FCC TEST REPORT

(Part 15, Subpart C)

Applicant:	Telit Communications S.p.A
Address:	Via Stazione di Prosecco 5/b, 34010 Sgonico - Trieste, Italy

Manufacturer or Supplier:	Telit Communications S.p.A
Address:	Via Stazione di Prosecco 5/b, 34010 Sgonico - Trieste, Italy
Product:	802.11 a/b/g/n/ac/ax WiFi Module+BT combo module
Brand Name:	Telit Cinterion
Model Name:	WE310K6-P / WE310K6-P M.2
FCC ID:	RI7WE310K6P
Date of tests:	Jan. 02, 2024 ~ Apr. 25, 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: Apr. 25, 2024	Luke Lu Date: Apr. 25, 2024

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-231127W001RF02	Original release	Apr. 25, 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**
15.207	AC Power Conducted Emission	Compliance
15.205 15.209	Radiated Emissions	Compliance
15.247(d)	Out of band Emission Measurement	Compliance
15.247(a)(2)	6dB bandwidth	Compliance
15.247(b)	Conducted Output power	Compliance
15.247(e)	Power Spectral Density	Compliance
15.203	Antenna Requirement	Compliance

Note：Except RSE, other data please refer to Appendix 1/2 (for WIFI-2.4G) and Appendix 3 (for BLE).

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	802.11 a/b/g/n/ac/ax WiFi Module+BT combo module
BRAND NAME	Telit Cinterion
MODEL NAME	WE310K6-P / WE310K6-P M.2
NOMINAL VOLTAGE	3.3Vdc
MODULATION	DSSS, OFDM, GFSK, 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 BT_LE: 0.125 Mbps /0.5 Mbps /1 Mbps/2 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) 2402-2480MHz for BT-LE(GFSK) 2412-2462MHz for ax(20M RU26/52/106/242)/ax (40M RU484)
MAX. OUTPUT POWER	WLAN: 524.97mW (Maximum) BT-LE: 3.67mW (Maximum) RU WLAN: 542.00mW (Maximum)
ANTENNA TYPE	ANT 1: Dipole Antenna with 2.5dBi gain for WIFI ANT 2: Dipole Antenna with 2.5dBi gain for WIFI
	Dipole Antenna with 2.5dBi gain for BLE
HW VERSION	1.0
SW VERSION	V0.29.29.0
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

NOTE:

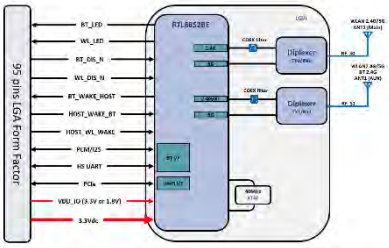
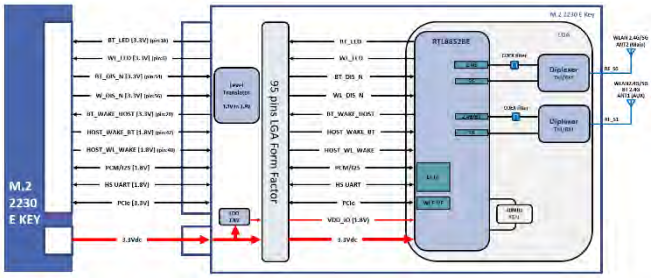
1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. The EUT incorporates a MIMO function. Physically, the EUT provides two transmitter and two receiver.

MODULATION MODE	TX/RX FUNCTION
802.11b	2TX /2RX
802.11g	2TX /2RX
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
BT_LE(1MHz)	1TX /1RX
BT_LE(2MHz)	1TX /1RX
BT_LE(S2)	1TX /1RX
BT_LE(S8)	1TX /1RX

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. WE310K6-P and WE310K6-P M.2 have been tested and the results of them is similar. So the report only show the data for the worst model (WE310K6-P).
5. 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.

6. The differences between WE310K6-P and WE310K6-P M.2 are as follows:

WE310K6-P	WE310K6-P M.2
	

The Main difference is whether the LGA module is mounted on the M.2 interface adapter board.
WE310K6-P: LGA module.
WE310K6-P M.2: LGA module + M.2 2230 E KEY interface adapter board.

7. EUT supports beamforming mode（2.4 G WIFI and 2.4 G WIFI 6）, but the power is much smaller than normal mode, and the report only reflects normal mode data

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		

40 channels are provided for BT-LE (GFSK):

CHANNEL	FREQ. (MHZ)	CHANNEL	FREQ. (MHZ)	CHANNEL	FREQ. (MHZ)	CHANNEL	FREQ. (MHZ)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

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)
802.11ax (40MHz)	3 to 9	9	OFDM	MCS0
BT-LE	1 to 39	39	GFSK	1.0

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
BT-LE	0 to 39	0,19, 39	GFSK	0.125&0.5&1.0
BT-LE	1 to 38	1,19, 38	GFSK	2.0
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)
802.11b	1 to 11	6	DSSS	1.0

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
BT-LE	0 to 39	0,19, 39	GFSK	0.125&0.5&1.0
BT-LE	1 to 38	1,19, 38	GFSK	2.0
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
BT-LE	0 to 39	0,19, 39	GFSK	0.125&0.5&1.0
BT-LE	1 to 38	1,19, 38	GFSK	2.0
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 3.3V	Jace Hu
RE≥1G	23deg. C, 70%RH	DC 3.3V	Jace Hu
PLC	25deg. C, 52%RH	DC 3.3V	Carl Xie
APCM	25deg. C, 60%RH	DC 3.3V	James Fu

2.3 DUTY CYCLE OF TEST SIGNAL

Please Refer to Appendix1/2/3 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

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR3	101900	Feb. 15,23	Feb. 14,24
EMI Test Receiver	Rohde&Schwarz	ESR3	101900	Feb. 14,24	Feb. 13,25
EMC32 test software	Rohde&Schwarz	EMC32	NA	NA	NA
LISN network	Rohde&Schwarz	ENV216	101922	Mar. 11,23	Mar. 10,24
LISN network	Rohde&Schwarz	ENV216	101922	Mar. 10,24	Mar. 09,25

NOTE:

1. The test was performed in CE shielded room.
2. The calibration interval of the above test instruments is 12 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.

