

VARIANT FCC TEST REPORT

(Part 15, Subpart C)

Applicant:	Honeywell International Inc
Address:	9680 Old Bailes Road, Fort Mill, SC 29707 United States

Manufacturer or Supplier:	Honeywell International Inc
Address:	9680 Old Bailes Road, Fort Mill, SC 29707 United States
Product:	Mobile Computer
Brand Name:	Honeywell
Model Name:	CT45P-X0N
FCC ID:	HD5-CT45PX0N
Date of tests:	Oct, 09, 2025 ~ Dec. 17, 2025

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 Hanwen Xu Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
	
Date: Dec. 17, 2025	Date: Dec. 17, 2025

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TABLE OF CONTENTS

RELEASE CONTROL RECORD	3
1. SUMMARY OF TEST RESULTS.....	4
1.1 MEASUREMENT UNCERTAINTY	5
2 GENERAL INFORMATION	6
2.1 GENERAL DESCRIPTION OF EUT	6
2.2 DESCRIPTION OF TEST MODES	9
2.2.1 CONFIGURATION OF SYSTEM UNDER TEST	10
2.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL.....	10
2.3 DUTY CYCLE OF TEST SIGNAL	12
2.4 GENERAL DESCRIPTION OF APPLIED STANDARDS	12
2.5 DESCRIPTION OF SUPPORT UNITS	13
3 TEST TYPES AND RESULTS.....	14
3.1 CONDUCTED EMISSION MEASUREMENT	14
3.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT	14
3.1.2 TEST INSTRUMENTS.....	14
3.1.3 TEST PROCEDURES	15
3.1.4 DEVIATION FROM TEST STANDARD	15
3.1.5 TEST SETUP	16
3.1.6 EUT OPERATING CONDITIONS	16
3.1.7 TEST RESULTS	17
3.1 RADIATED EMISSION MEASUREMENT	19
3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT	19
3.2.2 TEST INSTRUMENTS.....	20
3.2.3 TEST PROCEDURES	21
3.2.4 DEVIATION FROM TEST STANDARD	21
3.2.5 TEST SETUP	22
3.2.6 EUT OPERATING CONDITIONS	23
3.2.7 TEST RESULTS	24
4 PHOTOGRAPHS OF THE TEST CONFIGURATION	40
5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	
41	
6 APPENDIX: THE ORIGINAL REPORT	42

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P21080021RF08	Original release	Sep. 17, 2021
PSU-QBJ2512030414RF02	Based on the original report, the new product add alternate parts, the electrical specs of the alternate part is equivalent to the current part. This report update the SW version, verify power, CE and RSE worst case. The verify results of conducted power are similar or lower. So this report updates CE and the low frequency data and the high frequency data (802.11g SISO ANT0_CH1 & 2SECEND-BT-LE 2M_CH38) of RSE, other data please refer to original report.	Dec. 17, 2025



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	A
15.205 15.209	Radiated Emissions	Compliance	A
15.247(d)	Out of band Emission Measurement	See note	--
15.247(a)(2)	6dB bandwidth	See note	--
15.247(b)	Conducted Output power	See note	--
15.247(e)	Power Spectral Density	See note	--
15.203	Antenna Requirement	See note	--

Note: Please refer to report W7L-P21080021RF08 (FCC ID: HD5-CT45PX0N).

*Test Lab Information Reference

Lab A:

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

Lab Address:

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

Accredited Test Lab Cert 6613.01

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

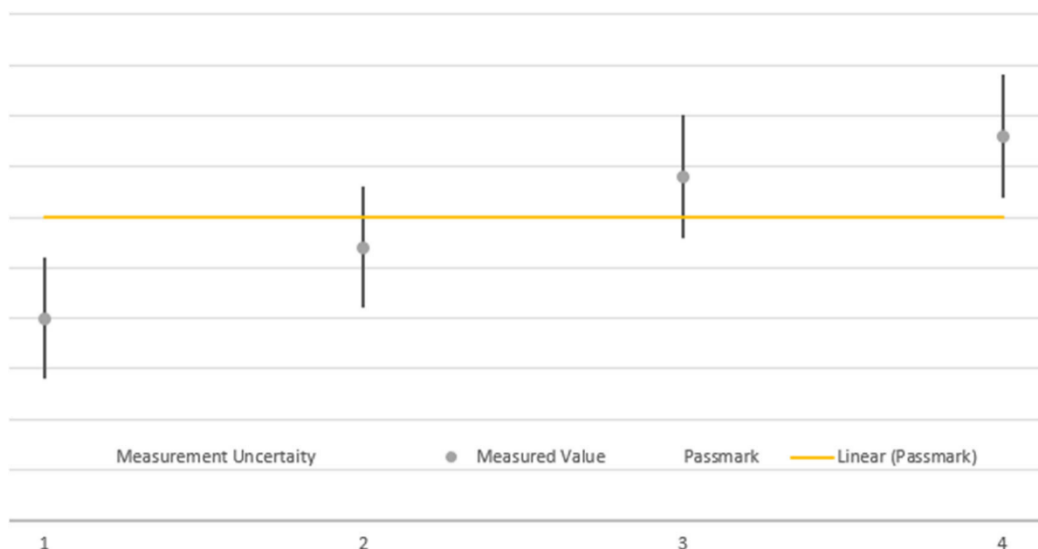


1.1 MEASUREMENT UNCERTAINTY

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	$\pm 2.70\text{dB}$
Radiated emissions (9KHz~30MHz)	$\pm 2.68\text{dB}$
Radiated emissions (30MHz~1GHz)	$\pm 4.98\text{dB}$
Radiated emissions (1GHz ~6GHz)	$\pm 4.70\text{dB}$
Radiated emissions (6GHz ~18GHz)	$\pm 4.60\text{dB}$
Radiated emissions (18GHz ~40GHz)	$\pm 4.12\text{dB}$
Conducted emissions	$\pm 4.01\text{dB}$
Occupied Channel Bandwidth	$\pm 43.58\text{KHz}$
Conducted Output power	$\pm 2.06\text{dB}$
Power Spectral Density	$\pm 0.85\text{ dB}$

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



The verdicts in this test report are given according the above diagram:

Case	Measured Value	Uncertainty Range	Verdict
1	below pass mark	below pass mark	Passed
2	below pass mark	within pass mark	Passed
3	above pass mark	within pass mark	Failed
4	above pass mark	above pass mark	Failed

That means, the laboratory applies, as decision rule (see ISO/IEC 17025:2017), the so-called shared risk principle.



2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT*	Mobile Computer	
BRAND NAME*	Honeywell	
MODEL NAME*	CT45P-X0N	
NOMINAL VOLTAGE*	5Vdc (adapter) 3.85Vdc (Lithium-ion cell, battery)	
MODULATION *	BLE	GFSK
	2.4G WIFI	DSSS, OFDM
TRANSMISSION RATE*	BT_LE: 0.125 Mbps /0.5 Mbps /1 Mbps/2 Mbps	
	2SECEND-BT_LE: 0.125 Mbps /0.5 Mbps /1 Mbps/2 Mbps	
	802.11b: 11/5.5/2.0/1.0 Mbps	
	802.11g: 54/48/36/24/18/9/6 Mbps	
	802.11n(HT20): up to 65 Mbps	
	802.11ax20: up to 286.8 Mbps	
OPERATING FREQUENCY	2412-2462MHz for 11b/g/n(HT20)/ /ax20(HE20) 2402-2480MHz for BT-LE(GFSK)	
MAX. OUTPUT POWER	WLAN: 386.37mW (Maximum)	
	BT-LE: 4.36mW (Maximum)	
	2SECEND-BT-LE: 3.54mW (Maximum)	
ANTENNA GAIN*	☒ Provided by client	
	BLE	ANT 0: 1.7dBi
	2SECEND-BT-LE	ANT 0: 1.7dBi
	2.4G WIFI	ANT 0:1.7dBi ANT 1: 1.6dBi
ANTENNA TYPE*	BLE	PIFA Antenna
	2SECEND-BT-LE	PIFA Antenna
	2.4G WIFI	ANT 0: PIFA Antenna ANT 1: PIFA Antenna
HW VERSION*	V1.0	
SW VERSION*	OS.11.003	
I/O PORTS*	Refer to user's manual	
CABLE SUPPLIED*	N/A	

**NOTE:**

1. *Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, Test Lab is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
2. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
3. The EUT incorporates a MIMO function. Physically, the EUT provides two transmitters and two receivers.

MODULATION MODE	TX/RX FUNCTION
802.11b	2TX /2RX
802.11g	2TX /2RX
802.11n(HT20)/ ax (20MHz)	2TX /2RX
BT_LE(1MHz)	1TX/1RX
BT_LE(2MHz)	1TX/1RX
BT_LE(S2)	1TX/1RX
BT_LE(S8)	1TX/1RX
2second BT_LE(S8)	1TX /1RX
2second BT_LE(S2)	1TX /1RX
2second BT_LE(1MHz)	1TX /1RX
2second BT_LE(2MHz)	1TX /1RX

4. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
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. This product includes the following two SKU which hardware is exactly same, the difference is described as following, Sample 1 was full test, sample 2 verify the worst case, check worst case Radiated emission:

SAMPLE	EUT CONFIGURATION INFORMATION
1	SKU ID:CT45P-X0N-37D100G ,Assembled with Scanner Imager: S0703
2	SKU ID:CT45P-X0N-38D100G ,Assembled with Scanner Imager: N6803/S0803

7. List of Accessory:

ACCESSORIES	BRAND	MODEL	SPECIFICATION
Battery	Honeywell	CT50-BTSC	Capacity : 3.85vdc 4020mAh
AC Adapter	HONOR	ADS-12B-06 05010E	I/P:100-240Vac, 0.3A O/P: 5Vdc, 2A
USB Cable	Honeywell	CT40-SN	Shielded, 1.25meter
Earphone	Honeywell	PTE-300N 3.5L	Shielded, 1.27meter
LCD Panel	CASIL	CTM10801920T01	5.0" FHD(1928*1080)

2.2 DESCRIPTION OF TEST MODES

11 channels are provided for 802.11b, 802.11g and 802.11n (HT20)/ 802.11ax (HE20):

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		

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)
802.11g	1 to 11	1	OFDM	MCS0
2SECEND-BT-LE	1 to 38	38	GFSK	2.0

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)
802.11g	1 to 11	1	OFDM	MCS0
2SECEND-BT-LE	1 to 38	38	GFSK	2.0

**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).
- ☒ 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	MCS0

TEST CONDITION			
APPLICABLE TO	ENVIRONMENTAL CONDITIONS	TEST VOLTAGE	TESTED BY
PLC	23deg. C, 70%RH	DC 5.0V By Adapter	Hanwen Xu
RE<1G	23deg. C, 70%RH	DC 5.0V By Adapter	Hanwen Xu
RE≥1G	23deg. C, 70%RH	DC 5.0V By Adapter	Hanwen Xu

2.3 DUTY CYCLE OF TEST SIGNAL

Please refer to report W7L-P21080009RF13 (FCC ID: HD5-CT45PL1NE).

