

FCC Radio Test Report

FCC ID: 2AF82-BXP100

Report No. : BTL-FCCP-4-2104T005
Equipment : Box PC
Model Name : BXP-100, xxxBXP-1XXXX (Where "x" and "X" may be any alphanumeric character, blank, "_" or "-" for marketing purpose only.)
Brand Name : Qbic
Applicant : Qbic Technology Co., Ltd.
Address : 26F.-12, NO.99, SEC. 1, XINTAI 5TH RD., XIZHI DIST., NEW TAIPEI CITY 22175, TAIWAN

Radio Function : RLAN 5 GHz (U-NII 1, U-NII 3)

FCC Rule Part(s) : FCC Part15, Subpart E (15.407)
Measurement Procedure(s) : ANSI C63.10-2013

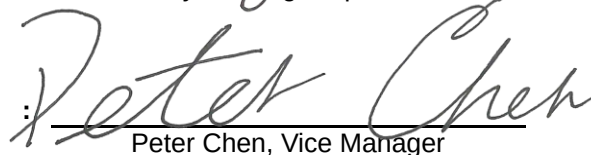
Date of Receipt : 2021/6/22
Date of Test : 2021/6/22 ~ 2021/7/19
Issued Date : 2021/8/5

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

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

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

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

CONTENTS

REVISION HISTORY	5
1 SUMMARY OF TEST RESULTS	6
1.1 TEST FACILITY	7
1.2 MEASUREMENT UNCERTAINTY	7
1.3 TEST ENVIRONMENT CONDITIONS	7
1.4 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING	8
1.5 DUTY CYCLE	9
2 GENERAL INFORMATION	11
2.1 DESCRIPTION OF EUT	11
2.2 TEST MODES	13
2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	14
2.4 SUPPORT UNITS	15
3 AC POWER LINE CONDUCTED EMISSIONS TEST	16
3.1 LIMIT	16
3.2 TEST PROCEDURE	16
3.3 DEVIATION FROM TEST STANDARD	16
3.4 TEST SETUP	17
3.5 TEST RESULT	17
4 RADIATED EMISSIONS TEST	18
4.1 LIMIT	18
4.2 TEST PROCEDURE	19
4.3 DEVIATION FROM TEST STANDARD	19
4.4 TEST SETUP	20
4.5 EUT OPERATING CONDITIONS	21
4.6 TEST RESULT – BELOW 30 MHZ	21
4.7 TEST RESULT – 30 MHZ TO 1 GHZ	21
4.8 TEST RESULT – ABOVE 1 GHZ	21
5 BANDWIDTH TEST	22
5.1 LIMIT	22
5.2 TEST PROCEDURE	22
5.3 DEVIATION FROM TEST STANDARD	22
5.4 TEST SETUP	22
5.5 EUT OPERATING CONDITIONS	22
5.6 TEST RESULT	22
6 OUTPUT POWER TEST	23
6.1 LIMIT	23
6.2 TEST PROCEDURE	23
6.3 DEVIATION FROM TEST STANDARD	23
6.4 TEST SETUP	23
6.5 EUT OPERATING CONDITIONS	23
6.6 TEST RESULT	23
7 POWER SPECTRAL DENSITY	24
7.1 LIMIT	24
7.2 TEST PROCEDURE	24
7.3 DEVIATION FROM TEST STANDARD	24
7.4 TEST SETUP	24
7.5 EUT OPERATING CONDITIONS	24

7.6	TEST RESULT	24
8	LIST OF MEASURING EQUIPMENTS	25
9	EUT TEST PHOTO	27
10	EUT PHOTOS	27
APPENDIX A	AC POWER LINE CONDUCTED EMISSIONS	28
APPENDIX B	RADIATED EMISSIONS - 30 MHZ TO 1 GHZ	33
APPENDIX C	RADIATED EMISSIONS - ABOVE 1 GHZ	36
APPENDIX D	BANDWIDTH	87
APPENDIX E	CONDUCTED OUTPUT POWER	99
APPENDIX F	POWER SPECTRAL DENSITY	102

REVISION HISTORY

Report No.	Version	Description	Issued Date
BTL-FCCP-4-2104T005	R00	Original Report.	2021/7/29
BTL-FCCP-4-2104T005	R01	Revised report to address TCB's comments.	2021/8/5

1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards.

FCC Part 15, Subpart E (15.407)				
Standard(s) Section	Description	Test Result	Judgement	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	Pass	-----
15.205 15.209 15.407(b)	Radiated Emissions	APPENDIX B APPENDIX C	Pass	-----
15.407(a)	Bandwidth	APPENDIX D	Pass	-----
15.407(a)	Output Power	APPENDIX E	Pass	-----
15.407(a)	Power Spectral Density	APPENDIX F	Pass	-----
15.203	Antenna Requirement	-----	Pass	-----
15.407(c)	Automatically Discontinue Transmission	-----	Pass	NOTE (3)

NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report.
- (2) The report format version is TP.1.1.1.
- (3) The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report:

No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

The test sites and facilities are covered under FCC RN: 674415 and DN: TW0659.

☒ C05 ☐ CB08 ☐ CB11 ☒ CB15 ☐ CB16
☒ SR05

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k = 2$, providing a level of confidence of approximately **95 %**. The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{CISPR} requirement.

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U (dB)
C05	CISPR	150 kHz ~ 30MHz	3.44

B. Radiated emissions test :

Test Site	Measurement Frequency Range	U,(dB)
CB15	0.03 GHz ~ 0.2 GHz	4.17
	0.2 GHz ~ 1 GHz	4.72
	1 GHz ~ 6 GHz	5.21
	6 GHz ~ 18 GHz	5.51
	18 GHz ~ 26 GHz	3.69
	26 GHz ~ 40 GHz	4.23

C. Conducted test :

Test Item	U,(dB)
Occupied Bandwidth	0.5332
Output power	0.3669
Power Spectral Density	0.6590
Conducted Spurious emissions	0.5416
Conducted Band edges	0.5335
Frequency Stability	0.5333

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	Environment Condition	Test Voltage	Tested by
AC Power Line Conducted Emissions	22 °C, 56 %	AC 120V	Paul Shen
Radiated emissions below 1 GHz	23 °C, 57 %	AC 120V	Hunter Chiang
Radiated emissions above 1 GHz	23 °C, 57 %	AC 120V	Hunter Chiang
Bandwidth	25.1 °C, 53 %	AC 120V	Tim Lee
Output Power	25.1 °C, 53 %	AC 120V	Tim Lee
Power Spectral Density	25.1 °C, 53 %	AC 120V	Tim Lee

1.4 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

UNII-1				
Test Software	N/A			
Mode	5180 MHz	5200 MHz	5240 MHz	Data Rate
IEEE 802.11a	15	24	24	6 Mbps
IEEE 802.11n (HT20)	15	24	24	MCS 0
IEEE 802.11ac (VHT20)	15	24	24	MCS 0
Mode	5190 MHz	5230 MHz		Data Rate
IEEE 802.11n (HT40)	12	19		MCS 0
IEEE 802.11ac (VHT40)	12	19		MCS 0
Mode	5210 MHz			Data Rate
IEEE 802.11ac (VHT80)	11			MCS 0

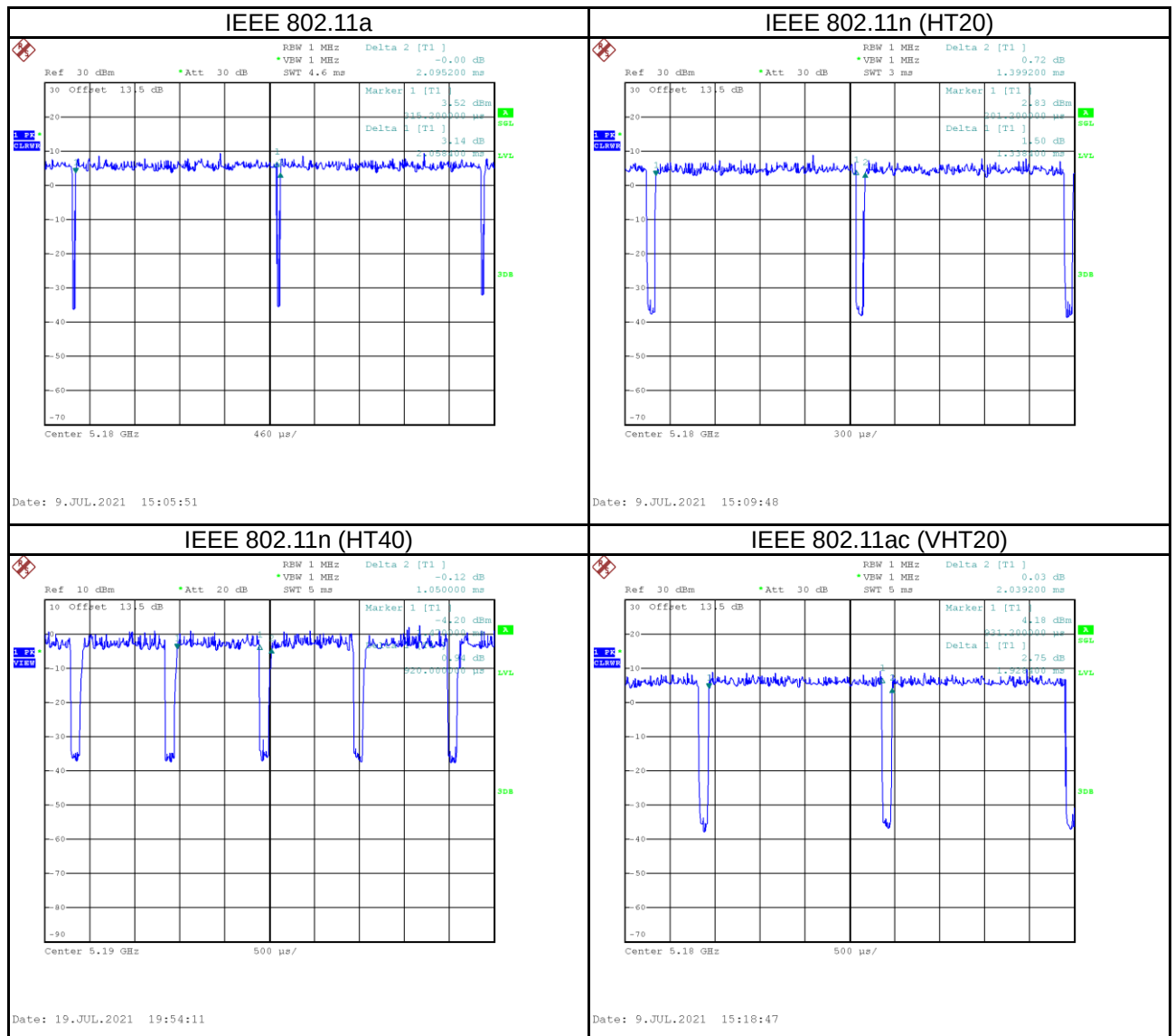
UNII-3				
Test Software	N/A			
Mode	5745 MHz	5785 MHz	5825 MHz	Data Rate
IEEE 802.11a	22	22	22	6 Mbps
IEEE 802.11n (HT20)	22	22	22	MCS 0
IEEE 802.11ac (VHT20)	22	22	22	MCS 0
Mode	5755 MHz	5795 MHz		Data Rate
IEEE 802.11n (HT40)	21	22		MCS 0
IEEE 802.11ac (VHT40)	21	22		MCS 0
Mode	5775 MHz			Data Rate
IEEE 802.11ac (VHT80)	19			MCS 0

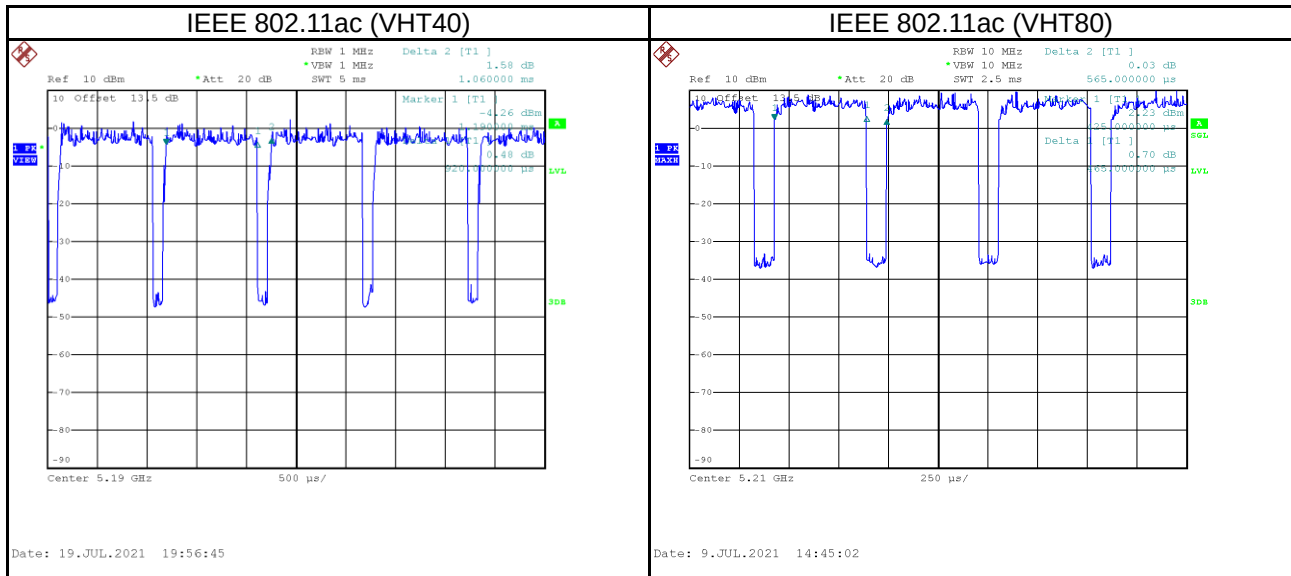
1.5 DUTY CYCLE

If duty cycle is $\geq 98\%$, duty factor is not required.

If duty cycle is $< 98\%$, duty factor shall be considered.

Remark	Delta 1			Delta 2	On Time/Period	10 log(1/Duty Cycle)
Mode	ON (ms)	Numbers (ON)	On Time (B) (ms)	Period (ON+OFF) (ms)	Duty Cycle (%)	Duty Factor (dB)
IEEE 802.11a	2.058	1	2.058	2.095	98.24%	0.08
IEEE 802.11n (HT20)	1.338	1	1.338	1.399	95.65%	0.19
IEEE 802.11n (HT40)	0.920	1	0.920	1.050	87.62%	0.57
IEEE 802.11ac (VHT20)	1.928	1	1.928	2.039	94.57%	0.24
IEEE 802.11ac (VHT40)	0.920	1	0.920	1.060	86.79%	0.62
IEEE 802.11ac (VHT80)	0.465	1	0.465	0.565	82.30%	0.85





2 GENERAL INFORMATION

2.1 DESCRIPTION OF EUT

Equipment	Box PC
Model Name	BXP-100, xxxBXP-1XXXX (Where "x" and "X" may be any alphanumeric character, blank, "_" or "-" for marketing purpose only.)
Brand Name	Qbic
Model Difference	Different models distribute to different area.
Power Source	DC Voltage supplied from AC/DC adapter.
Power Rating	I/P: 100-240V~, 50-60Hz, 300mA O/P: +5V, 2A MAX 10.0W
Products Covered	1 * Adapter: PHIHONG / PSM10R-050 4 * Plug 1 * Screw
Operation Band	UNII-1: 5150 MHz to 5250 MHz UNII-3: 5725 MHz to 5850 MHz
Operation Frequency	UNII-1: 5180 MHz ~ 5240 MHz UNII-3: 5745 MHz ~ 5825 MHz
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6 Mbps 802.11n: Up to 150 Mbps 802.11ac: Up to 433.3 Mbps
Output Power Max. for UNII-1	IEEE 802.11a: 21.15 dBm (0.1303 W) IEEE 802.11n (HT20): 21.08 dBm (0.1282 W) IEEE 802.11n (HT40): 17.77 dBm (0.0598 W) IEEE 802.11ac (VHT20): 20.86 dBm (0.1219 W) IEEE 802.11ac (VHT40): 17.72 dBm (0.0592 W) IEEE 802.11ac (VHT80): 11.04 dBm (0.0127 W)
Output Power Max. for UNII-3	IEEE 802.11a: 19.02 dBm (0.0798 W) IEEE 802.11n (HT20): 18.96 dBm (0.0787 W) IEEE 802.11n (HT40): 19.56 dBm (0.0904 W) IEEE 802.11ac (VHT20): 18.80 dBm (0.0759 W) IEEE 802.11ac (VHT40): 19.51 dBm (0.0893 W) IEEE 802.11ac (VHT80): 16.51 dBm (0.0448 W)
Test Model	BXP-100
Sample Status	Engineering Sample
EUT Modification(s)	N/A

NOTE:

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

(2) Channel List:

IEEE 802.11a IEEE 802.11n (HT20) IEEE 802.11ac (VHT20)		IEEE 802.11n (HT40) IEEE 802.11ac (VHT40)		IEEE 802.11ac (VHT80)	
UNII-1		UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

IEEE 802.11a IEEE 802.11n (HT20) IEEE 802.11ac (VHT20)		IEEE 802.11n (HT40) IEEE 802.11ac (VHT40)		IEEE 802.11ac (VHT80)	
UNII-3		UNII-3		UNII-3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

(3) Table for Filed Antenna:

Antenna	Manufacture	Project	Type	Connector	Frequency (MHz)	Gain (dBi)
1	INPAQ	BXP-100	PCB Dipole	N/A	2400-2500	2.58
					5150-5250	2.55
					5725-5850	2.73

2.2 TEST MODES

Test Items	Test mode	Channel	Note
AC power line conducted emissions	Normal/Idle	-	-
Transmitter Radiated Emissions (below 1GHz)	TX Mode_IEEE 802.11n (HT40)	46	-
Transmitter Radiated Emissions (above 1GHz)	TX Mode_IEEE 802.11a TX Mode_IEEE 802.11n (HT20)	36/48 149/165	Bandedge
	TX Mode_IEEE 802.11n (HT40)	38/46 151/159	
	TX Mode_IEEE 802.11ac (VHT80)	42 155	
	TX Mode_IEEE 802.11a TX Mode_IEEE 802.11n (HT20)	36/40/48 149/157/165	Harmonic
	TX Mode_IEEE 802.11n (HT40)	38/46 151/159	
	TX Mode_IEEE 802.11ac (VHT80)	42 155	
Bandwidth & Power Spectral Density	TX Mode_IEEE 802.11a TX Mode_IEEE 802.11n (HT20)	36/40/48 149/157/165	-
	TX Mode_IEEE 802.11n (HT40)	38/46 151/159	
	TX Mode_IEEE 802.11ac (VHT80)	42 155	
Output Power	TX Mode_IEEE 802.11a TX Mode_IEEE 802.11n (HT20) TX Mode_IEEE 802.11ac (VHT20)	36/40/48 149/157/165	-
	TX Mode_IEEE 802.11n (HT40) TX Mode_IEEE 802.11ac (VHT40)	38/46 151/159	
	TX Mode_IEEE 802.11ac (VHT80)	42 155	

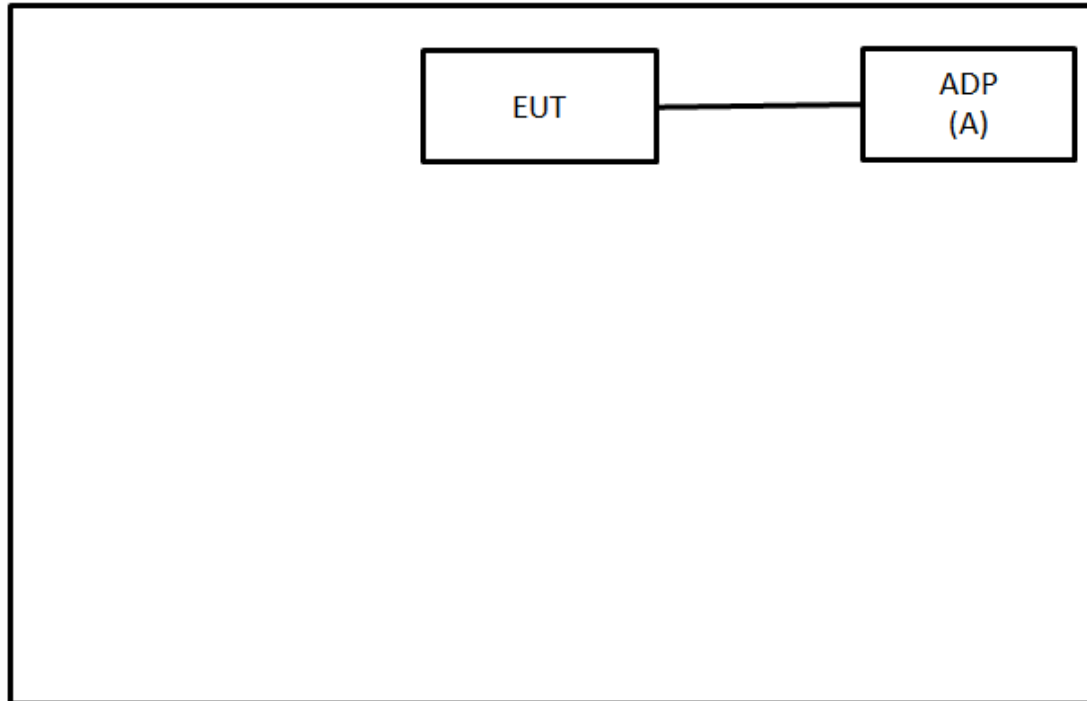
NOTE:

- (1) For radiated emission band edge test, both Vertical and Horizontal are evaluated, but only the worst case (Horizontal) is recorded.
- (2) All X, Y and Z axes are evaluated, but only the worst case (Y axis) is recorded.

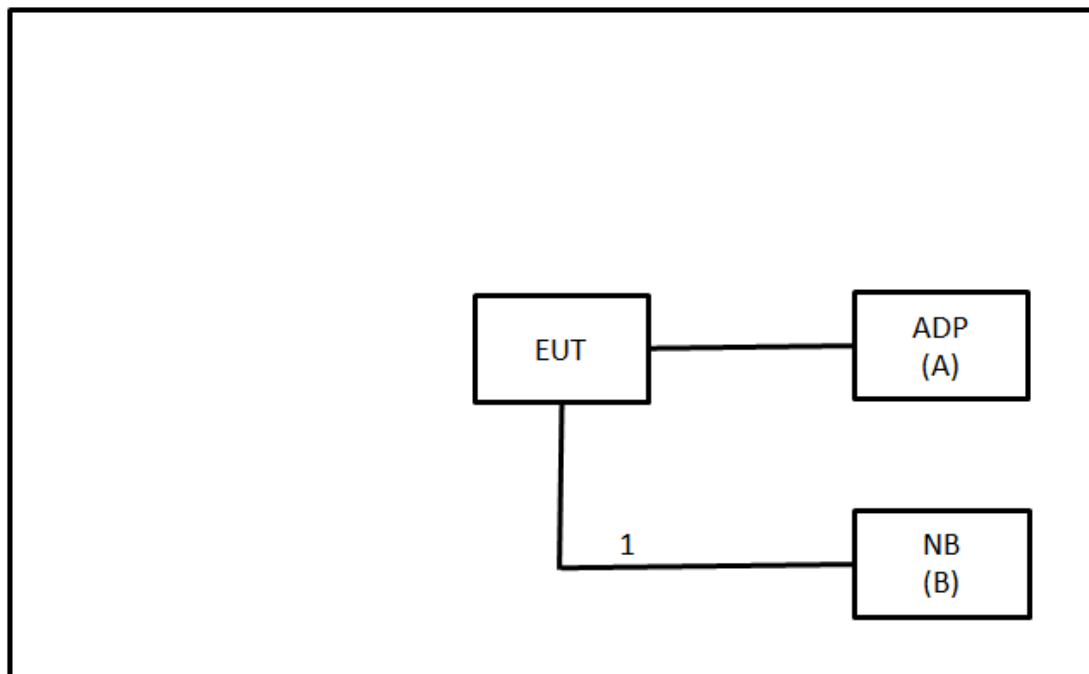
2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Equipment letters and Cable numbers refer to item numbers described in the tables of clause 2.4.

AC power line conducted emissions



Radiated Emissions



2.4 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.	Remarks
A	ADP	PHIHONG	PSM10R-050	N/A	Supplied by test requester
B	NB	Asus	X450JN	N/A	Furnished by test lab.

Item	Shielded	Ferrite Core	Length	Cable Type	Remarks
1	N/A	N/A	1m	Micro USB dongle	Furnished by test lab.

3 AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

Frequency (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56 *	56 - 46 *
0.50 - 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) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor (if use)
 Margin Level = Measurement Value – Limit Value
 Calculation example:

Reading Level		Correct Factor		Measurement Value
38.22	+	3.45	=	41.67

Measurement Value		Limit Value		Margin Level
41.67	-	60	=	-18.33

The following table is the setting of the receiver.

Receiver Parameter	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 KHz

3.2 TEST PROCEDURE

- a. The EUT was placed 0.8 m above the horizontal ground plane with the EUT being connected to the power mains through a line impedance stabilization network (LISN).
 All other support equipment were powered from an additional LISN(s).
 The LISN provides 50 Ohm/50uH of 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 to keep the cable above 40 cm.
- c. Excess I/O cables that are not connected to a peripheral shall be bundled in the center.
 The end of the cable will be terminated, using the correct terminating impedance.
 The overall length shall not exceed 1 m.
- d. The LISN is spaced at least 80 cm from the nearest part of the EUT chassis.
- e. For the actual test configuration, please refer to the related Item – EUT TEST PHOTO.

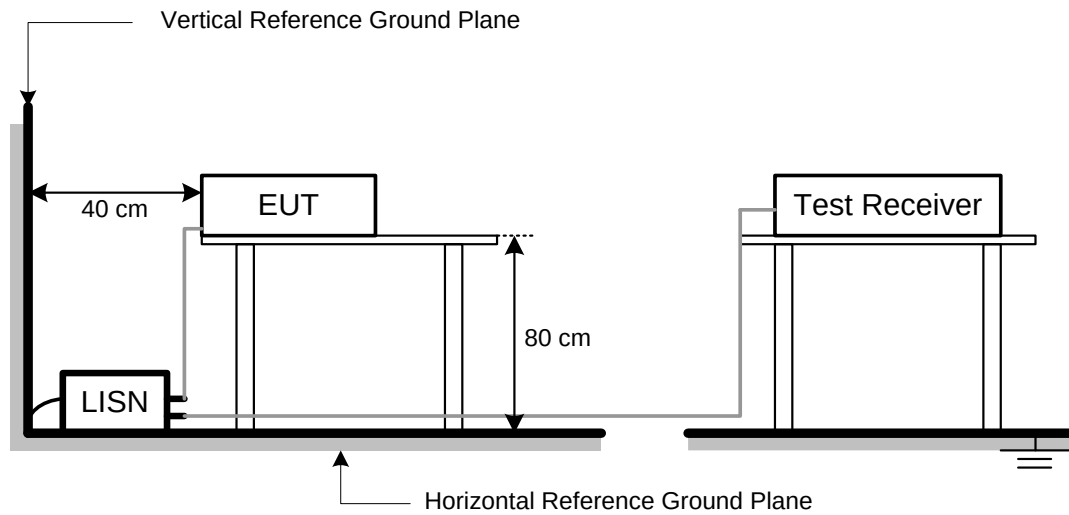
NOTE:

- (1) In the results, each reading is marked as Peak, QP or AVG per the detector used.
 BW=9 kHz (6 dB Bandwidth)
- (2) All readings are Peak unless otherwise stated QP or AVG in column of Note. Both the QP and the AVG readings must be less than the limit for compliance.

3.3 DEVIATION FROM TEST STANDARD

No deviation.

3.4 TEST SETUP



3.5 TEST RESULT

Please refer to the APPENDIX A.

4 RADIATED EMISSIONS TEST

4.1 LIMIT

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

LIMITS OF RADIATED EMISSIONS MEASUREMENT (9 kHz to 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
960~1000	500	3

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150-5250	-27	68.3
5250-5350	-27	68.3
5470-5725	-27	68.3
5725-5850	-27 (NOTE 2)	68.3
	10 (NOTE 2)	105.3
	15.6 (NOTE 2)	110.9
	27 (NOTE 2)	122.3

NOTE:

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

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts)}$$

- (2) According to FCC 16-24, All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

- (3) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)

Margin Level = Measurement Value - Limit Value

Calculation example:

Reading Level		Correct Factor		Measurement Value
36.23	+	-11.97	=	24.26

Measurement Value		Limit Value		Margin Level
24.26	-	40	=	-15.74

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average

Spectrum Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9KHz~90KHz for PK/AVG detector
Start ~ Stop Frequency	90KHz~110KHz for QP detector
Start ~ Stop Frequency	110KHz~490KHz for PK/AVG detector
Start ~ Stop Frequency	490KHz~30MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector

4.2 TEST PROCEDURE

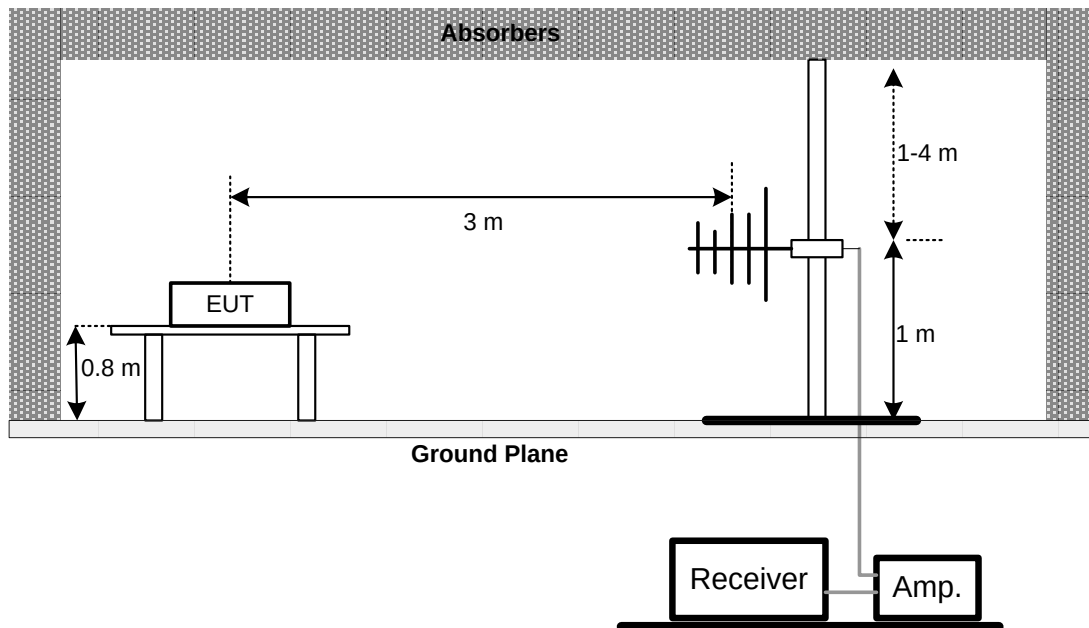
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- The height of the equipment or of the substitution antenna shall be 0.8 m or 1.5 m, 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 1GHz.
- 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 1GHz)
- 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 1GHz)
- For the actual test configuration, please refer to the related Item – EUT TEST PHOTO.

4.3 DEVIATION FROM TEST STANDARD

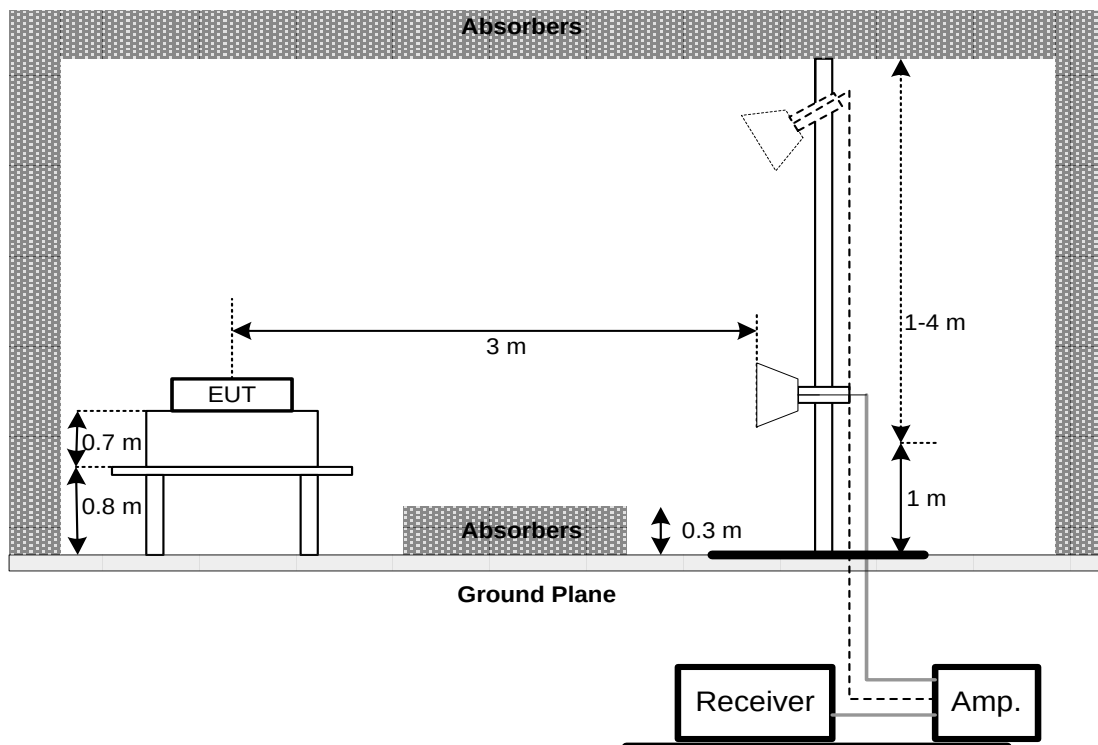
No deviation.

4.4 TEST SETUP

30 MHz to 1 GHz



Above 1 GHz



4.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULT – BELOW 30 MHZ

There were no emissions found below 30 MHz within 20 dB of the limit.

4.7 TEST RESULT – 30 MHZ TO 1 GHZ

Please refer to the APPENDIX B.

4.8 TEST RESULT – ABOVE 1 GHZ

Please refer to the APPENDIX C.

NOTE:

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

5 BANDWIDTH TEST

5.1 LIMIT

FCC Part15, Subpart E (15.407)		
Section	Test Item	Frequency Range (MHz)
15.407(a)	26 dB Bandwidth	5150-5250
		5250-5350
		5470-5725
	Minimum 500 kHz 6 dB Bandwidth	5725-5850

5.2 TEST PROCEDURE

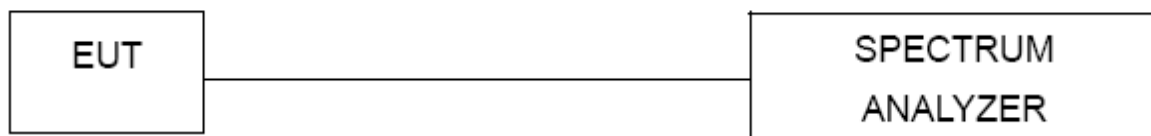
- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting:

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> 26 dB Bandwidth
RBW	300 kHz(Bandwidth 20 MHz) 1 MHz(Bandwidth 40 MHz and 80 MHz)
VBW	1 MHz(Bandwidth 20 MHz) 3 MHz(Bandwidth 40 MHz and 80 MHz)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.3 DEVIATION FROM TEST STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULT

Please refer to the APPENDIX D.