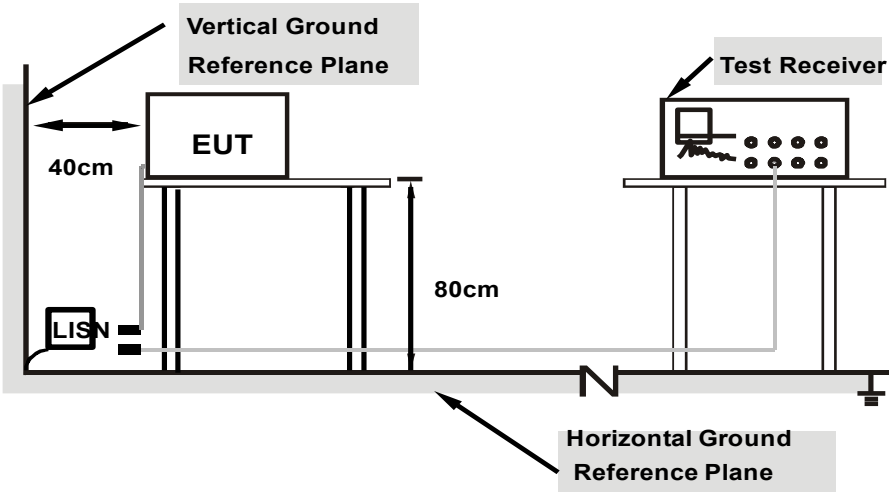
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

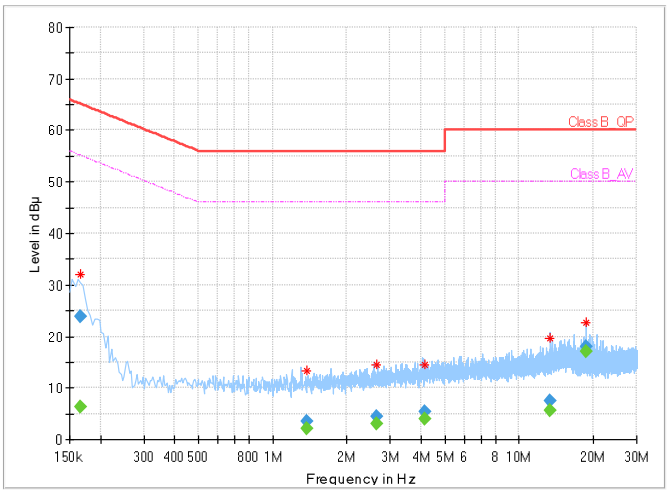
CONDUCTED WORST-CASE DATA:

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	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.166000	---	6.39	55.16	48.77	L1	ON	9.8
0.166000	23.86	---	65.16	41.30	L1	ON	9.8
1.372000	---	2.13	46.00	43.87	L1	ON	9.8
1.372000	3.46	---	56.00	52.54	L1	ON	9.8
2.628000	---	2.97	46.00	43.03	L1	ON	9.9
2.628000	4.36	---	56.00	51.64	L1	ON	9.9
4.120000	---	3.87	46.00	42.13	L1	ON	9.8
4.120000	5.45	---	56.00	50.55	L1	ON	9.8
13.392000	---	5.69	50.00	44.31	L1	ON	10.7
13.392000	7.53	---	60.00	52.47	L1	ON	10.7
18.688000	---	17.10	50.00	32.90	L1	ON	11.2
18.688000	17.92	---	60.00	42.08	L1	ON	11.2

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.

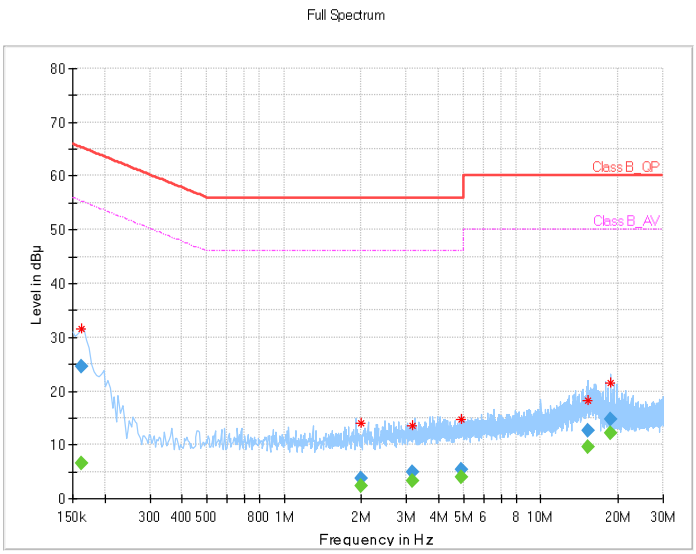
Full Spectrum



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	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.162000	---	6.61	55.36	48.75	N	ON	9.7
0.162000	24.49	---	65.36	40.87	N	ON	9.7
1.986000	---	2.45	46.00	43.55	N	ON	9.8
1.986000	3.81	---	56.00	52.19	N	ON	9.8
3.180000	---	3.34	46.00	42.66	N	ON	9.8
3.180000	5.03	---	56.00	50.97	N	ON	9.8
4.906000	---	4.00	46.00	42.00	N	ON	9.7
4.906000	5.38	---	56.00	50.62	N	ON	9.7
15.332000	---	9.50	50.00	40.50	N	ON	10.9
15.332000	12.74	---	60.00	47.26	N	ON	10.9
18.692000	---	12.16	50.00	37.84	N	ON	11.3
18.692000	14.66	---	60.00	45.34	N	ON	11.3

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

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. 19,23	Feb. 18,24
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 18,24	Feb. 17,25
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 19,23	Feb. 18,24
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 18,24	Feb. 17,25
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Sep.04, 23	Sep.03, 24
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. 06,23	May. 05,24
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 28,23	Mar. 27,24
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 27,24	Mar. 26,25
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 06,23	May. 05,24
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.10,23	May.09,24
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 18,23	Feb. 17,24
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 17,24	Feb. 16,25
DC Source	Kikusui/JP	PMX18-5A	0000001	Aug. 12,23	Aug. 11,24
Power Meter	Anritsu	ML2495A	1506002	Feb. 15,23	Feb. 14,24
Power Meter	Anritsu	ML2495A	1506002	Feb. 14,24	Feb. 13,25
Power Sensor	Anritsu	MA2411B	1339352	Feb. 15,23	Feb. 14,24
Power Sensor	Anritsu	MA2411B	1339352	Feb. 14,24	Feb. 13,25
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.03,23	Sep.02,24

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:

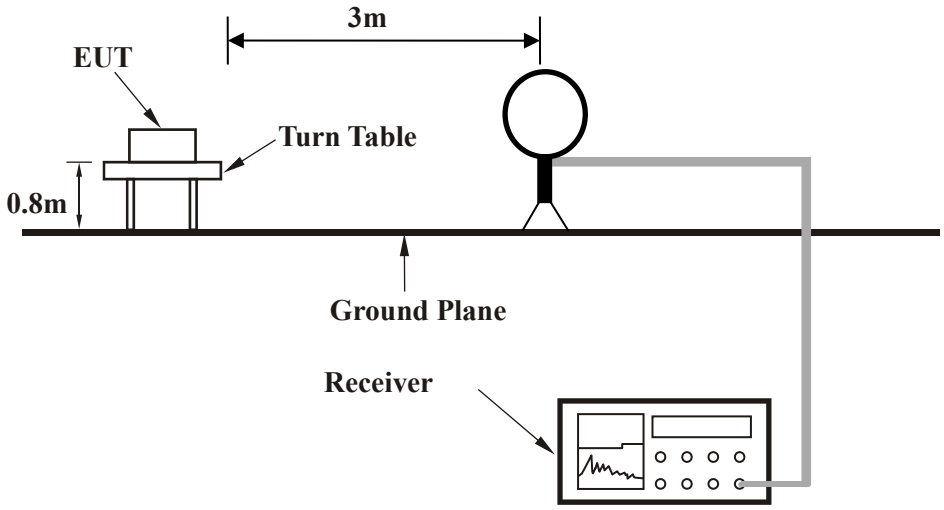
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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