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	Laptop	Lenovo	Thinkpad E14	SL10W47313	N/A
2	PC Adapter	Lenovo	ADLX65YCC3D	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB Line: Shielded, Detachable 1.25m;
2	PC USB Line: Unshielded, Detachable, 1.0m;



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	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.26,25	Apr.25,26
CABLE	Rohde&Schwarz	W601	N/A	Apr.26,25	Apr.25,26

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

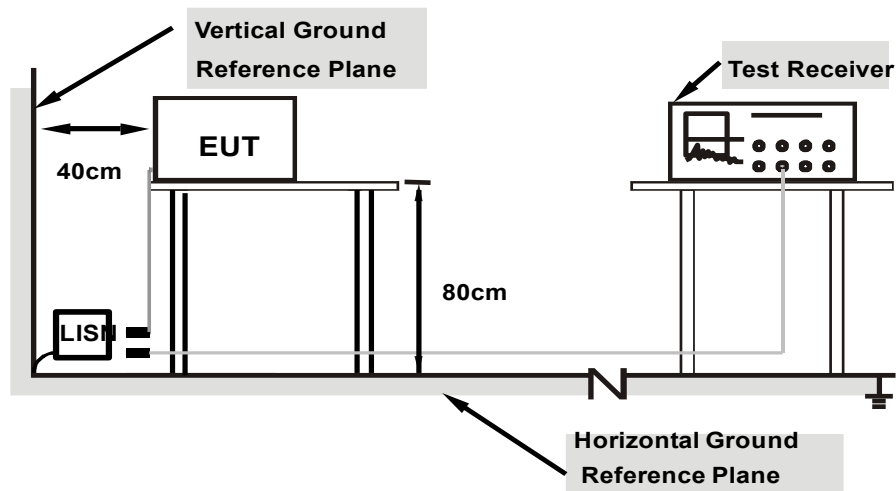
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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.



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	0.155	44.13	65.75	21.63	28.49	55.75	27.26	9.80	L1	9.000
1	0.533	38.37	56.00	17.63	28.10	46.00	17.90	9.75	L1	9.000
1	1.536	33.09	56.00	22.91	23.46	46.00	22.54	9.79	L1	9.000
1	7.872	38.68	60.00	21.32	27.61	50.00	22.39	10.60	L1	9.000
1	10.064	35.09	60.00	24.91	27.40	50.00	22.60	10.99	L1	9.000
1	17.367	32.46	60.00	27.54	16.99	50.00	33.01	12.85	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.



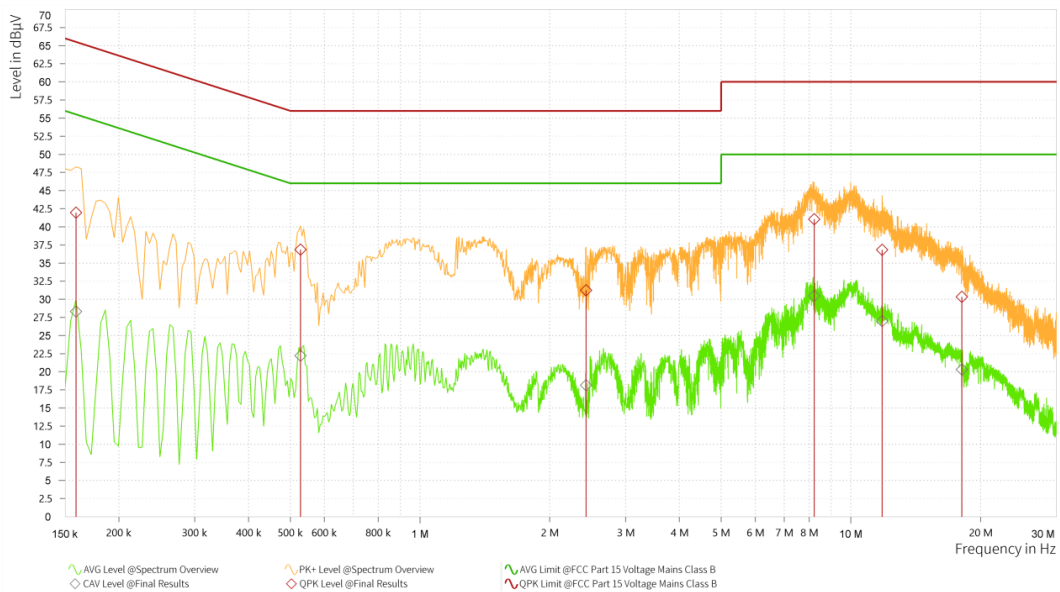


Frequency Range	150KHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	Environmental Conditions	26deg. C, 51%RH
Tested By	Hanwen Xu		

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	0.159	41.96	65.52	23.56	28.30	55.52	27.21	9.79	N	9.000
1	0.528	36.87	56.00	19.13	22.23	46.00	23.77	9.75	N	9.000
1	2.427	31.24	56.00	24.76	18.15	46.00	27.85	9.88	N	9.000
1	8.219	41.07	60.00	18.93	30.47	50.00	19.53	10.67	N	9.000
1	11.819	36.82	60.00	23.18	27.00	50.00	23.00	11.46	N	9.000
1	18.101	30.33	60.00	29.67	20.33	50.00	29.67	13.05	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.



3.1 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.
Pre-Amplifier	R&S	SCU18F1	100815	Aug.29,25	Aug.28,27
Pre-Amplifier	R&S	SCU08F1	101028	Jan.22,24	Jan.21,26
Signal Generator	R&S	SMB100A	182185	Mar.29,24	Mar.28,26
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-01Chamber	Nov.24,22	Nov.23,25
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-01Chamber	Nov.23,25	Nov.22,28
3m Semi-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-02Chamber	Aug.20,25	Aug.19,28
EMI TEST Receiver	R&S	ESW44	101973	Mar.28,24	Mar.27,26
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Jul.04,25	Jul.03,27
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.20,25	Aug.19,27
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Jul.15,24	Jul.14,26
Horn Antenna	Steatite Q-par Antennas	QMS 00208	23485	Mar.22,25	Mar.21,27
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Jul.08,25	Jul.07,27
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.19,24	Jun.18,26
Test Software	ELEKTRA	ELEKTRA4.32	N/A	N/A	N/A
Open Switch and Control Unit	R&S	OSP220	101964	N/A	N/A
DC Source	HYELEC	HY3010B	551016	Jul.31,25	Jul.30,27
Hygrothermograph	DELI	20210528	SZ014	Mar.18,25	Mar.17,27
6DB attenuator	Tonscend Technology Co., Ltd	N/A	23062787	N/A	N/A
PC	LENOVO	E14	HRSW0024	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-7.00M	N/A	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-4.00M	N/A	N/A	N/A
CABLE	R&S	W13.02	N/A	Apr.26,25	Apr.25,26
CABLE	R&S	W12.14	N/A	Apr.26,25	Apr.25,26

NOTE:

1. The calibration interval of the above test instruments is 12/ 24 / 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 434559; The Designation No. is CN1325.



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 ($10 \log(1/\text{duty cycle})$).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