6 OUTPUT POWER TEST

6.1 LIMIT

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(a)	Maximum Output Power	Fixed:1 Watt (30 dBm) Mobile and portable: 250 mW (24 dBm)	5150-5250
		250 mW (24 dBm)	5250-5350
			5470-5725
		1 Watt (30dBm)	5725-5850

Note: The maximum e.i.r.p at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW(21 dBm).

6.2 TEST PROCEDURE

- a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- b. The maximum peak conducted output power was performed in accordance with method of clause E. 3. a) FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
 - a)Method PM (Measurement using an RF average power meter):
 - (i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied
The EUT is configured to transmit continuously or to transmit with a constant duty cycle.
At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.
The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
 - (ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in II.B.
 - (iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
 - (iv) Adjust the measurement in dBm by adding $10 \log (1/x)$ where x is the duty cycle (e.g., $10 \log (1/0.25)$ if the duty cycle is 25%).

6.3 DEVIATION FROM TEST STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULT

Please refer to the APPENDIX E.

7 POWER SPECTRAL DENSITY

7.1 LIMIT

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(a)	Power Spectral Density	Other than Mobile and portable: 17 dBm/MHz	5150-5250
		Mobile and portable: 11 dBm/MHz	
		11 dBm/MHz	5250-5350
		30 dBm/500 kHz	5470-5725
			5725-5850

7.2 TEST PROCEDURE

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

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1 MHz
VBW	≥ 3 MHz
Detector	RMS
Trace	Max Hold
Sweep Time	Auto

7.3 DEVIATION FROM TEST STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULT

Please refer to the APPENDIX F.

8 LIST OF MEASURING EQUIPMENTS

AC Power Line Conducted Emissions						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	TWO-LINE V-NETWORK	R&S	ENV216	101339	2021/3/10	2022/3/9
2	Test Cable	EMCI	EMCRG58-BM-B M-9000	210501	2021/5/3	2022/5/2
3	EMI Test Receiver	R&S	ESR 7	101433	2020/12/11	2021/12/10
4	Measurement Software	EZ	EZ_EMC (Version NB-03A1-01)	N/A	N/A	N/A

Radiated Emissions						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Preamplifier	EMCI	EMC02325B	980217	2021/4/8	2022/4/7
2	Preamplifier	EMCI	EMC012645B	980267	2021/4/8	2022/4/7
3	Preamplifier	EMCI	EMC184045SE	980512	2021/5/28	2022/5/27
4	Preamplifier	EMCI	EMC001340	980555	2021/4/8	2022/4/7
5	Test Cable	EMCI	EMC-SM-SM-1000	180809	2021/4/8	2022/4/7
6	Test Cable	EMCI	EMC104-SM-SM-3000	151205	2021/4/8	2022/4/7
7	Test Cable	EMCI	EMC-SM-SM-7000	180408	2021/4/8	2022/4/7
8	MXE EMI Receiver	Agilent	N9038A	MY554200087	2021/5/27	2022/5/26
9	Signal Analyzer	Agilent	N9010A	MY56480554	2020/8/25	2021/8/24
10	Loop Ant	Electro-Metrics	EMCI-LPA600	274	2021/6/1	2022/5/31
11	Horn Ant	SCHWARZBECK	BBHA 9120D	9120D-1342	2021/6/2	2022/6/1
12	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	764	2021/7/2	2022/7/1
13	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	VULB 9168-352	2020/7/24	2021/7/23
14	5dB Attenuator	EMCI	EMCI-N-6-05	AT-N0625	2020/7/24	2021/7/23
15	Measurement Software	EZ	EZ_EMC (Version NB-03A1-01)	N/A	N/A	N/A

Bandwidth						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Spectrum Analyzer	R&S	FSP38	101139	2021/3/5	2022/3/4

Output Power						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Power Meter	Anritsu	ML2487A	6K00004714	2020/9/3	2021/9/2
2	Power Sensor	Anritsu	MA2491A	034138	2020/9/3	2021/9/2

Power Spectral Density						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Spectrum Analyzer	R&S	FSP38	101139	2021/3/5	2022/3/4

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.
All calibration period of equipment list is one year.

9 EUT TEST PHOTO

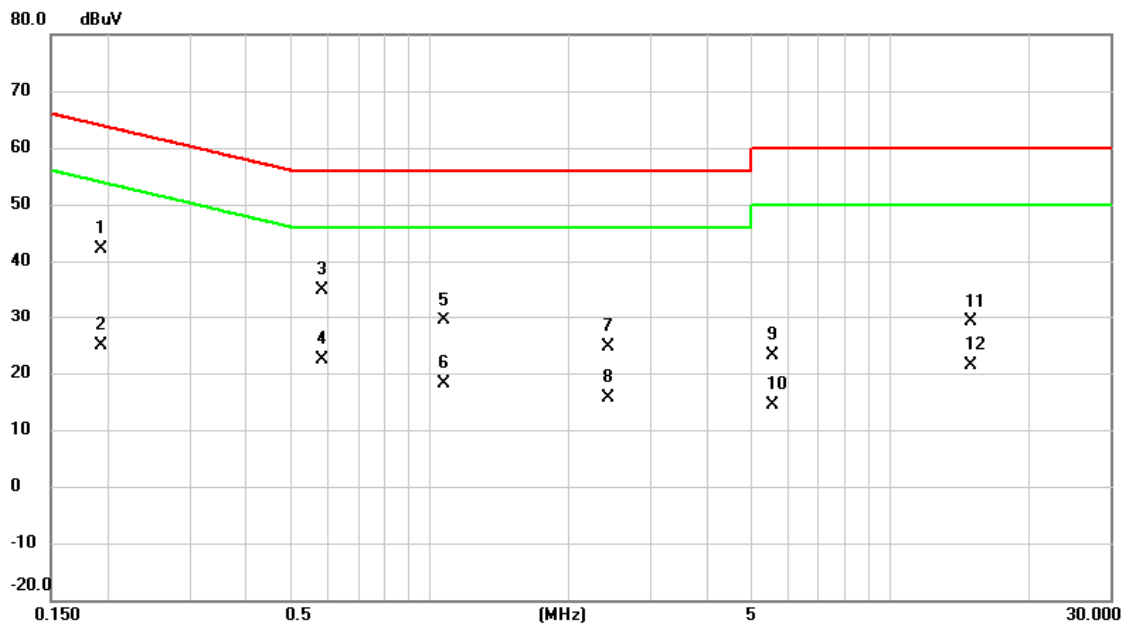
Please refer to document Appendix No.: TP-2104T005-FCCP-1 (APPENDIX-TEST PHOTOS).

10 EUT PHOTOS

Please refer to document Appendix No.: EP-2104T005-1 (APPENDIX-EUT PHOTOS).

APPENDIX A AC POWER LINE CONDUCTED EMISSIONS

Test Mode	Normal	Tested Date	2021/7/14
Test Frequency	-	Phase	Line

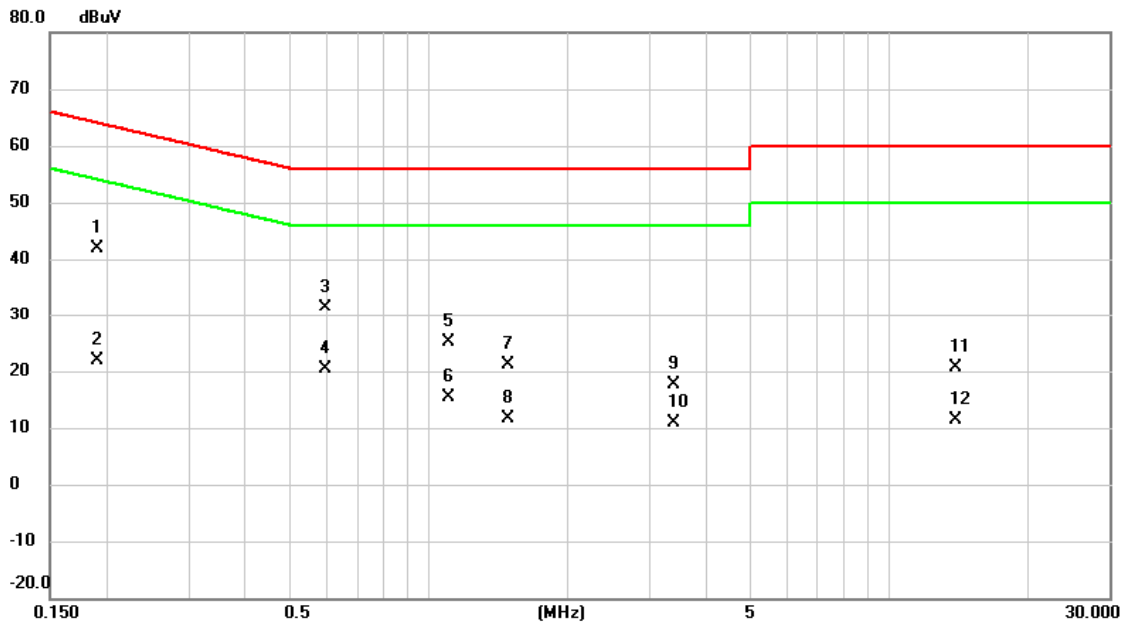


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1928	32.46	9.70	42.16	63.92	-21.76	QP	
2		0.1928	15.17	9.70	24.87	53.92	-29.05	AVG	
3	*	0.5842	25.21	9.71	34.92	56.00	-21.08	QP	
4		0.5842	12.64	9.71	22.35	46.00	-23.65	AVG	
5		1.0702	19.74	9.72	29.46	56.00	-26.54	QP	
6		1.0702	8.43	9.72	18.15	46.00	-27.85	AVG	
7		2.4360	14.83	9.77	24.60	56.00	-31.40	QP	
8		2.4360	5.76	9.77	15.53	46.00	-30.47	AVG	
9		5.5455	13.15	9.99	23.14	60.00	-36.86	QP	
10		5.5455	4.43	9.99	14.42	50.00	-35.58	AVG	
11		14.9213	18.89	10.23	29.12	60.00	-30.88	QP	
12		14.9213	11.16	10.23	21.39	50.00	-28.61	AVG	

REMARKS:

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

Test Mode	Normal	Tested Date	2021/7/14
Test Frequency	-	Phase	Neutral



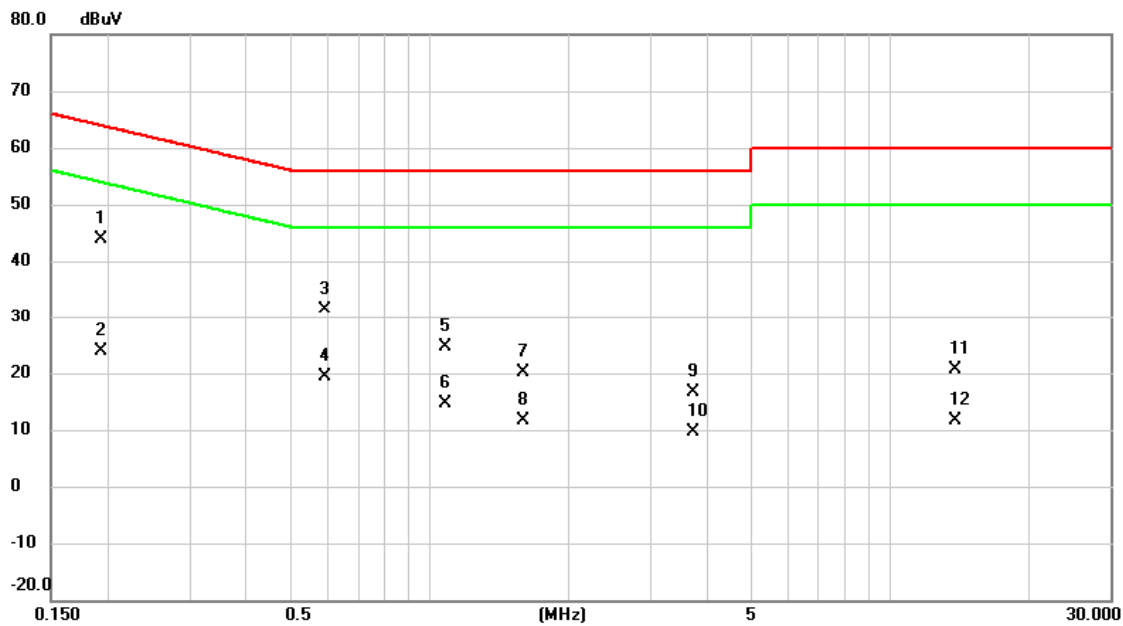
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1905	32.10	9.70	41.80	64.01	-22.21	QP	
2		0.1905	12.10	9.70	21.80	54.01	-32.21	AVG	
3		0.5955	21.60	9.71	31.31	56.00	-24.69	QP	
4		0.5955	10.70	9.71	20.41	46.00	-25.59	AVG	
5		1.1017	15.45	9.73	25.18	56.00	-30.82	QP	
6		1.1017	5.72	9.73	15.45	46.00	-30.55	AVG	
7		1.4865	11.45	9.74	21.19	56.00	-34.81	QP	
8		1.4865	1.98	9.74	11.72	46.00	-34.28	AVG	
9		3.3855	7.92	9.82	17.74	56.00	-38.26	QP	
10		3.3855	1.09	9.82	10.91	46.00	-35.09	AVG	
11		13.9493	10.46	10.23	20.69	60.00	-39.31	QP	
12		13.9493	1.27	10.23	11.50	50.00	-38.50	AVG	

REMARKS:

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

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

Test Mode	Idle	Tested Date	2021/7/14
Test Frequency	-	Phase	Line



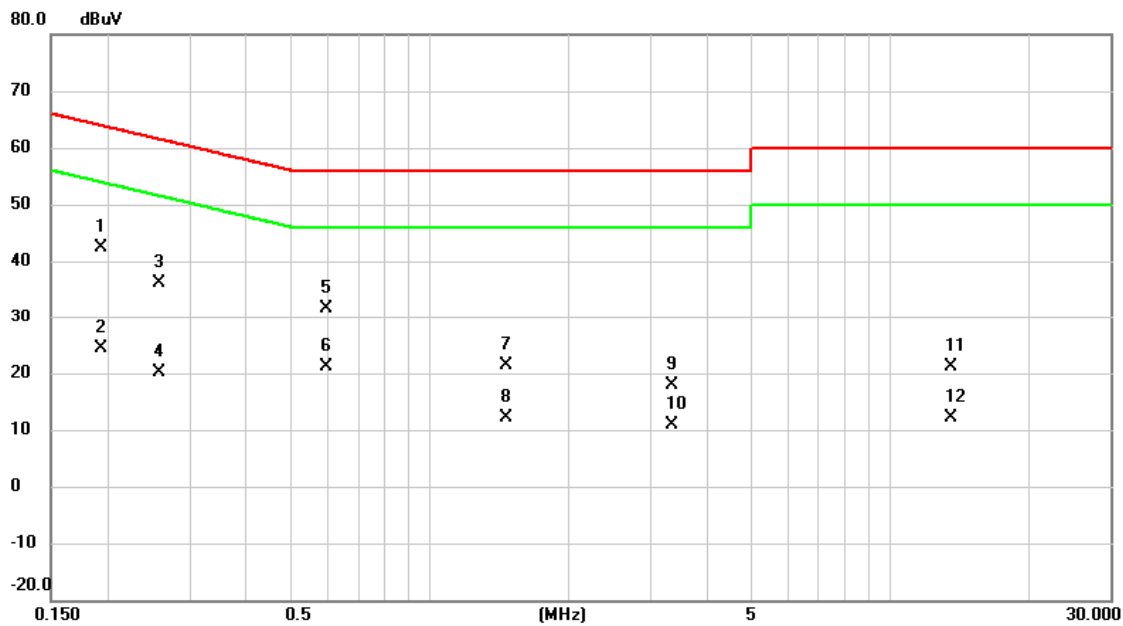
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1928	34.08	9.70	43.78	63.92	-20.14	QP	
2		0.1928	14.26	9.70	23.96	53.92	-29.96	AVG	
3		0.5910	21.56	9.71	31.27	56.00	-24.73	QP	
4		0.5910	9.75	9.71	19.46	46.00	-26.54	AVG	
5		1.0837	14.88	9.73	24.61	56.00	-31.39	QP	
6		1.0837	4.87	9.73	14.60	46.00	-31.40	AVG	
7		1.5945	10.31	9.74	20.05	56.00	-35.95	QP	
8		1.5945	1.89	9.74	11.63	46.00	-34.37	AVG	
9		3.7185	6.65	9.86	16.51	56.00	-39.49	QP	
10		3.7185	-0.21	9.86	9.65	46.00	-36.35	AVG	
11		13.8570	10.44	10.23	20.67	60.00	-39.33	QP	
12		13.8570	1.37	10.23	11.60	50.00	-38.40	AVG	

REMARKS:

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

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

Test Mode	Idle	Tested Date	2021/7/14
Test Frequency	-	Phase	Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1928	32.74	9.70	42.44	63.92	-21.48	QP	
2		0.1928	14.56	9.70	24.26	53.92	-29.66	AVG	
3		0.2580	26.31	9.71	36.02	61.50	-25.48	QP	
4		0.2580	10.54	9.71	20.25	51.50	-31.25	AVG	
5		0.5977	21.80	9.71	31.51	56.00	-24.49	QP	
6		0.5977	11.35	9.71	21.06	46.00	-24.94	AVG	
7		1.4595	11.62	9.74	21.36	56.00	-34.64	QP	
8		1.4595	2.43	9.74	12.17	46.00	-33.83	AVG	
9		3.3518	8.03	9.82	17.85	56.00	-38.15	QP	
10		3.3518	1.13	9.82	10.95	46.00	-35.05	AVG	
11		13.5150	10.92	10.21	21.13	60.00	-38.87	QP	
12		13.5150	1.88	10.21	12.09	50.00	-37.91	AVG	

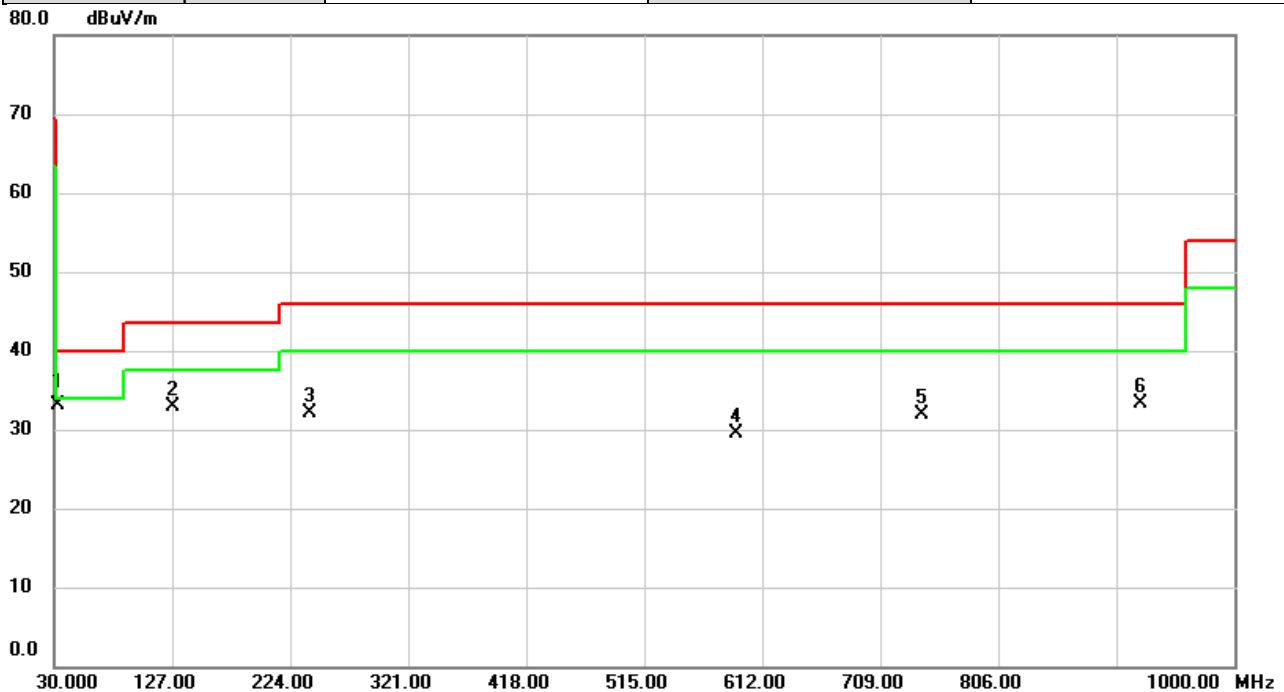
REMARKS:

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

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

APPENDIX B RADIATED EMISSIONS - 30 MHZ TO 1 GHZ

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/8
Test Frequency	5230MHz	Polarization	Vertical
Temp	23°C	Hum.	57%

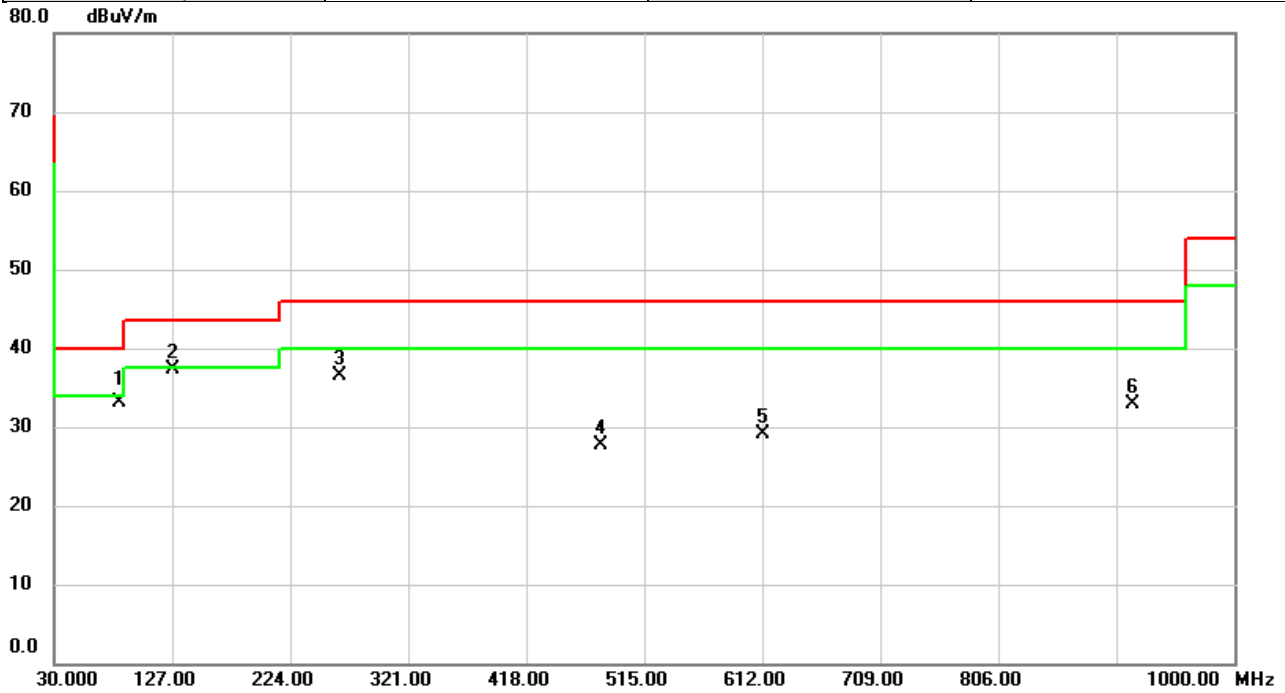


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	32.9746	42.12	-9.00	33.12	40.00	-6.88	QP	
2		127.5173	42.66	-9.67	32.99	43.50	-10.51	peak	
3		239.5200	41.83	-9.65	32.18	46.00	-13.82	peak	
4		590.5630	30.20	-0.70	29.50	46.00	-16.50	peak	
5		743.8876	30.24	1.73	31.97	46.00	-14.03	peak	
6		923.2083	28.84	4.53	33.37	46.00	-12.63	peak	

REMARKS:

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/8
Test Frequency	5230MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		83.1883	46.48	-13.40	33.08	40.00	-6.92	QP	
2	*	128.2933	46.93	-9.59	37.34	43.50	-6.16	peak	
3		264.5136	45.23	-8.67	36.56	46.00	-9.44	peak	
4		478.8190	30.84	-3.20	27.64	46.00	-18.36	peak	
5		612.3232	29.47	-0.32	29.15	46.00	-16.85	peak	
6		917.0326	28.42	4.42	32.84	46.00	-13.16	peak	

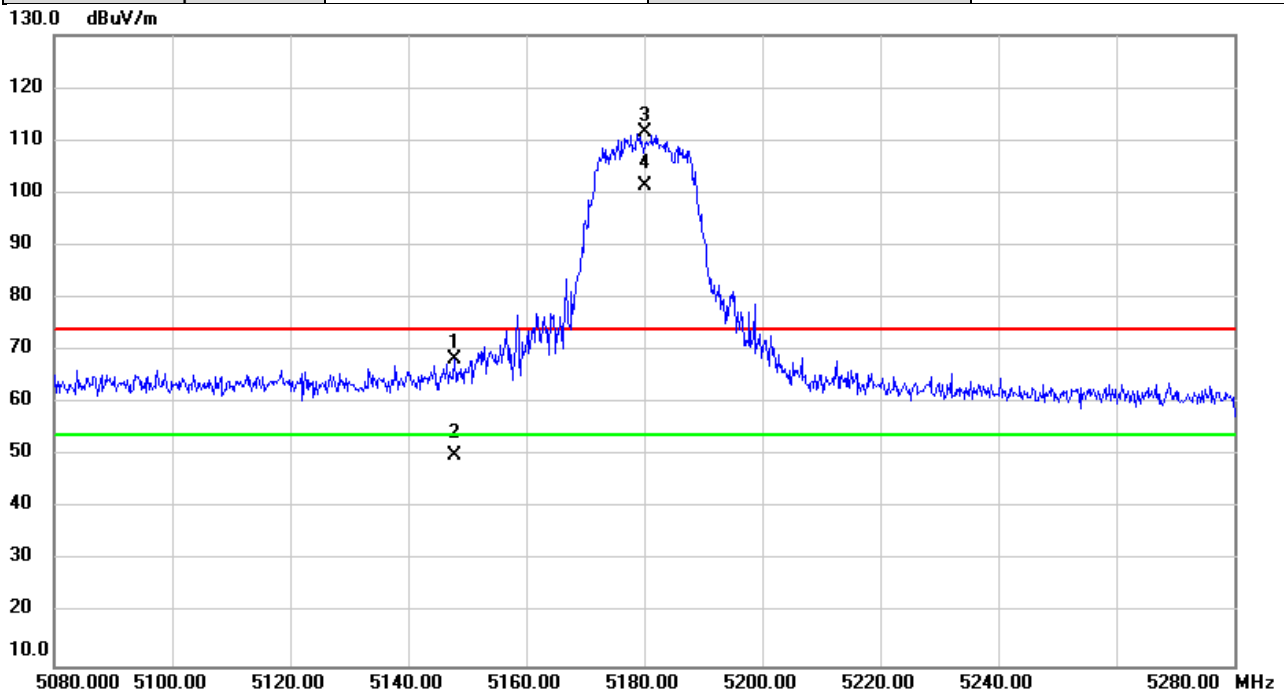
REMARKS:

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

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

APPENDIX C RADIATED EMISSIONS - ABOVE 1 GHZ

Test Mode	IEEE 802.11a	Test Date	2021/7/2
Test Frequency	5180MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



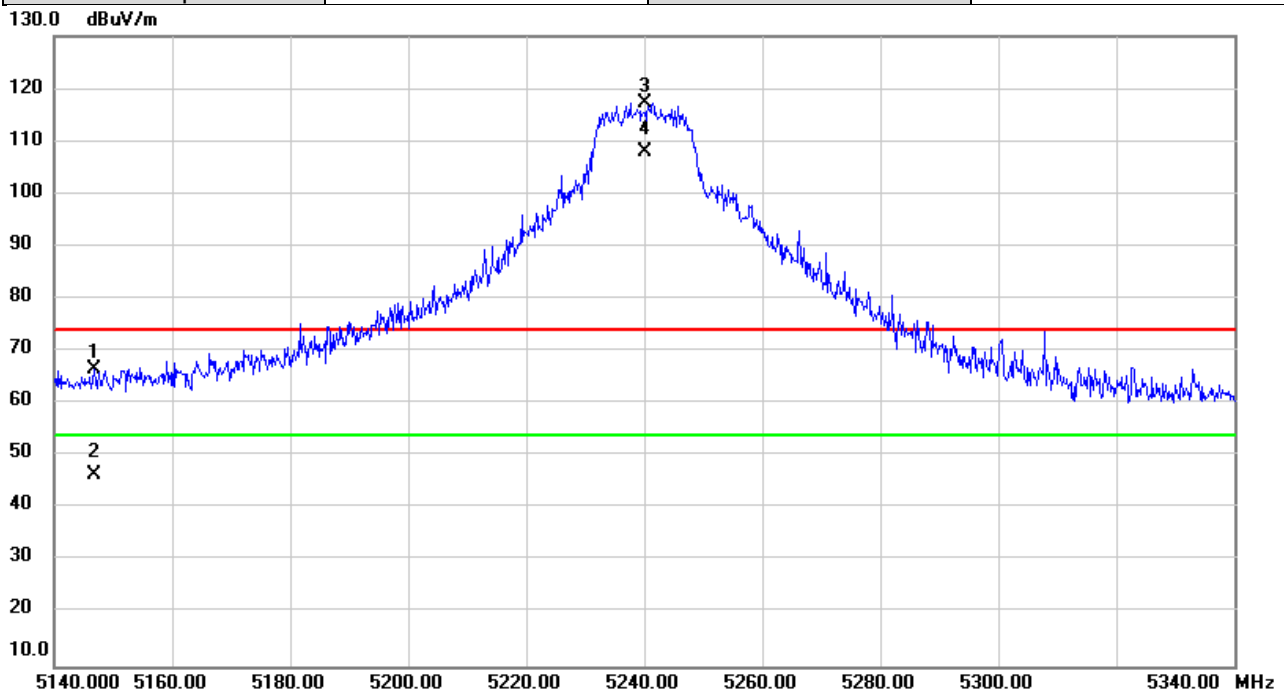
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5147.893	30.96	37.34	68.30	74.00	-5.70	peak	
2		5147.893	12.80	37.34	50.14	54.00	-3.86	AVG	
3	X	5180.000	74.02	37.38	111.40	74.00	37.40	peak	NoLimit
4	*	5180.000	64.09	37.38	101.47	54.00	47.47	AVG	NoLimit

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/3
Test Frequency	5240MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



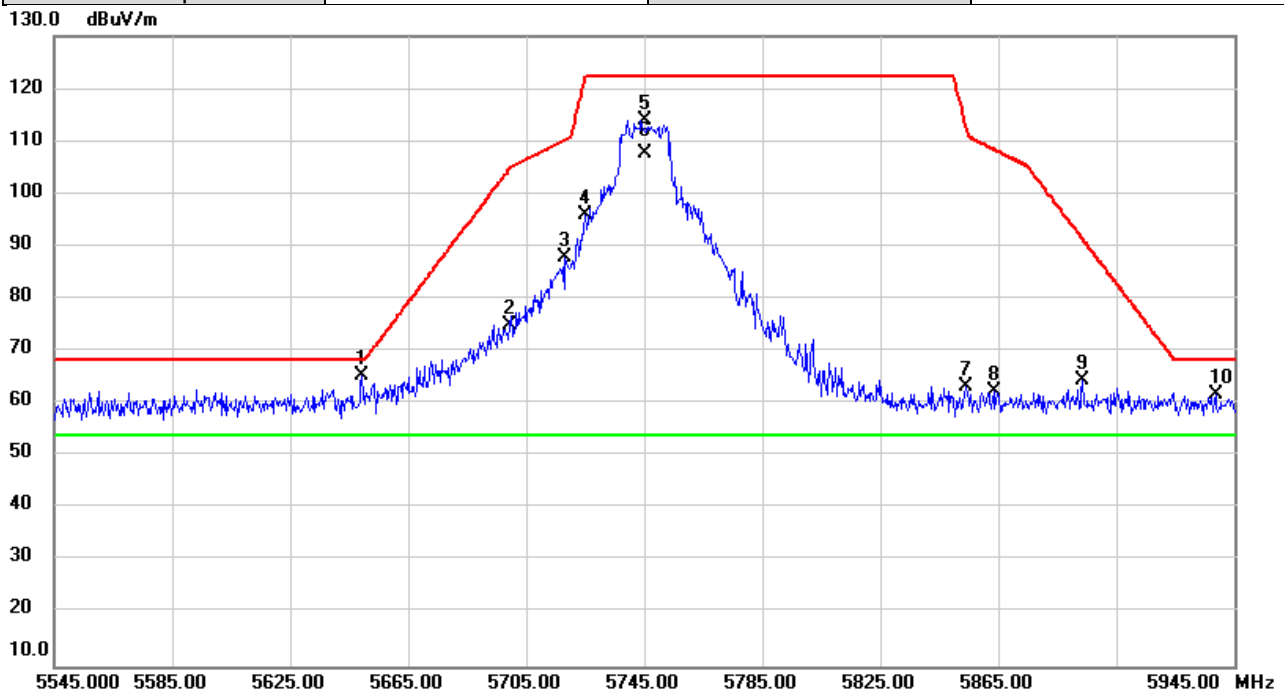
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5146.840	29.27	37.34	66.61	74.00	-7.39	peak	
2		5146.840	9.23	37.34	46.57	54.00	-7.43	AVG	
3	X	5240.000	79.84	37.46	117.30	74.00	43.30	peak	NoLimit
4	*	5240.000	70.60	37.46	108.06	54.00	54.06	AVG	NoLimit

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/3
Test Frequency	5745MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



