Prüfbericht-Nr.: *Test report no.:*	CN20DXJL(P15C) 001	**Auftrags-Nr.:** *Order no.*:	238490953	
Kunden-Referenz-Nr.: *Client reference no.:*	N/A	**Auftragsdatum:** *Order date:*	2020-09-08	
Auftraggeber: *Client:*	Kingston Technology Company 17600 Newhope Street, Fountain Valley, California 92708, United States			
Prüfgegenstand: *Test item:*	HyperX CloudX Stinger Core Wireless Headset			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	CS005			
Auftrags-Inhalt: *Order content*:	FCC Part 15C Test report (WiFi 2.4GHz)			
Prüfgrundlage: *Test specification:*	FCC 47CFR Part 15: Subpart C Section 15.247			

Wareneingangsdatum: *Date of sample receipt:*	2020-09-29
Prüfmuster-Nr.: *Test sample no:*	A002920716-001 A002920716-002
Prüfzeitraum: *Testing period:*	2020-10-12 - 2020-10-30
Ort der Prüfung: *Place of testing:*	EMC/RF Laboratory Taipei
Prüflaboratorium: *Testing laboratory:*	Taipei Testing Laboratories
Prüfergebnis*: *Test result*:*	Pass

überprüft von: *reviewed by:*		**genehmigt von:** authorized by:	
Datum: *Date:* 2020-11-03		**Ausstellungsdatum:** *Issue date:* 2020-11-03	
Stellung / *Position:*	Ryan Chen Senior Project Manager	**Stellung** / *Position:*	Brenda Chen Senior Project Manager

Sonstiges / *Other:*

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
** Legend:*	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

TEST SUMMARY

Report Section	FCC Clause	Test Item	Result
5.1.1	15.247(b) & 15.203	Antenna Requirement	Pass
5.1.2	15.247(b)(3)	Peak Output Power	Pass
5.1.3	15.247(a)(2)	6 dB Bandwidth	Pass
5.1.4	15.247(e)	Power Spectral Density	Pass
5.1.5	15.247(d)	Conducted Spurious Emissions and Band Edges	Pass
5.1.6	15.247(d) & 15.205 & 15.209	Radiated Spurious Emissions and Band Edges	Pass
5.2.1	15.207	Mains Conducted Emission	Pass
6.1	KDB publication 447498 D01	RF Exposure Compliance	Pass

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

Contents

HISTORY OF THIS TEST REPORT

Report No.	Description	Date Issued
CN20DXJL(P15C) 001	Original Release	2020-11-03

1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:
Appendix A - Test Result of Conducted
Appendix B - Test Result of Radiated Spurious Emissions & Mains Conducted Emission
Appendix SP - Photographs of Test Setup
Appendix EP - Photographs of EUT

Applied Standard and Test Levels

Radio
FCC 47CFR Part 15: Subpart C Section 15.247
FCC 47CFR Part 2: Subpart J Section 2.1093
FCC 47CFR Part 2: Subpart J Section 2.1049
ANSI C63.10:2013
KDB 558074 D01 15.247 Meas Guidance v05r02

1.2 Decision Rule of Conformity

The decision rule of conformity of this test report is following the requirements of the requested standard in the quotation, and agreed among testing laboratory and manufacturer (applicant) to exclude the consideration of Measurement Uncertainty, unless it is required by the specific standard.

2. Test Sites

2.1 Test Laboratory

Taipei Testing Laboratories

11F. No.758, Sec. 4, Bade Rd., Songshan Dist.
Taipei City 105
Taiwan (R.O.C.)

2.2 Test Facility

Taipei Testing Laboratories

No.458-18, Sec. 2, Fenliao Rd., Linkou Dist.,
New Taipei City 244
Taiwan (R.O.C.)
FCC Registration No.: 226631
ISED Registration No.: 25563

2.3 Traceability

All measurement equipment calibrations are traceable to NML(Taiwan)/NIST(USA) or where calibration is performed outside Taiwan, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically in a suitably accredited Calibration Lab. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

2.5 Measurement Uncertainty

All measurement uncertainty values are shown with a coverage factor of k=2 to indicate a 95% level of confidence.

Emission Measurement Uncertainty

Parameter	Uncertainty
Radiated Emission (9 kHz ~ 30 MHz)	± 1.15 dB
Radiated Emission (30 MHz ~ 200 MHz)	± 1.30 dB
Radiated Emission (200 MHz ~ 1 GHz)	± 1.30 dB
Radiated Emission (1 GHz ~ 18 GHz)	± 1.54 dB
Radiated Emission (18 GHz ~ 40 GHz)	± 2.52 dB
Mains Conducted Emission	± 1.65 dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a HyperX CloudX Stinger Core Wireless Headset. It contains a WLAN compatible module enabling the user to communicate data through a Wireless interface.
For details refer to the User Guide, Data Sheet and Circuit Diagram.

3.2 System Details and Ratings

Basic Information of EUT

Item	EUT information
Kind of Equipment/Test Item	HyperX CloudX Stinger Core Wireless Headset
Type Identification	CS005
FCC ID	JIC-CS005

Technical Specification of EUT

Item	EUT information
Operating Frequency	2412 MHz ~ 2462 MHz
Channel Spacing	5 MHz
Channel number	802.11g/n HT20: 11
Data Rate	802.11g: 54.0 / 48.0 / 36.0 / 24.0 / 18.0 / 12.0 / 9.0 / 6.0 Mbps 802.11n: up to MCS7
Operation Voltage	4Vdc
Modulation	DSSS (DBPSK, DQPSK, CCK) OFDM (BPSK, QPSK, 16QAM, 64QAM)
Maximum Output Power (mW)	802.11g: 66.37
	802.11n HT20: 65.77
Antenna Information	Refer to 5.1.1
Accessory Device	Refer to 4.4

3.3 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.4 Submitted Documents

- Circuit Diagram
- Instruction Manual
- Rating Label
- Technical Description

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The test modes were adapted accordingly in reference to the instructions for use.
During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output expected by the customer and is going to be fixed on the firmware of the final end product.

Table for Parameters of Test Software Setting

802.11g		802.11n HT20	
Channel	Power Setting	Channel	Power Setting
1	5.5	1	5.5
6	5.5	6	5.5
11	6	11	6

4.2 Carrier Frequency and Channel

802.11g and 802.11n HT20:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437		

4.3 Test Operation and Test Software

Setup for testing: Test samples are provided with a USB interface which makes it possible to control them through a test software installed on a notebook computer.
This software was running on the laptop computer connected to the EUT. It was used to enable the operation modes listed as below.

Test Software	artgui.exe

The samples were used as follows:
A002920716-001 for radiated
A002920716-002 for conducted
Full test was applied on all test modes, but only worst case was shown.
The EUT incorporates a SISO function. Physically, the EUT provides two completed transmitters and receivers.

Modulation Mode	Tx Function
802.11g	1TX (SISO)
802.11n HT20	1TX (SISO)

* The modulation and bandwidth are similar for 802.11n mode HT20, therefore investigated worse case as representative mode in test report.

EUT Configure Mode	Applicable To				Description
	Antenna Port Conducted Measurement	Radiated Spurious Emissions above 1 GHz	Radiated Spurious Emissions below 1 GHz	Mains Conducted Emission	
-	√	√	√	√	-

Note:
1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when position on Z-plane.
2. "-" means no effect.

Antenna Port Conducted Measurement

☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Date Rate (Mbps)
-	802.11g	1 to 11	1, 6, 11	6.0
-	802.11n HT20	1 to 11	1, 6, 11	MCS0

Radiated Spurious Emissions (Above 1 GHz)

☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Date Rate (Mbps)
-	802.11g	1 to 11	1, 6, 11	6.0
-	802.11n HT20	1 to 11	1, 6, 11	MCS0

Radiated Spurious Emissions (Below 1 GHz)

☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.

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

EUT Configure Mode	Mode	Available Channel	Tested Channel	Date Rate (Mbps)
-	802.11n HT20	1 to 11	11	MCS0

Mains Conducted Emission

☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.

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

EUT Configure Mode	Mode	Available Channel	Tested Channel	Date Rate (Mbps)
-	802.11n HT20	1 to 11	11	MCS0

Test Condition

Test Item	Ambient Temperature	Relative Humidity	Tested by
Conducted Measurement	24.7 °C	65.1 %	Stanislas Charles
Radiated Spurious Emissions above 1 GHz	23.5 °C	67 %	Simon Tsai
Radiated Spurious Emissions below 1 GHz	23.5 °C	67 %	Simon Tsai
Mains Conducted Emission	26 °C	65 %	Kay Wu

4.4 Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories:

Accessory of EUT

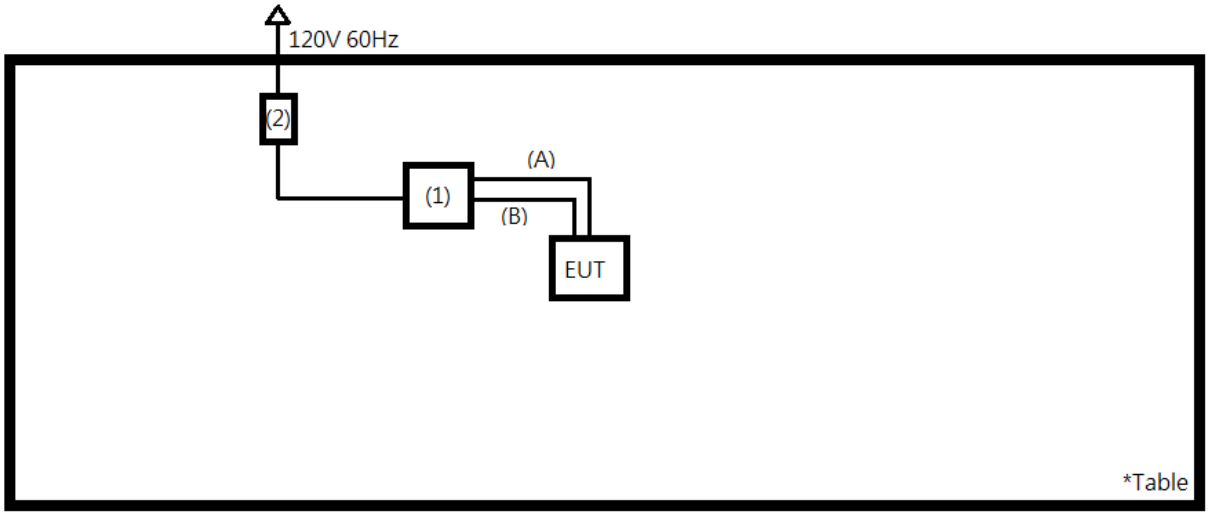
No.	Product	Brand	Model	Description	Remark
B	USB Cable	HYPERX	CS005	45 cm shielded cable w/o core	Radiated and Mains Conducted Tests