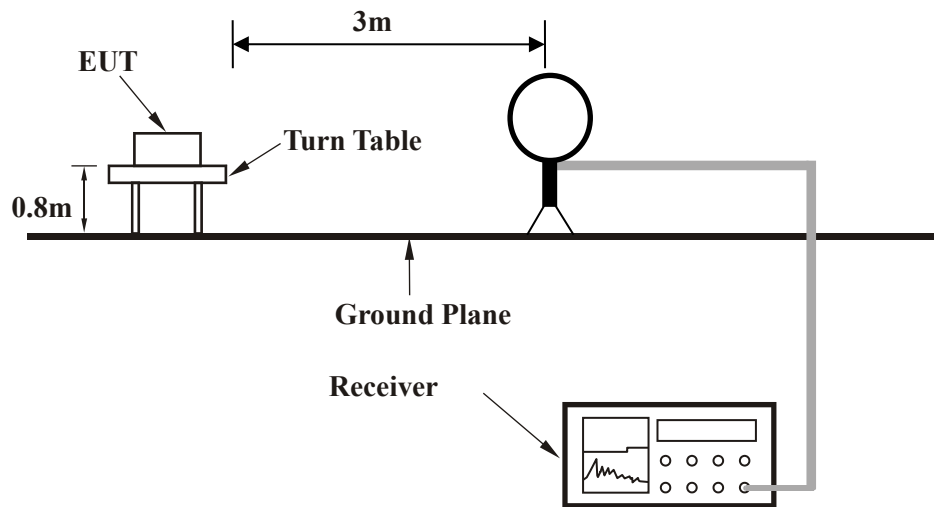
3.2.4 DEVIATION FROM TEST STANDARD

No deviation

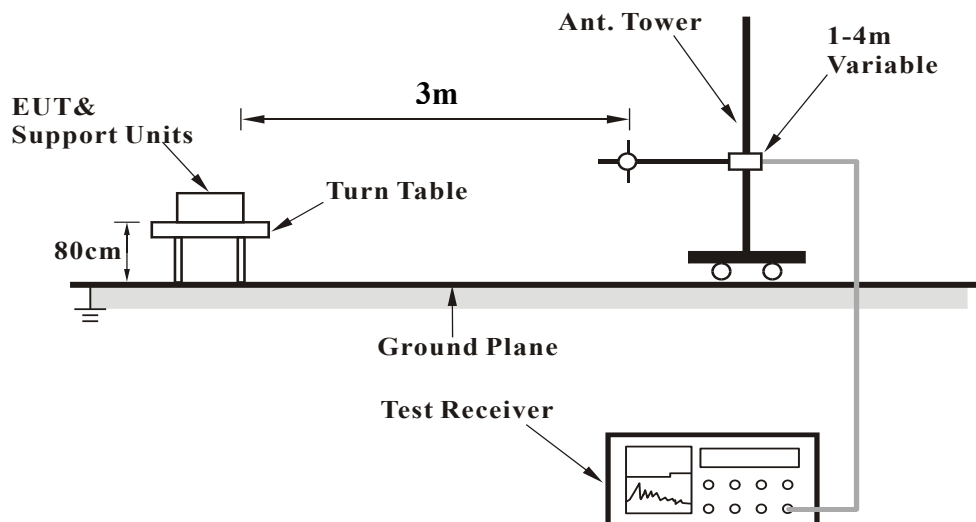


3.2.5 TEST SETUP

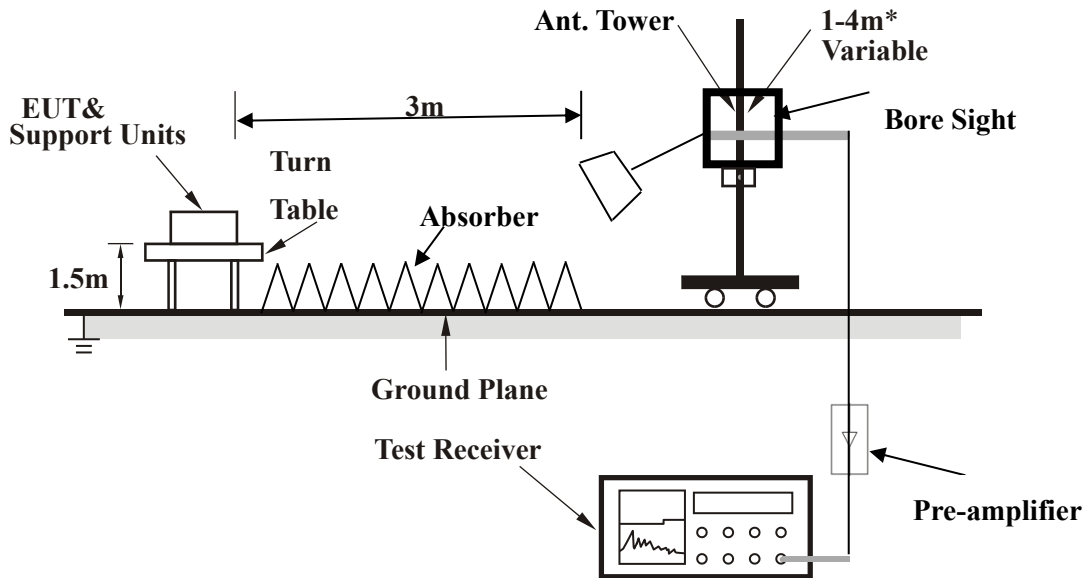
<Frequency Range 9KHz~30MHz >



< 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).

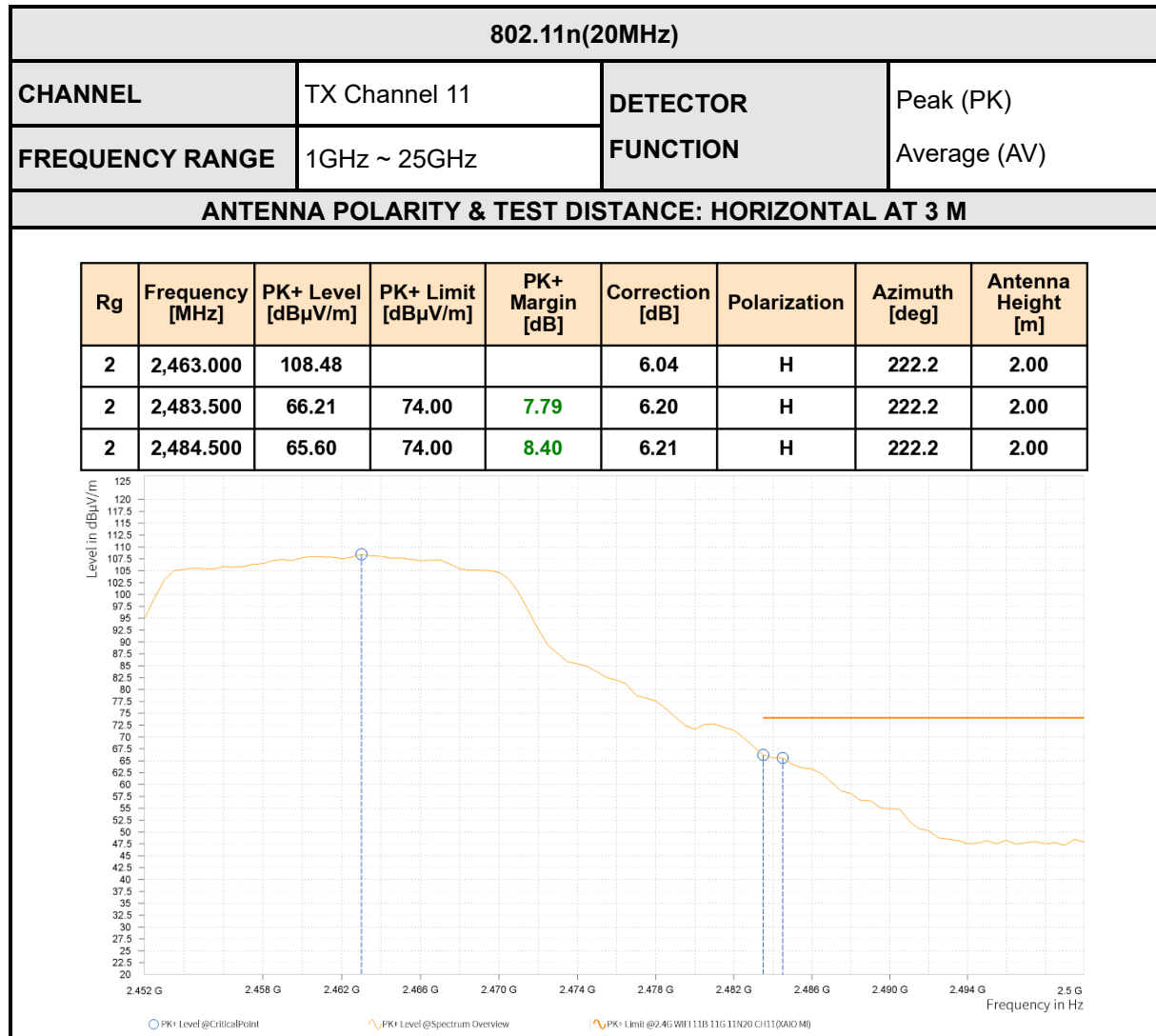
3.2.6 EUT OPERATING CONDITIONS

- Set the EUT under full load condition and placed them on a testing table.
- Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.
- The necessary accessories enable the EUT in full functions.