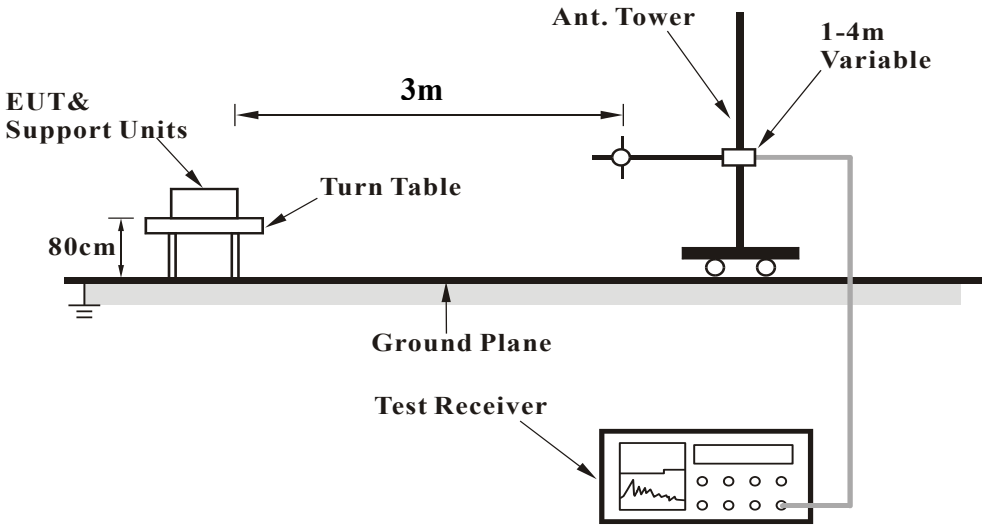
No deviation

3.2.5 TEST SETUP

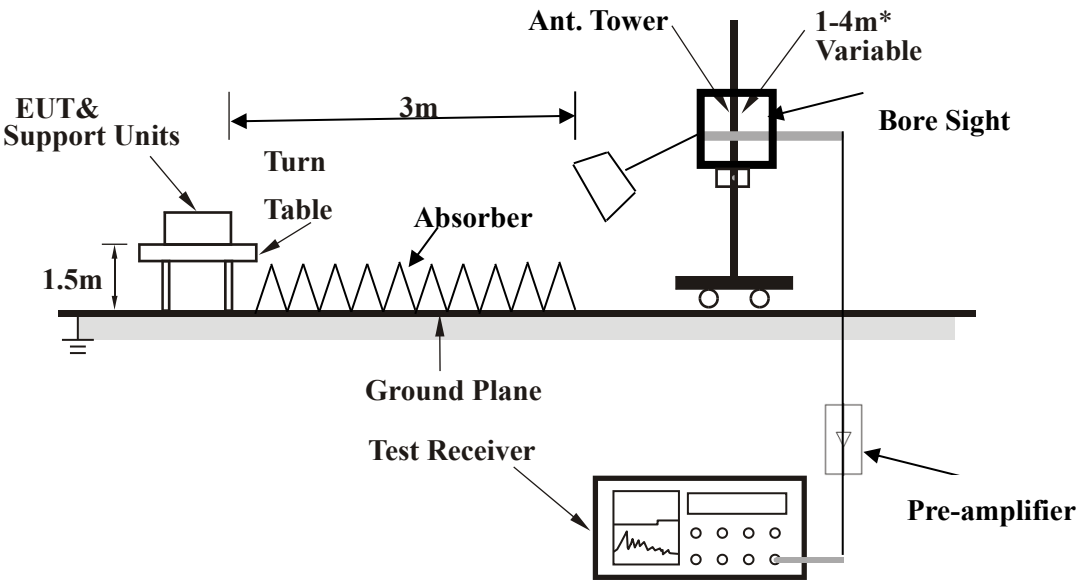
<Frequency Range 9KHz~30MHz >



< 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:

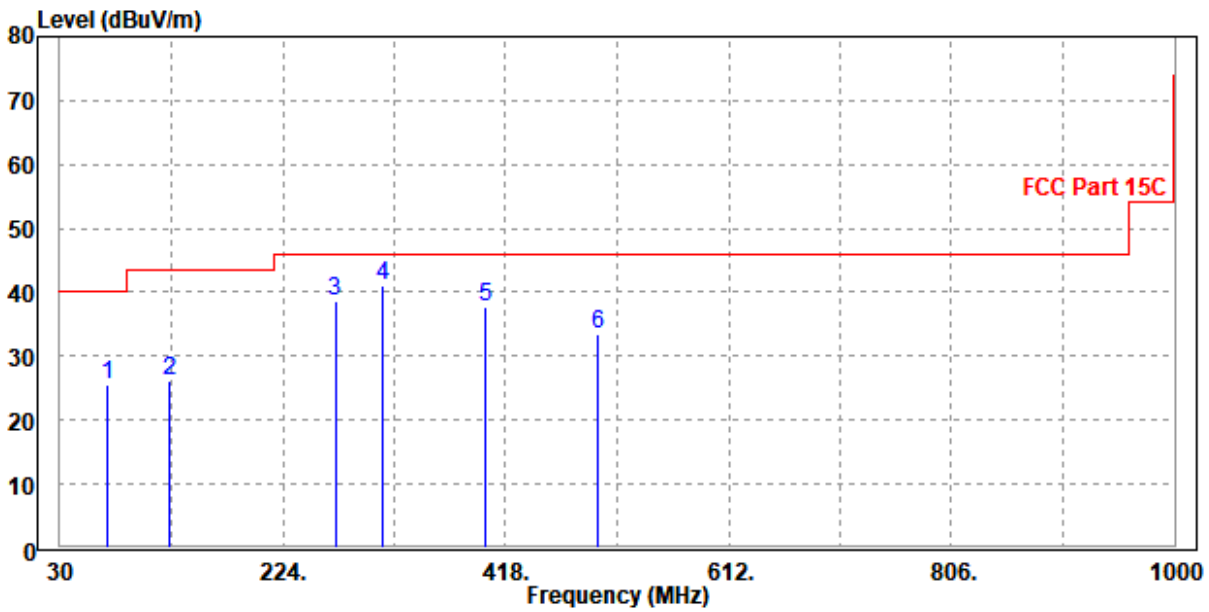
802.11ax (40MHz):

CHANNEL	TX Channel 9	**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
71.71	25.47	49.13	40	-14.53	7.03	6.39	37.08	100	360	Peak
125.06	26.19	48.26	43.5	-17.31	8.2	6.66	36.93	100	360	Peak
269.59	38.67	54.19	46	-7.33	13.87	7.22	36.61	100	360	Peak
311.3	40.97	55.67	46	-5.03	14.58	7.35	36.63	100	360	Peak
399.57	37.67	50.15	46	-8.33	16.79	7.56	36.83	100	360	Peak
497.54	33.5	43.97	46	-12.5	18.65	7.94	37.06	100	360	Peak

