

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

SZEMC-TRF-01 Rev. A/2

Report No.: SZCR260100043806

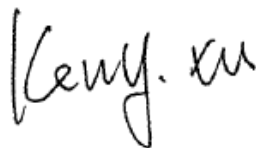
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TEST REPORT

Application No.: SZCR2601000438AT
Applicant: Grandstream Networks, Inc.
Address of Applicant: 126 Brookline Ave., 3rd Floor Boston, MA 02215, USA
Manufacturer: Grandstream Networks, Inc.
Address of Manufacturer: 126 Brookline Ave., 3rd Floor Boston, MA 02215, USA
Equipment Under Test (EUT):
EUT Name: Tri-band Wi-Fi 7 Access Point
Model No.: GWN7672L
Trade Mark: GRANDSTREAM
FCC ID: YZZGWN7672L
Standard(s) : 47 CFR Part 15, Subpart C 15.247
47 CFR Part 15, Subpart E 15.407
Date of Receipt: 2026-01-28
Date of Test: 2026-02-03 to 2026-02-10
Date of Issue: 2026-03-14

Test Result:**Pass***

* In the configuration tested, the EUT complied with the standards specified above.



Keny Xu
EMC Laboratory Manager



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (EMC Laboratory)

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2026-03-14		Original

Authorized for issue by:				
		Byron Liang		
		Byron Liang/Project Engineer		
		Eric Fu		
		Eric Fu/Reviewer		



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3 General Information

3.1 Details of E.U.T.

Applicant:	Grandstream Networks, Inc.
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Manufacturer:	Grandstream Networks, Inc.
Address of Manufacturer:	126 Brookline Ave., 3rd Floor Boston, MA 02215, USA

3.2 Test Location

Company:	SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch
Address:	No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China
Post code:	518057
Test engineer:	Ming. Hu

3.3 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• **VCCI (Member No. 1937)**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• **FCC –Designation Number: CN1336**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.



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3.4 General Information

Power supply:	Powered by POE DC48V
SN:	G260113044
For 2.4G WIFI:	
Operation Frequency:	802.11b/g/n(HT20)/ax(HEW20)/be(EHT20): 2412MHz to 2462MHz; 802.11n(HT40)/ax(HEW40)/be(EHT40): 2422MHz to 2452MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK), 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
Number of Channels:	802.11b/g/n(HT20)/ax(HEW20)/be(EHT20):11 802.11n(HT40)/ax(HEW40)/be(EHT40):7
Channel Spacing:	5MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	Ant1:4.18dBi;Ant2:3.65dBi
For 5G WIFI:	
Operation Frequency / Number of channels (20MHz):	U-NII-1:5180-5240MHz (4 Channels) U-NII-2A: 5260-5320MHz (4 Channels) U-NII-2C: 5500-5720MHz (12 Channels) U-NII-3: 5745-5825MHz (5 Channels)
Operation Frequency / Number of channels(40MHz):	U-NII-1:5190-5230MHz (2 Channels) U-NII-2A: 5270-5310MHz (2 Channels) U-NII-2C: 5510-5710MHz (6 Channels) U-NII-3: 5755-5795MHz (2 Channels)
Operation Frequency / Number of channels (80MHz):	U-NII-1:5210MHz (1 Channel) U-NII-2A: 5290MHz (1 Channel) U-NII-2C: 5530-5690MHz (3 Channels) U-NII-3: 5775MHz (1 Channel)
Operation Frequency / Number of channels (160MHz):	U-NII-1/2A:5250MHz (1 Channel) U-NII-2C: 5570MHz (1 Channel)
Modulation Type:	802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM); 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM); 802.11be: OFDMA with enhancements (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
Channel Spacing:	802.11a/n/ac/ax/be 20: 20MHz; 802.11n/ac/ax/be 40: 40MHz; 802.11ac/ax/be 80: 80MHz;802.11ac/ax/be 160: 320MHz
DFS Function:	Master
TPC Function:	Support TPC function



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Antenna Type:	PIFA Antenna
Antenna Gain:	Ant1:5.73dBi;Ant2:5.85dBi
For 6G Wi-Fi:	
Antenna Gain:	Ant1:5.63dBi;Ant2:6.05dBi
Operation Frequency:	IEEE 802.11 a/ax/be: U-NII-5:5925 MHz ~ 6425 MHz IEEE 802.11 a/ax/be: U-NII-6:6425 MHz ~ 6525 MHz IEEE 802.11 a/ax/be: U-NII-7:6525 MHz ~ 6875 MHz IEEE 802.11 a/ax/be: U-NII-8:6875 MHz ~ 7125 MHz
Number of channels:	20MHz bandwidth: 59 40MHz bandwidth: 29 80MHz bandwidth: 14 160MHz bandwidth: 7 320MHz bandwidth: 3
Modulation Type:	802.11a: OFDM (BPSK, QPSK, 16QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM); 802.11be: OFDMA with enhancements (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
Channel Spacing:	802.11 a/ax/be 20: 20MHz; 802.11 ax/be 40: 40MHz 802.11 ax/be 80: 80MHz; 802.11 ax/be 160: 160MHz 802.11 be 320: 320MHz
Equipment class:	6ID



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4 Equipment List

Radiated Spurious Emissions Below 1GHz					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2025-11-17	2027-11-16
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2023-06-19	2026-06-18
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2025-07-25	2026-07-24
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-01	2025-08-29	2027-08-28
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2026-02-02	2027-02-01
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2025-07-05	2026-07-04

Radiated Spurious Emissions Above 1GHz					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2025-05-07	2028-05-06
Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2026-02-02	2027-02-01
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2025-07-22	2026-07-21
Microwave system amplifier	Agilent	83017A	SEM005-25	2025-09-10	2026-09-09
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2025-07-05	2026-07-04
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	SEM003-15	2025-07-22	2027-07-21
Pre-Amplifier	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2025-03-21	2026-03-20



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RF Conducted Test					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Power Sensor	TST PASS	TSPS2023R	SEM009-26	2025-02-05 2026-02-04	2026-02-04 2027-02-03
Power Sensor	KEYSIGHT	U2021XA	SEM009-16	2025-02-05 2026-02-04	2026-02-04 2027-02-03
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2025-07-24	2026-07-23
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2026-02-03	2027-02-02
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2025-07-05	2026-07-04

General used equipment					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	deli	8838	SEM002-32	2025-07-23	2026-07-22
Humidity/ Temperature Indicator	deli	8838	SEM002-33	2025-07-23	2026-07-22
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2025-02-15 2026-02-14	2026-02-14 2027-02-13



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5 Measurement Uncertainty

For a 95% confidence level ($k = 2$), the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 as following:

No.	Item	Measurement Uncertainty
1	Total RF power, conducted	$\pm 0.54\text{dB}$
2	RF power density, conducted	$\pm 1.87\text{dB}$
3	Spurious emissions, conducted	$\pm 0.21\text{dB}$
4	Duty Cycle	$\pm 0.48\text{dB}$
5	Occupied Bandwidth	$\pm 1.12\text{dB}$
6	Radiated Spurious Emissions	$\pm 4.8\text{dB}$ (30M -1GHz)
		$\pm 4.8\text{dB}$ (1GHz to 18GHz)

Remark:

The U_{lab} (lab Uncertainty) is less than $U_{\text{CISPR/ETSI}}$ (CISPR/ETSI Uncertainty), so the test results

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.



6 Description of Tests

6.1 Duty cycle

Remark: Reference test setup 1

6.2 Bandwidth

Remark: Reference test setup 1

6.3 Power Spectral Density

Remark: Reference test setup 1

6.4 Conducted Spurious Emissions

Remark: Reference test setup 1

6.5 Conducted Output Power

The transmitter output was connected to a calibrated coaxial cable, attenuator and power meter, the other end of which was connected to the test equipment. The power output at the transmitter antenna port was determined by adding the value of the cable insertion loss to the power reading.

Remark: Reference test setup 1

6.6 Radiated Spurious Emissions

Below 1GHz test procedure as below:

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8m above the ground at a semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3m or 10m away from the interference-receiving antenna, which was mounted on the variable-height antenna tower.
- The antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1m to 4m (for the test frequency of below 30MHz, the antenna was tuned to heights 1m) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.



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- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only below points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
2. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the worst-case test curve is displayed.

Remark: Reference test setup 2



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Radiated Spurious Emissions Above 1GHz

- For above 1GHz, the EUT was placed on the top of a rotating table 1.5m above the ground at a 3m fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3m away from the interference-receiving antenna from 1GHz to 18GHz, and 1m away from the interference-receiving antenna above 18GHz.
- The interference-receiving antenna was mounted on the variable-height antenna tower, with its boresight facing the EUT throughout the test.
- The antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1m to 4m and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- Test the EUT in the lowest channel, the middle channel, the Highest channel.
- The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- Repeat above procedures until all frequencies measured was complete.

Remark:

- Scan from 1GHz to 10th harmonic of the highest frequency or 40 GHz, whichever is lower.
- As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
- For the frequency above 18GHz, testing had been executed under all test modes, only the worst-case test curve is displayed in the report.
- For devices with multiple operating modes, measurements on the middle channel is used to determine the worst-case mode(s). Only the worst-case mode with the highest output power and the mode with the highest output power spectral density for each modulation family (e.g., OFDM and direct sequence spread spectrum) is recorded in the test report.

Remark: Reference test setup 3



6.7 Radiated Emissions which fall in the restricted bands

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

Remark 3: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for Peak detection (PK) and Average detection (AV) at frequency above 1GHz.

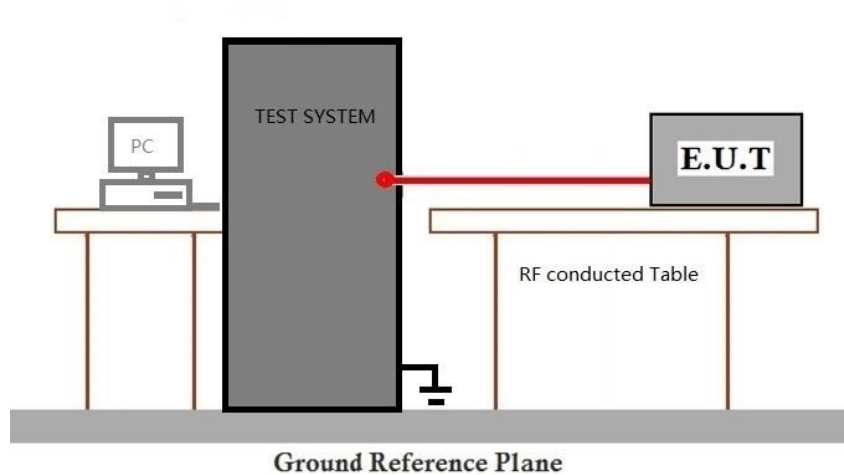
Remark 4: For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.

Remark: Reference test setup 3

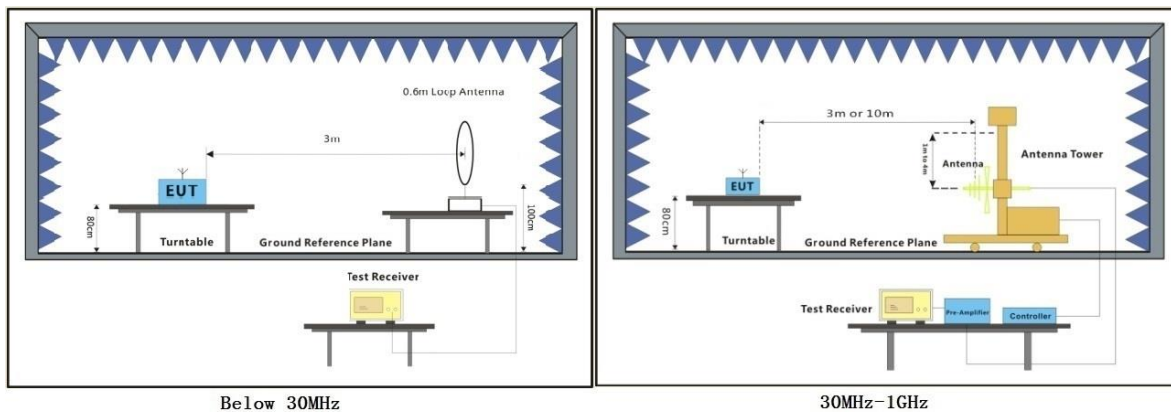


6.8 Test Setups

test setup 1



test setup 2

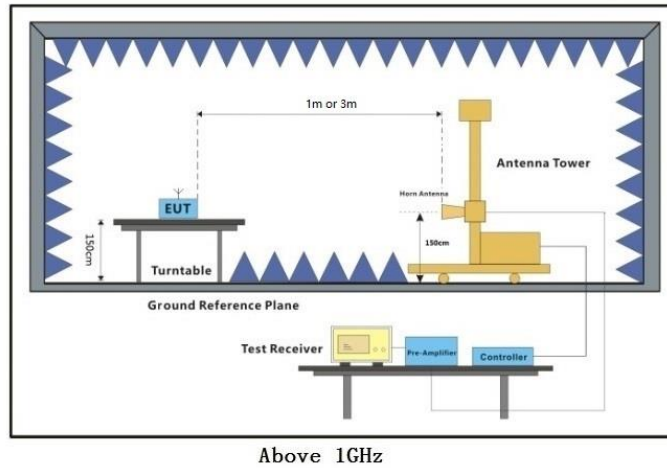


Below 30MHz

30MHz-1GHz



test setup 3



7 Photographs - Setup Photos

Refer to Appendix - Test Setup Photo for SZCR2601000438AT



8 Introduction of Test Data Reuse

8.1 Description of EUT

The EUT is a Tri-band Wi-Fi 7 Access Point with 2.4G WIFI, 5G WIFI and 6G WIFI technologies.

Testing was performed on the parent model and is used to support the application for the parent and variants identified in this report based on the test plan submitted.

This application for certification is leveraging the data reuse procedures from KDB 484596 D01 based on reference FCC ID: YZZGWN7672 to cover variant model FCC ID: YZZGWN7672L. The new product GWN7672L is identical with the original product ,the difference on changed the Network port and removed BT Components.