3.2.7 TEST RESULTS

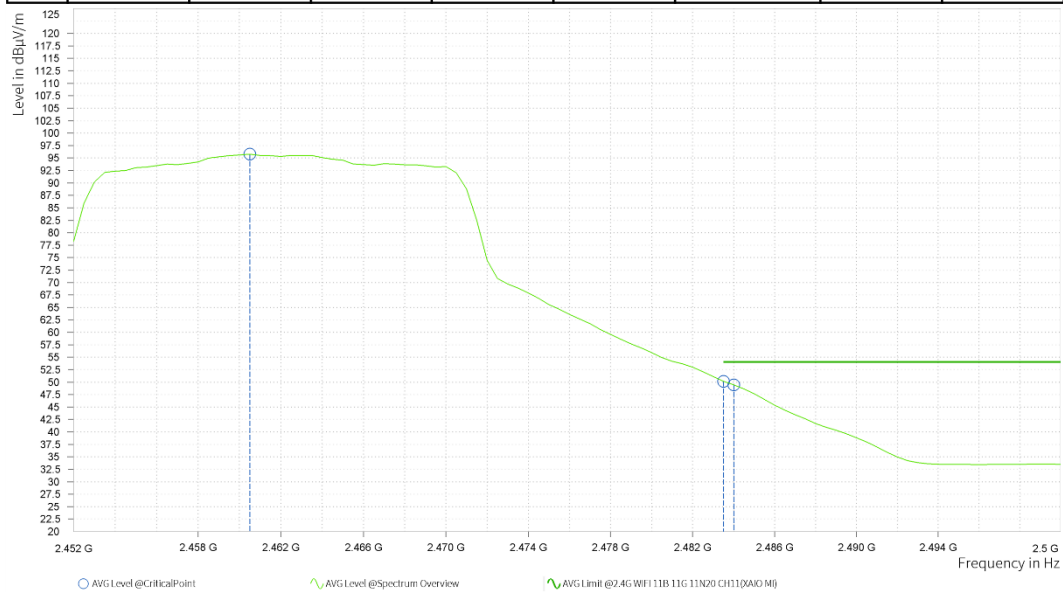
BANDEDGE MEASUREMENT





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

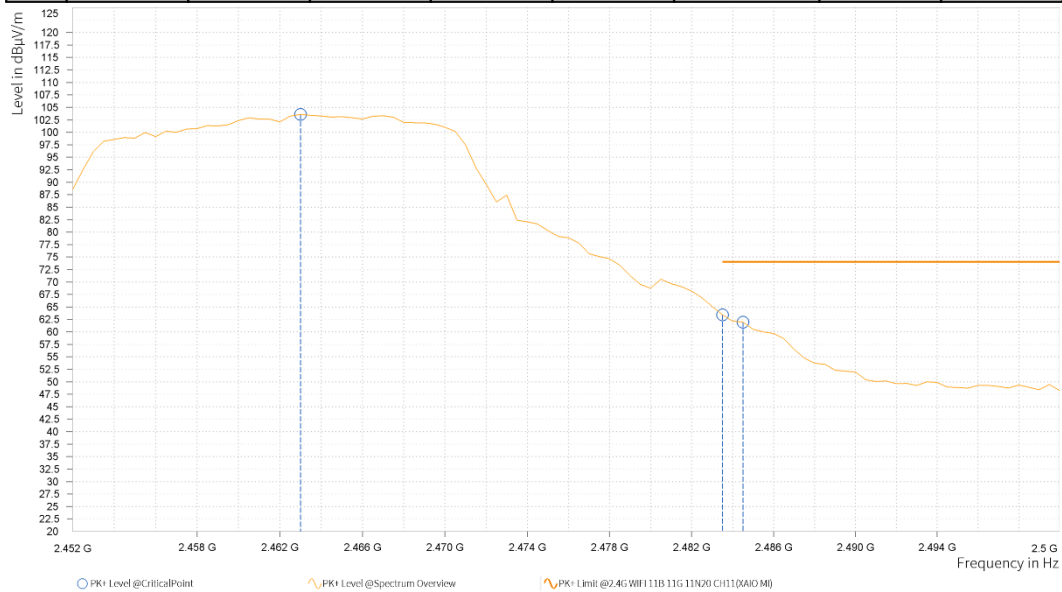
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	2,460.500	95.76			6.02	H	220.9	2.00
2	2,483.500	50.17	54.00	3.83	6.20	H	220.9	2.00
2	2,484.000	49.46	54.00	4.54	6.20	H	220.9	2.00





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

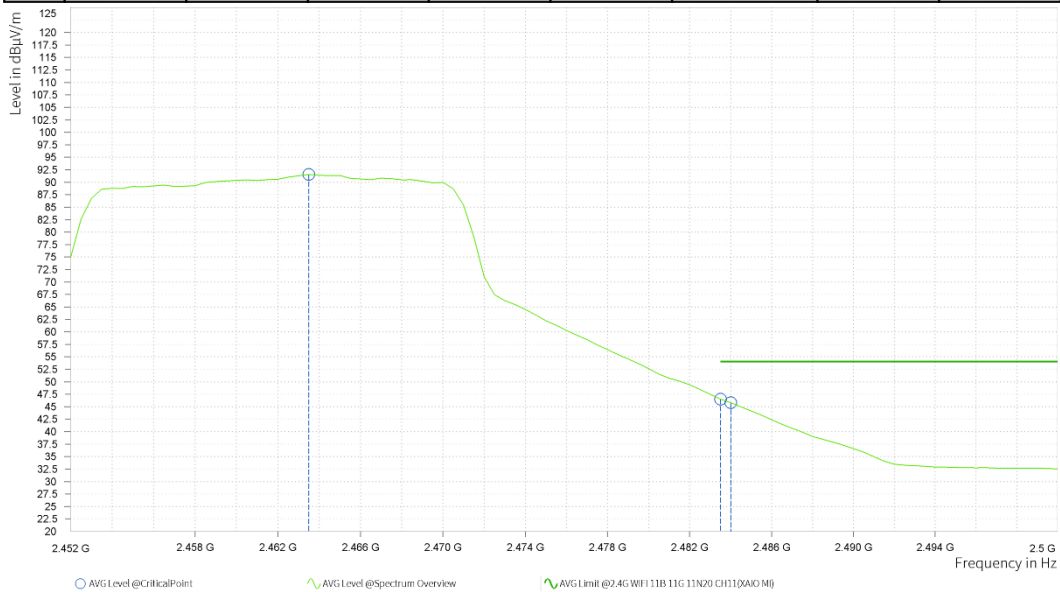
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	2,463.000	103.59			6.04	V	359	2.00
2	2,483.500	63.44	74.00	10.56	6.20	V	336.3	1.00
2	2,484.500	61.96	74.00	12.04	6.21	V	1	2.00





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	2,463.500	91.55			6.05	V	359	2.00
2	2,483.500	46.53	54.00	7.47	6.20	V	359	2.00
2	2,484.000	45.82	54.00	8.18	6.20	V	359	2.00



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 2412MHz: Fundamental frequency.



RADIATED EMISSION

BELOW 1GHz WORST-CASE DATA

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

802.11g SISO ANT0

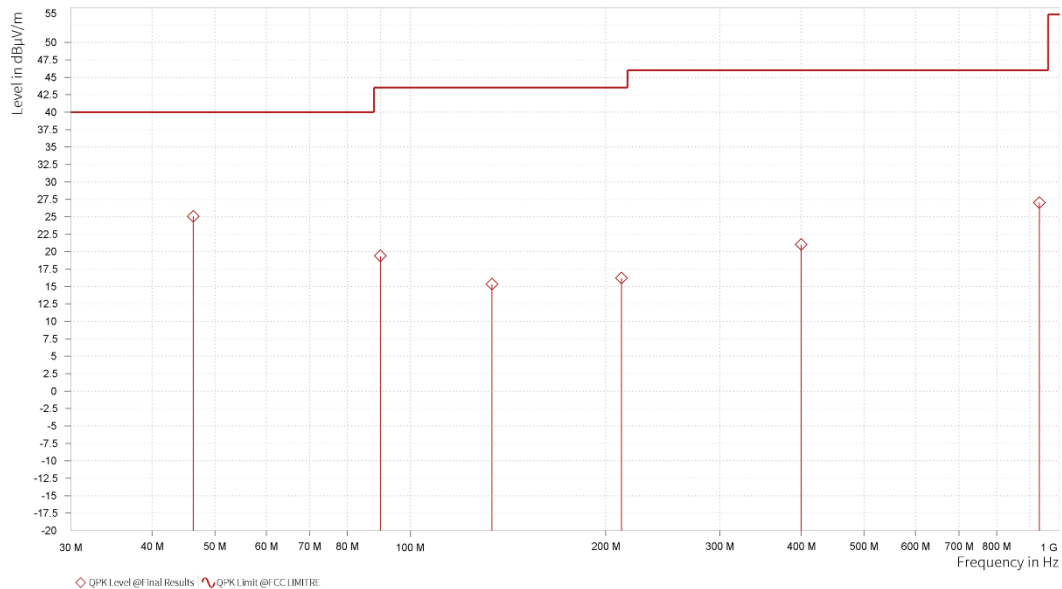
CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	QPK Level [dBμV/m]	QPK Limit [dBμV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	46.296	25.05	40.00	14.95	-10.21	H	1	2.00	120.000
1	89.946	19.37	43.50	24.13	-14.31	H	53.6	2.00	120.000
1	133.596	15.33	43.50	28.17	-15.23	H	1	2.00	120.000
1	211.390	16.20	43.50	27.30	-11.43	H	1	2.00	120.000
1	399.910	21.01	46.00	24.99	-4.14	H	207.8	2.00	120.000
1	931.033	27.02	46.00	18.98	2.78	H	153.4	1.00	120.000

REMARKS:

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





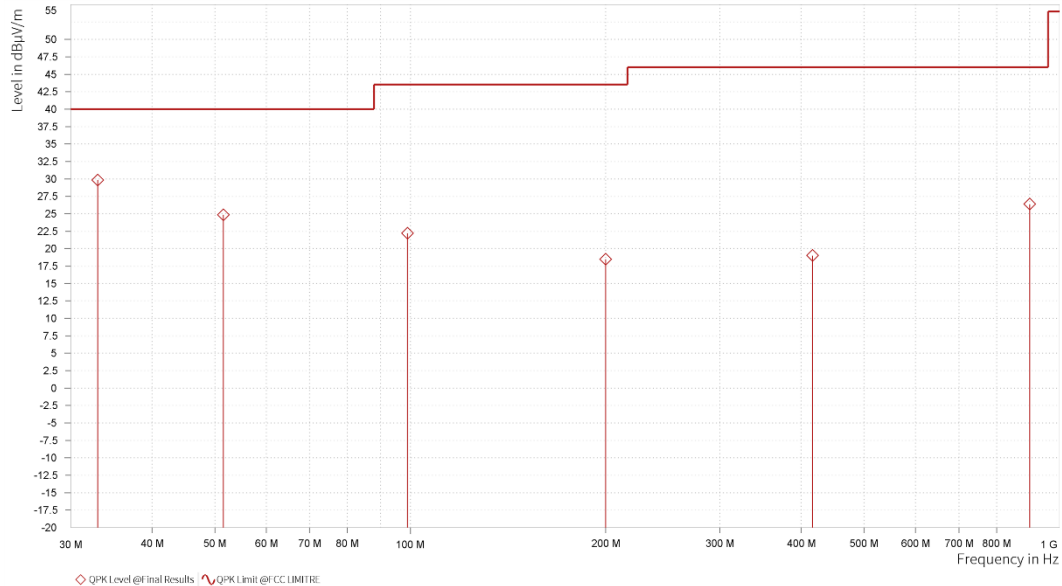
CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	QPK Level [dBμV/m]	QPK Limit [dBμV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	33.007	29.83	40.00	10.17	-13.06	V	153.4	1.00	120.000
1	51.534	24.84	40.00	15.16	-10.06	V	1	1.00	120.000
1	98.967	22.21	43.50	21.29	-12.28	V	359.1	1.00	120.000
1	199.944	18.46	43.50	25.04	-11.12	V	1	1.00	120.000
1	416.351	19.00	46.00	27.00	-3.83	V	359	2.00	120.000
1	899.799	26.37	46.00	19.63	1.90	V	4.9	1.00	120.000