REMARKS:

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

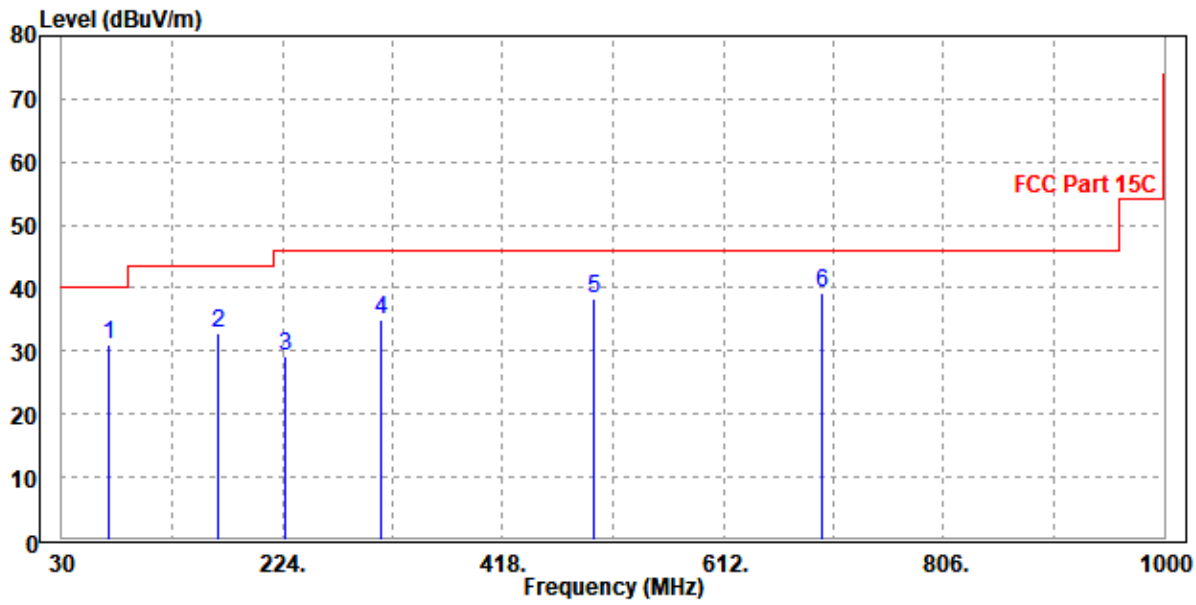


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

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
71.71	30.92	54.21	40	-9.08	7.4	6.39	37.08	100	0	Peak
167.74	32.72	48.63	43.5	-10.78	14.03	6.81	36.75	100	0	Peak
225.94	29.32	45.49	46	-16.68	13.37	7.08	36.62	100	0	Peak
311.3	35.08	49.42	46	-10.92	14.94	7.35	36.63	100	0	Peak
497.54	38.39	48.06	46	-7.61	19.45	7.94	37.06	100	0	Peak
699.3	39.16	44.87	46	-6.84	23.18	8.38	37.27	100	0	Peak

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

SISO

802.11b:

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
2390.000	51.90	58.59	74.00	-22.10	31.78	7.74	46.21	190	35	Peak
2390.000	43.61	50.30	54.00	-10.39	31.78	7.74	46.21	190	35	Average
2412.000	103.00	109.62	/	/	31.82	7.77	46.21	190	35	Peak
2412.000	101.76	108.38	/	/	31.82	7.77	46.21	190	35	Average
2483.500	50.86	57.20	74.00	-23.14	31.97	7.88	46.19	190	35	Peak
2483.500	42.64	48.98	54.00	-11.36	31.97	7.88	46.19	190	35	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
2390.000	52.02	58.59	74.00	-21.98	31.90	7.74	46.21	130	305	Peak
2390.000	45.83	52.40	54.00	-8.17	31.90	7.74	46.21	130	305	Average
2412.000	106.68	113.18	/	/	31.94	7.77	46.21	130	305	Peak
2412.000	104.94	111.44	/	/	31.94	7.77	46.21	130	305	Average
2483.500	51.44	57.68	74.00	-22.56	32.07	7.88	46.19	130	305	Peak
2483.500	43.57	49.81	54.00	-10.43	32.07	7.88	46.19	130	305	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
2390.000	49.55	56.24	74.00	-24.45	31.78	7.74	46.21	155	297	Peak
2390.000	42.75	49.44	54.00	-11.25	31.78	7.74	46.21	155	297	Average
2437.000	102.56	109.08	/	/	31.87	7.81	46.20	155	297	Peak
2437.000	100.92	107.44	/	/	31.87	7.81	46.20	155	297	Average
2483.500	49.93	56.27	74.00	-24.07	31.97	7.88	46.19	155	297	Peak
2483.500	43.07	49.41	54.00	-10.93	31.97	7.88	46.19	155	297	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
2390.000	51.43	58.00	74.00	-22.57	31.90	7.74	46.21	130	305	Peak
2390.000	43.34	49.91	54.00	-10.66	31.90	7.74	46.21	130	305	Average
2437.000	107.07	113.47	/	/	31.99	7.81	46.20	130	305	Peak
2437.000	105.02	111.42	/	/	31.99	7.81	46.20	130	305	Average
2483.500	51.21	57.45	74.00	-22.79	32.07	7.88	46.19	130	305	Peak
2483.500	42.97	49.21	54.00	-11.03	32.07	7.88	46.19	130	305	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
2390.000	51.13	57.82	74.00	-22.87	31.78	7.74	46.21	190	35	Peak
2390.000	42.94	49.63	54.00	-11.06	31.78	7.74	46.21	190	35	Average
2462.000	102.83	109.26	/	/	31.92	7.84	46.19	190	35	Peak
2462.000	100.73	107.16	/	/	31.92	7.84	46.19	190	35	Average
2483.500	52.27	58.61	74.00	-21.73	31.97	7.88	46.19	190	35	Peak
2483.500	43.71	50.05	54.00	-10.29	31.97	7.88	46.19	190	35	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
2390.000	52.15	58.72	74.00	-21.85	31.90	7.74	46.21	120	305	Peak
2390.000	43.10	49.67	54.00	-10.90	31.90	7.74	46.21	120	305	Average
2462.000	106.77	113.09	/	/	32.03	7.84	46.19	120	305	Peak
2462.000	105.14	111.46	/	/	32.03	7.84	46.19	120	305	Average
2483.500	52.51	58.75	74.00	-21.49	32.07	7.88	46.19	120	305	Peak
2483.500	45.11	51.35	54.00	-8.89	32.07	7.88	46.19	120	305	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