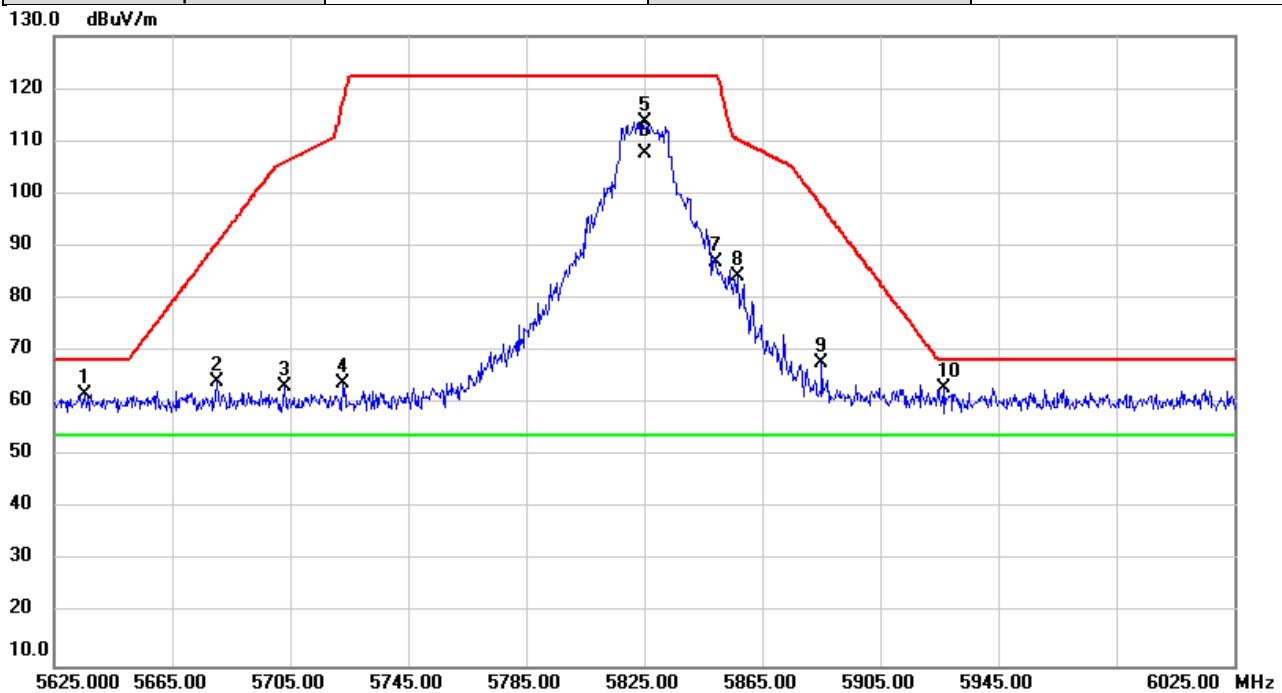
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5649.027	27.12	38.15	65.27	68.20	-2.93	peak	
2		5699.547	36.78	38.26	75.04	104.87	-29.83	peak	
3		5718.253	49.68	38.30	87.98	110.31	-22.33	peak	
4		5725.000	57.64	38.32	95.96	122.20	-26.24	peak	
5		5745.000	75.62	38.36	113.98	122.20	-8.22	peak	NoLimit
6	*	5745.000	69.33	38.36	107.69	54.00	53.69	AVG	NoLimit
7		5854.200	24.77	38.61	63.38	112.62	-49.24	peak	
8		5863.440	23.81	38.63	62.44	108.43	-45.99	peak	
9		5893.520	25.86	38.69	64.55	91.46	-26.91	peak	
10		5938.787	22.99	38.79	61.78	68.20	-6.42	peak	

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/3
Test Frequency	5825MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



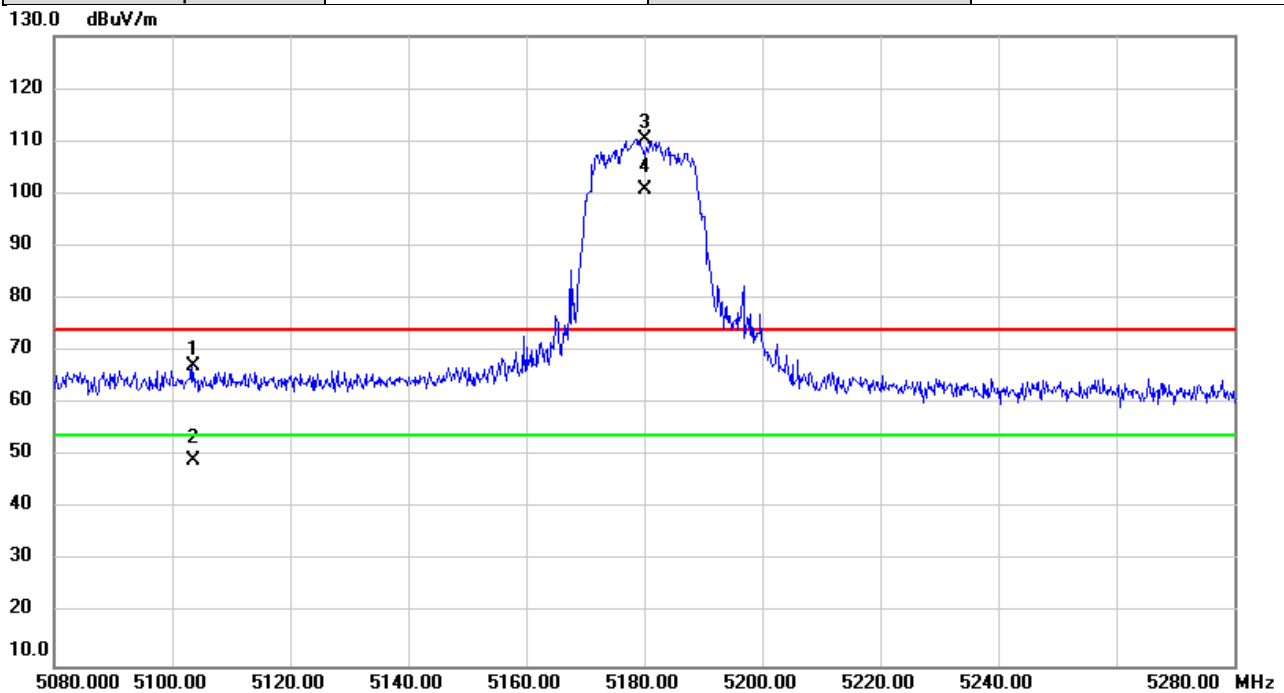
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5635.253	23.70	38.11	61.81	68.20	-6.39	peak	
2		5680.067	25.89	38.21	64.10	90.49	-26.39	peak	
3		5703.000	25.07	38.26	63.33	106.04	-42.71	peak	
4		5723.000	25.63	38.31	63.94	117.64	-53.70	peak	
5		5825.000	75.24	38.54	113.78	122.20	-8.42	peak	NoLimit
6	*	5825.000	69.07	38.54	107.61	54.00	53.61	AVG	NoLimit
7		5849.520	48.26	38.59	86.85	122.20	-35.35	peak	
8		5856.707	45.65	38.61	84.26	110.32	-26.06	peak	
9		5885.240	29.16	38.67	67.83	97.60	-29.77	peak	
10		5926.480	24.19	38.77	62.96	68.20	-5.24	peak	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/3
Test Frequency	5180MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



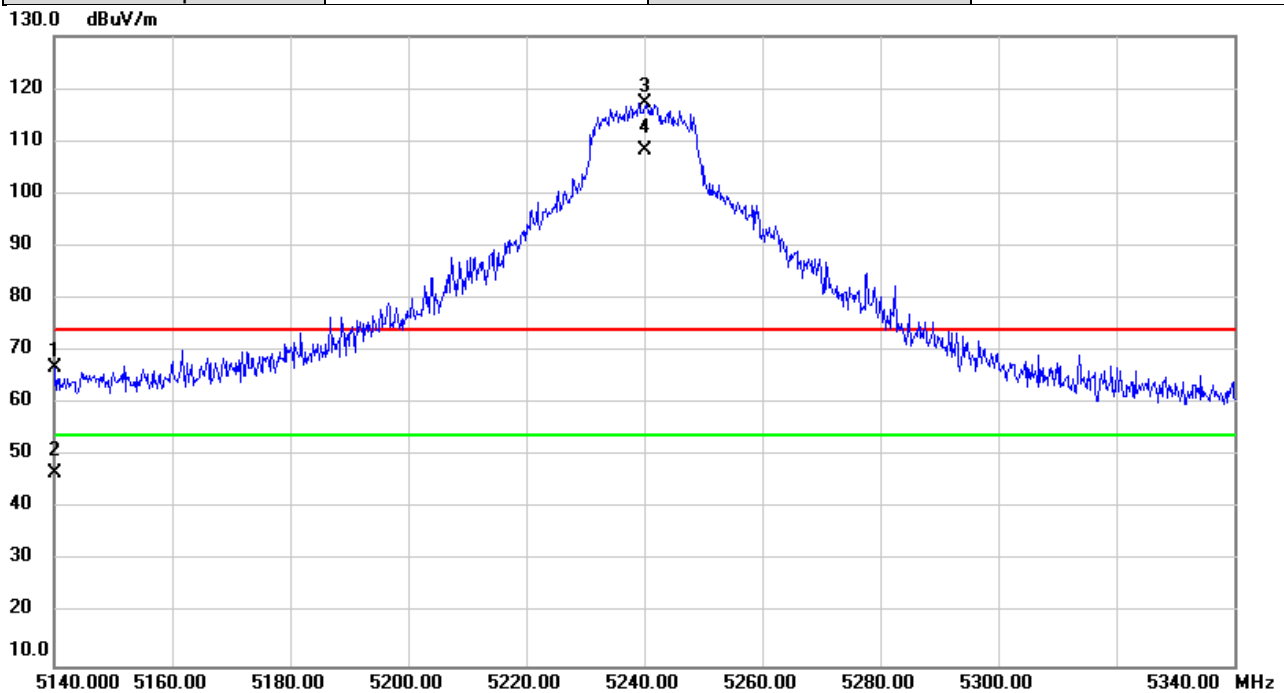
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5103.467	29.74	37.28	67.02	74.00	-6.98	peak	
2		5103.467	11.95	37.28	49.23	54.00	-4.77	AVG	
3	X	5180.000	72.99	37.38	110.37	74.00	36.37	peak	NoLimit
4	*	5180.000	63.40	37.38	100.78	54.00	46.78	AVG	NoLimit

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/3
Test Frequency	5240MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



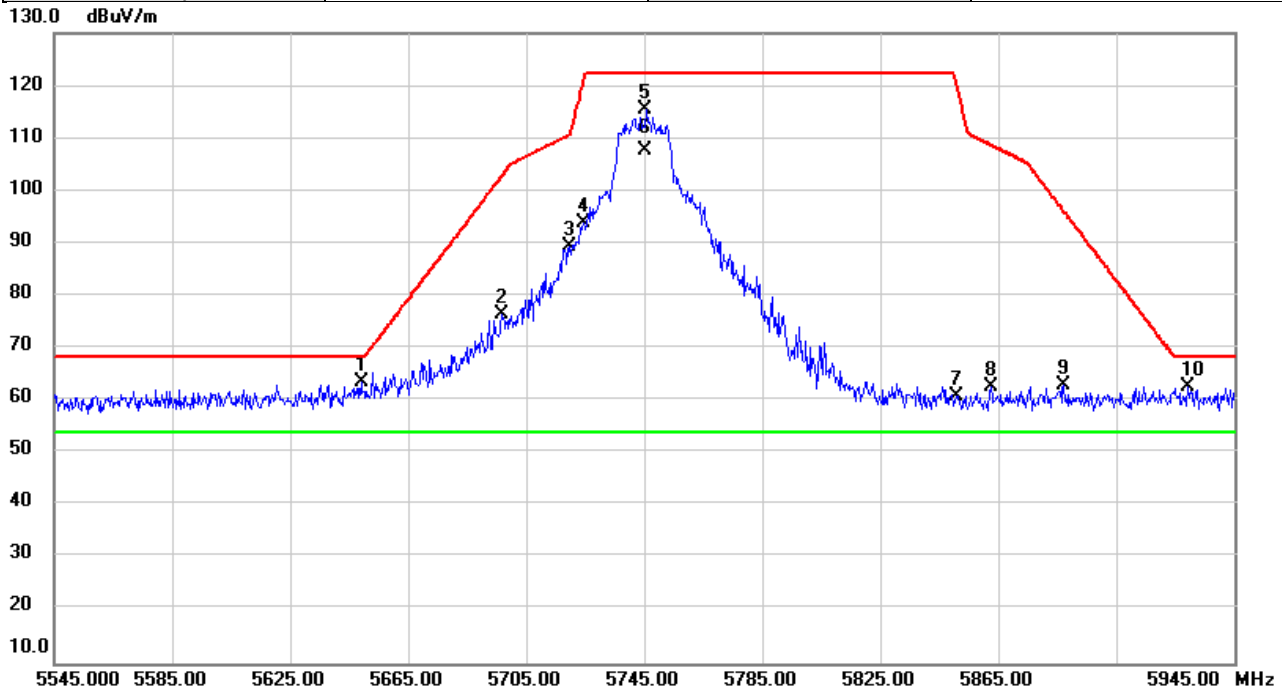
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5140.233	29.51	37.33	66.84	74.00	-7.16	peak	
2		5140.233	9.42	37.33	46.75	54.00	-7.25	AVG	
3	X	5240.000	79.83	37.46	117.29	74.00	43.29	peak	NoLimit
4	*	5240.000	70.76	37.46	108.22	54.00	54.22	AVG	NoLimit

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/3
Test Frequency	5745MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



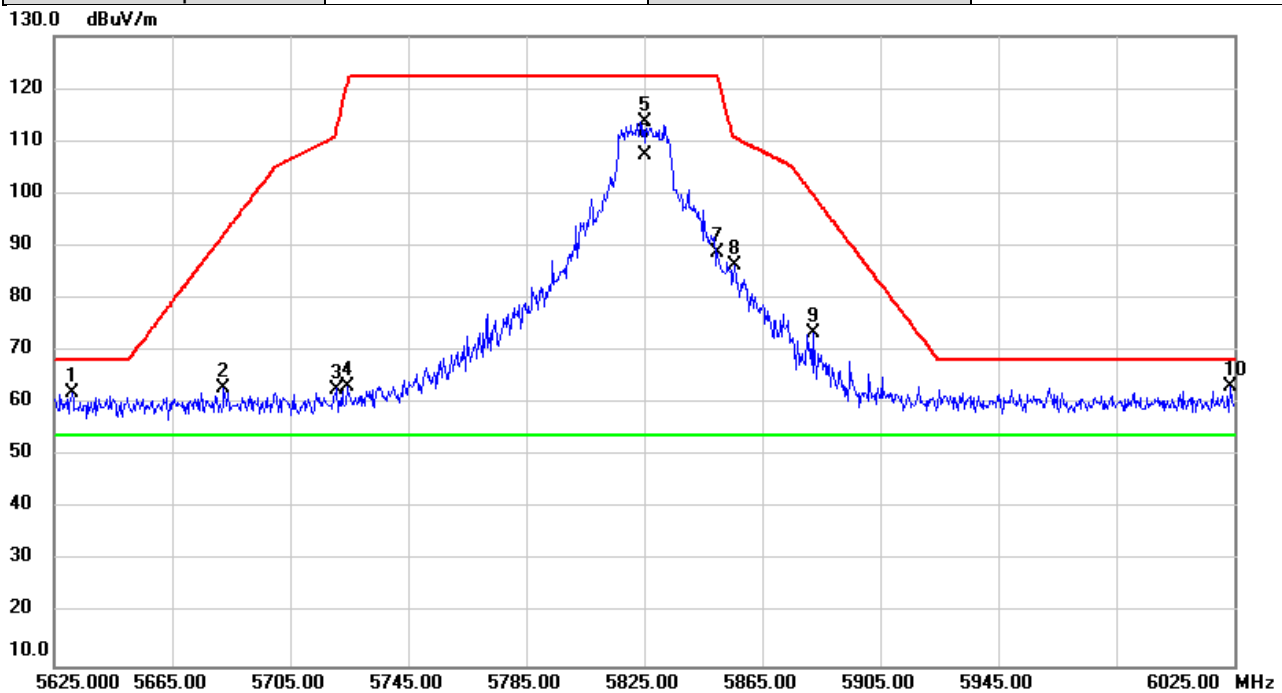
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5649.307	25.46	38.15	63.61	68.20	-4.59	peak	
2		5696.640	38.13	38.26	76.39	102.72	-26.33	peak	
3		5719.680	51.07	38.30	89.37	110.71	-21.34	peak	
4		5724.547	55.44	38.31	93.75	121.17	-27.42	peak	
5		5745.000	77.01	38.36	115.37	122.20	-6.83	peak	NoLimit
6	*	5745.000	69.43	38.36	107.79	54.00	53.79	AVG	NoLimit
7		5850.907	22.38	38.59	60.97	120.13	-59.16	peak	
8		5862.587	24.16	38.62	62.78	108.67	-45.89	peak	
9		5887.267	24.20	38.68	62.88	96.09	-33.21	peak	
10		5929.400	24.01	38.77	62.78	68.20	-5.42	peak	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/3
Test Frequency	5825MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



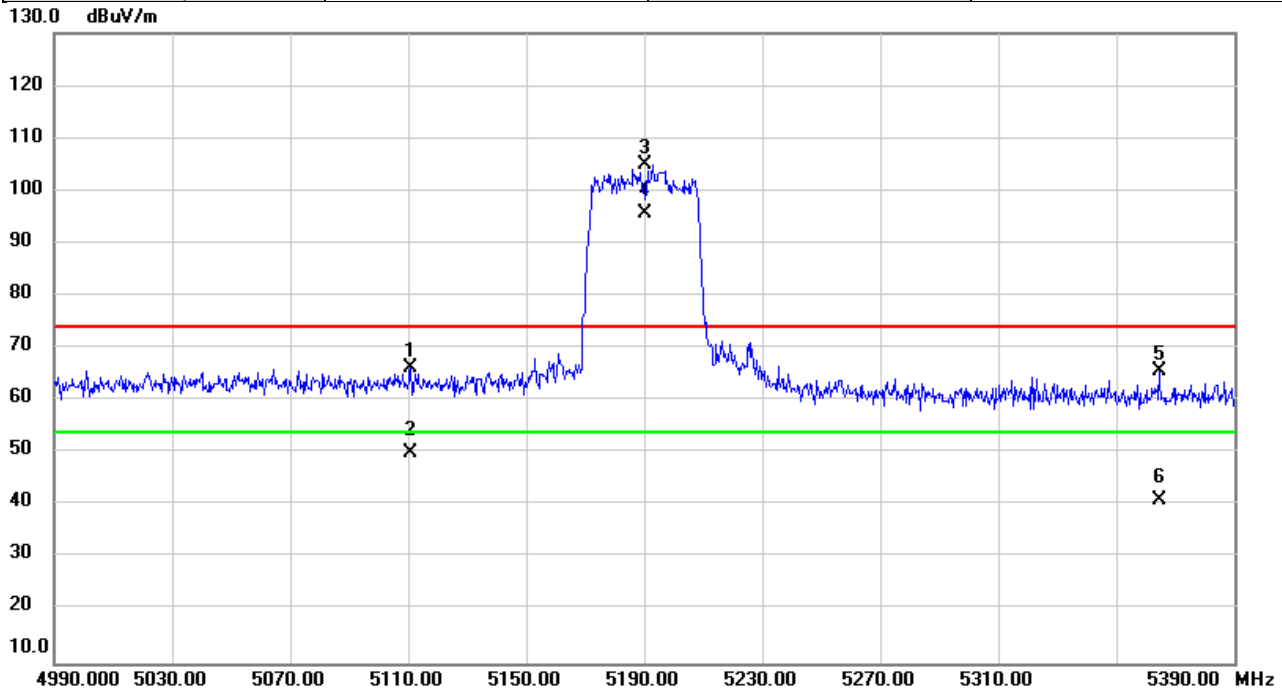
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5631.267	23.83	38.10	61.93	68.20	-6.27	peak	
2		5682.347	24.79	38.22	63.01	92.17	-29.16	peak	
3		5720.547	24.28	38.31	62.59	112.05	-49.46	peak	
4		5724.360	25.00	38.31	63.31	120.74	-57.43	peak	
5		5825.000	75.23	38.54	113.77	122.20	-8.43	peak	NoLimit
6	*	5825.000	68.67	38.54	107.21	54.00	53.21	AVG	NoLimit
7		5849.947	50.30	38.59	88.89	122.20	-33.31	peak	
8		5855.547	47.71	38.61	86.32	110.65	-24.33	peak	
9		5882.107	34.92	38.66	73.58	99.92	-26.34	peak	
10		6023.773	24.21	39.04	63.25	68.20	-4.95	peak	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/3
Test Frequency	5190MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%

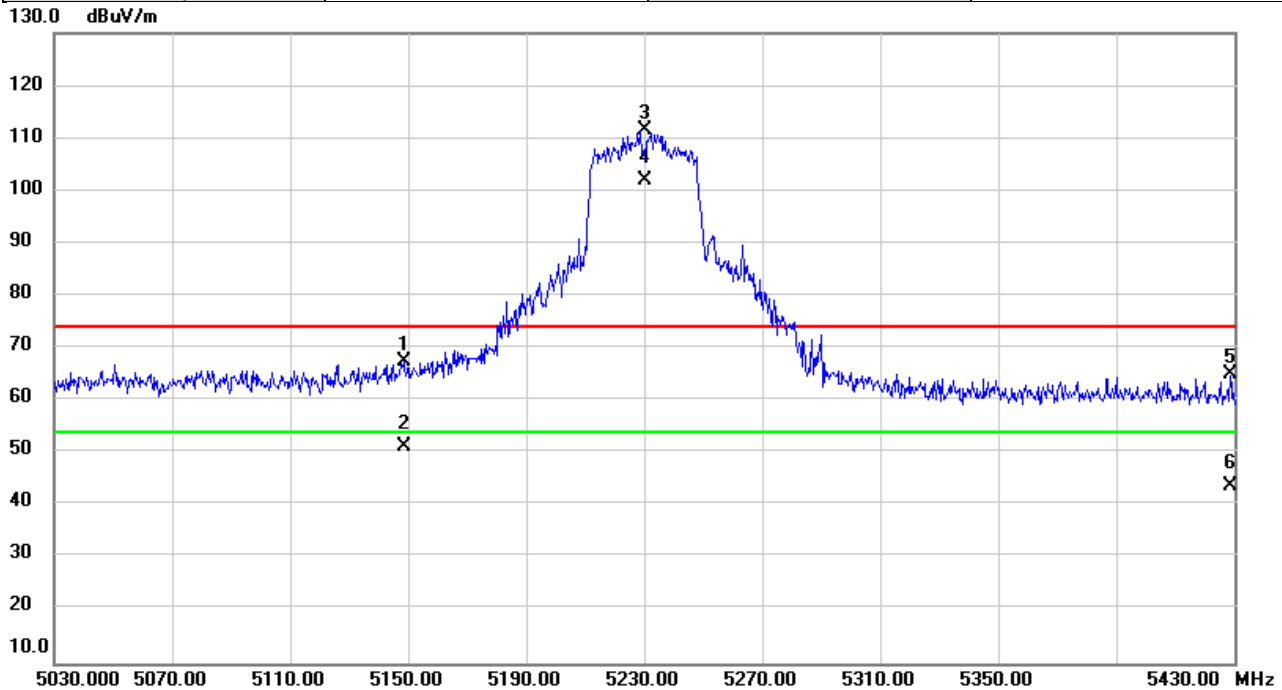


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5111.000	28.88	37.29	66.17	74.00	-7.83	peak	
2		5111.000	12.85	37.29	50.14	54.00	-3.86	AVG	
3	X	5190.000	67.59	37.39	104.98	74.00	30.98	peak	NoLimit
4	*	5190.000	58.25	37.39	95.64	54.00	41.64	AVG	NoLimit
5		5364.747	27.95	37.63	65.58	74.00	-8.42	peak	
6		5364.747	3.35	37.63	40.98	54.00	-13.02	AVG	

REMARKS:

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/3
Test Frequency	5230MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%

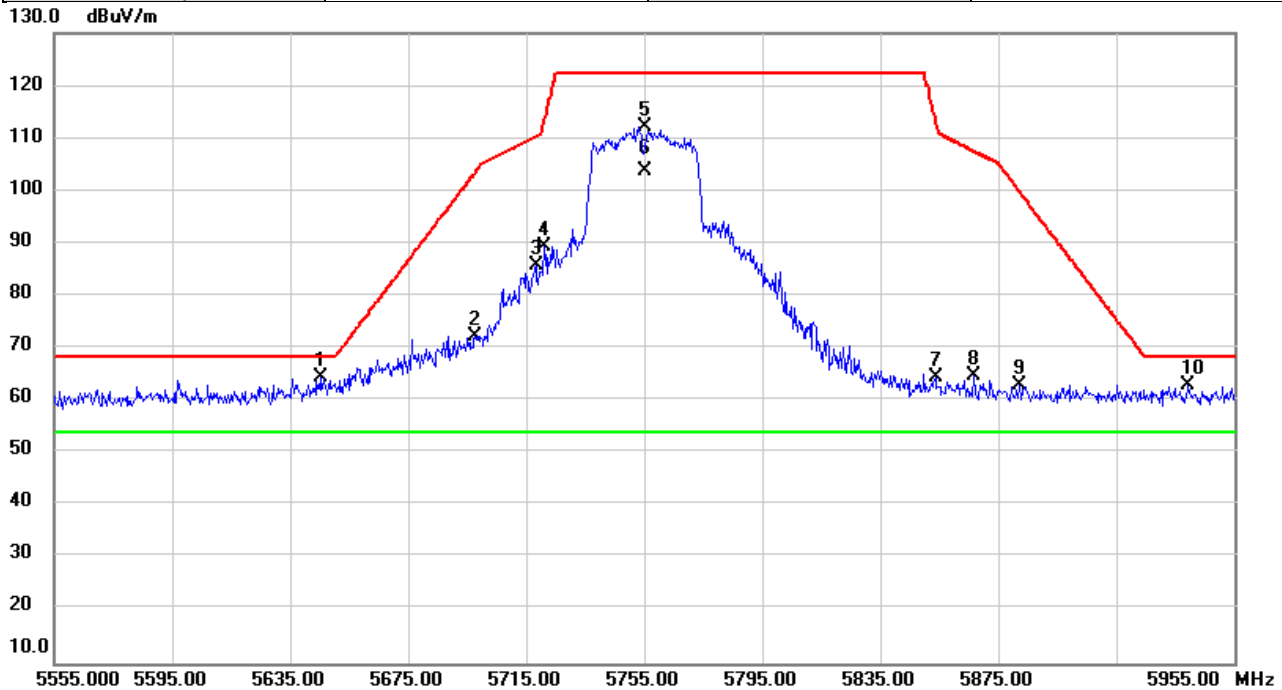


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5148.760	30.00	37.34	67.34	74.00	-6.66	peak	
2		5148.760	14.00	37.34	51.34	54.00	-2.66	AVG	
3	X	5230.000	74.06	37.44	111.50	74.00	37.50	peak	NoLimit
4	*	5230.000	64.51	37.44	101.95	54.00	47.95	AVG	NoLimit
5		5428.507	27.19	37.71	64.90	74.00	-9.10	peak	
6		5428.507	6.01	37.71	43.72	54.00	-10.28	AVG	

REMARKS:

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/3
Test Frequency	5755MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



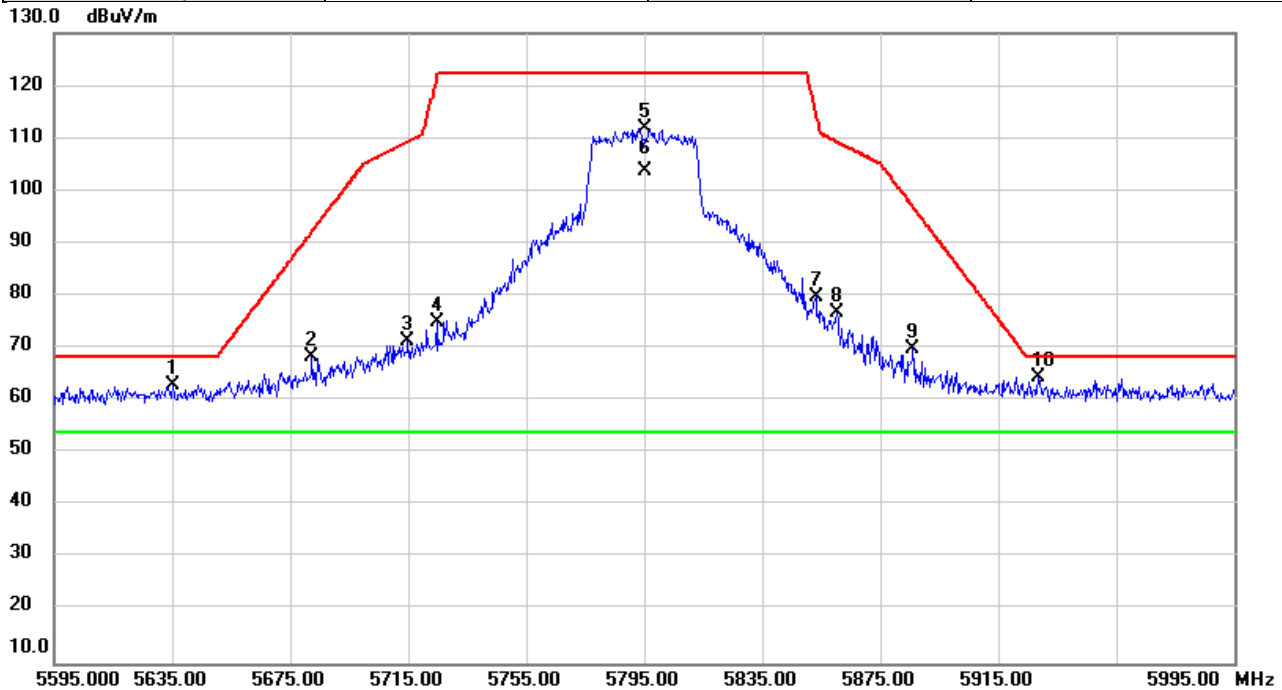
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5645.347	26.21	38.13	64.34	68.20	-3.86	peak	
2		5697.413	34.07	38.26	72.33	103.29	-30.96	peak	
3		5718.213	47.47	38.30	85.77	110.30	-24.53	peak	
4		5721.187	51.02	38.31	89.33	113.51	-24.18	peak	
5		5755.000	73.75	38.38	112.13	122.20	-10.07	peak	NoLimit
6	*	5755.000	65.27	38.38	103.65	54.00	49.65	AVG	NoLimit
7		5853.733	25.95	38.61	64.56	113.69	-49.13	peak	
8		5866.853	26.14	38.63	64.77	107.48	-42.71	peak	
9		5882.200	24.34	38.67	63.01	99.85	-36.84	peak	
10		5939.427	24.25	38.80	63.05	68.20	-5.15	peak	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/3
Test Frequency	5795MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



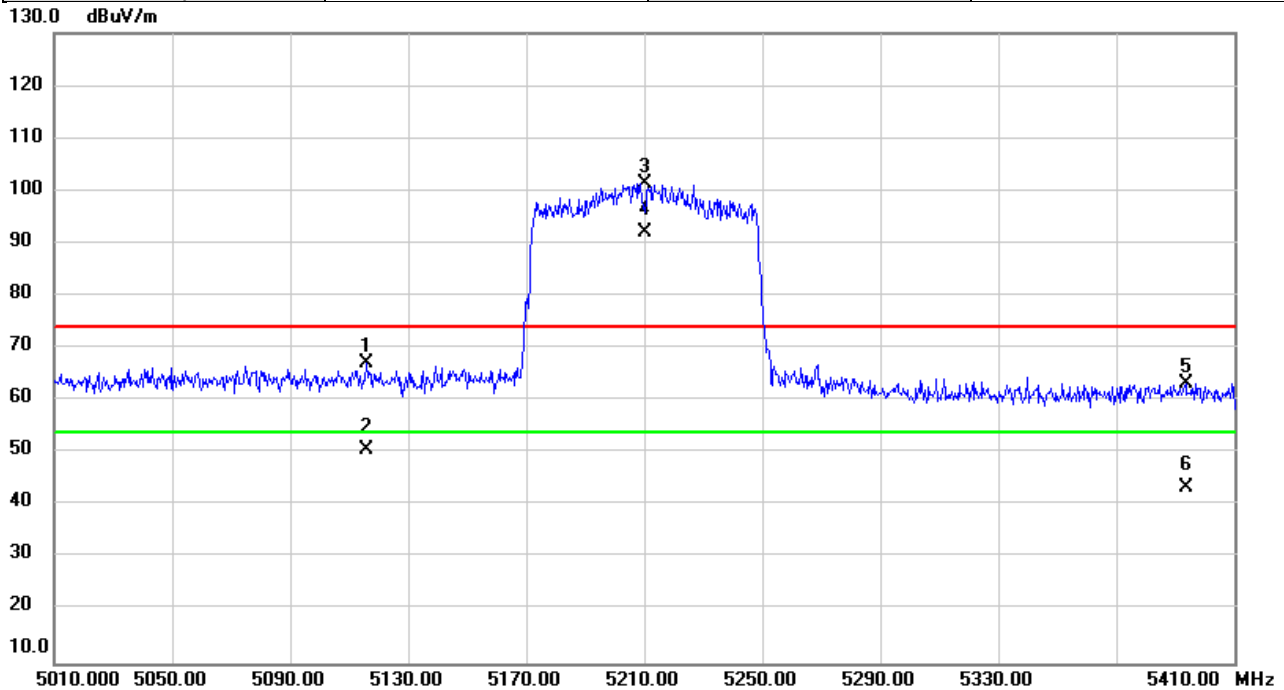
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5635.200	24.80	38.11	62.91	68.20	-5.29	peak	
2		5682.253	30.18	38.22	68.40	92.10	-23.70	peak	
3		5714.760	32.97	38.29	71.26	109.33	-38.07	peak	
4		5724.747	36.67	38.31	74.98	121.62	-46.64	peak	
5		5795.000	73.39	38.47	111.86	122.20	-10.34	peak	NoLimit
6	*	5795.000	65.40	38.47	103.87	54.00	49.87	AVG	NoLimit
7		5853.253	41.23	38.60	79.83	114.78	-34.95	peak	
8		5860.560	38.03	38.61	76.64	109.24	-32.60	peak	
9		5885.840	31.29	38.67	69.96	97.15	-27.19	peak	
10		5928.520	25.56	38.77	64.33	68.20	-3.87	peak	

REMARKS:

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

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

Test Mode	IEEE 802.11ac (VHT80)	Test Date	2021/7/3
Test Frequency	5210MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



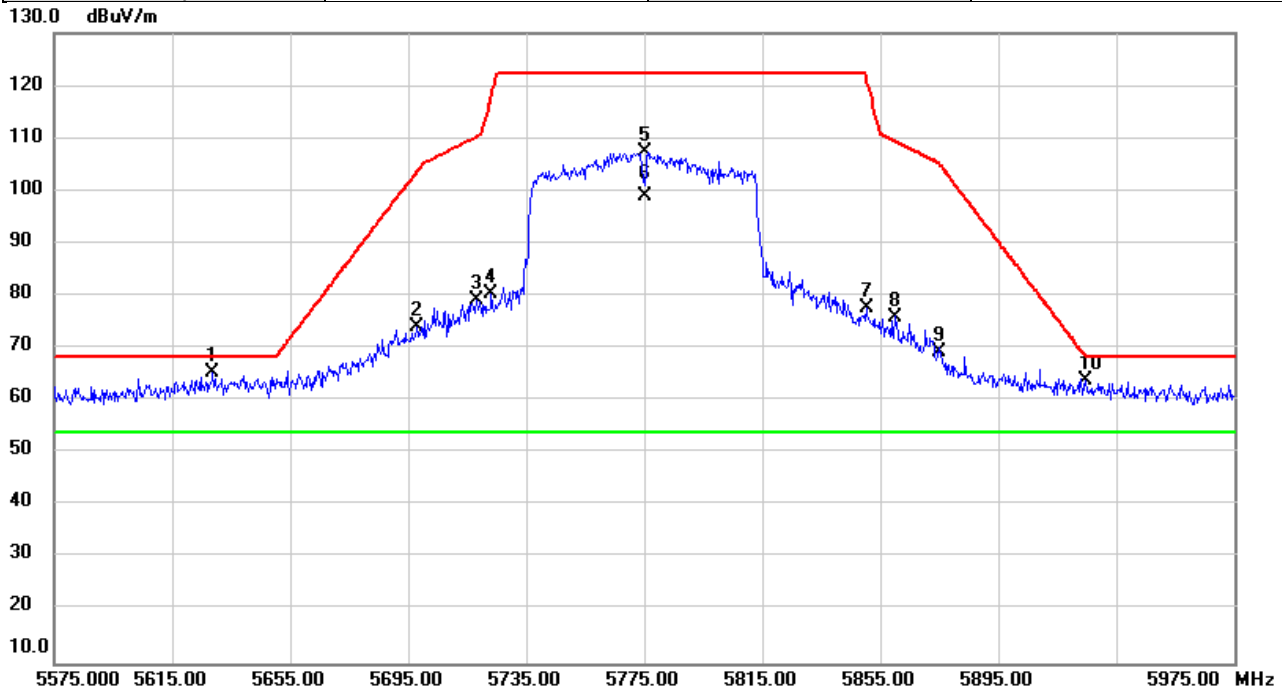
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5116.000	29.81	37.29	67.10	74.00	-6.90	peak	
2		5116.000	13.46	37.29	50.75	54.00	-3.25	AVG	
3	X	5210.000	63.91	37.42	101.33	74.00	27.33	peak	NoLimit
4	*	5210.000	54.52	37.42	91.94	54.00	37.94	AVG	NoLimit
5		5393.507	25.70	37.66	63.36	74.00	-10.64	peak	
6		5393.507	5.74	37.66	43.40	54.00	-10.60	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11ac (VHT80)	Test Date	2021/7/3
Test Frequency	5775MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