Support Unit

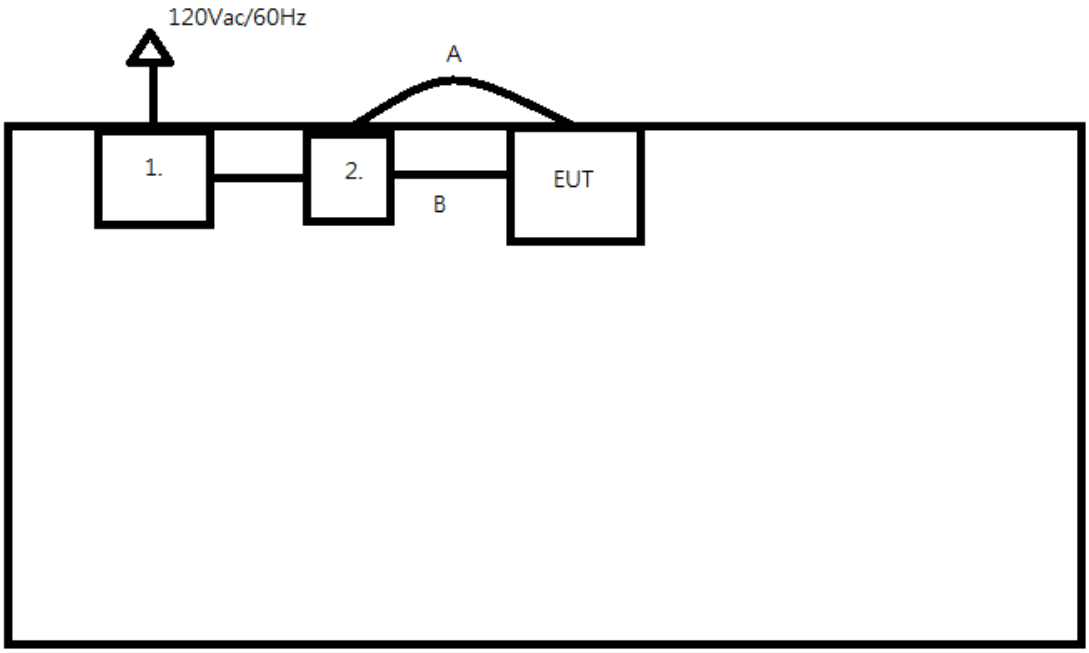
Support Unit					
No.	Description	Brand	Model	S/N	Remark
1	Notebook	HP	15-da1046TX	CND911MY2	Radiated Test
2	Adapter	HP	TPN-LA16	-	180 cm shielded cable w/o core
1	Adapter	HP	TPN-LA16	-	180 cm shielded cable w/o core
2	Notebook	HP	15-da1046TX	CND911MY2	Mains Conducted Test
-	Notebook	HP	TPN-C139	CND93662WT	Conducted Test
A	USB to Type C	-	-	-	60 cm shielded cable w/o core
					Radiated and Mains Conducted Tests

4.5 Test Setup Diagram

<Radiated Spurious Emissions mode>



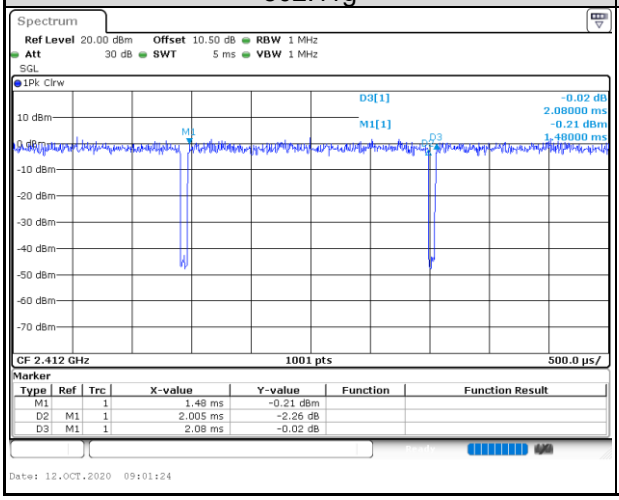
<Mains Conducted Emission mode>



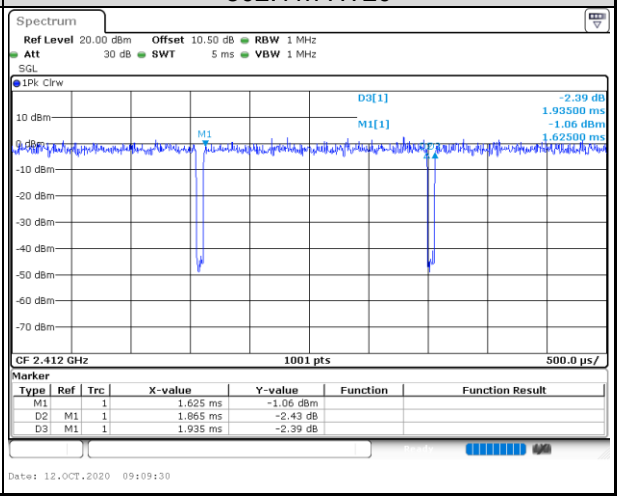
4.6 Duty Cycle of Test Signal

Mode	On + Off Time (ms)	On Time (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11g	2.07	2.005	96.39	0.16
802.11n HT20	1.935	1.865	96.38	0.16

802.11g



802.11n HT20



5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

Requirement Use of approved antennas only

According to the manufacturer declaration, the EUT has an antenna with a directional gain of 1.9 dBi. The antenna is a Chip Antenna soldered to the PCB with no possibility of replacement with a non-approved antenna by the end-user. Therefore, the EUT is considered to comply with this provision.

Antenna type	Brand name	Model name	Antenna gain
Chip Antenna	Unictron	AA077U	1.9 dBi

Refer to EUT photo for details.

5.1.2 Peak Output Power

Limit 1 watt (30 dBm)

Kind of Test Site Shielded room

Test Setup

Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Power Meter	Anritsu	ML2495A	1901008	2020/4/6	2021/4/5
Power Sensor	Anritsu	MA2411B	1725269	2020/4/7	2021/4/6

Test Procedures

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

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

Test Result

Peak Output Power

<802.11g>

Channel	Channel Frequency (MHz)	Peak Output Power		Limit (dBm)
		(dBm)	(mW)	
1	2412	18.22	66.37	30
6	2437	18.17	65.61	30
11	2462	17.69	58.75	30

<802.11n HT20>

Channel	Channel Frequency (MHz)	Peak Output Power		Limit (dBm)
		(dBm)	(mW)	
1	2412	18.02	63.39	30
6	2437	18.18	65.77	30
11	2462	17.57	57.15	30

Average Power

<802.11g>

Channel	Channel Frequency (MHz)	Average Power	
		(dBm)	(mW)
1	2412	9.05	8.04
6	2437	9.30	8.51
11	2462	9.36	8.63

<802.11n HT20>

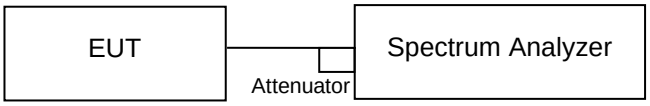
Channel	Channel Frequency (MHz)	Average Power	
		(dBm)	(mW)
1	2412	9.03	8.00
6	2437	9.25	8.41
11	2462	9.33	8.57

5.1.3 6 dB Bandwidth

Limit The minimum 6 dB bandwidth shall be at least 500 kHz.

Kind of Test Site Shielded room

Test Setup



Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV40	101512	2020/2/18	2021/2/16

Test Procedure

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

Test Results

Please refer to Appendix A.

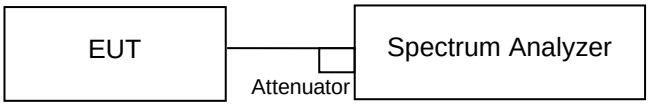
5.1.4 Power Spectral Density

Limit

The power spectral density shall not be greater than 8 dBm in any 3 kHz band.

Kind of Test Site Shielded room

Test Setup



Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV40	101512	2020/2/18	2021/2/16

Test Procedure

a. Set analyzer center frequency to DTS channel center frequency.
b. Set the span to 1.5 times the DTS bandwidth.
c. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
d. Set the VBW ≥ 3 × RBW.
e. Detector = peak.
f. Sweep time = auto couple.
g. Trace mode = max hold.
h. Allow trace to fully stabilize.
i. Use the peak marker function to determine the maximum amplitude level within the RBW.

Test Results

Please refer to Appendix A.

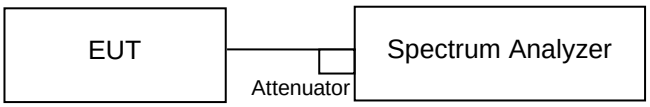
5.1.5 Conducted Spurious Emissions and Frequency Band Edges Measured in 100 kHz Bandwidth

Limit

20 dB (below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.)

Kind of Test Site Shielded room

Test Setup



Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV40	101512	2020/2/18	2021/2/16

Test Procedure

Measurement procedure REF

1. Set the RBW = 100 kHz.
2. Set the VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

Measurement procedure OOBE

1. Set RBW = 100 kHz.
2. Set VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

Test Results

Please refer to Appendix A.

5.1.6 Radiated Spurious Emissions and Band Edges

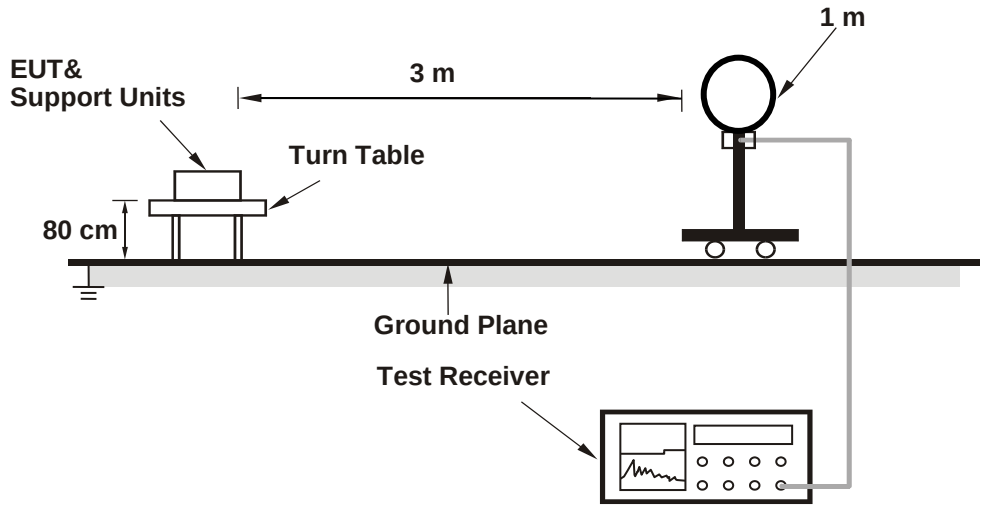
Limit

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must comply with the radiated emission limits specified in §15.209(a).
Emissions radiated outside the restricted and authorized frequency bands must either comply with the radiated emission limits specified for the restricted bands or in §15.247(d).