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
2390.000	54.04	60.73	74.00	-19.96	31.78	7.74	46.21	190	35	Peak
2390.000	44.57	51.26	54.00	-9.43	31.78	7.74	46.21	190	35	Average
2412.000	104.67	111.29	/	/	31.82	7.77	46.21	190	35	Peak
2412.000	98.62	105.24	/	/	31.82	7.77	46.21	190	35	Average
2483.500	51.87	58.21	74.00	-22.13	31.97	7.88	46.19	190	35	Peak
2483.500	42.27	48.61	54.00	-11.73	31.97	7.88	46.19	190	35	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
2390.000	61.95	68.52	74.00	-12.05	31.90	7.74	46.21	100	305	Peak
2390.000	50.92	57.49	54.00	-3.08	31.90	7.74	46.21	100	305	Average
2412.000	107.76	114.26	/	/	31.94	7.77	46.21	100	305	Peak
2412.000	101.46	107.96	/	/	31.94	7.77	46.21	100	305	Average
2483.500	50.35	56.59	74.00	-23.65	32.07	7.88	46.19	100	305	Peak
2483.500	42.90	49.14	54.00	-11.10	32.07	7.88	46.19	100	305	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
2390.000	50.24	56.93	74.00	-23.76	31.78	7.74	46.21	155	297	Peak
2390.000	43.25	49.94	54.00	-10.75	31.78	7.74	46.21	155	297	Average
2437.000	106.02	112.54	/	/	31.87	7.81	46.20	155	297	Peak
2437.000	99.77	106.29	/	/	31.87	7.81	46.20	155	297	Average
2483.500	50.33	56.67	74.00	-23.67	31.97	7.88	46.19	155	297	Peak
2483.500	43.15	49.49	54.00	-10.85	31.97	7.88	46.19	155	297	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
2390.000	52.02	58.59	74.00	-21.98	31.90	7.74	46.21	100	305	Peak
2390.000	44.14	50.71	54.00	-9.86	31.90	7.74	46.21	100	305	Average
2437.000	109.87	116.27	/	/	31.99	7.81	46.20	100	305	Peak
2437.000	103.29	109.69	/	/	31.99	7.81	46.20	100	305	Average
2483.500	52.34	58.58	74.00	-21.66	32.07	7.88	46.19	100	305	Peak
2483.500	44.29	50.53	54.00	-9.71	32.07	7.88	46.19	100	305	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
2390.000	51.25	57.94	74.00	-22.75	31.78	7.74	46.21	100	30	Peak
2390.000	43.25	49.94	54.00	-10.75	31.78	7.74	46.21	100	30	Average
2462.000	100.40	106.83	/	/	31.92	7.84	46.19	100	30	Peak
2462.000	94.58	101.01	/	/	31.92	7.84	46.19	100	30	Average
2483.500	51.84	58.18	74.00	-22.16	31.97	7.88	46.19	100	30	Peak
2483.500	43.76	50.10	54.00	-10.24	31.97	7.88	46.19	100	30	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
2390.000	50.24	56.81	74.00	-23.76	31.90	7.74	46.21	120	305	Peak
2390.000	44.08	50.65	54.00	-9.92	31.90	7.74	46.21	120	305	Average
2462.000	108.75	115.07	/	/	32.03	7.84	46.19	120	305	Peak
2462.000	102.33	108.65	/	/	32.03	7.84	46.19	120	305	Average
2483.500	60.74	66.98	74.00	-13.26	32.07	7.88	46.19	120	305	Peak
2483.500	50.95	57.19	54.00	-3.05	32.07	7.88	46.19	120	305	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)

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
2390.000	52.53	59.22	74.00	-21.47	31.78	7.74	46.21	190	35	Peak
2390.000	44.38	51.07	54.00	-9.62	31.78	7.74	46.21	190	35	Average
2412.000	103.24	109.86	/	/	31.82	7.77	46.21	190	35	Peak
2412.000	97.61	104.23	/	/	31.82	7.77	46.21	190	35	Average
2483.500	51.31	57.65	74.00	-22.69	31.97	7.88	46.19	190	35	Peak
2483.500	42.60	48.94	54.00	-11.40	31.97	7.88	46.19	190	35	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
2390.000	57.98	64.55	74.00	-16.02	31.90	7.74	46.21	130	305	Peak
2390.000	50.55	57.12	54.00	-3.45	31.90	7.74	46.21	130	305	Average
2412.000	107.58	114.08	/	/	31.94	7.77	46.21	130	305	Peak
2412.000	100.44	106.94	/	/	31.94	7.77	46.21	130	305	Average
2483.500	50.54	56.78	74.00	-23.46	32.07	7.88	46.19	130	305	Peak
2483.500	42.97	49.21	54.00	-11.03	32.07	7.88	46.19	130	305	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
2390.000	50.92	57.61	74.00	-23.08	31.78	7.74	46.21	155	297	Peak
2390.000	42.82	49.51	54.00	-11.18	31.78	7.74	46.21	155	297	Average
2437.000	104.82	111.34	/	/	31.87	7.81	46.20	155	297	Peak
2437.000	97.55	104.07	/	/	31.87	7.81	46.20	155	297	Average
2483.500	51.86	58.20	74.00	-22.14	31.97	7.88	46.19	155	297	Peak
2483.500	43.16	49.50	54.00	-10.84	31.97	7.88	46.19	155	297	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
2390.000	51.88	58.45	74.00	-22.12	31.90	7.74	46.21	130	305	Peak
2390.000	44.64	51.21	54.00	-9.36	31.90	7.74	46.21	130	305	Average
2437.000	109.80	116.20	/	/	31.99	7.81	46.20	130	305	Peak
2437.000	101.86	108.26	/	/	31.99	7.81	46.20	130	305	Average
2483.500	52.01	58.25	74.00	-21.99	32.07	7.88	46.19	130	305	Peak
2483.500	43.95	50.19	54.00	-10.05	32.07	7.88	46.19	130	305	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
2390.000	49.56	56.25	74.00	-24.44	31.78	7.74	46.21	100	30	Peak
2390.000	42.59	49.28	54.00	-11.41	31.78	7.74	46.21	100	30	Average
2462.000	100.47	106.90	/	/	31.92	7.84	46.19	100	30	Peak
2462.000	94.11	100.54	/	/	31.92	7.84	46.19	100	30	Average
2483.500	50.57	56.91	74.00	-23.43	31.97	7.88	46.19	100	30	Peak
2483.500	43.78	50.12	54.00	-10.22	31.97	7.88	46.19	100	30	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
2390.000	51.25	57.82	74.00	-22.75	31.90	7.74	46.21	120	305	Peak
2390.000	43.82	50.39	54.00	-10.18	31.90	7.74	46.21	120	305	Average
2462.000	109.09	115.41	/	/	32.03	7.84	46.19	120	305	Peak
2462.000	101.67	107.99	/	/	32.03	7.84	46.19	120	305	Average
2483.500	57.72	63.96	74.00	-16.28	32.07	7.88	46.19	120	305	Peak
2483.500	50.88	57.12	54.00	-3.12	32.07	7.88	46.19	120	305	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)