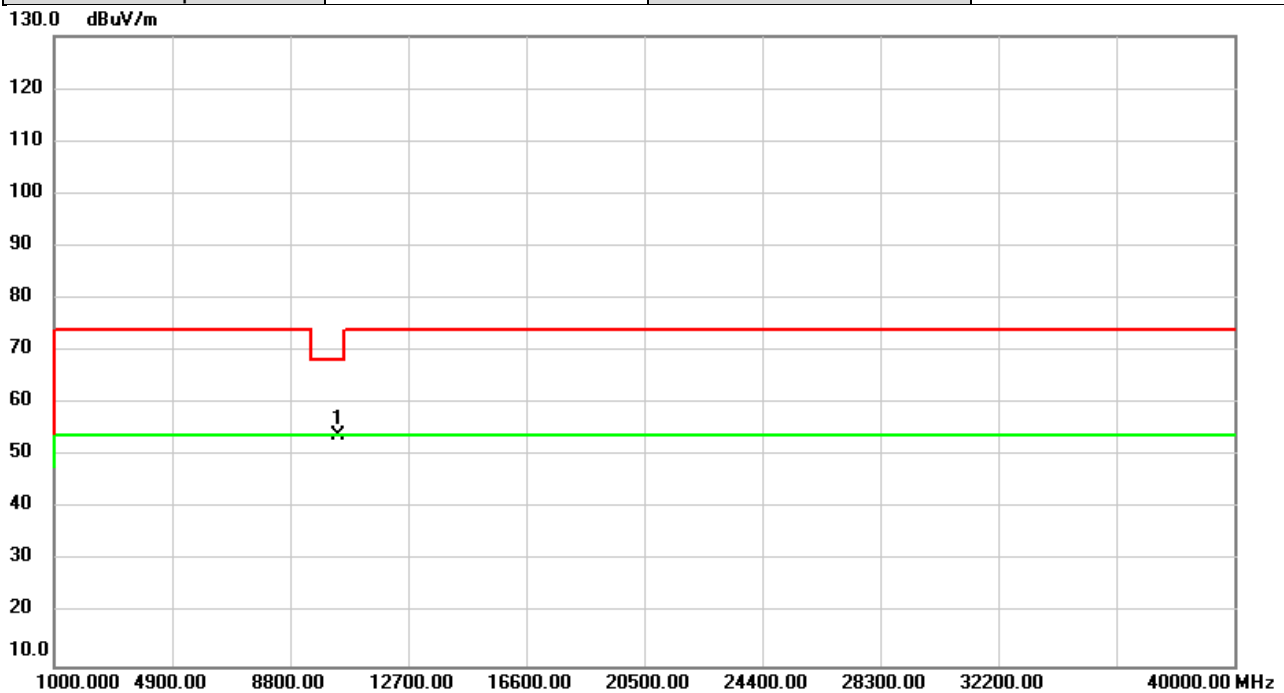
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5628.627	27.38	38.10	65.48	68.20	-2.72	peak	
2		5697.907	35.84	38.26	74.10	103.66	-29.56	peak	
3		5718.307	40.97	38.30	79.27	110.33	-31.06	peak	
4		5723.053	41.93	38.31	80.24	117.76	-37.52	peak	
5		5775.000	69.05	38.42	107.47	122.20	-14.73	peak	NoLimit
6	*	5775.000	60.56	38.42	98.98	54.00	44.98	AVG	NoLimit
7		5850.280	39.20	38.59	77.79	121.56	-43.77	peak	
8		5860.147	37.39	38.61	76.00	109.36	-33.36	peak	
9		5875.000	30.72	38.64	69.36	105.20	-35.84	peak	
10		5924.493	25.06	38.76	63.82	68.57	-4.75	peak	

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5180MHz	Polarization	Vertical
Temp	23°C	Hum.	57%

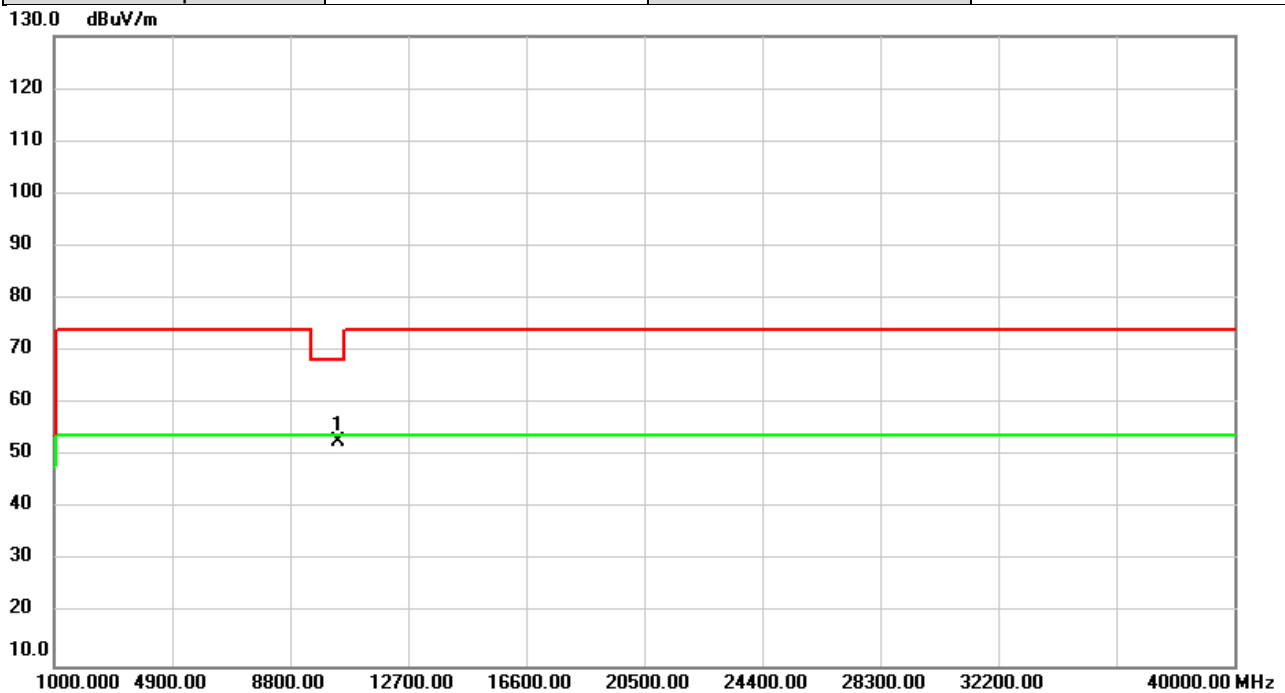


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10360.00	52.20	1.77	53.97	68.20	-14.23	peak	

REMARKS:

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5180MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%

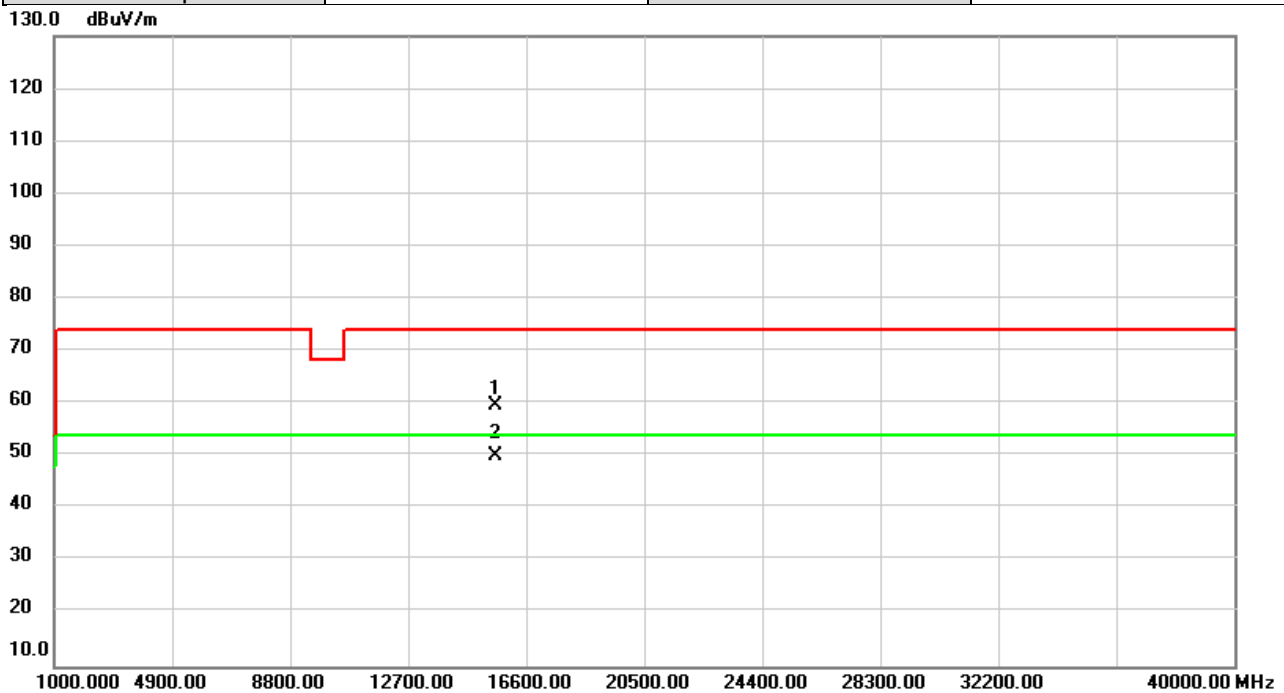


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10360.00	50.95	1.77	52.72	68.20	-15.48	peak	

REMARKS:

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5200MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



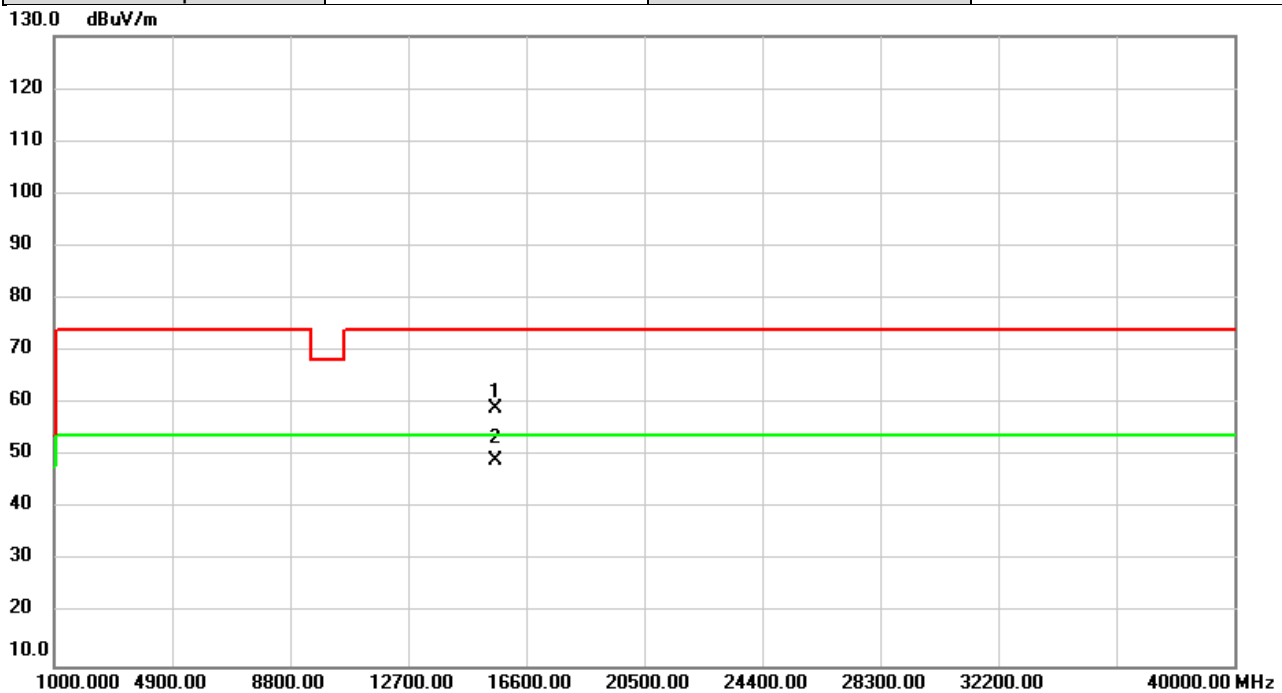
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		15600.00	50.82	8.95	59.77	74.00	-14.23	peak	
2	*	15600.00	41.10	8.95	50.05	54.00	-3.95	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5200MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



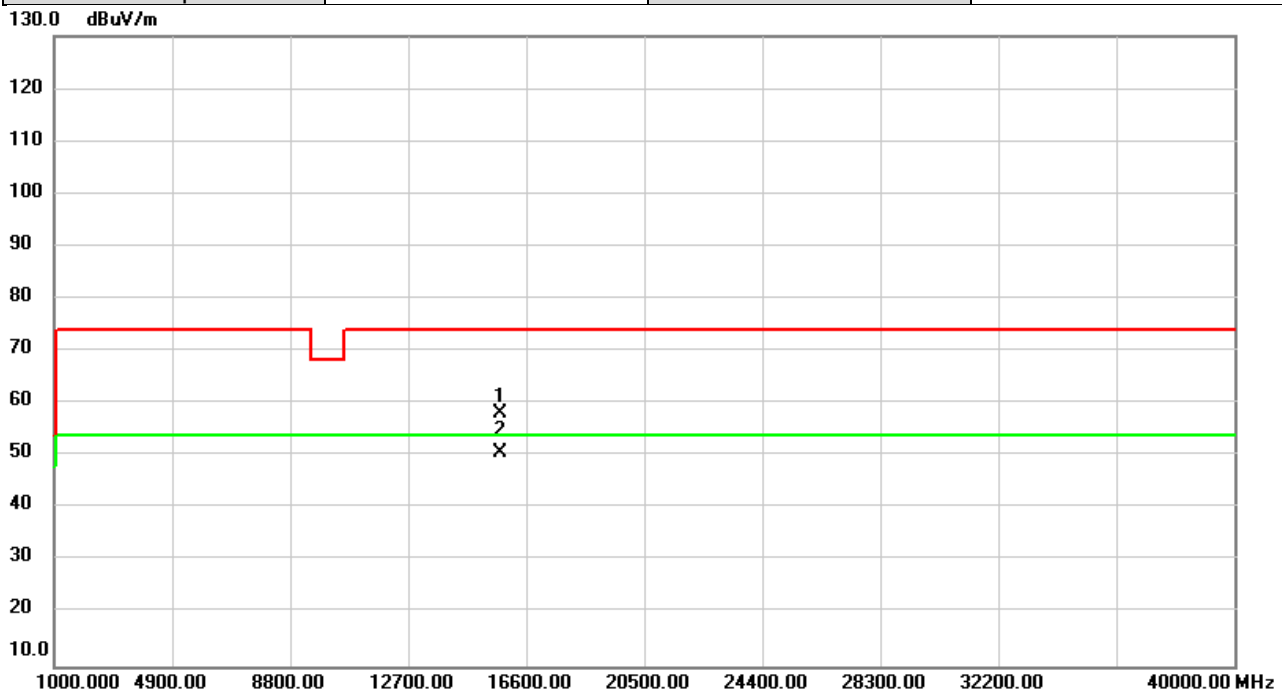
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		15600.00	50.16	8.95	59.11	74.00	-14.89	peak	
2	*	15600.00	40.28	8.95	49.23	54.00	-4.77	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5240MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



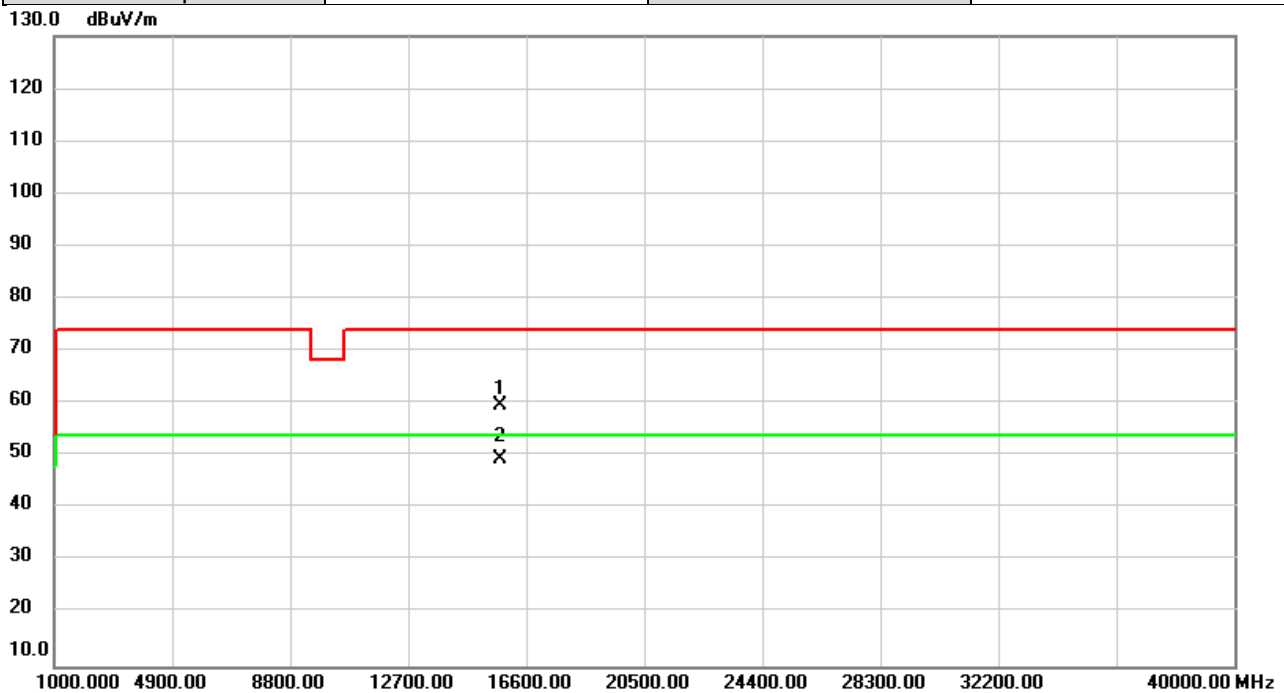
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		15720.00	49.37	8.82	58.19	74.00	-15.81	peak	
2	*	15720.00	41.95	8.82	50.77	54.00	-3.23	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5240MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



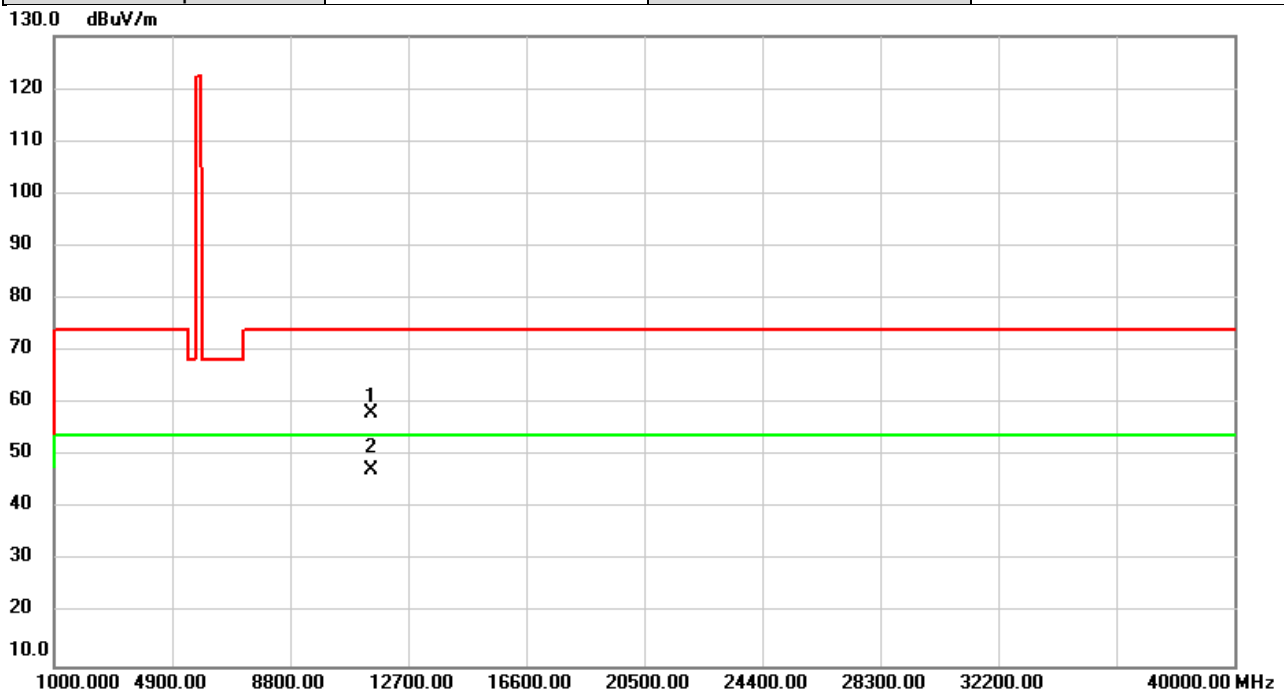
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		15720.00	50.96	8.82	59.78	74.00	-14.22	peak	
2	*	15720.00	40.53	8.82	49.35	54.00	-4.65	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5745MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



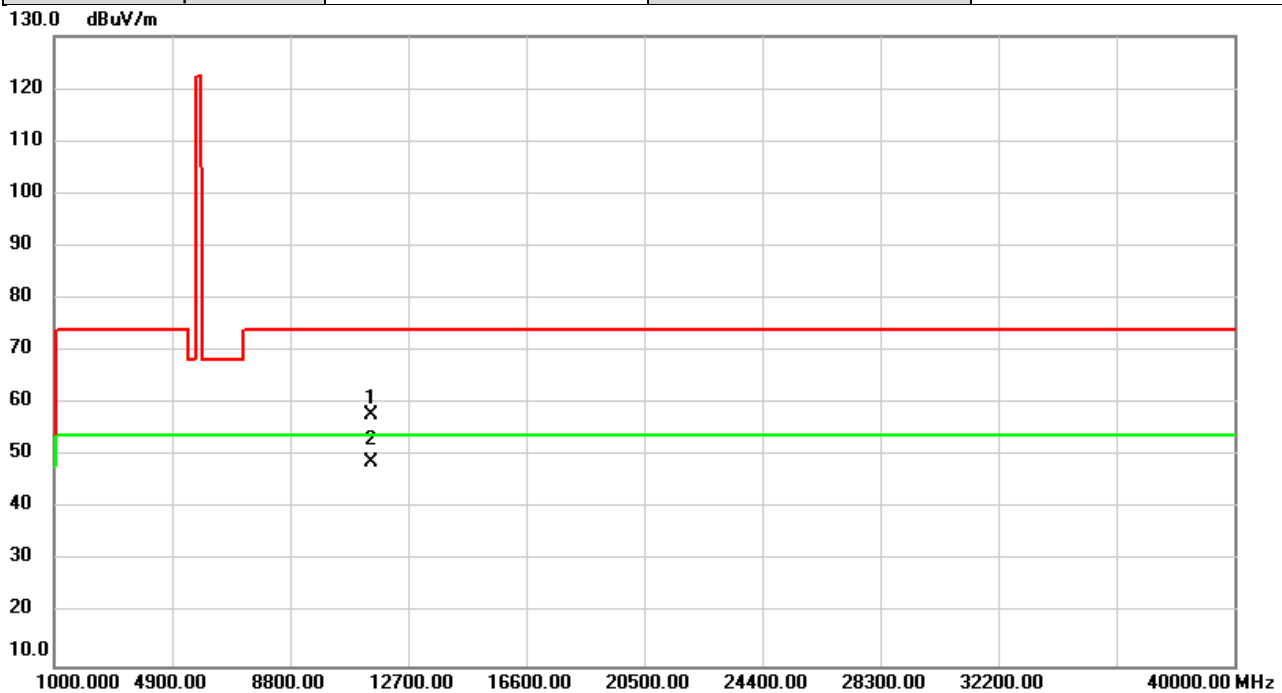
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11490.00	52.95	5.26	58.21	74.00	-15.79	peak	
2	*	11490.00	42.13	5.26	47.39	54.00	-6.61	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5745MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



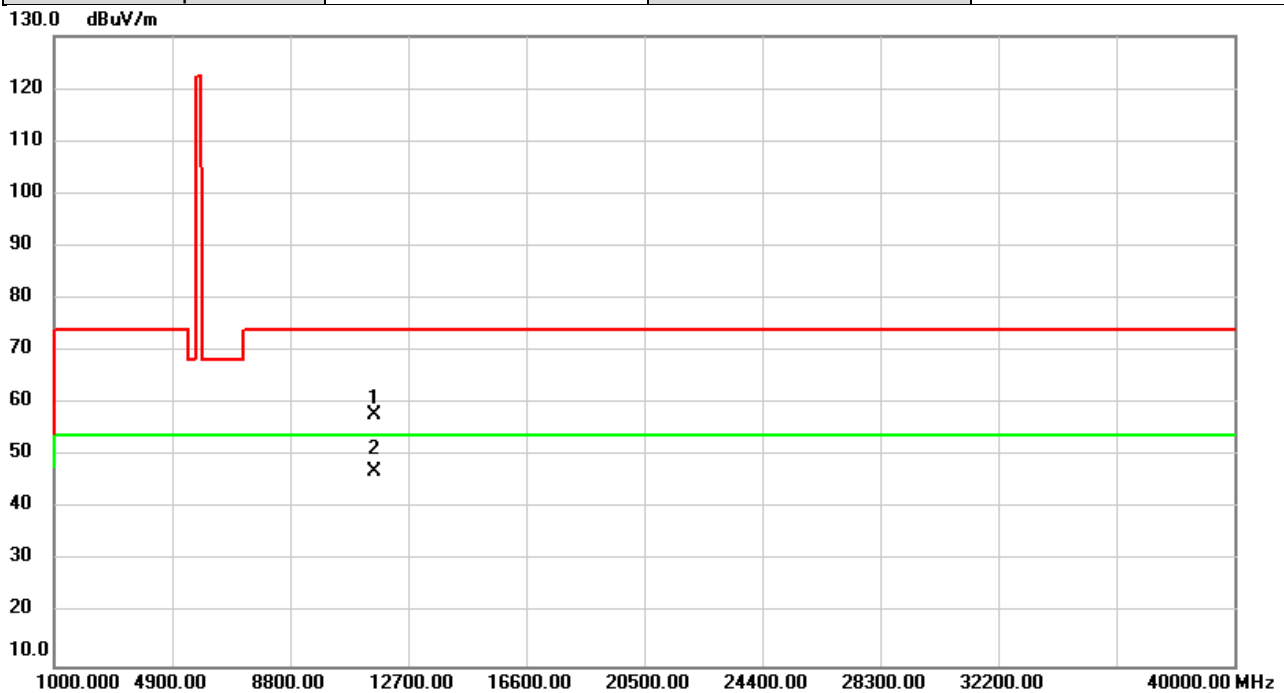
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11490.00	52.56	5.26	57.82	74.00	-16.18	peak	
2	*	11490.00	43.47	5.26	48.73	54.00	-5.27	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5785MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



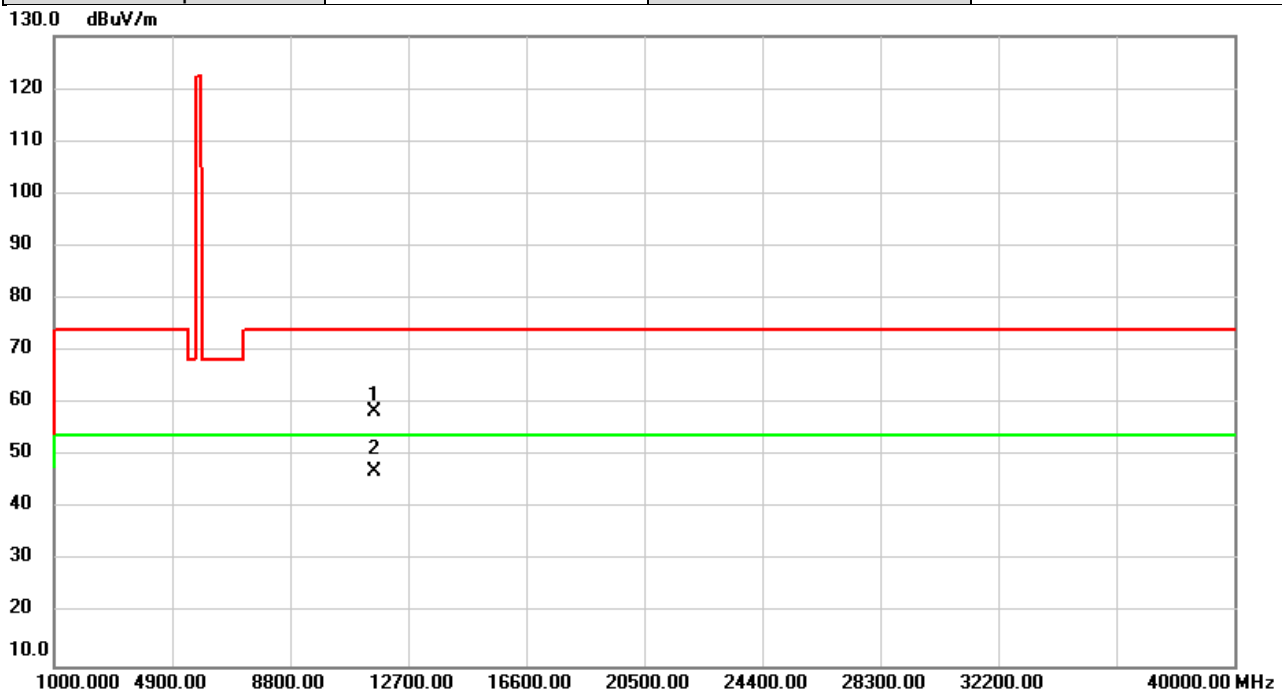
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11570.00	52.79	5.06	57.85	74.00	-16.15	peak	
2	*	11570.00	41.91	5.06	46.97	54.00	-7.03	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5785MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



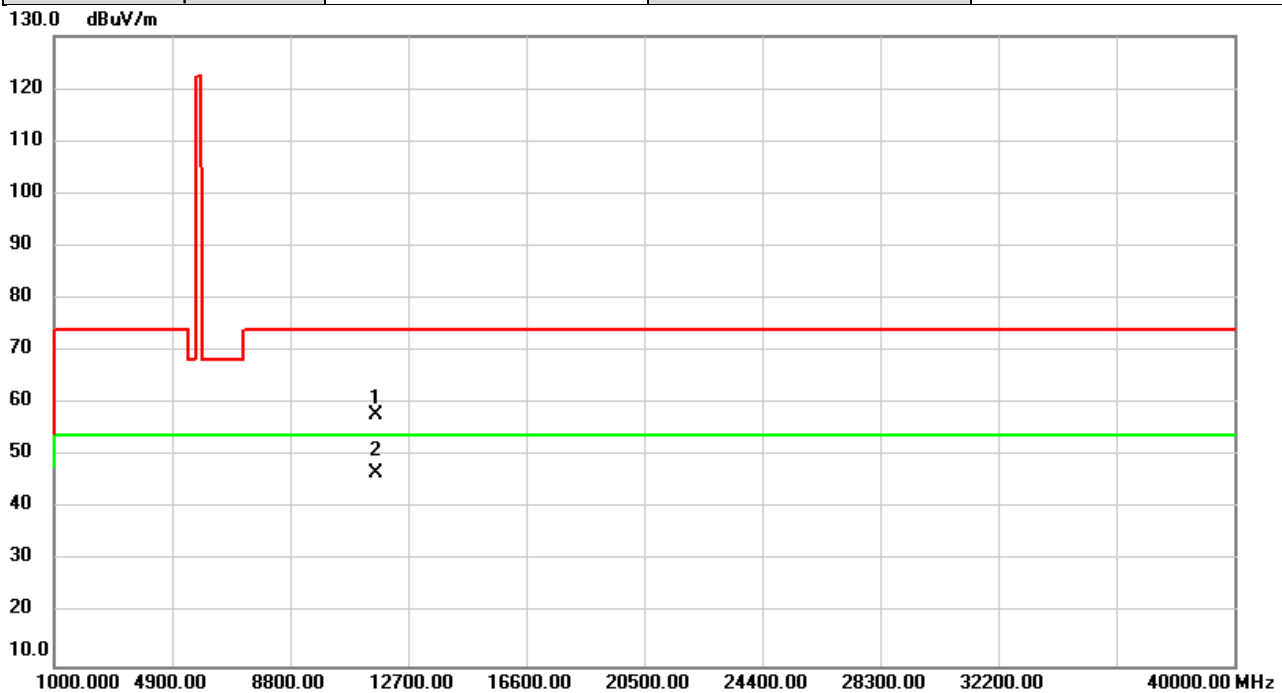
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11570.00	53.35	5.06	58.41	74.00	-15.59	peak	
2	*	11570.00	41.93	5.06	46.99	54.00	-7.01	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5825MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



