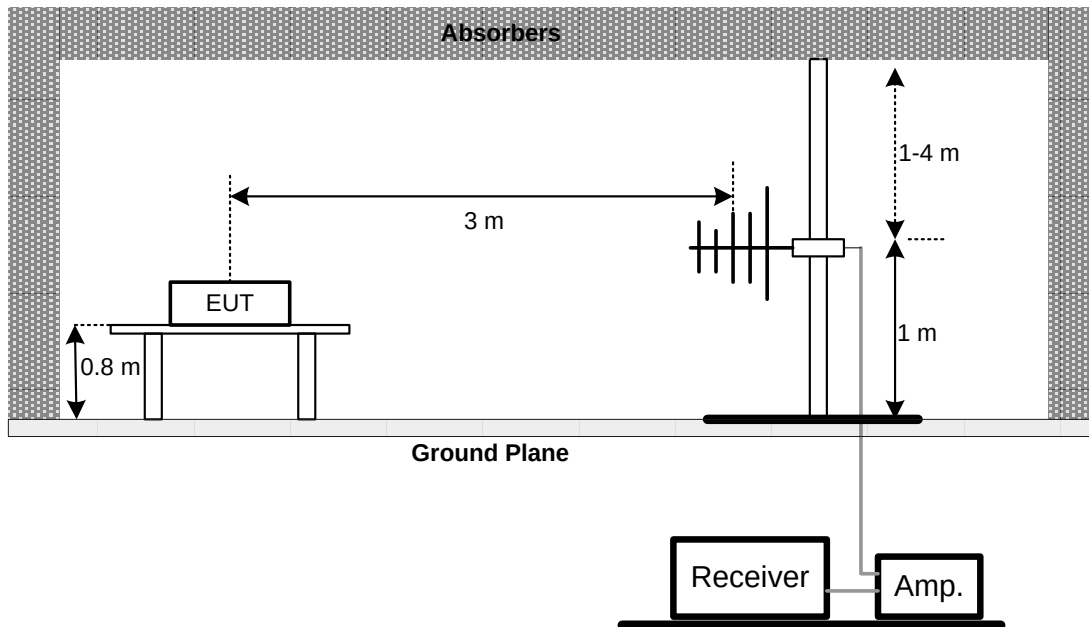
No deviation.

4.4 TEST SETUP

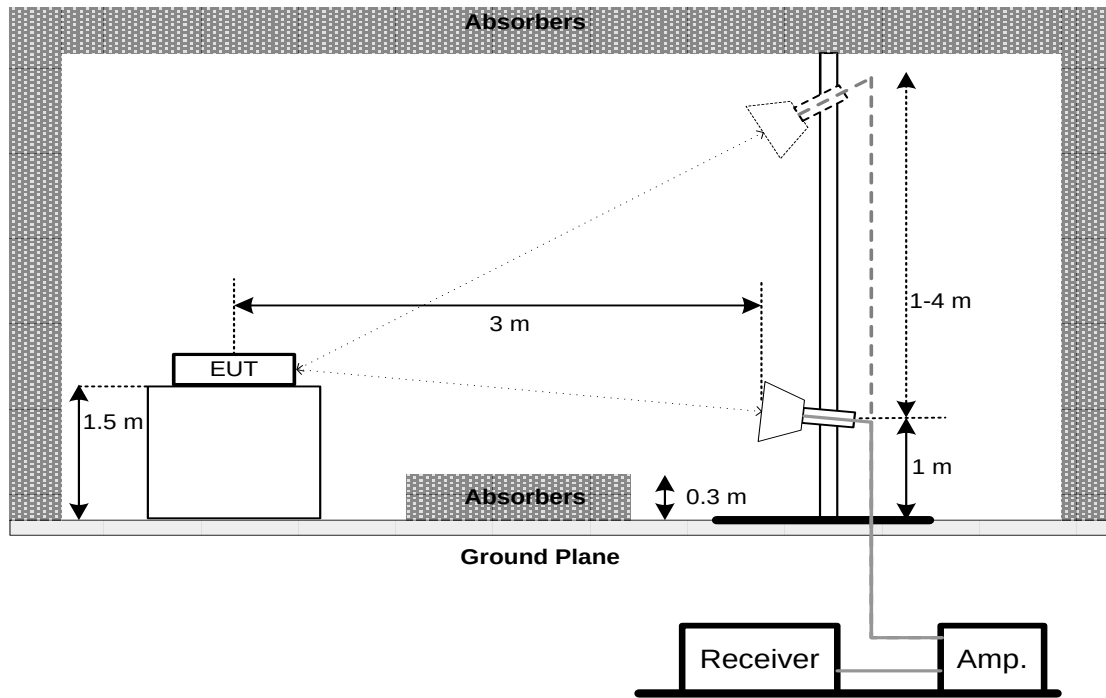
9 kHz to 30 MHz



30 MHz to 1 GHz



Above 1 GHz



4.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B.

Remark:

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

4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

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

5. BANDWIDTH

5.1 LIMIT

Section	Test Item	Limit
FCC 15.247(a)(2)	6 dB Bandwidth	Minimum 500 kHz
	99% Emission Bandwidth	-

5.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

For 6 dB Bandwidth:

Spectrum Parameters	Setting
Span Frequency	> Measurement Bandwidth
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

For 99% Emission Bandwidth:

Spectrum Parameters	Setting
Span Frequency	Between 1.5 times and 5.0 times the OBW
RBW	300 kHz For 20MHz 1 MHz For 40MHz
VBW	1 MHz For 20MHz 3 MHz For 40MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.

6. MAXIMUM OUTPUT POWER

6.1 LIMIT

Section	Test Item	Limit
FCC 15.247(b)(3)	Maximum Output Power	1.0000 Watt or 30.00 dBm

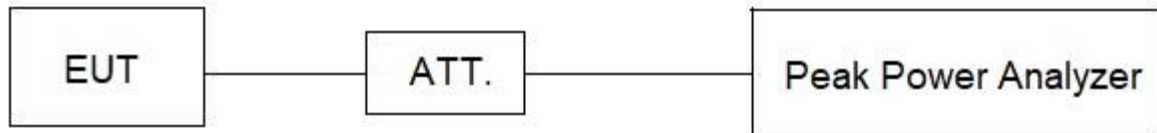
6.2 TEST PROCEDURE

- The EUT was directly connected to the peak power analyzer and antenna output port as show in the block diagram below.
- The maximum conducted output power was performed in accordance with method 11.9.2.3.1 (for AVG power) of ANSI C63.10-2013 and FCC KDB 662911 D01 v02r01 Multiple Transmitter Output.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX F.

7. CONDUCTED SPURIOUS EMISSIONS

7.1 LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak Output Power limits. If the transmitter complies with the Output Power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required.

7.2 TEST PROCEDURE

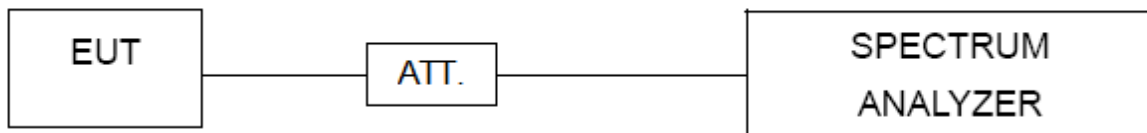
- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Start Frequency	30 MHz
Stop Frequency	26.5 GHz
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX G.

8. POWER SPECTRAL DENSITY

8.1 LIMIT

Section	Test Item	Limit
FCC 15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)

8.2 TEST PROCEDURE

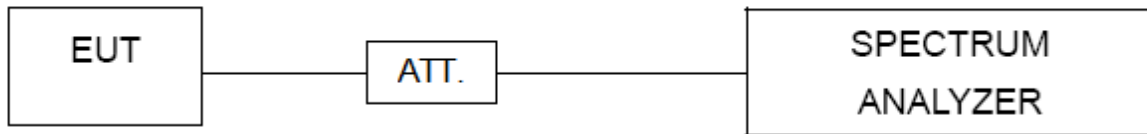
- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	25 MHz (20 MHz) / 60 MHz (40 MHz)
RBW	3 kHz
VBW	10 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX H.

9. MEASUREMENT INSTRUMENTS LIST

No.	Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Receiver	Rohde&Schwarz	ESCI	1166.5950.03	2023/10/14
2	AMN	Rohde&Schwarz	ENV216	3560.6550.05	2023/10/14
3	AMN	Schwarzbeck	NSLK8127	#829	2023/10/14
4	ECSI RF IN RF Cable	Rohde&Schwarz	RP-X1	N/A	2023/10/14
5	ECSI RF IN RF Cable	Rohde&Schwarz	Sapre sm	N/A	2023/10/14
6	EMI Receiver	Rohde&Schwarz	ESR7	102013	2023/10/14
7	Spectrum analyzer	Rohde&Schwarz	FSV30	103741	2023/10/17
8	Spectrum analyzer	KEYSIGHT	N9010A-44	MY51440158	2023/10/17
9	Log periodic antenna	Schwarzbeck	VULB 9163	VULB 9163-361	2023/10/15
10	Loop Antenna	Schwarzbeck	FMZB1519 B	00029	2023/07/03
11	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-1201	2023/10/15
12	Horn Antenna	Schwarzbeck	BBHA 9170	9170#685	2023/10/15
13	Preamplifier	Schwarzbeck	BBV9745	#78	2023/10/15
14	Preamplifier	Schwarzbeck	BBV9721	9721-019	2023/10/15
15	Preamplifier	/	LNA 0920N	2014	2023/10/15
16	Preamplifier	RF System/UK	TRLA-0101 80G50B	22062101	2023/07/20
17	ECSI RF IN RF Cable	Rohde&Schwarz	AP-X1	N/A	2023/10/15
18	ECSI RF IN RF Cable	HAOXUN	Z-108	N/A	2023/10/15
19	RF Cable	ZDECL	ZT40-2.92J -2.92J-6M	18124358	2023/07/20
20	Spectrum Analyzer	Agilent	N9010A	MY51440158	2023/10/17
21	Spectrum Analyzer	Agilent	N9010A	MY52221119	2023/10/17
22	EMI Receiver	Rohde&Schwarz	ESU	100184	2023/07/20
23	Temp&Humidity Recorder	Anymetre	JR900	N/A	2023/10/16
24	Power Collection Unit	Tonscend	JS0806-2	188060134	2023/10/16
25	Temp&Humidity Chamber	ETOMA	NTH1100-3 0A	16080628	2023/10/16
26	Filter	STI	STI15-9845	N/A	N/A
27	Filter	STI	5.1G	N/A	N/A
28	Filter	STI	STI15-9845	N/A	N/A
29	Testing Software	EZ-EMC	TW-03A2	N/A	N/A

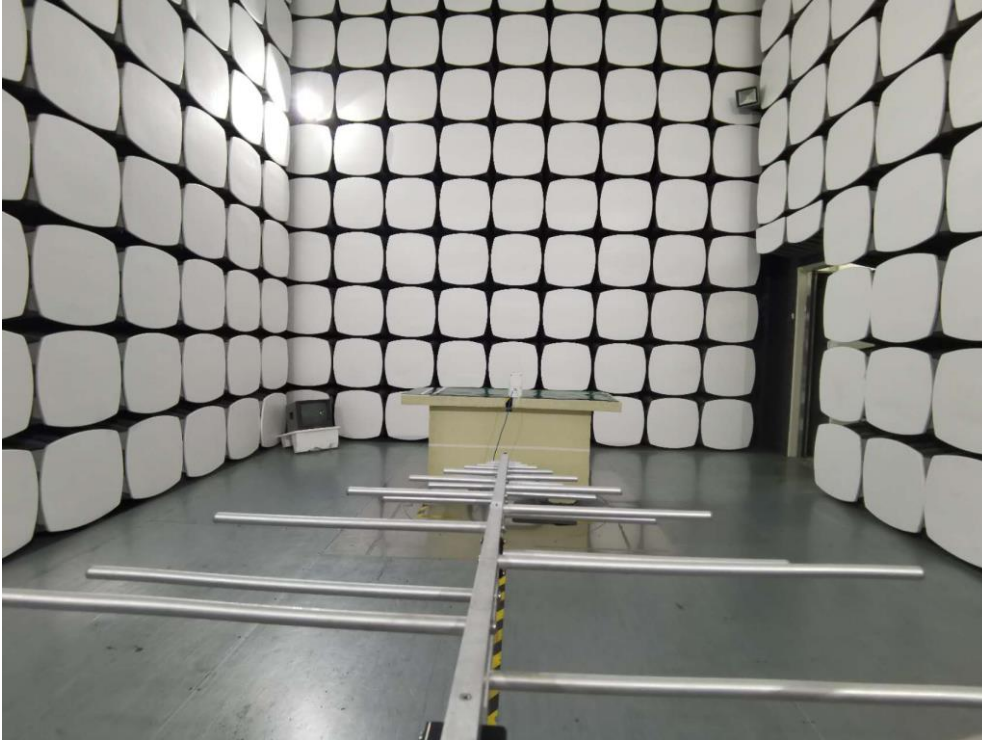
Remark: "N/A" denotes no model name, serial no. or calibration specified.

