Certificate # 3939.01

FCC TEST REPORT

(Part 15, Subpart C)

Applicant:	CPSpeed CO.,LTD.
Address:	3505 stLuke's Tower,8-1 Akashi-cho, Chuo-ku, Tokyo 104-0044

Manufacturer or Supplier:	MeiG Smart Technology Co., Ltd
Address:	2nd Floor,Office Building,No.5 Lingxia Road,Fenghuang,Fuyong Street,Bao'an District,Shenzhen
Product:	Speed Wi-Fi DOCK 5G 01
Brand Name:	CPSpeed
Model Name:	CPS01
FCC ID:	2BMKV-CPS01
Date of tests:	Nov. 12, 2024~Dec. 12, 2024

The tests have been carried out according to the requirements of the following standard:

☒ **FCC Part 15, Subpart C, Section 15.247**

☒ **ANSI C63.10-2020**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
Simon Wang Date: Dec. 12, 2024	Luke Lu Date: Dec. 12, 2024

TABLE OF CONTENTS

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P24090006RF02	Original release	Dec. 12, 2024

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247)			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**TEST LAB**
15.207	AC Power Conducted Emission	Compliance	B
15.205 15.209	Radiated Emissions	Compliance	A
15.247(d)	Out of band Emission Measurement	Compliance	A
15.247(a)(2)	6dB bandwidth	Compliance	A
15.247(b)	Conducted Output power	Compliance	A
15.247(e)	Power Spectral Density	Compliance	A
15.203	Antenna Requirement	Compliance	A

NOTE：

1. Except RSE, other data please refer to Appendix.
2. Preliminary Investigation scans were completed to compare Full RU Tone modes and Single User Tone modes. It was found that SU modes were worst case over Full RU-Tone mode in every instance, and the physical waveforms of SU mode and FULL RU-Tone are the same, and both FULL RU-Tone mode have lower power than SU mode. Therefore, only SU mode was report as it is representative of Full RU-Tone worst case scenario.
3. WLAN 2.4G supports mode:

（1）802.11b&g only supports SISO; 802.11n&AX supports both SISO and MIMO（SISO and MIMO use the same setup level）, The report only reflects 802.11n&AX MIMO mode.

（2）for partially RU , the 802.11ax HE40MHz RU26T/52T/106T/242T modes are covered by the 11ax HE20MHz modes.

***Test Lab Information Reference**

Lab A:

BV 7Layers Communications Technology (Shenzhen) Co., Ltd

Lab Address:

Room B37, Warehouse A5, No.3 Chiwan 4th Road, Zhaoshang Street, Nanshan District Shenzhen, Guangdong, People's Republic of China

Accredited Test Lab Cert 3939.01

FCC Site Registration No. : 525120; Designation No. : CN1171;

Lab B:

Huarui 7Layers High Technology (Suzhou) Co., Ltd.

Lab Address:

Tower N, Innovation Center, 88 Zhuyi Road, High-tech District, Suzhou City, Anhui Province

Accredited Test Lab Cert 6613.01

The FCC Site Registration No. is 434559; The Designation No. is CN1325.

1.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	UNCERTAINTY
AC Power Conducted emissions	±2.70dB
Radiated emissions (9KHz~30MHz)	±2.68dB
Radiated emissions (30MHz~1GHz)	±4.98dB
Radiated emissions (1GHz ~6GHz)	±4.70dB
Radiated emissions (6GHz ~18GHz)	±4.60dB
Radiated emissions (18GHz ~40GHz)	±4.12dB
Conducted emissions	±4.01dB
Occupied Channel Bandwidth	±43.58KHz
Conducted Output power	±2.06dB
Power Spectral Density	±0.85 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Speed Wi-Fi DOCK 5G 01
BRAND NAME	CPSpeed
MODEL NAME	CPS01
NOMINAL VOLTAGE	5.0Vdc(adapter or host equipment) 3.85Vdc (Li-ion, battery)
MODULATION	DSSS, OFDM, OFDMA
TRANSMISSION RATE	802.11b: 11/ 5.5/ 2.0 / 1.0 Mbps 802.11g: 54/ 48/ 36 / 24 / 18 / 9/ 6 Mbps 802.11n(HT20)/ax(HE20): up to 144.4 Mbps 802.11n(HT40)/ax(HE40): up to 300 Mbps 802.11ax 20 (RU26/52/106/242): up to 286.8Mbps 802.11ax 40 (RU484): up to 573.5Mbps
OPERATING FREQUENCY	2412-2462MHz for 11b/g/n(HT20/40)/ax(HE20/40) 2412-2462MHz for ax(20M RU26/52/106/242)/ax (40M RU484)
MAX. OUTPUT POWER	WLAN:57.15mW (Maximum) RU WLAN: 57.02mW (Maximum)
ANTENNA TYPE	ANT W0: IFA/ Monopole Antenna with 0.8dBi gain ANT W1: IFA/ Monopole Antenna with 0.8dBi gain
HW VERSION	CPS01_V1.03
SW VERSION	CPS01_D.0.5_EQ101
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

NOTE:

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

2. The EUT incorporates a MIMO function. Physically, the EUT provides two transmitters and two receivers.

MODULATION MODE	TX/RX FUNCTION
802.11b	1TX /1RX
802.11g	1TX /1RX
802.11n(HT20)/ax(HE20)	2TX /2RX
802.11n(HT40)/ax(HE40)	2TX /2RX
802.11ax (20MHz RU 26/52/106/242)	2TX /2RX
802.11ax (40MHz RU 484)	2TX /2RX

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.

5. **List of Accessory:**

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
LCD Panel 1	ZZW	Shenzhen Zoneway Technology Co.,Ltd	ZZW240QBS-1499A	N/A
LCD Panel 2	Rouxian	Chongqing Rouxian Intelligent Technology Co., Ltd	24JS1199-QT	N/A
LCD Panel 3	Yiou	Hubei Yiou Electronics Co.,Ltd.	TBD	N/A
Battery 1	BYD	Shenzhen BYD Lithium Battery Company Limited	CPS01-CSL345683	Capacity：5400mAh, Li-ion Battery
Battery 2	ATL	Dongguan Amperex Technology Limited	CPS01-345683	Capacity：5400mAh, Li-ion Battery
AC Adapter 1	N/A	N/A	N/A	I/P:100-240Vac, 0.5A, 50-60Hz, O/P: 5 Vdc, 2.5A or 9Vdc, 1.7A or 12Vdc, 1.25A
AC Adapter 2	N/A	N/A	N/A	I/P:100-240Vac, 0.5A, 50-60Hz, O/P: 5 Vdc, 2.5A or 9Vdc, 1.7A or 12Vdc, 1.25A

2.2 DESCRIPTION OF TEST MODES

11 channels are provided for 802.11b, 802.11g and 802.11n (HT20), 802.11ax20 (HE20); 802.11ax20 (RU 26/52/106/242):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412 MHz	7	2442 MHz
2	2417 MHz	8	2447 MHz
3	2422 MHz	9	2452 MHz
4	2427 MHz	10	2457 MHz
5	2432 MHz	11	2462 MHz
6	2437 MHz		

7 channels are provided for 802.11n (HT40), 802.11ax40 (HE40); 802.11ax40 (RU 484):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
3	2422 MHz	7	2442 MHz
4	2427 MHz	8	2447 MHz
5	2432 MHz	9	2452 MHz
6	2437 MHz		

2.2.1 CONFIGURATION OF SYSTEM UNDER TEST

Please see section 4 photographs of the test configuration for reference.

2.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports.
The worst case was found when positioned on Y axis for radiated emission. Following test modes were selected for the final test, and the final worst case is marked in boldface and recorded in the report:

EUT CONFIGURE MODE	APPLICABLE TO				MODE
	RE<1G	RE≥1G	PLC	APCM	
-	√	√	√	√	-

Where **RE<1G:** Radiated Emission below 1GHz **RE≥1G:** Radiated Emission above 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

NOTE: No need to concern of Conducted Emission due to the EUT is powered by battery.