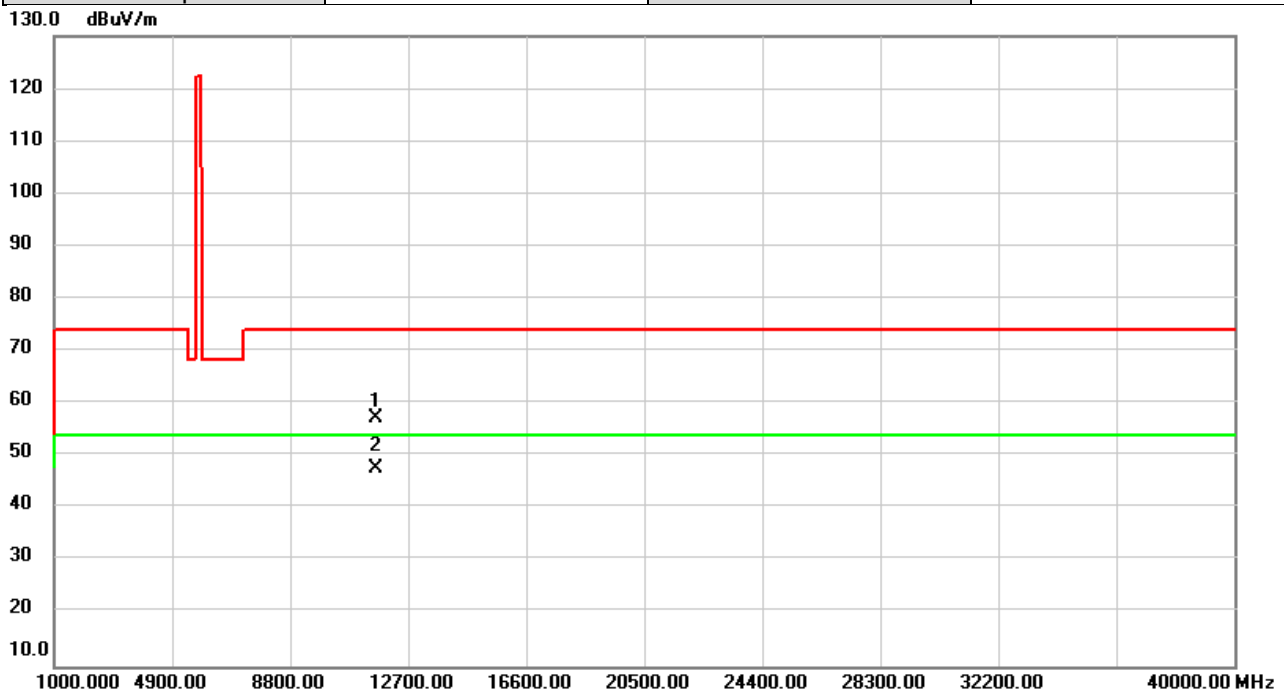
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11650.00	52.92	4.85	57.77	74.00	-16.23	peak	
2	*	11650.00	42.05	4.85	46.90	54.00	-7.10	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11a	Test Date	2021/7/6
Test Frequency	5825MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



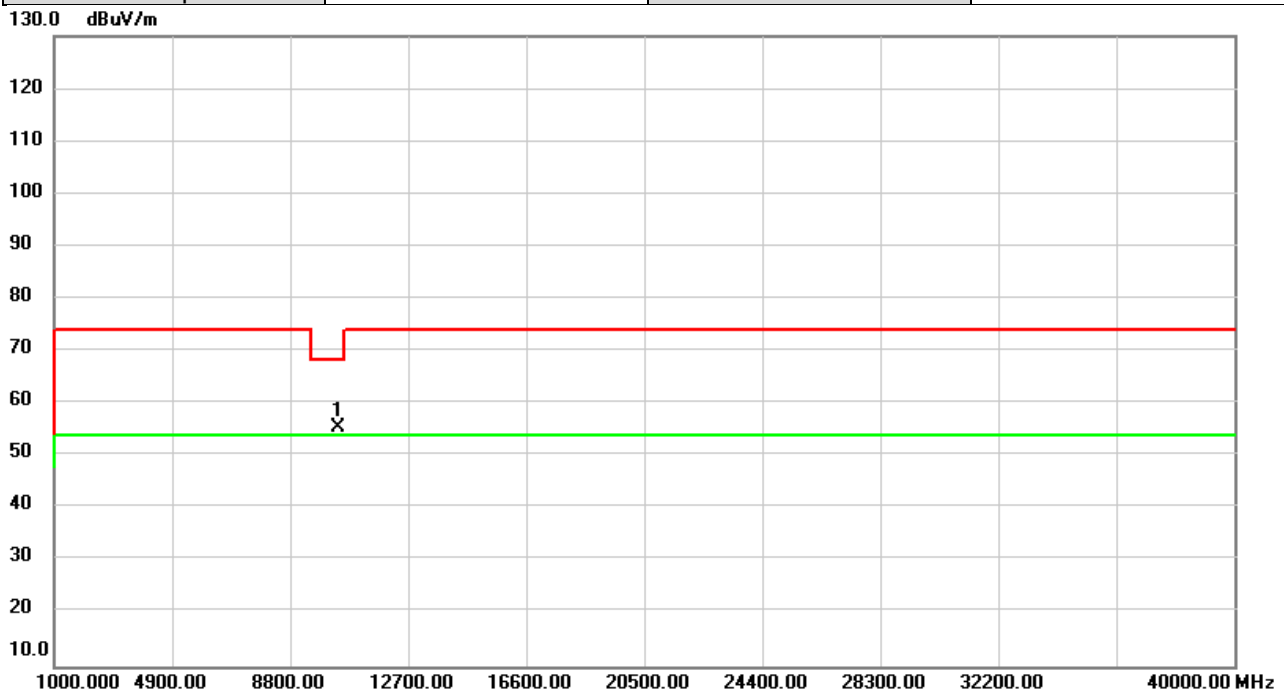
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11650.00	52.52	4.85	57.37	74.00	-16.63	peak	
2	*	11650.00	42.87	4.85	47.72	54.00	-6.28	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5180MHz	Polarization	Vertical
Temp	23°C	Hum.	57%

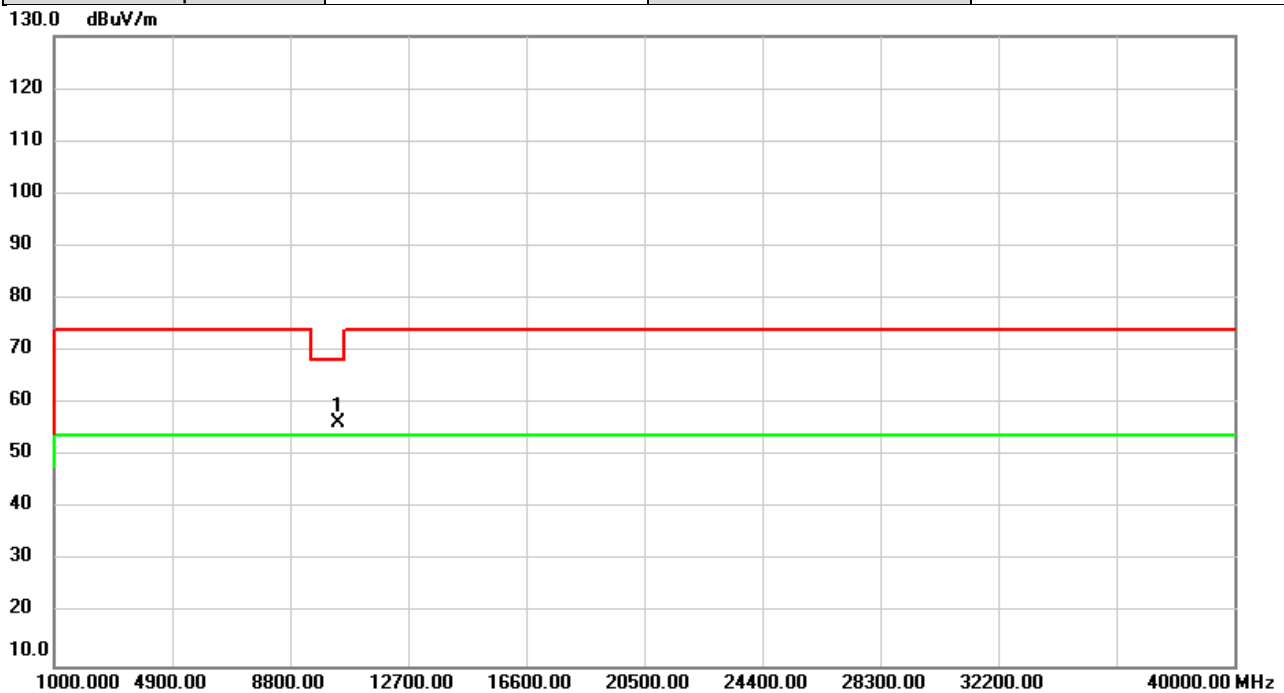


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10360.00	50.99	4.42	55.41	68.20	-12.79	peak	

REMARKS:

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5180MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%

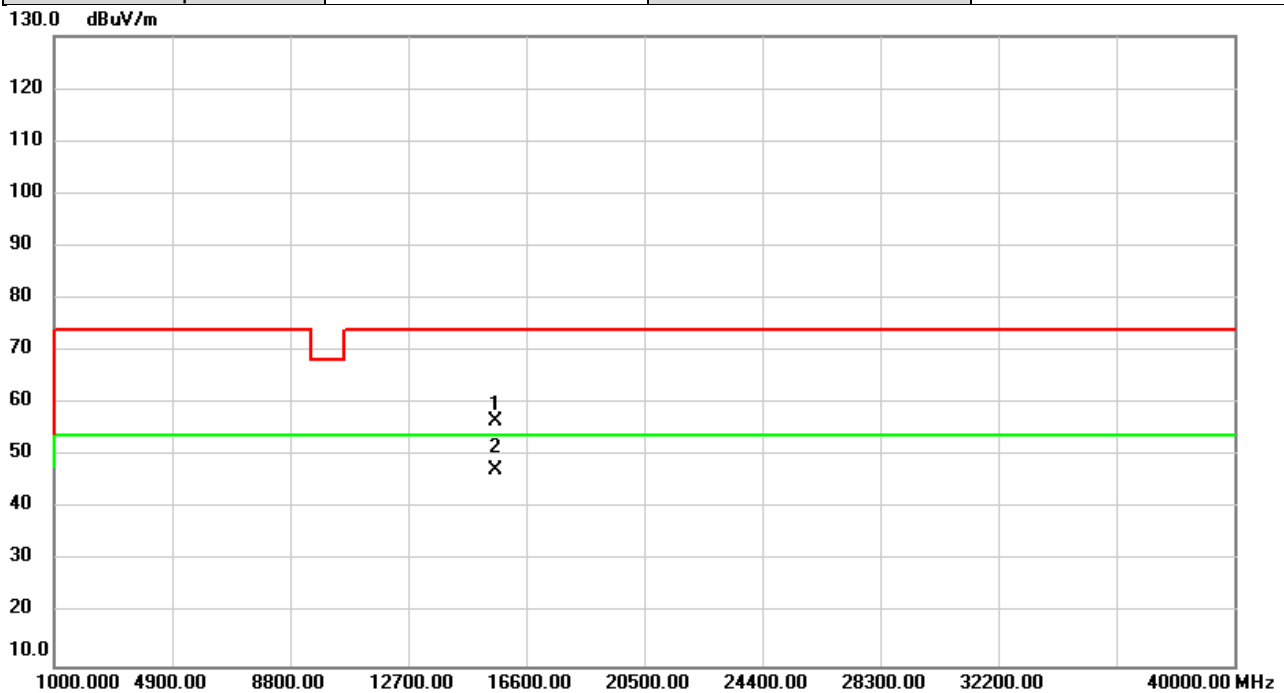


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10360.00	52.02	4.42	56.44	68.20	-11.76	peak	

REMARKS:

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5200MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



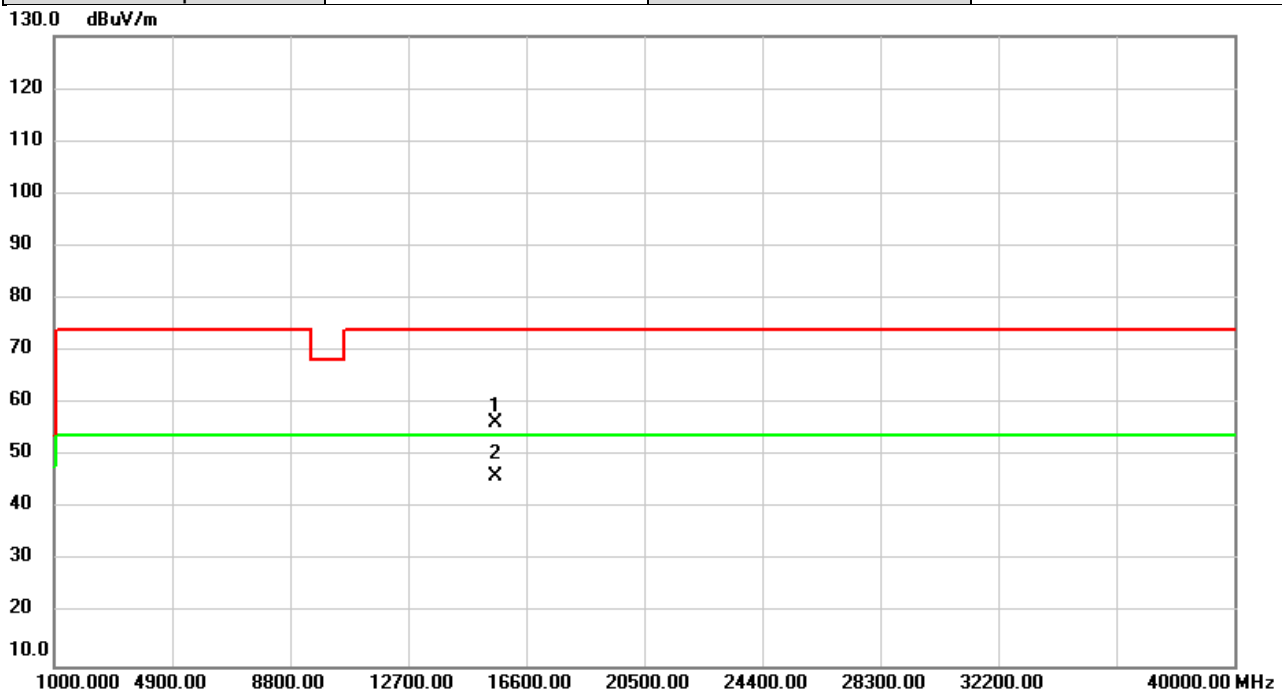
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		15600.00	50.19	6.43	56.62	74.00	-17.38	peak	
2	*	15600.00	40.93	6.43	47.36	54.00	-6.64	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5200MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



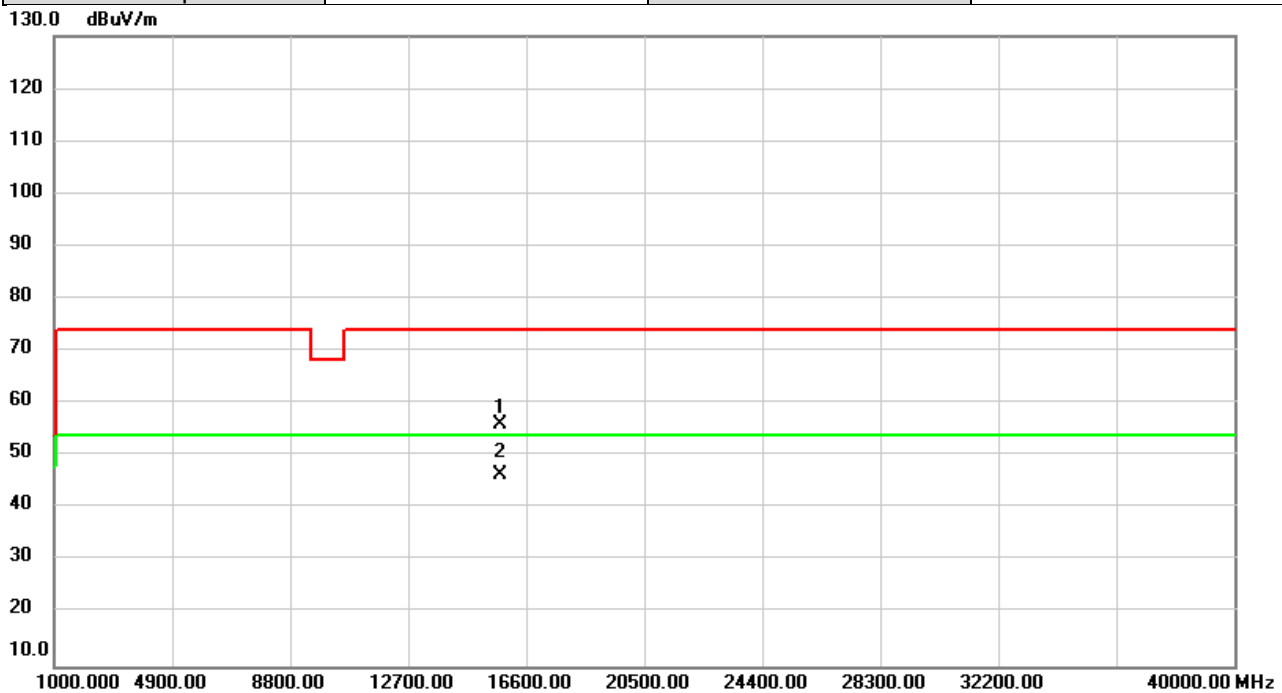
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		15600.00	49.97	6.43	56.40	74.00	-17.60	peak	
2	*	15600.00	39.77	6.43	46.20	54.00	-7.80	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5240MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



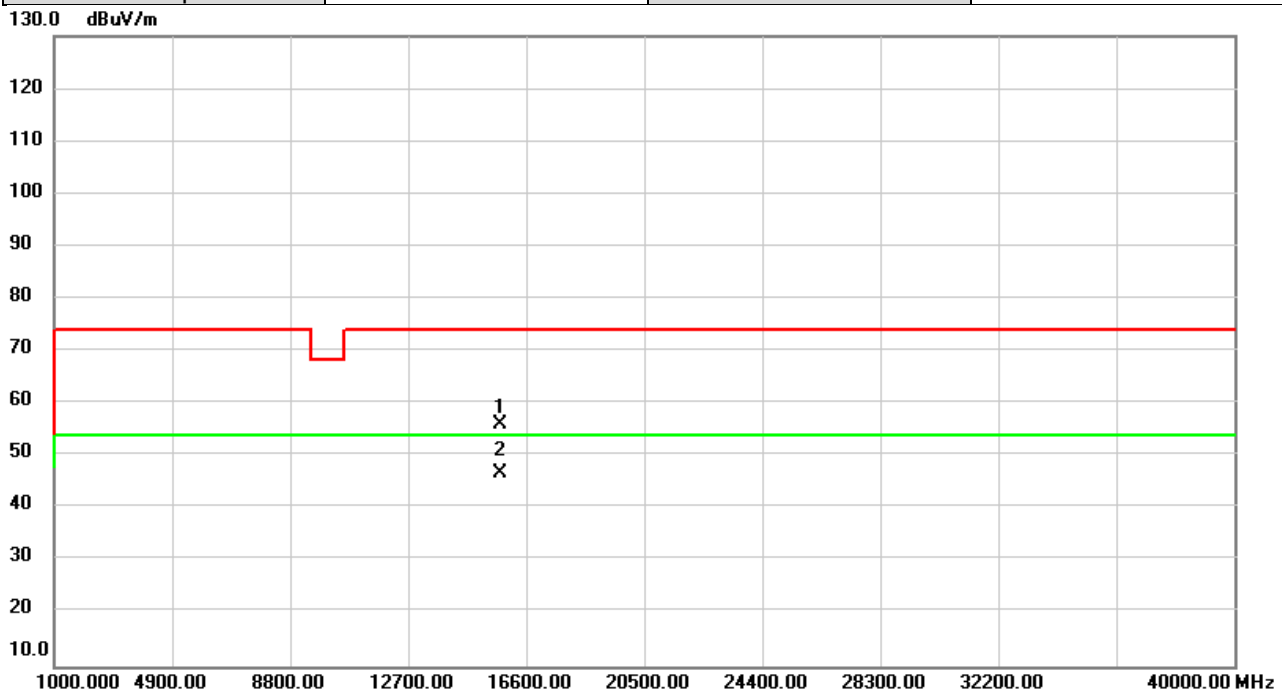
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		15720.00	49.87	6.04	55.91	74.00	-18.09	peak	
2	*	15720.00	40.34	6.04	46.38	54.00	-7.62	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5240MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



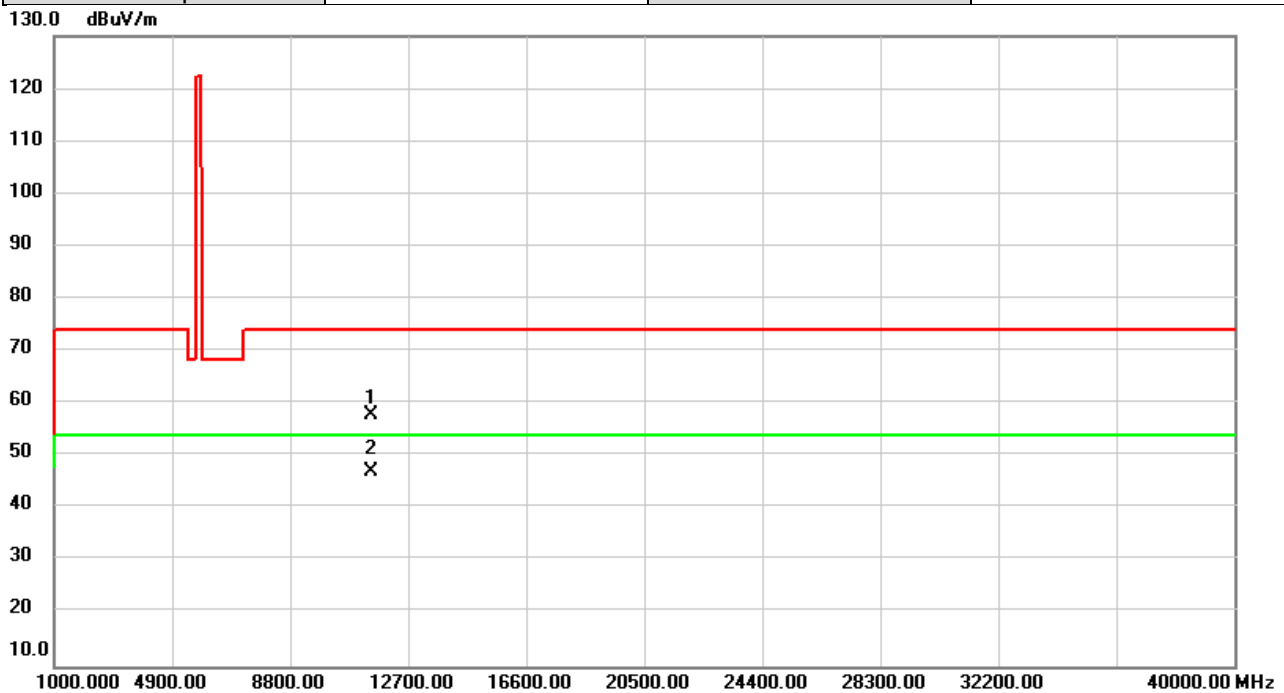
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		15720.00	50.15	6.04	56.19	74.00	-17.81	peak	
2	*	15720.00	40.62	6.04	46.66	54.00	-7.34	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5745MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



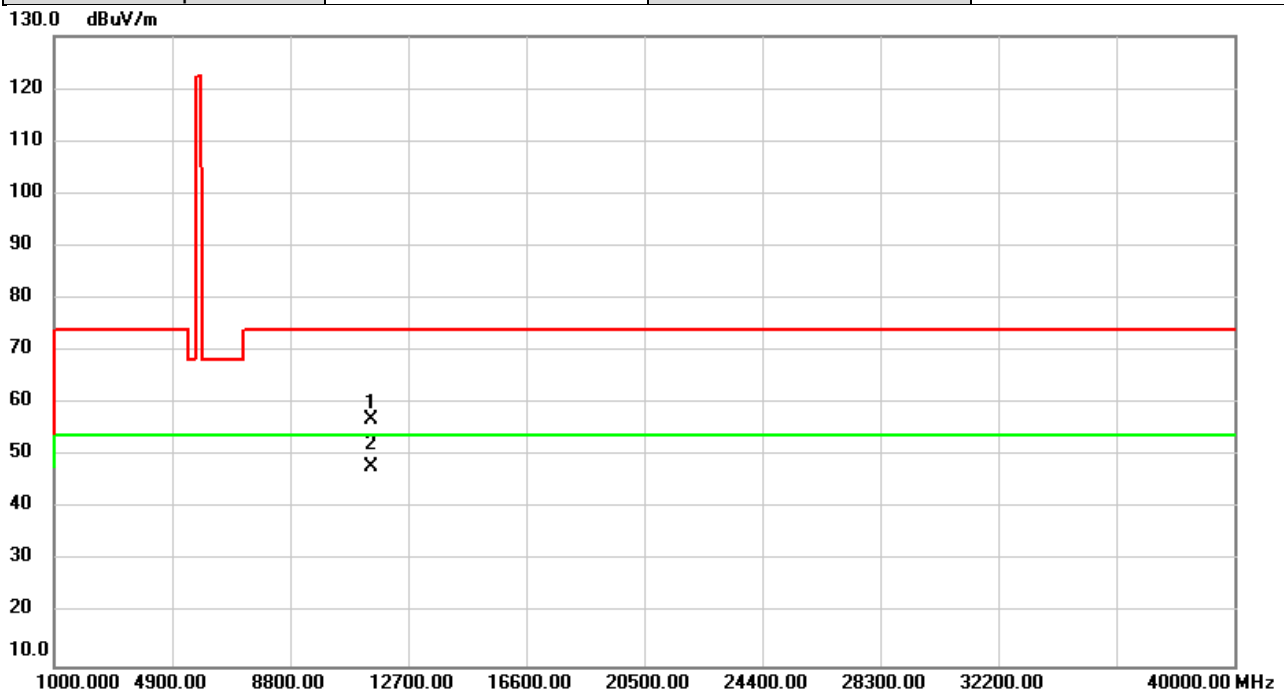
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11490.00	52.72	5.26	57.98	74.00	-16.02	peak	
2	*	11490.00	41.89	5.26	47.15	54.00	-6.85	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5745MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



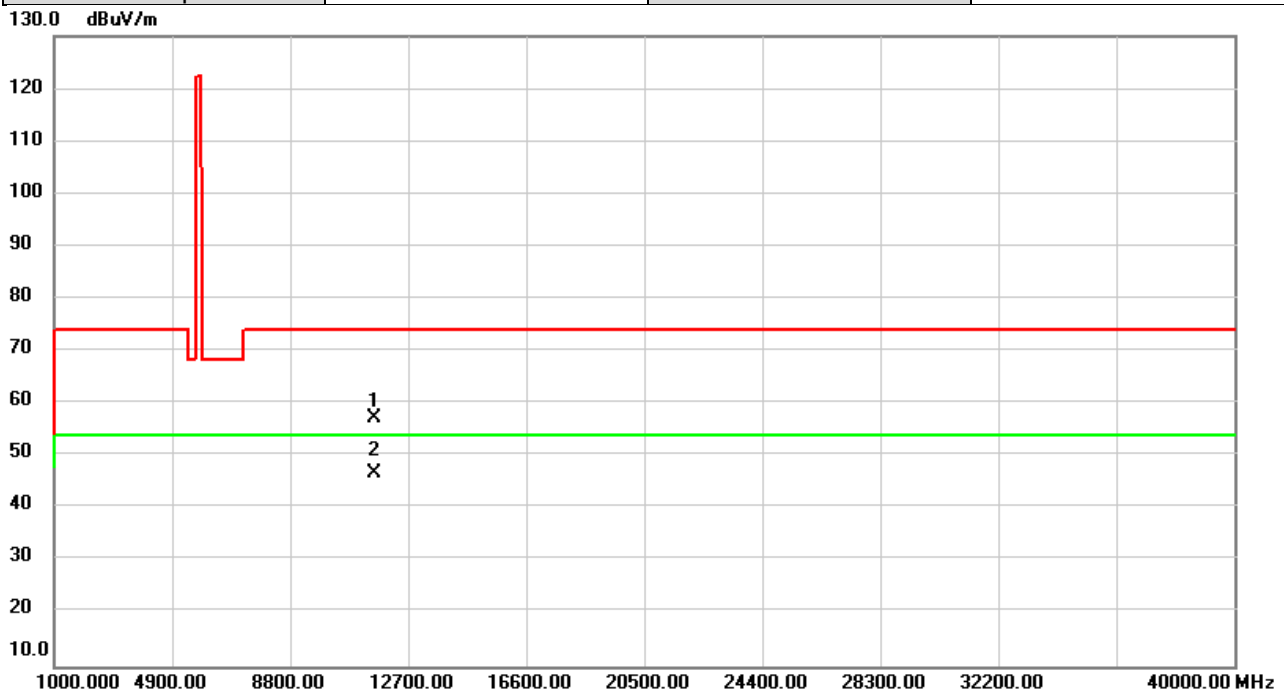
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11490.00	51.79	5.26	57.05	74.00	-16.95	peak	
2	*	11490.00	42.73	5.26	47.99	54.00	-6.01	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5785MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



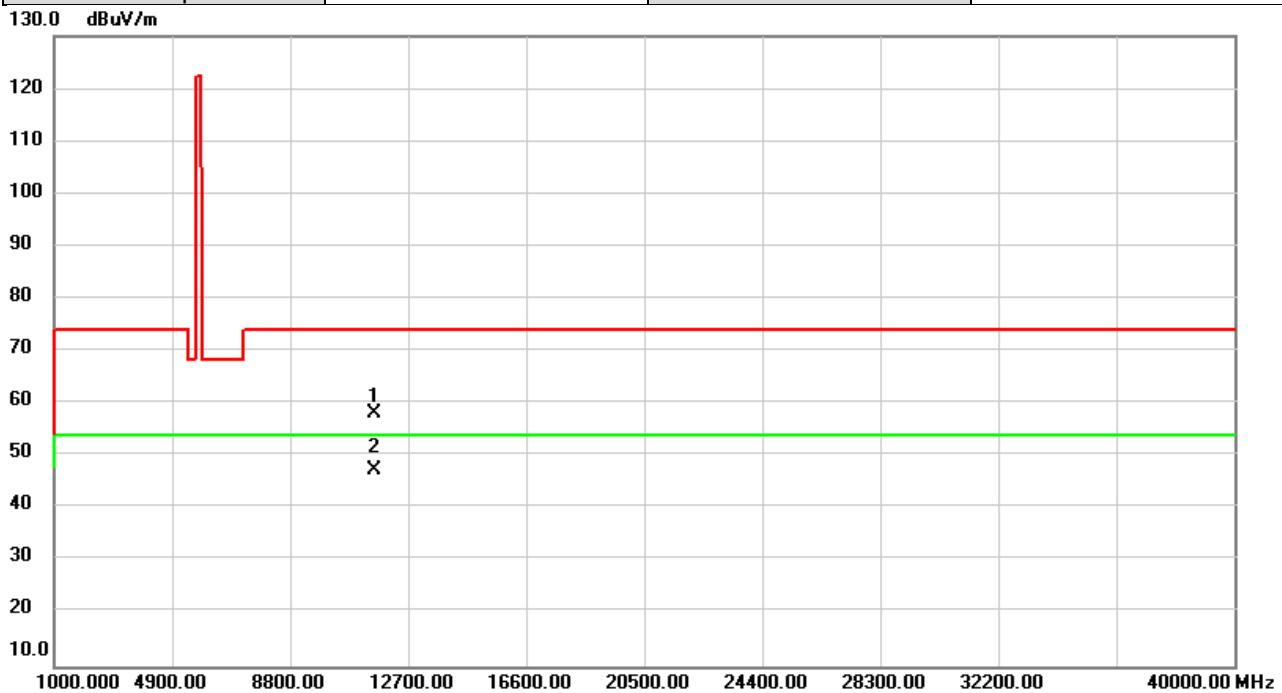
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11570.00	52.30	5.06	57.36	74.00	-16.64	peak	
2	*	11570.00	41.80	5.06	46.86	54.00	-7.14	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5785MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



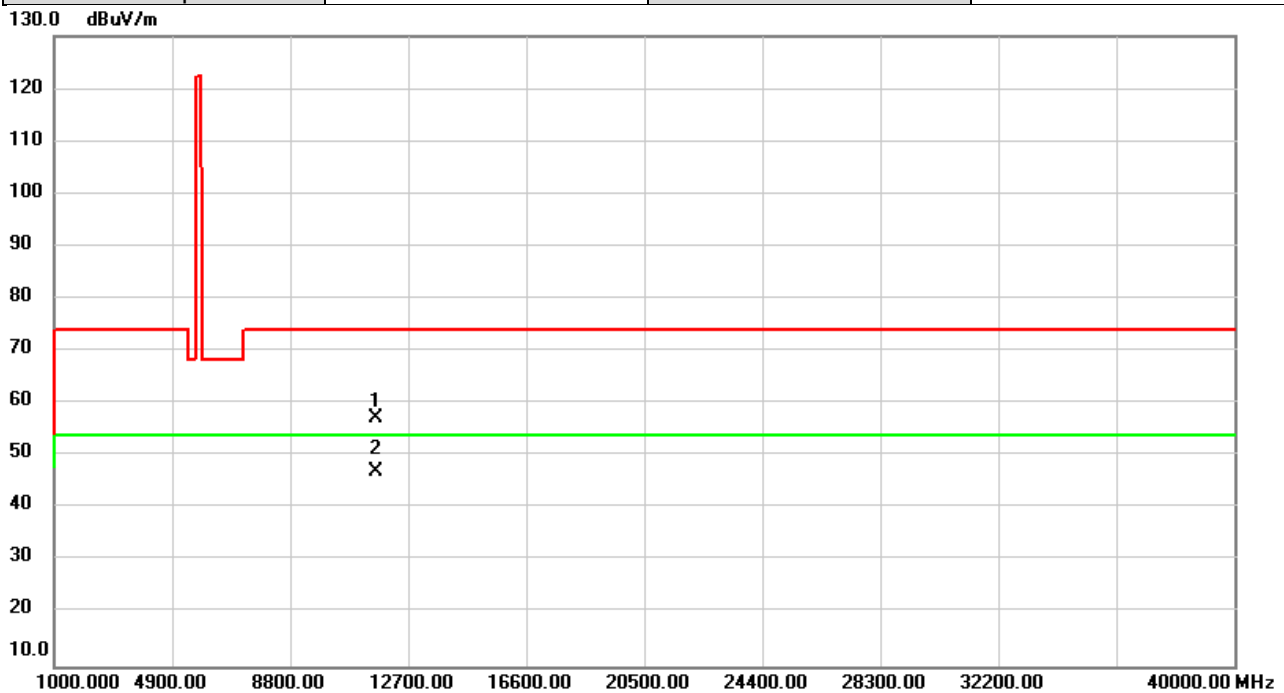
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11570.00	53.08	5.06	58.14	74.00	-15.86	peak	
2	*	11570.00	42.43	5.06	47.49	54.00	-6.51	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5825MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