REMARKS:

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



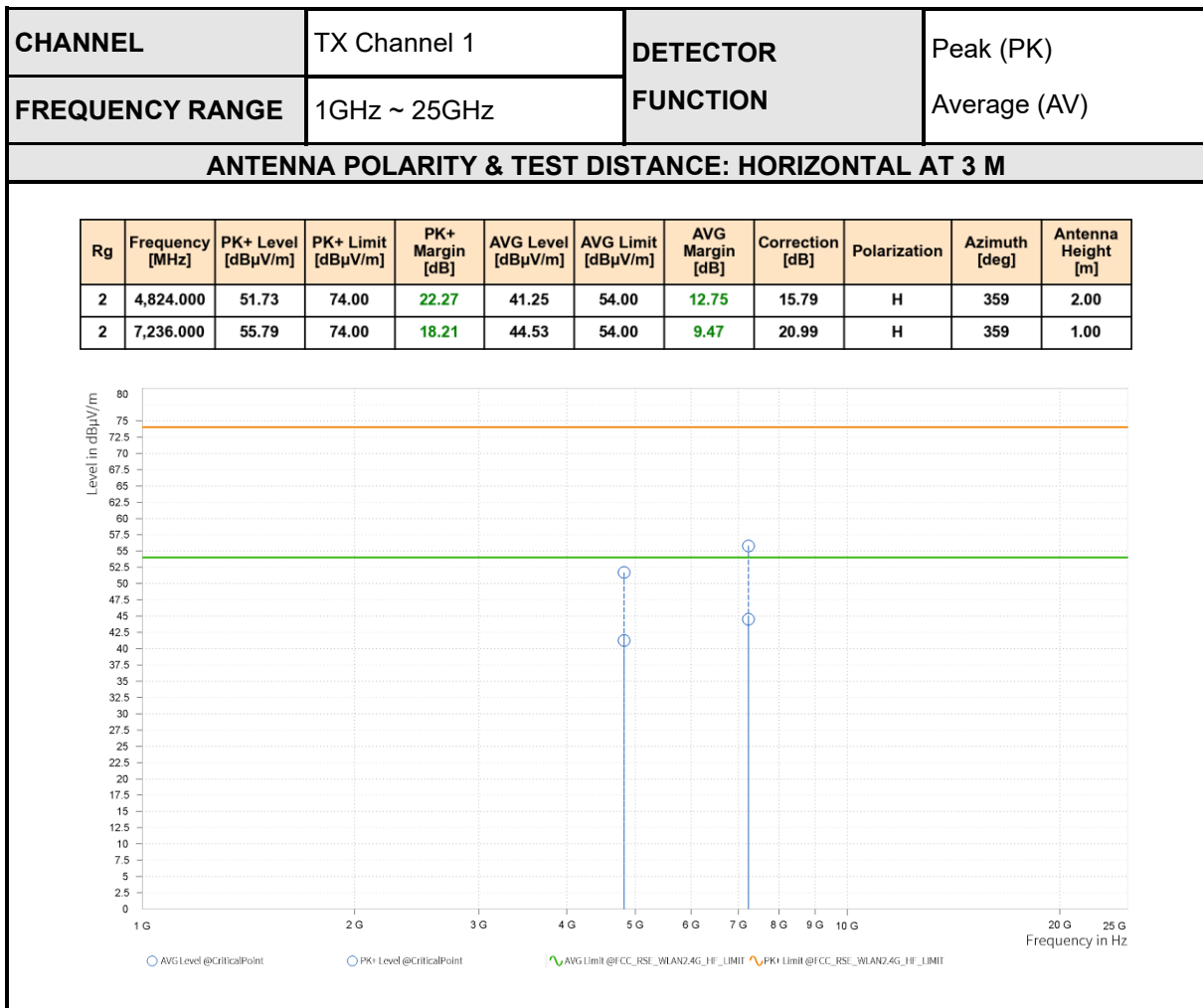


ABOVE 1GHz WORST-CASE DATA

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

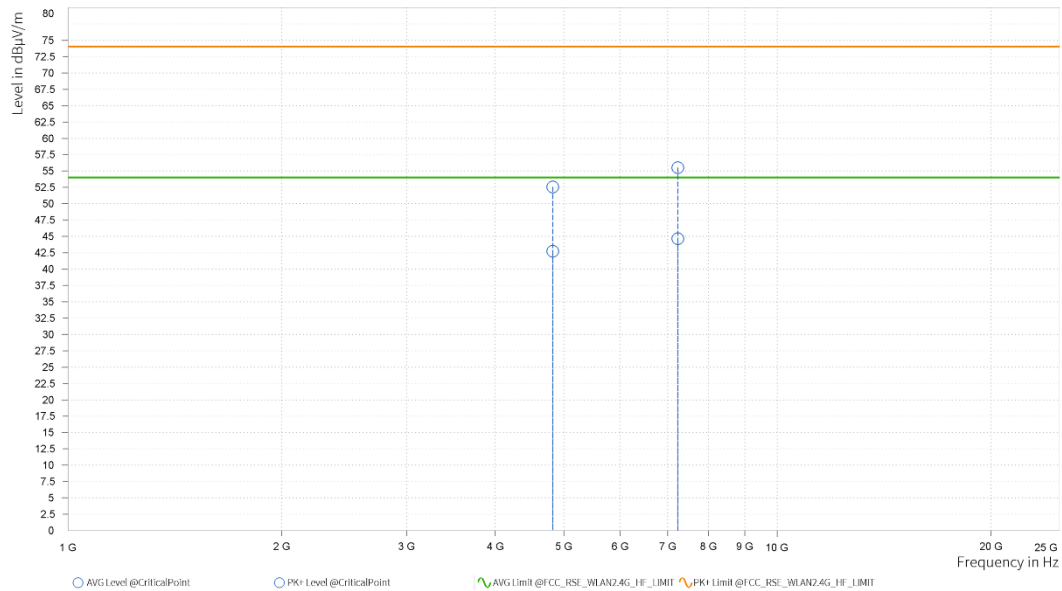
802.11g SISO ANT0





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	4,824.000	52.56	74.00	21.44	42.73	54.00	11.27	15.79	V	268.7	2.00
2	7,236.000	55.52	74.00	18.48	44.65	54.00	9.35	20.99	V	268.7	2.00

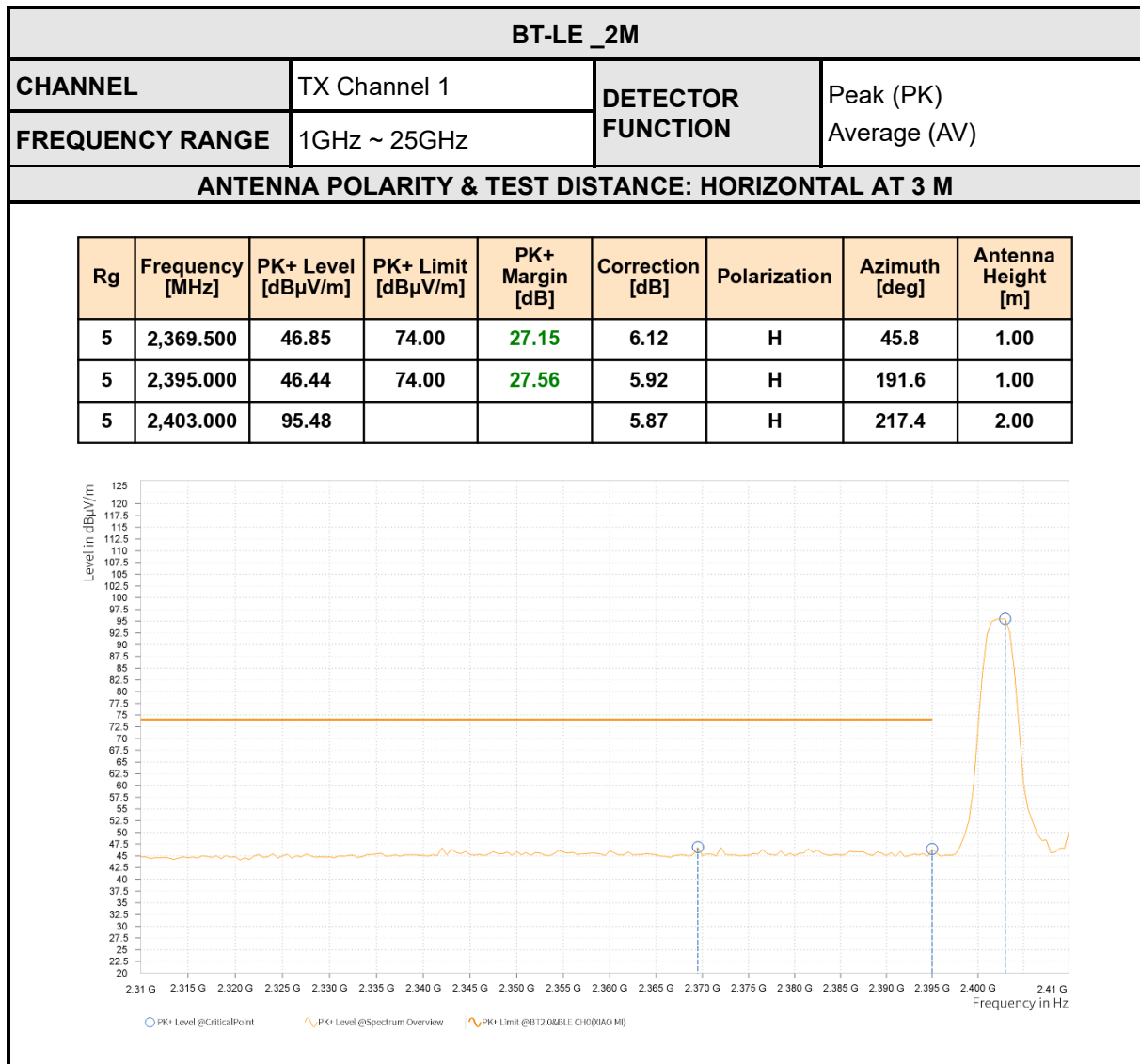


REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 2437MHz: Fundamental frequency.