RADIATED EMISSION TEST (BELOW 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ The following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11g	1 to 11	1	OFDM	6.0

RADIATED EMISSION TEST (ABOVE 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	1.0
802.11g	1 to 11	1, 6, 11	OFDM	6.0
802.11n HT20	1 to 11	1, 6, 11	OFDM	MCS0
802.11ax HE20	1 to 11	1, 6, 11	OFDM	MCS0
802.11n HT40	3 to 9	3,6,9	OFDM	MCS0
802.11ax HE40	3 to 9	3,6,9	OFDM	MCS0
802.11ax 20 (RU 26/52/106/242)	1 to 11	1, 11	OFDMA	MCS0
802.11ax 40 (RU 484)	3 to 9	3, 9	OFDMA	MCS0

POWER LINE CONDUCTED EMISSION TEST

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11g	1 to 11	1	OFDM	6.0

BANDEDGE MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	1.0
802.11g	1 to 11	1, 6, 11	OFDM	6.0
802.11n HT20	1 to 11	1, 6, 11	OFDM	MCS0
802.11ax HE20	1 to 11	1, 6, 11	OFDM	MCS0
802.11n HT40	3 to 9	3,6,9	OFDM	MCS0
802.11n HT40	3 to 9	3,6,9	OFDM	MCS0
802.11ax 20 (RU 26/52/106/242)	1 to 11	1,11	OFDMA	MCS0
802.11ax 40 (RU 484)	3 to 9	3 ,9	OFDMA	MCS0

ANTENNA PORT CONDUCTED MEASUREMENT:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ The following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	1.0
802.11g	1 to 11	1, 6, 11	OFDM	6.0
802.11n HT20	1 to 11	1, 6, 11	OFDM	MCS0
802.11ax HE20	1 to 11	1, 6, 11	OFDM	MCS0
802.11n HT40	3 to 9	3,6,9	OFDM	MCS0
802.11ax HE40	3 to 9	3,6,9	OFDM	MCS0
802.11ax 20 (RU 26/52/106/242)	1 to 11	1,11	OFDMA	MCS0
802.11ax 40 (RU 484)	3 to 9	3 ,9	OFDMA	MCS0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	TEST VOLTAGE	TESTED BY
RE<1G	23deg. C, 70%RH	DC 5V By Adapter	Jace Hu
RE≥1G	23deg. C, 70%RH	DC 5V By Adapter	Jace Hu
PLC	25deg. C, 52%RH	DC 5V By Adapter	Carl Xie
APCM	25deg. C, 60%RH	DC 3.85V By DC Supply	James Fu

2.3 DUTY CYCLE OF TEST SIGNAL

Please Refer to Appendix1/2 Of this test report.

2.4 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C, Section 15.247

KDB 558074 D01 DTS Meas Guidance v05r02

ANSI C63.10-2020

Note：

1. All test items have been performed and recorded as per the above standards.
2. The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (Certification). The test report has been issued separately.

2.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Desktop	Lenovo	M73 SFF	PC04GRQV	N/A
2	Desktop	Lenovo	M73 SFF	PC06CS27	N/A
3	Laptop	Lenovo	Thinkpad T450	PC-049PT1	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	AC Line: Unshielded, Detachable 1.5m
2	AC Line: Unshielded, Detachable 1.5m
3	AC Line: Unshielded, Detachable 1.5m

3 TEST TYPES AND RESULTS

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: 1.The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.1.2 TEST INSTRUMENTS

Lab B:

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR3	102749	Mar.28,24	Mar.27,26
ELEKTRA test software	Rohde&Schwarz	ELEKTRA	NA	N/A	N/A
LISN network	Rohde&Schwarz	ENV216	102640	Mar.28,24	Mar.27,26
CABLE	Rohde&Schwarz	W61.01	N/A	Apr.27,24	Apr.26,25
CABLE	Rohde&Schwarz	W601	N/A	Apr.27,24	Apr.26,25

NOTE:

1. The test was performed in CE shielded room.
2. The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

3.1.3 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/ 50uH of coupling impedance for the measuring instrument.

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

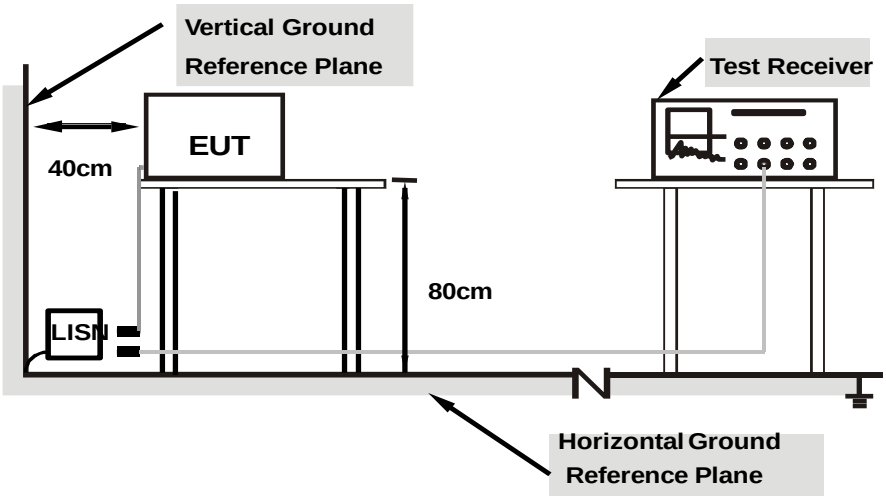
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

3.1.4 DEVIATION FROM TEST STANDARD

No deviation.

3.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

3.1.6 EUT OPERATING CONDITIONS

a. Turned on the power and connected of all equipment.
b. EUT was operated according to the type used was description in manufacturer's specifications or the User's Manual.

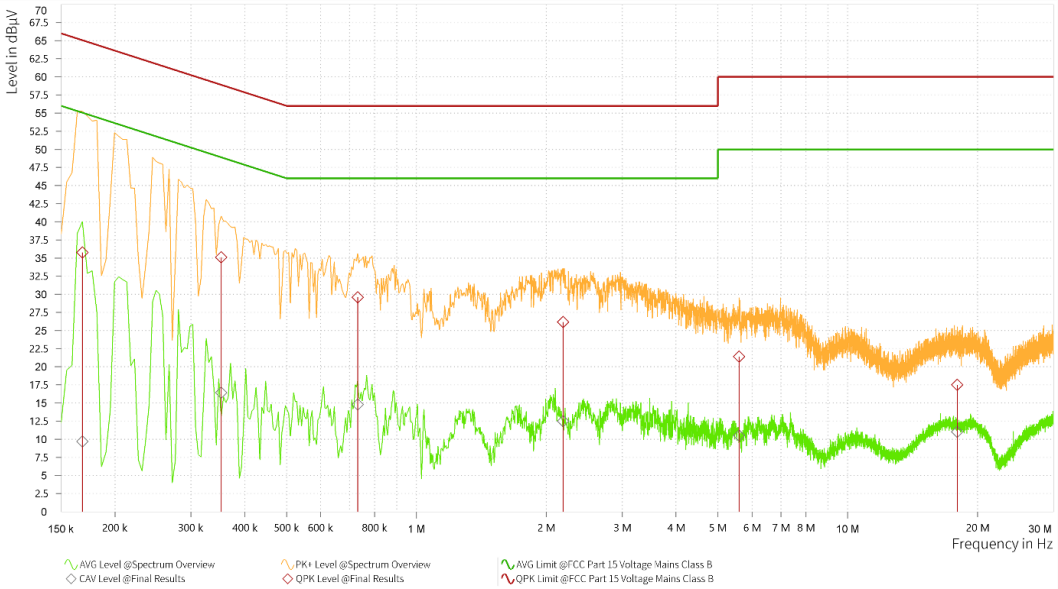
3.1.7 TEST RESULTS

CONDUCTED WORST-CASE DATA:

Frequency Range	150KHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	26deg. C, 51%RH
Tested By	Hanwen Xu		

Rg	Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	CAV Level [dBµV]	CAV: AVG Limit [dBµV]	CAV Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]
1	0.168	35.78	65.06	29.28	9.69	55.06	45.37	12.36	L1	9.000
1	0.353	35.11	58.90	23.79	16.41	48.90	32.49	11.78	L1	9.000
1	0.731	29.57	56.00	26.43	14.79	46.00	31.21	11.74	L1	9.000
1	2.189	26.18	56.00	29.82	12.50	46.00	33.50	11.76	L1	9.000
1	5.600	21.40	60.00	38.60	10.51	50.00	39.49	11.79	L1	9.000
1	17.939	17.50	60.00	42.50	11.03	50.00	38.97	11.86	L1	9.000

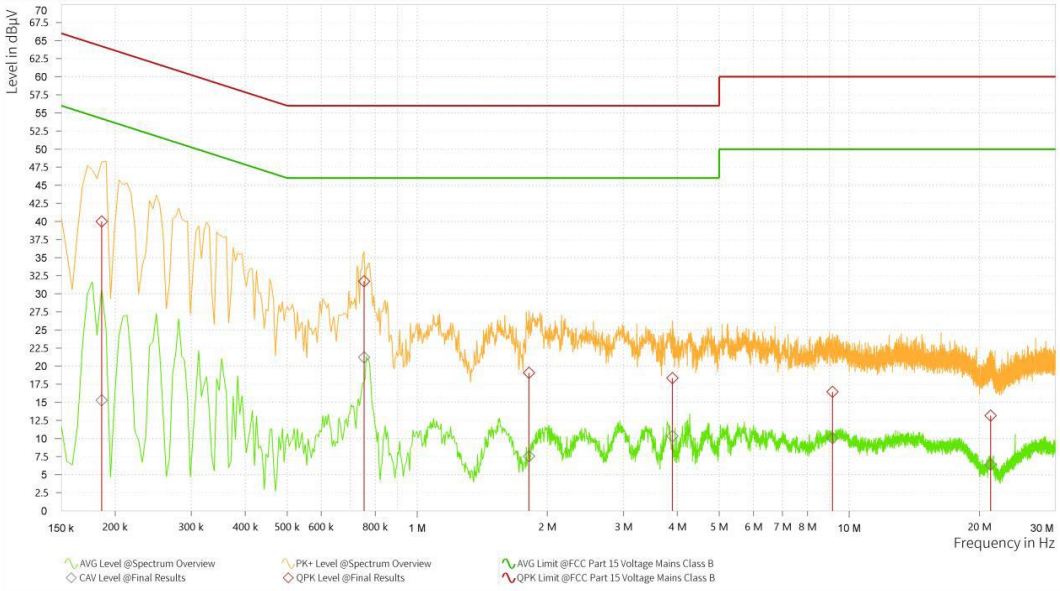
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Limit value -Emission level
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