8.2 Reference Detail

Band	Rule Part	Test item	Parent model FCC ID YZZGWN7672		Variant model FCC ID YZZGWN7672L	
			Data	Reference Report No.	Data Referencing	Remark
2.4G WIFI	15.207	AC Power Line Conducted Emission	Full Test	SZCR250200054403	Y	reuse patrent data
	15.247 (b)(3)	Conducted Output Power	Full Test		Y	Check Worse
	15.247 (a)(2)	DTS (6 dB) Bandwidth & 99% Occupied Bandwidth	Full Test		Y	Check Worse
	15.247 (e)	Power Spectral Density	Full Test		Y	Check Worse
	15.247(d)	Band-edge for RF Conducted Emissions	Full Test		Y	Check Worse
	15.247(d)	RF Conducted Spurious Emissions	Full Test		Y	Check Worse
	15.205/15.209	Radiated Spurious Emissions	Full Test		Y	Check Worse
	15.205/15.209	Restricted bands around fundamental frequency (Radiated Emission)	Full Test		Y	Check Worse
5G WIFI	Band I: 15.407(a)(1) Band II-A: 15.407(a)(2) Band II-C: 15.407(a)(2) Band III: 15.407(e)	26dB Emission Bandwidth 26dB Emission Bandwidth 26dB Emission Bandwidth 6dB Emission Bandwidth	Full Test	SZCR250200054404 SZCR250200054405	Y	Check Worse
	Band I&Band II-A&Band II-C &Band III: KDB 789033 D02§ D	99% Occupied Bandwidth	Full Test		Y	Check Worse
	Band I: 15.407(a)(iv) Band II-A: 15.407(a)(2) Band II-C: 15.407(a)(2) Band III: 15.407(a)(3)	Maximum Conducted Output Power	Full Test		Y	Check Worse
	Band I: 15.407(a)(iv) Band II-A: 15.407(a)(2) Band II-C: 15.407(a)(2) Band III: 15.407(a)(3)	Maximum Power Spectral Density	Full Test		Y	Check Worse
	Band I&Band II-A&Band II-C &Band III: 15.407(b) 15.205/15.209	Radiated Spurious Emissions	Full Test		Y	Check Worse
	Band I&Band II-A&Band II-C &Band III: 15.407(b) 15.205/15.209	Restricted bands around fundamental frequency	Full Test		Y	Check Worse
	Band I&Band II-A&Band II-C &Band III: 15.207	AC Power Line Conducted Emissions	Full Test		Y	reuse patrent data
	Band II-A &Band II-C: 15.407	Dynamic Frequency Selection	Full Test		Y	reuse patrent data
	Band I&Band II-A&Band II-C &Band III: 15.407(g)	Frequency Stability	Full Test		Y	Check Worse
6G WIFI	Band 5: 15.207 Band 6: 15.207 Band 7: 15.207 Band 8: 15.207	Conducted Emissions at AC Power Line	Full Test	SZCR250200054406	Y	reuse patrent data



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Band 5: 15.407(a) Band 6: 15.407(a) Band 7: 15.407(a) Band 8: 15.407(a)	Maximum Conducted Output Power	Full Test	Y	Check Worse
Band 5&Band 6&Band 7&Band 8 15.407(b) 15.205/15.209	Radiated Spurious Emissions	Full Test	Y	Check Worse
Band 5&Band 6&Band 7&Band 8: 15.407(b) 15.205/15.209	Radiated Emissions which fall in the restricted bands	Full Test	Y	Check Worse
Band 5&Band 6&Band 7 &Band 8: 15.407(b)	In-Band Emissions	Full Test	Y	Check Worse
Band 5&Band 6&Band 7&Band 8: 15.407(d) (6)	Contention-based Protocol	Full Test	Y	reuse parent data
Band 5&Band 6&Band 7&Band 8: 15.407(d) (6)	99% Occupied Bandwidth	Full Test	Y	Check Worse
Band5&Band6&Band7& Band 8: 15.407(a)	26dB Emission bandwidth	Full Test	Y	Check Worse
Band5&Band6&Band7 &Band 8: 15.407(a)	Peak Power spectrum density	Full Test	Y	Check Worse
Band5&Band6&Band7&B and 8: 15.407(a)	Frequency Stability	Full Test	Y	Check Worse



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8.3 Spot Check Verification Data

Conducted power test and radiated spurious emission test against the variant model based on the worstcase condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

All test procedures follow the related section of parent report.

a) EMC Test Data Spot-Checks

These exhibits for the variant certification shall meet the following criteria:

- Spot-check measurements must correspond to the worst-case scenario reported in the parent device filing, i.e., for conditions closest to non-compliance.
- Spot-check measurements must always show compliance with the rule part(s) applicable to the test under consideration.
- Spot-check measurements may show deviations from the reference data, as specified in sub-sections 3.2.1 and 3.2.2. These specifications differ between EMC data and RF exposure test data.

For EMC compliance test data (e.g., spurious emissions limits), the deviation between the variant and the parent model, for both field and power quantities, is expressed as: $d_{dB} = |V_{dB} - R_{dB}| (1)$,

where V_{dB} is the variant spot-check level in dB, and R_{dB} is the corresponding reference measurement level in dB for the parent model.

The spot-check will be deemed acceptable when: $d_{dB} \leq d_{dBmax}$

$$(2),$$

where d_{dBmax} is the maximum deviation d_{dB} allowed for the EMC data for the spot-check to be considered acceptable. The definition of d_{dBmax} is based on “how far” the reference data R_{dB} is from the compliance threshold C_{dB} (also expressed in dB), for the test under consideration. More specifically, if M_{dB} is the margin in dB from the compliance limit, expressed as

$$M_{dB} = |C_{dB} - R_{dB}| (3),$$

then d_{dBmax} is defined as a function of M_{dB} , which increases linearly from 3 dB to 6 dB (Fig. 2), according to:

$$d_{dBmax}(M_{dB}) = \begin{cases} (3 + M_{dB}/20) \text{ dB} & , \text{ for } 0 \leq M_{dB} \leq 60 \text{ dB} \\ 6 \text{ dB} & , \text{ for } M_{dB} > 60 \text{ dB} \end{cases} \quad (4) . 6$$

8.4 Spot Check Results

Test Item	Mode	GWN7672 Parent Worst mode Test Result	GWN7672L Variant Check Test Result	Deviation (dB)	Limit (dB)
Conducted Power (dBm)	11B	24.22	22.3	1.92	3 + MdB /20 (0 ≤ MdB ≤ 60 dB)
	11G	23.67	22.76	0.91	
	11N20	27.66	26.55	1.11	
	11N40	28.18	27.17	1.01	
	11AX20	27.61	26.54	1.07	
	11AX40	28.18	27.26	0.92	
	11BE20	27.58	26.67	0.91	
	11BE40	27.96	27.04	0.92	
	11A Band I	22.53	20.09	2.44	
	11A Band II-A	21.31	20.29	1.02	
	11A Band II-C	20.11	19.56	0.55	
	11A Band III	26.05	23.52	2.53	
	11N20 Band I	19.18	18.34	0.84	
	11N20 Band II-A	19.61	18.05	1.56	
	11N20 Band II-C	19.44	17.69	1.75	
	11N20 Band III	29.08	28.34	0.74	
	11N40 Band I	17	16.15	0.85	
	11N40 Band II-A	19.08	17.61	1.47	
	11N40 Band II-C	20.87	18.67	2.2	
	11N40 Band III	29.55	27.45	2.1	
	11AC20 Band I	19.29	18.3	0.99	
	11AC20 Band II-A	19.87	19.17	0.7	
	11AC20 Band II-C	19.51	18.06	1.45	
	11AC20 Band III	29.11	28.27	0.84	
	11AC40 Band I	16.95	16.45	0.5	
	11AC40 Band II-A	19	17.96	1.04	
	11AC40 Band II-C	20.72	19.66	1.06	
	11AC40 Band III	29.77	28.24	1.53	
	11AC80 Band I	16.73	15.86	0.87	
	11AC80 Band II-A	18.4	17.54	0.86	
	11AC80 Band II-C	20	19.5	0.5	



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11AC80 Band III	27.6	26.7	0.81
11AC160	15.05	14.15	0.9
11AX20 Band I	19.38	18	0.62
11AX20 Band II-A	19.92	19.2	0.72
11AX20 Band II-C	19.51	18.26	1.25
11AX20 Band III	26.48	25.44	1.04
11AX40 Band I	16.99	16.39	0.6
11AX40 Band II-A	18.97	17.68	1.29
11AX40 Band II-C	20.82	20.33	0.49
11AX40 Band III	25.39	24.96	0.43
11AX80 Band I	16.53	15.94	0.59
11AX80 Band II-A	18.27	17.41	0.86
11AX80 Band II-C	19.91	19.09	0.8
11AX80 Band III	26.63	25.9	0.73
11AX160	15.03	14.34	0.69
11BE20 Band I	19.35	17.55	1.8
11BE20 Band II-A	19.98	19.42	0.56
11BE20 Band II-C	19.49	18.43	1.06
11BE20 Band III	26.22	25.51	0.71
11BE40 Band I	17.01	16.56	0.45
11BE40 Band II-A	18.85	17.94	0.91
11BE40 Band II-C	20.66	19.48	1.18
11BE40 Band III	25.32	25.11	0.21
11BE80 Band I	16.58	16.09	0.49
11BE80 Band II-A	18.3	17.47	0.83
11BE80 Band II-C	19.93	19.33	0.6
11BE80 Band III	25.63	25.09	0.54
11AX160	15.09	14.29	0.8
6G Band 5 11A	10.17	9.28	0.89
6G Band 6 11A	9.93	8.05	1.88
6G Band 7 11A	10.16	8.84	1.32
6G Band 8 11A	9.98	8.4	1.58
6G Band 5 11AX20	10.77	10.22	0.55



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6G Band 6 11AX20	10.72	10.48	0.24
6G Band 7 11AX20	10.66	9	1.66
6G Band 8 11AX20	10	9.54	0.46
6G Band 5 11AX40	13.45	12.95	0.5
6G Band 6 11AX40	13.44	11.56	1.88
6G Band 7 11AX40	13.74	12.18	1.56
6G Band 8 11AX40	13.46	12.61	0.85
6G Band 5 11AX80	16.14	14.89	1.25
6G Band 6 11AX80	16.79	15.79	1
6G Band 7 11AX80	16.8	16.26	0.54
6G Band 8 11AX80	16.54	16.05	0.49
6G Band 5 11AX160	19.23	18.2	1.02
6G Band 7 11AX160	19.43	18.58	0.85
6G Band 8 11AX160	19.45	19.21	0.24
6G Band 5 11BE20	10.17	9.16	1.01
6G Band 6 11BE20	10.29	10.2	0.09
6G Band 7 11BE20	10.36	8.61	1.75
6G Band 8 11BE20	10.09	8.91	1.18
6G Band 5 11BE40	13.19	12.19	1
6G Band 6 11BE40	13.58	11.56	2.02
6G Band 7 11BE40	13.67	12.17	1.5
6G Band 8 11BE40	13.12	12.64	0.48
6G Band 5 11BE80	16.53	15.54	0.99
6G Band 6 11BE80	16.47	15.41	1.06
6G Band 7 11BE80	16.73	15.18	1.55
6G Band 8 11BE80	16.63	15.78	0.85
6G Band 5 11BE160	19.72	19.11	0.61
6G Band 7 11BE160	19.34	18.74	0.6
6G Band 8 11BE160	19.33	18.41	0.92
6G Band 5 11BE320	21.52	20.19	1.33



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Test Item	Mode	GWN7672 Parent Worst mode Test Result	GWN7672L Variant Check Test Result	Deviation (dB)	Limit (dB)
Radiated Spurious emissions below 1GHz	2.4GWIFI 11g CH01	32.96	30.92	2.04	3.352
	5GWIFI 11ac80 B1 CH48	31.94	30.34	1.60	3.403
	6GWIFI 11BE20 CH233	31.36	30.36	1.0	3.432
Radiated Spurious emissions Above 1GHz	2.4GWIFI 11g CH01	47.01	30.92	2.04	4.350
	5GWIFI 11ax20 B4 CH159	31.94	30.34	1.60	3.686
	6GWIFI 11ax20 CH1	53.94	52.60	1.34	4.003
Restricted bands around fundamental frequency	2.4GWIFI 11g CH01	52.99	52.51	0.48	3.051
	5GWIFI 11ac80 B1 CH48	52.98	52.29	0.69	3.051
	6GWIFI 11BE20 CH233	67.22	67.15	0.07	3.049

Test Item	Mode	GWN7672 Parent Worst mode Test Result	GWN7672L Variant Check Test Result	Deviation (dB)	Limit (dB)
2.4G WIFI	Duty Cycle	0.04	0.18	0.14	3 + MdB /20 (0 ≤ MdB ≤ 60 dB)
	OBW	17.526	16.323	1.203	
	Minimum 6dB Bandwidth	15.142	16.320	1.178	
	Maximum Power Spectral Density	-4.46	-7.20	2.74	
	Unwanted Emissions In Non restricted Frequency Bands	7.22	7.62	0.4	
5G WIFI	Duty Cycle	0.15	0.14	0.01	
	OBW	19.40	19.028	0.327	
	26dB Emission bandwidth	23.353	22.969	0.384	
	Peak Power spectrum density	8.03	6.41	1.62	
6G WIFI	Duty Cycle	0.15	0.15	0.00	
	OBW	157.778	156.745	1.033	



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26dB Emission bandwidth	170.599	168.47	2.129
Peak Power spectrum density	-1.39	-2.01	0.62



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SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

SZEMC-TRF-01 Rev. A/2

Report No.: SZCR260100043806

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8.5 Detail Results

2.4GWIFI

1. Duty Cycle

1.1 Test Result

1.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11g	SISO	2412	1.978	1.994	99.20	0.03	0.03



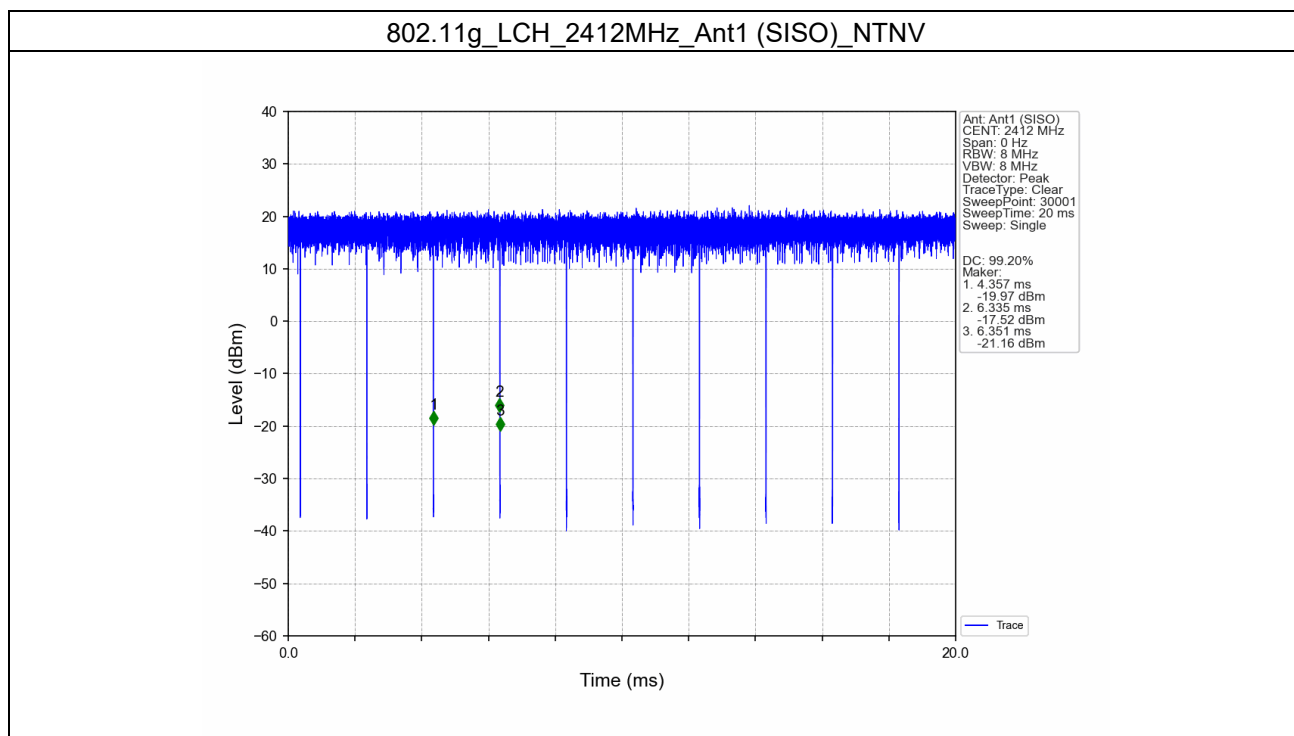
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1.2 Test Graph