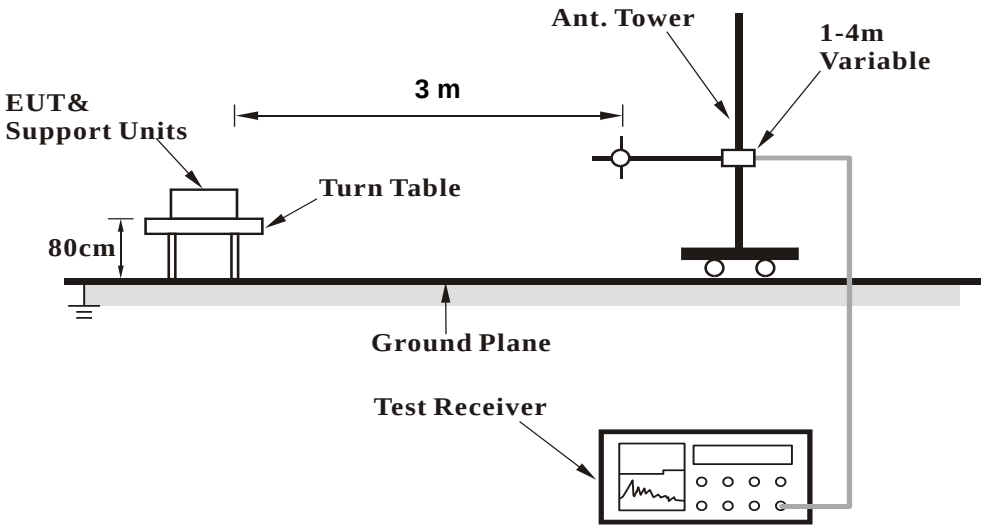
Kind of Test Site 3m Semi-Anechoic Chamber

Test Setup

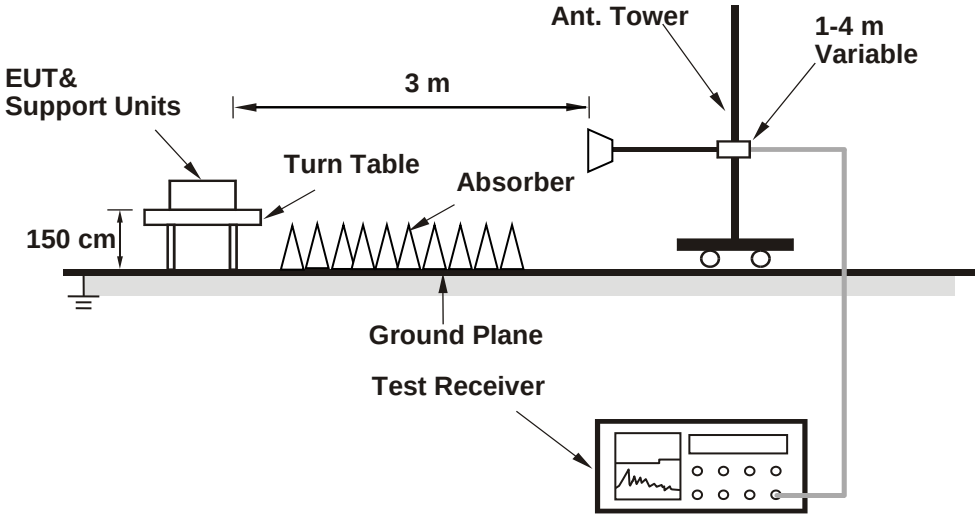
<Radiated Emissions below 30 MHz>



<Radiated Emissions 30 MHz to 1 GHz>



<Radiated Emissions above 1 GHz>



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

Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV40	101508	2020/3/16	2021/3/15
Receiver	R&S	ESR7	102108	2020/4/22	2021/4/21
Bilog Antenna	SCHWARZBECK	VULB-9168	00951	2020/2/14	2021/2/12
Horn Antenna	ETS-Lindgren	3117	00218930	2019/12/6	2020/12/4
LF-AMP	Agilent	8447D	2944A10772	2020/2/11	2021/2/9
HF-AMP + AC source	EMCI	EMC051845SE	980633	2020/2/17	2021/2/15
HF-AMP + AC source	EMCI	EMC184045SE	980657	2020/2/17	2021/2/15
Horn Antenna	SCHWARZBECK	BBHA 9170	00887	2020/4/10	2021/4/9
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104EA	800056/4EA	2020/3/25	2021/3/24
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104	804680/4	2020/3/25	2021/3/24
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104	MY37202/4	2020/3/25	2021/3/24
Microwave Cable	HUBER+SUHNER	SUCOFLEX 102EA	800898/2EA	2020/4/22	2021/4/21
Microwave Cable	HUBER+SUHNER	SUCOFLEX 102EA	800901/2EA	2020/4/22	2021/4/21
Microwave Cable	HUBER+SUHNER	SUCOFLEX 102EA	801027/2EA	2020/4/22	2021/4/21
Loop Antenna	Chance Most	EMCILPA600 +calibration	287	2020/1/9	2021/1/7

Test Procedures

For Radiated Emissions below 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated Emissions above 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) / 1.5 meters (for above 1 GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
f. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98 %) or 10 Hz (Duty cycle ≥ 98 %) for Average detection (AV) at frequency above 1 GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.
5. The Radiated Emissions testing was performed in the X, Y and Z axis orientation. The worst-case Axis orientation is recorded in this test report.

Test Results

Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)
Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)

Please refer to Appendix B.

5.2 Mains Emission

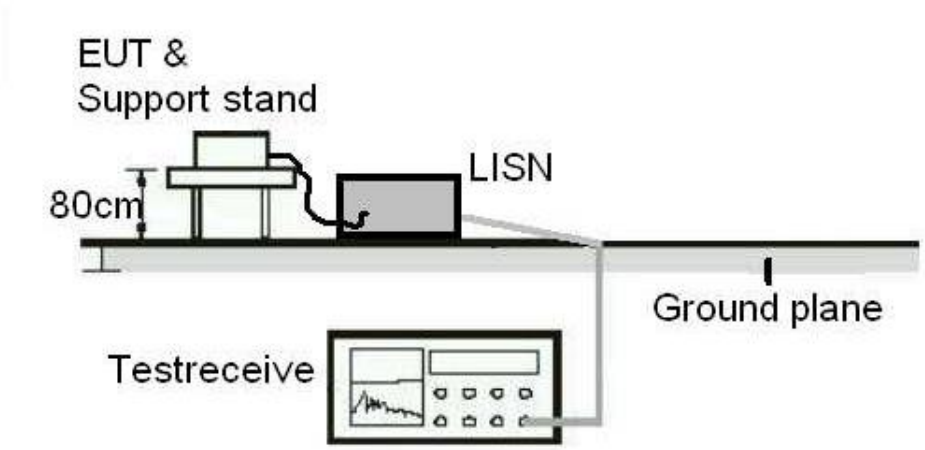
5.2.1 Mains Conducted Emission

Limit

Mains Conducted Emission as defined in §15.207 must comply with the mains conducted emission limits.

Kind of Test Site Shielded room

Test Setup



Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Two-Line V-Network (for EUT)	Rohde & Schwarz	ENV216	101262	2020/08/04	2021/08/04
EMI Test Receiver	R&S	ESR7	102108	2020/4/22	2021/4/21
10dB attenuation	SCHHWARZBECK	VTSD 9561 F-N	660	2020/2/24	2021/2/23
Measurement Software	EZ	EZ_EMC (Version NB-03A)	N/A	N/A	N/A

Test Procedures

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50 uH of coupling impedance for the measuring instrument.
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

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

Test Results

Please refer to Appendix B.

6. Safety Human Exposure

6.1 RF Exposure Compliance

6.1.1 Electromagnetic Fields

Results

Therefore the maximum output power of the transmitter is 8.63mW<10mW, hence the EUT is excluded from SAR evaluation according to FCC KDB publication 447498 D01: Mobile Portable RF Exposure.

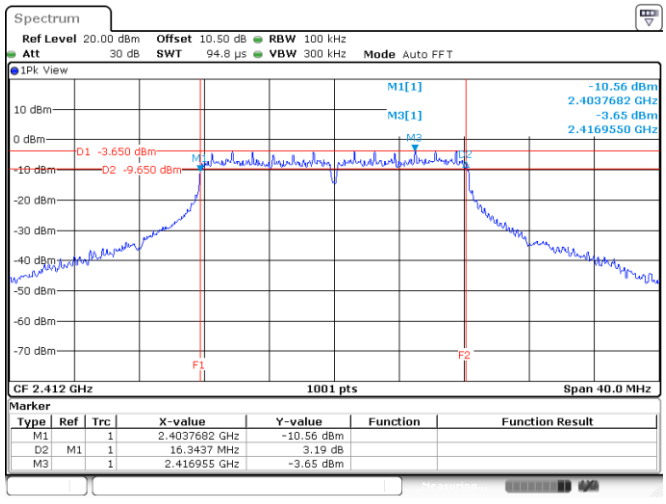
Appendix A: Test Results of Conducted Test

Test Result of 6 dB Bandwidth

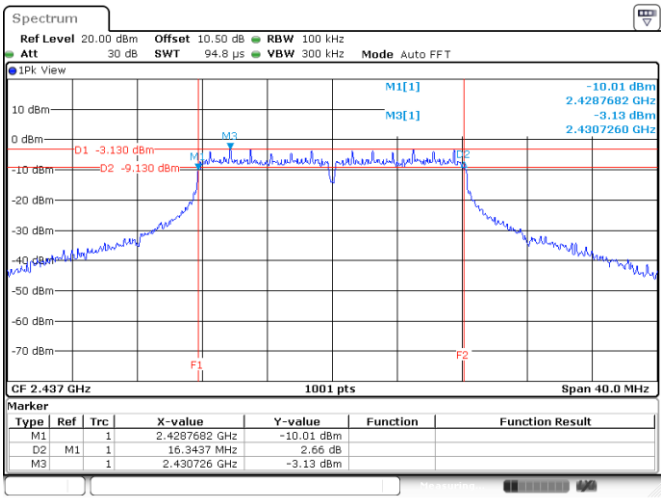
802.11g

Channel	Channel Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
Low Channel	2412	16.34	> 0.5	Pass
Middle Channel	2437	16.34	> 0.5	Pass
High Channel	2462	16.34	> 0.5	Pass