Frequency Range	150KHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	26deg. C, 51%RH
Tested By	Hanwen Xu		

Rg	Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	CAV Level [dBµV]	CAV: AVG Limit [dBµV]	CAV Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]
1	0.186	40.00	64.21	24.21	15.26	54.21	38.95	12.24	N	9.000
1	0.753	31.72	56.00	24.28	21.24	46.00	24.76	12.74	N	9.000
1	1.815	19.06	56.00	36.94	7.56	46.00	38.44	12.74	N	9.000
1	3.899	18.36	56.00	37.64	10.33	46.00	35.67	12.75	N	9.000
1	9.146	16.45	60.00	43.55	10.04	50.00	39.96	12.79	N	9.000
1	21.242	13.15	60.00	46.85	6.39	50.00	43.61	12.86	N	9.000

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Limit value -Emission level
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

3.2.2 TEST INSTRUMENTS

Lab A:

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	Nov. 14,23	Nov. 13,26
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 17,24	Feb. 16,25
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 17,24	Feb. 16,25
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Sep.02, 24	Sep.01, 25
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	JS1120-3	3.2.06	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	N/A	May. 05,24	May. 04,25
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 27,24	Mar. 26,25
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 05,24	May. 04,25
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.09,24	May.08,25
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 16,24	Feb. 15,25
DC Source	Kikusui/JP	PMX18-5A	0000001	Aug. 10,24	Aug. 09,25
Power Meter	Anritsu	ML2495A	1506002	Feb. 13,24	Feb. 12,25
Power Sensor	Anritsu	MA2411B	1339352	Feb. 13,24	Feb. 12,25
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.01,24	Aug.31,25

NOTE: 1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

2. The test was performed in 3m Chamber.

3. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

3.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) 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 antenna is a broadband antenna, and its 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.

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 Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using fresh batteries. The turntable was rotated to maximize the emission level.

Note:

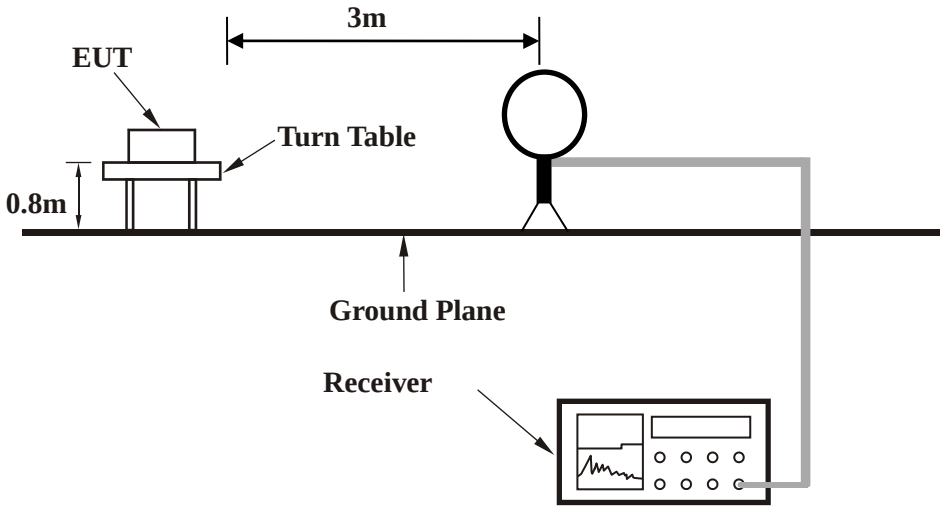
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (10 log(1/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

3.2.4 DEVIATION FROM TEST STANDARD

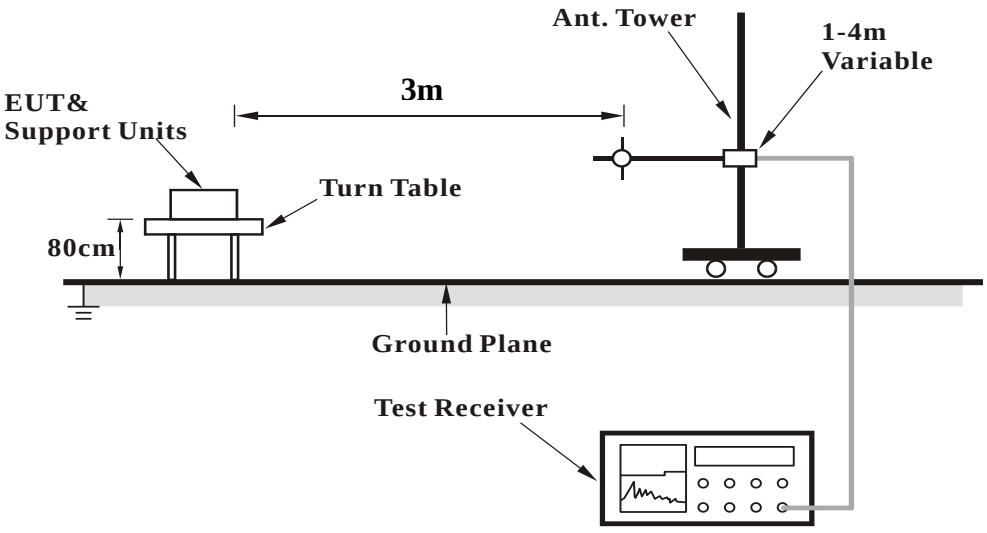
No deviation

3.2.5 TEST SETUP

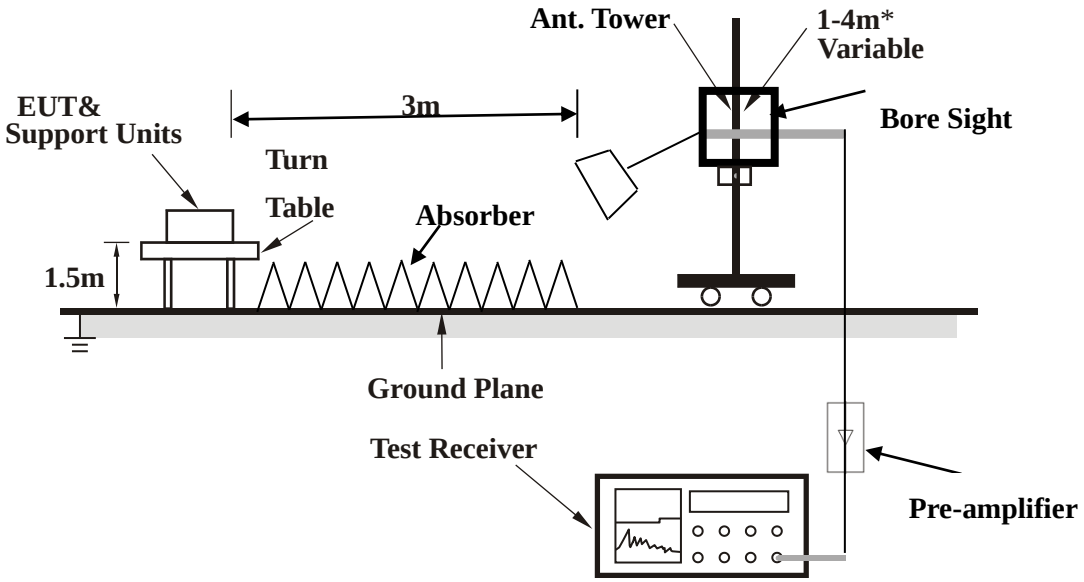
<Frequency Range 9KHz~30MHz >



< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna

Depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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

3.2.6 EUT OPERATING CONDITIONS

a. Set the EUT under full load condition and placed them on a testing table.

b. Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.

c. The necessary accessories enable the EUT in full functions.

3.2.7 TEST RESULTS

NOTE ：The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

BELOW 1GHz WORST-CASE DATA:

30 MHz – 1GHz data:

802.11g_ANT W0 (SISO mode):

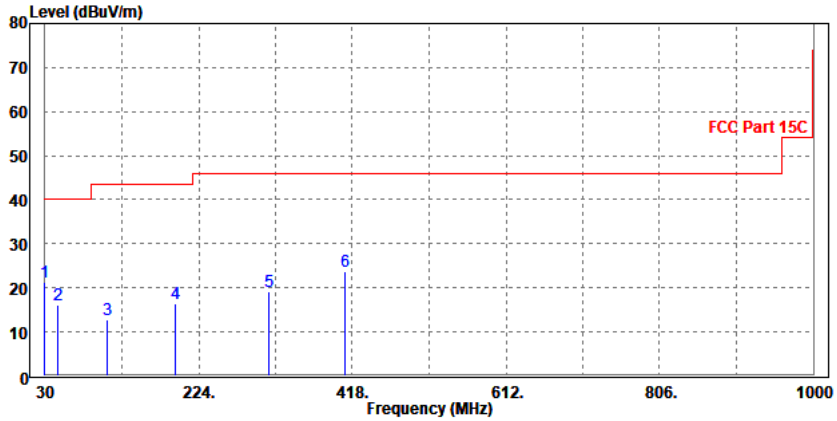
CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
30	21.38	33.69	40	-18.62	25	0.13	37.44	100	360	QP
46.49	15.97	36.85	40	-24.03	16.2	0.28	37.36	100	360	QP
108.57	12.74	33.74	43.5	-30.76	15.29	0.57	36.86	100	360	QP
194.9	16.44	35.77	43.5	-27.06	16.29	0.96	36.58	100	360	QP
313.24	19.11	35.37	46	-26.89	19	1.35	36.61	100	360	QP
408.3	23.64	35.18	46	-22.36	23.57	1.59	36.7	100	360	QP

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor

   Margin value = Emission level – Limit value.