1.2.1 Ant1



2. Bandwidth

2.1 Test Result

2.1.1 OBW

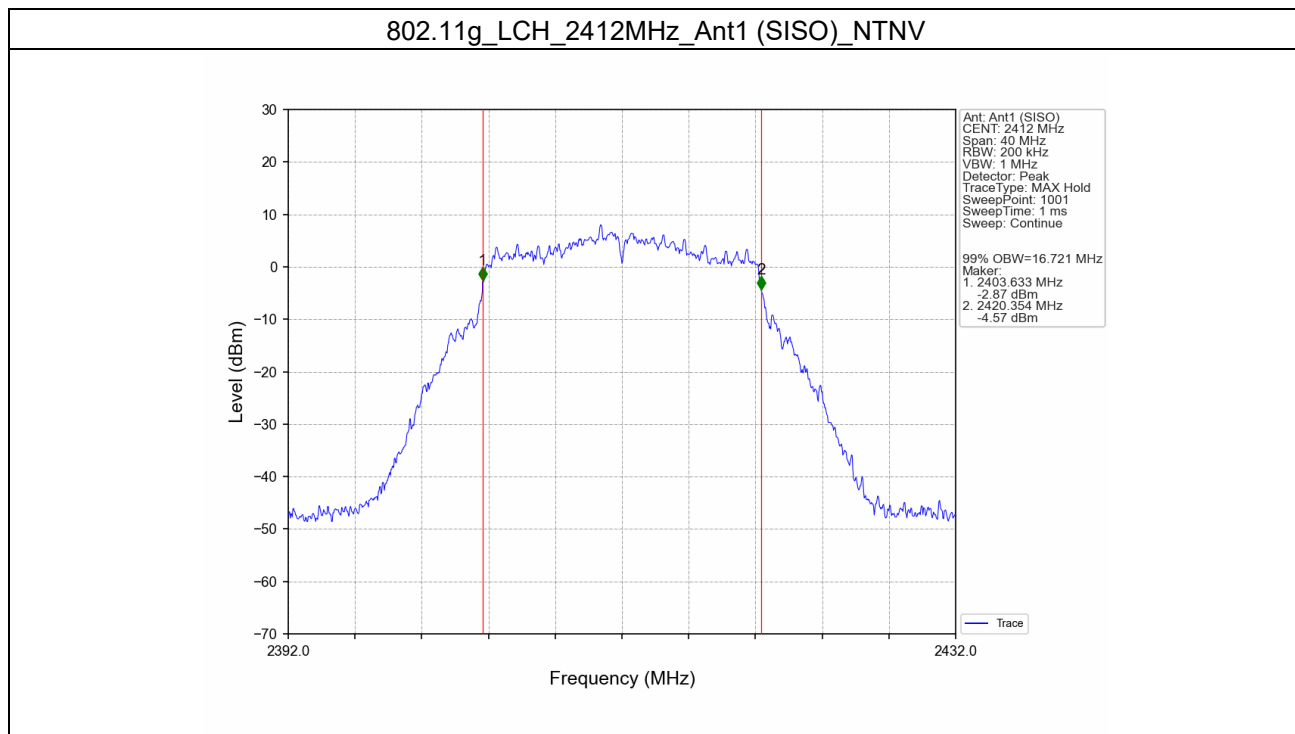
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11g	SISO	2412	1	16.721	/	Pass

2.1.2 6dB BW

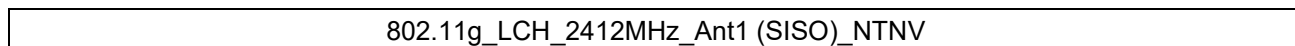
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11g	SISO	2412	1	15.874	>=0.5	Pass

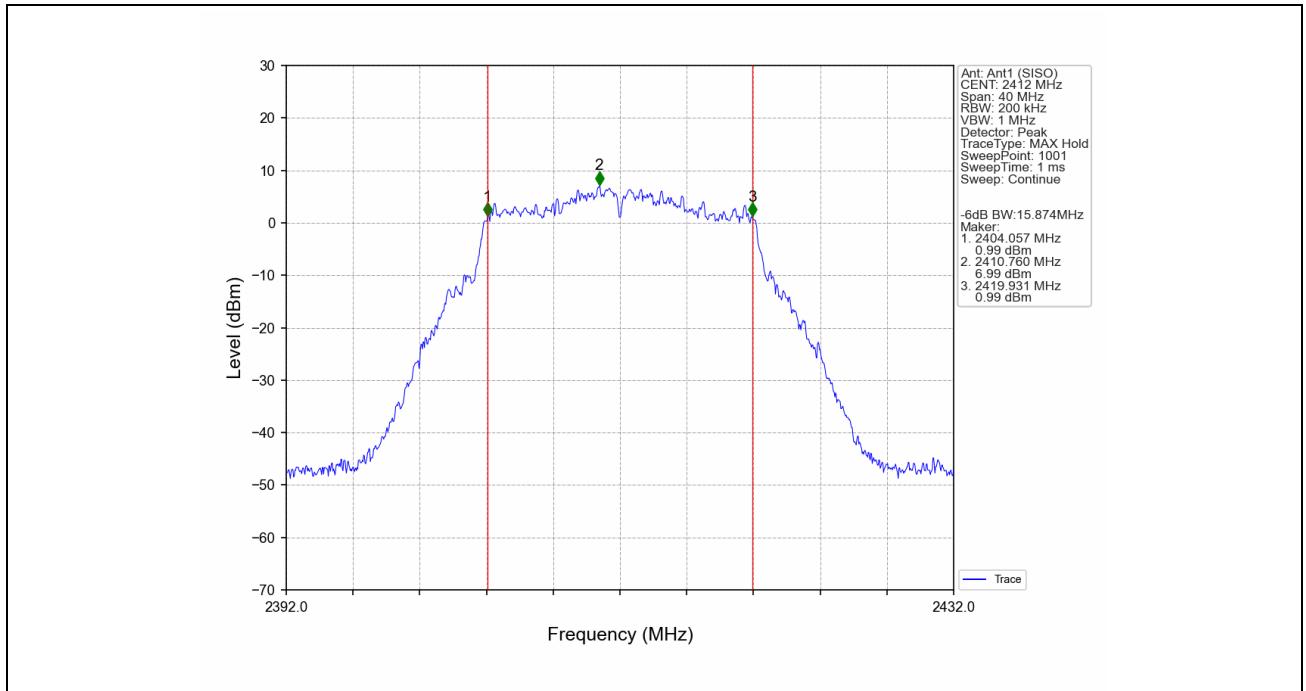
2.2 Test Graph

2.2.1 OBW



2.2.2 6dB BW





3. Maximum Power Spectral Density

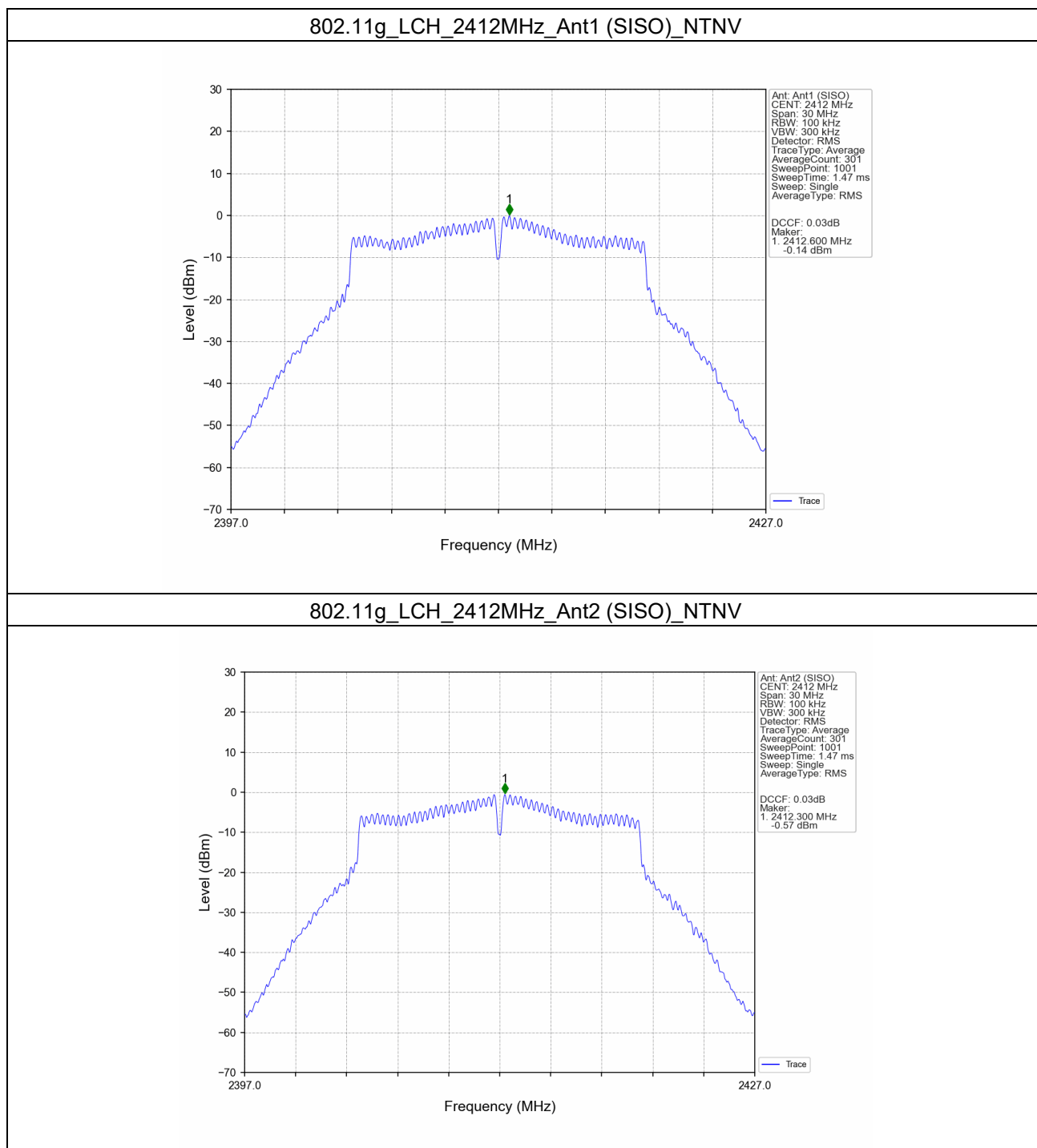
3.1 Test Result

3.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)				Verdict
			ANT1	ANT2	MIMO	Limit	
802.11g	SISO	2412	-0.14	-0.57	/	<=8	Pass

3.2 Test Graph

3.2.1 PSD



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4. Unwanted Emissions In Non-restricted Frequency Bands

4.1 Test Result

4.1.1 Ref

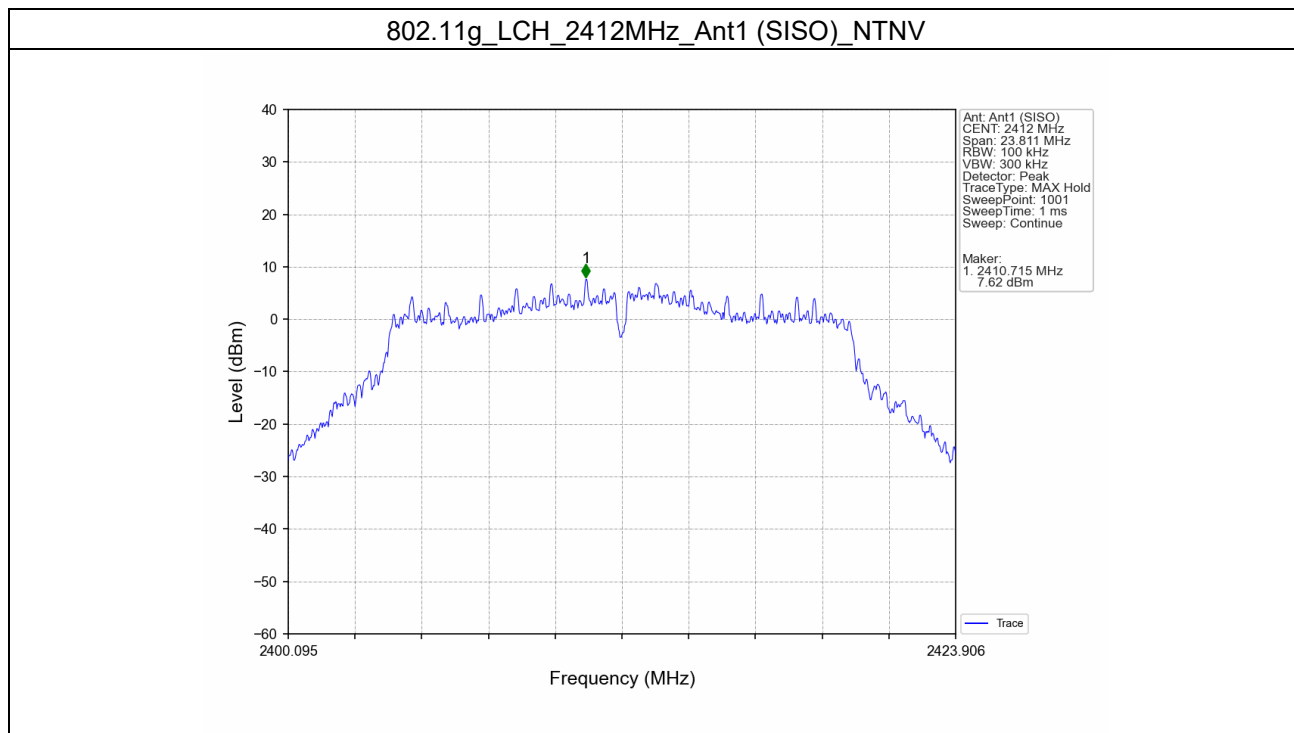
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11g	SISO	2412	1	7.62
			2	7.57

5.1.2 CSE

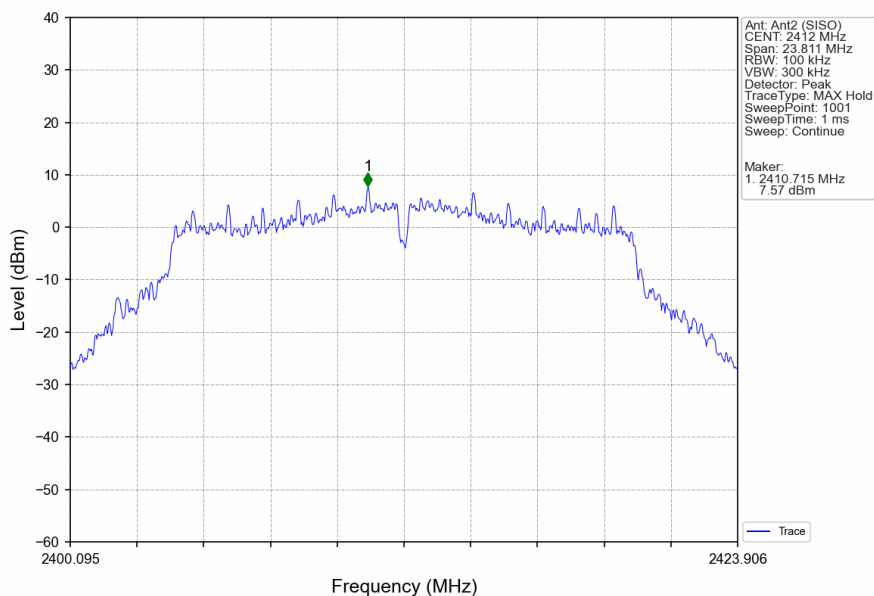
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11g	SISO	2412	1	7.62	-22.38	Pass
			2	7.57	-22.43	Pass