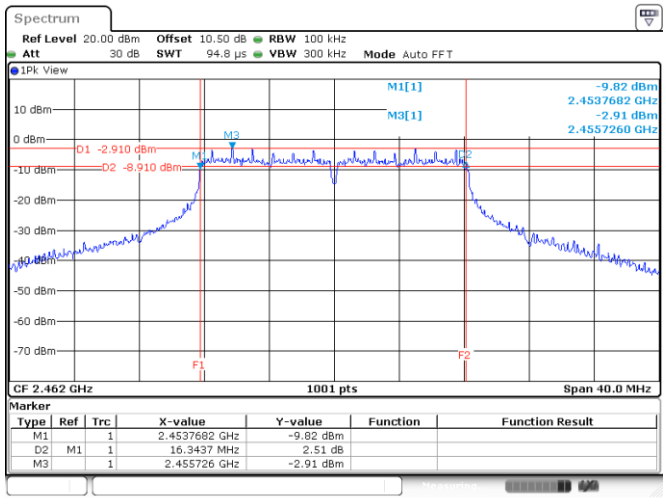
Low Channel



Middle Channel



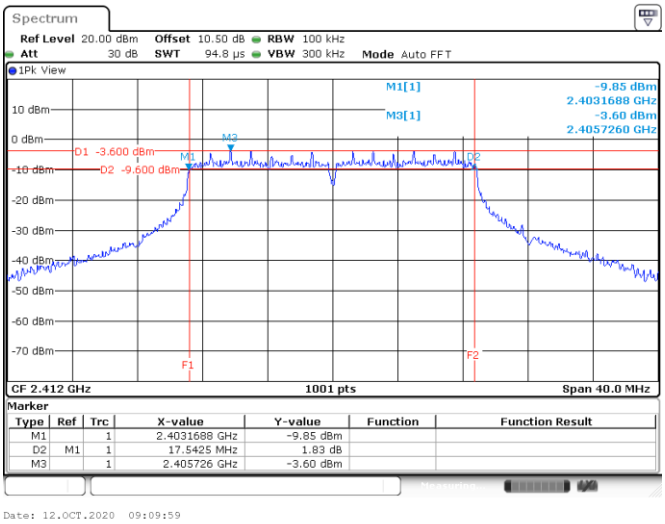
High Channel



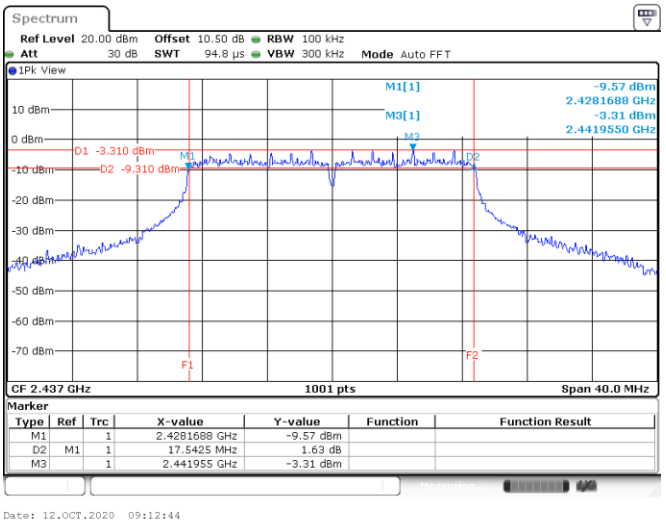
802.11n HT20

Channel	Channel Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
Low Channel	2412	17.54	> 0.5	Pass
Middle Channel	2437	17.54	> 0.5	Pass
High Channel	2462	17.58	> 0.5	Pass

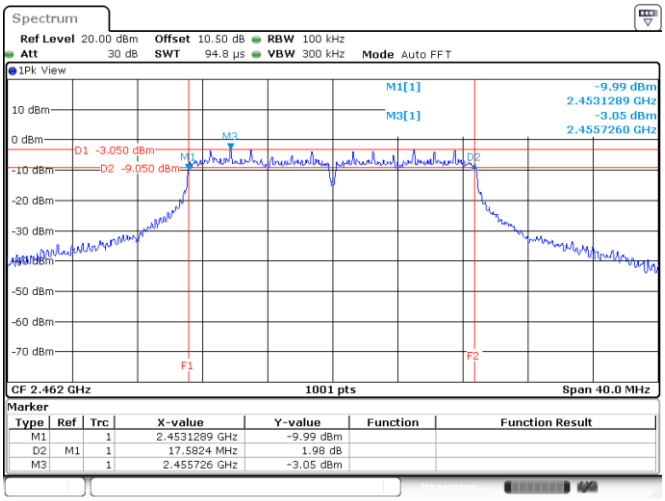
Low Channel



Middle Channel



High Channel

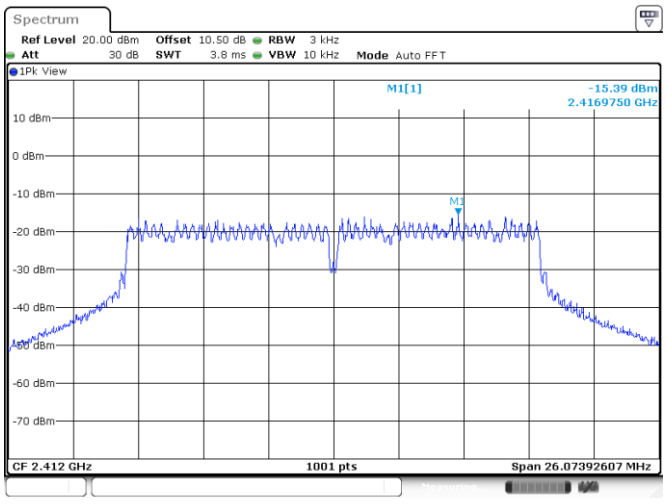


Test Result of Power Spectral Density

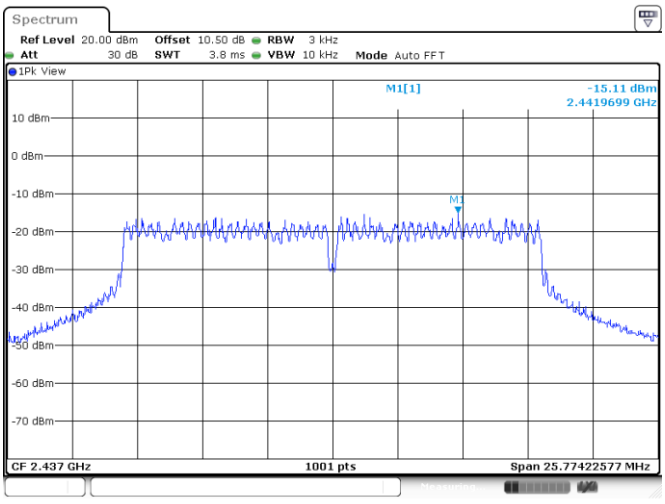
802.11g

Channel	Channel Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3kHz)
Low Channel	2412	-15.39	8
Middle Channel	2437	-15.11	8
High Channel	2462	-15.14	8

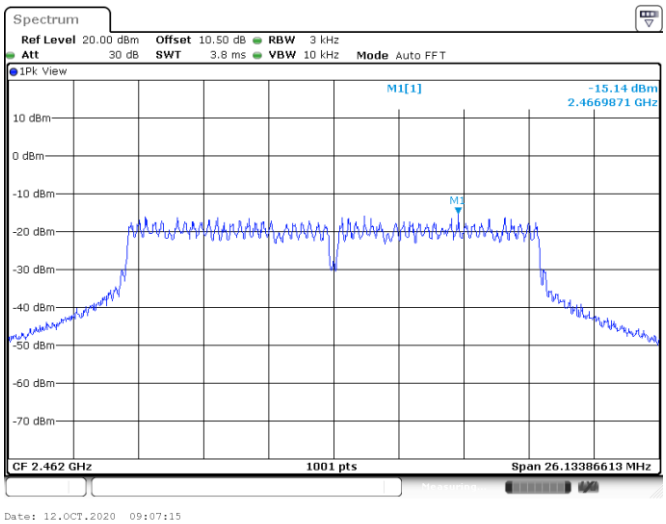
Low Channel



Middle Channel



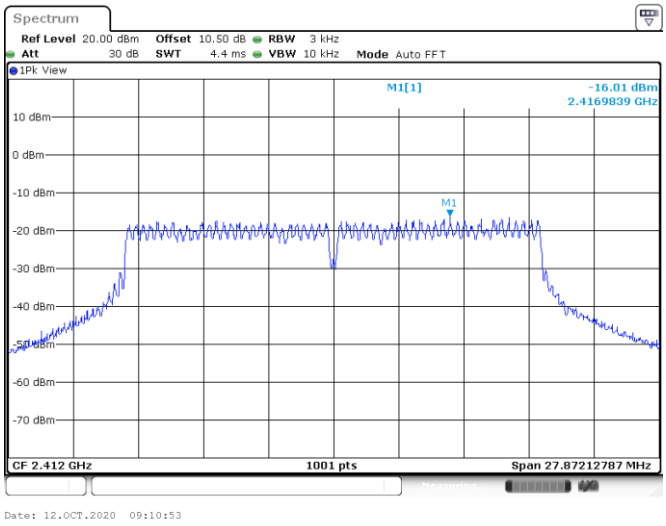
High Channel



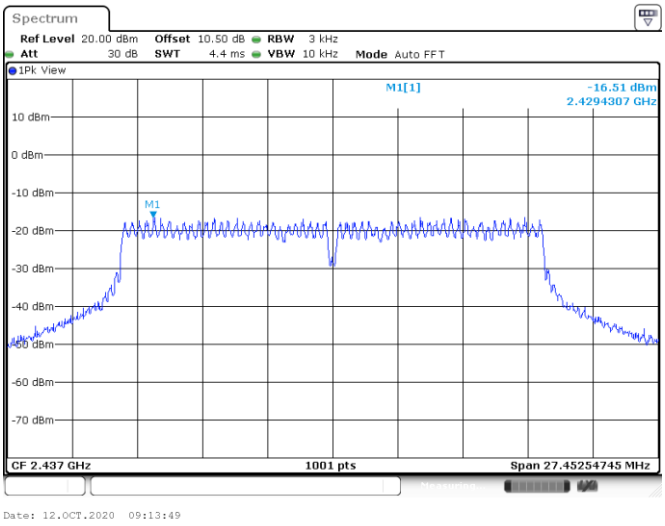
802.11n HT20

Channel	Channel Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3kHz)
Low Channel	2412	-16.01	8
Middle Channel	2437	-16.51	8
High Channel	2462	-15.88	8