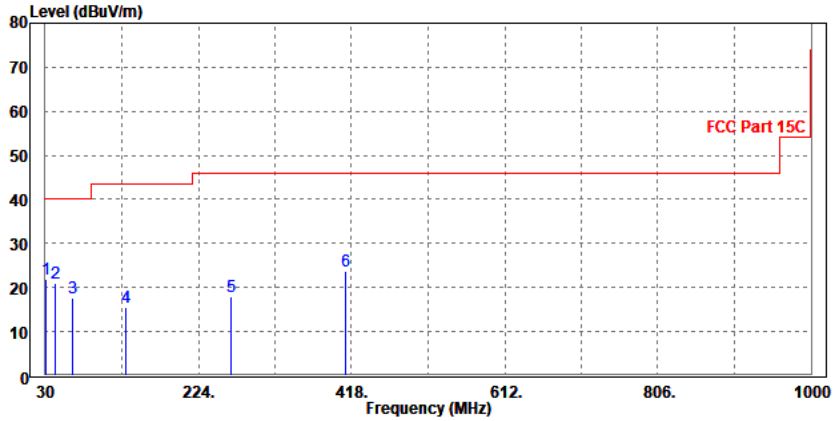


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
30.97	21.91	34.59	40	-18.09	24.61	0.14	37.43	100	0	QP
42.61	20.93	39.78	40	-19.07	18.27	0.24	37.36	100	0	QP
64.92	17.76	40.75	40	-22.24	14.02	0.34	37.35	100	0	QP
131.85	15.43	37.92	43.5	-28.07	13.6	0.69	36.78	100	0	QP
264.74	17.96	33.96	46	-28.04	19.39	1.2	36.59	100	0	QP
410.24	23.8	35.31	46	-22.2	23.6	1.6	36.71	100	0	QP

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.



ABOVE 1GHz WORST-CASE DATA:

Note: 1. For radiated emissions testing，the full testing range of different modes have been scanned，only the worst case harmonic data is reported in the sheet.

2. All other emissions were greater than 20dB below the limit was not recorded

802.11b_ANT W0 (SISO mode):

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	49.92	57.49	74	-24.08	30.8	7.74	46.11	100	260	Peak
2390	42.97	50.54	54	-11.03	30.8	7.74	46.11	100	260	Average
2412	104.85	111.81	/	/	31.38	7.77	46.11	100	260	Peak
2412	103.47	110.43	/	/	31.38	7.77	46.11	100	260	Average
2483.5	51.18	56.92	74	-22.82	32.47	7.88	46.09	100	260	Peak
2483.5	43.93	49.67	54	-10.07	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	50.51	56.52	74	-23.49	32.36	7.74	46.11	100	295	Peak
2390	42.88	48.89	54	-11.12	32.36	7.74	46.11	100	295	Average
2412	99.77	106.2	/	/	31.91	7.77	46.11	100	295	Peak
2412	97.96	104.39	/	/	31.91	7.77	46.11	100	295	Average
2483.5	50.59	57.47	74	-23.41	31.33	7.88	46.09	100	295	Peak
2483.5	42.08	48.96	54	-11.92	31.33	7.88	46.09	100	295	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2412MHz: Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.7	57.27	74	-24.3	30.8	7.74	46.11	100	260	Peak
2390	42.6	50.17	54	-11.4	30.8	7.74	46.11	100	260	Average
2437	105.61	111.72	/	/	32.18	7.81	46.1	100	260	Peak
2437	104.13	110.24	/	/	32.18	7.81	46.1	100	260	Average
2483.5	51.1	56.84	74	-22.9	32.47	7.88	46.09	100	260	Peak
2483.5	43.92	49.66	54	-10.08	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.87	58.88	74	-21.13	32.36	7.74	46.11	100	315	Peak
2390	43.8	49.81	54	-10.2	32.36	7.74	46.11	100	315	Average
2437	97.13	104.11	/	/	31.31	7.81	46.1	100	315	Peak
2437	95.57	102.55	/	/	31.31	7.81	46.1	100	315	Average
2483.5	49.59	56.47	74	-24.41	31.33	7.88	46.09	100	315	Peak
2483.5	43.29	50.17	54	-10.71	31.33	7.88	46.09	100	315	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2437MHz: Fundamental frequency.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.34	58.91	74	-22.66	30.8	7.74	46.11	100	255	Peak
2390	42.73	50.3	54	-11.27	30.8	7.74	46.11	100	255	Average
2462	104.8	110.51	/	/	32.55	7.84	46.1	100	255	Peak
2462	103.6	109.31	/	/	32.55	7.84	46.1	100	255	Average
2483.5	52.94	58.68	74	-21.06	32.47	7.88	46.09	100	255	Peak
2483.5	44.94	50.68	54	-9.06	32.47	7.88	46.09	100	255	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.07	57.08	74	-22.93	32.36	7.74	46.11	100	280	Peak
2390	43.85	49.86	54	-10.15	32.36	7.74	46.11	100	280	Average
2462	97.42	104.56	/	/	31.12	7.84	46.1	100	280	Peak
2462	96.6	103.74	/	/	31.12	7.84	46.1	100	280	Average
2483.5	50.38	57.26	74	-23.62	31.33	7.88	46.09	100	280	Peak
2483.5	43.08	49.96	54	-10.92	31.33	7.88	46.09	100	280	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2462MHz: Fundamental frequency.

802.11g_ANT W0 (SISO mode):

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	62.27	69.84	74	-11.73	30.8	7.74	46.11	100	260	Peak
2390	48.85	56.42	54	-5.15	30.8	7.74	46.11	100	260	Average
2412	106.61	113.57	/	/	31.38	7.77	46.11	100	260	Peak
2412	99.77	106.73	/	/	31.38	7.77	46.11	100	260	Average
2483.5	52.35	58.09	74	-21.65	32.47	7.88	46.09	100	260	Peak
2483.5	42.18	47.92	54	-11.82	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	57.91	63.92	74	-16.09	32.36	7.74	46.11	100	300	Peak
2390	48.42	54.43	54	-5.58	32.36	7.74	46.11	100	300	Average
2412	101.38	107.81	/	/	31.91	7.77	46.11	100	300	Peak
2412	93.86	100.29	/	/	31.91	7.77	46.11	100	300	Average
2483.5	50.82	57.7	74	-23.18	31.33	7.88	46.09	100	300	Peak
2483.5	42.84	49.72	54	-11.16	31.33	7.88	46.09	100	300	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2412MHz: Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.89	57.46	74	-24.11	30.8	7.74	46.11	100	260	Peak
2390	42.55	50.12	54	-11.45	30.8	7.74	46.11	100	260	Average
2437	107.14	113.25	/	/	32.18	7.81	46.1	100	260	Peak
2437	99.72	105.83	/	/	32.18	7.81	46.1	100	260	Average
2483.5	50.66	56.4	74	-23.34	32.47	7.88	46.09	100	260	Peak
2483.5	44.3	50.04	54	-9.7	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.73	57.74	74	-22.27	32.36	7.74	46.11	100	280	Peak
2390	44.18	50.19	54	-9.82	32.36	7.74	46.11	100	280	Average
2437	99	105.98	/	/	31.31	7.81	46.1	100	280	Peak
2437	91.37	98.35	/	/	31.31	7.81	46.1	100	280	Average
2483.5	50.98	57.86	74	-23.02	31.33	7.88	46.09	100	280	Peak
2483.5	42.95	49.83	54	-11.05	31.33	7.88	46.09	100	280	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
   2. 2437MHz: Fundamental frequency.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.19	57.76	74	-23.81	30.8	7.74	46.11	100	260	Peak
2390	43.82	51.39	54	-10.18	30.8	7.74	46.11	100	260	Average
2462	106.11	111.82	/	/	32.55	7.84	46.1	100	260	Peak
2462	98.73	104.44	/	/	32.55	7.84	46.1	100	260	Average
2483.5	54.52	60.26	74	-19.48	32.47	7.88	46.09	100	260	Peak
2483.5	45.98	51.72	54	-8.02	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.75	57.76	74	-22.25	32.36	7.74	46.11	100	255	Peak
2390	44.27	50.28	54	-9.73	32.36	7.74	46.11	100	255	Average
2462	97.41	104.55	/	/	31.12	7.84	46.1	100	255	Peak
2462	89.99	97.13	/	/	31.12	7.84	46.1	100	255	Average
2483.5	50.58	57.46	74	-23.42	31.33	7.88	46.09	100	255	Peak
2483.5	43.58	50.46	54	-10.42	31.33	7.88	46.09	100	255	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2462MHz: Fundamental frequency.