5.2 Test Graph

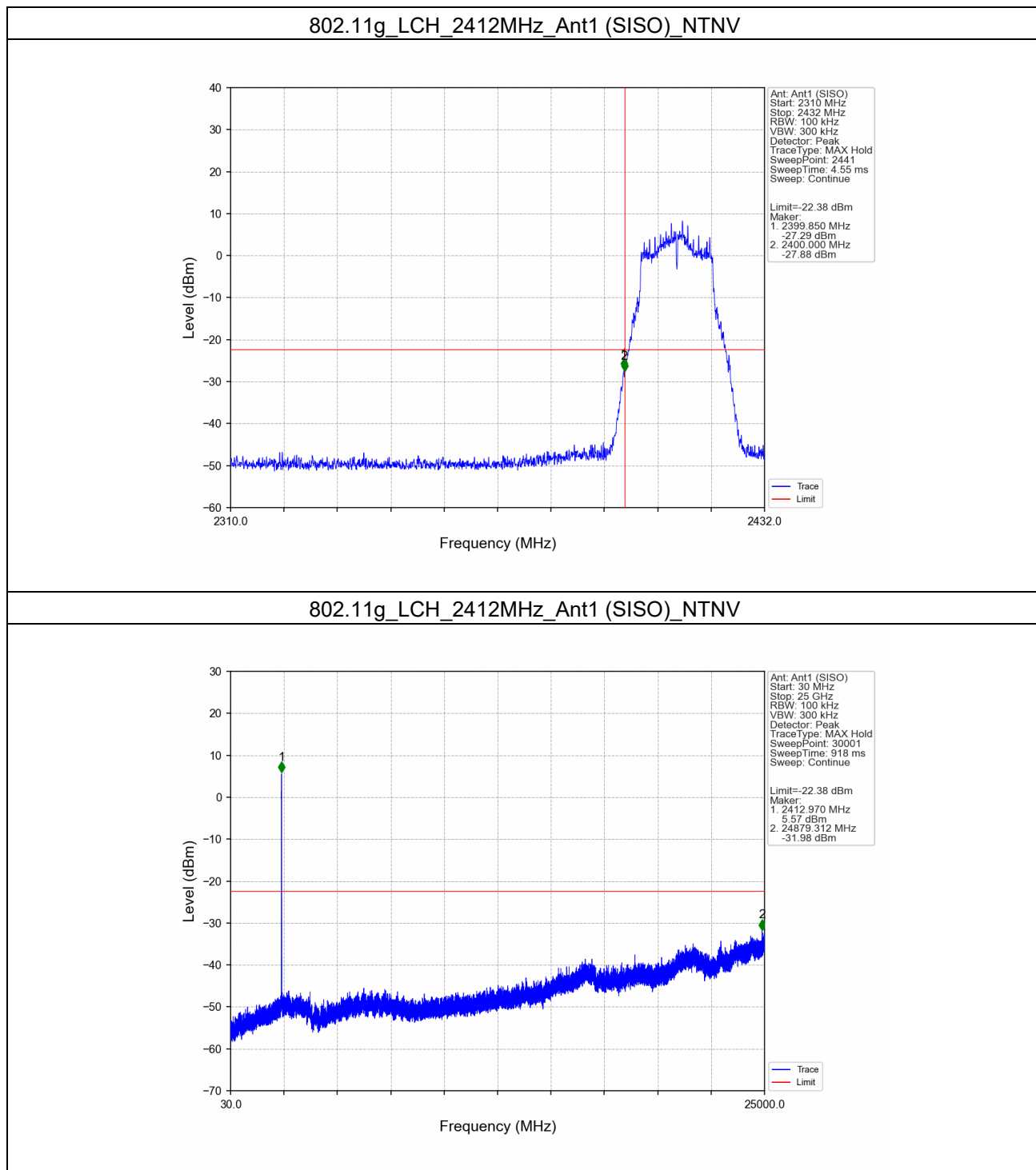
5.2.1 Ref



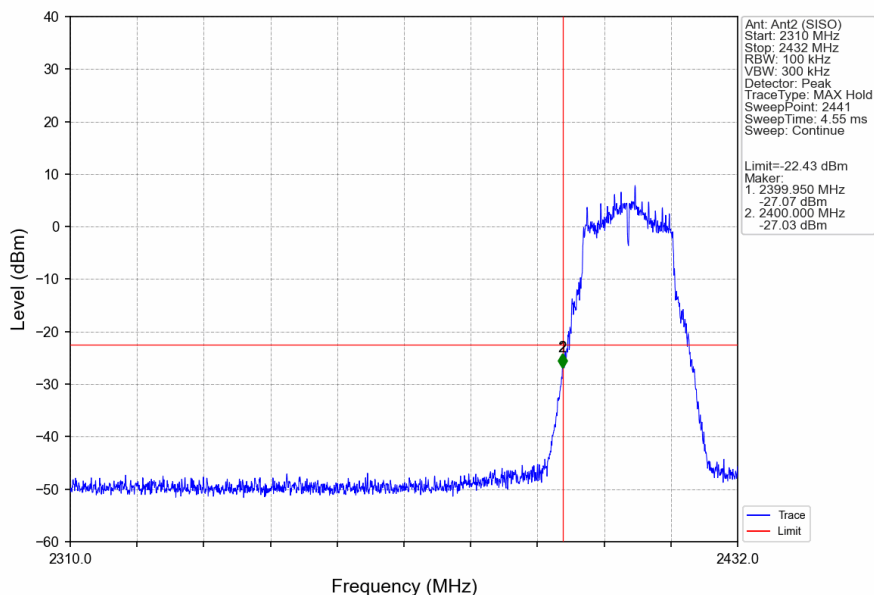
802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV



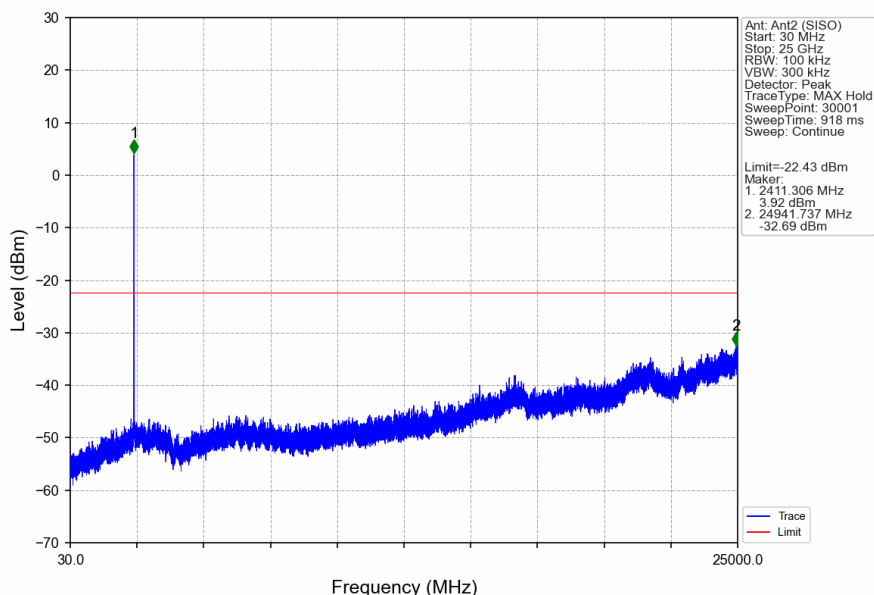
4.2.2 CSE



802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV



802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV



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5G WIFI

1. Duty Cycle

1.1 Test Result

1.1.1 Ant1

Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11be (EHT20)	MIMO	5300	SU	/	5.454	5.636	96.77	0.14	2.03



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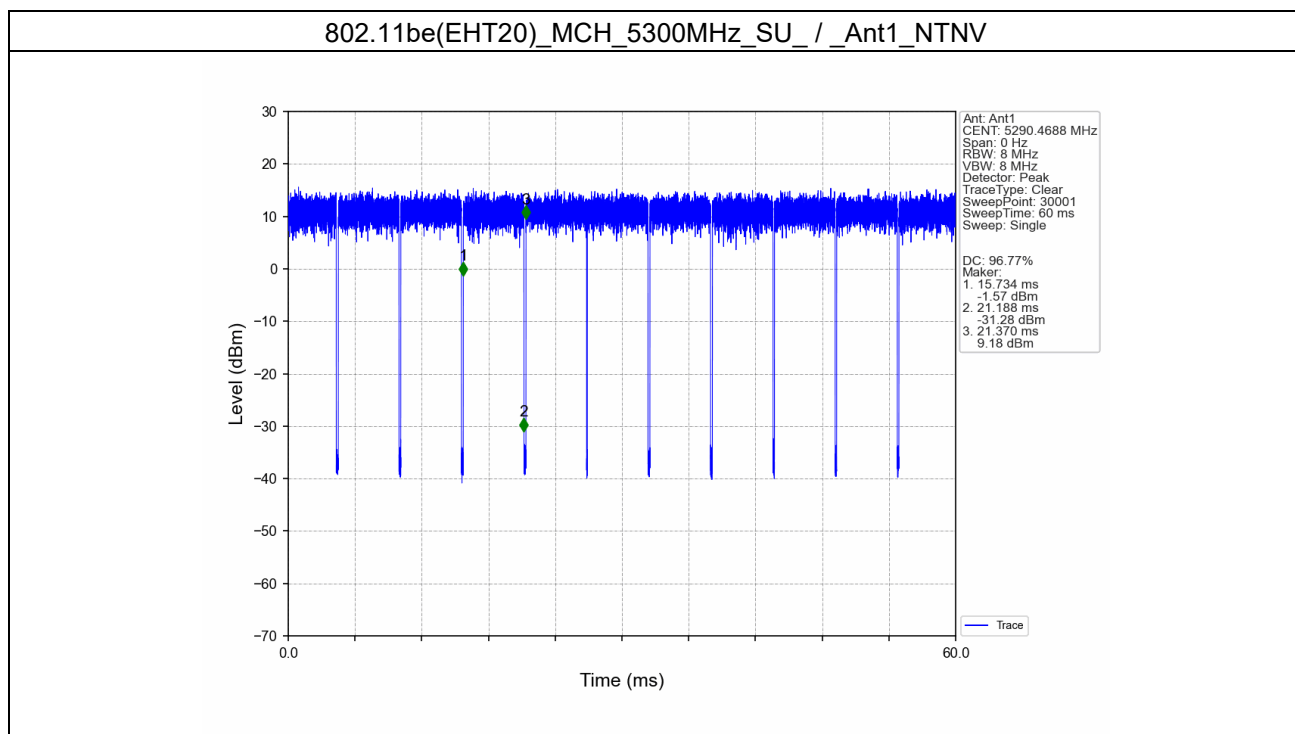
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1.2 Test Graph

1.2.1 Ant1



2. Bandwidth

2.1 Test Result

2.1.1 OBW

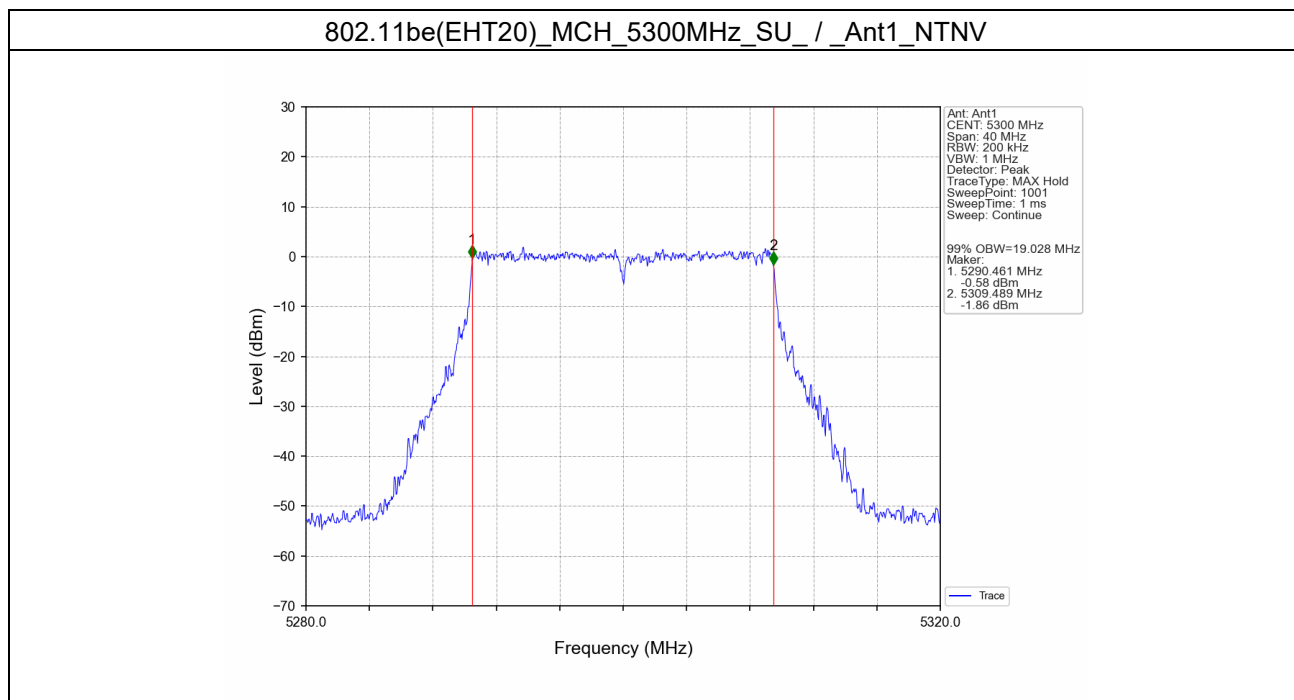
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11be (EHT20)	MIMO	5300	SU	/	1	19.028	/	Pass

2.1.2 26dB BW

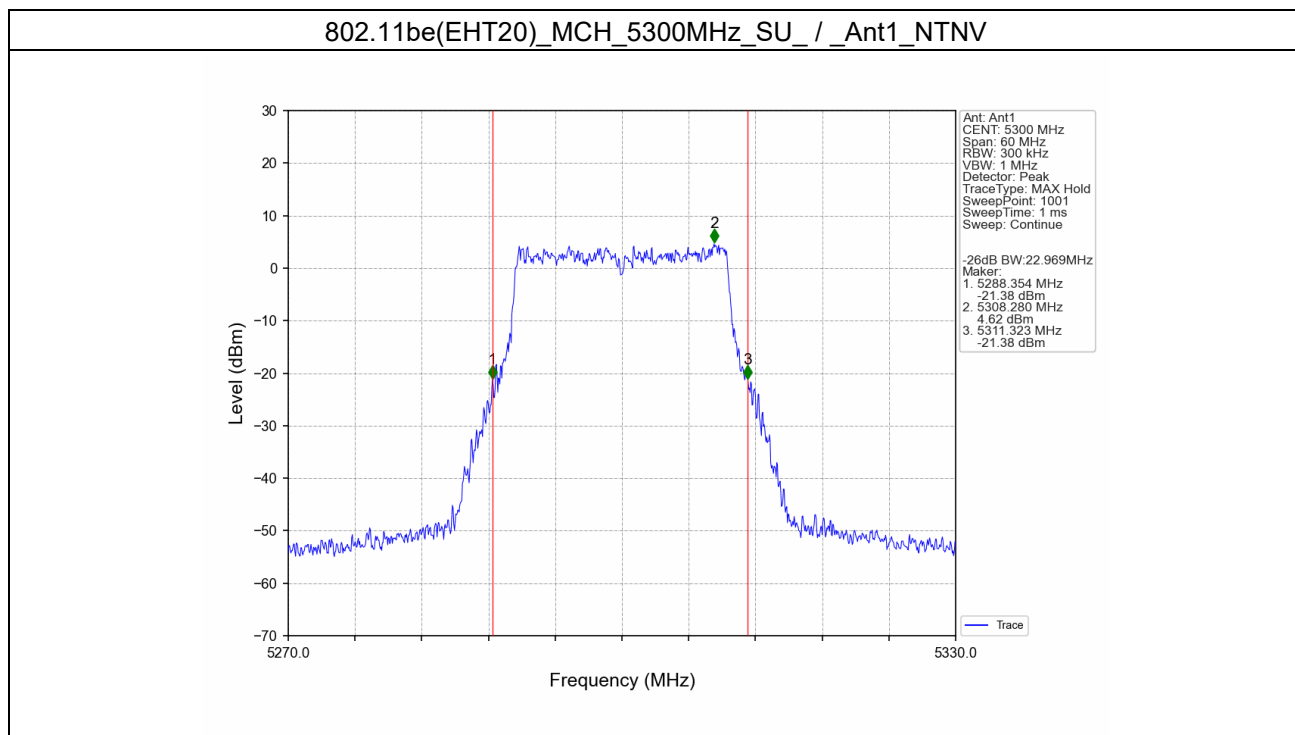
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11be (EHT20)	MIMO	5300	SU	/	1	22.969	/	Pass