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

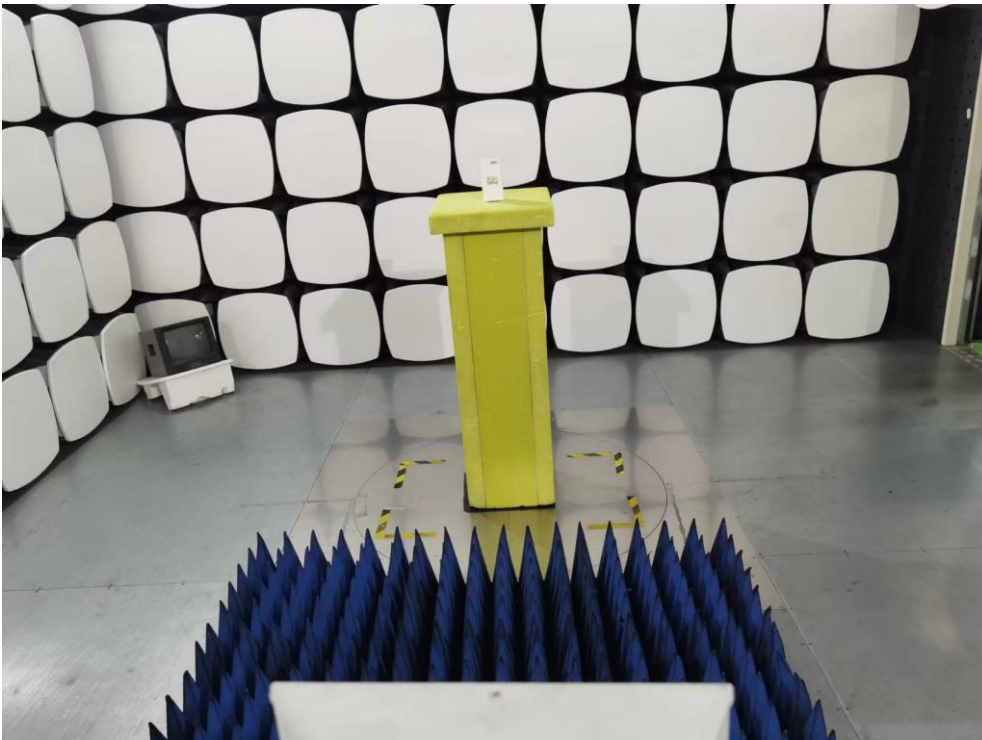
Except * item, all calibration period of equipment list is one year.

10. EUT TEST PHOTO**AC Power Line Conducted Emissions Test Photos**

**Radiated Emissions Test Photos
30 MHz to 1000 MHz**

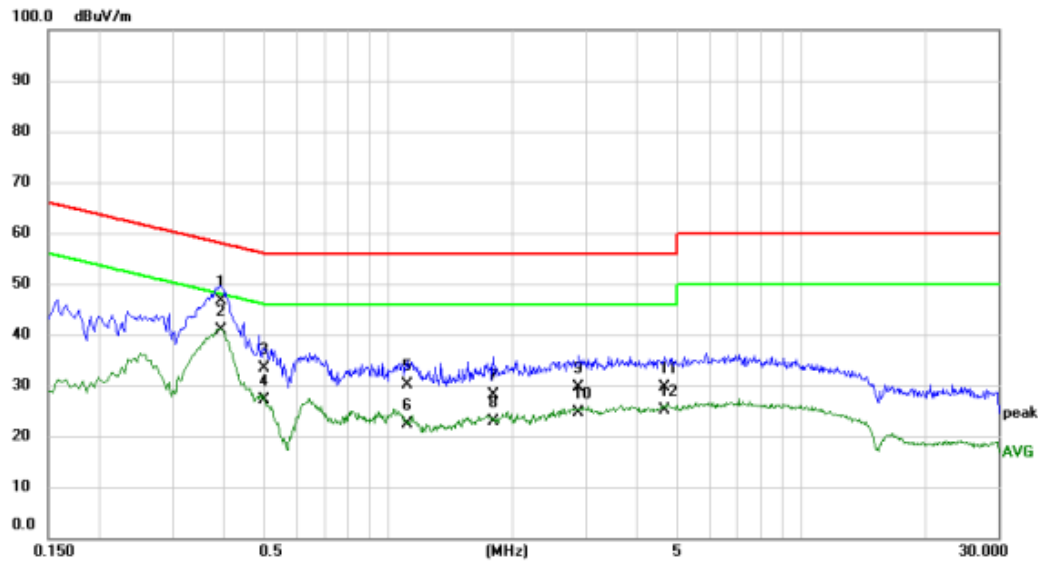


**Radiated Emissions Test Photos
Above 1GHz**



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode	TX B Mode Channel 06	Phase	Line
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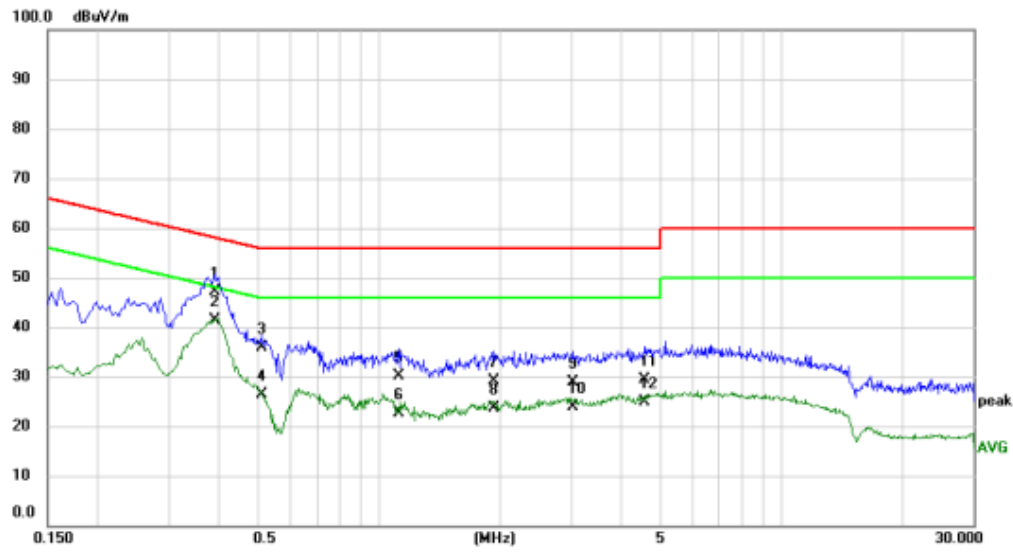
No.	Mk.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		0.3940	27.01	19.52	46.53	57.98	-11.45	QP	
2	*	0.3940	21.30	19.52	40.82	47.98	-7.16	AVG	
3		0.5020	13.73	19.53	33.26	56.00	-22.74	QP	
4		0.5020	7.63	19.53	27.16	46.00	-18.84	AVG	
5		1.1100	10.38	19.69	30.07	56.00	-25.93	QP	
6		1.1100	2.80	19.69	22.49	46.00	-23.51	AVG	
7		1.7940	8.08	19.96	28.04	56.00	-27.96	QP	
8		1.7940	2.97	19.96	22.93	46.00	-23.07	AVG	
9		2.8900	9.03	20.67	29.70	56.00	-26.30	QP	
10		2.8900	4.06	20.67	24.73	46.00	-21.27	AVG	
11		4.6540	9.39	20.36	29.75	56.00	-26.25	QP	
12		4.6540	4.88	20.36	25.24	46.00	-20.76	AVG	

REMARKS:

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

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

Test Mode	TX B Mode Channel 06	Phase	Neutral
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No. Mk.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	0.3900	27.51	19.71	47.22	58.06	-10.84	QP	
2 *	0.3900	21.74	19.71	41.45	48.06	-6.61	AVG	
3	0.5100	16.25	19.74	35.99	56.00	-20.01	QP	
4	0.5100	6.67	19.74	26.41	46.00	-19.59	AVG	
5	1.1220	10.16	19.92	30.08	56.00	-25.92	QP	
6	1.1220	2.65	19.92	22.57	46.00	-23.43	AVG	
7	1.9300	8.79	20.26	29.05	56.00	-26.95	QP	
8	1.9300	3.43	20.26	23.69	46.00	-22.31	AVG	
9	3.0340	8.64	20.23	28.87	56.00	-27.13	QP	
10	3.0340	3.63	20.23	23.86	46.00	-22.14	AVG	
11	4.5780	9.07	20.35	29.42	56.00	-26.58	QP	
12	4.5780	4.47	20.35	24.82	46.00	-21.18	AVG	

REMARKS:

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

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

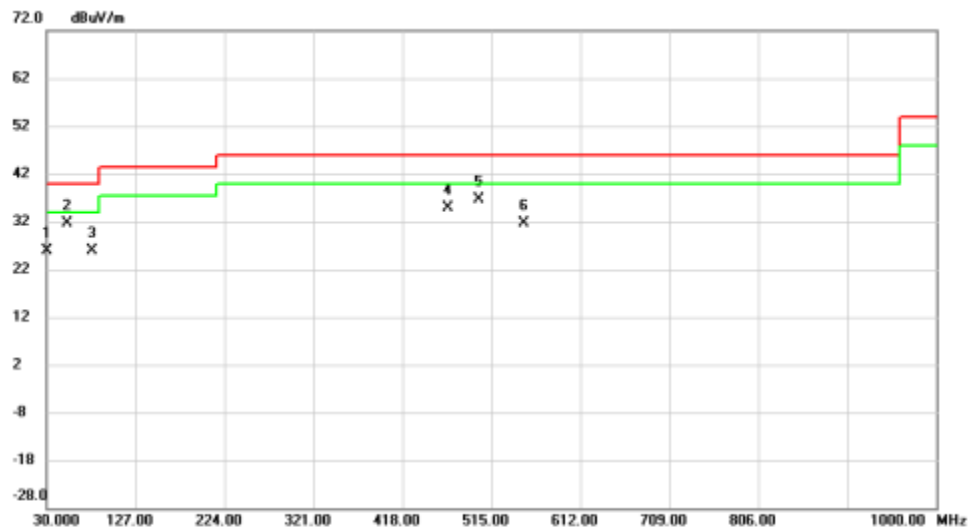
Radiated emission: 9kHz-30MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode	TX B Mode Channel 06	Polarization	Vertical
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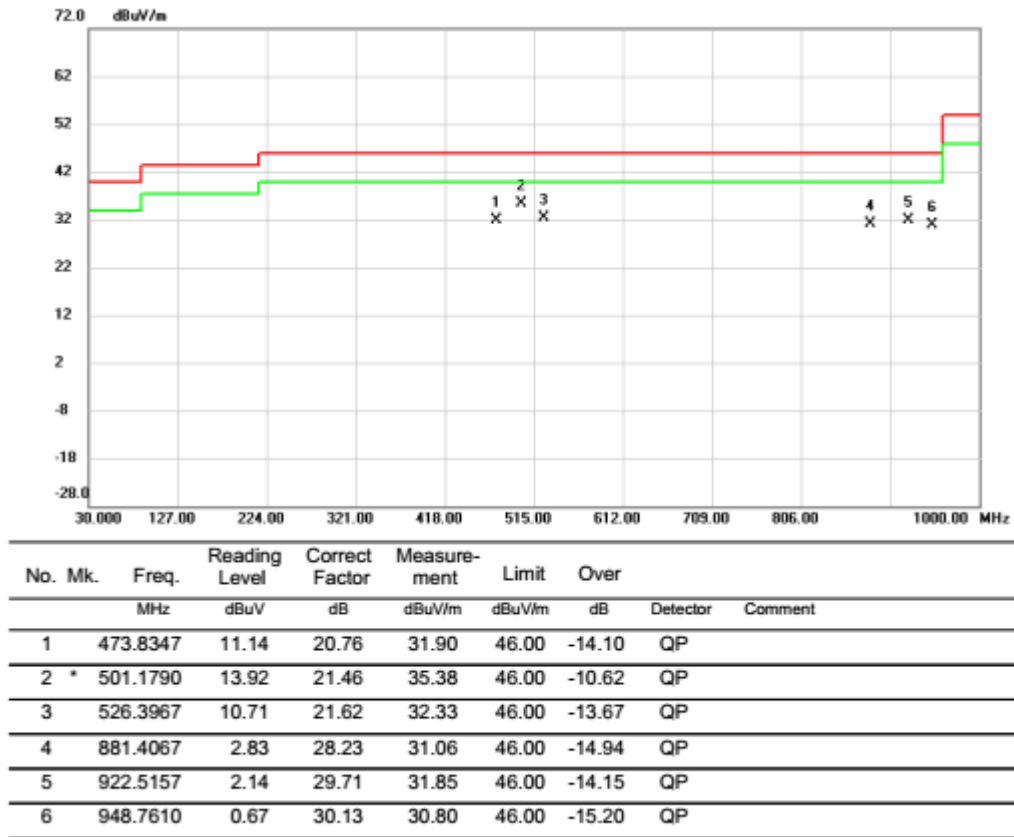
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	31.2893	11.51	14.26	25.77	40.00	-14.23	QP	
2 *	52.5753	17.10	14.61	31.71	40.00	-8.29	QP	
3	79.2426	11.19	14.74	25.93	40.00	-14.07	QP	
4	467.2350	14.11	20.70	34.81	46.00	-11.19	QP	
5	501.1790	15.25	21.46	36.71	46.00	-9.29	QP	
6	550.9480	9.80	21.92	31.72	46.00	-14.28	QP	