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
2390.000	53.10	59.79	74.00	-20.90	31.78	7.74	46.21	100	15	Peak
2390.000	45.24	51.93	54.00	-8.76	31.78	7.74	46.21	100	15	Average
2422.000	94.22	100.80	/	/	31.84	7.78	46.20	100	15	Peak
2422.000	88.50	95.08	/	/	31.84	7.78	46.20	100	15	Average
2483.500	50.67	57.01	74.00	-23.33	31.97	7.88	46.19	100	15	Peak
2483.500	42.49	48.83	54.00	-11.51	31.97	7.88	46.19	100	15	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
2390.000	57.88	64.45	74	-16.12	31.9	7.74	46.21	105	315	Peak
2390.000	52.85	59.42	54	-1.15	31.9	7.74	46.21	105	315	Average
2422.000	99.96	106.42	/	/	31.96	7.78	46.2	105	315	Peak
2422.000	94.31	100.77	/	/	31.96	7.78	46.2	105	315	Average
2483.500	51.08	57.32	74	-22.92	32.07	7.88	46.19	105	315	Peak
2483.500	44.32	50.56	54	-9.68	32.07	7.88	46.19	105	315	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
2390.000	51.05	57.74	74.00	-22.95	31.78	7.74	46.21	130	300	Peak
2390.000	43.28	49.97	54.00	-10.72	31.78	7.74	46.21	130	300	Average
2437.000	98.42	104.94	/	/	31.87	7.81	46.20	130	300	Peak
2437.000	92.91	99.43	/	/	31.87	7.81	46.20	130	300	Average
2483.500	50.50	56.84	74.00	-23.50	31.97	7.88	46.19	130	300	Peak
2483.500	43.10	49.44	54.00	-10.90	31.97	7.88	46.19	130	300	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
2390.000	55.55	62.12	74.00	-18.45	31.90	7.74	46.21	100	305	Peak
2390.000	48.97	55.54	54.00	-5.03	31.90	7.74	46.21	100	305	Average
2437.000	105.00	111.40	/	/	31.99	7.81	46.20	100	305	Peak
2437.000	100.15	106.55	/	/	31.99	7.81	46.20	100	305	Average
2483.500	54.65	60.89	74.00	-19.35	32.07	7.88	46.19	100	305	Peak
2483.500	47.93	54.17	54.00	-6.07	32.07	7.88	46.19	100	305	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
2390.000	50.97	57.66	74.00	-23.03	31.78	7.74	46.21	115	297	Peak
2390.000	43.02	49.71	54.00	-10.98	31.78	7.74	46.21	115	297	Average
2452.000	96.50	102.97	/	/	31.90	7.83	46.20	115	297	Peak
2452.000	91.21	97.68	/	/	31.90	7.83	46.20	115	297	Average
2483.500	51.46	57.80	74.00	-22.54	31.97	7.88	46.19	115	297	Peak
2483.500	43.13	49.47	54.00	-10.87	31.97	7.88	46.19	115	297	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
2390.000	51.05	57.62	74.00	-22.95	31.90	7.74	46.21	100	305	Peak
2390.000	44.38	50.95	54.00	-9.62	31.90	7.74	46.21	100	305	Average
2452.000	101.48	107.84	/	/	32.01	7.83	46.20	100	305	Peak
2452.000	96.10	102.46	/	/	32.01	7.83	46.20	100	305	Average
2483.500	57.31	63.55	74.00	-16.69	32.07	7.88	46.19	100	305	Peak
2483.500	50.97	57.21	54.00	-3.03	32.07	7.88	46.19	100	305	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)

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
2390.000	51.27	57.96	74.00	-22.73	31.78	7.74	46.21	120	305	Peak
2390.000	44.15	50.84	54.00	-9.85	31.78	7.74	46.21	120	305	Average
2412.000	103.06	109.68	/	/	31.82	7.77	46.21	120	305	Peak
2412.000	92.44	99.06	/	/	31.82	7.77	46.21	120	305	Average
2483.500	50.66	57.00	74.00	-23.34	31.97	7.88	46.19	120	305	Peak
2483.500	43.30	49.64	54.00	-10.70	31.97	7.88	46.19	120	305	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
2390.000	56.02	62.59	74.00	-17.98	31.90	7.74	46.21	100	305	Peak
2390.000	50.56	57.13	54.00	-3.44	31.90	7.74	46.21	100	305	Average
2412.000	108.75	115.25	/	/	31.94	7.77	46.21	100	305	Peak
2412.000	98.12	104.62	/	/	31.94	7.77	46.21	100	305	Average
2483.500	50.39	56.63	74.00	-23.61	32.07	7.88	46.19	100	305	Peak
2483.500	42.94	49.18	54.00	-11.06	32.07	7.88	46.19	100	305	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
2390.000	49.27	55.96	74.00	-24.73	31.78	7.74	46.21	120	305	Peak
2390.000	42.93	49.62	54.00	-11.07	31.78	7.74	46.21	120	305	Average
2437.000	102.70	109.22	/	/	31.87	7.81	46.20	120	305	Peak
2437.000	92.80	99.32	/	/	31.87	7.81	46.20	120	305	Average
2483.500	51.61	57.95	74.00	-22.39	31.97	7.88	46.19	120	305	Peak
2483.500	42.87	49.21	54.00	-11.13	31.97	7.88	46.19	120	305	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
2390.000	51.09	57.66	74.00	-22.91	31.90	7.74	46.21	100	305	Peak
2390.000	43.46	50.03	54.00	-10.54	31.90	7.74	46.21	100	305	Average
2437.000	110.25	116.65	/	/	31.99	7.81	46.20	100	305	Peak
2437.000	99.76	106.16	/	/	31.99	7.81	46.20	100	305	Average
2483.500	50.35	56.59	74.00	-23.65	32.07	7.88	46.19	100	305	Peak
2483.500	43.32	49.56	54.00	-10.68	32.07	7.88	46.19	100	305	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
2390.000	51.01	57.70	74.00	-22.99	31.78	7.74	46.21	200	40	Peak
2390.000	43.27	49.96	54.00	-10.73	31.78	7.74	46.21	200	40	Average
2462.000	102.77	109.20	/	/	31.92	7.84	46.19	200	40	Peak
2462.000	93.33	99.76	/	/	31.92	7.84	46.19	200	40	Average
2483.500	51.54	57.88	74.00	-22.46	31.97	7.88	46.19	200	40	Peak
2483.500	44.28	50.62	54.00	-9.72	31.97	7.88	46.19	200	40	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
2390.000	51.61	58.18	74.00	-22.39	31.90	7.74	46.21	100	305	Peak
2390.000	42.79	49.36	54.00	-11.21	31.90	7.74	46.21	100	305	Average
2462.000	110.14	116.46	/	/	32.03	7.84	46.19	100	305	Peak
2462.000	99.30	105.62	/	/	32.03	7.84	46.19	100	305	Average
2483.500	57.54	63.78	74.00	-16.46	32.07	7.88	46.19	100	305	Peak
2483.500	48.73	54.97	54.00	-5.27	32.07	7.88	46.19	100	305	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)