2.2 Test Graph

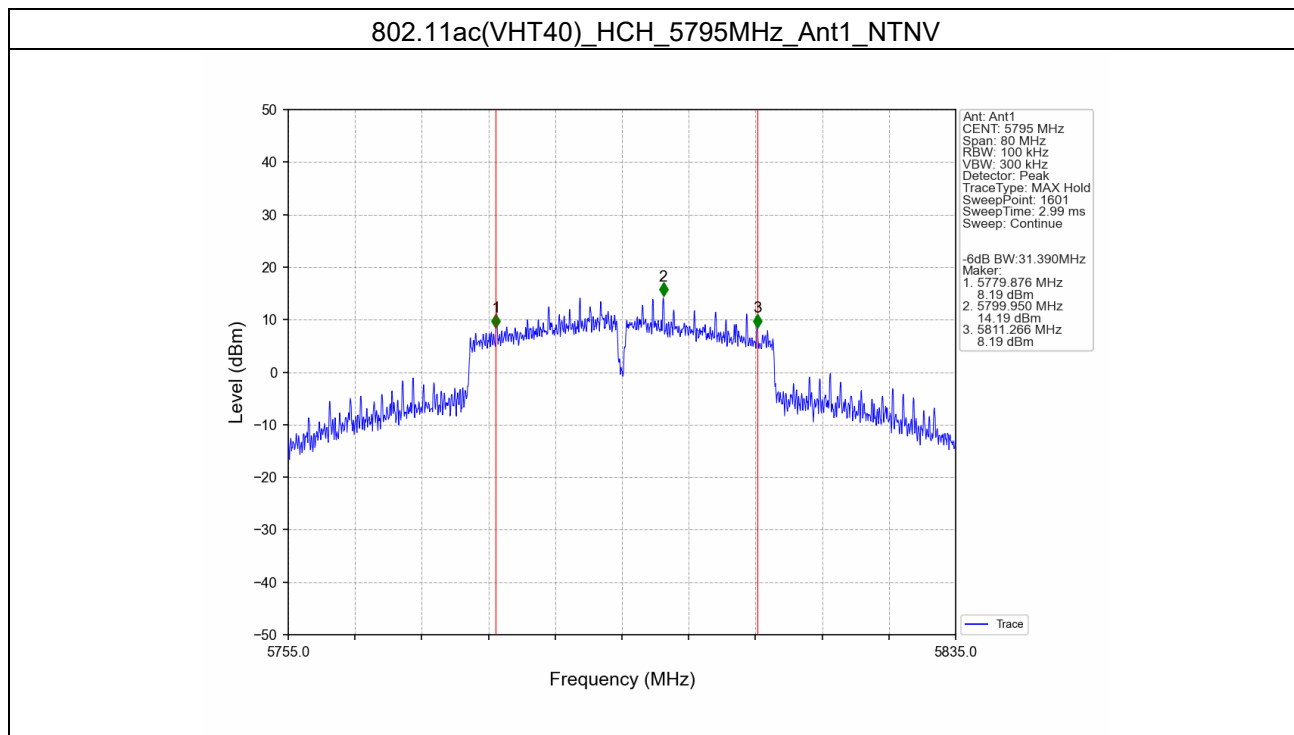
2.2.1 OBW



2.2.2 26dB BW



2.2.3 6dB BW



3. Maximum Power Spectral Density

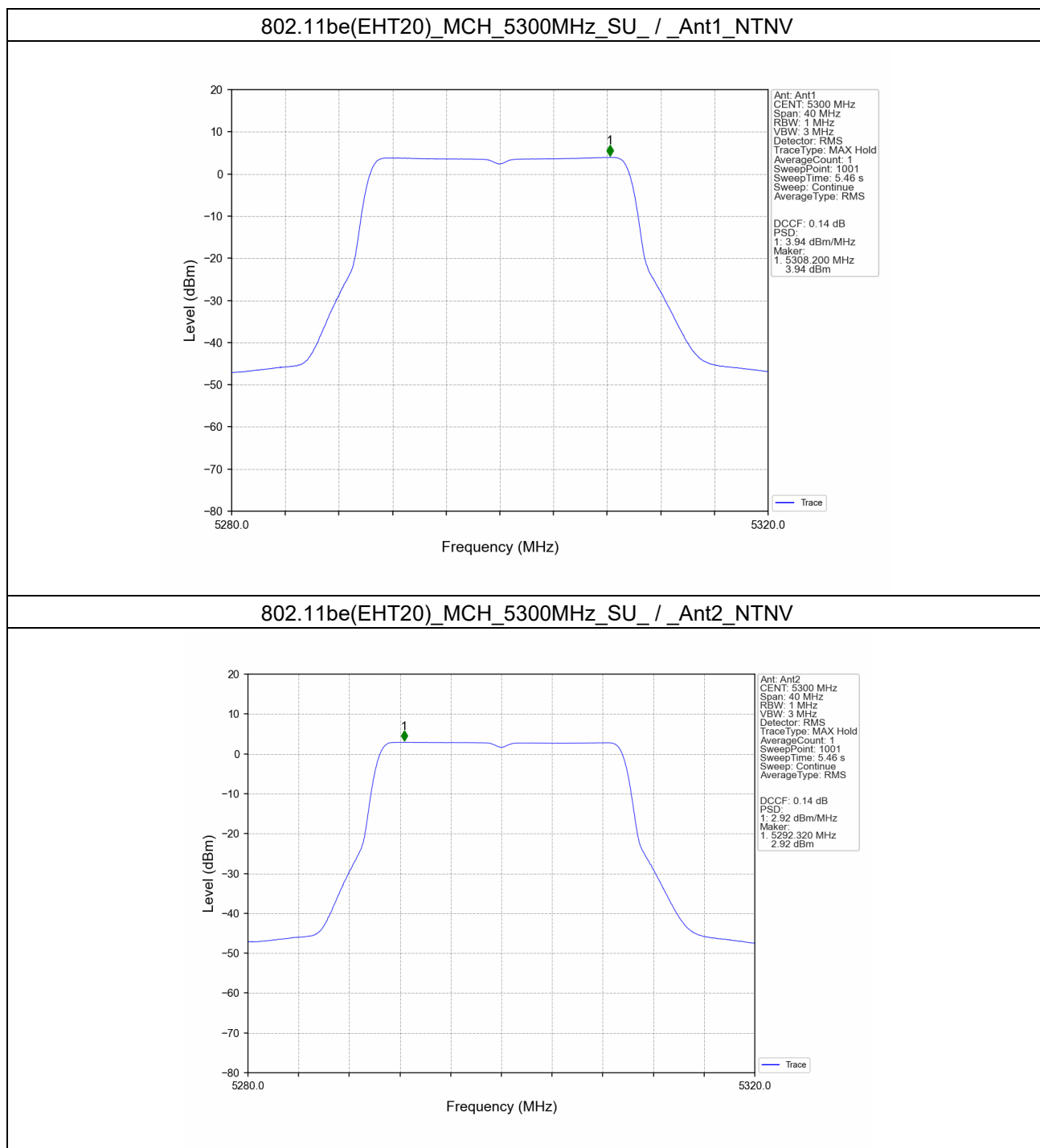
3.1 Test Result

3.1.1 PSD

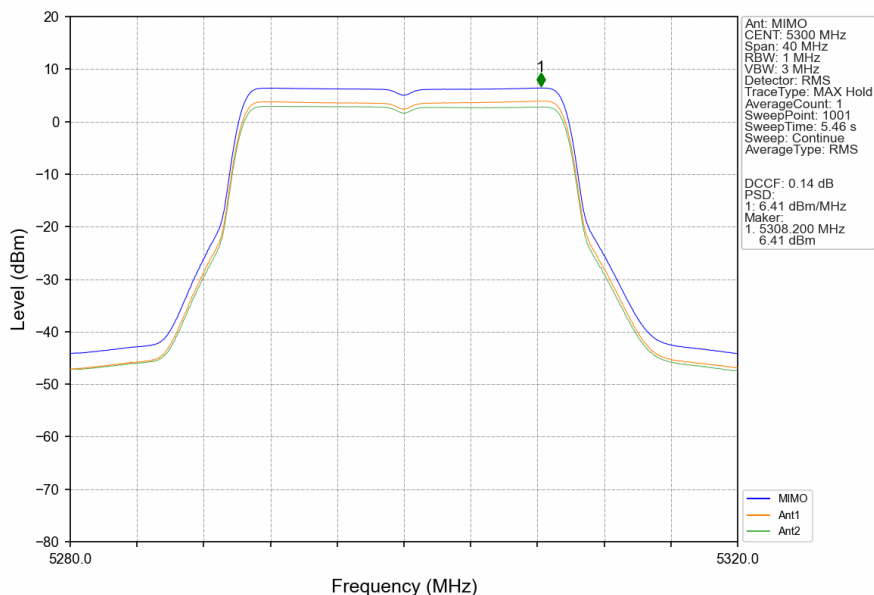
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/MHz)				Verdict
					ANT1	ANT2	MIMO	Limit	
802.11be (EHT20)	MIMO	5300	SU	/	3.94	2.92	6.41	<=8.14	Pass

3.2 Test Graph

3.2.1 PSD



802.11be(EHT20)_MCH_5300MHz_SU_/_MIMO_NTNV



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4. Frequency Stability

4.1 Test Result

4.1.1 Ant1

Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Temperature (°C)	Voltage	Measured Frequency (MHz)	Limit (MHz)	Verdict
802.11be (EHT20)	MIMO	5300	SU	/	20	LV	5300.040	5250 to 5350	Pass
						NV	5299.980	5250 to 5350	Pass
						HV	5299.960	5250 to 5350	Pass
					-30	NV	5299.980	5250 to 5350	Pass
					-20	NV	5300.000	5250 to 5350	Pass
					-10	NV	5299.980	5250 to 5350	Pass
					0	NV	5299.960	5250 to 5350	Pass
					10	NV	5300.000	5250 to 5350	Pass
					30	NV	5300.020	5250 to 5350	Pass
					40	NV	5299.980	5250 to 5350	Pass
					50	NV	5300.040	5250 to 5350	Pass

6G WIFI

1. Duty Cycle

1.1 Test Result

1.1.1 Ant1

Ant1										
ENV	Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11be (EHT160)	MIMO	6025	SU	/	5.454	5.644	96.63	0.15	2.21



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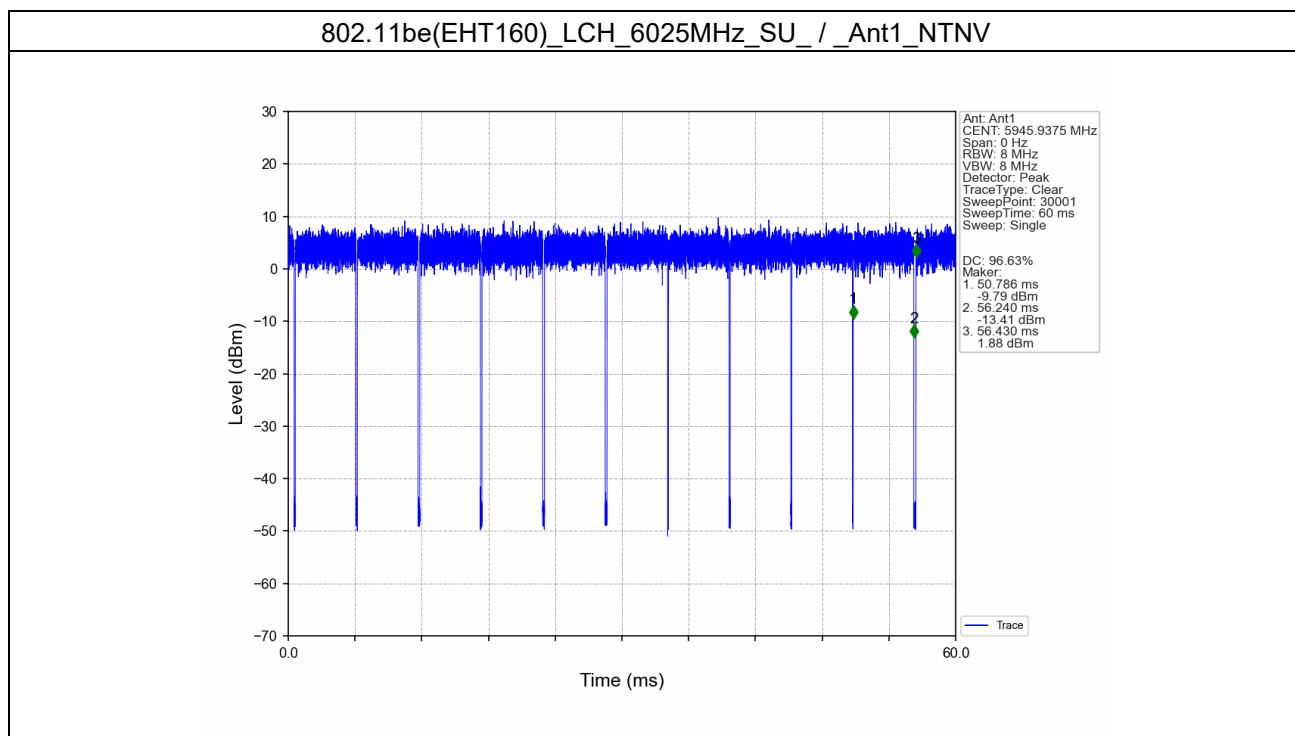
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1.2 Test Graph

1.2.1 Ant1



2. Bandwidth

2.1 Test Result

2.1.1 OBW

ENV	Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
							Result	Limit	
NTNV	802.11be (EHT160)	MIMO	6025	SU	/	1	156.745	<=320	Pass

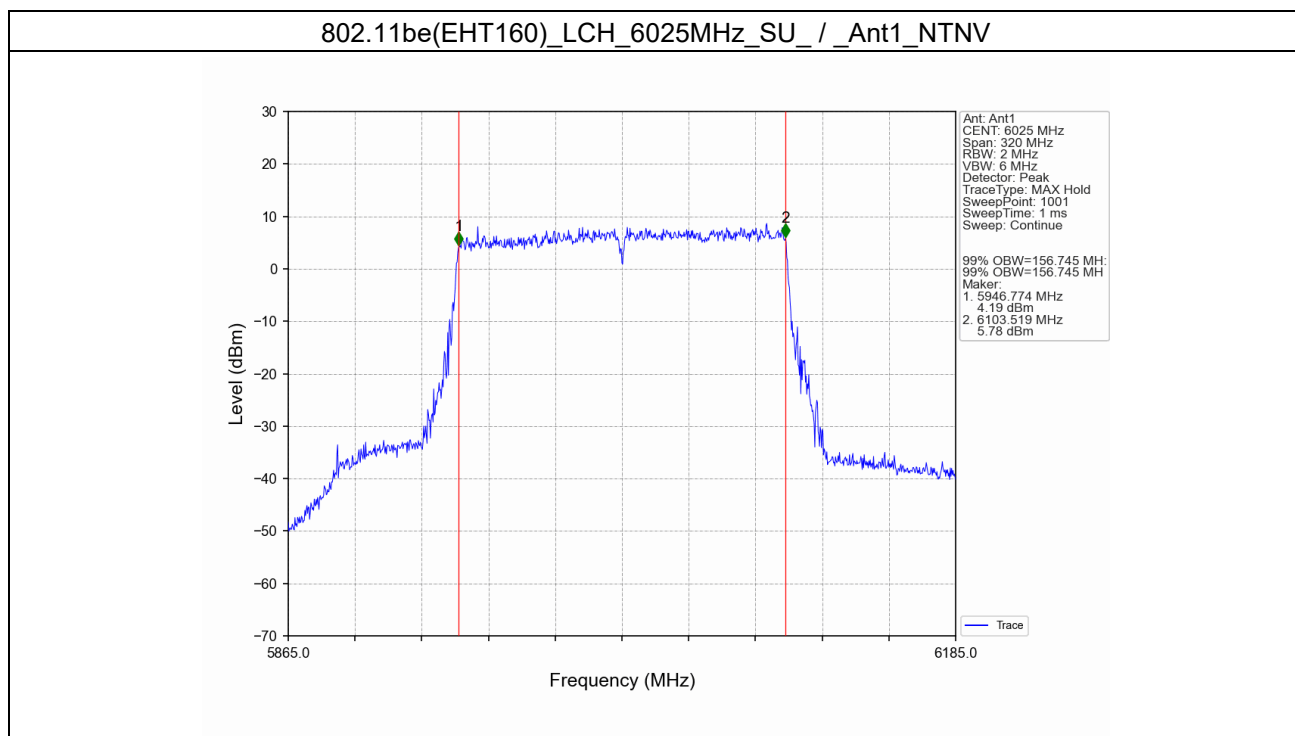
2.1.2 26dB BW

ENV	Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	26dB Bandwidth (MHz)		Verdict
							Result	Limit	
NTNV	802.11be (EHT160)	MIMO	6025	SU	/	1	168.475	/	Pass