REMARKS:

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

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

Test Mode	TX B Mode Channel 06	Polarization	Horizontal
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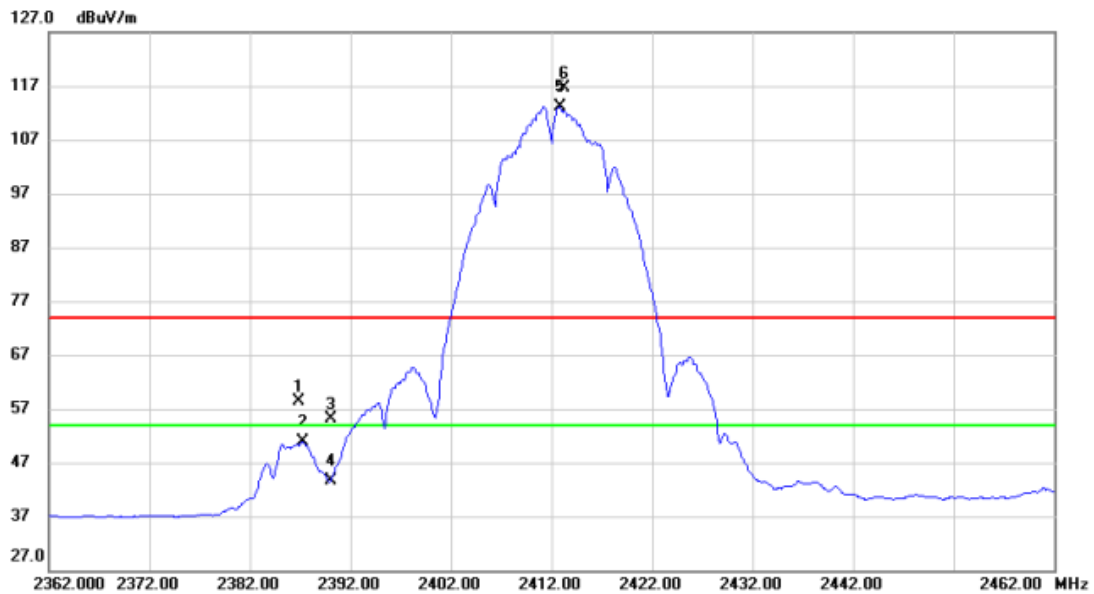


REMARKS:

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

APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ

Test Mode	TX B Mode 2412 MHz	Polarization	Vertical
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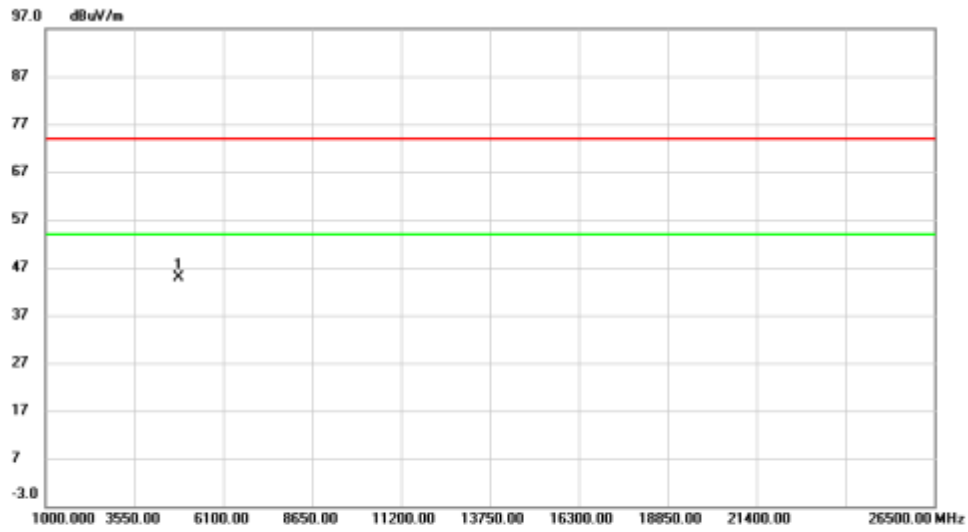


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	2386.800	25.23	33.26	58.49	74.00	-15.51	peak	
2	2387.300	17.62	33.26	50.88	54.00	-3.12	AVG	
3	2390.000	21.89	33.27	55.16	74.00	-18.84	peak	
4	2390.000	10.26	33.27	43.53	54.00	-10.47	AVG	
5 *	2412.800	79.90	33.35	113.25	54.00	59.25	AVG	No Limit
6 X	2413.300	83.31	33.35	116.66	74.00	42.66	peak	No Limit

REMARKS:

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

Test Mode	TX B Mode 2412 MHz	Polarization	Horizontal
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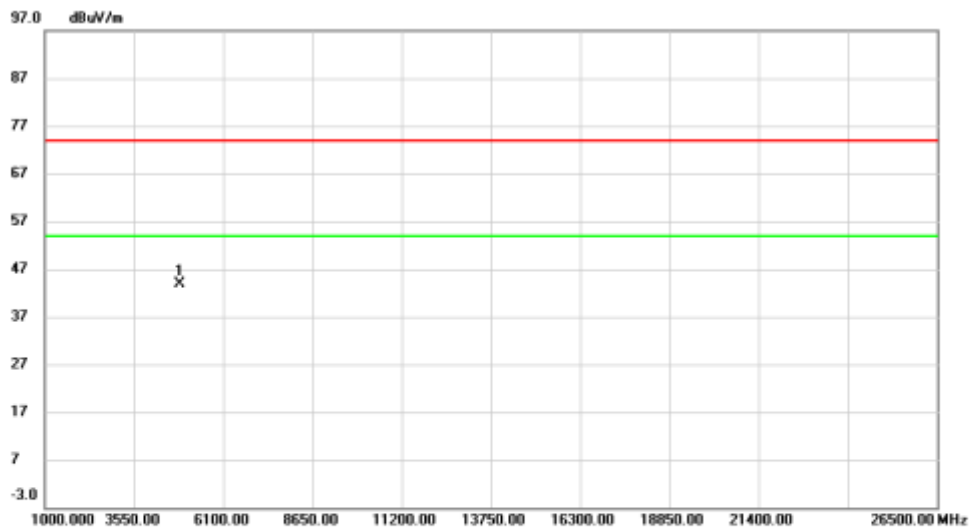


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4824.260	58.84	-14.02	44.82	74.00	-29.18	peak	

REMARKS:

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

Test Mode	TX B Mode 2437 MHz	Polarization	Horizontal
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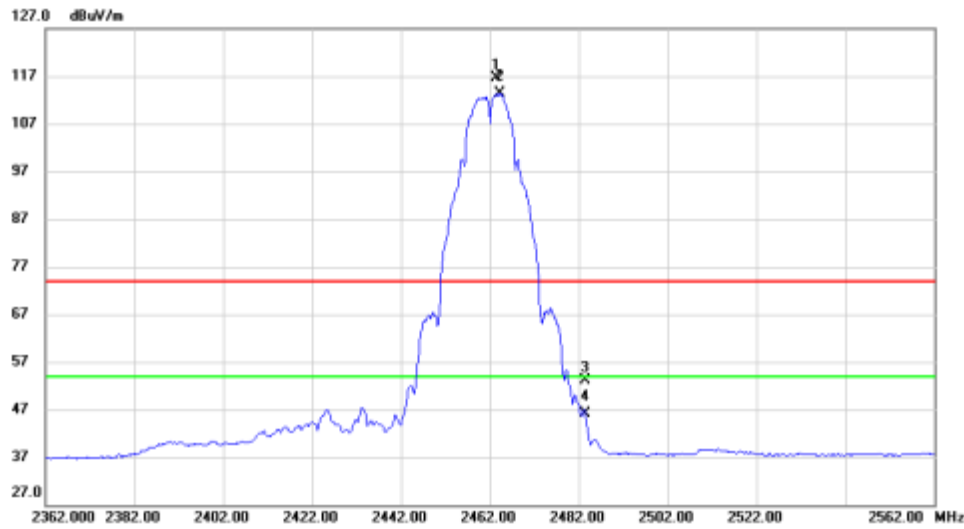


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4874.260	57.68	-13.77	43.91	74.00	-30.09	peak	

REMARKS:

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

Test Mode	TX B Mode 2462 MHz	Polarization	Vertical
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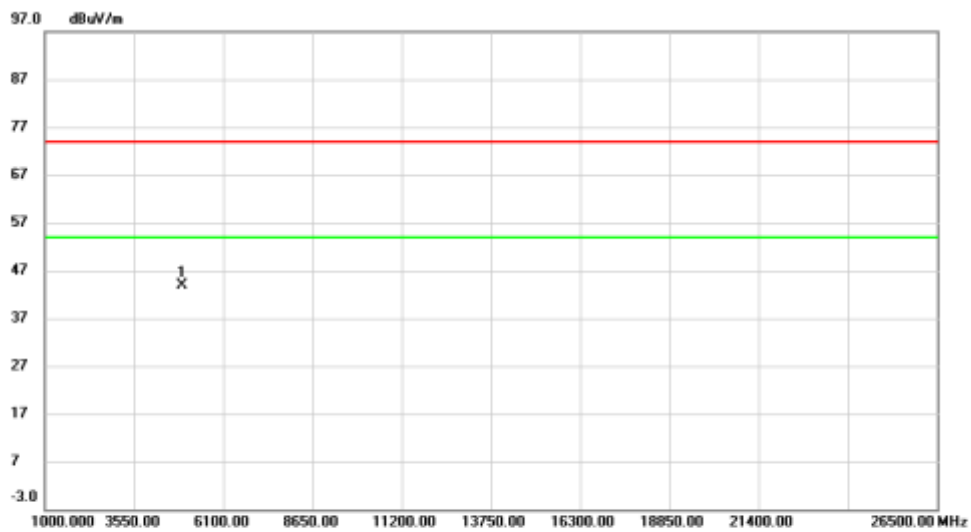


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2463.600	83.14	33.51	116.65	74.00	42.65	peak	No Limit
2	*	2464.200	79.93	33.51	113.44	54.00	59.44	AVG	No Limit
3		2483.500	19.59	33.58	53.17	74.00	-20.83	peak	
4		2483.500	12.50	33.58	46.08	54.00	-7.92	AVG	

REMARKS:

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

Test Mode	TX B Mode 2462 MHz	Polarization	Horizontal
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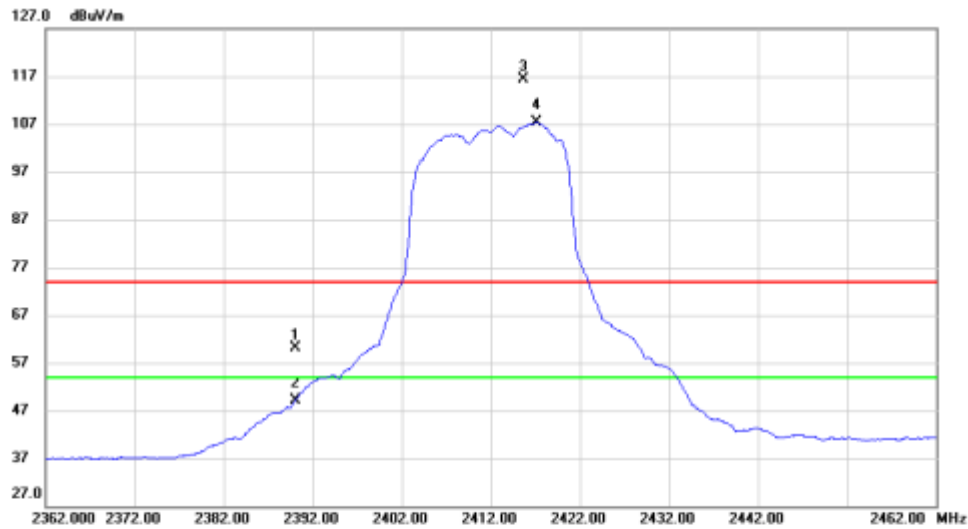


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1 *	4924.580	57.40	-13.52	43.88	74.00	-30.12	peak	

REMARKS:

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

Test Mode	TX G Mode 2412 MHz	Polarization	Vertical
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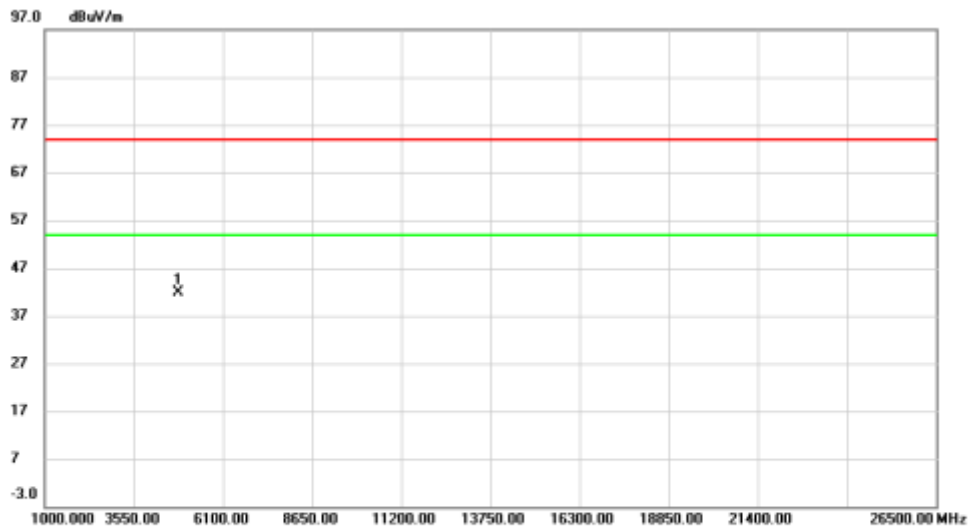


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	26.80	33.27	60.07	74.00	-13.93	peak	
2		2390.000	15.77	33.27	49.04	54.00	-4.96	AVG	
3	X	2415.700	82.90	33.36	116.26	74.00	42.26	peak	No Limit
4	*	2417.200	74.10	33.36	107.46	54.00	53.46	AVG	No Limit

REMARKS:

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

Test Mode	TX G Mode 2412 MHz	Polarization	Horizontal
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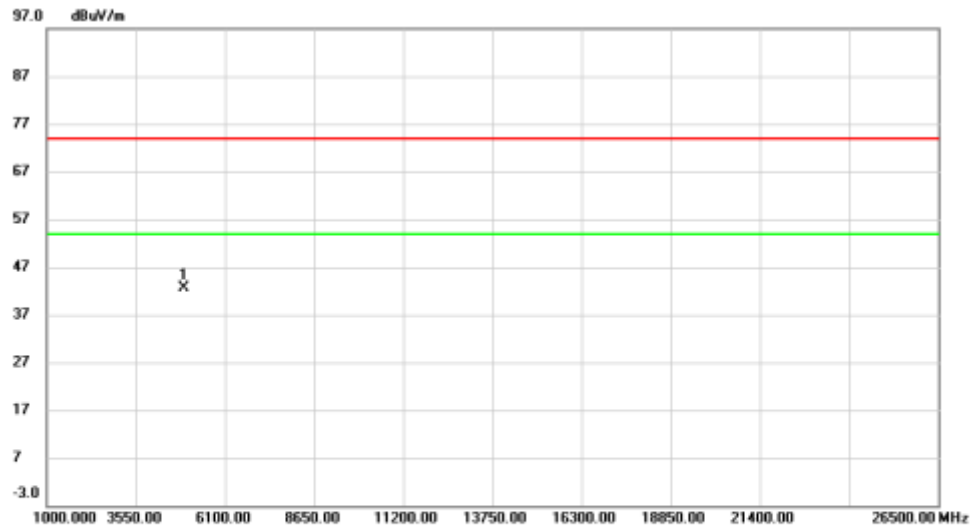


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4824.870	55.95	-14.02	41.93	74.00	-32.07	peak	

REMARKS:

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

Test Mode	TX G Mode 2437 MHz	Polarization	Horizontal
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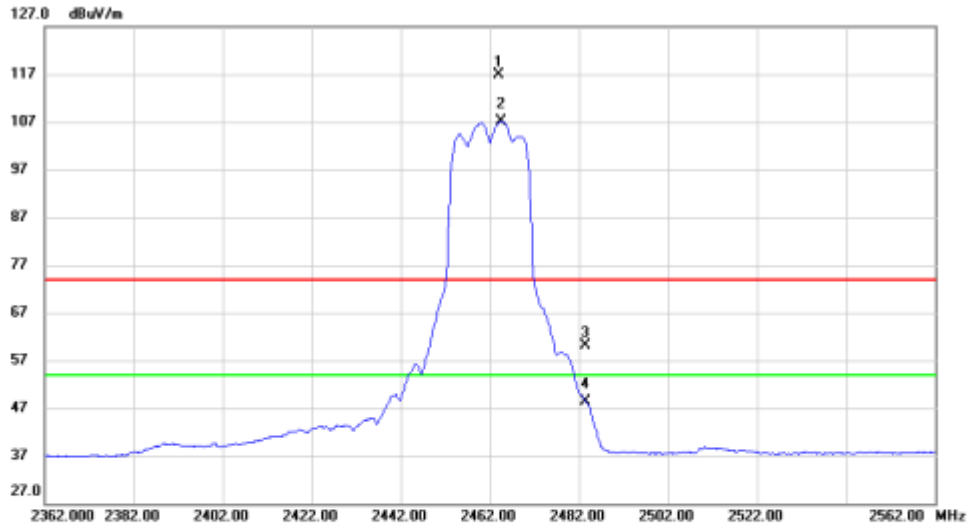


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4925.000	56.17	-13.52	42.65	74.00	-31.35	peak	

REMARKS:

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

Test Mode	TX G Mode 2462 MHz	Polarization	Vertial
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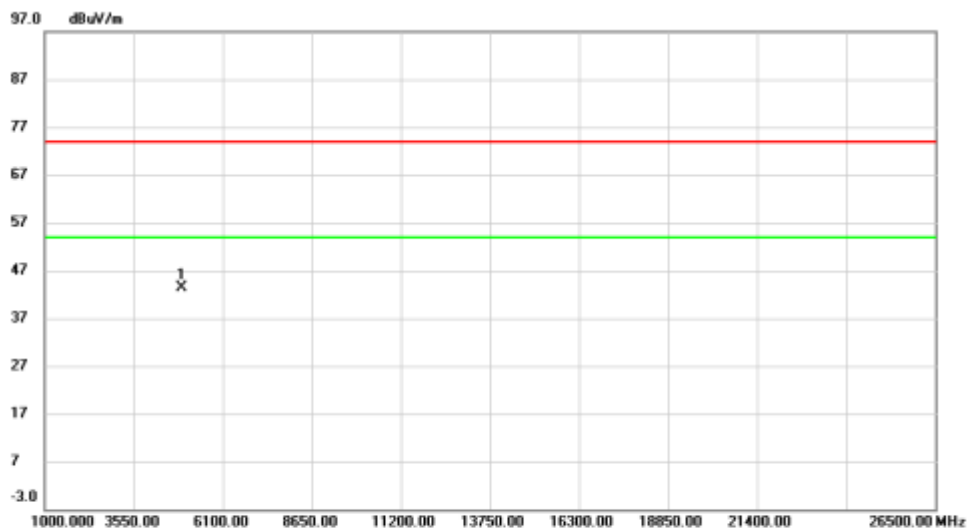


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2464.000	83.28	33.51	116.79	74.00	42.79	peak	No Limit
2	*	2464.400	73.67	33.51	107.18	54.00	53.18	AVG	No Limit
3		2483.500	26.66	33.58	60.24	74.00	-13.76	peak	
4		2483.500	14.82	33.58	48.40	54.00	-5.60	AVG	

REMARKS:

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

Test Mode	TX G Mode 2462 MHz	Polarization	Horizontal
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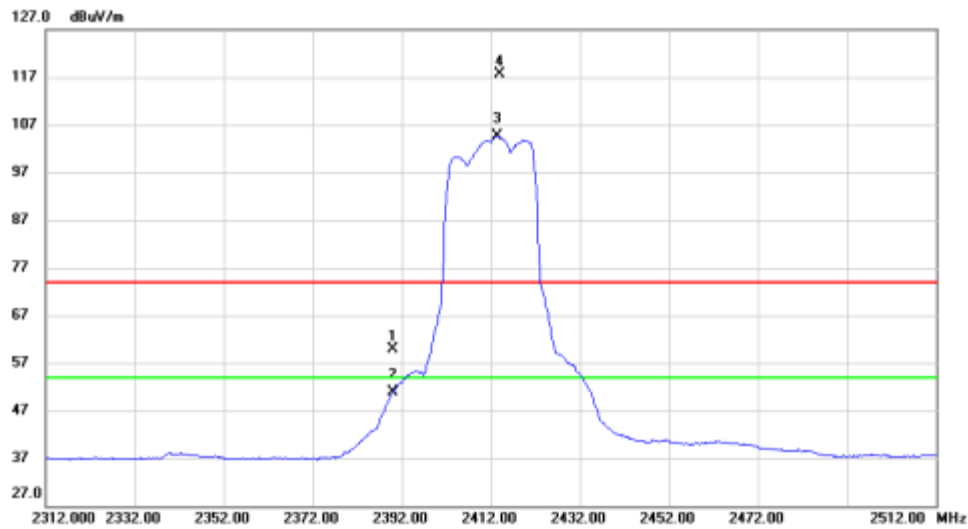


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4924.270	56.83	-13.52	43.31	74.00	-30.69	peak	

REMARKS:

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

Test Mode	TX AX(HE20) Mode 2412 MHz	Polarization	Vertical
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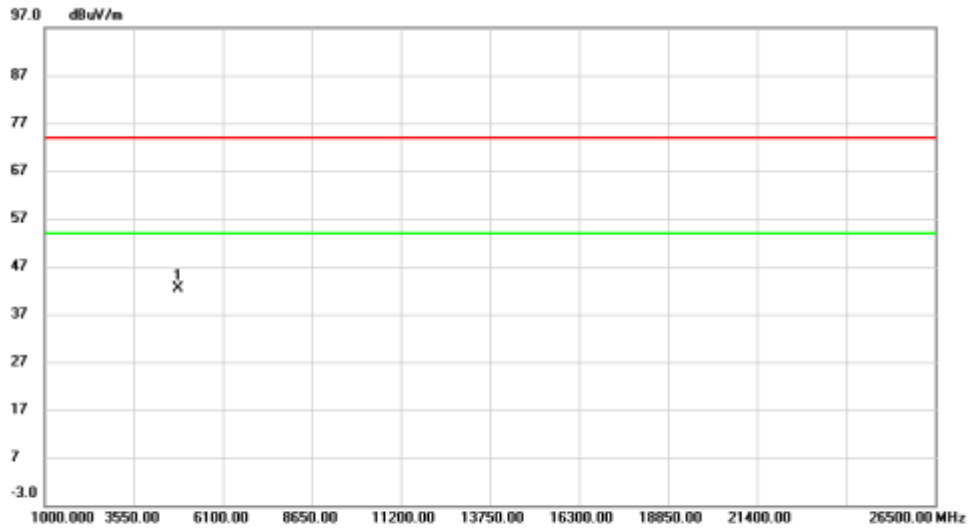
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	26.50	33.27	59.77	74.00	-14.23	peak	
2		2390.000	17.50	33.27	50.77	54.00	-3.23	AVG	
3	*	2413.600	71.31	33.35	104.66	54.00	50.66	AVG	No Limit
4	X	2414.000	84.34	33.35	117.69	74.00	43.69	peak	No Limit