BANDEDGE MEASUREMENT





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

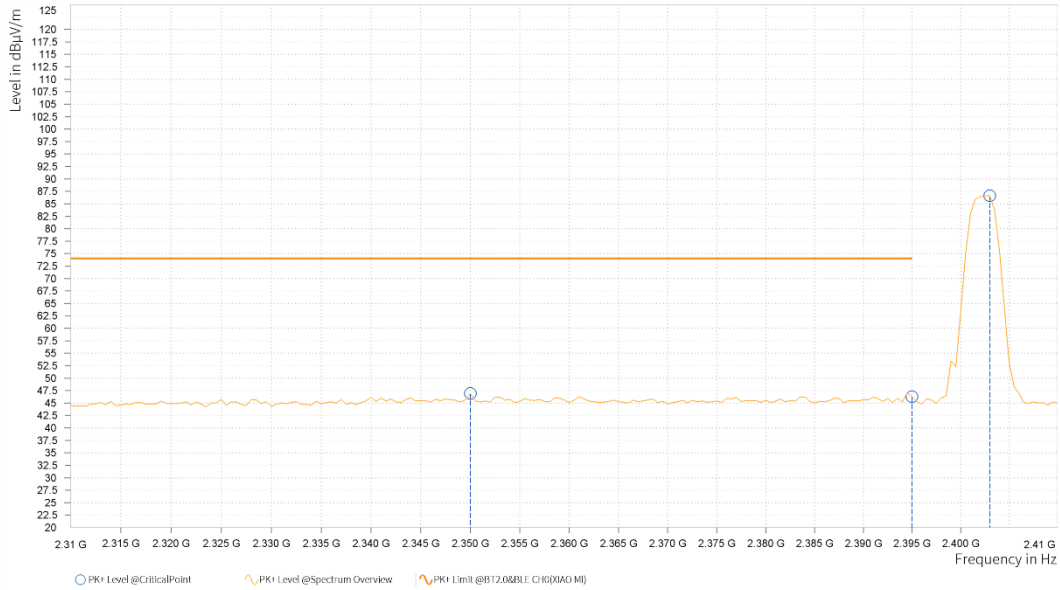
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,359.000	31.49	54.00	22.51	6.19	H	315.4	2.00
5	2,395.000	31.16	54.00	22.84	5.92	H	337.4	1.00
5	2,402.000	61.59			5.87	H	218.6	2.00





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,350.000	46.91	74.00	27.09	6.24	V	93.7	1.00
5	2,395.000	46.28	74.00	27.72	5.92	V	168.2	2.00
5	2,403.000	86.62			5.87	V	142.6	1.00





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,360.500	31.69	54.00	22.31	6.18	V	169.4	2.00
5	2,395.000	31.48	54.00	22.52	5.92	V	217.3	2.00
5	2,402.000	56.63			5.87	V	71.4	2.00



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2404MHz: Fundamental frequency.



RADIATED EMISSION

BELOW 1GHz WORST-CASE DATA

BT-LE_2M

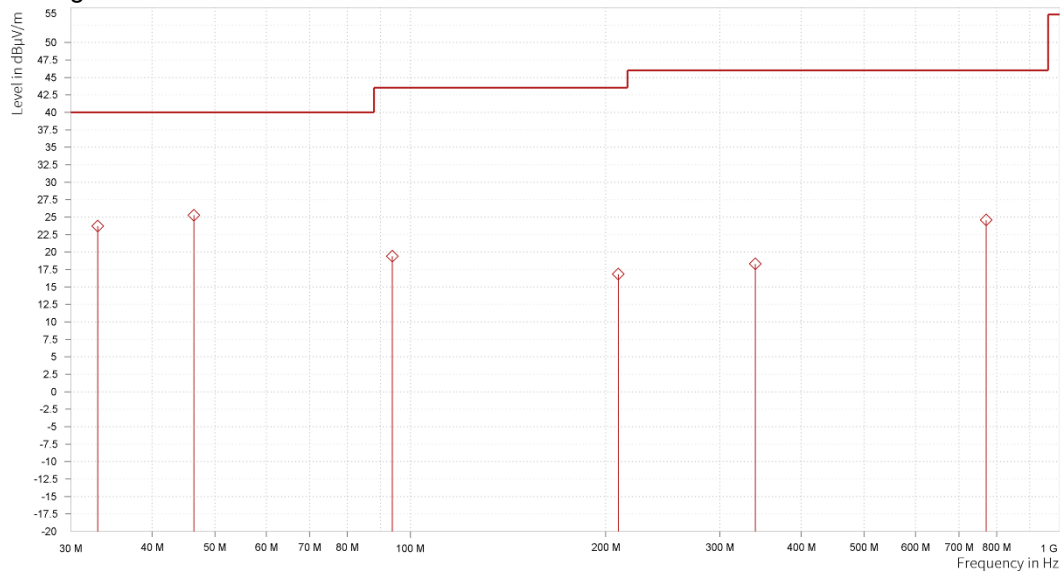
CHANNEL	TX Channel 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	QPK Level [dBμV/m]	QPK Limit [dBμV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	33.007	23.71	40.00	16.29	-13.06	H	359.1	1.00	120.000
1	46.393	25.27	40.00	14.73	-10.21	H	1	1.00	120.000
1	93.778	19.40	43.50	24.10	-13.33	H	4.2	1.00	120.000
1	209.159	16.82	43.50	26.68	-11.48	H	4.2	1.00	120.000
1	339.867	18.28	46.00	27.72	-5.74	H	359.1	1.00	120.000
1	770.789	24.57	46.00	21.43	-0.07	H	207.8	2.00	120.000

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level





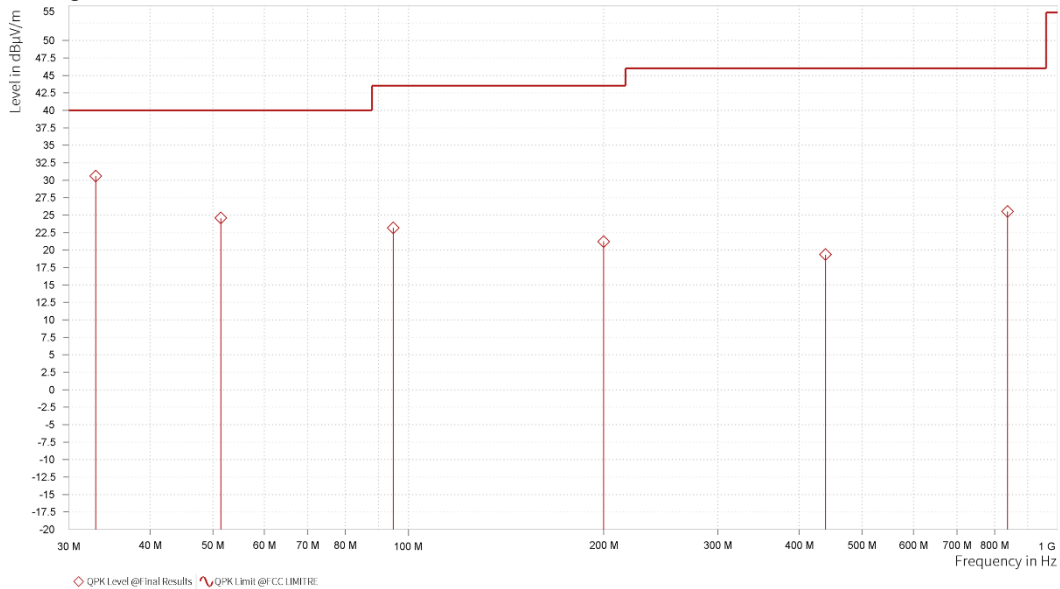
CHANNEL	TX Channel 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	QPK Level [dBμV/m]	QPK Limit [dBμV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	33.007	30.58	40.00	9.42	-13.06	V	152.2	1.00	120.000
1	51.437	24.57	40.00	15.43	-10.05	V	308.8	1.00	120.000
1	94.796	23.18	43.50	20.32	-13.09	V	359.1	1.00	120.000
1	199.993	21.19	43.50	22.31	-11.12	V	359.1	1.00	120.000
1	439.001	19.33	46.00	26.67	-3.98	V	355.2	2.00	120.000
1	837.574	25.52	46.00	20.48	0.38	V	359	2.00	120.000

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level



ABOVE 1GHz TEST DATA

Note:

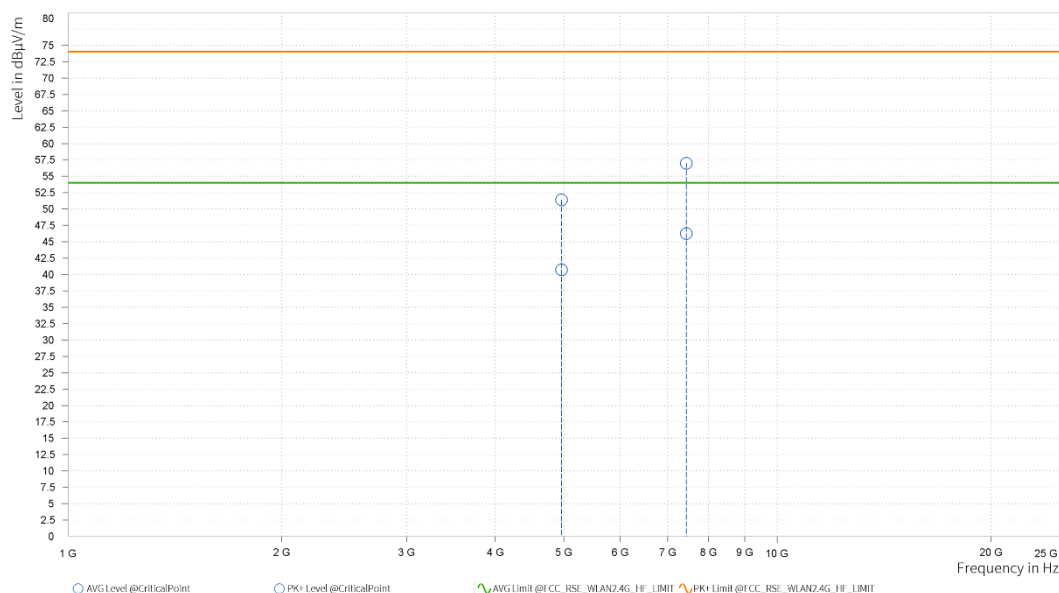
1. For radiated emissions testing , the full testing range of different modes have been scanned , only the worst case harmonic data is reported in the sheet.
2. All other emissions were greater than 20dB below the limit was not recorded

BT-LE_2M

CHANNEL	TX Channel 39	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

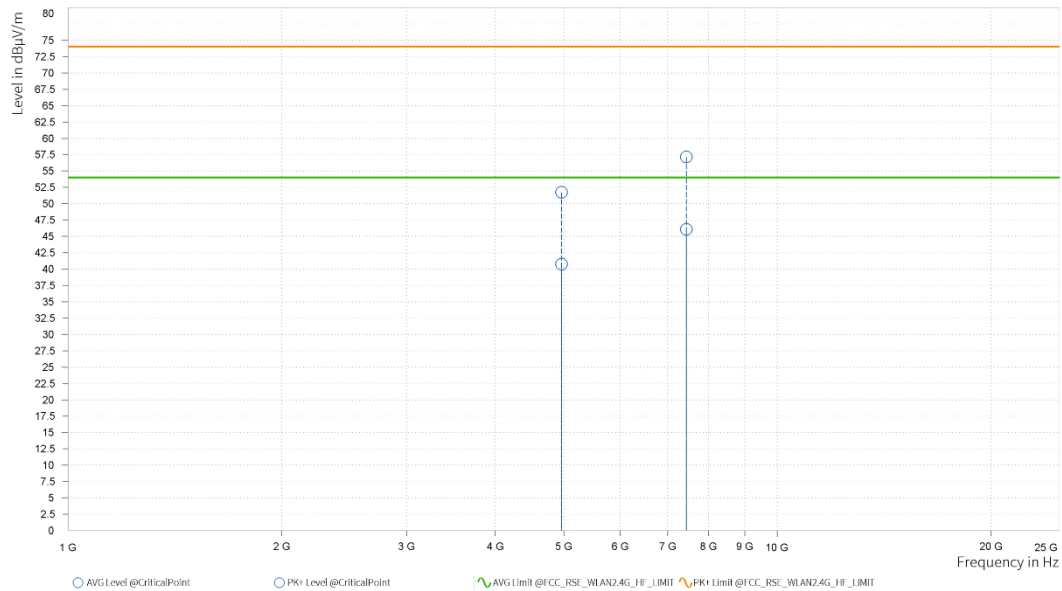
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	4,960.000	51.40	74.00	22.60	40.73	54.00	13.27	16.21	H	267.5	2.00
2	7,440.000	57.00	74.00	17.00	46.27	54.00	7.73	21.16	H	1	2.00





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	4,960.000	51.74	74.00	22.26	40.77	54.00	13.23	16.21	V	1	2.00
2	7,440.000	57.14	74.00	16.86	46.08	54.00	7.92	21.16	V	1	2.00



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor.
2. Margin value = Limit value–Emission level.
3. 2440MHz: Fundamental frequency.

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

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



Test Report No.: PSU-QBJ2512030414RF02

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.



Test Report No.: PSU-QBJ2512030414RF02

6 APPENDIX: THE ORIGINAL REPORT

FCC TEST REPORT

(Part 15, Subpart C)

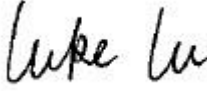
Applicant:	Honeywell International Inc Honeywell Safety and Productivity Solutions
Address:	9680 Old Bailes Road, Fort Mill, SC 29707 United States

Manufacturer or Supplier:	Honeywell International Inc Honeywell Safety and Productivity Solutions
Address:	9680 Old Bailes Road, Fort Mill, SC 29707 United States
Product:	Mobile Computer
Brand Name:	Honeywell
Model Name:	CT45P-X0N
FCC ID:	HD5-CT45PX0N
Date of tests:	Jun. 19, 2021 ~ Sep. 16, 2021

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

- ☒ **FCC Part 15, Subpart C, Section 15.247**
- ☒ **ANSI C63.10-2013**

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
 Date: Sep. 17, 2021	 Date: Sep. 17, 2021

This report is governed by, and incorporates by reference, CPS Conditions of Service as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute you unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



TABLE OF CONTENTS

RELEASE CONTROL RECORD	4
1 SUMMARY OF TEST RESULTS.....	5
1.1 MEASUREMENT UNCERTAINTY	5
2 GENERAL INFORMATION	6
2.1 GENERAL DESCRIPTION OF EUT	6
2.2 DESCRIPTION OF TEST MODES	9
2.2.1 CONFIGURATION OF SYSTEM UNDER TEST	10
2.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL.....	10
2.3 DUTY CYCLE OF TEST SIGNAL	13
2.4 GENERAL DESCRIPTION OF APPLIED STANDARDS	16
2.5 DESCRIPTION OF SUPPORT UNITS	16
3 TEST TYPES AND RESULTS.....	17
3.1 CONDUCTED EMISSION MEASUREMENT	17
3.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT	17
3.1.2 TEST INSTRUMENTS.....	17
3.1.3 TEST PROCEDURES	18
3.1.4 DEVIATION FROM TEST STANDARD	18
3.1.5 TEST SETUP	19
3.1.6 EUT OPERATING CONDITIONS	19
3.1.7 TEST RESULTS	20
3.2 RADIATED EMISSION MEASUREMENT	22
3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT	22
3.2.2 TEST INSTRUMENTS.....	23
3.2.3 TEST PROCEDURES	24
3.2.4 DEVIATION FROM TEST STANDARD	24
3.2.5 TEST SETUP	25
3.2.6 EUT OPERATING CONDITIONS	26
3.2.7 TEST RESULTS	27
3.3 6 DB BANDWIDTH MEASUREMENT	100
3.3.1 LIMITS OF 6DB BANDWIDTH MEASUREMENT	100
3.3.2 TEST INSTRUMENTS.....	100
3.3.3 TEST PROCEDURE.....	100
3.3.4 DEVIATION FROM TEST STANDARD	101



**BUREAU
VERITAS**

Test Report No.: W7L-P21080021RF08

3.3.5	TEST SETUP	101
3.3.6	EUT OPERATING CONDITIONS	101
3.3.7	TEST RESULTS	102
3.4	CONDUCTED OUTPUT POWER.....	118
3.4.1	LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT.....	118
3.4.2	TEST SETUP	118
3.4.3	TEST INSTRUMENTS.....	118
3.4.4	TEST PROCEDURES	118
3.4.5	DEVIATION FROM TEST STANDARD	118
3.4.6	EUT OPERATING CONDITIONS	118
3.4.7	TEST RESULTS	119
3.4.7.1	MAXIMUM PEAK OUTPUT POWER	119
3.4.7.2	AVERAGE OUTPUT POWER (FOR REFERENCE).....	125
3.5	POWER SPECTRAL DENSITY MEASUREMENT	131
3.5.1	LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT	131
3.5.2	TEST SETUP	131
3.5.3	TEST INSTRUMENTS.....	131
3.5.4	TEST PROCEDURE.....	131
3.5.5	DEVIATION FROM TEST STANDARD	131
3.5.6	EUT OPERATING CONDITION	131
3.5.7	TEST RESULTS	132
3.6	OUT OF BAND EMISSION MEASUREMENT	149
3.6.1	LIMITS OF OUT OF BAND EMISSION MEASUREMENT	149
3.6.2	TEST SETUP	149
3.6.3	TEST INSTRUMENTS.....	149
3.6.4	TEST PROCEDURE.....	149
3.6.5	DEVIATION FROM TEST STANDARD	150
3.6.6	EUT OPERATING CONDITION	150
3.6.7	TEST RESULTS	150
4	PHOTOGRAPHS OF THE TEST CONFIGURATION	183
5	APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	184



Test Report No.: W7L-P21080021RF08

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P21080021RF08	Original release	Sep. 17, 2021