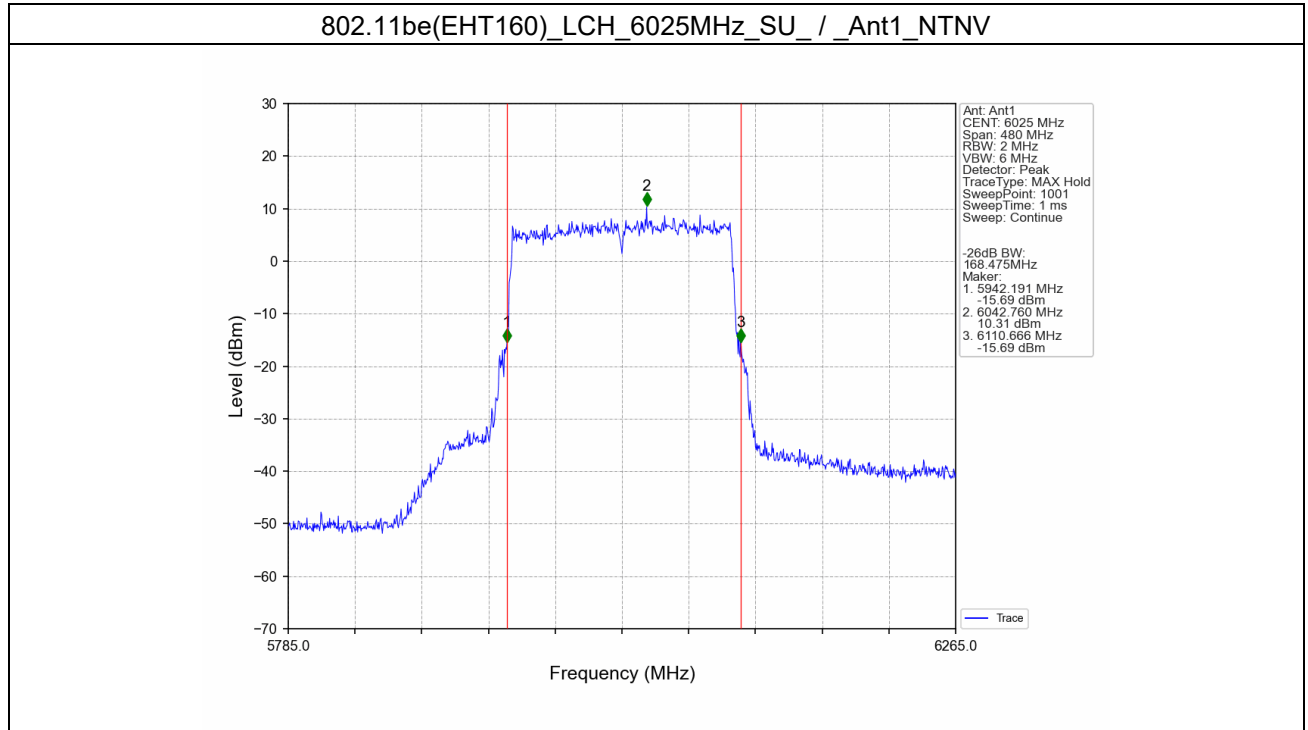


2.2 Test Graph

2.2.1 OBW



2.2.2 26dB BW



3. Maximum Power Spectral Density

3.1 Test Result

3.1.1 PSD

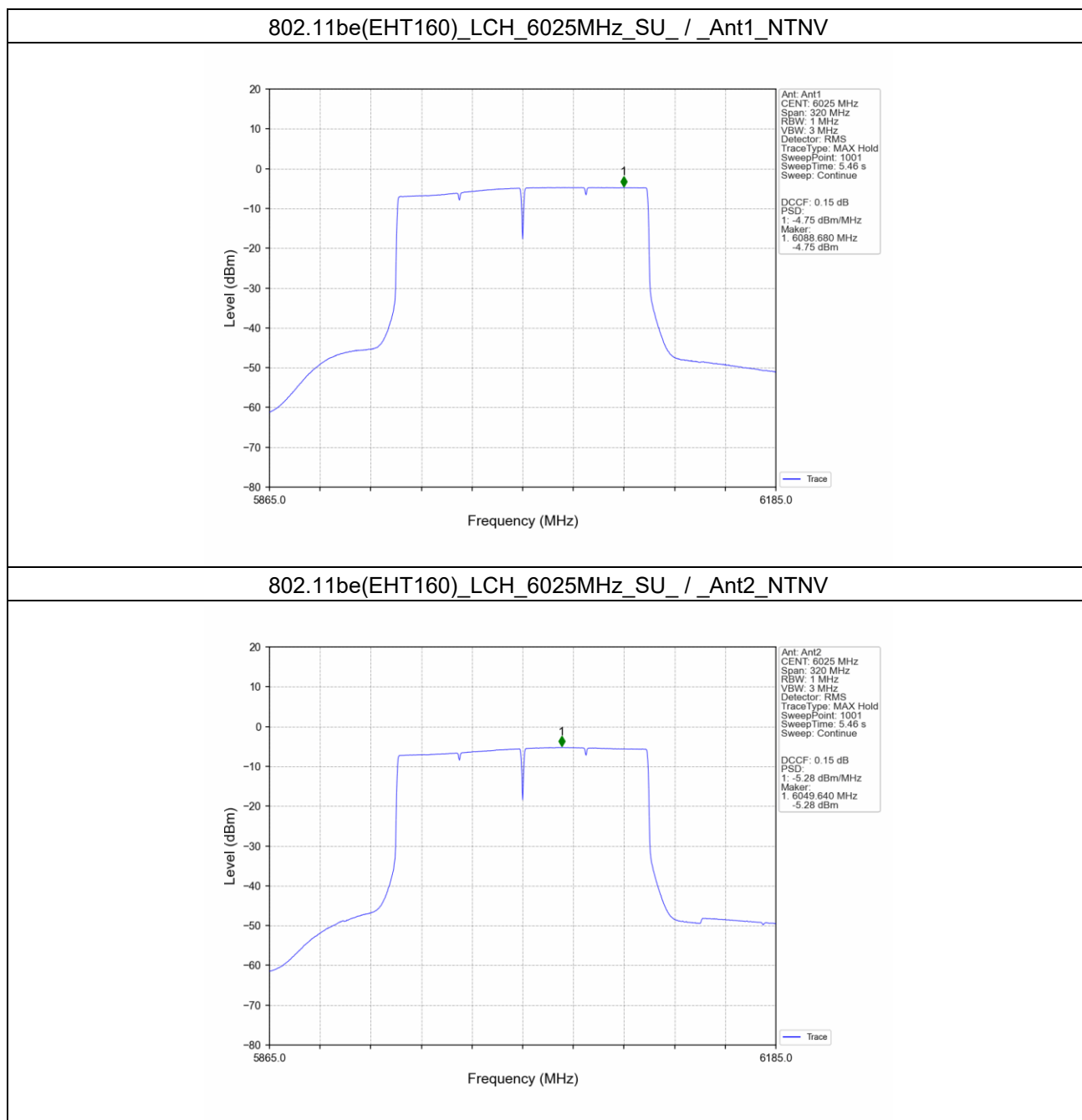
ENV	Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/MHz)				Verdict
						ANT1	ANT2	MIMO	Limit	
NTNV	802.11be (EHT160)	MIMO	6025	SU	/	-4.75	-5.28	-2.01	/	Pass

3.1.4 E.I.R.PSD

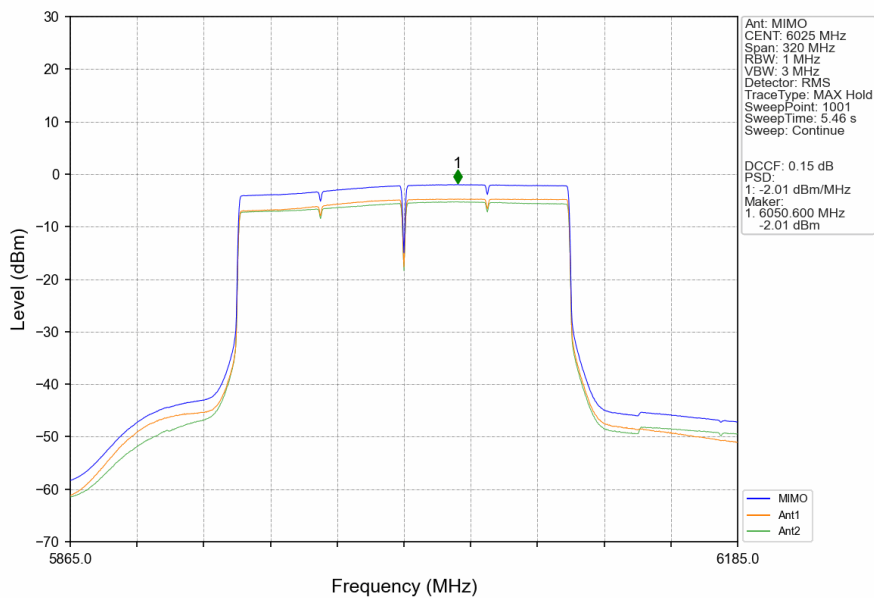
ENV	Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum E.I.R.PSD (dBm/MHz)				Verdict
						ANT1	ANT2	MIMO	Limit	
NTNV	802.11be (EHT160)	MIMO	6025	SU	/	0.88	0.77	3.84	<=5	Pass

3.2 Test Graph

3.2.1 PSD



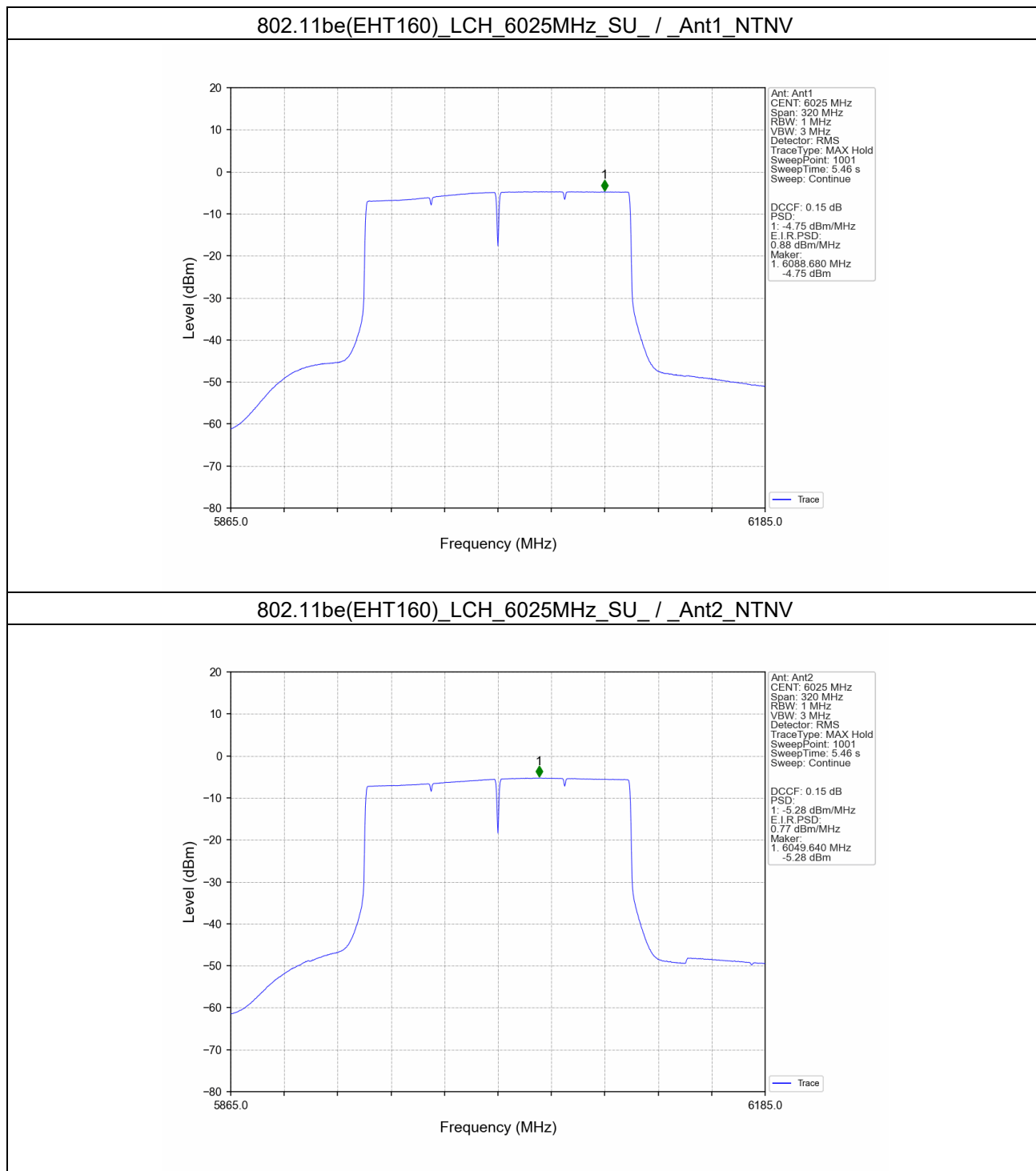
802.11be(EHT160)_LCH_6025MHz_SU_/_MIMO_NTNV

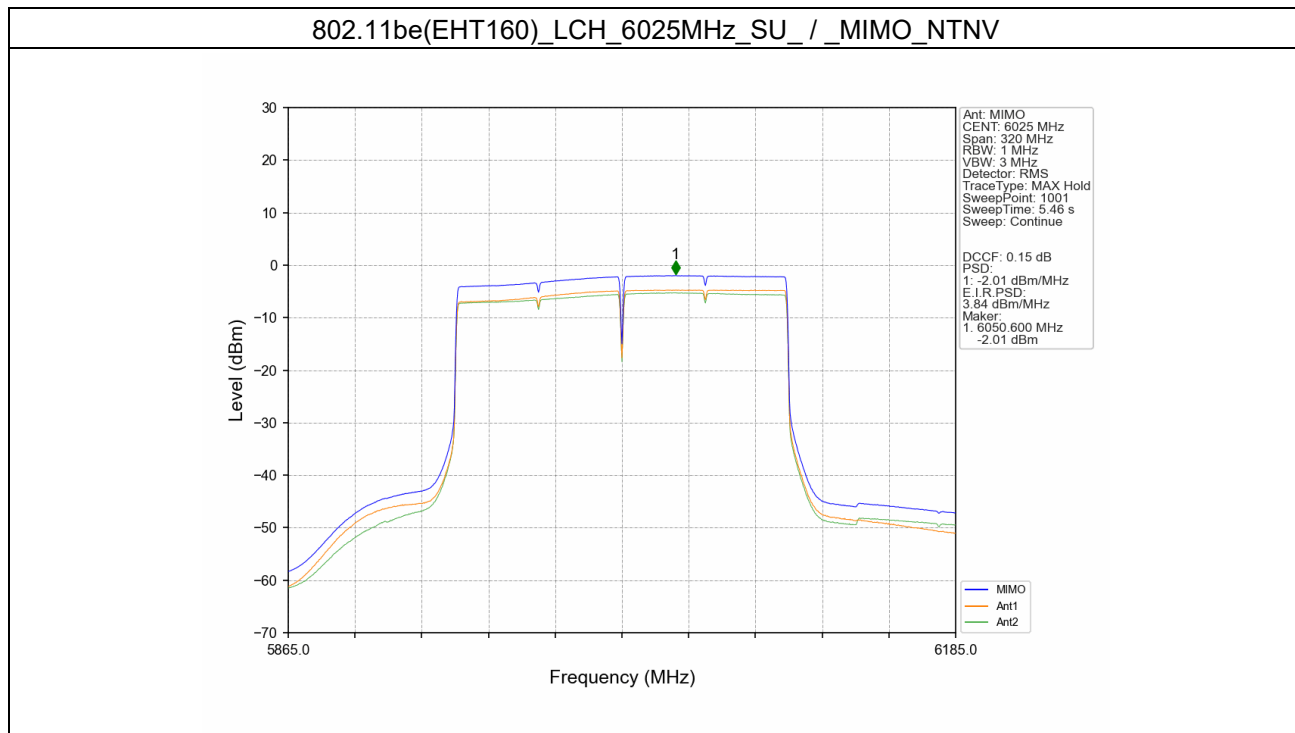


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3.2.2 E.I.R.PSD





4. Frequency Stability

4.1 Test Result

4.1.1 Ant1

Ant1										
ENV	Mode	TX Type	Frequency (MHz)	RU	RU Pos	Temperature (°C)	Voltage	Measured Frequency (MHz)	Limit (MHz)	Verdict
NTNV	802.11be (EHT160)	MIMO	6025	SU	/	20	LV	6024.925	5925 to 6425	Pass
							NV	6025.000	5925 to 6425	Pass
							HV	6024.925	5925 to 6425	Pass
						-30	NV	6025.075	5925 to 6425	Pass
						-20	NV	6025.075	5925 to 6425	Pass
						-10	NV	6025.000	5925 to 6425	Pass
						0	NV	6024.925	5925 to 6425	Pass
						10	NV	6025.000	5925 to 6425	Pass
						30	NV	6025.000	5925 to 6425	Pass
						40	NV	6025.075	5925 to 6425	Pass
						50	NV	6025.000	5925 to 6425	Pass