REMARKS:

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

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

Test Mode	TX AX(HE20) Mode 2412 MHz	Polarization	Horizontal
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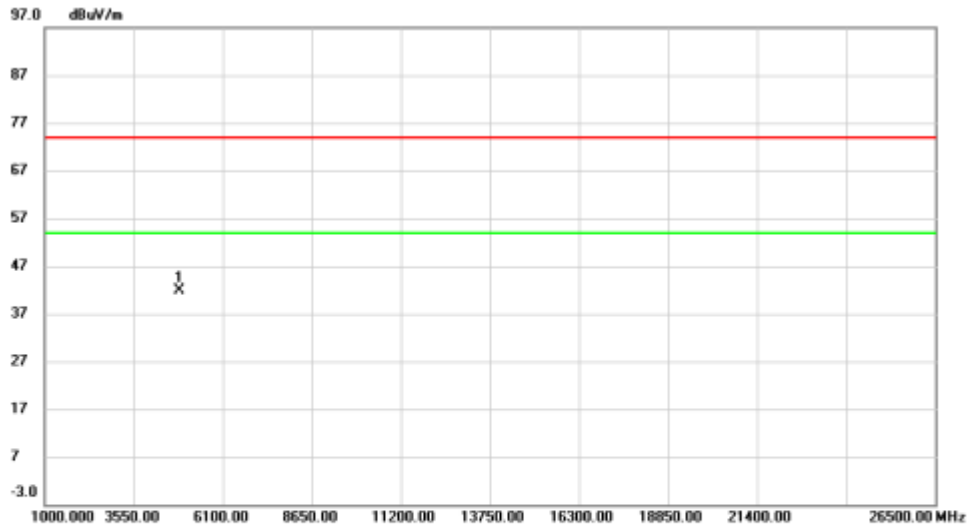


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4824.260	56.48	-14.02	42.46	74.00	-31.54	peak	

REMARKS:

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

Test Mode	TX AX(HE20) Mode 2437 MHz	Polarization	Horizontal
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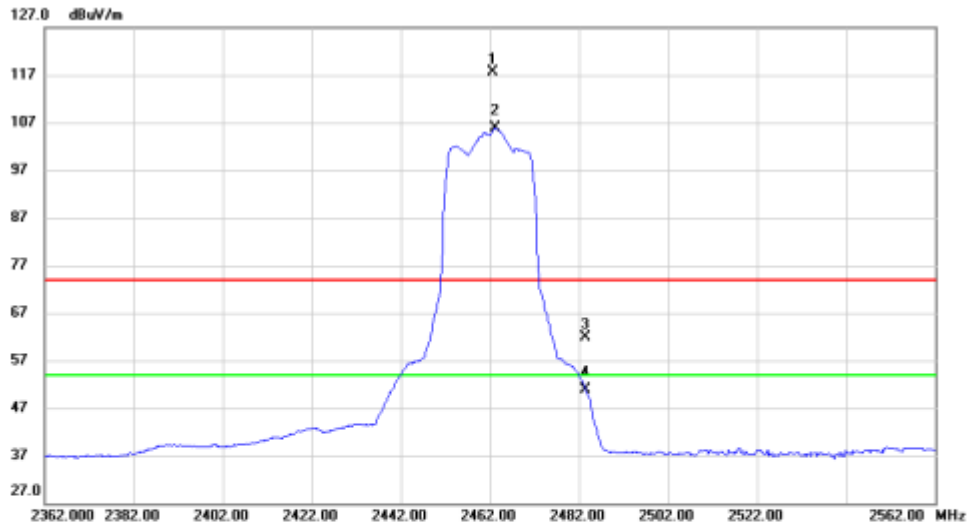


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4874.620	55.77	-13.77	42.00	74.00	-32.00	peak	

REMARKS:

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

Test Mode	TX AX(HE20) Mode 2462 MHz	Polarization	Vertical
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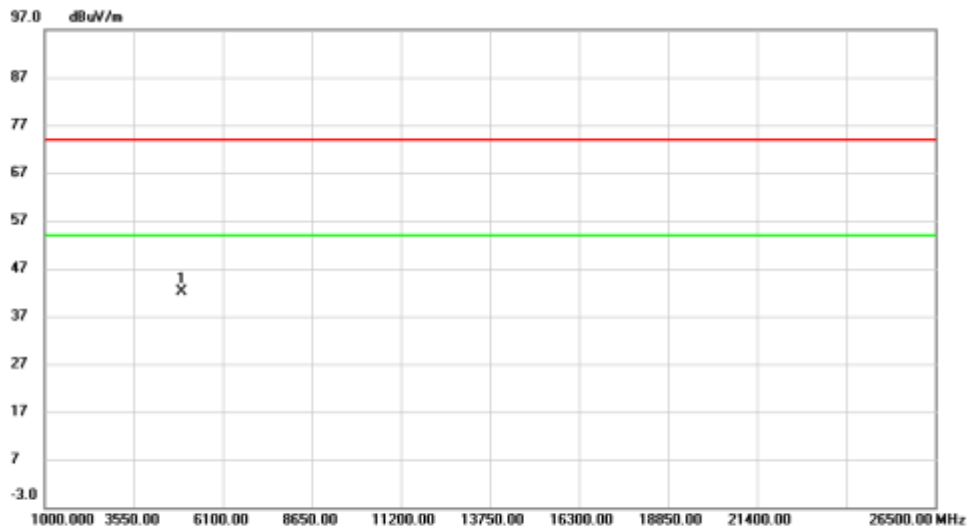
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2462.600	84.13	33.51	117.64	74.00	43.64	peak	No Limit
2	*	2463.200	72.46	33.51	105.97	54.00	51.97	AVG	No Limit
3		2483.500	28.39	33.58	61.97	74.00	-12.03	peak	
4		2483.500	17.26	33.58	50.84	54.00	-3.16	AVG	

REMARKS:

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

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

Test Mode	TX AX(HE20) Mode 2462 MHz	Polarization	Horizontal
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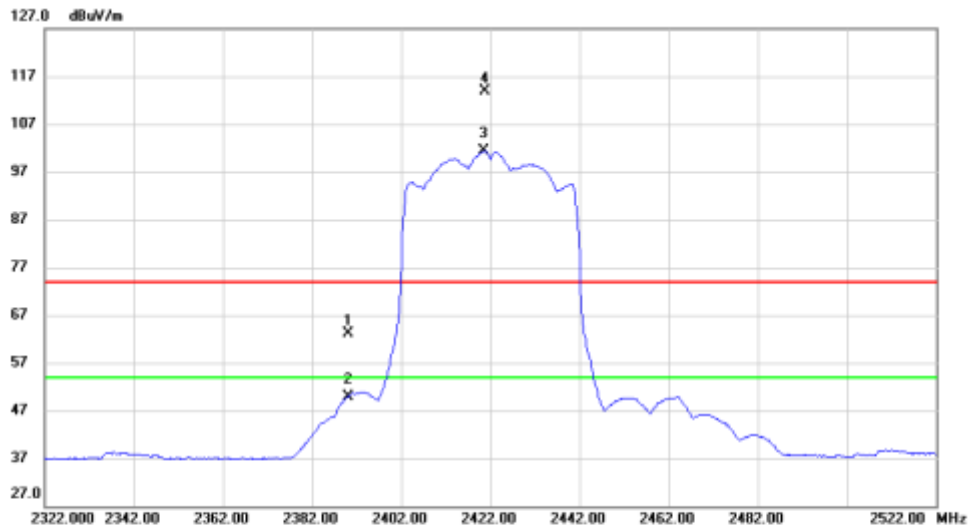


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4925.000	55.65	-13.52	42.13	74.00	-31.87	peak	

REMARKS:

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

Test Mode	TX AX(HE40) Mode 2422 MHz	Polarization	Vertical
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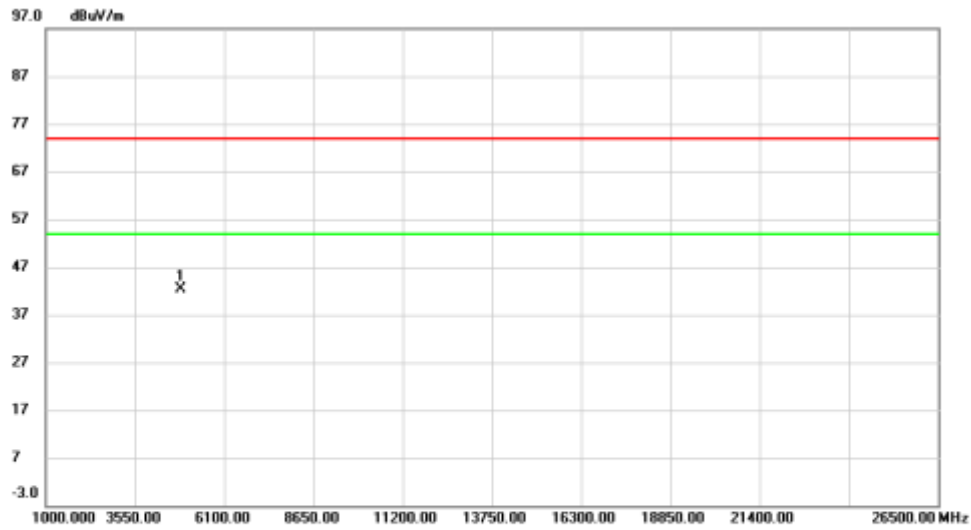


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	29.81	33.27	63.08	74.00	-10.92	peak	
2		2390.000	16.71	33.27	49.98	54.00	-4.02	AVG	
3	*	2420.600	68.06	33.37	101.43	54.00	47.43	AVG	No Limit
4	X	2420.800	80.41	33.37	113.78	74.00	39.78	peak	No Limit

REMARKS:

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

Test Mode	TX AX(HE40) Mode 2422 MHz	Polarization	Horizontal
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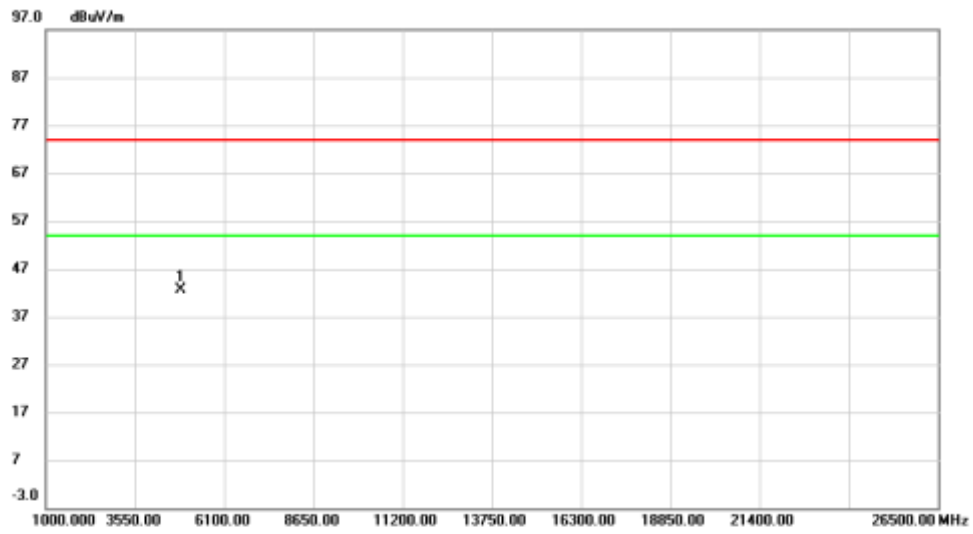


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4844.610	56.27	-13.92	42.35	74.00	-31.65	peak	

REMARKS:

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

Test Mode	TX AX(HE40) Mode 2437 MHz	Polarization	Horizontal
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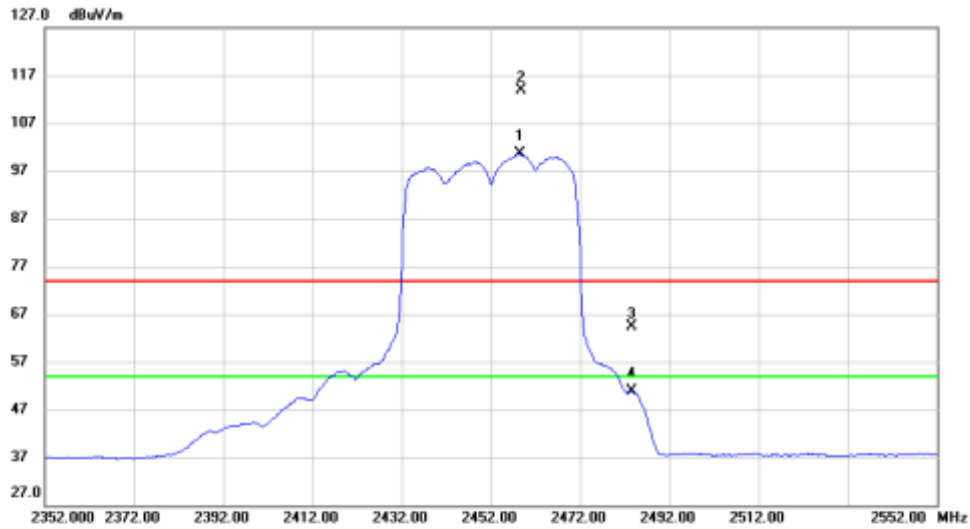


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4874.230	56.47	-13.77	42.70	74.00	-31.30	peak	

REMARKS:

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

Test Mode	TX AX(HE40) Mode 2452 MHz	Polarization	Vertial
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No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2458.400	67.10	33.49	100.59	54.00	46.59	AVG	No Limit
2	X	2458.790	80.48	33.50	113.98	74.00	39.98	peak	No Limit
3		2483.500	30.79	33.58	64.37	74.00	-9.63	peak	
4		2483.500	17.26	33.58	50.84	54.00	-3.16	AVG	

REMARKS:

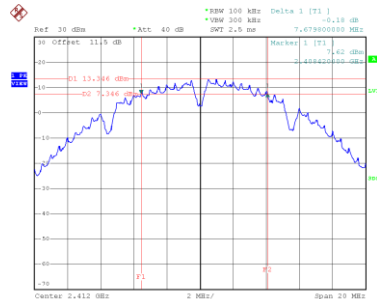
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

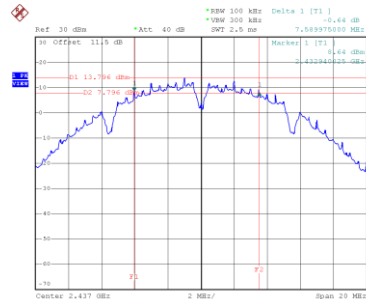
Test Mode	TX B Mode
-----------	-----------

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	7.680	13.120	0.5	Complies
06	2437	7.590	13.360	0.5	Complies
11	2462	7.620	13.120	0.5	Complies

CH01

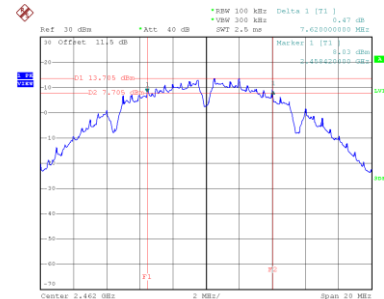


Date: 14.NOV.2022 09:16:08

CH06
6 dB Bandwidth


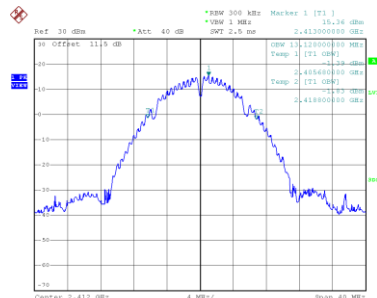
Date: 14.NOV.2022 09:12:13

CH11

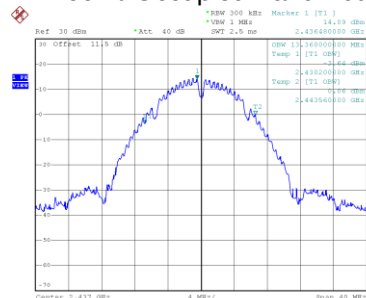


Date: 14.NOV.2022 09:13:11

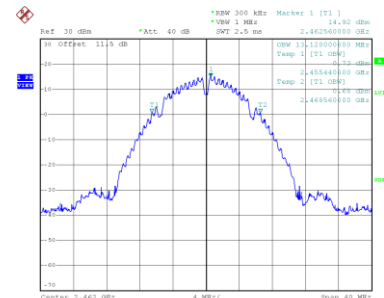
99 % Occupied Bandwidth



Date: 14.NOV.2022 09:16:16



Date: 14.NOV.2022 09:12:21

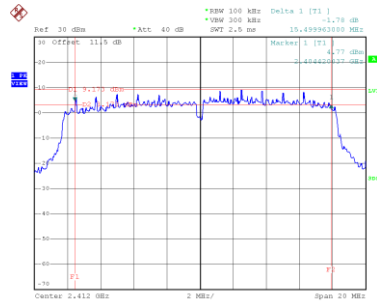


Date: 14.NOV.2022 09:13:19

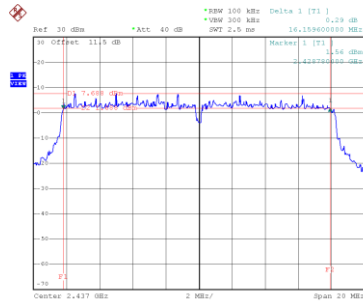
Test Mode	TX G Mode
-----------	-----------

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	15.500	16.320	0.5	Complies
06	2437	16.160	16.560	0.5	Complies
11	2462	16.030	16.480	0.5	Complies

CH01

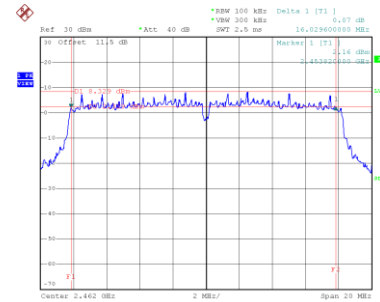


Date: 14.NOV.2022 09:39:23

CH06
6 dB Bandwidth


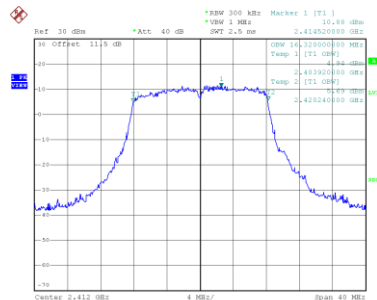
Date: 14.NOV.2022 09:48:51

CH11

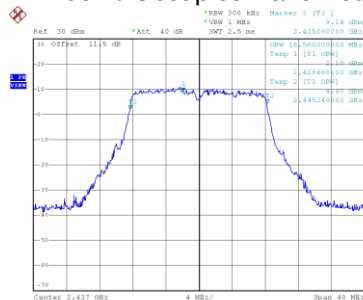


Date: 14.NOV.2022 09:52:50

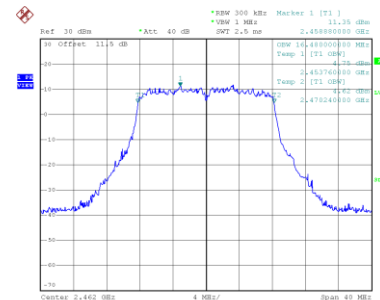
99 % Occupied Bandwidth



Date: 14.NOV.2022 09:39:30



Date: 14.NOV.2022 09:48:58

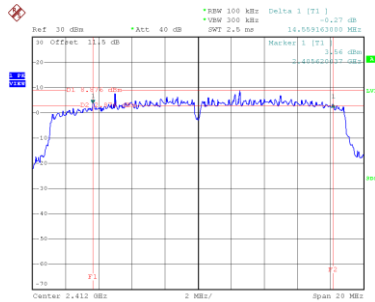


Date: 14.NOV.2022 09:52:57

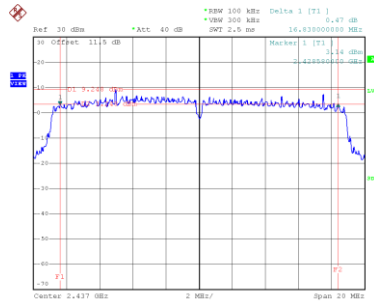
Test Mode	TX N(HT20) Mode
-----------	-----------------

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	14.559	17.520	0.5	Complies
06	2437	16.830	17.600	0.5	Complies
11	2462	15.039	17.600	0.5	Complies

CH01

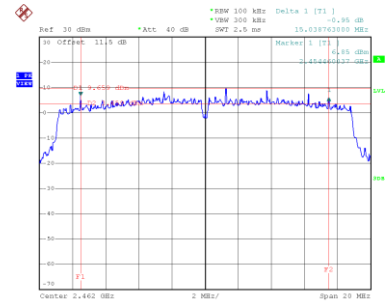


Date: 14.NOV.2022 10:02:42

CH06
6 dB Bandwidth


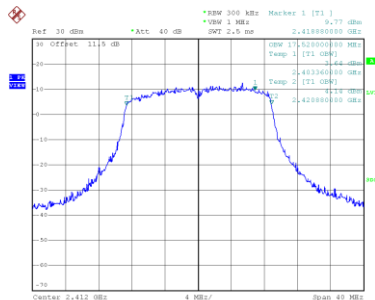
Date: 14.NOV.2022 10:18:33

CH11

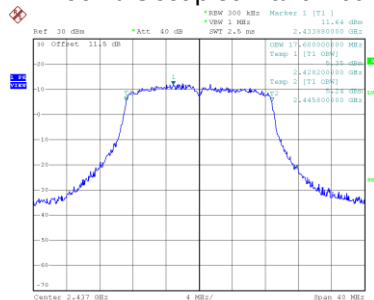


Date: 14.NOV.2022 10:20:51

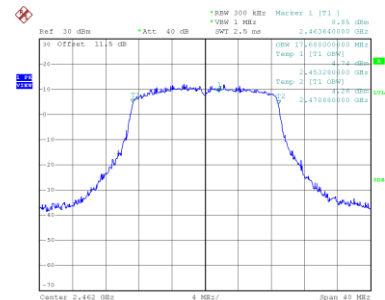
99 % Occupied Bandwidth



Date: 14.NOV.2022 10:02:49



Date: 14.NOV.2022 10:18:41

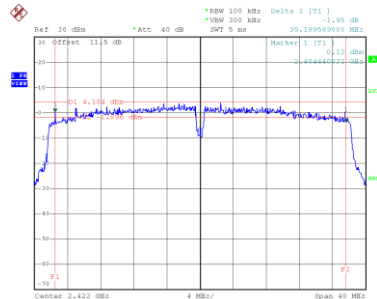


Date: 14.NOV.2022 10:20:58

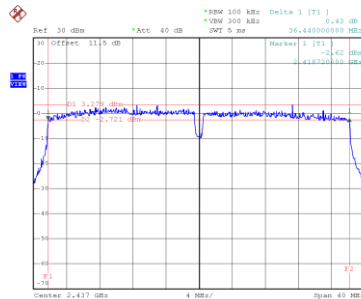
Test Mode	TX N(HT40) Mode
-----------	-----------------

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
03	2422	35.200	35.840	0.5	Complies
06	2437	36.440	36.320	0.5	Complies
09	2452	36.040	36.000	0.5	Complies