802.11n (20MHz) (MIMO Mode)

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	54.42	61.99	74	-19.58	30.8	7.74	46.11	100	260	Peak
2390	45.22	52.79	54	-8.78	30.8	7.74	46.11	100	260	Average
2412	105.95	112.91	/	/	31.38	7.77	46.11	100	260	Peak
2412	97.24	104.2	/	/	31.38	7.77	46.11	100	260	Average
2483.5	52.77	58.51	74	-21.23	32.47	7.88	46.09	100	260	Peak
2483.5	44.45	50.19	54	-9.55	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	51.56	57.57	74	-22.44	32.36	7.74	46.11	100	300	Peak
2390	43.85	49.86	54	-10.15	32.36	7.74	46.11	100	300	Average
2412	101.86	108.29	/	/	31.91	7.77	46.11	100	300	Peak
2412	92.62	99.05	/	/	31.91	7.77	46.11	100	300	Average
2483.5	50.8	57.68	74	-23.2	31.33	7.88	46.09	100	300	Peak
2483.5	42.71	49.59	54	-11.29	31.33	7.88	46.09	100	300	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2412MHz: Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.95	57.52	74	-24.05	30.8	7.74	46.11	100	260	Peak
2390	42.75	50.32	54	-11.25	30.8	7.74	46.11	100	260	Average
2437	107.18	113.29	/	/	32.18	7.81	46.1	100	260	Peak
2437	98.02	104.13	/	/	32.18	7.81	46.1	100	260	Average
2483.5	51.3	57.04	74	-22.7	32.47	7.88	46.09	100	260	Peak
2483.5	44.16	49.9	54	-9.84	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.84	57.85	74	-22.16	32.36	7.74	46.11	100	250	Peak
2390	44.59	50.6	54	-9.41	32.36	7.74	46.11	100	250	Average
2437	100.53	107.51	/	/	31.31	7.81	46.1	100	250	Peak
2437	91.44	98.42	/	/	31.31	7.81	46.1	100	250	Average
2483.5	50.94	57.82	74	-23.06	31.33	7.88	46.09	100	250	Peak
2483.5	43.64	50.52	54	-10.36	31.33	7.88	46.09	100	250	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
   2. 2437MHz: Fundamental frequency.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.31	57.88	74	-23.69	30.8	7.74	46.11	100	260	Peak
2390	43.36	50.93	54	-10.64	30.8	7.74	46.11	100	260	Average
2462	106.45	112.16	/	/	32.55	7.84	46.1	100	260	Peak
2462	97.75	103.46	/	/	32.55	7.84	46.1	100	260	Average
2483.5	55.46	61.2	74	-18.54	32.47	7.88	46.09	100	260	Peak
2483.5	47.09	52.83	54	-6.91	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.23	58.24	74	-21.77	32.36	7.74	46.11	100	60	Peak
2390	43.78	49.79	54	-10.22	32.36	7.74	46.11	100	60	Average
2462	100.71	107.85	/	/	31.12	7.84	46.1	100	60	Peak
2462	91.68	98.82	/	/	31.12	7.84	46.1	100	60	Average
2483.5	52.01	58.89	74	-21.99	31.33	7.88	46.09	100	60	Peak
2483.5	43.44	50.32	54	-10.56	31.33	7.88	46.09	100	60	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2462MHz: Fundamental frequency.

802.11n (40MHz) (MIMO Mode)

CHANNEL	TX Channel 3	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	53	60.57	74	-21	30.8	7.74	46.11	100	260	Peak
2390	45.69	53.26	54	-8.31	30.8	7.74	46.11	100	260	Average
2422	100.98	107.61	/	/	31.7	7.78	46.11	100	260	Peak
2422	92.56	99.19	/	/	31.7	7.78	46.11	100	260	Average
2483.5	52.43	58.17	74	-21.57	32.47	7.88	46.09	100	260	Peak
2483.5	44.22	49.96	54	-9.78	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	50.5	56.51	74	-23.5	32.36	7.74	46.11	100	290	Peak
2390	45.37	51.38	54	-8.63	32.36	7.74	46.11	100	290	Average
2422	95.01	101.67	/	/	31.67	7.78	46.11	100	290	Peak
2422	86.68	93.34	/	/	31.67	7.78	46.11	100	290	Average
2483.5	51.32	58.2	74	-22.68	31.33	7.88	46.09	100	290	Peak
2483.5	43.27	50.15	54	-10.73	31.33	7.88	46.09	100	290	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2422MHz: Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	55.14	62.71	74	-18.86	30.8	7.74	46.11	100	260	Peak
2390	45.81	53.38	54	-8.19	30.8	7.74	46.11	100	260	Average
2437	105.25	111.36	/	/	32.18	7.81	46.1	100	260	Peak
2437	96.9	103.01	/	/	32.18	7.81	46.1	100	260	Average
2483.5	58.52	64.26	74	-15.48	32.47	7.88	46.09	100	260	Peak
2483.5	49.61	55.35	54	-4.39	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.11	58.12	74	-21.89	32.36	7.74	46.11	100	120	Peak
2390	44.58	50.59	54	-9.42	32.36	7.74	46.11	100	120	Average
2437	97.75	104.73	/	/	31.31	7.81	46.1	100	120	Peak
2437	89.39	96.37	/	/	31.31	7.81	46.1	100	120	Average
2483.5	51.65	58.53	74	-22.35	31.33	7.88	46.09	100	120	Peak
2483.5	43.51	50.39	54	-10.49	31.33	7.88	46.09	100	120	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
   2. 2437MHz: Fundamental frequency.

CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.51	58.08	74	-23.49	30.8	7.74	46.11	100	260	Peak
2390	43.36	50.93	54	-10.64	30.8	7.74	46.11	100	260	Average
2452	101.59	107.27	/	/	32.59	7.83	46.1	100	260	Peak
2452	93.36	99.04	/	/	32.59	7.83	46.1	100	260	Average
2483.5	59.58	65.32	74	-14.42	32.47	7.88	46.09	100	260	Peak
2483.5	50.96	56.7	54	-3.04	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.43	58.44	74	-21.57	32.36	7.74	46.11	100	290	Peak
2390	44.03	50.04	54	-9.97	32.36	7.74	46.11	100	290	Average
2452	95.37	102.62	/	/	31.02	7.83	46.1	100	290	Peak
2452	86.95	94.2	/	/	31.02	7.83	46.1	100	290	Average
2483.5	52.89	59.77	74	-21.11	31.33	7.88	46.09	100	290	Peak
2483.5	44.88	51.76	54	-9.12	31.33	7.88	46.09	100	290	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2452MHz: Fundamental frequency.

802.11ax (20MHz) (MIMO Mode)

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	51.36	58.93	74	-22.64	30.8	7.74	46.11	100	260	Peak
2390	44.7	52.27	54	-9.3	30.8	7.74	46.11	100	260	Average
2412	107.51	114.47	/	/	31.38	7.77	46.11	100	260	Peak
2412	97.32	104.28	/	/	31.38	7.77	46.11	100	260	Average
2483.5	51.73	57.47	74	-22.27	32.47	7.88	46.09	100	260	Peak
2483.5	44.15	49.89	54	-9.85	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	51.31	57.32	74	-22.69	32.36	7.74	46.11	100	290	Peak
2390	44.35	50.36	54	-9.65	32.36	7.74	46.11	100	290	Average
2412	102.96	109.39	/	/	31.91	7.77	46.11	100	290	Peak
2412	92.15	98.58	/	/	31.91	7.77	46.11	100	290	Average
2483.5	51.17	58.05	74	-22.83	31.33	7.88	46.09	100	290	Peak
2483.5	43.14	50.02	54	-10.86	31.33	7.88	46.09	100	290	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2412MHz: Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.65	57.22	74	-24.35	30.8	7.74	46.11	100	260	Peak
2390	43.33	50.9	54	-10.67	30.8	7.74	46.11	100	260	Average
2437	107.41	113.52	/	/	32.18	7.81	46.1	100	260	Peak
2437	97.73	103.84	/	/	32.18	7.81	46.1	100	260	Average
2483.5	52.95	58.69	74	-21.05	32.47	7.88	46.09	100	260	Peak
2483.5	43.65	49.39	54	-10.35	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.86	57.87	74	-22.14	32.36	7.74	46.11	100	250	Peak
2390	44.34	50.35	54	-9.66	32.36	7.74	46.11	100	250	Average
2437	101.62	108.6	/	/	31.31	7.81	46.1	100	250	Peak
2437	91.28	98.26	/	/	31.31	7.81	46.1	100	250	Average
2483.5	51.16	58.04	74	-22.84	31.33	7.88	46.09	100	250	Peak
2483.5	42.55	49.43	54	-11.45	31.33	7.88	46.09	100	250	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
   2. 2437MHz: Fundamental frequency.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.88	59.45	74	-22.12	30.8	7.74	46.11	100	260	Peak
2390	44.35	51.92	54	-9.65	30.8	7.74	46.11	100	260	Average
2462	106.36	112.07	/	/	32.55	7.84	46.1	100	260	Peak
2462	96.65	102.36	/	/	32.55	7.84	46.1	100	260	Average
2483.5	55.23	60.97	74	-18.77	32.47	7.88	46.09	100	260	Peak
2483.5	46.78	52.52	54	-7.22	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.64	56.65	74	-23.36	32.36	7.74	46.11	100	60	Peak
2390	43.96	49.97	54	-10.04	32.36	7.74	46.11	100	60	Average
2462	102.78	109.92	/	/	31.12	7.84	46.1	100	60	Peak
2462	92.63	99.77	/	/	31.12	7.84	46.1	100	60	Average
2483.5	52.13	59.01	74	-21.87	31.33	7.88	46.09	100	60	Peak
2483.5	44.13	51.01	54	-9.87	31.33	7.88	46.09	100	60	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2462MHz: Fundamental frequency.