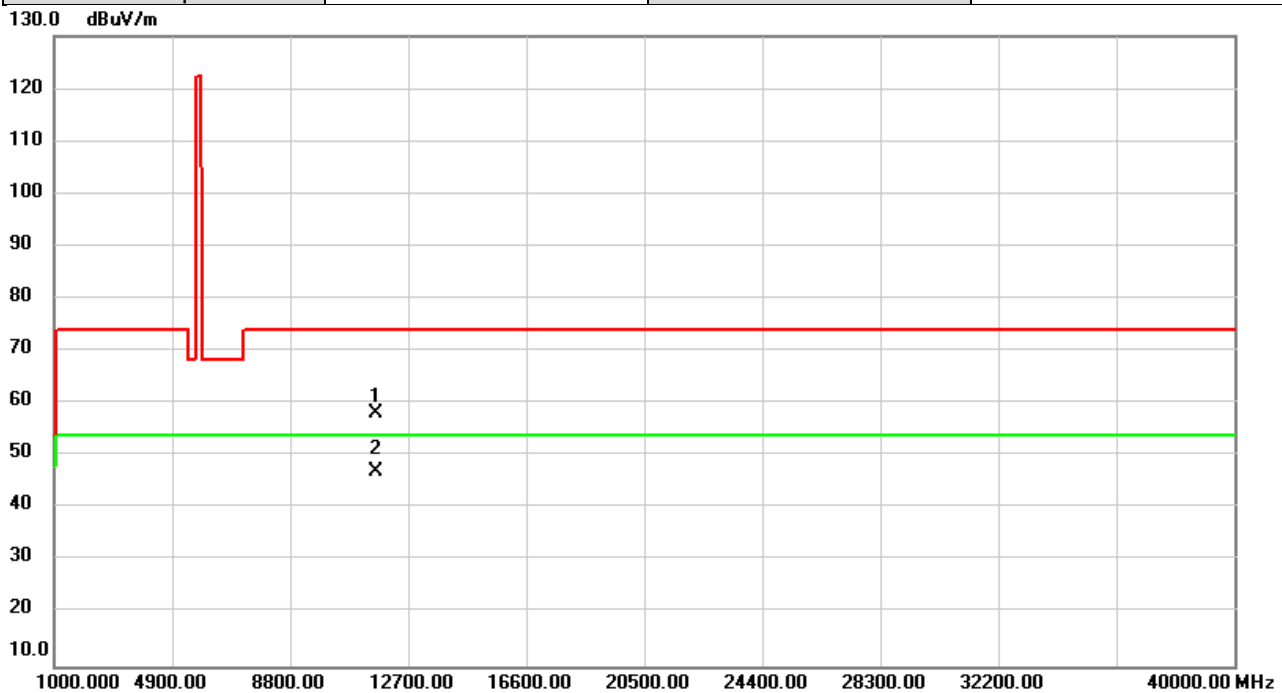
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11650.00	52.46	4.85	57.31	74.00	-16.69	peak	
2	*	11650.00	42.06	4.85	46.91	54.00	-7.09	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT20)	Test Date	2021/7/6
Test Frequency	5825MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



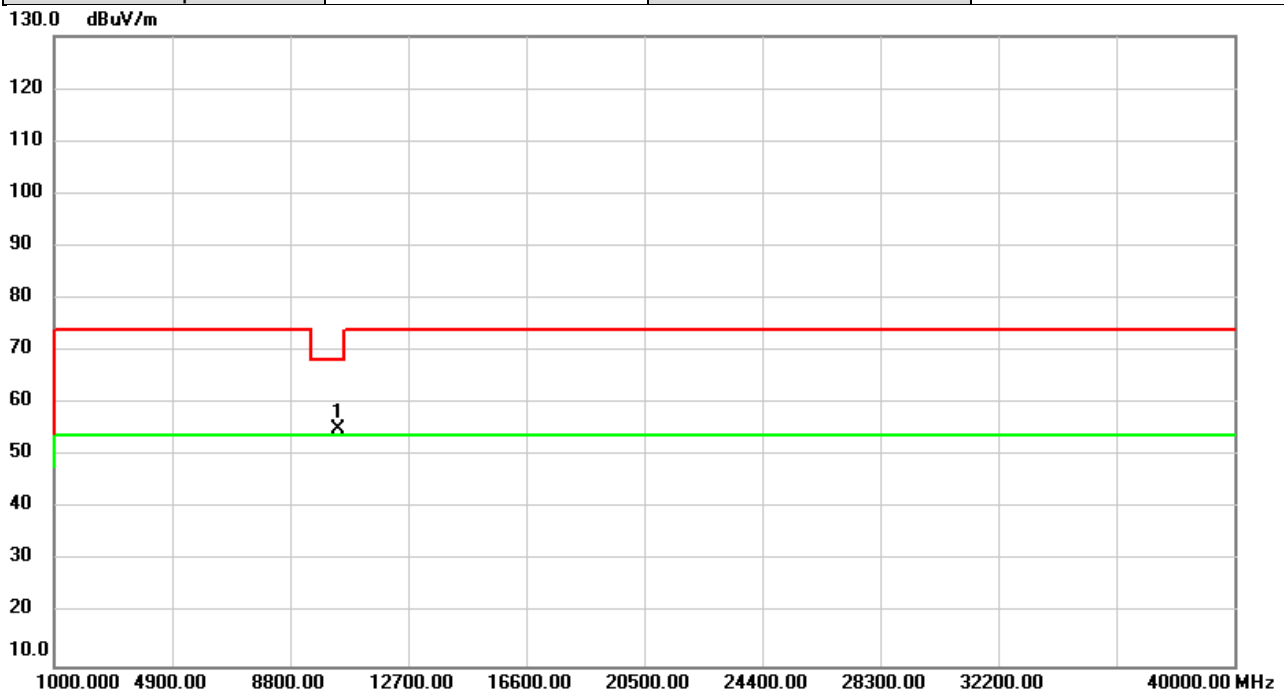
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11650.00	53.29	4.85	58.14	74.00	-15.86	peak	
2	*	11650.00	42.34	4.85	47.19	54.00	-6.81	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/7
Test Frequency	5190MHz	Polarization	Vertical
Temp	23°C	Hum.	57%

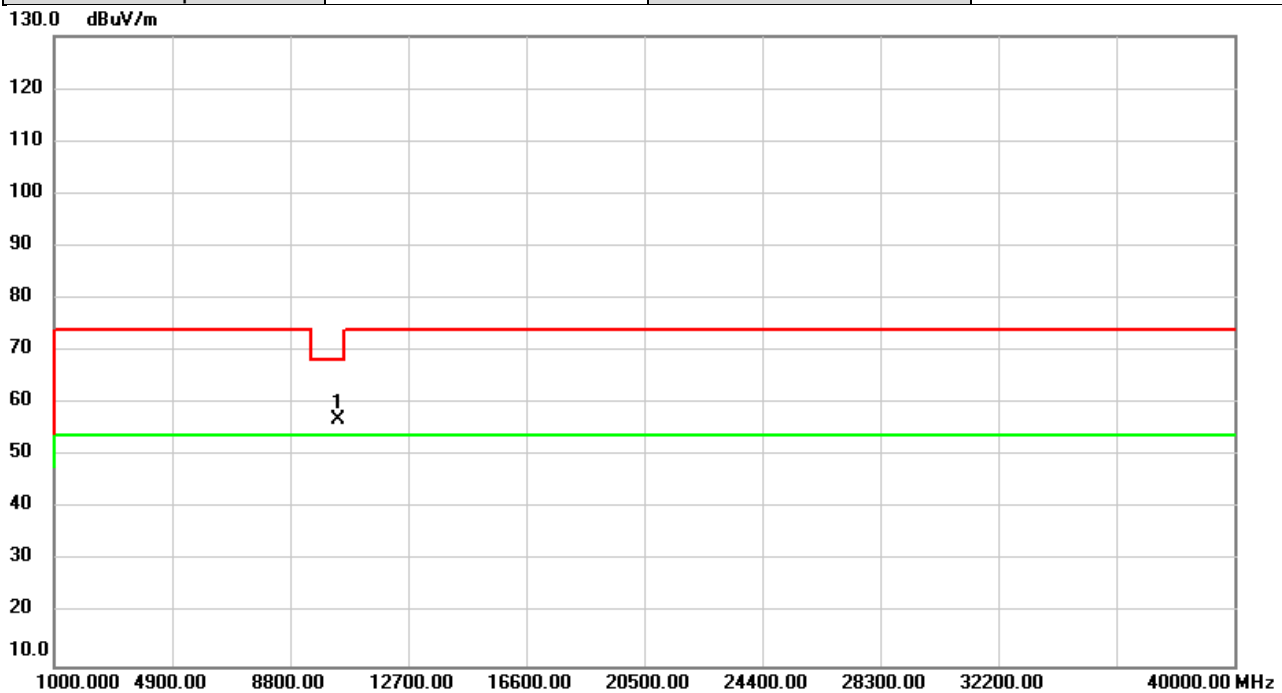


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10380.00	50.78	4.49	55.27	68.20	-12.93	peak	

REMARKS:

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/7
Test Frequency	5190MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%

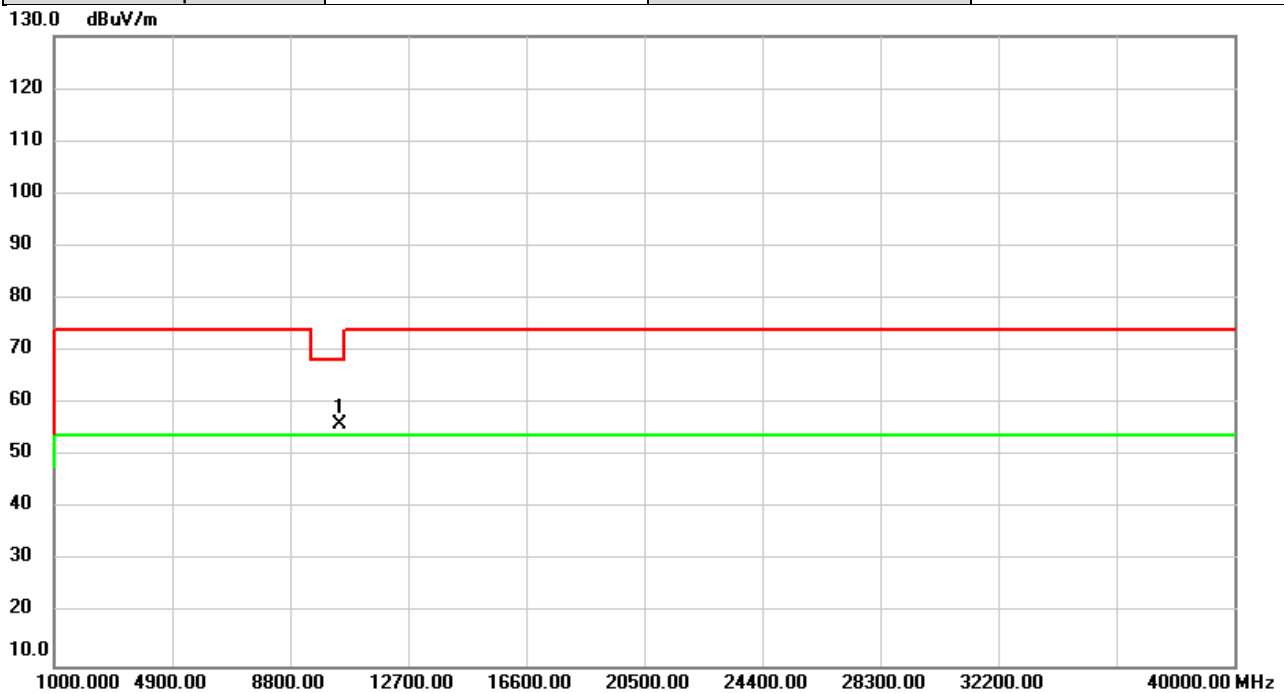


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10380.00	52.56	4.49	57.05	68.20	-11.15	peak	

REMARKS:

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/7
Test Frequency	5230MHz	Polarization	Vertical
Temp	23°C	Hum.	57%

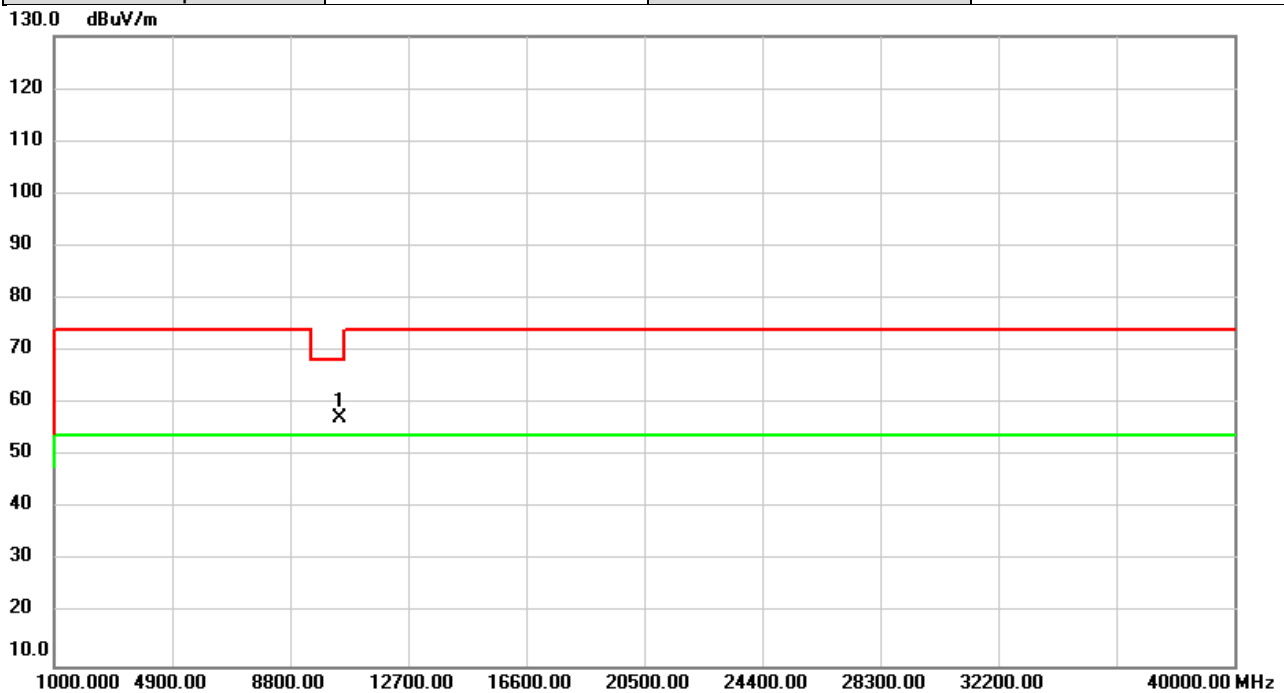


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10460.00	51.46	4.70	56.16	68.20	-12.04	peak	

REMARKS:

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/7
Test Frequency	5230MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%

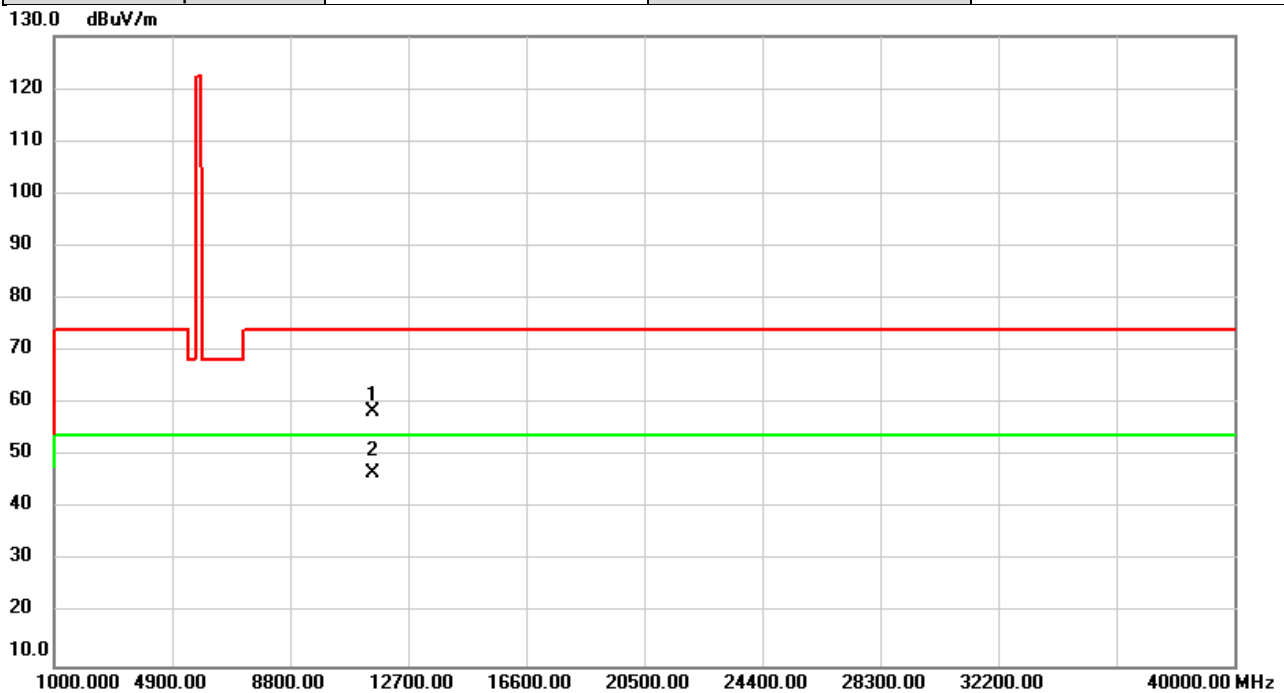


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10460.00	52.51	4.70	57.21	68.20	-10.99	peak	

REMARKS:

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/7
Test Frequency	5755MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



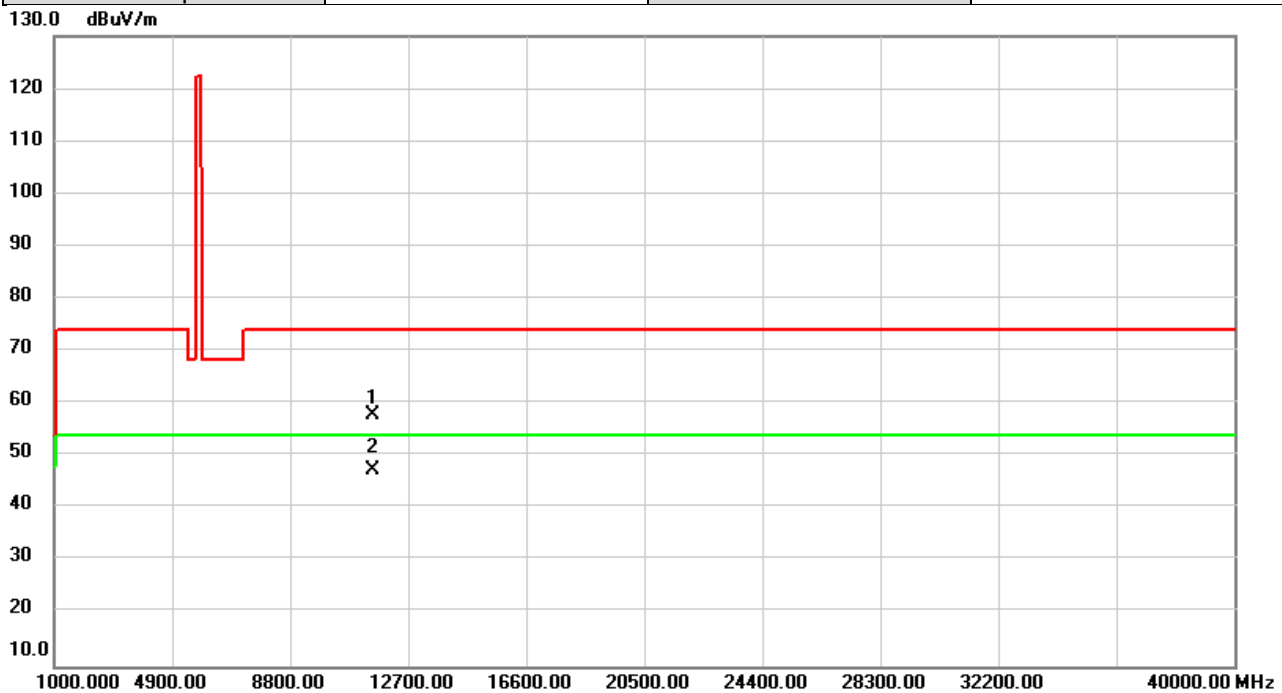
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11510.00	53.19	5.22	58.41	74.00	-15.59	peak	
2	*	11510.00	41.68	5.22	46.90	54.00	-7.10	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/7
Test Frequency	5755MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



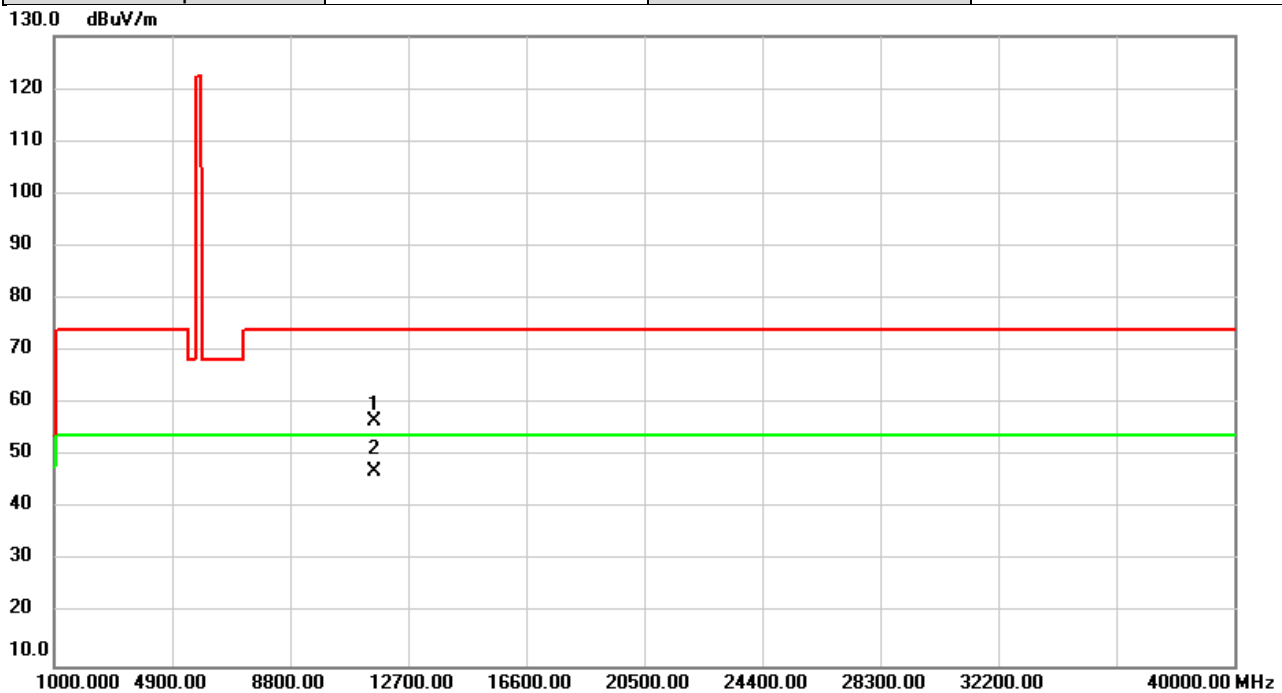
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11510.00	52.48	5.22	57.70	74.00	-16.30	peak	
2	*	11510.00	42.15	5.22	47.37	54.00	-6.63	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/7
Test Frequency	5795MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



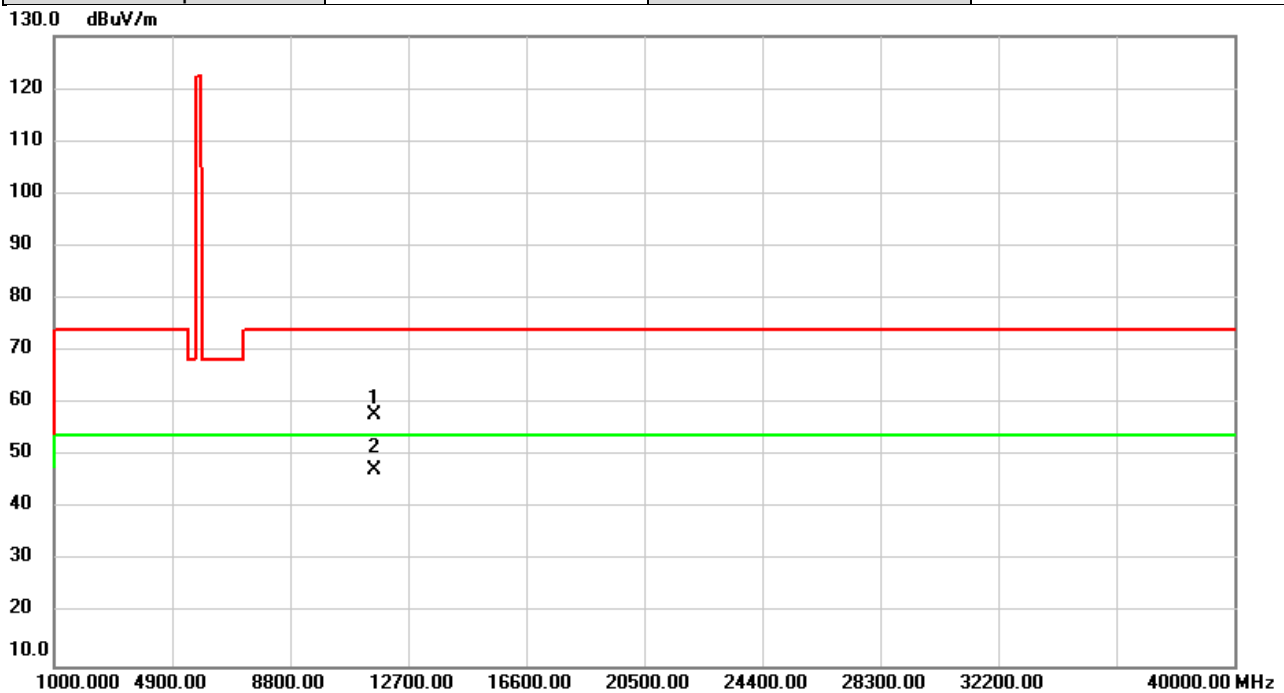
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11590.00	51.58	5.00	56.58	74.00	-17.42	peak	
2	*	11590.00	42.03	5.00	47.03	54.00	-6.97	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11n (HT40)	Test Date	2021/7/7
Test Frequency	5795MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



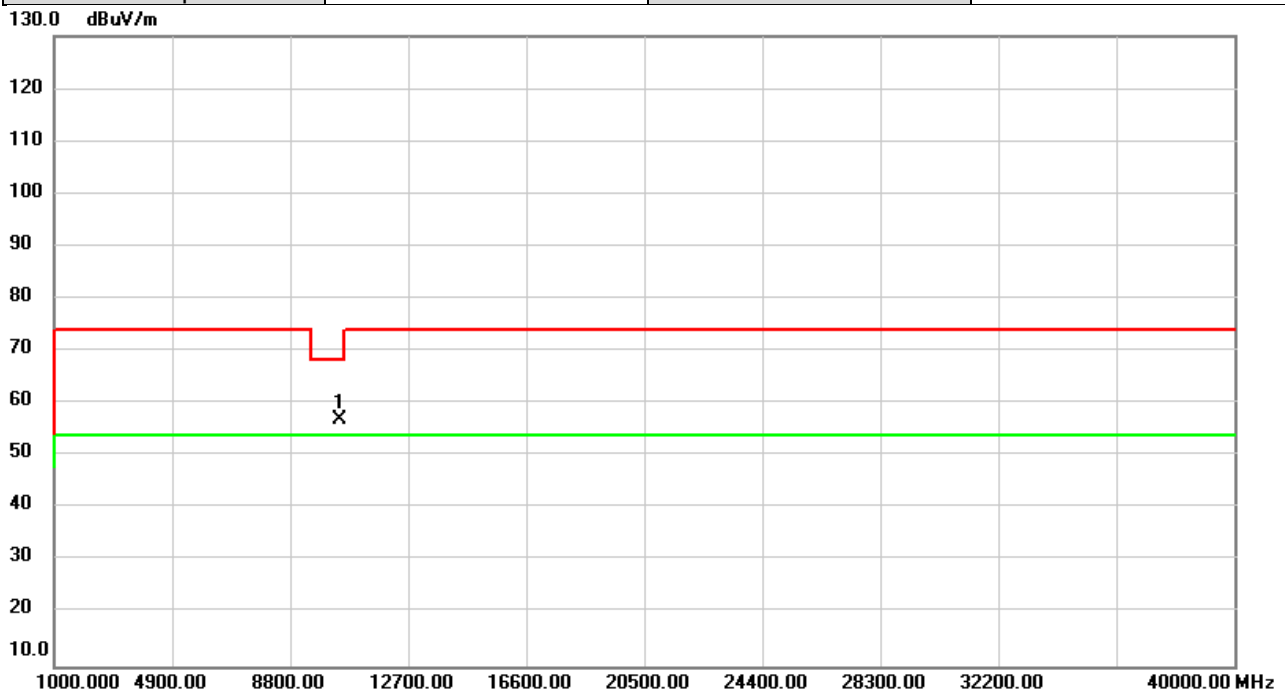
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11590.00	52.78	5.00	57.78	74.00	-16.22	peak	
2	*	11590.00	42.38	5.00	47.38	54.00	-6.62	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11ac (VHT80)	Test Date	2021/7/7
Test Frequency	5210MHz	Polarization	Vertical
Temp	23°C	Hum.	57%

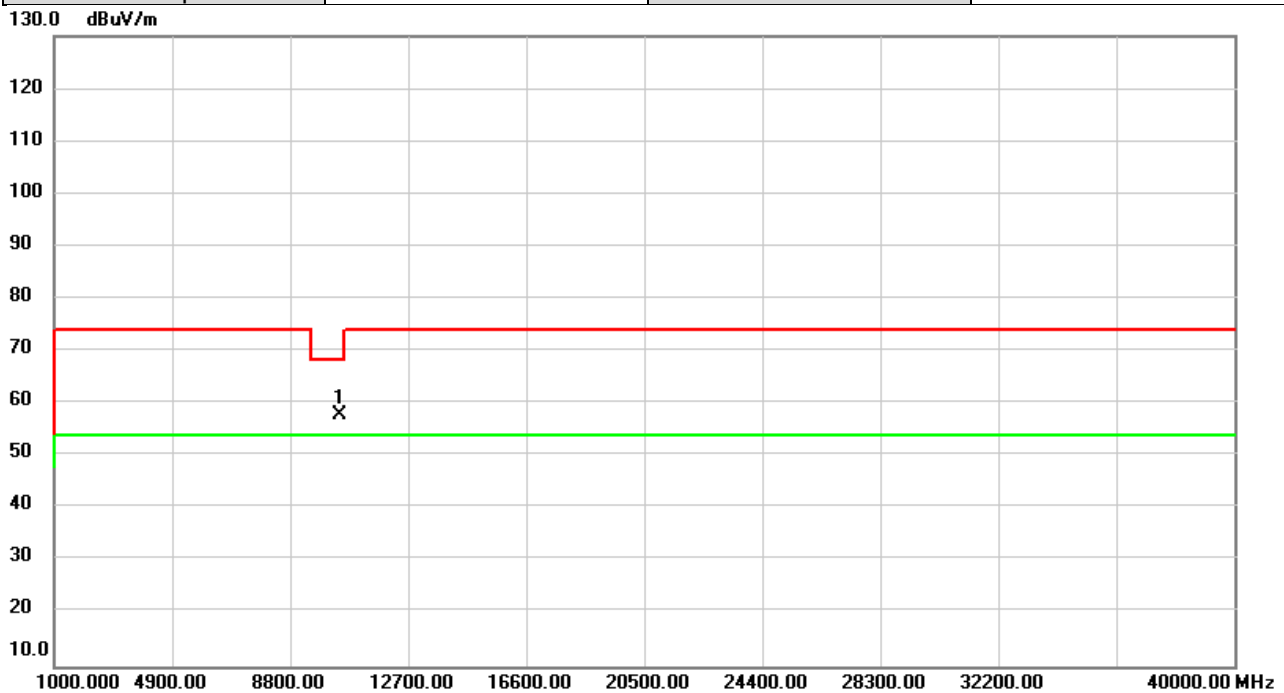


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10420.00	52.44	4.60	57.04	68.20	-11.16	peak	

REMARKS:

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

Test Mode	IEEE 802.11ac (VHT80)	Test Date	2021/7/7
Test Frequency	5210MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%

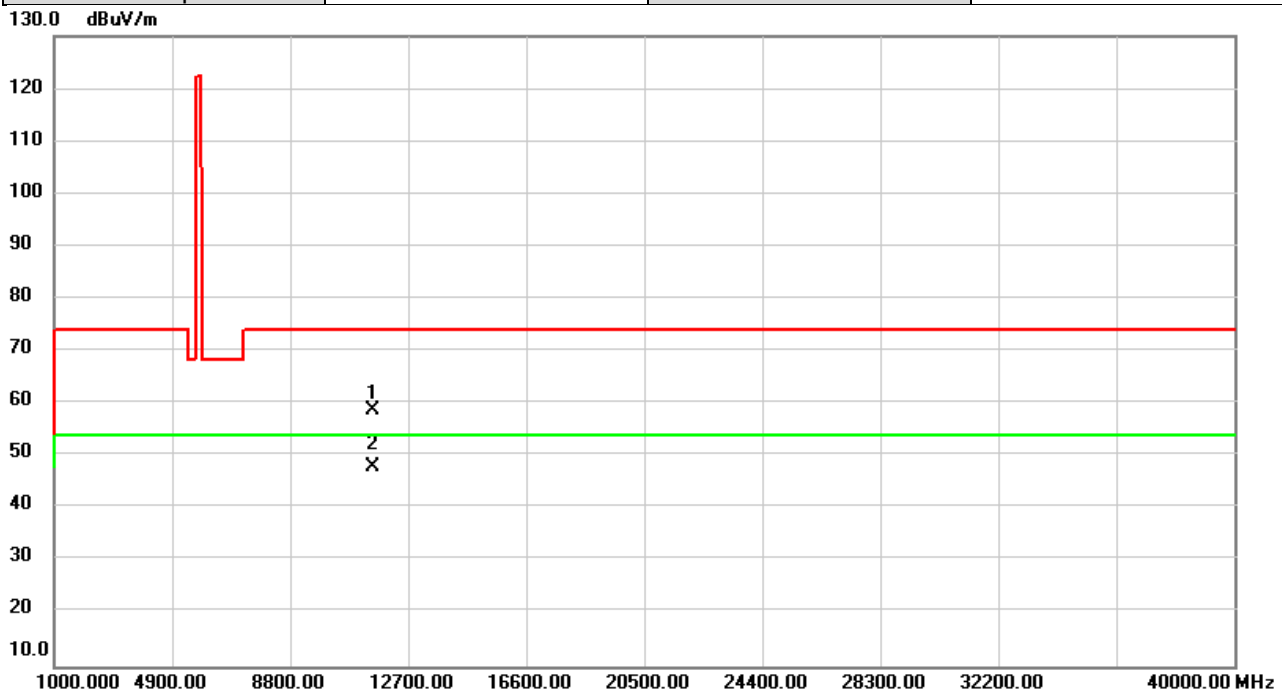


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10420.00	53.14	4.60	57.74	68.20	-10.46	peak	

REMARKS:

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

Test Mode	IEEE 802.11ac (VHT80)	Test Date	2021/7/7
Test Frequency	5775MHz	Polarization	Vertical
Temp	23°C	Hum.	57%