CH03

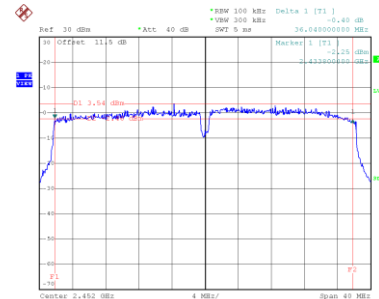


Date: 14.NOV.2022 10:31:27

CH06
6 dB Bandwidth


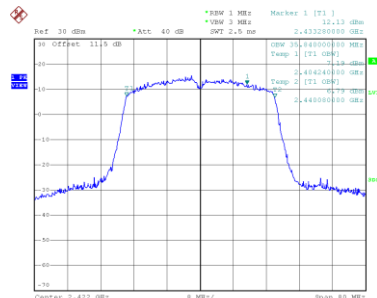
Date: 14.NOV.2022 11:08:07

CH09

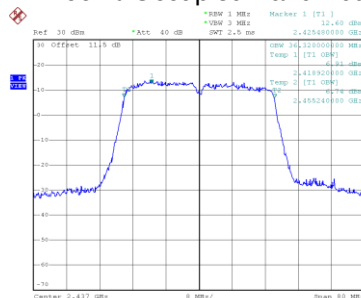


Date: 14.NOV.2022 11:15:40

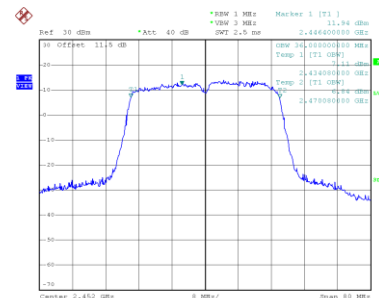
99 % Occupied Bandwidth



Date: 14.NOV.2022 10:31:34



Date: 14.NOV.2022 11:08:15

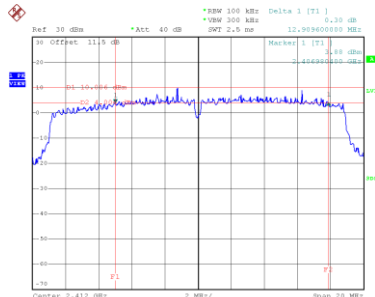


Date: 14.NOV.2022 11:15:47

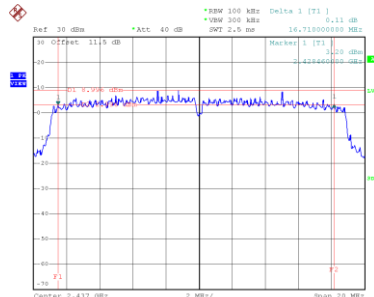
Test Mode	TX AX(HE20) Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	12.910	17.520	0.5	Complies
06	2437	16.710	17.600	0.5	Complies
11	2462	17.239	17.520	0.5	Complies

CH01

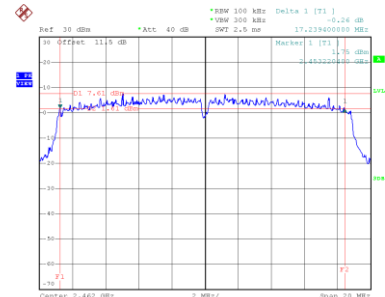


Date: 14.NOV.2022 11:17:58

CH06
6 dB Bandwidth


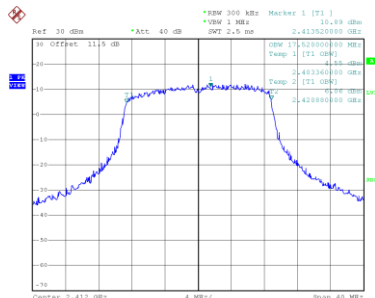
Date: 14.NOV.2022 11:28:41

CH11

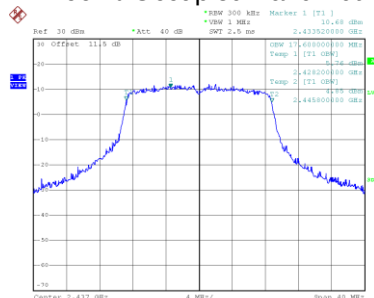


Date: 14.NOV.2022 11:30:46

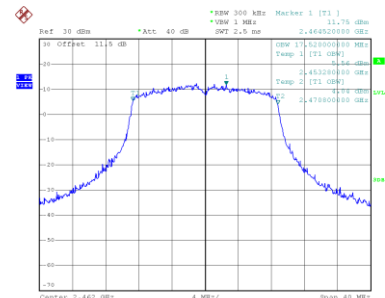
99 % Occupied Bandwidth



Date: 14.NOV.2022 11:18:05



Date: 14.NOV.2022 11:28:49

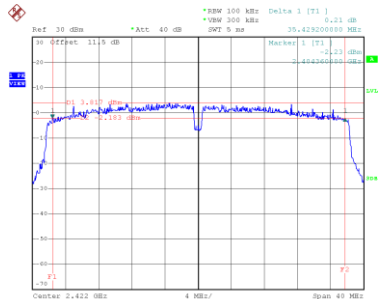


Date: 14.NOV.2022 11:30:54

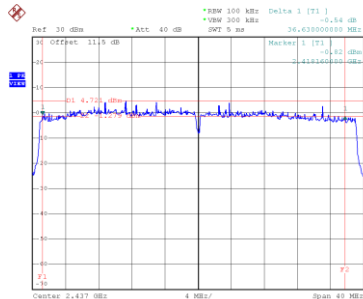
Test Mode	TX AX(HE40) Mode
-----------	------------------

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
03	2422	35.429	35.840	0.5	Complies
06	2437	36.630	37.920	0.5	Complies
09	2452	36.230	37.600	0.5	Complies

CH03

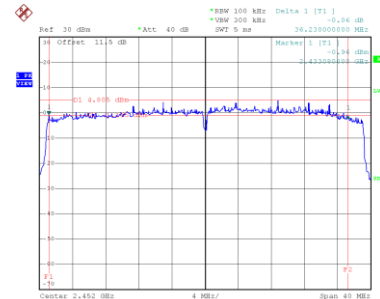


Date: 14.NOV.2022 11:48:19

CH06
6 dB Bandwidth


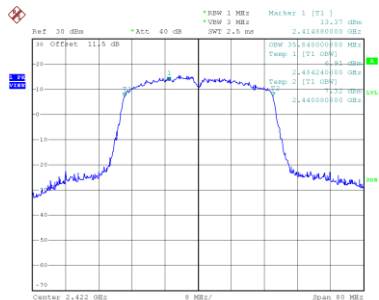
Date: 14.NOV.2022 13:37:38

CH09

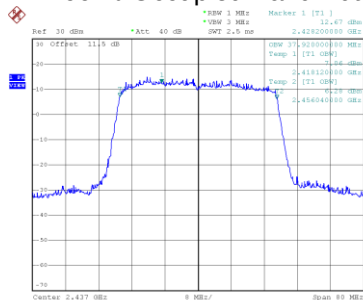


Date: 14.NOV.2022 14:00:46

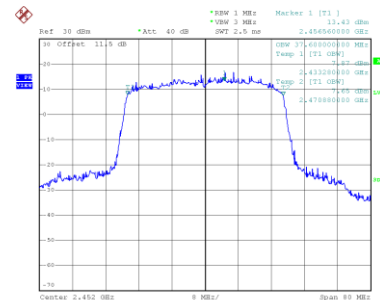
99 % Occupied Bandwidth



Date: 14.NOV.2022 11:48:16



Date: 14.NOV.2022 13:37:45



Date: 14.NOV.2022 14:00:53

APPENDIX F - MAXIMUM OUTPUT POWER

Test Mode	TX B Mode_Ant. 1
-----------	------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.61	2.63	21.24	28.29	0.6745	Complies
06	2437	20.05	2.63	22.68	28.29	0.6745	Complies
11	2462	20.14	2.63	22.77	28.29	0.6745	Complies

Test Mode	TX B Mode_Ant. 2
-----------	------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.45	2.63	21.08	28.29	0.6745	Complies
06	2437	19.93	2.63	22.56	28.29	0.6745	Complies
11	2462	20.05	2.63	22.68	28.29	0.6745	Complies

Test Mode	TX B Mode_Total
-----------	-----------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	24.17	28.29	0.6745	Complies
06	2437	25.63	28.29	0.6745	Complies
11	2462	25.73	28.29	0.6745	Complies

Test Mode	TX G Mode_Ant. 1
-----------	------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.11	0.41	19.52	28.29	0.6745	Complies
06	2437	19.08	0.41	19.49	28.29	0.6745	Complies
11	2462	19.15	0.41	19.56	28.29	0.6745	Complies

Test Mode	TX G Mode_Ant. 2
-----------	------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.97	0.41	19.38	28.29	0.6745	Complies
06	2437	18.96	0.41	19.37	28.29	0.6745	Complies
11	2462	19.03	0.41	19.44	28.29	0.6745	Complies

Test Mode	TX G Mode_Total
-----------	-----------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	22.46	28.29	0.6745	Complies
06	2437	22.44	28.29	0.6745	Complies
11	2462	22.51	28.29	0.6745	Complies

Test Mode	TX N(HT20) Mode_Ant. 1
-----------	------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.96	0.40	19.36	28.29	0.6745	Complies
06	2437	19.08	0.40	19.48	28.29	0.6745	Complies
11	2462	19.18	0.40	19.58	28.29	0.6745	Complies

Test Mode	TX N(HT20) Mode_Ant. 2
-----------	------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.82	0.40	19.22	28.29	0.6745	Complies
06	2437	18.95	0.40	19.35	28.29	0.6745	Complies
11	2462	19.09	0.40	19.49	28.29	0.6745	Complies

Test Mode	TX N(HT20) Mode_Total
-----------	-----------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	22.30	28.29	0.6745	Complies
06	2437	22.42	28.29	0.6745	Complies
11	2462	22.54	28.29	0.6745	Complies

Test Mode	TX N(HT40) Mode_Ant. 1
-----------	------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	18.22	0.52	18.74	28.29	0.6745	Complies
06	2437	18.13	0.52	18.65	28.29	0.6745	Complies
09	2452	18.27	0.52	18.79	28.29	0.6745	Complies

Test Mode	TX N(HT40) Mode_Ant. 2
-----------	------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	18.14	0.52	18.66	28.29	0.6745	Complies
06	2437	18.02	0.52	18.54	28.29	0.6745	Complies
09	2452	18.19	0.52	18.71	28.29	0.6745	Complies

Test Mode	TX N(HT40) Mode_Total
-----------	-----------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	21.71	28.29	0.6745	Complies
06	2437	21.60	28.29	0.6745	Complies
09	2452	21.76	28.29	0.6745	Complies

Test Mode	TX AX(HE20) Mode_Ant. 1
-----------	-------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.62	0.37	16.99	28.29	0.6745	Complies
06	2437	19.16	0.37	19.53	28.29	0.6745	Complies
11	2462	17.76	0.37	18.13	28.29	0.6745	Complies

Test Mode	TX AX(HE20) Mode_Ant. 2
-----------	-------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.57	0.37	16.94	28.29	0.6745	Complies
06	2437	19.07	0.37	19.44	28.29	0.6745	Complies
11	2462	17.52	0.37	17.89	28.29	0.6745	Complies

Test Mode	TX AX(HE20) Mode_Total
-----------	------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.97	28.29	0.6745	Complies
06	2437	22.49	28.29	0.6745	Complies
11	2462	21.02	28.29	0.6745	Complies

Test Mode	TX AX(HE40) Mode_Ant. 1
-----------	-------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	14.84	0.39	15.23	28.29	0.6745	Complies
06	2437	16.49	0.39	16.88	28.29	0.6745	Complies
09	2452	15.39	0.39	15.78	28.29	0.6745	Complies

Test Mode	TX AX(HE40) Mode_Ant. 2
-----------	-------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	14.60	0.39	14.99	28.29	0.6745	Complies
06	2437	16.36	0.39	16.75	28.29	0.6745	Complies
09	2452	15.37	0.39	15.76	28.29	0.6745	Complies

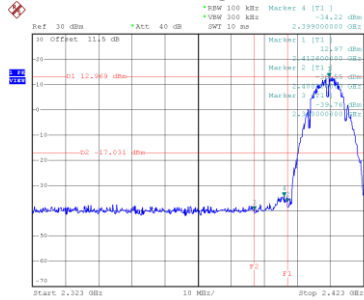
Test Mode	TX AX(HE40) Mode_Total
-----------	------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	18.12	28.29	0.6745	Complies
06	2437	19.82	28.29	0.6745	Complies
09	2452	18.78	28.29	0.6745	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