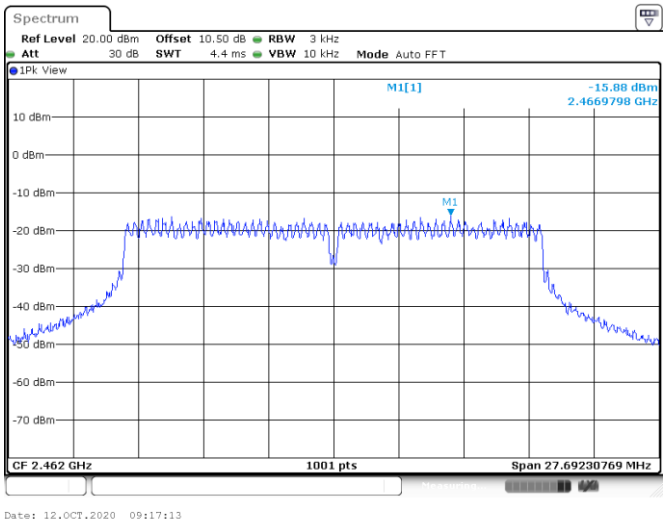
Low Channel



Middle Channel



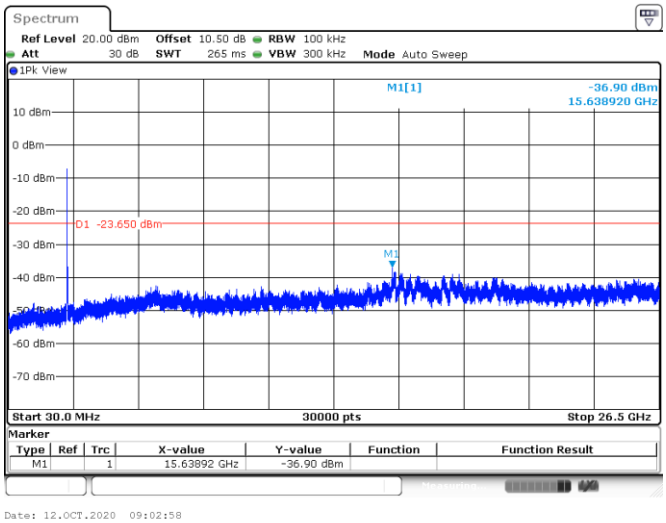
High Channel



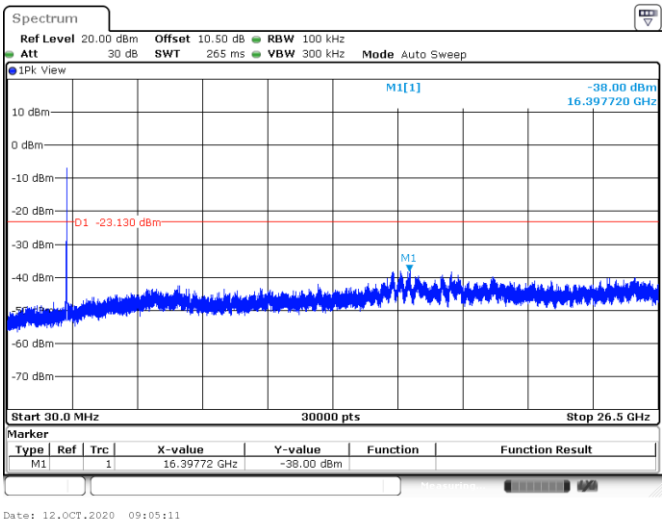
Test Result of Conducted Spurious Emissions

802.11g

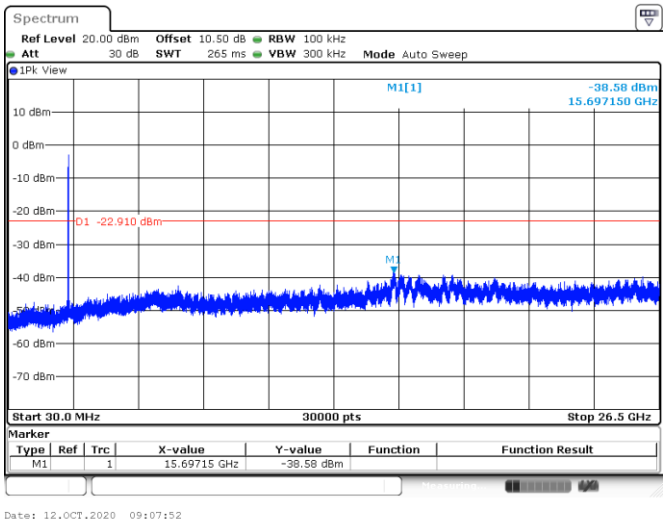
Low Channel



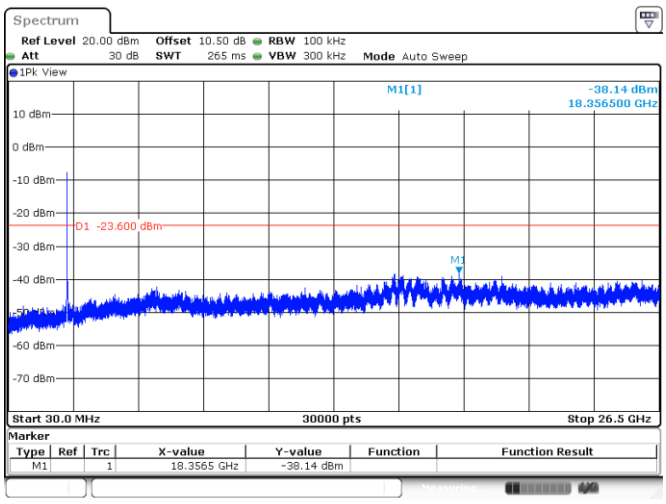
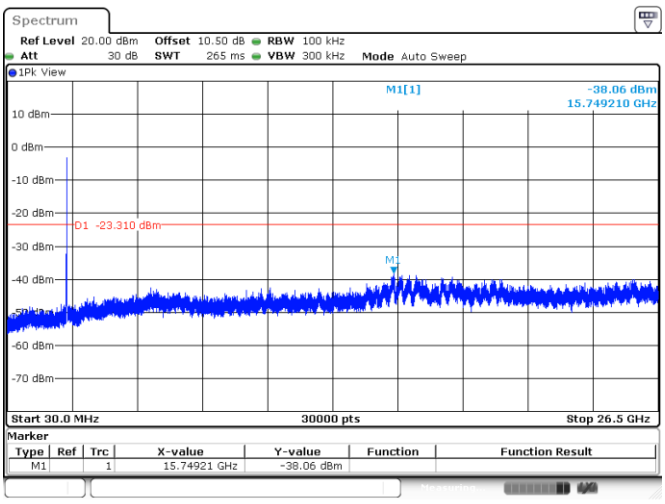
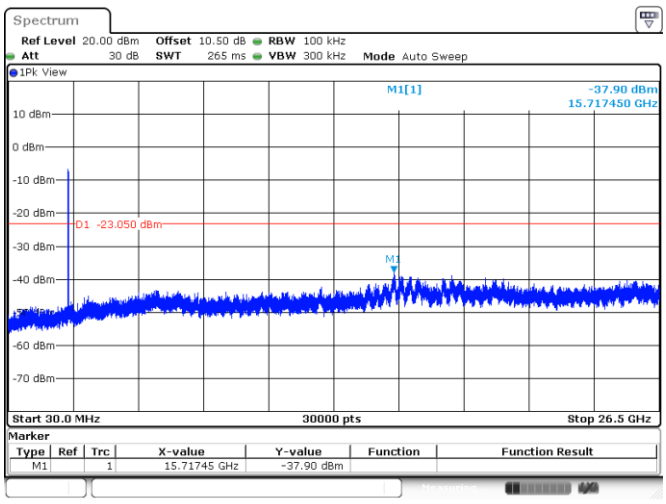
Middle Channel



High Channel

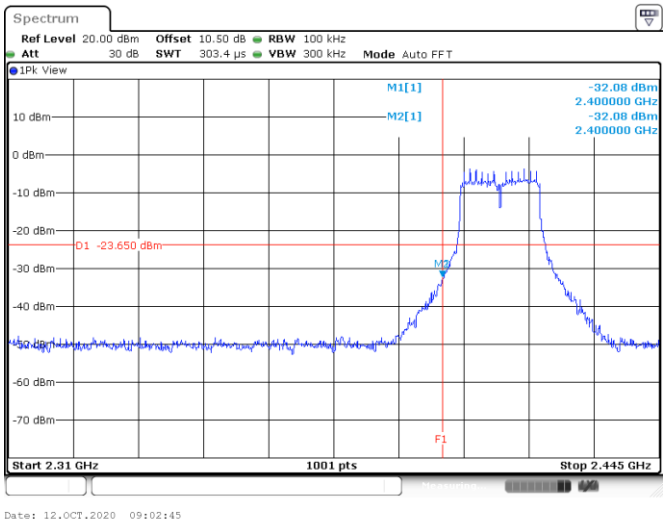
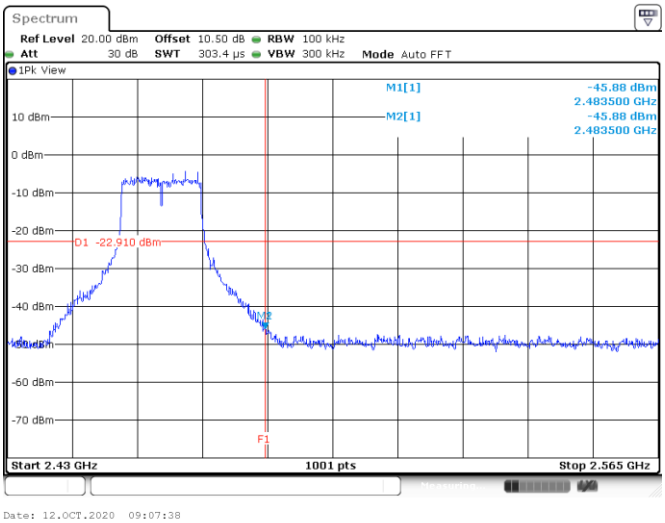


802.11n HT20

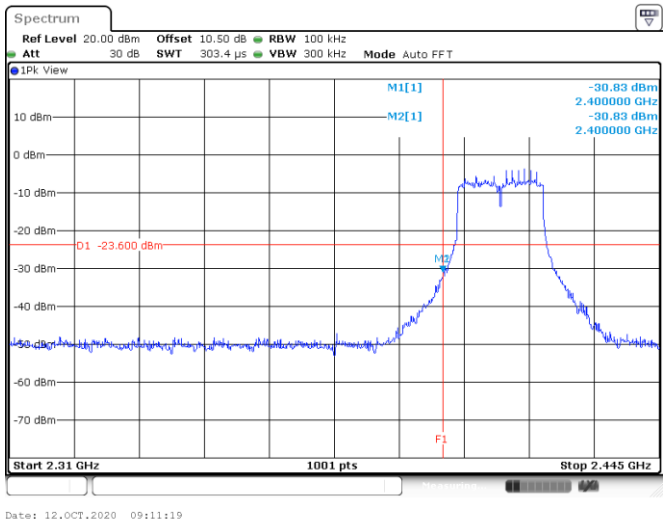
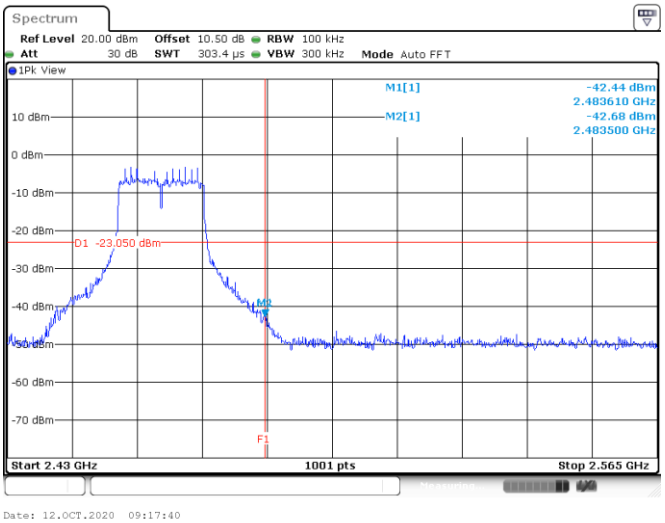
Low Channel	Middle Channel
	