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
2390.000	51.75	58.44	74.00	-22.25	31.78	7.74	46.21	120	300	Peak
2390.000	44.10	50.79	54.00	-9.90	31.78	7.74	46.21	120	300	Average
2422.000	97.05	103.63	/	/	31.84	7.78	46.20	120	300	Peak
2422.000	88.07	94.65	/	/	31.84	7.78	46.20	120	300	Average
2483.500	49.88	56.22	74.00	-24.12	31.97	7.88	46.19	120	300	Peak
2483.500	42.57	48.91	54.00	-11.43	31.97	7.88	46.19	120	300	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
2390.000	57.43	64.00	74.00	-16.57	31.90	7.74	46.21	130	305	Peak
2390.000	50.79	57.36	54.00	-3.21	31.90	7.74	46.21	130	305	Average
2422.000	103.63	110.09	/	/	31.96	7.78	46.20	130	305	Peak
2422.000	94.56	101.02	/	/	31.96	7.78	46.20	130	305	Average
2483.500	50.87	57.11	74.00	-23.13	32.07	7.88	46.19	130	305	Peak
2483.500	44.37	50.61	54.00	-9.63	32.07	7.88	46.19	130	305	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
2390.000	50.42	57.11	74.00	-23.58	31.78	7.74	46.21	120	300	Peak
2390.000	43.24	49.93	54.00	-10.76	31.78	7.74	46.21	120	300	Average
2437.000	102.31	108.83	/	/	31.87	7.81	46.20	120	300	Peak
2437.000	93.61	100.13	/	/	31.87	7.81	46.20	120	300	Average
2483.500	50.57	56.91	74.00	-23.43	31.97	7.88	46.19	120	300	Peak
2483.500	43.24	49.58	54.00	-10.76	31.97	7.88	46.19	120	300	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
2390.000	56.76	63.33	74.00	-17.24	31.90	7.74	46.21	130	305	Peak
2390.000	49.36	55.93	54.00	-4.64	31.90	7.74	46.21	130	305	Average
2437.000	109.06	115.46	/	/	31.99	7.81	46.20	130	305	Peak
2437.000	99.88	106.28	/	/	31.99	7.81	46.20	130	305	Average
2483.500	59.07	65.31	74.00	-14.93	32.07	7.88	46.19	130	305	Peak
2483.500	50.87	57.11	54.00	-3.13	32.07	7.88	46.19	130	305	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
2390.000	51.89	58.58	74.00	-22.11	31.78	7.74	46.21	115	297	Peak
2390.000	42.89	49.58	54.00	-11.11	31.78	7.74	46.21	115	297	Average
2452.000	95.85	102.32	/	/	31.90	7.83	46.20	115	297	Peak
2452.000	87.53	94.00	/	/	31.90	7.83	46.20	115	297	Average
2483.500	50.35	56.69	74.00	-23.65	31.97	7.88	46.19	115	297	Peak
2483.500	43.33	49.67	54.00	-10.67	31.97	7.88	46.19	115	297	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
2390.000	51.46	58.03	74.00	-22.54	31.90	7.74	46.21	130	305	Peak
2390.000	44.09	50.66	54.00	-9.91	31.90	7.74	46.21	130	305	Average
2452.000	103.35	109.71	/	/	32.01	7.83	46.20	130	305	Peak
2452.000	94.12	100.48	/	/	32.01	7.83	46.20	130	305	Average
2483.500	55.90	62.14	74.00	-18.10	32.07	7.88	46.19	130	305	Peak
2483.500	50.96	57.20	54.00	-3.04	32.07	7.88	46.19	130	305	Average

REMARKS:

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

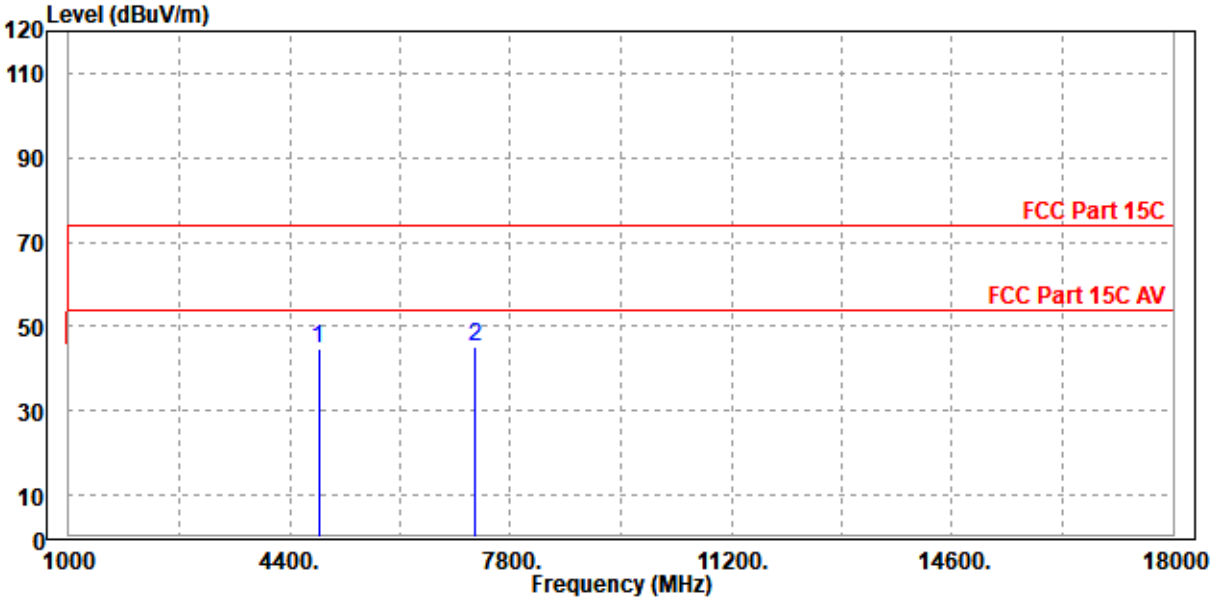
Worst case harmonic:

802.11n (40MHz)