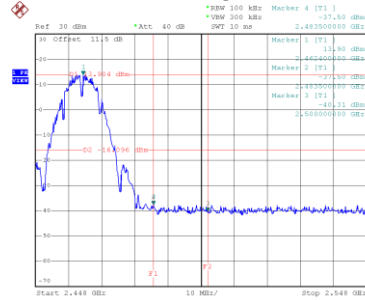
Test Mode TX B Mode_Ant. 1

Bandedge-CH01



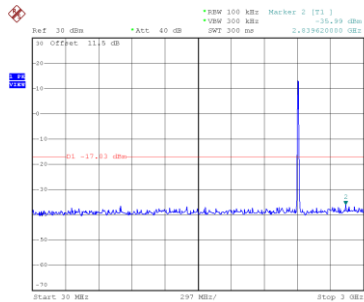
Date: 14.NOV.2022 09:16:24

Bandedge-CH11

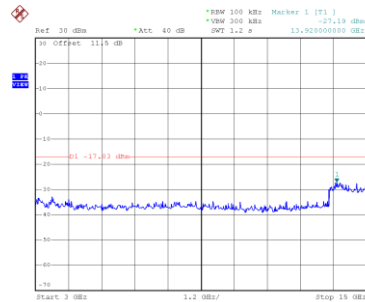


Date: 14.NOV.2022 14:11:27

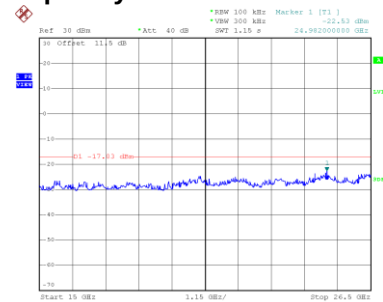
CH01 – 10th Harmonic of the fundamental frequency



Date: 14.NOV.2022 09:16:38

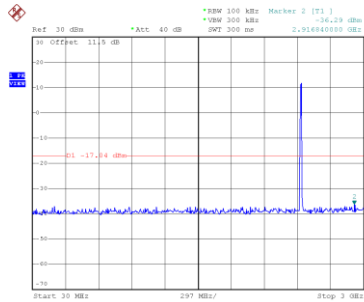


Date: 14.NOV.2022 09:16:47

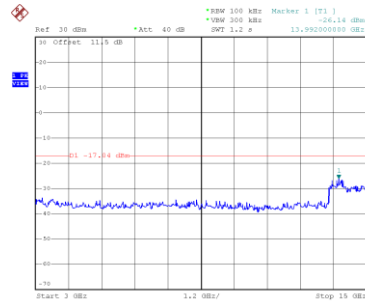


Date: 14.NOV.2022 09:16:55

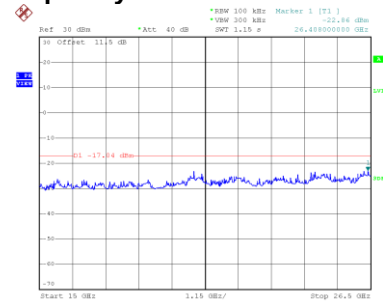
CH06 – 10th Harmonic of the fundamental frequency



Date: 14.NOV.2022 09:23:21

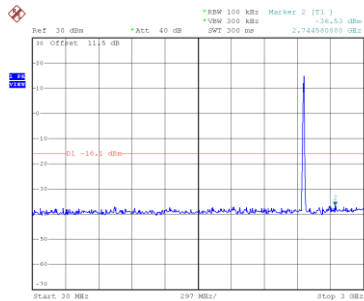


Date: 14.NOV.2022 09:23:30

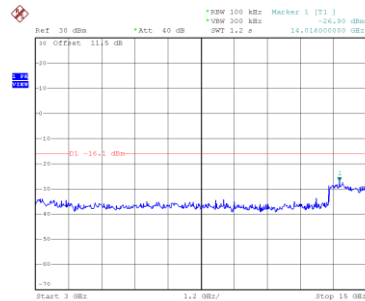


Date: 14.NOV.2022 09:23:38

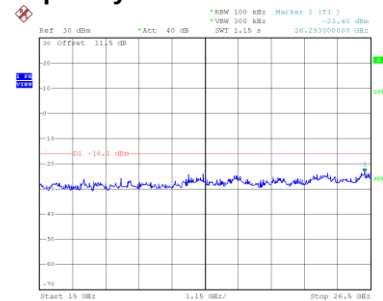
CH11 – 10th Harmonic of the fundamental frequency



Date: 14.NOV.2022 14:11:41



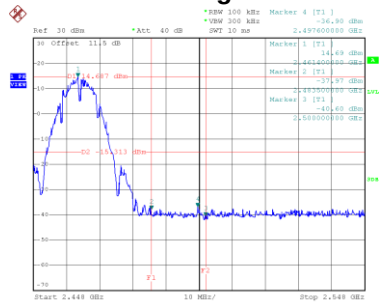
Date: 14.NOV.2022 14:11:49



Date: 14.NOV.2022 14:11:58

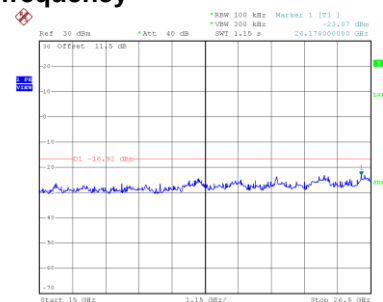
TX B Mode_Ant. 2

Bandedge-CH11



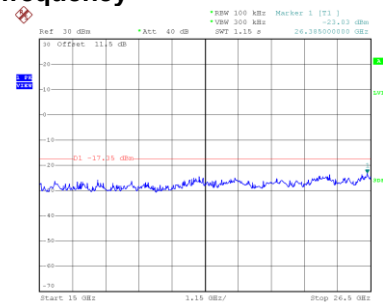
Date: 14.NOV.2022 14:12:47

CH01 – 10th Harmonic of the fundamental frequency



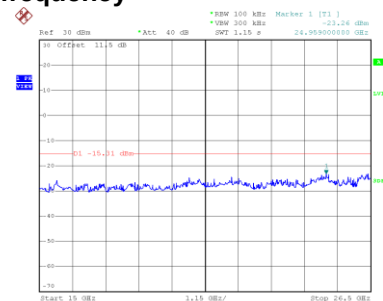
Date: 14.NOV.2022 09:18:56

CH06 – 10th Harmonic of the fundamental frequency



Date: 14.NOV.2022 14:07:55

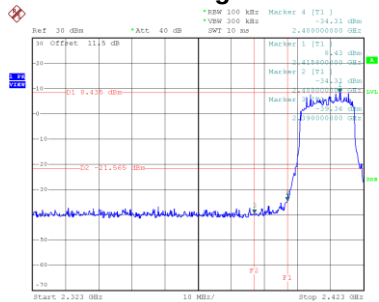
CH11 – 10th Harmonic of the fundamental frequency



Date: 14.NOV.2022 14:13:18

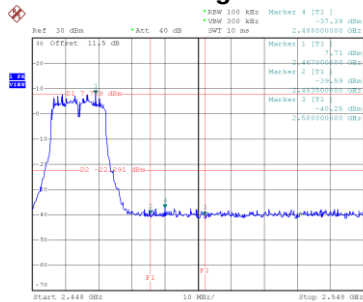
Test Mode TX G Mode_Ant. 2

Bandedge-CH01



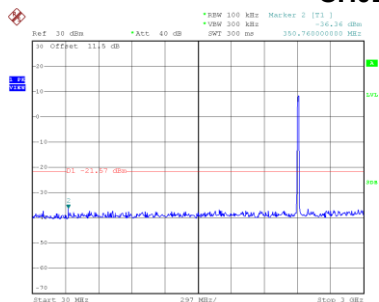
Date: 14.NOV.2022 09:37:35

Bandedge-CH11

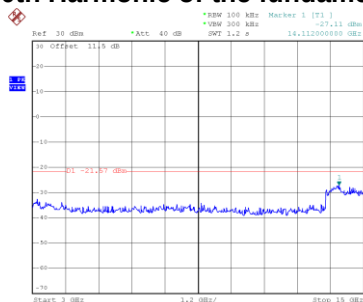


Date: 14.NOV.2022 14:18:18

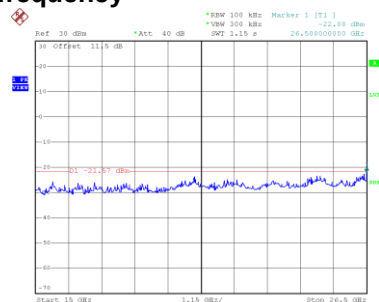
CH01 – 10th Harmonic of the fundamental frequency



Date: 14.NOV.2022 09:37:49

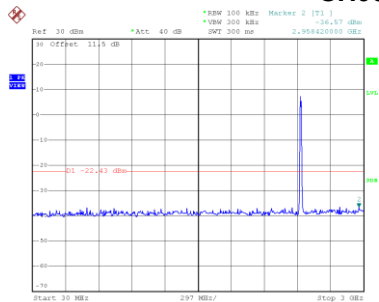


Date: 14.NOV.2022 09:37:57

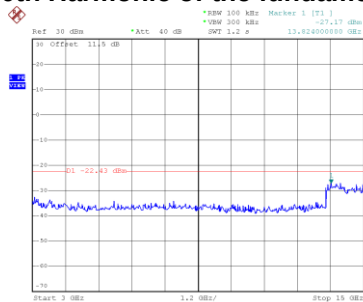


Date: 14.NOV.2022 09:38:06

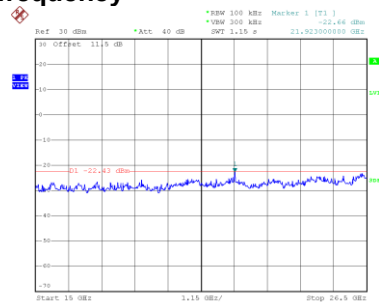
CH06 – 10th Harmonic of the fundamental frequency



Date: 14.NOV.2022 09:50:57

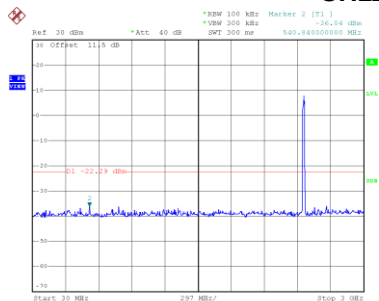


Date: 14.NOV.2022 09:51:06

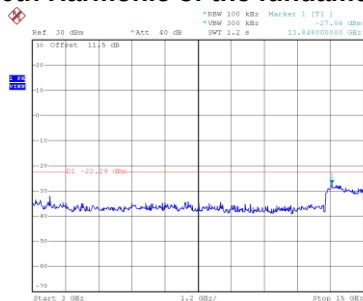


Date: 14.NOV.2022 09:51:14

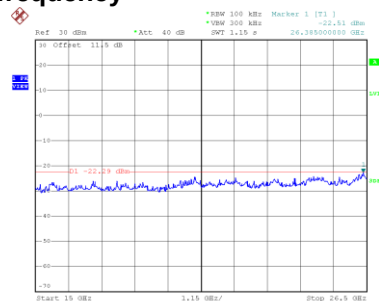
CH11 – 10th Harmonic of the fundamental frequency



Date: 14.NOV.2022 14:18:32



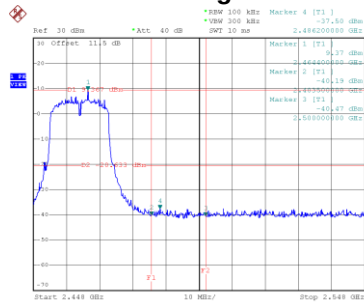
Date: 14.NOV.2022 14:18:40



Date: 14.NOV.2022 14:18:49

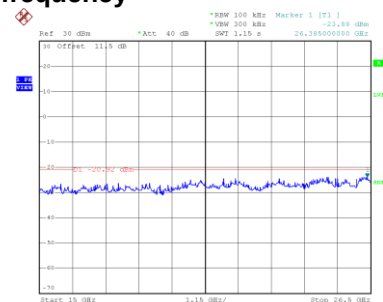
TX N(HT20) Mode_Ant. 2

Bandedge-CH11



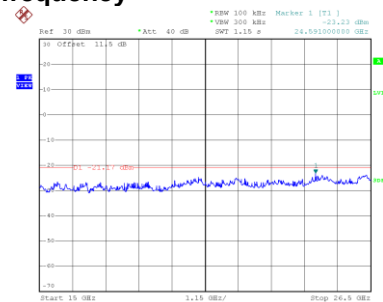
Date: 14.NOV.2022 10:24:39

CH01 – 10th Harmonic of the fundamental frequency



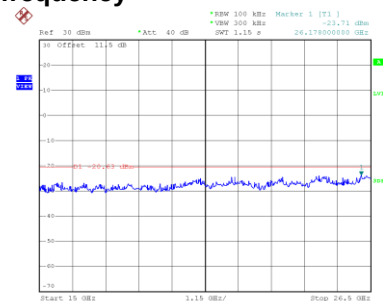
Date: 14.NOV.2022 10:08:11

CH06 – 10th Harmonic of the fundamental frequency



Date: 14.NOV.2022 10:17:32

CH11 – 10th Harmonic of the fundamental frequency



Date: 14.NOV.2022 10:25:09