High Channel	
	

Test Result of Conducted Bandedge, Tx Mode

802.11g

Low Channel	High Channel
	

802.11n HT20

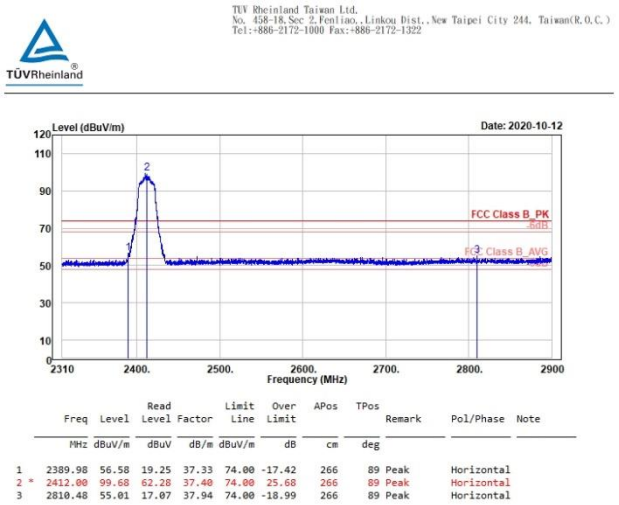
Low Channel	High Channel
	

Appendix B: Test Results of Radiated Spurious Emissions & Mains

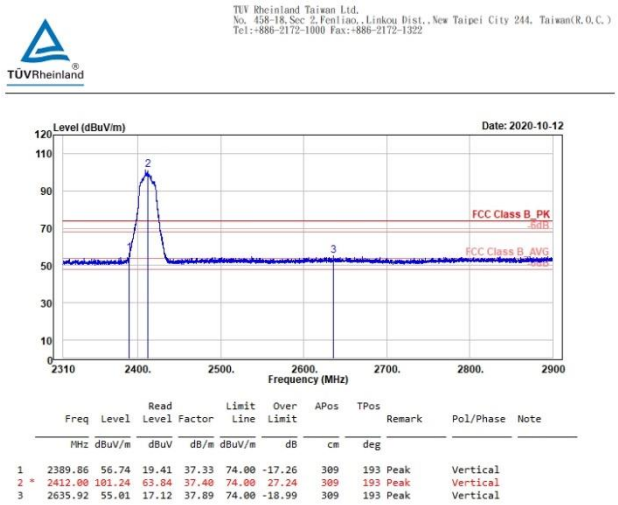
Conducted Emission Test

Band Edges, 2.31GHz ~ 2.9GHz

802.11g	
Low Channel (Horizontal) Peak	**Low Channel (Vertical) Peak**



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2389.98	56.58	19.25	37.33	74.00	-17.42	266	89	Peak	Horizontal	
2 *	2412.00	99.68	62.28	37.40	74.00	25.68	266	89	Peak	Horizontal	
3	2810.48	55.01	17.07	37.94	74.00	-18.99	266	89	Peak	Horizontal	



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2389.86	56.74	19.41	37.33	74.00	-17.26	309	193	Peak	Vertical	
2 *	2412.00	101.24	63.84	37.40	74.00	27.24	309	193	Peak	Vertical	
3	2635.92	55.01	17.12	37.89	74.00	-18.99	309	193	Peak	Vertical	

802.11g

Low Channel (Horizontal) Average

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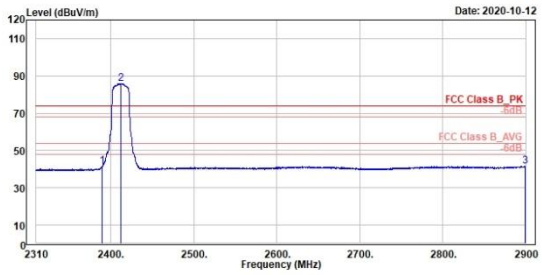
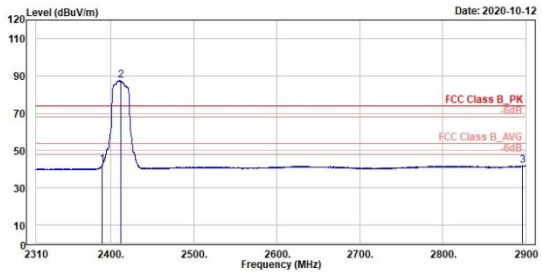
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2389.98	41.47	4.14	37.33	54.00	-12.53	266	89	Average	Horizontal	
2 *	2412.00	85.90	48.50	37.40	54.00	31.90	266	89	Average	Horizontal	
3	2899.06	41.69	3.37	38.32	54.00	-12.31	266	89	Average	Horizontal	

Low Channel (Vertical) Average

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2389.98	42.23	4.90	37.33	54.00	-11.77	309	193	Average	Vertical	
2 *	2412.00	87.59	50.19	37.40	54.00	33.59	309	193	Average	Vertical	
3	2896.11	41.79	3.49	38.30	54.00	-12.21	309	193	Average	Vertical	

802.11g

High Channel (Horizontal) Peak

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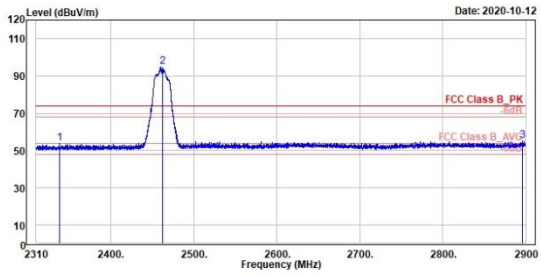
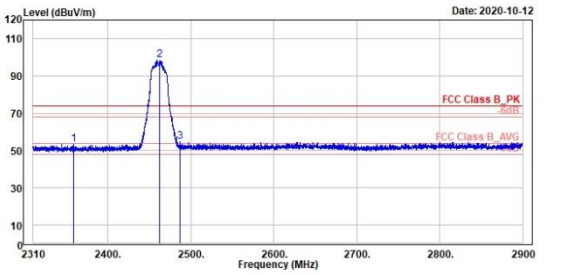


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2338.39	53.67	16.50	37.17	74.00	-20.33	301	231	Peak	Horizontal	
2 *	2462.00	94.92	57.38	37.54	74.00	20.92	301	231	Peak	Horizontal	
3	2896.82	55.05	16.74	38.31	74.00	-18.95	301	231	Peak	Horizontal	

High Channel (Vertical) Peak

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2358.41	53.31	16.07	37.24	74.00	-20.69	202	316	Peak	Vertical	
2 *	2462.00	98.61	61.07	37.54	74.00	24.61	202	316	Peak	Vertical	
3	2486.92	54.83	17.27	37.56	74.00	-19.17	202	316	Peak	Vertical	

802.11g

High Channel (Horizontal) Average

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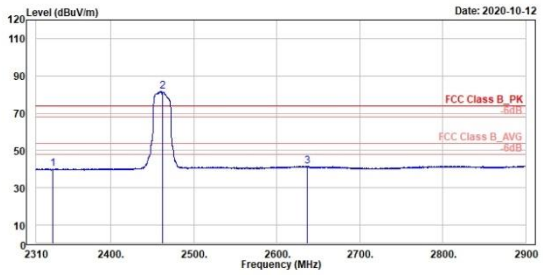
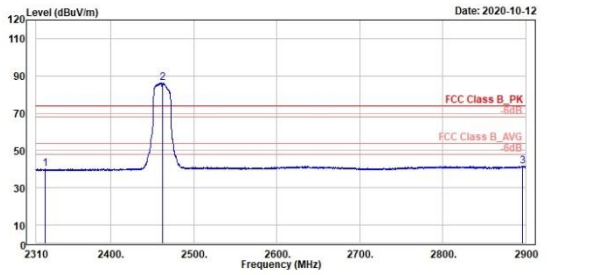
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2330.14	40.16	3.02	37.14	54.00	-13.84	301	231	Average	Horizontal	
2 *	2462.00	81.65	44.11	37.54	54.00	27.65	301	231	Average	Horizontal	
3	2636.63	41.64	3.76	37.88	54.00	-12.36	301	231	Average	Horizontal	

High Channel (Vertical) Average

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2320.72	40.24	3.13	37.11	54.00	-13.76	202	316	Average	Vertical	
2 *	2462.00	86.40	48.86	37.54	54.00	32.40	202	316	Average	Vertical	
3	2896.47	41.58	3.27	38.31	54.00	-12.42	202	316	Average	Vertical	

802.11n HT20

Low Channel (Horizontal) Peak

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No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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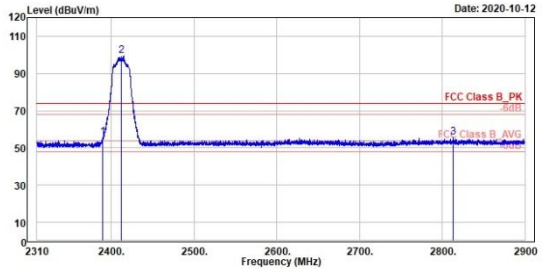
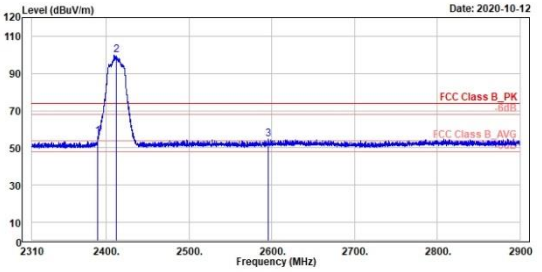


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2389.86	55.80	18.47	37.33	74.00	-18.20	266	90	Peak	Horizontal	
2 *	2412.00	99.29	61.89	37.40	74.00	25.29	266	90	Peak	Horizontal	
3	2813.31	55.76	17.81	37.95	74.00	-18.24	266	90	Peak	Horizontal	

Low Channel (Vertical) Peak

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322

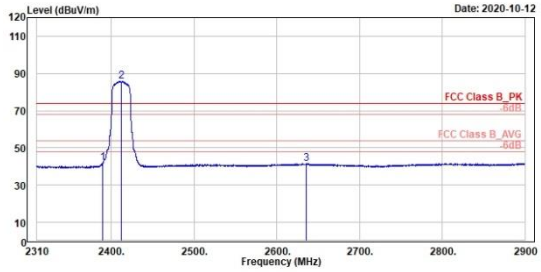


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2389.98	56.00	18.67	37.33	74.00	-18.00	276	193	Peak	Vertical	
2 *	2412.00	99.74	62.34	37.40	74.00	25.74	276	193	Peak	Vertical	
3	2596.23	54.77	16.79	37.98	74.00	-19.23	276	193	Peak	Vertical	

802.11n HT20

Low Channel (Horizontal) Average

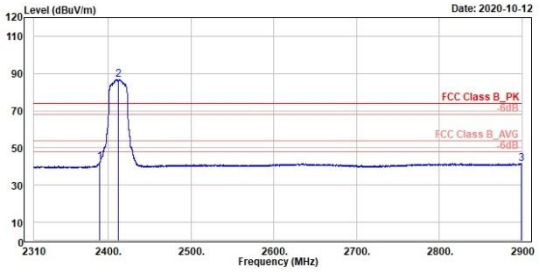
TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2389.98	41.95	4.62	37.33	54.00	-12.05	266	90	Average	Horizontal	
2 *	2412.00	85.96	48.56	37.40	54.00	31.96	266	90	Average	Horizontal	
3	2636.16	41.68	3.79	37.89	54.00	-12.32	266	90	Average	Horizontal	