5. Emission Mask

5.1 Test Result

5.1.1 EMask

ENV	Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Test Result	Limit	Verdict
NTNV	802.11be (EHT160)	MIMO	6025	SU	/	1	Refer To Test Graph		Pass

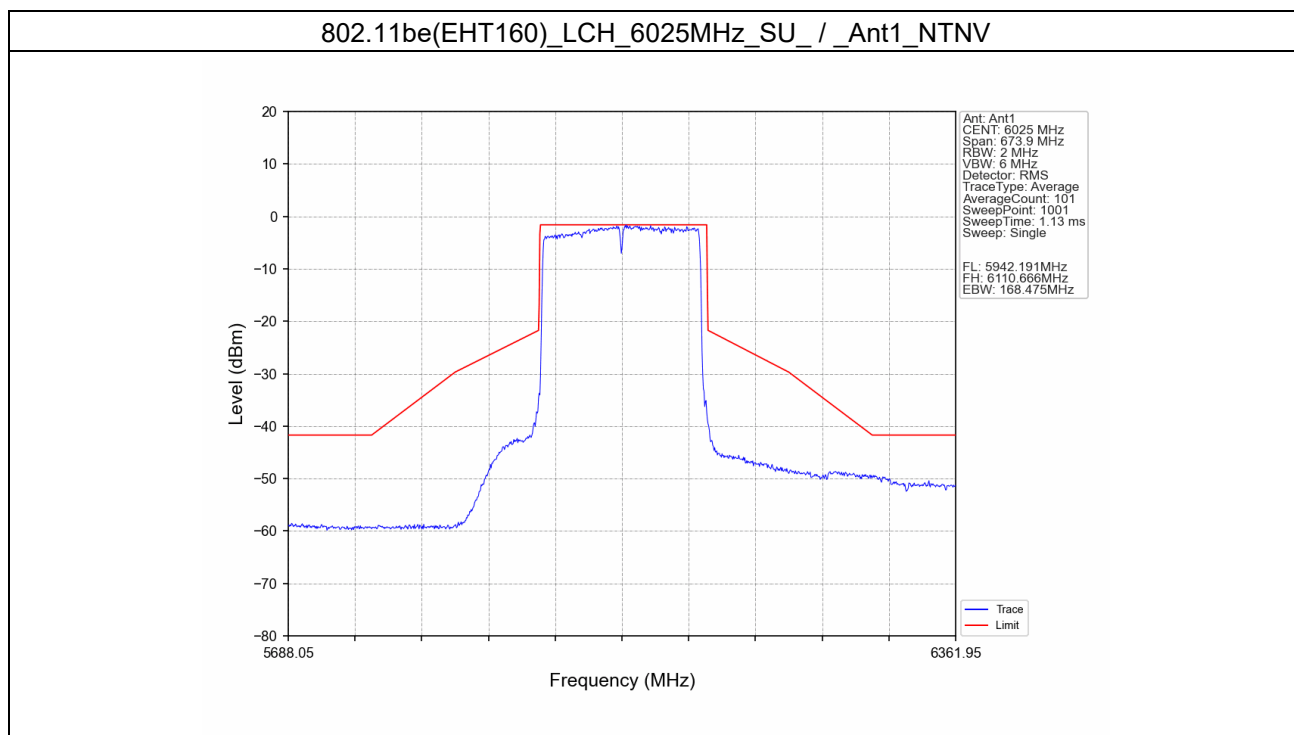


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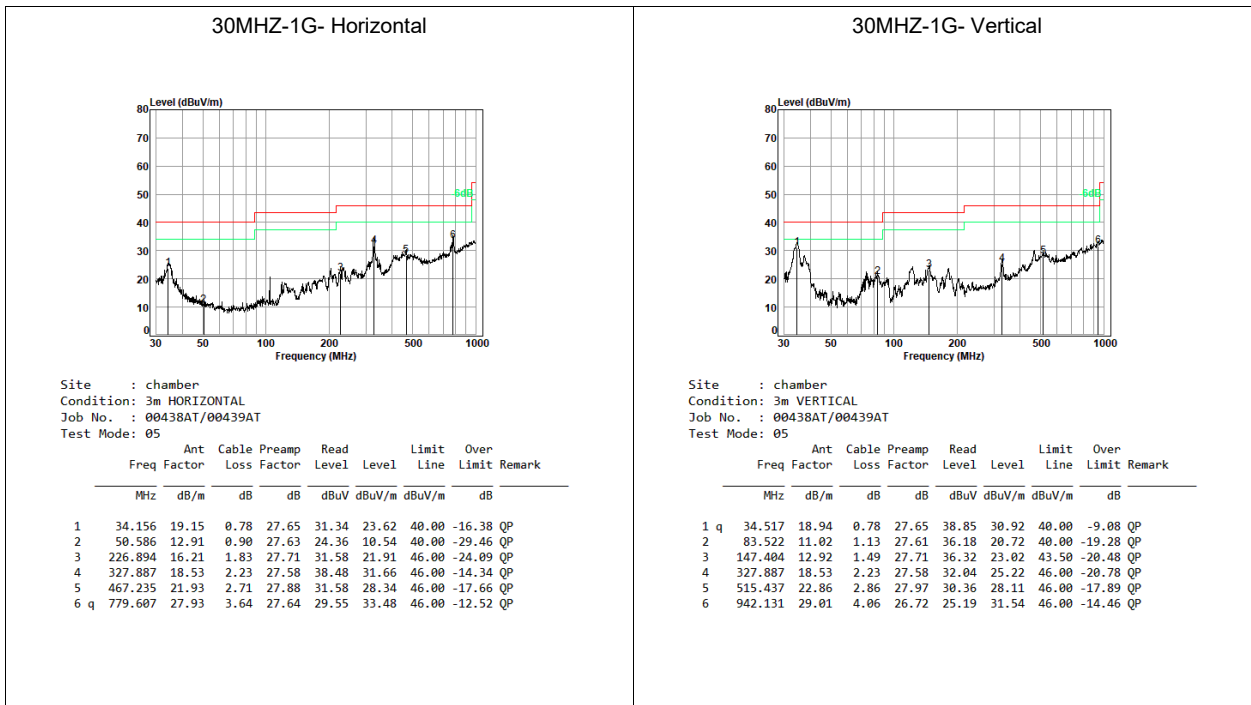
5.2 Test Graph

5.2.1 EMask

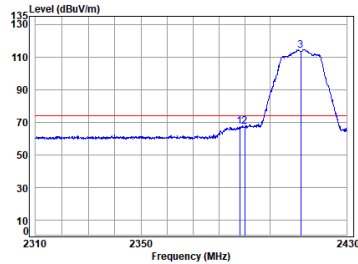


Radiated Spurious emissions

2.4GWIFI



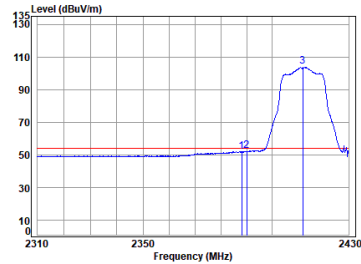
11G 6M_TX_CH_01_Horizontal-Peak



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00438AT\00439AT
Mode : 2.4G WiFi 11G
Cable : 2412 Band edge

	Freq	Loss	Ant	Preamp	Read	Level	Limit	Over	Aux
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	dB
1	2388.032	3.57	28.58	0.00	35.16	67.31	74.00	-6.69 Peak	0.00
2	2390.000	3.57	28.58	0.00	35.33	67.48	74.00	-6.52 Peak	0.00
3 p	2412.000	3.58	28.67	0.00	81.46	113.71	74.00	39.71 Peak	0.00

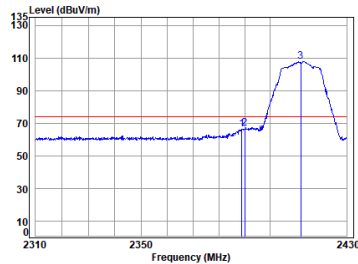
11G 6M_TX_CH_01_Horizontal-Avg



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00438AT\00439AT
Mode : 2.4G WiFi 11G
Cable : 2412 Band edge

	Freq	Loss	Ant	Preamp	Read	Level	Limit	Over	Aux
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	dB
1	2388.032	3.57	28.58	0.00	19.72	51.87	54.00	-2.13 Average	0.00
2	2390.000	3.57	28.58	0.00	20.36	52.51	54.00	-1.49 Average	0.00
3 q	2412.000	3.58	28.67	0.00	71.83	104.08	54.00	50.08 Average	0.00

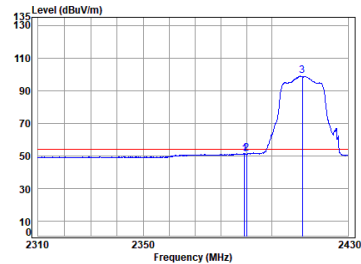
11G 6M_TX_CH_01_Vertical-Peak



Site : chamber
Condition: 3m VERTICAL
Job No : 00438AT\00439AT
Mode : 2.4G WiFi 11G
Cable : 2412 Band edge

	Freq	Loss	Ant	Preamp	Read	Level	Limit	Over	Aux
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	dB
1	2388.879	3.57	28.58	0.00	34.01	66.16	74.00	-7.84 Peak	0.00
2	2390.000	3.57	28.58	0.00	34.68	66.83	74.00	-7.17 Peak	0.00
3 p	2412.000	3.58	28.67	0.00	75.56	107.81	74.00	33.81 Peak	0.00

11G 6M_TX_CH_01_Vertical-Avg



Site : chamber
Condition: 3m VERTICAL
Job No : 00438AT\00439AT
Mode : 2.4G WiFi 11G
Cable : 2412 Band edge

	Freq	Loss	Ant	Preamp	Read	Level	Limit	Over	Aux
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	dB
1	2389.242	3.57	28.58	0.00	18.87	51.02	54.00	-2.98 Average	0.00
2	2390.000	3.57	28.58	0.00	19.04	51.19	54.00	-2.81 Average	0.00
3 q	2412.000	3.58	28.67	0.00	66.60	98.85	54.00	44.85 Average	0.00



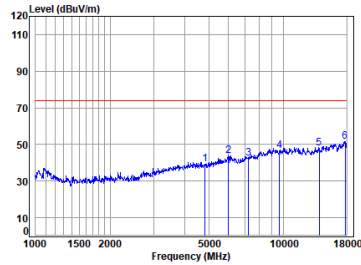
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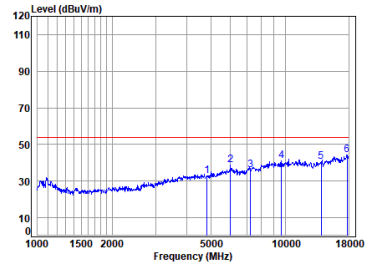
11G 6M_TX_CH_01_Horizontal-Peak



Site : chamber
Condition: 3m HORIZONTAL
Job No : 0043BAT00439AT
Mode : 2412 TX RSE
: 2.4G WIFI 11G

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 4824.000	7.43	33.90	54.22	52.35	39.46	74.00	-34.54	Peak	0.00
2 6001.626	8.93	35.30	53.10	52.06	43.79	74.00	-30.21	Peak	0.00
3 7236.000	8.49	35.97	53.18	51.34	42.62	74.00	-31.38	Peak	0.00
4 9648.000	10.72	37.80	53.34	51.29	46.47	74.00	-27.53	Peak	0.00
5 13957.530	10.97	39.42	52.91	50.30	47.78	74.00	-26.22	Peak	0.00
6 p17741.740	11.35	43.81	52.53	49.04	51.67	74.00	-22.33	Peak	0.00

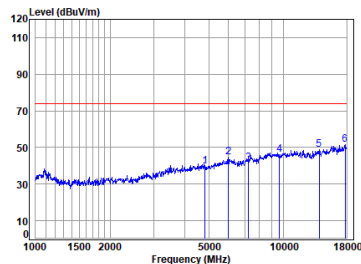
11G 6M_TX_CH_01_Horizontal-Avg



Site : chamber
Condition: 3m VERTICAL
Job No : 0043BAT00439AT
Mode : 2412 TX RSE
: 2.4G WIFI 11G

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 4824.000	7.43	33.90	54.22	45.90	33.01	54.00	-20.99	Average	0.00
2 6001.626	8.93	35.30	53.10	47.56	38.69	54.00	-15.31	Average	0.00
3 7236.000	8.49	35.97	53.18	44.58	35.86	54.00	-18.14	Average	0.00
4 9648.000	10.72	37.80	53.34	45.72	40.90	54.00	-13.10	Average	0.00
5 13957.530	10.97	39.42	52.91	43.16	40.64	54.00	-13.36	Average	0.00
6 q17741.740	11.35	43.81	52.53	41.83	44.46	54.00	-9.54	Average	0.00

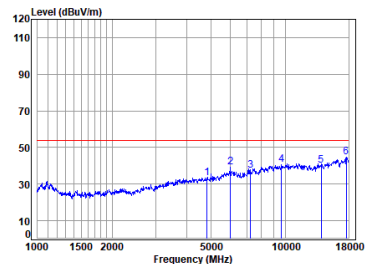
11G 6M_TX_CH_01_Vertical-Peak



Site : chamber
Condition: 3m HORIZONTAL
Job No : 0043BAT00439AT
Mode : 2412 TX RSE
: 2.4G WIFI 11G

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 4824.000	7.43	33.90	54.22	52.46	39.57	74.00	-34.43	Peak	0.00
2 6001.626	8.93	35.30	53.10	53.69	44.82	74.00	-29.18	Peak	0.00
3 7236.000	8.49	35.97	53.18	50.15	41.43	74.00	-32.57	Peak	0.00
4 9648.000	10.72	37.80	53.34	51.03	46.21	74.00	-27.79	Peak	0.00
5 13957.530	10.97	39.42	52.91	51.45	48.93	74.00	-25.07	Peak	0.00
6 p17741.740	11.35	43.81	52.53	48.00	51.43	74.00	-22.57	Peak	0.00

11G 6M_TX_CH_01_Vertical-Avg



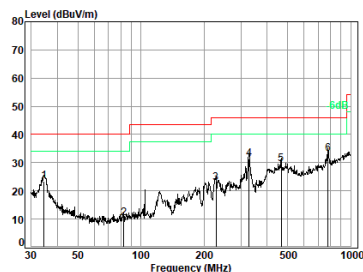
Site : chamber
Condition: 3m VERTICAL
Job No : 0043BAT00439AT
Mode : 2412 TX RSE
: 2.4G WIFI 11G

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 4824.000	7.43	33.90	54.22	46.25	33.36	54.00	-20.64	Average	0.00
2 6001.626	8.93	35.30	53.10	48.00	39.13	54.00	-14.87	Average	0.00
3 7236.000	8.49	35.97	53.18	46.31	37.59	54.00	-16.41	Average	0.00
4 9648.000	10.72	37.80	53.34	45.27	40.45	54.00	-13.55	Average	0.00
5 13957.530	10.97	39.42	52.91	42.90	40.38	54.00	-13.62	Average	0.00
6 q17639.470	11.28	43.56	52.58	42.36	44.62	54.00	-9.38	Average	0.00



5G WIFI

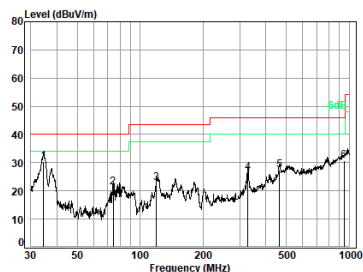
30MHZ-1G- Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : 00438AT
Test Mode: 11

	Freq	Ant	Cable	Preamp	Read	Level	Limit	Over	
	MHz	Factor	Loss	Factor	Level	dBuV	Line	Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	34.517	18.94	0.78	27.65	31.48	23.55	40.00	-16.45	QP
2	82.938	10.93	1.12	27.61	25.76	10.20	40.00	-29.80	QP
3	228.490	16.46	1.83	27.70	32.22	22.81	46.00	-23.19	QP
4	327.887	18.53	2.23	27.58	38.25	31.43	46.00	-14.57	QP
5	467.235	21.93	2.71	27.88	32.77	29.53	46.00	-16.47	QP
6	779.607	27.93	3.64	27.64	29.36	33.29	46.00	-12.71	QP