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

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 (30MHz~1GMHz)	±4.98dB
Radiated emissions (1GMHz ~6GMHz)	±4.70dB
Radiated emissions (6GMHz ~18GMHz)	±4.60dB
Radiated emissions (18GMHz ~40GMHz)	±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	Mobile Computer
BRAND NAME	Honeywell
MODEL NAME	CT45P-X0N
NOMINAL VOLTAGE	3.85Vdc (Lithium-ion cell, battery)
MODULATION	DSSS, OFDM, GFSK
TRANSMISSION RATE	802.11b: 11/ 5.5/ 2.0 / 1.0 Mbps 802.11g: 54/ 48/ 36 / 24 / 18 / 9/ 6 Mbps 802.11n20: up to 65 Mbps 802.11ax20: up to 286.8 Mbps BT_LE: 0.125 Mbps /0.5 Mbps /1 Mbps/2 Mbps 2SECEND-BT_LE: 0.125 Mbps /0.5 Mbps /1 Mbps/2 Mbps
OPERATING FREQUENCY	2412-2462MHz for 11b/g/n(HT20)/ax20(HE20) 2402-2480MHz for BT-LE(GFSK)
MAX. OUTPUT POWER	WLAN: 386.37mW (Maximum) BT-LE: 4.36mW (Maximum) 2SECEND-BT-LE: 3.54mW (Maximum)
ANTENNA TYPE	ANT 0: PIFA Antenna with 1.7dBi gain for WIFI/ BT-LE/ 2SECOND-OND-END-BT-LE ANT 1: PIFA Antenna with 1.6dBi gain for WIFI/ BT-LE/ 2SECOND-OND-END-BT-LE
HW VERSION	V1.0
SW VERSION	OS.11.001
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	USB cable: unshielded without ferrite, 1.25 meter Earphone cable: unshielded without ferrite, 1.27 meter



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VERITAS**

Test Report No.: W7L-P21080021RF08

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. This product includes the following two SKU which hardware is exactly same, the difference is described as following, Sample 1 was full test, sample 2 verify the worst case, check worst case Radiated emission:

SAMPLE	EUT CONFIGURATION INFORMATION
1	SKU ID:CT45P-X0N-37D100G ,Assembled with Scanner Imager: S0703
2	SKU ID:CT45P-X0N-38D100G ,Assembled with Scanner Imager: N6803/S0803

3. 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 (20MHz)	2TX /2RX
802.11ax (20MHz)	2TX /2RX
BT_LE(1MHz)	1TX /1RX
BT_LE(2MHz)	1TX /1RX
BT_LE(S2)	1TX /1RX
BT_LE(S8)	1TX /1RX
2second BT_LE(S8)	1TX /1RX
2second BT_LE(S2)	1TX /1RX
2second BT_LE(1MHz)	1TX /1RX
2second BT_LE(2MHz)	1TX /1RX

4. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.



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VERITAS**

Test Report No.: W7L-P21080021RF08

List of Accessory:

ACCESSORIES	BRAND	MODEL	SPECIFICATION
Battery	Honeywell	CT50-BTSC	Capacity : 3.85vdc 4020mAh
AC Adapter	HONOR	ADS-12B-06 05010E	I/P:100-240Vac, 0.3A O/P: 5Vdc, 2A
USB Cable	Honeywell	CT40-SN	Shielded, 1.25meter
Earphone	Honeywell	PTE-300N 3.5L	Shielded, 1.27meter
LCD Panel	CASIL	CTM10801920T01	5.0" FHD(1928*1080)



2.2 DESCRIPTION OF TEST MODES

11 channels are provided for 802.11b, 802.11g and 802.11n (HT20) 802.11ax20 (HE20):

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		

40 channels are provided for BT-LE (GFSK) & 2SECEND-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 5 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).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11n HT20	1 to 11	11	OFDM	MCS0
BT-LE	0 to 39	39	GFSK	2.0
2SECEND-BT-LE	0 to 39	39	GFSK	2.0

**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).

☒ 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
BT-LE	0 to 39	0,19, 39	GFSK	0.125&0.5&1&2
2SECEND-BT-LE	0 to 39	0,19, 39	GFSK	0.125&0.5&1&2

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).

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11n HT20	1 to 11	11	OFDM	MCS0

BANDEGE 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).

☒ 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, 11	DSSS	1.0
802.11g	1 to 11	1, 11	OFDM	6.0
802.11n HT20	1 to 11	1, 11	OFDM	MCS0
802.11ax HE20	1 to 11	1, 11	OFDM	MCS0
BT-LE	0 to 39	0, 39	GFSK	0.125&0.5&1&2
2SECEND-BT-LE	0 to 39	0, 39	GFSK	0.125&0.5&1&2



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VERITAS**

Test Report No.: W7L-P21080021RF08

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).
- ☒ 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	CCK	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
BT-LE	0 to 39	0,19, 39	GFSK	0.125&0.5&1&2
2SECEND-BT-LE	0 to 39	0,19, 39	GFSK	0.125&0.5&1&2

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	TEST VOLTAGE	TESTED BY
RE<1G	23deg. C, 70%RH	DC 3.85V By Battery	Carl Xie
RE≥1G	23deg. C, 70%RH	DC 3.85V By Battery	Carl Xie
PLC	25deg. C, 52%RH	DC 3.85V By Battery	Lily Zhao
APCM	25deg. C, 60%RH	DC 3.85V By Battery	Lily Zhao



2.3 Duty Cycle of Test Signal

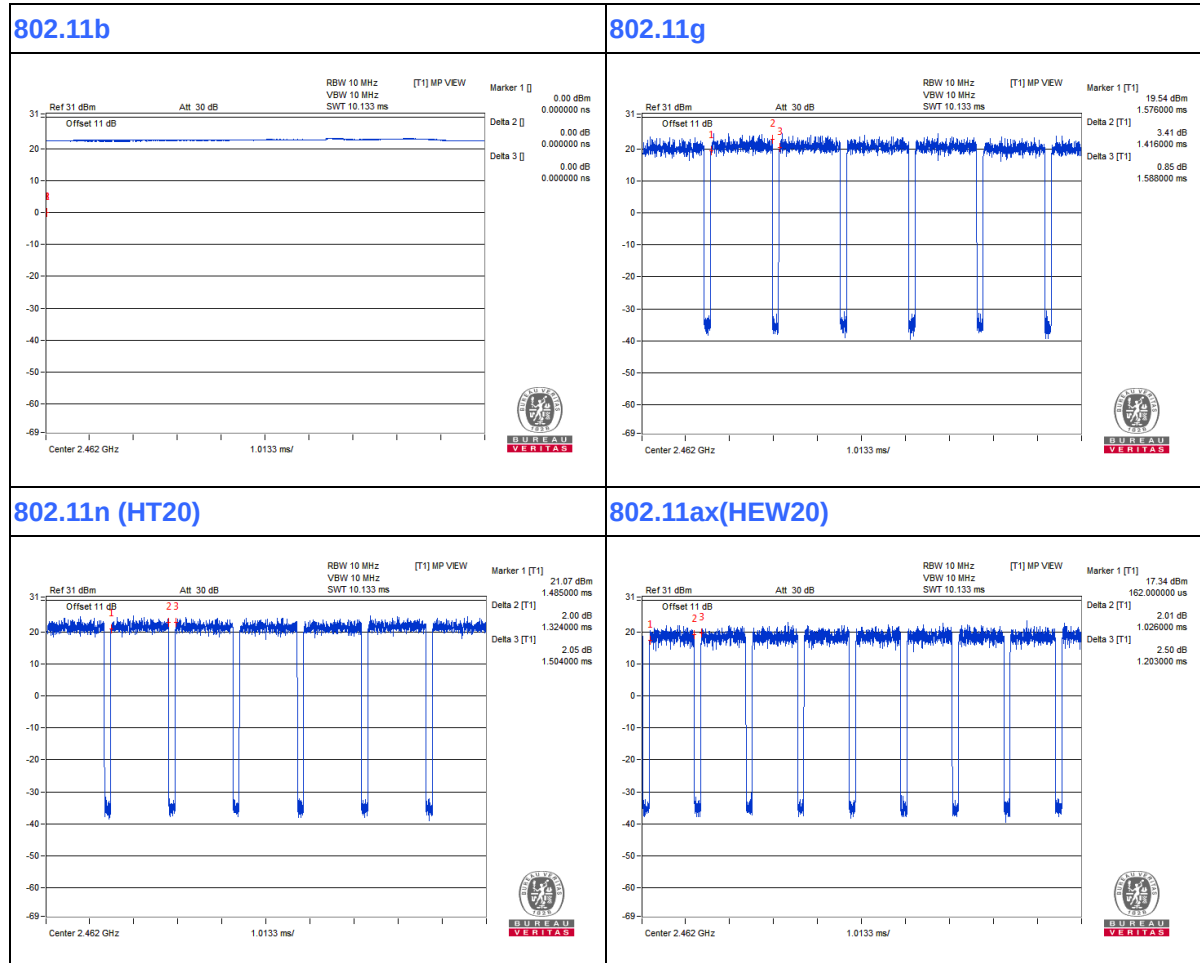
WIFI 2.4GHz ANT0

802.11b: Duty cycle = 100%, Duty factor shall not be considered

802.11g: Duty cycle $1.416/1.588=0.892 < 98\%$, Duty factor = $10 * \log(1/0.892) = 0.500$

802.11n (HT20): Duty cycle = $1.324/1.504=0.880 < 98\%$, Duty factor = $10 * \log(1/0.880) = 0.555$

802.11ax (HEW20): Duty cycle = $1.026/1.203=0.850 < 98\%$, Duty factor = $10 * \log(1/0.850) = 0.555$





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VERITAS

Test Report No.: W7L-P21080021RF08

WIFI 2.4GHz ANT1

802.11b: Duty cycle = 100%, Duty factor shall not be considered

802.11g: Duty cycle $1.419/1.584=0.895 < 98\%$, Duty factor = $10 * \log(1/0.895) = 0.481$

802.11n (HT20): Duty cycle = $1.322/1.479=0.893 < 98\%$, Duty factor = $10 * \log(1/0.893) = 0.491$

802.11ax(HEW20): Duty cycle = $1.028/1.206=0.852 < 98\%$, Duty factor = $10 * \log(1/0.852) = 0.695$