Low Channel (Vertical) Average

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322

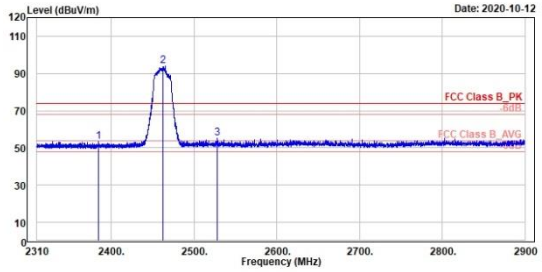


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2389.74	42.57	5.24	37.33	54.00	-11.43	276	193	Average	Vertical	
2 *	2412.00	86.90	49.50	37.40	54.00	32.90	276	193	Average	Vertical	
3	2899.29	41.63	3.31	38.32	54.00	-12.37	276	193	Average	Vertical	

802.11n HT20

High Channel (Horizontal) Peak

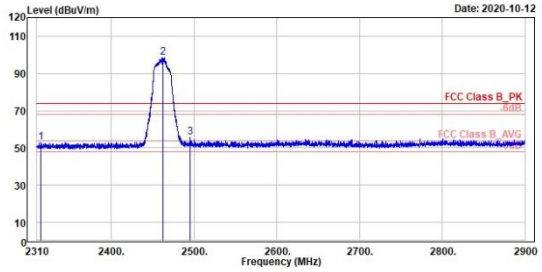
TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2384.56	53.44	16.12	37.32	74.00	-20.56	301	234	Peak	Horizontal	
2 *	2462.00	93.81	56.27	37.54	74.00	19.81	301	234	Peak	Horizontal	
3	2527.67	55.38	17.66	37.72	74.00	-18.62	301	234	Peak	Horizontal	

High Channel (Vertical) Peak

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322

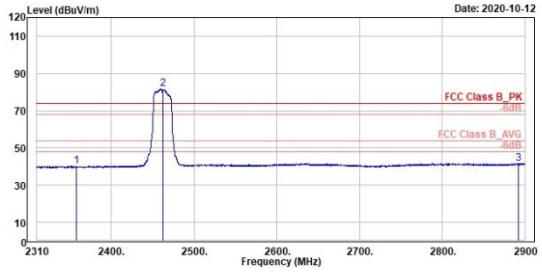


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2314.95	52.88	15.78	37.10	74.00	-21.12	202	316	Peak	Vertical	
2 *	2462.00	98.71	61.17	37.54	74.00	24.71	202	316	Peak	Vertical	
3	2495.63	55.75	18.18	37.57	74.00	-18.25	202	316	Peak	Vertical	

802.11n HT20

High Channel (Horizontal) Average

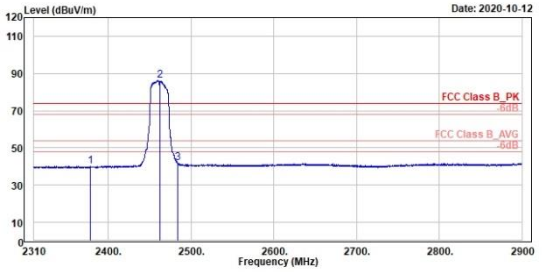
TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2357.70	40.14	2.91	37.23	54.00	-13.86	301	234	Average	Horizontal	
2 *	2462.00	81.59	44.05	37.54	54.00	27.59	301	234	Average	Horizontal	
3	2892.82	41.60	3.32	38.28	54.00	-12.40	301	234	Average	Horizontal	

High Channel (Vertical) Average

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



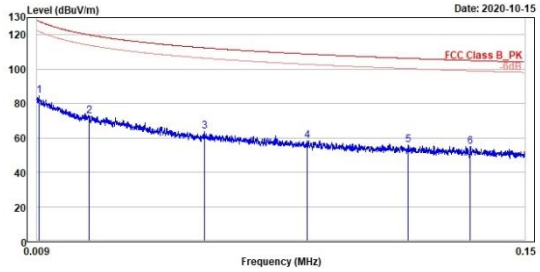
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2378.67	40.08	2.78	37.30	54.00	-13.92	202	316	Average	Vertical	
2 *	2462.00	86.29	48.75	37.54	54.00	32.29	202	316	Average	Vertical	
3	2483.50	41.85	4.29	37.56	54.00	-12.15	202	316	Average	Vertical	

Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

802.11n20

High Channel (open) 9kHz~150kHz

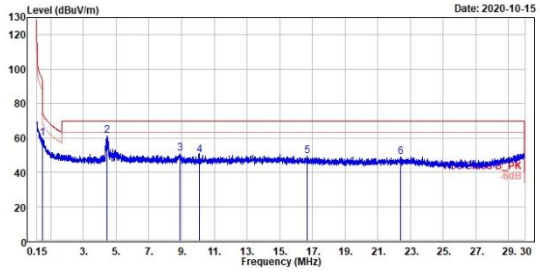
TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.01	84.34	5.11	79.23	127.90	-43.56	100	165	QP	Open	
2	0.02	72.67	0.89	71.78	119.91	-47.24	100	147	QP	Open	
3	0.06	63.68	-0.34	64.02	112.42	-48.74	100	138	QP	Open	
4	0.09	58.17	-2.51	60.68	108.79	-50.62	100	284	QP	Open	
5	0.12	55.64	-2.66	58.30	106.28	-50.64	100	360	QP	Open	
6	0.13	54.91	-2.35	57.26	105.04	-50.13	100	26	QP	Open	

High Channel (Open) 150kHz~30MHz

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322

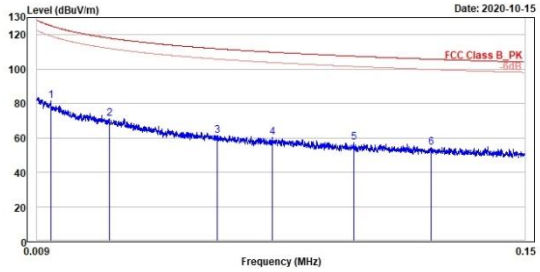


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.48	59.95	12.83	47.12	94.01	-34.06	100	47	QP	Open	
2	4.45	61.17	22.84	38.33	69.50	-8.33	100	24	QP	Open	
3	8.91	51.06	13.25	37.81	69.50	-18.44	100	232	QP	Open	
4	10.10	50.03	12.48	37.55	69.50	-19.47	100	144	QP	Open	
5	16.68	49.19	11.92	37.27	69.50	-20.31	100	199	QP	Open	
6	22.42	48.85	13.10	35.75	69.50	-20.65	100	72	QP	Open	

802.11n20

High (Close) Channel 9kHz~150kHz

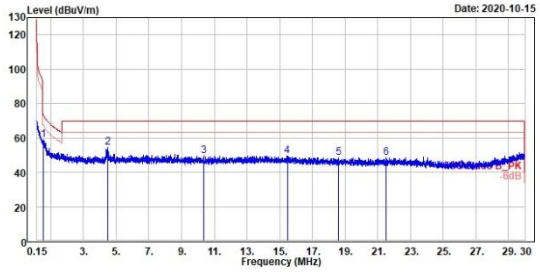
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.01	81.53	4.60	76.93	125.29	-43.76	100	133	QP	Close	
2	0.03	71.35	0.58	70.77	118.08	-46.73	100	281	QP	Close	
3	0.06	61.44	-2.06	63.50	111.86	-50.42	100	74	QP	Close	
4	0.08	60.35	-1.23	61.58	109.86	-49.51	100	74	QP	Close	
5	0.10	57.27	-1.95	59.22	107.55	-50.28	100	219	QP	Close	
6	0.12	54.31	-3.61	57.92	105.81	-51.50	100	94	QP	Close	

High Channel (Close) 150kHz~30MHz

TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



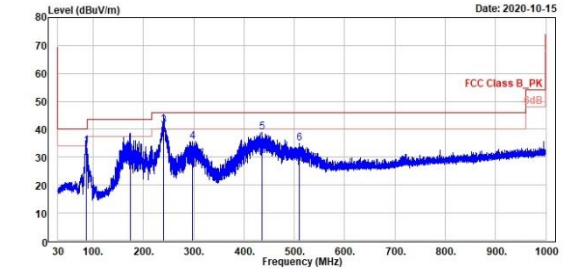
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.55	58.95	12.93	46.02	72.84	-13.89	100	278	QP	Close	
2	4.47	54.23	15.90	38.33	69.50	-15.27	100	26	QP	Close	
3	10.36	49.63	12.18	37.45	69.50	-19.87	100	351	QP	Close	
4	15.47	49.25	11.61	37.64	69.50	-20.25	100	361	QP	Close	
5	18.60	48.46	11.85	36.61	69.50	-21.04	100	103	QP	Close	
6	21.52	48.35	12.38	35.97	69.50	-21.15	100	84	QP	Close	

Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

802.11n20

High Channel (Horizontal)

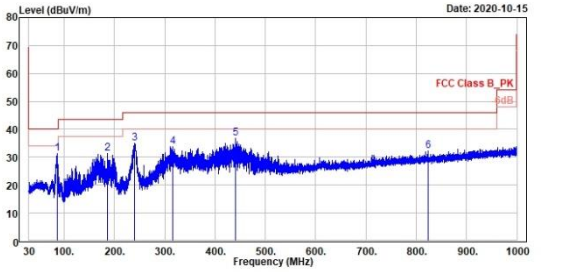
TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1 !	85.87	34.20	47.30	-13.10	40.00	-5.80	400	118	QP	Horizontal	
2	173.46	29.22	36.80	-7.58	43.50	-14.28	100	313	QP	Horizontal	
3 !	240.30	41.30	49.60	-8.30	46.00	-4.70	100	326	QP	Horizontal	
4	297.53	35.73	42.24	-6.51	46.00	-10.27	100	203	QP	Horizontal	
5	435.75	38.82	42.80	-3.98	46.00	-7.18	200	156	QP	Horizontal	
6	510.44	35.10	38.07	-2.97	46.00	-10.90	200	53	QP	Horizontal	

High Channel (Vertical)

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



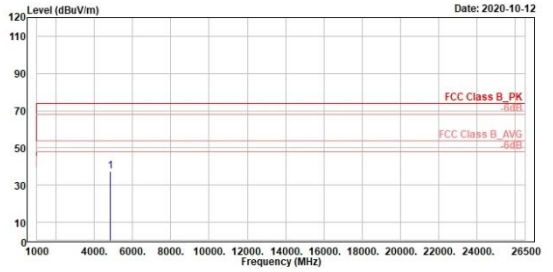
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	85.97	31.30	44.42	-13.12	40.00	-8.70	400	42	QP	Vertical	
2	186.66	31.18	40.56	-9.38	43.50	-12.32	300	264	QP	Vertical	
3	240.30	35.02	43.32	-8.30	46.00	-10.98	200	225	QP	Vertical	
4	315.18	33.84	40.02	-6.18	46.00	-12.16	200	346	QP	Vertical	
5	440.41	36.95	40.85	-3.90	46.00	-9.05	200	237	QP	Vertical	
6	824.33	32.09	29.92	2.17	46.00	-13.91	200	172	QP	Vertical	