802.11ax (40MHz) (MIMO Mode)

CHANNEL	TX Channel 3	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	54.25	61.82	74	-19.75	30.8	7.74	46.11	100	245	Peak
2390	45.98	53.55	54	-8.02	30.8	7.74	46.11	100	245	Average
2422	101.85	108.48	/	/	31.7	7.78	46.11	100	245	Peak
2422	92.15	98.78	/	/	31.7	7.78	46.11	100	245	Average
2483.5	51.33	57.07	74	-22.67	32.47	7.88	46.09	100	245	Peak
2483.5	44.49	50.23	54	-9.51	32.47	7.88	46.09	100	245	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	52.49	58.5	74	-21.51	32.36	7.74	46.11	100	60	Peak
2390	45.27	51.28	54	-8.73	32.36	7.74	46.11	100	60	Average
2422	96.74	103.4	/	/	31.67	7.78	46.11	100	60	Peak
2422	86.8	93.46	/	/	31.67	7.78	46.11	100	60	Average
2483.5	50.41	57.29	74	-23.59	31.33	7.88	46.09	100	60	Peak
2483.5	42.67	49.55	54	-11.33	31.33	7.88	46.09	100	60	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2422MHz: Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	54.27	61.84	74	-19.73	30.8	7.74	46.11	100	260	Peak
2390	45.86	53.43	54	-8.14	30.8	7.74	46.11	100	260	Average
2437	105.83	111.94	/	/	32.18	7.81	46.1	100	260	Peak
2437	95.45	101.56	/	/	32.18	7.81	46.1	100	260	Average
2483.5	56.4	62.14	74	-17.6	32.47	7.88	46.09	100	260	Peak
2483.5	47.94	53.68	54	-6.06	32.47	7.88	46.09	100	260	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.97	56.98	74	-23.03	32.36	7.74	46.11	100	60	Peak
2390	44.01	50.02	54	-9.99	32.36	7.74	46.11	100	60	Average
2437	99.08	106.06	/	/	31.31	7.81	46.1	100	60	Peak
2437	89.03	96.01	/	/	31.31	7.81	46.1	100	60	Average
2483.5	51.13	58.01	74	-22.87	31.33	7.88	46.09	100	60	Peak
2483.5	43.18	50.06	54	-10.82	31.33	7.88	46.09	100	60	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
   2. 2437MHz: Fundamental frequency.

CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.04	57.61	74	-23.96	30.8	7.74	46.11	100	235	Peak
2390	43.95	51.52	54	-10.05	30.8	7.74	46.11	100	235	Average
2452	104.62	110.3	/	/	32.59	7.83	46.1	100	235	Peak
2452	95.33	101.01	/	/	32.59	7.83	46.1	100	235	Average
2483.5	58.75	64.49	74	-15.25	32.47	7.88	46.09	100	235	Peak
2483.5	50.44	56.18	54	-3.56	32.47	7.88	46.09	100	235	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.46	57.47	74	-22.54	32.36	7.74	46.11	100	60	Peak
2390	43.8	49.81	54	-10.2	32.36	7.74	46.11	100	60	Average
2452	96.93	104.18	/	/	31.02	7.83	46.1	100	60	Peak
2452	87.28	94.53	/	/	31.02	7.83	46.1	100	60	Average
2483.5	53.58	60.46	74	-20.42	31.33	7.88	46.09	100	60	Peak
2483.5	44.9	51.78	54	-9.1	31.33	7.88	46.09	100	60	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2452MHz: Fundamental frequency.

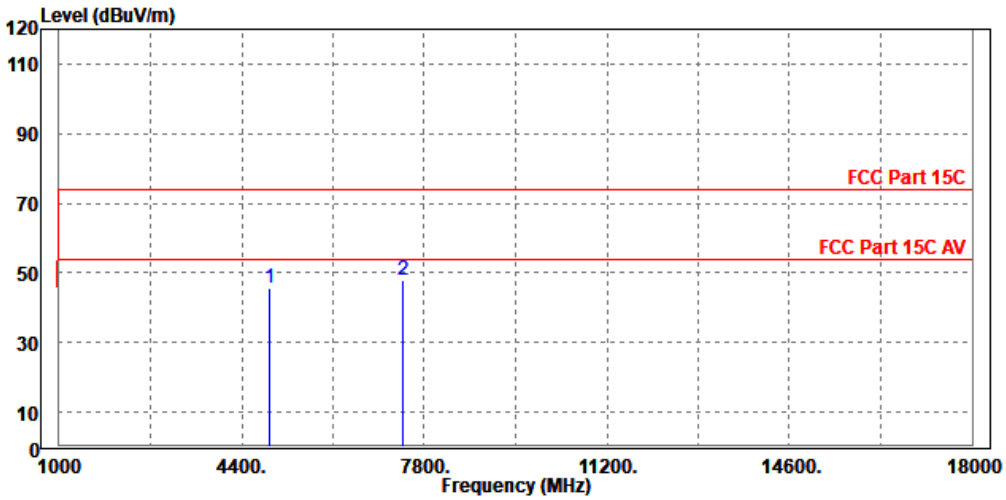
Worst case harmonic:

802.11g

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

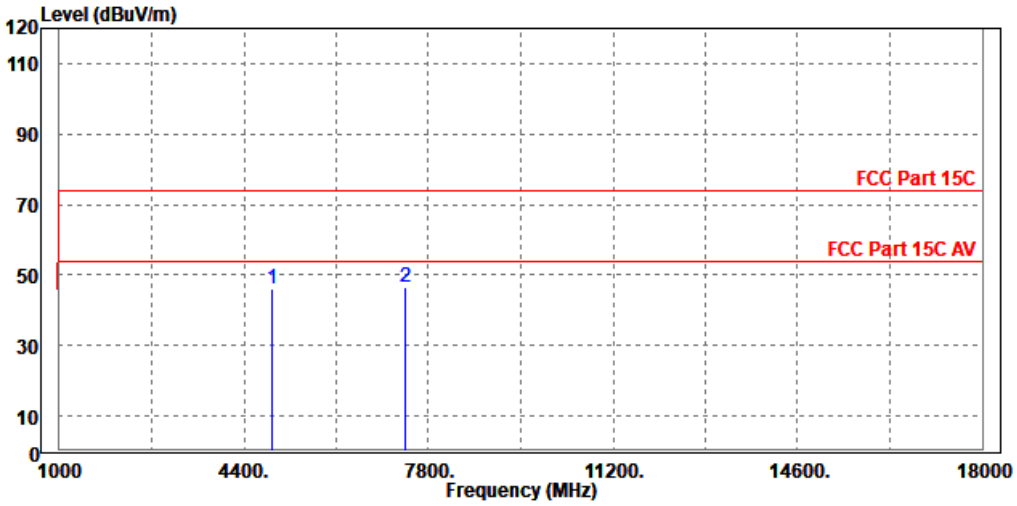
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	4924.000	45.44	47.26	74.00	-28.56	-1.82	Peak	Horizontal
2 PP	7392.000	47.94	45.62	74.00	-26.06	2.32	Peak	Horizontal



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1		4927.000	45.86	47.73	74.00	-28.14	-1.87	Peak	Vertical
2	PP	7386.000	46.34	43.80	74.00	-27.66	2.54	Peak	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2422MHz: Fundamental frequency.
3. For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.

2.4G WIFI-RU

802.11ax (20MHz) (RU26):