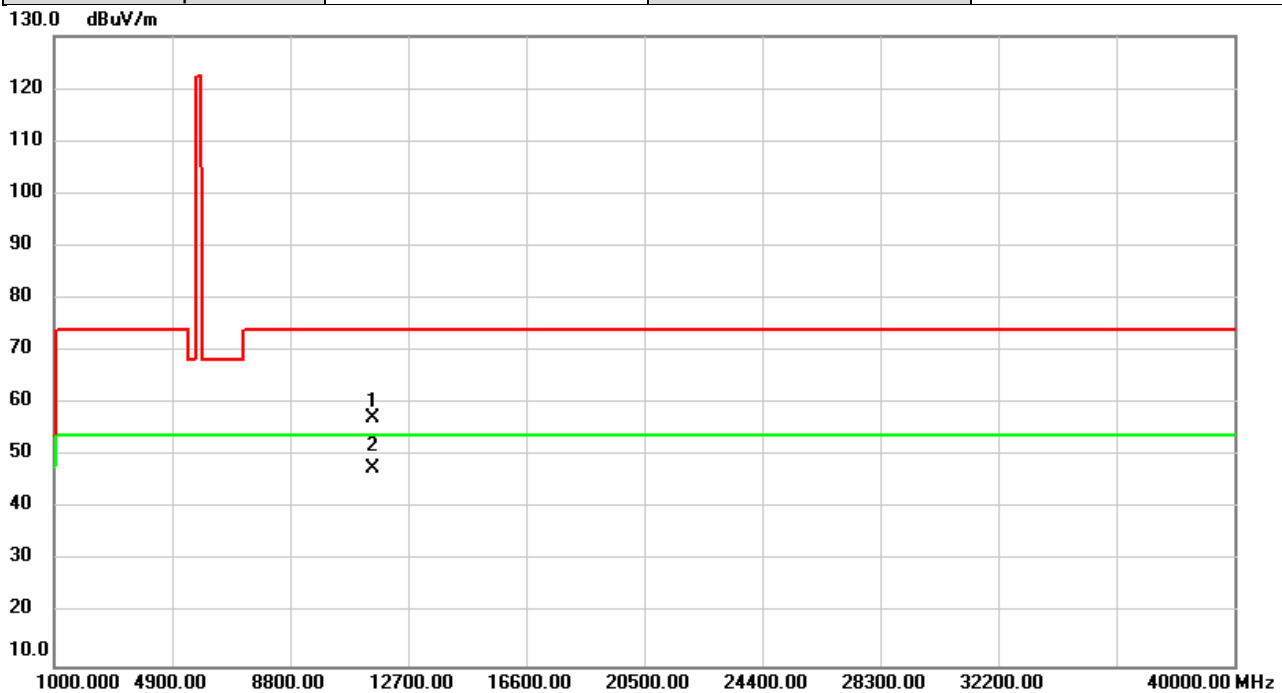
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11550.00	53.59	5.11	58.70	74.00	-15.30	peak	
2	*	11550.00	42.85	5.11	47.96	54.00	-6.04	AVG	

REMARKS:

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

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

Test Mode	IEEE 802.11ac (VHT80)	Test Date	2021/7/7
Test Frequency	5775MHz	Polarization	Horizontal
Temp	23°C	Hum.	57%



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11550.00	52.26	5.11	57.37	74.00	-16.63	peak	
2	*	11550.00	42.65	5.11	47.76	54.00	-6.24	AVG	

REMARKS:

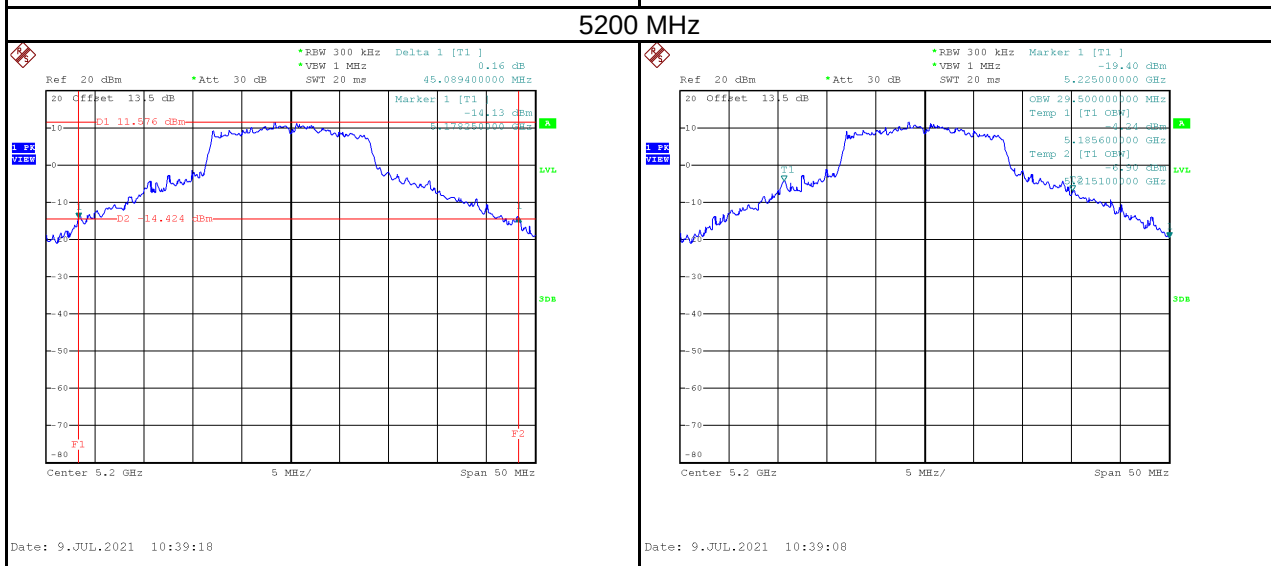
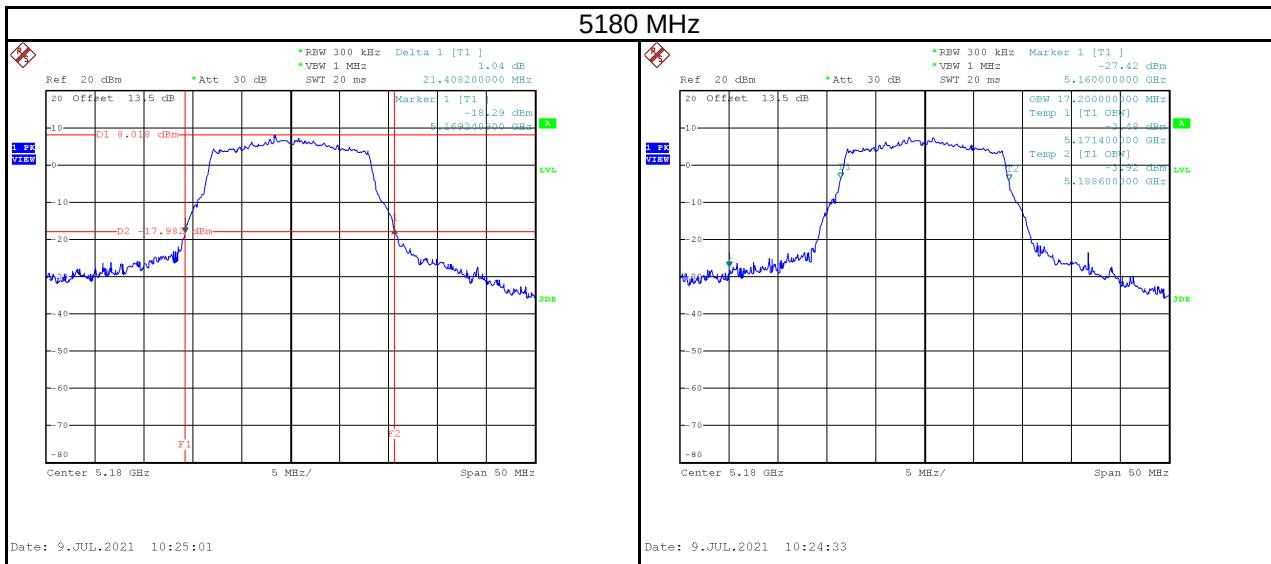
(1) Measurement Value = Reading Level + Correct Factor.

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

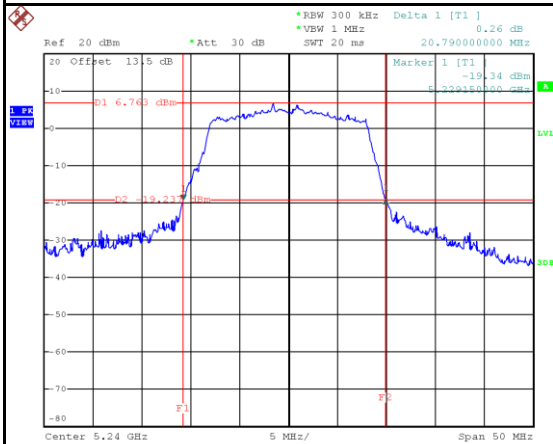
APPENDIX D BANDWIDTH

Test Mode	IEEE 802.11a
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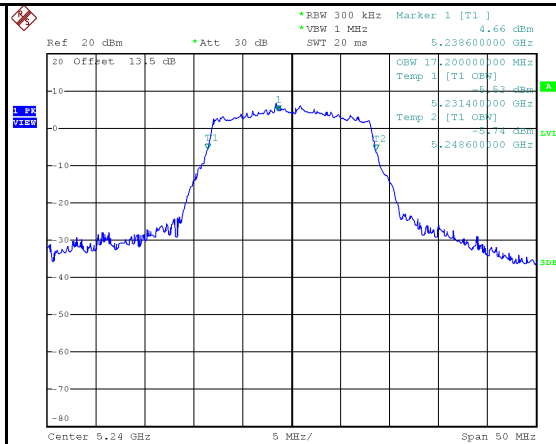
Test Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Limit
5180	21.41	17.20	No limit
5200	45.09	29.50	No limit
5240	20.79	17.20	No limit



5240 MHz



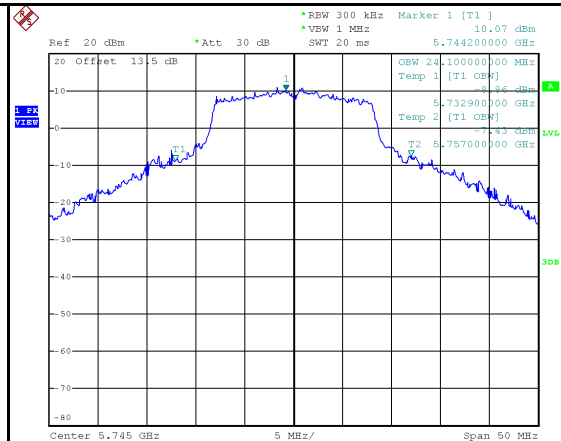
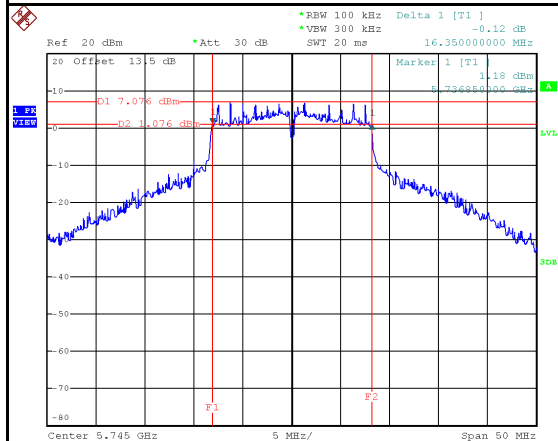
Date: 19.JUL.2021 19:36:45



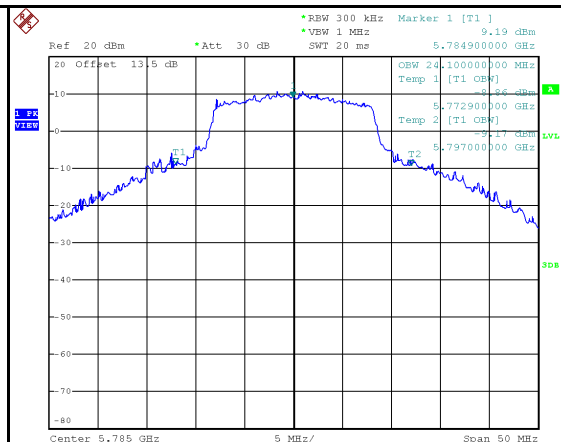
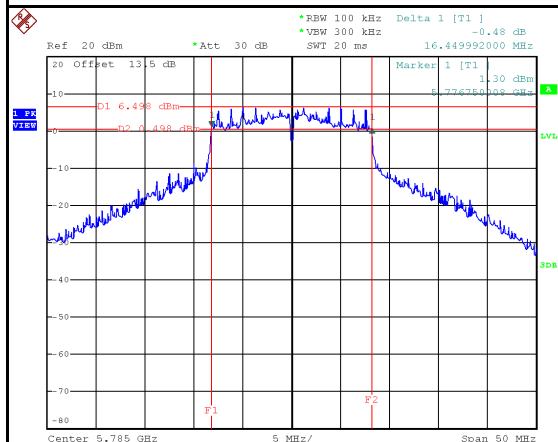
Date: 19.JUL.2021 19:36:14

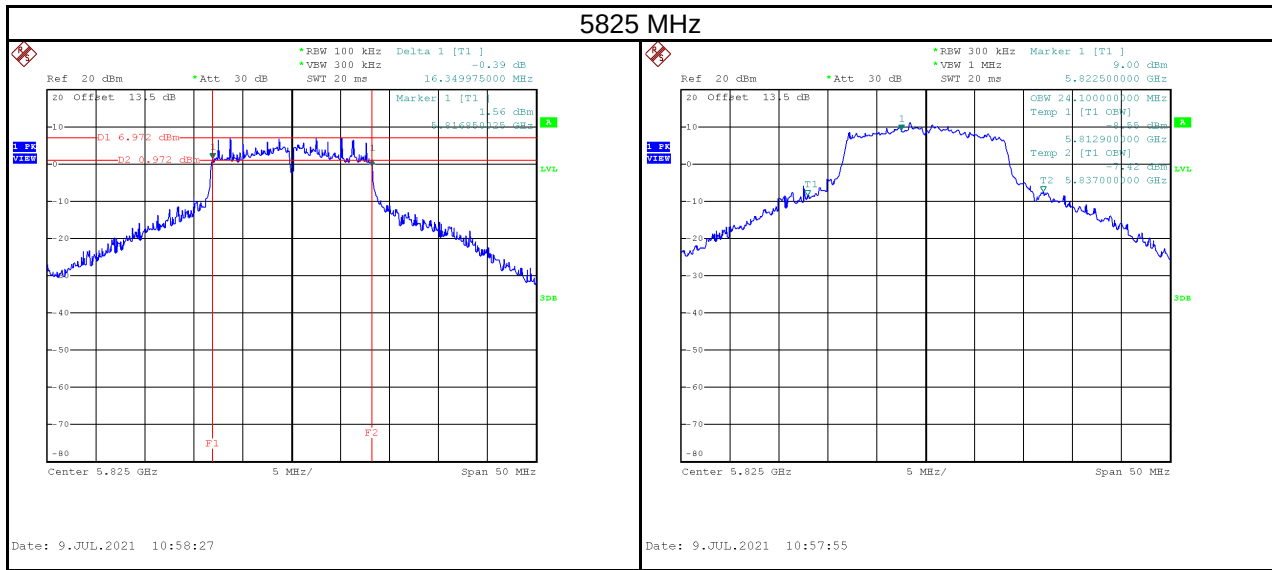
Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
5745	16.35	24.10	500	Pass
5785	16.45	24.10	500	Pass
5825	16.35	24.10	500	Pass

5745 MHz



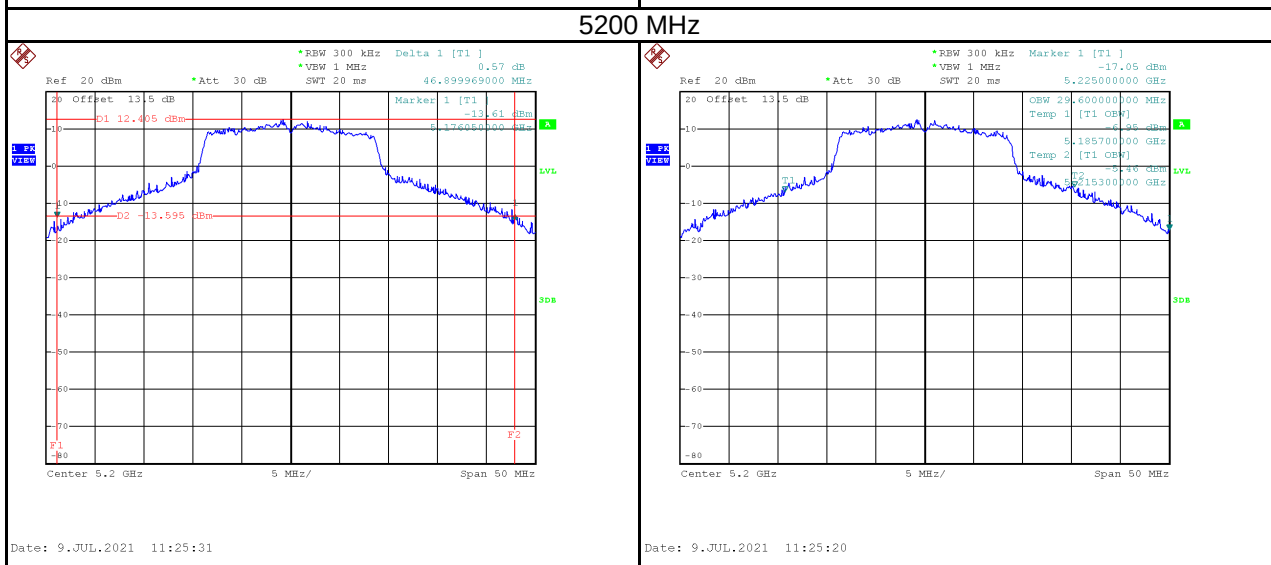
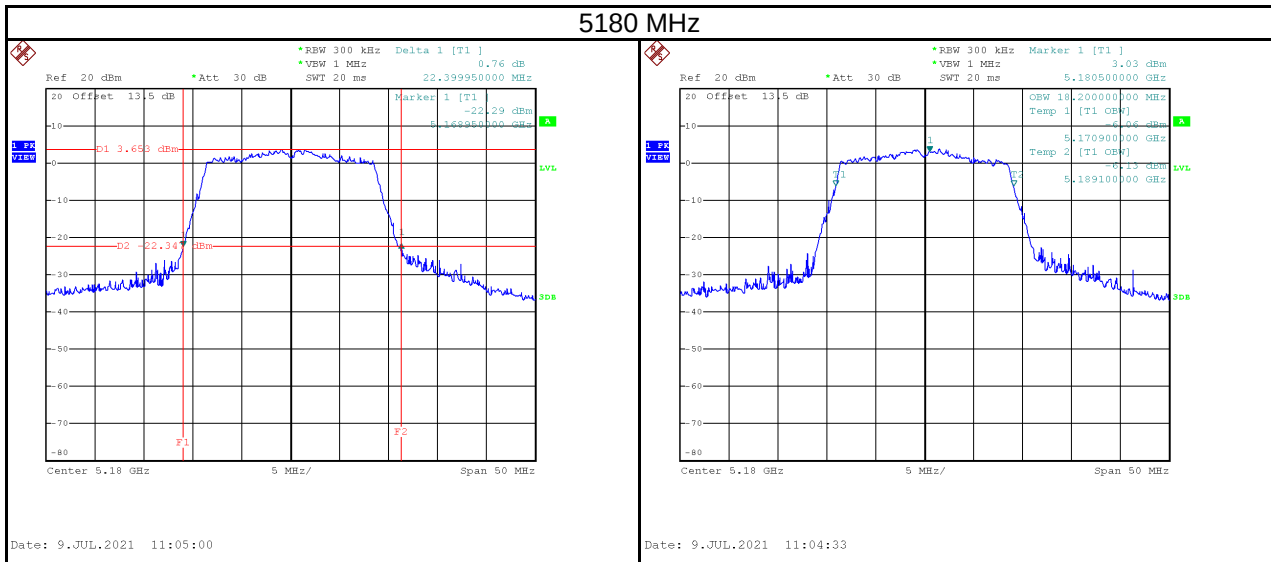
5785 MHz

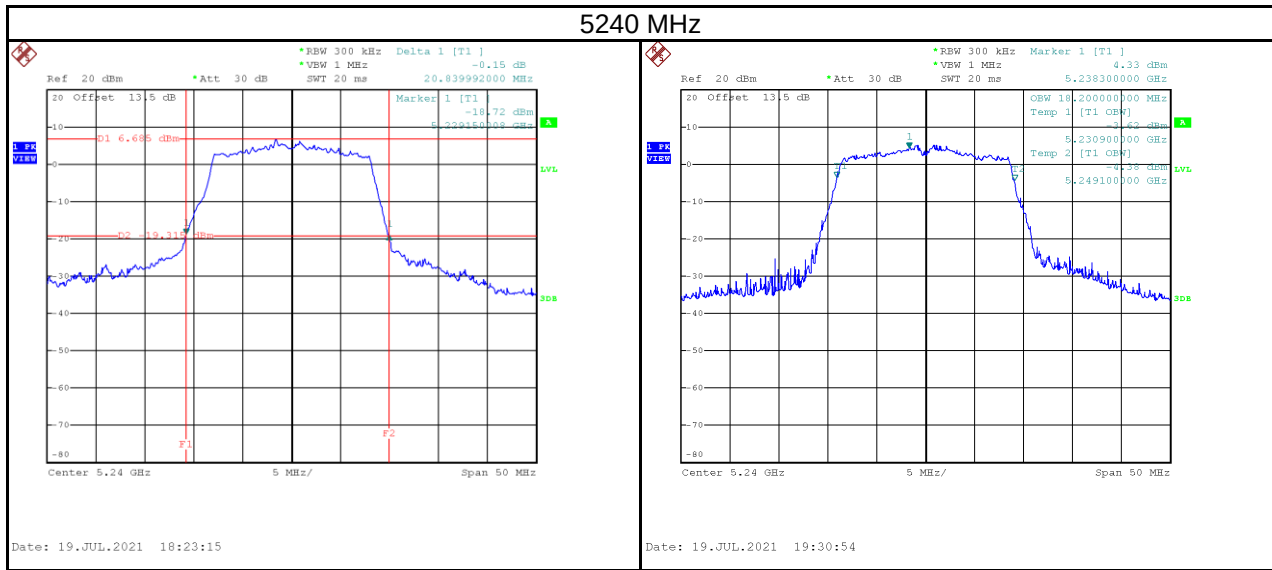




Test Mode	IEEE 802.11n (HT20)
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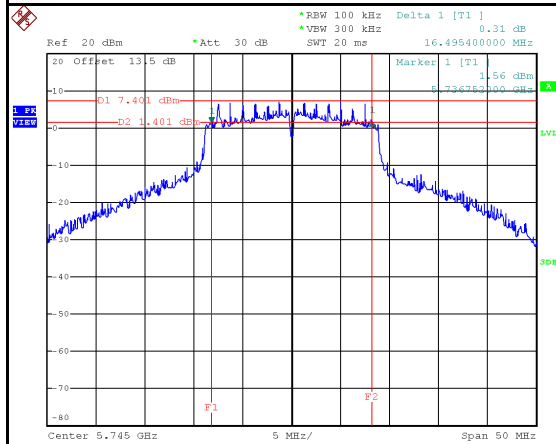
Test Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Limit
5180	22.40	18.20	No limit
5200	46.90	29.60	No limit
5240	20.84	18.20	No limit



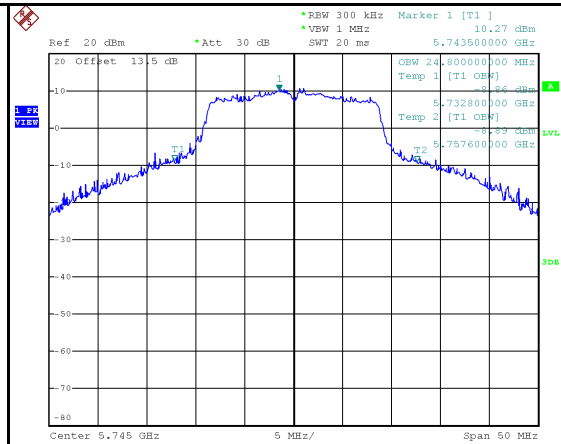


Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
5745	16.50	24.80	500	Pass
5785	16.80	24.00	500	Pass
5825	17.39	23.50	500	Pass

5745 MHz

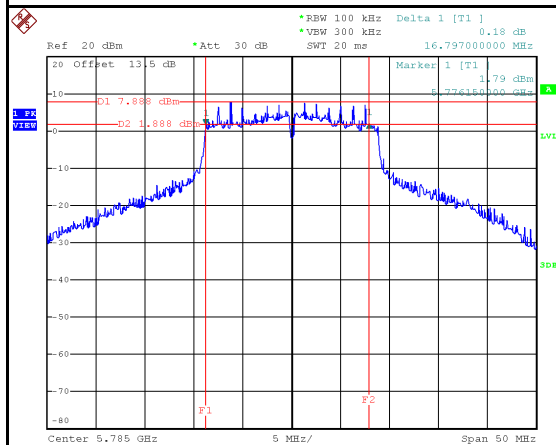


Date: 9.JUL.2021 11:34:17

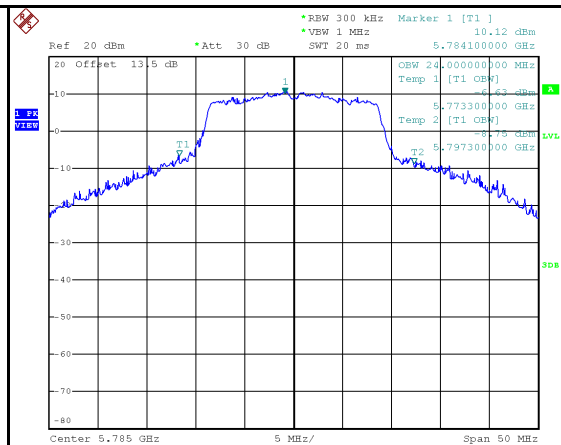


Date: 9.JUL.2021 11:33:43

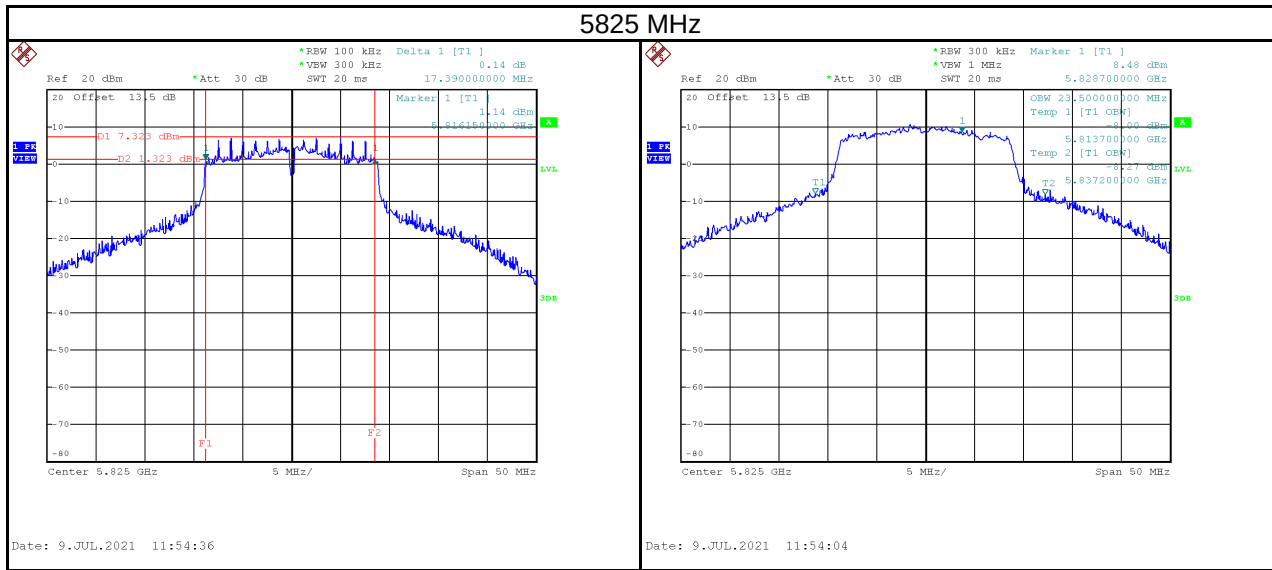
5785 MHz



Date: 9.JUL.2021 11:50:20



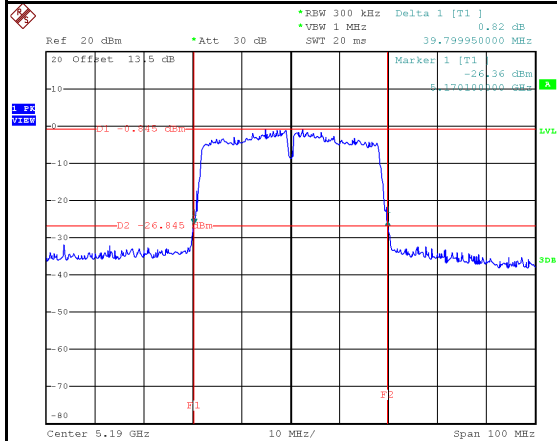
Date: 9.JUL.2021 11:49:45



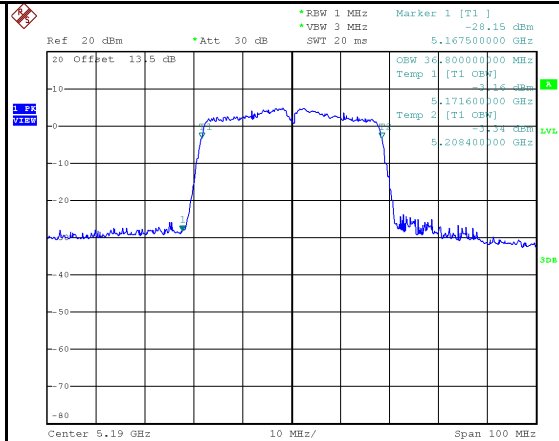
Test Mode	IEEE 802.11n (HT40)
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Test Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Limit
5190	39.80	36.80	No limit
5230	40.20	36.80	No limit

5190 MHz

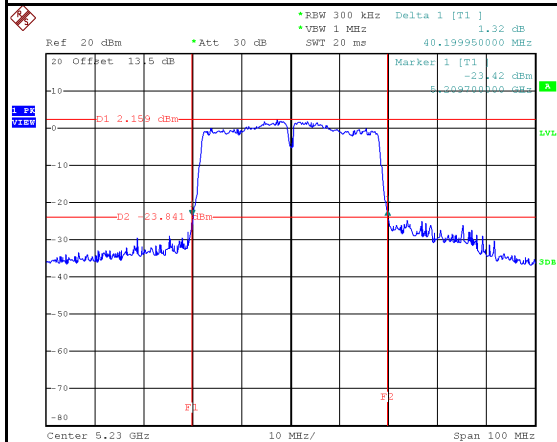


Date: 9.JUL.2021 13:35:01

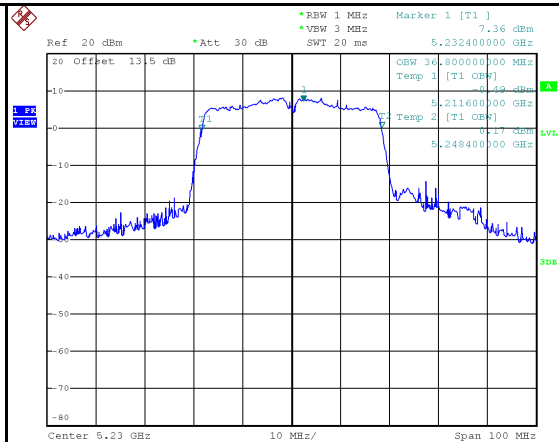


Date: 9.JUL.2021 13:34:14

5230 MHz



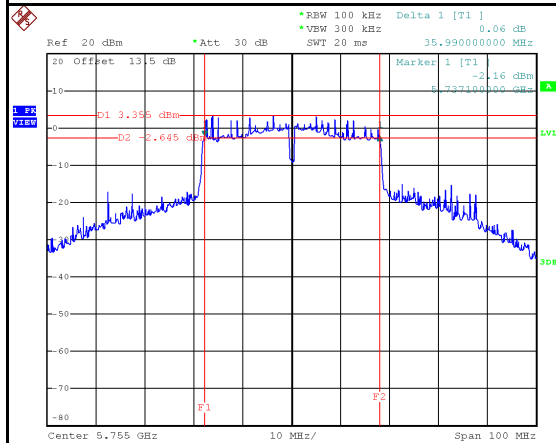
Date: 19.JUL.2021 19:59:49



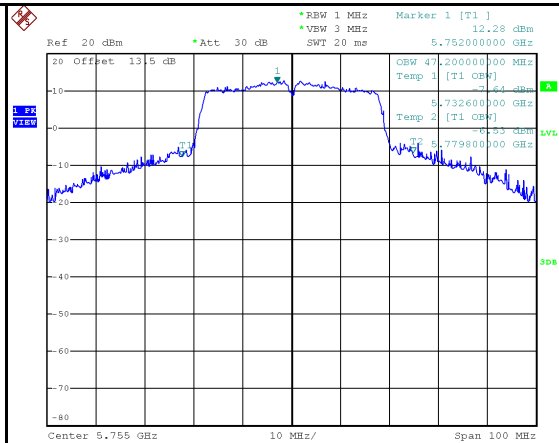
Date: 19.JUL.2021 19:59:56

Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
5755	35.99	47.20	500	Pass
5795	36.50	55.40	500	Pass