30MHZ-1G- Vertical

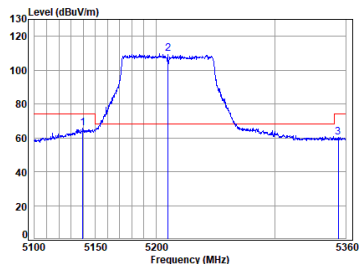


Site : chamber
Condition: 3m VERTICAL
Job No. : 00438AT
Test Mode: 11

	Freq	Ant	Cable	Preamp	Read	Level	Limit	Over	
	MHz	Factor	Loss	Factor	Level	dBuV	Line	Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	34.517	18.94	0.78	27.65	38.27	30.34	40.00	-9.66	QP
2	74.396	10.52	1.03	27.61	37.25	21.19	40.00	-18.81	QP
3	119.856	11.54	1.35	27.65	37.72	22.96	43.50	-20.54	QP
4	327.887	18.53	2.23	27.58	33.31	26.49	46.00	-19.51	QP
5	463.970	21.73	2.70	27.88	30.96	27.51	46.00	-18.49	QP
6	945.440	29.06	4.07	26.70	24.42	30.85	46.00	-15.15	QP



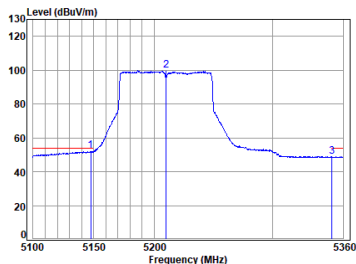
11ac80_TX_CH_42_Horizontal-Peak



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00438AT00439AT
Mode : 5210 Band edge
: 5G WIFI 11AC80

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 5139.714	18.44	33.90	31.28	44.70	65.76	74.00	-8.24	Peak	0.00
2 p 5210.000	18.64	34.04	31.31	88.43	109.88	68.20	41.68	Peak	0.00
3 5353.874	19.04	34.28	31.39	38.22	60.15	74.00	-13.85	Peak	0.00

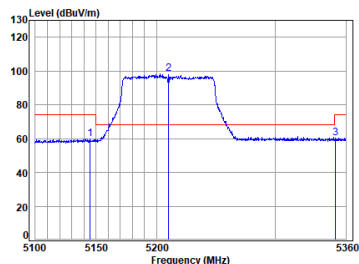
11ac80_TX_CH_42_Horizontal-Avg



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00438AT00439AT
Mode : 5210 Band edge
: 5G WIFI 11AC80

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 q 5147.386	18.46	33.90	31.28	31.21	52.29	54.00	-1.71	Average	0.00
2 5210.000	18.64	34.04	31.31	78.24	99.61	68.20	31.41	Average	0.00
3 5350.414	19.03	34.30	31.39	26.81	48.75	54.00	-5.25	Average	0.00

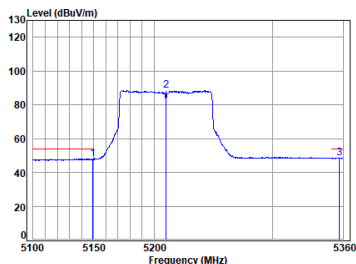
11ac80_TX_CH_42_Vertical-Peak



Site : chamber
Condition: 3m VERTICAL
Job No : 00438AT00439AT
Mode : 5210 Band edge
: 5G WIFI 11AC80

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 5145.083	18.46	33.90	31.28	38.86	59.94	74.00	-14.06	Peak	0.00
2 p 5210.000	18.64	34.04	31.31	77.18	98.55	68.20	30.35	Peak	0.00
3 5351.212	19.03	34.30	31.39	38.52	60.46	74.00	-13.54	Peak	0.00

11ac80_TX_CH_42Vertical-Avg

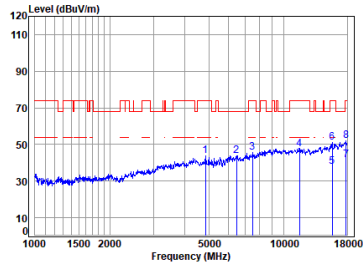


Site : chamber
Condition: 3m VERTICAL
Job No : 00438AT00439AT
Mode : 5210 Band edge
: 5G WIFI 11AC80

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 5149.178	18.47	33.90	31.28	27.01	48.10	54.00	-5.90	Average	0.00
2 5210.000	18.64	34.04	31.31	67.25	88.62	68.20	20.42	Average	0.00
3 q 5357.069	19.05	34.27	31.39	26.75	48.68	54.00	-5.32	Average	0.00



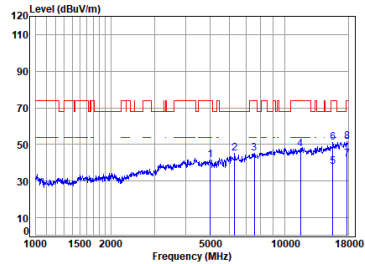
11ax20_TX_CH_159_Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00438AT\00439AT
Mode : 5785 TX RSE
Note : 5G WIFI 11AX20

	Freq	Cable	Loss	Ant	Preamp	Read	Level	Limit	Over		Aux
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	Limit	Remark	Factor
1	4859.975	7.45	34.54	54.21	55.87	43.65	74.00	-30.35	Peak		0.00
2	6470.026	8.88	35.54	53.15	52.68	43.95	68.20	-24.25	Peak		0.00
3	7497.646	8.41	36.10	53.15	54.18	45.54	74.00	-28.46	Peak		0.00
4	11570.000	11.48	37.73	53.12	51.20	47.29	74.00	-26.71	Peak		0.00
5	15668.210	10.89	41.17	52.06	38.09	38.09	54.00	-15.91	Average		0.00
6	15668.210	10.89	41.17	52.06	51.15	51.15	74.00	-22.85	Peak		0.00
7	q17793.090	11.38	43.89	52.50	38.87	41.64	54.00	-12.36	Average		0.00
8	p17793.090	11.38	43.89	52.50	49.24	52.01	74.00	-21.99	Peak		0.00

11ax20_TX_CH_159_Vertical



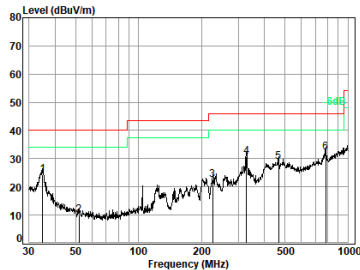
Site : chamber
Condition: 3m VERTICAL
Job No : 00438AT\00439AT
Mode : 5785 TX RSE
Note : 5G WIFI 11AX20

	Freq	Cable	Loss	Ant	Preamp	Read	Level	Limit	Over		Aux
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	Limit	Remark	Factor
1	5816.977	7.58	34.30	54.18	53.98	41.68	74.00	-32.32	Peak		0.00
2	6303.890	8.90	34.99	53.13	54.34	45.10	68.20	-23.10	Peak		0.00
3	7541.114	8.47	36.10	53.14	53.95	45.38	74.00	-28.62	Peak		0.00
4	11570.000	11.48	37.73	53.12	51.41	47.50	74.00	-26.50	Peak		0.00
5	15622.990	10.88	41.12	52.10	38.13	38.03	54.00	-15.97	Average		0.00
6	15622.990	10.88	41.12	52.10	51.12	51.02	74.00	-22.98	Peak		0.00
7	q17793.090	11.38	43.89	52.50	39.12	41.89	54.00	-12.11	Average		0.00
8	p17793.090	11.38	43.89	52.50	48.75	51.52	74.00	-22.48	Peak		0.00



6G WIFI

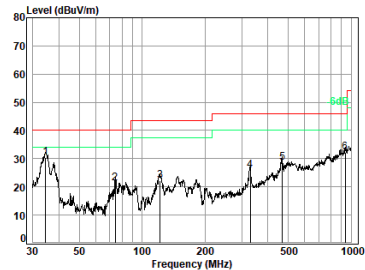
30MHZ-1G- Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : 00438AT
Test Mode: 19

	Freq	Ant	Cable	Preamp	Read	Limit	Over	
	MHz	Factor	Loss	Factor	Level	Level	Line	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1	34.760	18.81	0.78	27.65	32.45	24.39	40.00	-15.61 QP
2	52.025	12.63	0.90	27.63	24.12	10.02	40.00	-29.98 QP
3	226.099	16.10	1.82	27.71	32.18	22.39	46.00	-23.61 QP
4	327.887	18.53	2.23	27.58	37.47	30.65	46.00	-15.35 QP
5	467.235	21.93	2.71	27.88	32.05	28.81	46.00	-17.19 QP
6 q	782.345	27.90	3.64	27.64	28.27	32.17	46.00	-13.83 QP

30MHZ-1G- Vertical

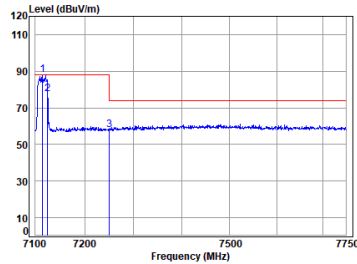


Site : chamber
Condition: 3m VERTICAL
Job No. : 00438AT
Test Mode: 19

	Freq	Ant	Cable	Preamp	Read	Limit	Over	
	MHz	Factor	Loss	Factor	Level	Level	Line	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1 q	34.517	18.94	0.78	27.65	38.29	30.36	40.00	-9.64 QP
2	74.396	10.52	1.03	27.61	37.39	21.33	40.00	-18.67 QP
3	121.976	11.45	1.36	27.66	37.12	22.27	43.50	-21.23 QP
4	329.039	18.53	2.23	27.58	32.55	25.73	46.00	-20.27 QP
5	468.876	22.03	2.72	27.89	31.87	28.73	46.00	-17.27 QP
6	938.833	28.97	4.06	26.74	25.85	32.14	46.00	-13.86 QP



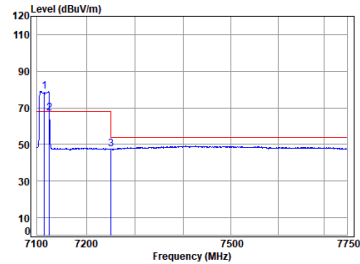
11BE20_TX_CH_233_Horizontal-Peak



Site : chamber
Condition: 3m HORIZONTAL
Job No : 0043BAT\00439AT
Mode : 7115 Band edge
Cable : 66 WiFi 11BE20

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 p 7115.000	20.13	35.86	30.54	62.75	88.20	88.20	0.00	Peak	0.00
2 7124.921	20.13	35.90	30.53	52.03	77.53	88.20	-10.67	Peak	0.00
3 7250.000	20.16	35.80	30.47	32.52	58.01	74.00	-15.99	Peak	0.00

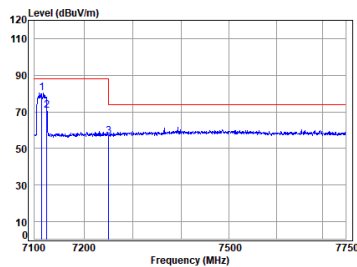
11BE20_TX_CH_233_Vertical-Avg



Site : chamber
Condition: 3m HORIZONTAL
Job No : 0043BAT\00439AT
Mode : 7115 Band edge
Cable : 66 WiFi 11BE20

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 q 7115.000	20.13	35.86	30.54	53.62	79.07	68.20	10.87	Average	0.00
2 7124.921	20.13	35.90	30.53	41.65	67.15	68.20	-1.05	Average	0.00
3 7250.000	20.16	35.80	30.47	21.77	47.26	54.00	-6.74	Average	0.00

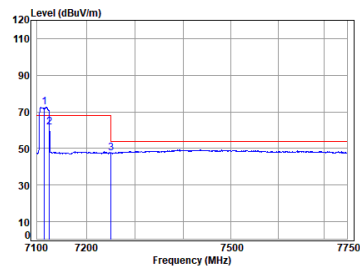
11BE20_TX_CH_233_Horizontal-Peak



Site : chamber
Condition: 3m VERTICAL
Job No : 0043BAT\00439AT
Mode : 7115 Band edge
Cable : 66 WiFi 11BE20

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 p 7115.000	20.13	35.86	30.54	54.96	80.41	88.20	-7.79	Peak	0.00
2 7124.921	20.13	35.90	30.53	45.17	70.67	88.20	-17.53	Peak	0.00
3 7250.000	20.16	35.80	30.47	31.16	56.65	74.00	-17.35	Peak	0.00

11BE20_TX_CH_233_Vertical-Avg



Site : chamber
Condition: 3m VERTICAL
Job No : 0043BAT\00439AT
Mode : 7115 Band edge
Cable : 66 WiFi 11BE20

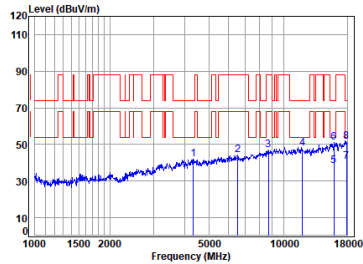
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark	Aux Factor
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		dB
1 q 7115.000	20.13	35.86	30.54	47.27	72.72	68.20	4.52	Average	0.00
2 7124.921	20.13	35.90	30.53	35.98	61.48	68.20	-6.72	Average	0.00
3 7250.000	20.16	35.80	30.47	21.77	47.26	54.00	-6.74	Average	0.00



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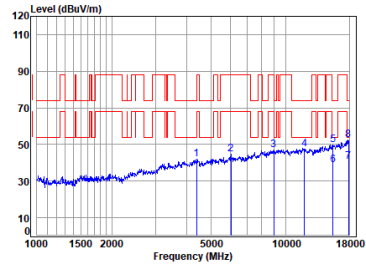
11ax20_TX_CH_01_Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00438AT\00439AT
Mode : 5955 TX RSE
Note : 6G WIFI 11AX20

	Freq	Cable	Ant	Preamp	Read	Limit	Over		Aux
	MHz	Loss	Factor	Factor	Level	Line	Limit	Remark	Factor
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	dB
1	4341.886	7.09	34.34	54.26	54.67	41.84	74.00	-32.16 Peak	0.00
2	6545.263	8.85	35.51	53.16	52.84	44.04	88.20	-44.16 Peak	0.00
3	8688.400	9.97	36.90	53.45	53.44	46.06	88.20	-41.34 Peak	0.00
4	11910.000	11.60	37.71	53.18	51.81	47.94	74.00	-26.00 Peak	0.00
5	15942.300	10.90	41.48	51.84	37.83	38.37	54.00	-15.63 Average	0.00
6	15942.300	10.90	41.48	51.84	50.71	51.25	74.00	-22.75 Peak	0.00
7	q17865.000	11.42	43.90	52.47	37.55	40.40	54.00	-13.60 Average	0.00
8	p17865.000	11.42	43.90	52.47	48.70	51.55	74.00	-22.45 Peak	0.00

11ax20_TX_CH_01_Vertical



Site : chamber
Condition: 3m VERTICAL
Job No : 00438AT\00439AT
Mode : 5955 TX RSE
Note : 6G WIFI 11AX20

	Freq	Cable	Ant	Preamp	Read	Limit	Over		Aux
	MHz	Loss	Factor	Factor	Level	Line	Limit	Remark	Factor
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	dB
1	4392.376	7.11	34.74	54.26	54.24	41.83	74.00	-32.17 Peak	0.00
2	6018.999	8.93	34.94	53.10	54.00	44.85	88.20	-43.35 Peak	0.00
3	8969.161	10.53	36.96	53.59	53.16	47.06	88.20	-41.14 Peak	0.00
4	11910.000	11.60	37.71	53.18	51.24	47.37	74.00	-26.63 Peak	0.00
5	15488.110	10.87	41.09	52.20	49.98	49.74	74.00	-24.25 Peak	0.00
6	15488.110	10.87	41.09	52.20	38.82	38.58	54.00	-15.42 Average	0.00
7	q17865.000	11.42	43.90	52.47	37.95	40.80	54.00	-13.20 Average	0.00
8	p17865.000	11.42	43.90	52.47	49.75	52.60	74.00	-21.40 Peak	0.00

--End of Report--