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	50.95	58.52	74	-23.05	30.8	7.74	46.11	100	265	Peak
2390	42.76	50.33	54	-11.24	30.8	7.74	46.11	100	265	Average
2412	108.87	115.83	/	/	31.38	7.77	46.11	100	265	Peak
2412	98.97	105.93	/	/	31.38	7.77	46.11	100	265	Average
2483.5	50.88	56.62	74	-23.12	32.47	7.88	46.09	100	265	Peak
2483.5	43.71	49.45	54	-10.29	32.47	7.88	46.09	100	265	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	50.83	56.84	74	-23.17	32.36	7.74	46.11	100	60	Peak
2390	44.11	50.12	54	-9.89	32.36	7.74	46.11	100	60	Average
2412	105.6	112.03	/	/	31.91	7.77	46.11	100	60	Peak
2412	95.31	101.74	/	/	31.91	7.77	46.11	100	60	Average
2483.5	50.25	57.13	74	-23.75	31.33	7.88	46.09	100	60	Peak
2483.5	42.85	49.73	54	-11.15	31.33	7.88	46.09	100	60	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2412MHz: Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.17	56.74	74	-24.83	30.8	7.74	46.11	100	240	Peak
2390	42.69	50.26	54	-11.31	30.8	7.74	46.11	100	240	Average
2437	108.2	114.31	/	/	32.18	7.81	46.1	100	240	Peak
2437	99.32	105.43	/	/	32.18	7.81	46.1	100	240	Average
2483.5	51.96	57.7	74	-22.04	32.47	7.88	46.09	100	240	Peak
2483.5	44.48	50.22	54	-9.52	32.47	7.88	46.09	100	240	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.08	57.09	74	-22.92	32.36	7.74	46.11	100	60	Peak
2390	43.45	49.46	54	-10.55	32.36	7.74	46.11	100	60	Average
2437	102.08	109.06	/	/	31.31	7.81	46.1	100	60	Peak
2437	92.92	99.9	/	/	31.31	7.81	46.1	100	60	Average
2483.5	50.23	57.11	74	-23.77	31.33	7.88	46.09	100	60	Peak
2483.5	42.83	49.71	54	-11.17	31.33	7.88	46.09	100	60	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
   2. 2437MHz: Fundamental frequency.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.2	57.77	74	-23.8	30.8	7.74	46.11	100	240	Peak
2390	42.89	50.46	54	-11.11	30.8	7.74	46.11	100	240	Average
2462	110.09	115.8	/	/	32.55	7.84	46.1	100	240	Peak
2462	101.84	107.55	/	/	32.55	7.84	46.1	100	240	Average
2483.5	53.02	58.76	74	-20.98	32.47	7.88	46.09	100	240	Peak
2483.5	44.47	50.21	54	-9.53	32.47	7.88	46.09	100	240	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.03	57.04	74	-22.97	32.36	7.74	46.11	100	260	Peak
2390	43.84	49.85	54	-10.16	32.36	7.74	46.11	100	260	Average
2462	101.98	109.12	/	/	31.12	7.84	46.1	100	260	Peak
2462	93.74	100.88	/	/	31.12	7.84	46.1	100	260	Average
2483.5	50.92	57.8	74	-23.08	31.33	7.88	46.09	100	260	Peak
2483.5	42.76	49.64	54	-11.24	31.33	7.88	46.09	100	260	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2462MHz: Fundamental frequency.

802.11ax (20MHz) (RU52):

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	50.55	58.12	74	-23.45	30.8	7.74	46.11	100	240	Peak
2390	44.4	51.97	54	-9.6	30.8	7.74	46.11	100	240	Average
2412	110.4	117.36	/	/	31.38	7.77	46.11	100	240	Peak
2412	100.67	107.63	/	/	31.38	7.77	46.11	100	240	Average
2483.5	53.44	59.18	74	-20.56	32.47	7.88	46.09	100	240	Peak
2483.5	44.14	49.88	54	-9.86	32.47	7.88	46.09	100	240	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	50.72	56.73	74	-23.28	32.36	7.74	46.11	100	60	Peak
2390	43.72	49.73	54	-10.28	32.36	7.74	46.11	100	60	Average
2412	103.93	110.36	/	/	31.91	7.77	46.11	100	60	Peak
2412	94.7	101.13	/	/	31.91	7.77	46.11	100	60	Average
2483.5	50.05	56.93	74	-23.95	31.33	7.88	46.09	100	60	Peak
2483.5	42.39	49.27	54	-11.61	31.33	7.88	46.09	100	60	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2412MHz: Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.21	57.78	74	-23.79	30.8	7.74	46.11	100	240	Peak
2390	43.29	50.86	54	-10.71	30.8	7.74	46.11	100	240	Average
2437	110.83	116.94	/	/	32.18	7.81	46.1	100	240	Peak
2437	101.42	107.53	/	/	32.18	7.81	46.1	100	240	Average
2483.5	52.33	58.07	74	-21.67	32.47	7.88	46.09	100	240	Peak
2483.5	43.99	49.73	54	-10.01	32.47	7.88	46.09	100	240	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.61	57.62	74	-22.39	32.36	7.74	46.11	100	125	Peak
2390	44.23	50.24	54	-9.77	32.36	7.74	46.11	100	125	Average
2437	103.8	110.78	/	/	31.31	7.81	46.1	100	125	Peak
2437	94.56	101.54	/	/	31.31	7.81	46.1	100	125	Average
2483.5	50.42	57.3	74	-23.58	31.33	7.88	46.09	100	125	Peak
2483.5	43.28	50.16	54	-10.72	31.33	7.88	46.09	100	125	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
   2. 2437MHz: Fundamental frequency.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.07	57.64	74	-23.93	30.8	7.74	46.11	100	240	Peak
2390	42.62	50.19	54	-11.38	30.8	7.74	46.11	100	240	Average
2462	110.37	116.08	/	/	32.55	7.84	46.1	100	240	Peak
2462	101.3	107.01	/	/	32.55	7.84	46.1	100	240	Average
2483.5	51.67	57.41	74	-22.33	32.47	7.88	46.09	100	240	Peak
2483.5	44.93	50.67	54	-9.07	32.47	7.88	46.09	100	240	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.69	57.7	74	-22.31	32.36	7.74	46.11	100	260	Peak
2390	44.22	50.23	54	-9.78	32.36	7.74	46.11	100	260	Average
2462	102.49	109.63	/	/	31.12	7.84	46.1	100	260	Peak
2462	94.11	101.25	/	/	31.12	7.84	46.1	100	260	Average
2483.5	50.57	57.45	74	-23.43	31.33	7.88	46.09	100	260	Peak
2483.5	43.15	50.03	54	-10.85	31.33	7.88	46.09	100	260	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2462MHz: Fundamental frequency.

802.11ax (20MHz) (RU106):

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	59.37	66.94	74	-14.63	30.8	7.74	46.11	100	240	Peak
2390	45.87	53.44	54	-8.13	30.8	7.74	46.11	100	240	Average
2412	111.12	118.08	/	/	31.38	7.77	46.11	100	240	Peak
2412	101.29	108.25	/	/	31.38	7.77	46.11	100	240	Average
2483.5	53.8	59.54	74	-20.2	32.47	7.88	46.09	100	240	Peak
2483.5	45.87	51.61	54	-8.13	32.47	7.88	46.09	100	240	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	52.14	58.15	74	-21.86	32.36	7.74	46.11	100	340	Peak
2390	45.36	51.37	54	-8.64	32.36	7.74	46.11	100	340	Average
2412	104.91	111.34	/	/	31.91	7.77	46.11	100	340	Peak
2412	94.51	100.94	/	/	31.91	7.77	46.11	100	340	Average
2483.5	51.81	58.69	74	-22.19	31.33	7.88	46.09	100	340	Peak
2483.5	43.08	49.96	54	-10.92	31.33	7.88	46.09	100	340	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2412MHz: Fundamental frequency.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.79	58.36	74	-23.21	30.8	7.74	46.11	100	245	Peak
2390	43.33	50.9	54	-10.67	30.8	7.74	46.11	100	245	Average
2437	109.67	115.78	/	/	32.18	7.81	46.1	100	245	Peak
2437	100.04	106.15	/	/	32.18	7.81	46.1	100	245	Average
2483.5	51.79	57.53	74	-22.21	32.47	7.88	46.09	100	245	Peak
2483.5	44.91	50.65	54	-9.09	32.47	7.88	46.09	100	245	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	53.67	59.68	74	-20.33	32.36	7.74	46.11	100	90	Peak
2390	44.46	50.47	54	-9.54	32.36	7.74	46.11	100	90	Average
2437	102.63	109.61	/	/	31.31	7.81	46.1	100	90	Peak
2437	91.58	98.56	/	/	31.31	7.81	46.1	100	90	Average
2483.5	52.61	59.49	74	-21.39	31.33	7.88	46.09	100	90	Peak
2483.5	43.42	50.3	54	-10.58	31.33	7.88	46.09	100	90	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
   2. 2437MHz: Fundamental frequency.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.78	59.35	74	-22.22	30.8	7.74	46.11	100	240	Peak
2390	45.11	52.68	54	-8.89	30.8	7.74	46.11	100	240	Average
2462	111.62	117.33	/	/	32.55	7.84	46.1	100	240	Peak
2462	101.86	107.57	/	/	32.55	7.84	46.1	100	240	Average
2483.5	54.74	60.48	74	-19.26	32.47	7.88	46.09	100	240	Peak
2483.5	45.64	51.38	54	-8.36	32.47	7.88	46.09	100	240	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.32	58.33	74	-21.68	32.36	7.74	46.11	100	260	Peak
2390	45.77	51.78	54	-8.23	32.36	7.74	46.11	100	260	Average
2462	104.5	111.64	/	/	31.12	7.84	46.1	100	260	Peak
2462	94.5	101.64	/	/	31.12	7.84	46.1	100	260	Average
2483.5	51.44	58.32	74	-22.56	31.33	7.88	46.09	100	260	Peak
2483.5	44.41	51.29	54	-9.59	31.33	7.88	46.09	100	260	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2462MHz: Fundamental frequency.