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

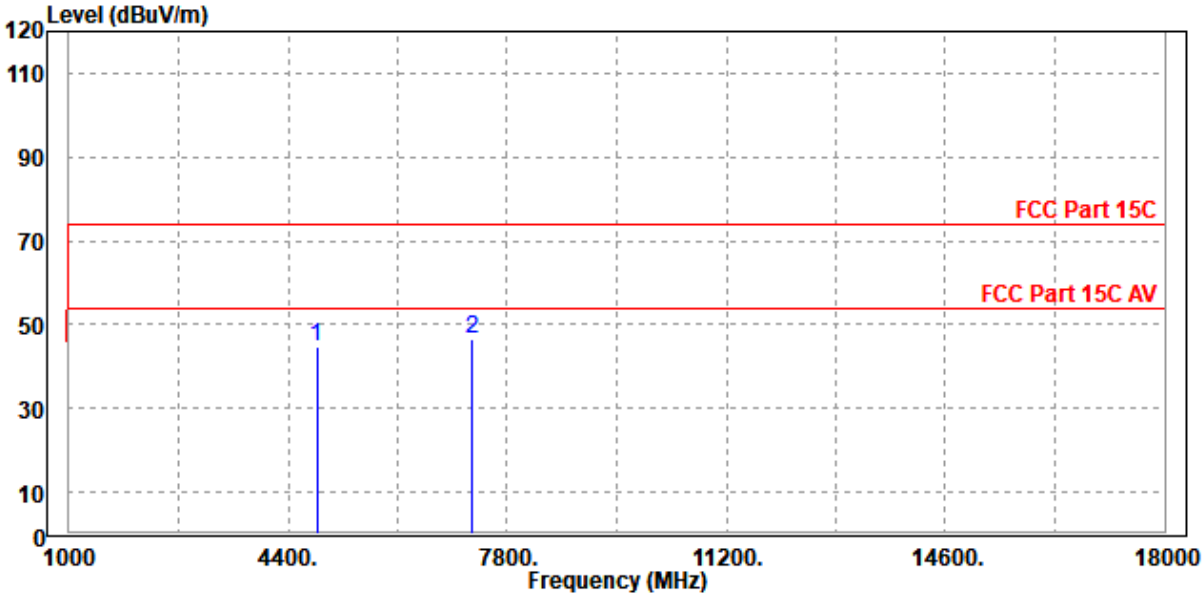
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1		4844.000	44.85	46.57	74.00	-29.15	-1.72	Peak	Horizontal
2	PP	7266.000	45.15	42.76	74.00	-28.85	2.39	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		4844.000	44.92	46.63	74.00	-29.08	-1.71	Peak	Vertical
2	PP	7266.000	46.42	43.93	74.00	-27.58	2.49	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) 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**
2390.000	50.51	57.20	74.00	-23.49	31.78	7.74	46.21	190	16	Peak
2390.000	43.41	50.10	54.00	-10.59	31.78	7.74	46.21	190	16	Average
2412.000	104.10	110.72	/	/	31.82	7.77	46.21	190	16	Peak
2412.000	98.42	105.04	/	/	31.82	7.77	46.21	190	16	Average
2483.500	51.07	57.41	74.00	-22.93	31.97	7.88	46.19	190	16	Peak
2483.500	43.45	49.79	54.00	-10.55	31.97	7.88	46.19	190	16	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**
2390.000	52.21	58.78	74.00	-21.79	31.90	7.74	46.21	125	315	Peak
2390.000	43.67	50.24	54.00	-10.33	31.90	7.74	46.21	125	315	Average
2412.000	108.68	115.18	/	/	31.94	7.77	46.21	125	315	Peak
2412.000	102.93	109.43	/	/	31.94	7.77	46.21	125	315	Average
2483.500	51.92	58.16	74.00	-22.08	32.07	7.88	46.19	125	315	Peak
2483.500	42.73	48.97	54.00	-11.27	32.07	7.88	46.19	125	315	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
2390.000	51.57	58.26	74.00	-22.43	31.78	7.74	46.21	102	305	Peak
2390.000	44.35	51.04	54.00	-9.65	31.78	7.74	46.21	102	305	Average
2437.000	98.47	104.99	/	/	31.87	7.81	46.20	102	305	Peak
2437.000	92.74	99.26	/	/	31.87	7.81	46.20	102	305	Average
2483.500	51.65	57.99	74.00	-22.35	31.97	7.88	46.19	102	305	Peak
2483.500	43.70	50.04	54.00	-10.30	31.97	7.88	46.19	102	305	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
2390.000	50.74	57.31	74.00	-23.26	31.90	7.74	46.21	100	315	Peak
2390.000	43.64	50.21	54.00	-10.36	31.90	7.74	46.21	100	315	Average
2437.000	103.04	109.44	/	/	31.99	7.81	46.20	100	315	Peak
2437.000	97.38	103.78	/	/	31.99	7.81	46.20	100	315	Average
2483.500	51.58	57.82	74.00	-22.42	32.07	7.88	46.19	100	315	Peak
2483.500	43.38	49.62	54.00	-10.62	32.07	7.88	46.19	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
2390.000	50.57	57.26	74.00	-23.43	31.78	7.74	46.21	200	35	Peak
2390.000	42.98	49.67	54.00	-11.02	31.78	7.74	46.21	200	35	Average
2462.000	101.23	107.66	/	/	31.92	7.84	46.19	200	35	Peak
2462.000	95.91	102.34	/	/	31.92	7.84	46.19	200	35	Average
2483.500	51.11	57.45	74.00	-22.89	31.97	7.88	46.19	200	35	Peak
2483.500	43.38	49.72	54.00	-10.62	31.97	7.88	46.19	200	35	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
2390.000	51.43	58.00	74.00	-22.57	31.90	7.74	46.21	105	315	Peak
2390.000	43.80	50.37	54.00	-10.20	31.90	7.74	46.21	105	315	Average
2462.000	107.10	113.42	/	/	32.03	7.84	46.19	105	315	Peak
2462.000	101.74	108.06	/	/	32.03	7.84	46.19	105	315	Average
2483.500	51.67	57.91	74.00	-22.33	32.07	7.88	46.19	105	315	Peak
2483.500	44.42	50.66	54.00	-9.58	32.07	7.88	46.19	105	315	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**
2390.000	50.73	57.42	74.00	-23.27	31.78	7.74	46.21	165	18	Peak
2390.000	44.18	50.87	54.00	-9.82	31.78	7.74	46.21	165	18	Average
2412.000	102.93	109.55	/	/	31.82	7.77	46.21	165	18	Peak
2412.000	95.70	102.32	/	/	31.82	7.77	46.21	165	18	Average
2483.500	51.24	57.58	74.00	-22.76	31.97	7.88	46.19	165	18	Peak
2483.500	43.39	49.73	54.00	-10.61	31.97	7.88	46.19	165	18	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**
2390.000	52.04	58.61	74.00	-21.96	31.90	7.74	46.21	125	15	Peak
2390.000	44.54	51.11	54.00	-9.46	31.90	7.74	46.21	125	15	Average
2412.000	107.99	114.49	/	/	31.94	7.77	46.21	125	15	Peak
2412.000	100.85	107.35	/	/	31.94	7.77	46.21	125	15	Average
2483.500	50.96	57.20	74.00	-23.04	32.07	7.88	46.19	125	15	Peak
2483.500	43.71	49.95	54.00	-10.29	32.07	7.88	46.19	125	15	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
2390.000	52.07	58.76	74.00	-21.93	31.78	7.74	46.21	103	305	Peak
2390.000	43.55	50.24	54.00	-10.45	31.78	7.74	46.21	103	305	Average
2437.000	103.03	109.55	/	/	31.87	7.81	46.20	103	305	Peak
2437.000	96.83	103.35	/	/	31.87	7.81	46.20	103	305	Average
2483.500	51.70	58.04	74.00	-22.30	31.97	7.88	46.19	103	305	Peak
2483.500	43.52	49.86	54.00	-10.48	31.97	7.88	46.19	103	305	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
2390.000	51.60	58.17	74.00	-22.40	31.90	7.74	46.21	100	315	Peak
2390.000	43.48	50.05	54.00	-10.52	31.90	7.74	46.21	100	315	Average
2437.000	107.70	114.10	/	/	31.99	7.81	46.20	100	315	Peak
2437.000	101.83	108.23	/	/	31.99	7.81	46.20	100	315	Average
2483.500	51.67	57.91	74.00	-22.33	32.07	7.88	46.19	100	315	Peak
2483.500	43.78	50.02	54.00	-10.22	32.07	7.88	46.19	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.