5755 MHz

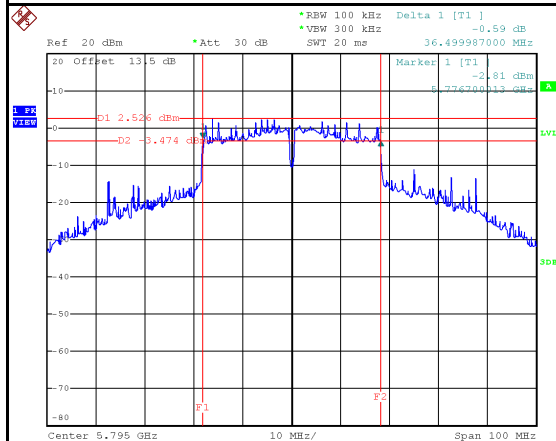


Date: 9.JUL.2021 14:15:11

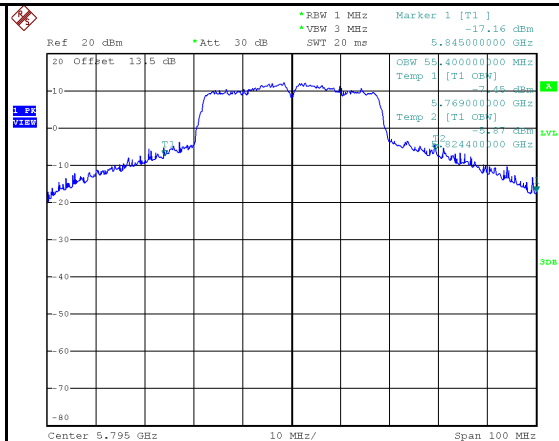


Date: 9.JUL.2021 14:14:28

5795 MHz



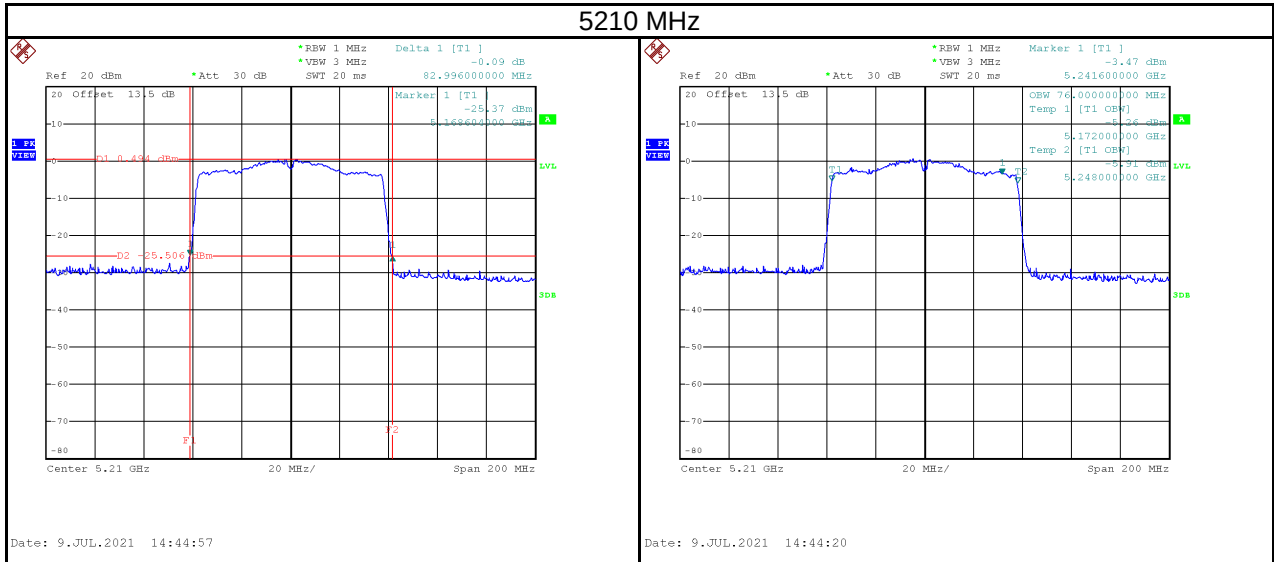
Date: 9.JUL.2021 14:21:51



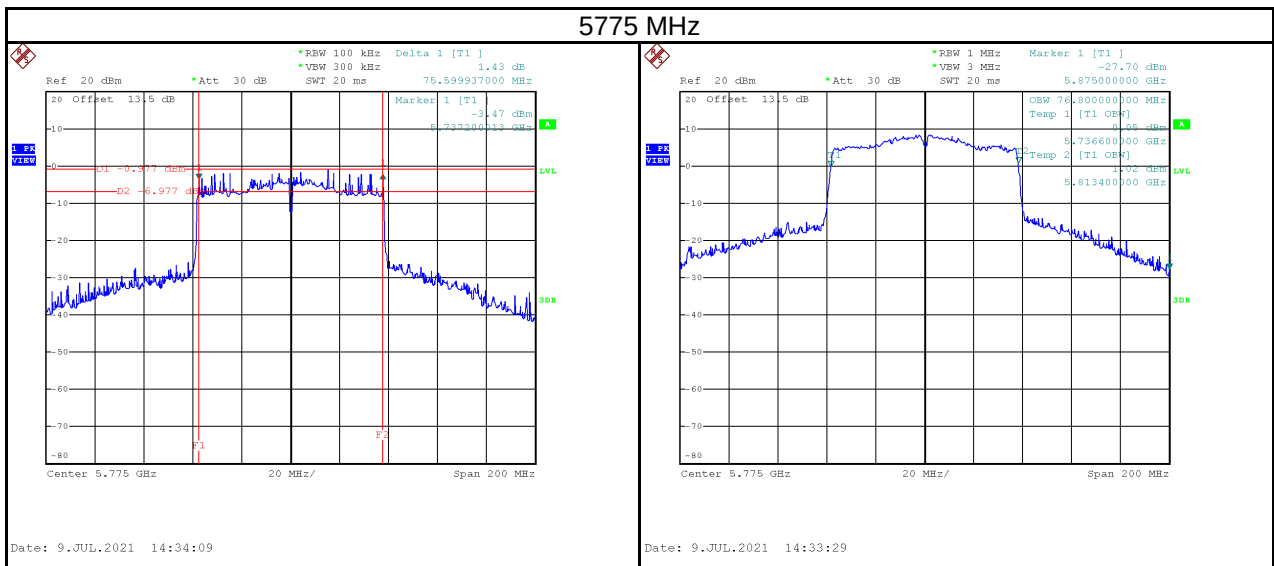
Date: 9.JUL.2021 14:21:08

Test Mode	IEEE 802.11ac (VHT80)
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Test Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Limit
5210	83.00	76.00	No limit



Test Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	Minimum 6 dB Bandwidth Limit (kHz)	Result
5775	75.60	76.80	500	Pass



APPENDIX E CONDUCTED OUTPUT POWER

Test Mode	IEEE 802.11a	Tested Date	2021/7/9
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Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5180	14.85	0.0305	23.98	0.2500	Pass
5200	21.13	0.1297	23.98	0.2500	Pass
5240	21.15	0.1303	23.98	0.2500	Pass

Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5745	18.93	0.0782	30.00	1.0000	Pass
5785	19.02	0.0798	30.00	1.0000	Pass
5825	18.88	0.0773	30.00	1.0000	Pass

Test Mode	IEEE 802.11n (HT20)	Tested Date	2021/7/9
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Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5180	14.54	0.0284	23.98	0.2500	Pass
5200	21.08	0.1282	23.98	0.2500	Pass
5240	21.03	0.1268	23.98	0.2500	Pass

Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5745	18.80	0.0759	30.00	1.0000	Pass
5785	18.92	0.0780	30.00	1.0000	Pass
5825	18.96	0.0787	30.00	1.0000	Pass

Test Mode	IEEE 802.11n (HT40)	Tested Date	2021/7/9
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Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5190	12.24	0.0167	23.98	0.2500	Pass
5230	17.77	0.0598	23.98	0.2500	Pass

Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5755	18.72	0.0745	30.00	1.0000	Pass
5795	19.56	0.0904	30.00	1.0000	Pass

Test Mode	IEEE 802.11ac (VHT20)	Tested Date	2021/7/9
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Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5180	14.30	0.0269	23.98	0.2500	Pass
5200	20.83	0.1211	23.98	0.2500	Pass
5240	20.86	0.1219	23.98	0.2500	Pass

Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5745	18.75	0.0750	30.00	1.0000	Pass
5785	18.80	0.0759	30.00	1.0000	Pass
5825	18.70	0.0741	30.00	1.0000	Pass

Test Mode	IEEE 802.11ac (VHT40)	Tested Date	2021/7/9
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Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5190	12.11	0.0163	23.98	0.2500	Pass
5230	17.72	0.0592	23.98	0.2500	Pass

Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5755	18.67	0.0736	30.00	1.0000	Pass
5795	19.51	0.0893	30.00	1.0000	Pass

Test Mode	IEEE 802.11ac (VHT80)	Tested Date	2021/7/9
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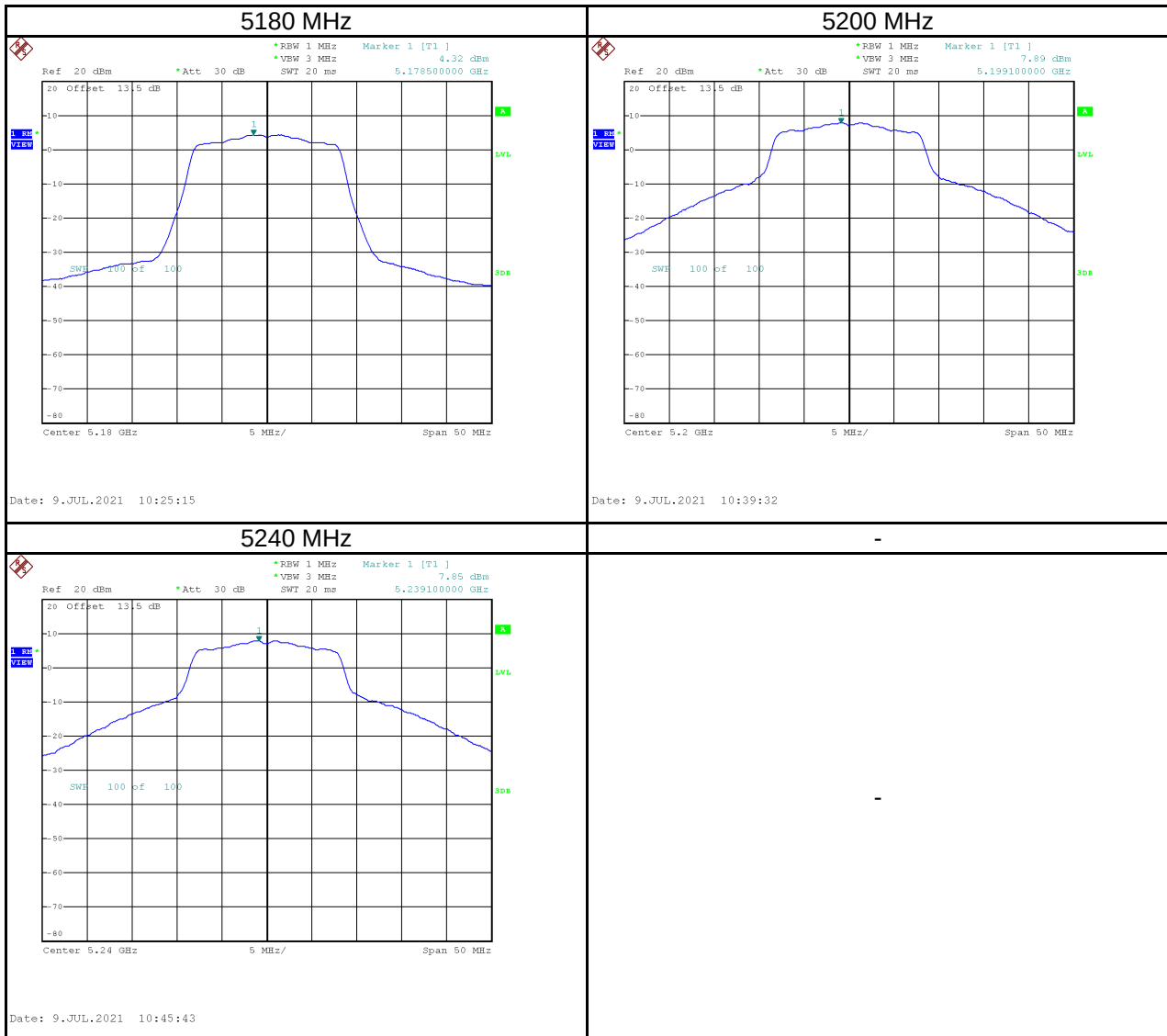
Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5210	11.04	0.0127	23.98	0.2500	Pass

Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
5775	16.51	0.0448	30.00	1.0000	Pass

APPENDIX F POWER SPECTRAL DENSITY

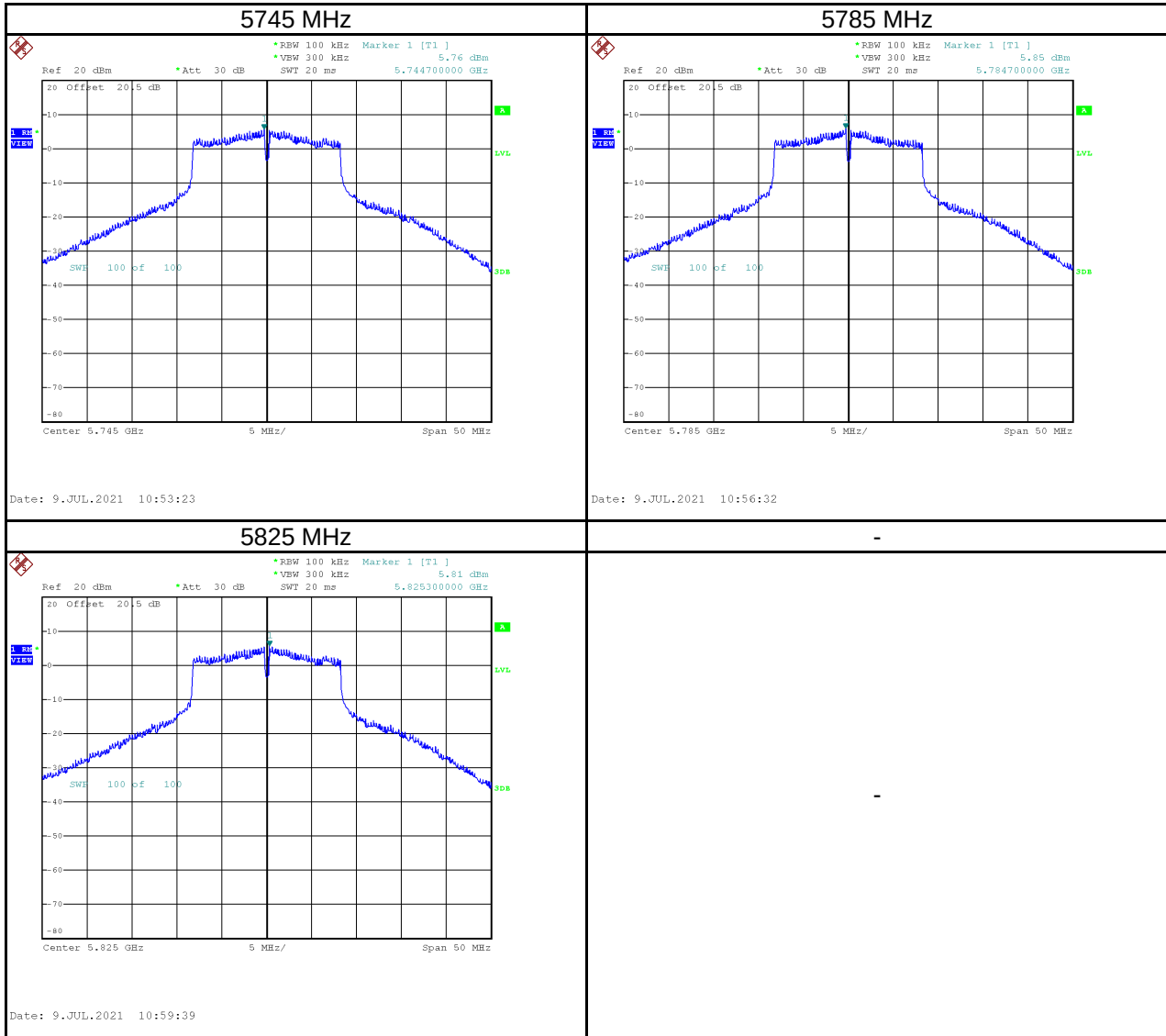
Test Mode	IEEE 802.11a
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Test Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dB)	Calculated Power Density (dBm/MHz)	Maximum Limit (dBm/MHz)	Result
5180	4.32	0.08	4.40	17.00	Pass
5200	7.89	0.08	7.97	17.00	Pass
5240	7.85	0.08	7.93	17.00	Pass



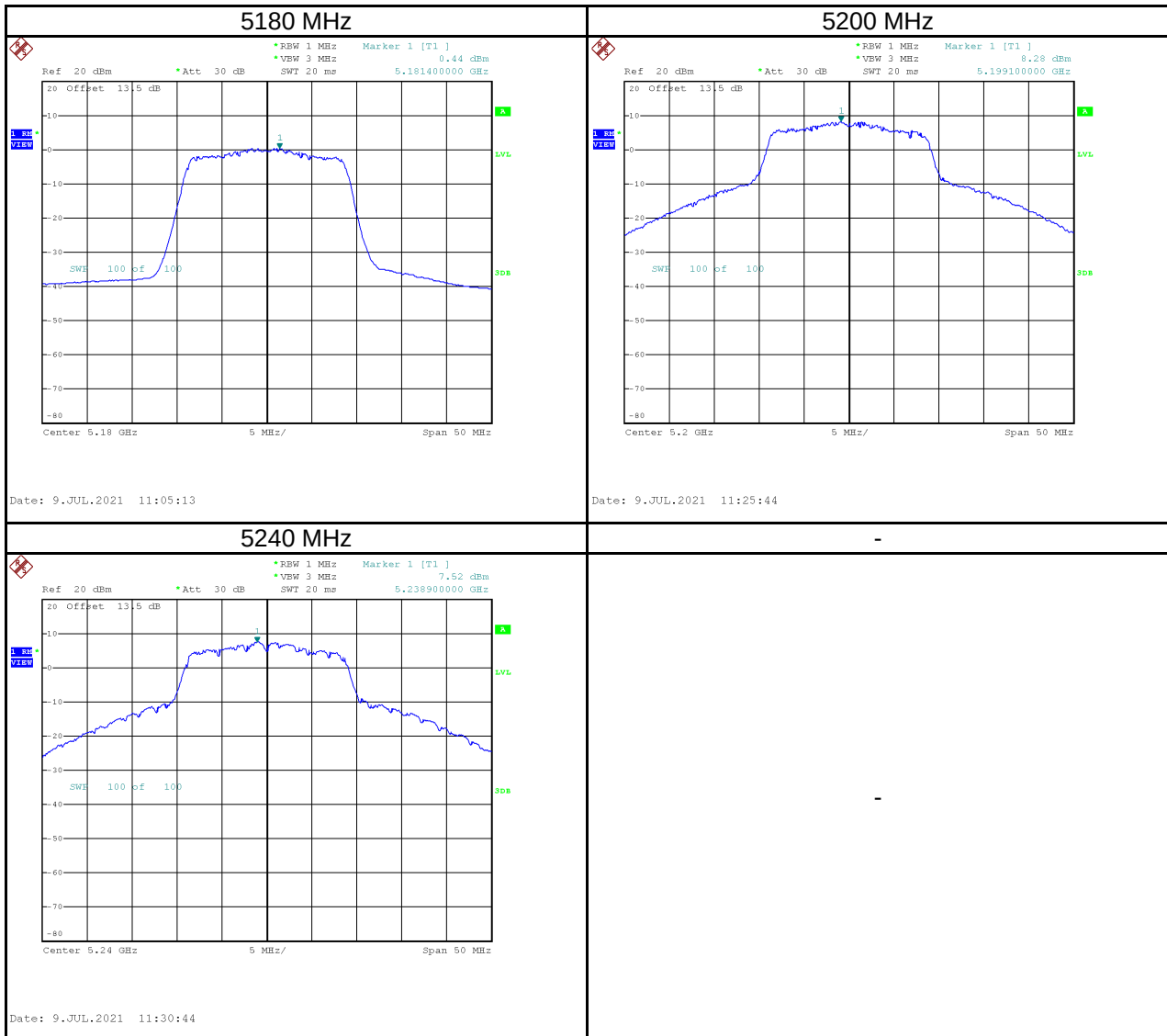
Test Frequency (MHz)	Power Density (dBm/100 kHz)	Power Density (dBm/500 kHz)	Duty Factor (dB)	Calculated Power Density (dBm/500 kHz)	Maximum Limit (dBm/500 kHz)	Result
5745	5.76	12.75	0.08	12.83	30.00	Pass
5785	5.85	12.84	0.08	12.92	30.00	Pass
5825	5.81	12.80	0.08	12.88	30.00	Pass

NOTE: $PSD_{dBm/500\text{ kHz}} = PSD_{dBm/100\text{ kHz}} + 10 \times \log_{10}(500\text{ kHz} / 100\text{ kHz})$



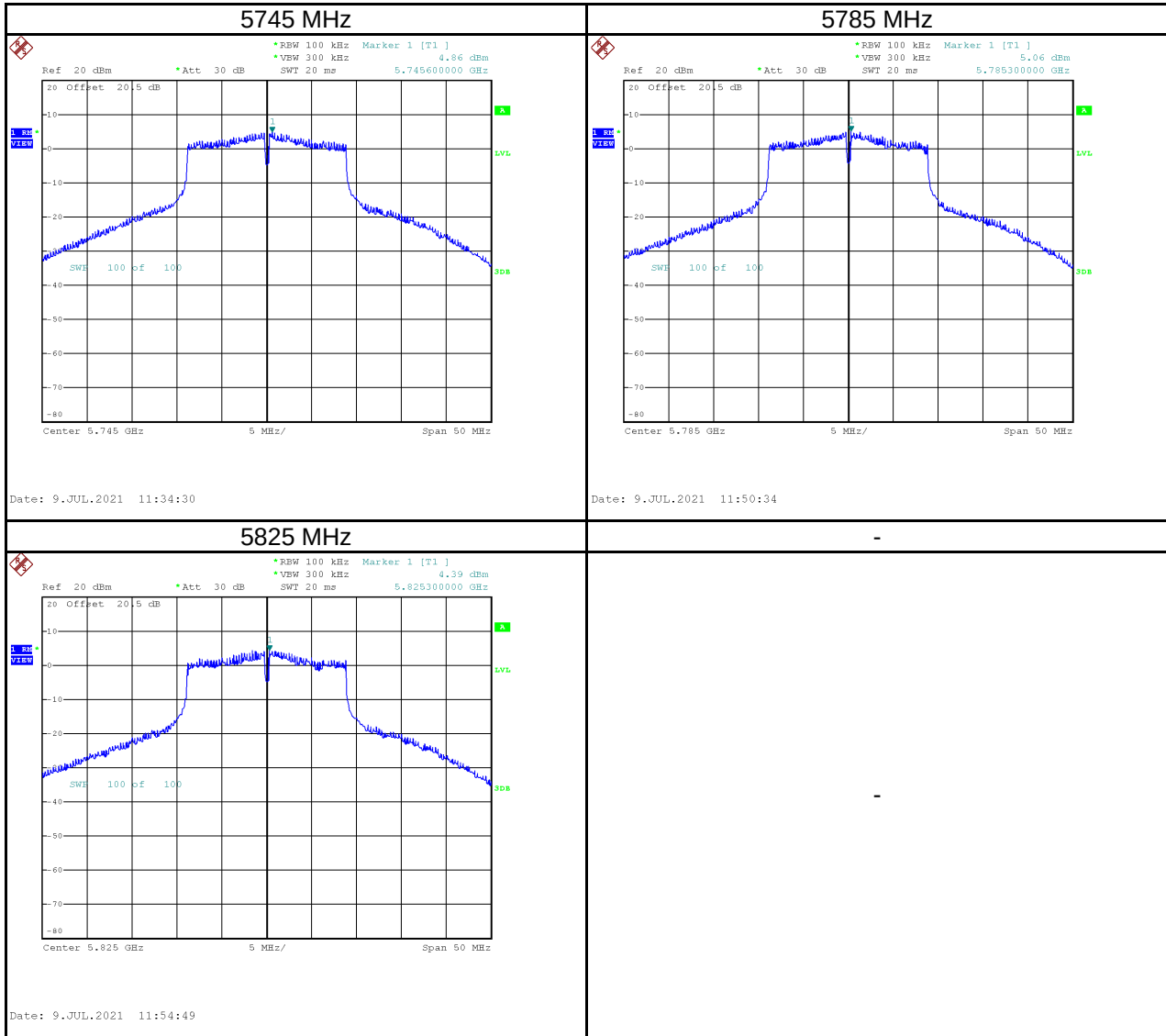
Test Mode	IEEE 802.11n (HT20)
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Test Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dB)	Calculated Power Density (dBm/MHz)	Maximum Limit (dBm/MHz)	Result
5180	0.44	0.19	0.63	17.00	Pass
5200	8.28	0.19	8.47	17.00	Pass
5240	7.52	0.19	7.71	17.00	Pass



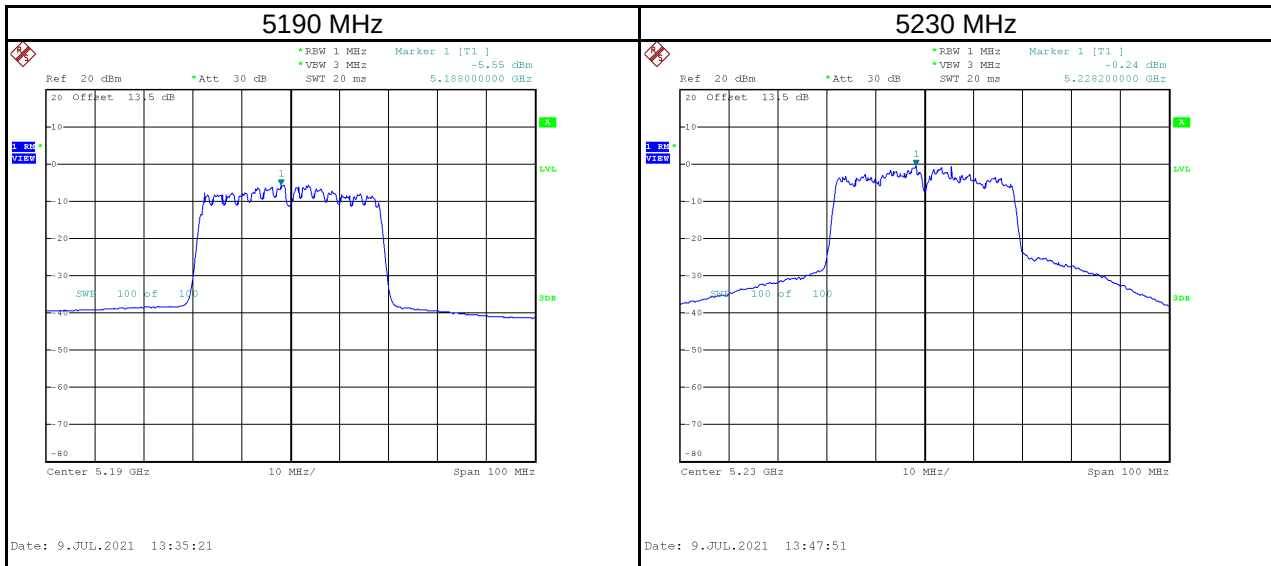
Test Frequency (MHz)	Power Density (dBm/100 kHz)	Power Density (dBm/500 kHz)	Duty Factor (dB)	Calculated Power Density (dBm/500 kHz)	Maximum Limit (dBm/500 kHz)	Result
5745	4.86	11.85	0.19	12.04	30.00	Pass
5785	5.06	12.05	0.19	12.24	30.00	Pass
5825	4.39	11.38	0.19	11.57	30.00	Pass

NOTE: $PSD_{dBm/500\text{ kHz}} = PSD_{dBm/100\text{ kHz}} + 10 \times \log_{10}(500\text{ kHz} / 100\text{ kHz})$



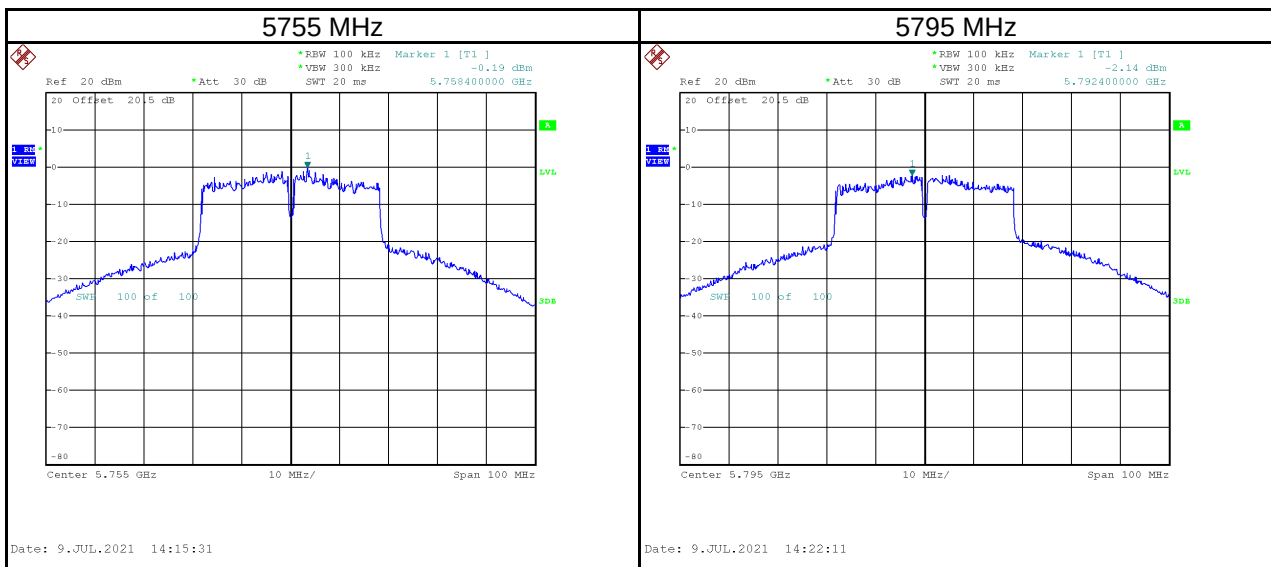
Test Mode	IEEE 802.11n (HT40)
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Test Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dB)	Calculated Power Density (dBm/MHz)	Maximum Limit (dBm/MHz)	Result
5190	-5.55	0.57	-4.98	17.00	Pass
5230	-0.24	0.57	0.33	17.00	Pass



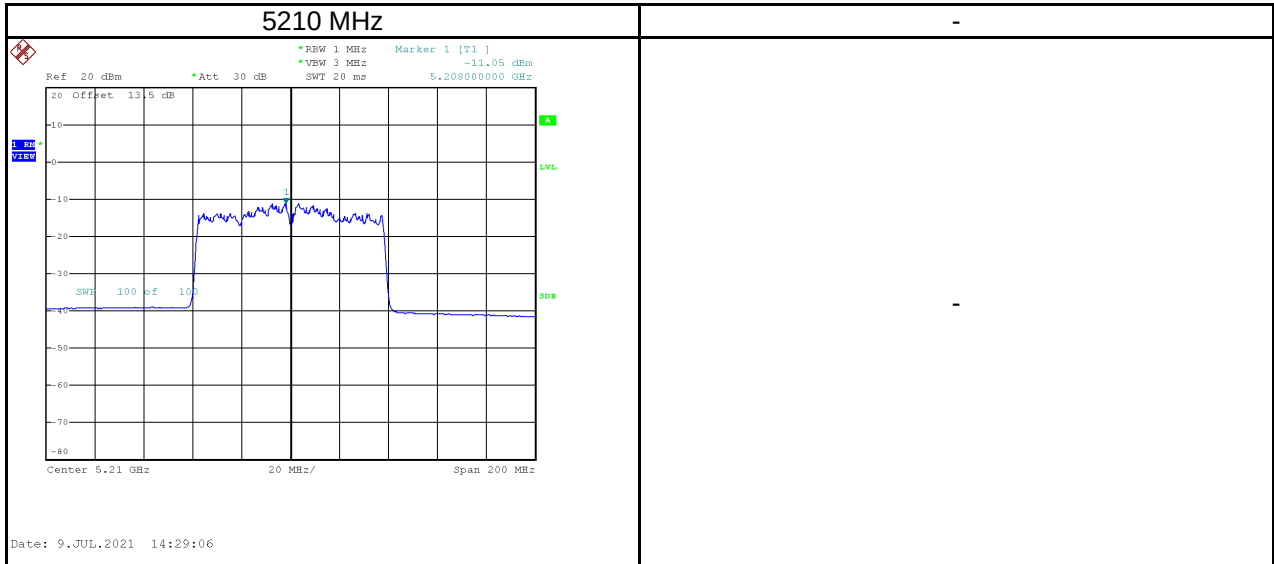
Test Frequency (MHz)	Power Density (dBm/100 kHz)	Power Density (dBm/500 kHz)	Duty Factor (dB)	Calculated Power Density (dBm/500 kHz)	Maximum Limit (dBm/500 kHz)	Result
5755	-0.19	6.80	0.57	7.37	30.00	Pass
5795	-2.14	4.85	0.57	5.42	30.00	Pass

NOTE: $PSD_{dBm/500\text{ kHz}} = PSD_{dBm/100\text{ kHz}} + 10 \times \log_{10}(500\text{ kHz} / 100\text{ kHz})$



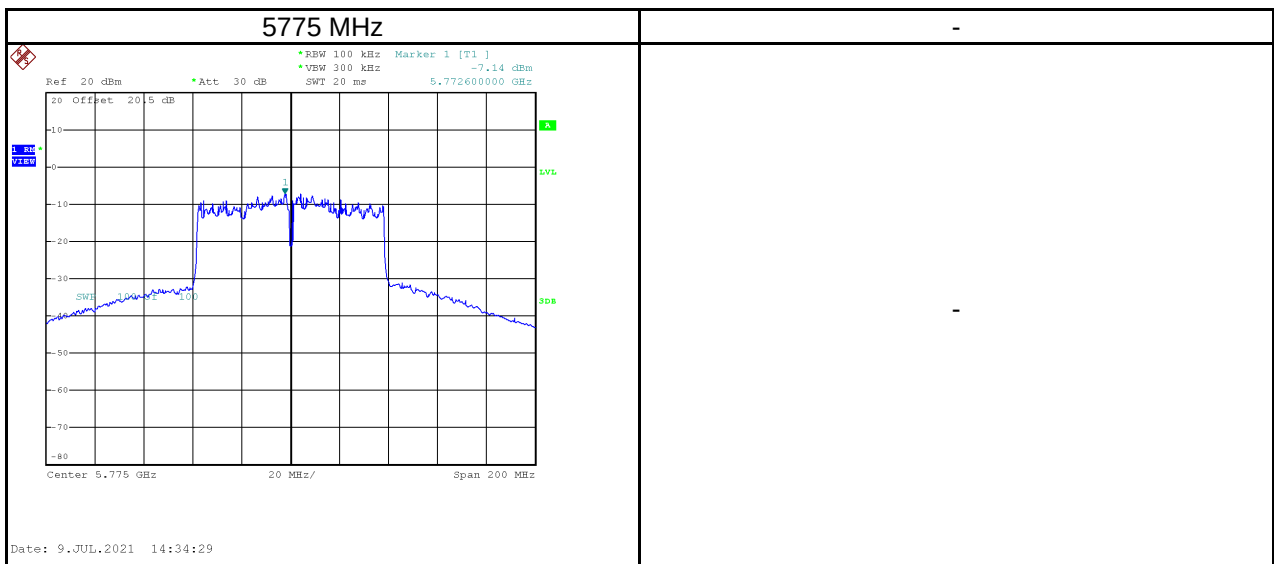
Test Mode	IEEE 802.11ac (VHT80)
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Test Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dB)	Calculated Power Density (dBm/MHz)	Maximum Limit (dBm/MHz)	Result
5210	-11.05	0.85	-10.20	17.00	Pass



Test Frequency (MHz)	Power Density (dBm/100 kHz)	Power Density (dBm/500 kHz)	Duty Factor (dB)	Calculated Power Density (dBm/500 kHz)	Maximum Limit (dBm/500 kHz)	Result
5775	-7.14	-0.15	0.85	0.70	30.00	Pass

NOTE: $PSD_{dBm/500\text{ kHz}} = PSD_{dBm/100\text{ kHz}} + 10 \times \log_{10}(500\text{ kHz} / 100\text{ kHz})$



End of Test Report