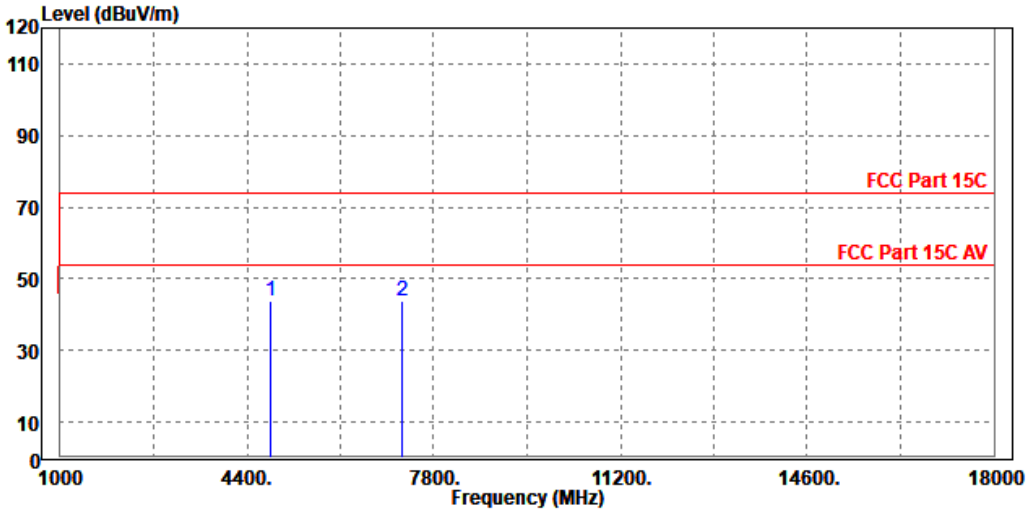
Worst case harmonic:

802.11ax (20MHz) (RU106):

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

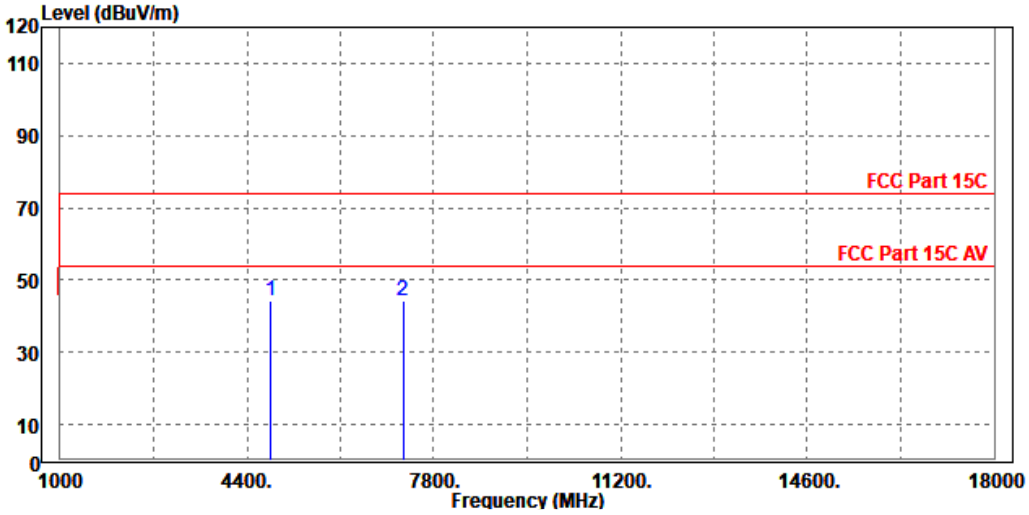
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	PP	4825.000	44.00	45.91	74.00	-30.00	-1.91	Peak	Horizontal
2		7236.000	43.86	41.99	74.00	-30.14	1.87	Peak	Horizontal



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	PP	4824.000	44.42	45.63	74.00	-29.58	-1.21	Peak	Vertical
2		7239.000	44.15	42.22	74.00	-29.85	1.93	Peak	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 2422MHz: Fundamental frequency.
3. For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.

3.3 6 dB BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

3.3.2 TEST INSTRUMENTS

Lab A:

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Meter	ANRITSU	ML2495A	1506002	Feb. 13,24	Feb. 12,25
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510523	Feb. 13,24	Feb. 12,25
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.09,24	May.08,25
Power Sensor	ANRITSU	MA2411B	1339352	Feb. 13,24	Feb. 12,25

NOTE:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in RF Oven room.

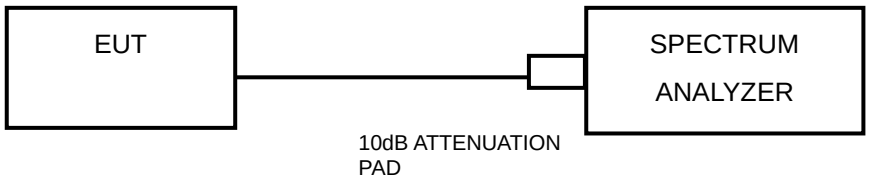
3.3.3 TEST PROCEDURE

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.3.4 DEVIATION FROM TEST STANDARD

No deviation.

3.3.5 TEST SETUP



3.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.3.7 TEST RESULTS

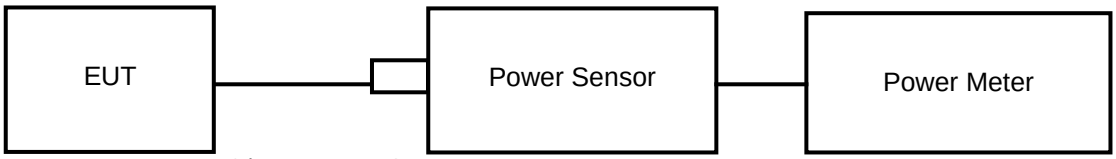
Please Refer to Appendix B Of this test report.

3.4 CONDUCTED OUTPUT POWER

3.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

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

3.4.2 TEST SETUP



10dB ATTENUATION PAD

3.4.3 TEST INSTRUMENTS

Refer to section 3.3.2 to get information of above instrument.

3.4.4 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.

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.4.7 TEST RESULTS

3.4.7.1 MAXIMUM PEAK OUTPUT POWER

Please Refer to Appendix B Of this test report.

3.4.7.2 AVERAGE OUTPUT POWER (FOR REFERENCE)

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

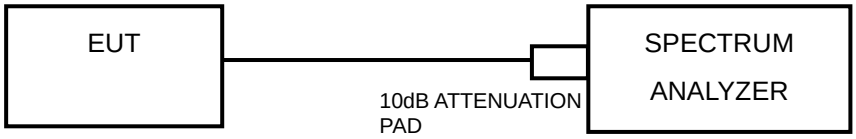
Please Refer to Appendix B Of this test report.

3.5 POWER SPECTRAL DENSITY MEASUREMENT

3.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm/3KHz.

3.5.2 TEST SETUP



3.5.3 TEST INSTRUMENTS

Refer to section 3.3.2 to get information of above instrument.

3.5.4 TEST PROCEDURE

1. Set the span to 1.5 times the DTS bandwidth
2. Set the RBW = 3 kHz, VBW ≥ 3 x RBW, Detector = peak.
3. Sweep time = auto couple, Trace mode = max hold, allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.5.7 TEST RESULTS

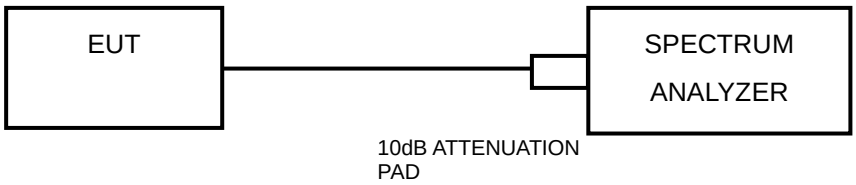
Please Refer to Appendix B Of this test report.

3.6 OUT OF BAND EMISSION MEASUREMENT

3.6.1 LIMITS OF OUT OF BAND EMISSION MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

3.6.2 TEST SETUP



3.6.3 TEST INSTRUMENTS

Refer to section 3.3.2 to get information of above instrument.

3.6.4 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. Set span to encompass the spectrum to be examined
4. Detector = peak.
5. Trace Mode = max hold.
6. Sweep = auto couple.

3.6.5 DEVIATION FROM TEST STANDARD

No deviation.

3.6.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.6.7 TEST RESULTS

The spectrum plots are attached on the following images. D1 line indicates the highest level. D2 line indicates the 20dB offset below D1. It shows compliance to the requirement.

Please Refer to Appendix Of this test report.

3.7 ANTENNA REQUIREMENTS

3.7.1 STANDARD APPLICABLE

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.7.2 ANTENNA CONNECTED CONSTRUCTION

An embedded-in antenna design is used.

3.7.3 ANTENNA GAIN

Accoring to FCC KDB 662911 D01 Multiple Transmitter Output v02r01
For CDD transmissions,directional gain is calculated as
Directional gain=GANT +Array Gain, where Array Gain is as follows.
For power spectral density (PSD) measurements on all devices,
Array Gain= 10 log(NANT/ Nss) dB;
For power measurements on IEEE 802.11 devices,Array Gain = 0 dB for NANT≤ 4;
The EUT supports Cyclic Delay Diversity (CDD) mode,
For power measurements,the directional GANT is set equal to the antenna having the highest gain as following formulas.

Directional Gain = Max.Gain + Array Gain.

For PSD measurements,the directional GANT is calculation is following F)2)f)ii of KDB 662911 D01 v02r01.
The directional gain is calculated as following table.

2.4GHz	Ant 1 (dBi)	Ant 2 (dBi)	DG For Power (dBi)	DG For PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
	0.8	0.8	0.8	3.81	0.00	0.00

NOTE :DG= directional gain, Power Limit Reduction = DG For Power Gain -6dbi<0

PSD Limit Reduction = DG For PSD – 6dBi<0.Therefore, it is not necessary to reduce maximum peak output power and PSD limit.

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

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