Spurious Emissions, Tx Mode, 1GHz ~ 26.5GHz

802.11g

Low Channel (Horizontal)

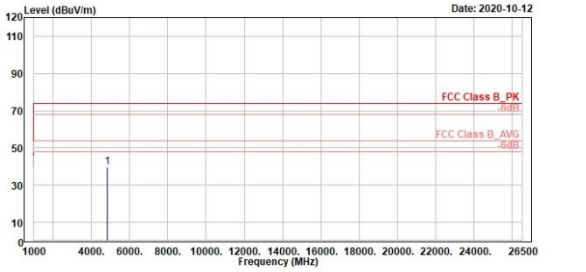
TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao., Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4824.00	37.55	47.69	-10.14	74.00	-36.45	300	8	Peak	Horizontal	

Low Channel (Vertical)

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao., Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322

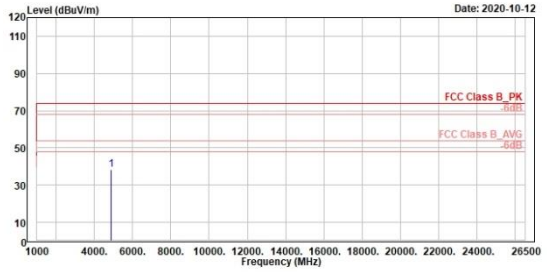


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4824.00	39.50	49.64	-10.14	74.00	-34.50	400	322	Peak	Vertical	

802.11g

Middle Channel (Horizontal)

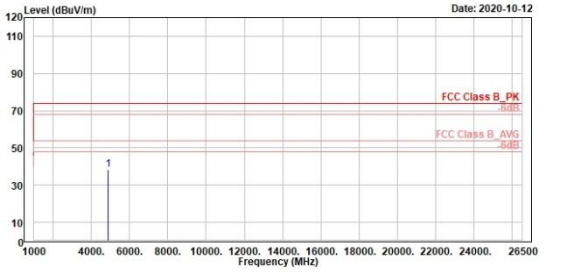
TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4874.00	38.41	48.46	-10.05	74.00	-35.59	200	237	Peak	Horizontal	

Middle Channel (Vertical)

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322

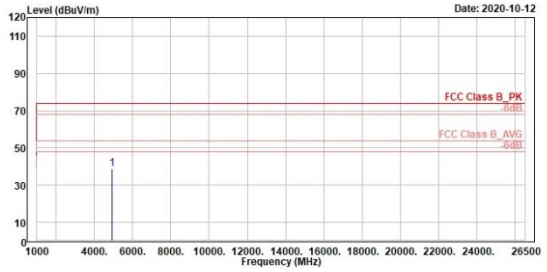


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4874.00	38.14	48.19	-10.05	74.00	-35.86	100	202	Peak	Vertical	

802.11g

High Channel (Horizontal)

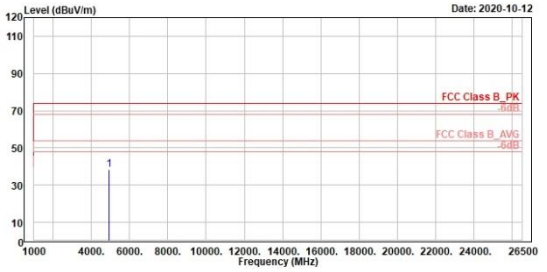
TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4924.00	38.60	48.48	-9.88	74.00	-35.40	100	18	Peak	Horizontal	

High Channel (Vertical)

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322

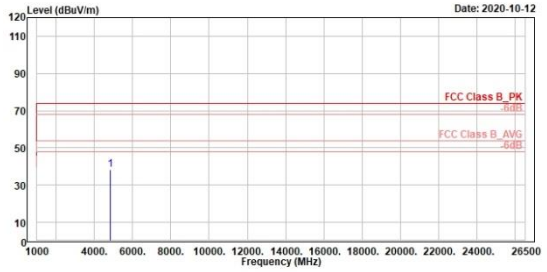


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4924.00	38.55	48.43	-9.88	74.00	-35.45	100	73	Peak	Vertical	

802.11n HT20

Low Channel (Horizontal)

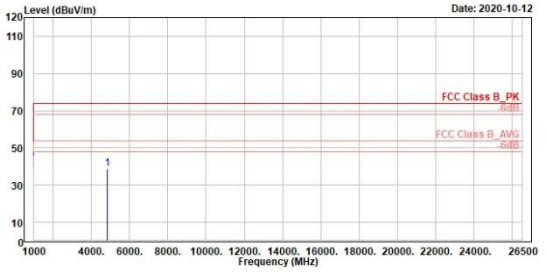
TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4824.00	38.12	48.26	-10.14	74.00	-35.88	169	360	Peak	Horizontal	

Low Channel (Vertical)

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322

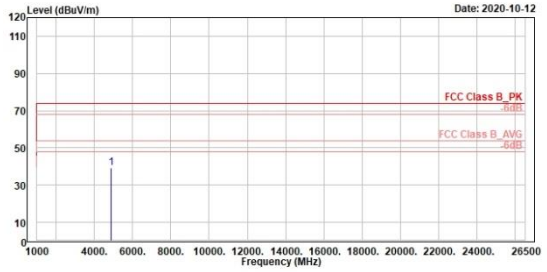


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4824.00	38.85	48.99	-10.14	74.00	-35.15	100	88	Peak	Vertical	

802.11n HT20

Middle Channel (Horizontal)

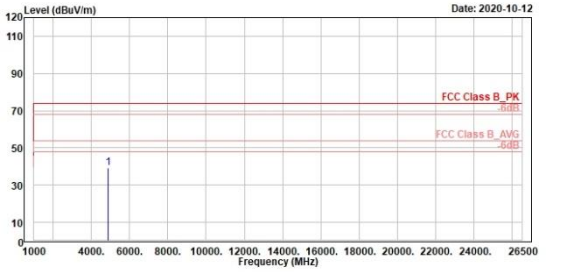
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao., Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4874.00	39.33	49.38	-10.05	74.00	-34.67	300	16	Peak	Horizontal	

Middle Channel (Vertical)

TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao., Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322

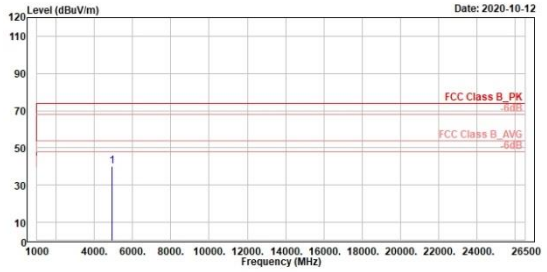


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4874.00	39.45	49.50	-10.05	74.00	-34.55	400	211	Peak	Vertical	

802.11n HT20

High Channel (Horizontal)

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, , Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel:+886-2172-1000 Fax:+886-2172-1322



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4924.00	40.01	49.89	-9.88	74.00	-33.99	100	75	Peak	Horizontal	

High Channel (Vertical)

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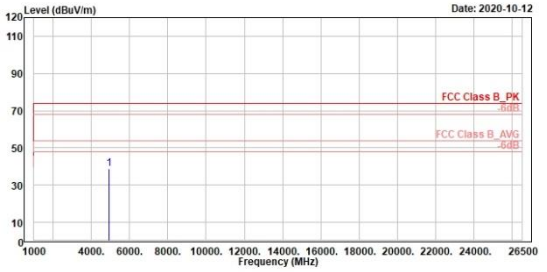

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4924.00	38.86	48.74	-9.88	74.00	-35.14	200	344	Peak	Vertical	

Mains Conducted Emission, 150kHz ~ 30MHz

Worst Band

(Line)

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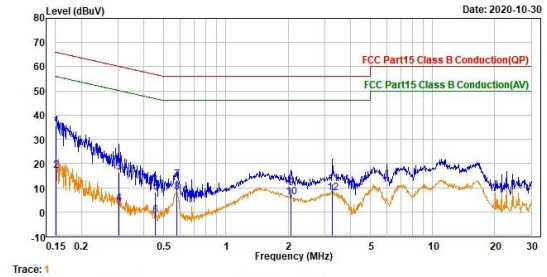

Trace: 1

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase	Note
	MHz	dBuV	dB	dBuV	dBuV	dB			
1	0.151	35.49	0.05	35.54	65.96	-30.42	QP	line1	
2	0.151	16.93	0.05	16.98	55.96	-38.98	Average	line1	
3	0.303	16.41	0.05	16.46	60.16	-43.70	QP	line1	
4	0.303	3.14	0.05	3.19	50.16	-46.97	Average	line1	
5	0.456	8.04	0.06	8.10	56.77	-48.67	QP	line1	
6	0.456	-1.43	0.06	-1.37	46.77	-48.14	Average	line1	
7	0.579	13.05	0.06	13.11	56.00	-42.89	QP	line1	
8	0.579	7.94	0.06	8.00	46.00	-38.00	Average	line1	
9	2.064	9.87	0.11	9.98	56.00	-46.02	QP	line1	
10	2.064	5.85	0.11	5.96	46.00	-40.04	Average	line1	
11	3.281	11.50	0.14	11.64	56.00	-44.36	QP	line1	
12	3.281	7.58	0.14	7.72	46.00	-38.28	Average	line1	

(Neutral)

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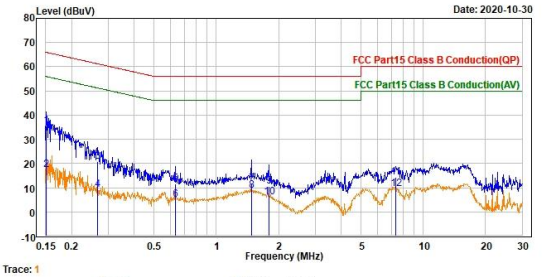

Trace: 1

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase	Note
	MHz	dBuV	dB	dBuV	dBuV	dB			
1	0.151	35.63	0.05	35.68	65.96	-30.28	QP	neutral	
2	0.151	17.37	0.05	17.42	55.96	-38.54	Average	neutral	
3	0.266	20.78	0.05	20.83	61.24	-40.41	QP	neutral	
4	0.266	9.21	0.05	9.26	51.24	-41.98	Average	neutral	
5	0.633	11.51	0.06	11.57	56.00	-44.43	QP	neutral	
6	0.633	5.03	0.06	5.09	46.00	-40.91	Average	neutral	
7	1.478	11.59	0.09	11.68	56.00	-44.32	QP	neutral	
8	1.478	8.58	0.09	8.67	46.00	-37.33	Average	neutral	
9	1.795	10.50	0.10	10.60	56.00	-45.40	QP	neutral	
10	1.795	6.01	0.10	6.11	46.00	-39.89	Average	neutral	
11	7.357	13.92	0.24	14.16	60.00	-45.84	QP	neutral	
12	7.357	9.36	0.24	9.60	50.00	-40.40	Average	neutral	