



RF MEASUREMENT REPORT

FCC ID: HD5-CK62X00

Applicant: Honeywell International Inc
Honeywell Safety and Productivity Solutions

Product: Mobile Computer

Model No.: CK62X00

Brand Name: Honeywell

FCC Classification: 15E 6GHz Low Power Indoor Client (6XD)

FCC Rule Part(s): Part 15 Subpart E (Section 15.407)

Result: Complies

Received Date: 2025-01-16

Test Date: 2025-01-23 ~ 2025-01-24

Reviewed By:

Ada Zhang

Approved By:

Robin Wu



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB789033. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
R25S1035018-U203	V01	Initial Report	2025-02-17	Valid

Note: This report is based on the original MRT report (Report No.: 2406RSU006-U6) to add a new keypad, the others are identical. Radiated Spurious Emission under the worst-case modes are verified.

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1. General Information

1.1. Applicant

Honeywell International Inc
Honeywell Safety and Productivity Solutions
9680 Old Bailes Rd. Fort Mill, SC 29707 United States

1.2. Manufacturer

Honeywell International Inc
Honeywell Safety and Productivity Solutions
9680 Old Bailes Rd. Fort Mill, SC 29707 United States

1.3. Testing Facility

☒	Test Site – MRT Suzhou Laboratory Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China Laboratory Location (Suzhou - Wujiang) Building 1, No.1 Xingdong Road, Wujiang, Suzhou, Jiangsu, People's Republic of China Laboratory Accreditations A2LA: 3628.01 CNAS: L10551 FCC: CN1166 ISED: CN0001 VCCI: ☐ R-20025 ☐ G-20034 ☐ C-20020 ☐ T-20020 ☐ R-20141 ☐ G-20134 ☐ C-20103 ☐ T-20104
☐	Test Site – MRT Shenzhen Laboratory Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China Laboratory Accreditations A2LA: 3628.02 CNAS: L10551 FCC: CN1284 ISED: CN0105
☐	Test Site – MRT Taiwan Laboratory Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) Laboratory Accreditations TAF: 3261 FCC: 291082, TW3261 ISED: TW3261

1.4. Product Information

Product Name	Mobile Computer
Model No.	CK62X00
Serial No.	25013B312A & 25013B1BEB
Wi-Fi Specification	802.11a/b/g/n/ac/ax
Bluetooth Specification	V5.3 dual mode
Antenna Information	Refer to section 1.7
Operating Temperature	-20 ~ 50 °C
Power Type	By Battery
Accessory	
Rechargeable Li-ion Battery	Model No.: CK65-BTSC Nominal Voltage: 3.6V Rated Capacity: 6800mAh Nominal Capacity: 7000mAh/25.2Wh
Note: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification under Test

Frequency Range	802.11ax-HE20: 5955 ~ 7115MHz 802.11ax-HE40: 5965 ~ 7085MHz 802.11ax-HE80: 5985 ~ 7025MHz 802.11ax-HE160: 6025 ~ 6985MHz	
Channel Number	802.11ax-HE20: 59 802.11ax-HE40: 29 802.11ax-HE80: 14 802.11ax-HE160: 7	
Type of Modulation	802.11ax: OFDMA	
Data Rate	802.11ax: up to 2402Mbps	
Channel Puncturing Function	☐ Supported	☒ Unsupported
Support RU	☒ Full RU	☒ Partial RU

1.6. Working Frequencies

802.11ax-HE20

Channel	Frequency	Channel	Frequency	Channel	Frequency
1	5955 MHz	5	5975 MHz	9	5995 MHz
13	6015 MHz	17	6035 MHz	21	6055 MHz
25	6075 MHz	29	6095 MHz	33	6115 MHz
37	6135 MHz	41	6155 MHz	45	6175 MHz
49	6195 MHz	53	6215 MHz	57	6235 MHz
61	6255 MHz	65	6275 MHz	69	6295 MHz
73	6315 MHz	77	6335 MHz	81	6355 MHz
85	6375 MHz	89	6395 MHz	93	6415 MHz
97	6435 MHz	101	6455 MHz	105	6475 MHz
109	5495 MHz	113	6515 MHz	117	6535 MHz
121	6555 MHz	125	6575 MHz	129	6595 MHz
133	6615 MHz	137	6635 MHz	141	6655 MHz
145	6675 MHz	149	6695 MHz	153	6715 MHz
157	6735 MHz	161	6755 MHz	165	6775 MHz
169	6795 MHz	173	6815 MHz	177	6835 MHz
181	6855 MHz	185	6875 MHz	189	6895 MHz
193	6915 MHz	197	6935 MHz	201	6955 MHz
205	6975 MHz	209	6995 MHz	213	7015 MHz
217	7035 MHz	221	7055 MHz	225	7075 MHz
229	7095 MHz	233	7115 MHz	--	--

802.11ax-HE40

Channel	Frequency	Channel	Frequency	Channel	Frequency
3	5965 MHz	11	6005 MHz	19	6045 MHz
27	6085 MHz	35	6125 MHz	43	6165 MHz
51	6205 MHz	59	6245 MHz	67	6285 MHz
75	6325 MHz	83	6365 MHz	91	6405 MHz
99	6445 MHz	107	6485 MHz	115	6525 MHz
123	6565 MHz	131	6605 MHz	139	6645 MHz
147	6685 MHz	155	6725 MHz	163	6765 MHz
171	6805 MHz	179	6845 MHz	187	6885 MHz
195	6925 MHz	203	6965 MHz	211	7005 MHz
219	7045 MHz	227	7085 MHz	--	--

802.11ax-HE80

Channel	Frequency	Channel	Frequency	Channel	Frequency
7	5985 MHz	23	6065 MHz	39	6145 MHz
55	6225 MHz	71	6305 MHz	87	6385 MHz
103	6465 MHz	119	6545 MHz	135	6625 MHz
151	6705 MHz	167	6785 MHz	183	6865 MHz
199	6945 MHz	215	7025 MHz	--	--

802.11ax-HE160

Channel	Frequency	Channel	Frequency	Channel	Frequency
15	6025 MHz	47	6185 MHz	79	6345 MHz
111	6505 MHz	143	6665 MHz	175	6825 MHz
207	6985 MHz	--	--	--	--

1.7. Antenna Details

Antenna Type	Frequency Band (MHz)	Antenna Gain (dBi)	
		Ant 2	Ant 3
Wi-Fi Antennas			
PIFA	2400 ~ 2500	3.13	1.92
	5150 ~ 5350	3.76	3.97
	5470 ~ 5725	4.37	4.54
	5725 ~ 5850	4.21	3.76
	5925 ~ 6425	7.22	4.89
	6425 ~ 6525	4.72	4.93
	6525 ~ 6875	5.49	4.93
	6875 ~ 7125	4.95	3.40
Note: The EUT supports Cyclic Delay Diversity (CDD) mode.			

2. Test Configuration

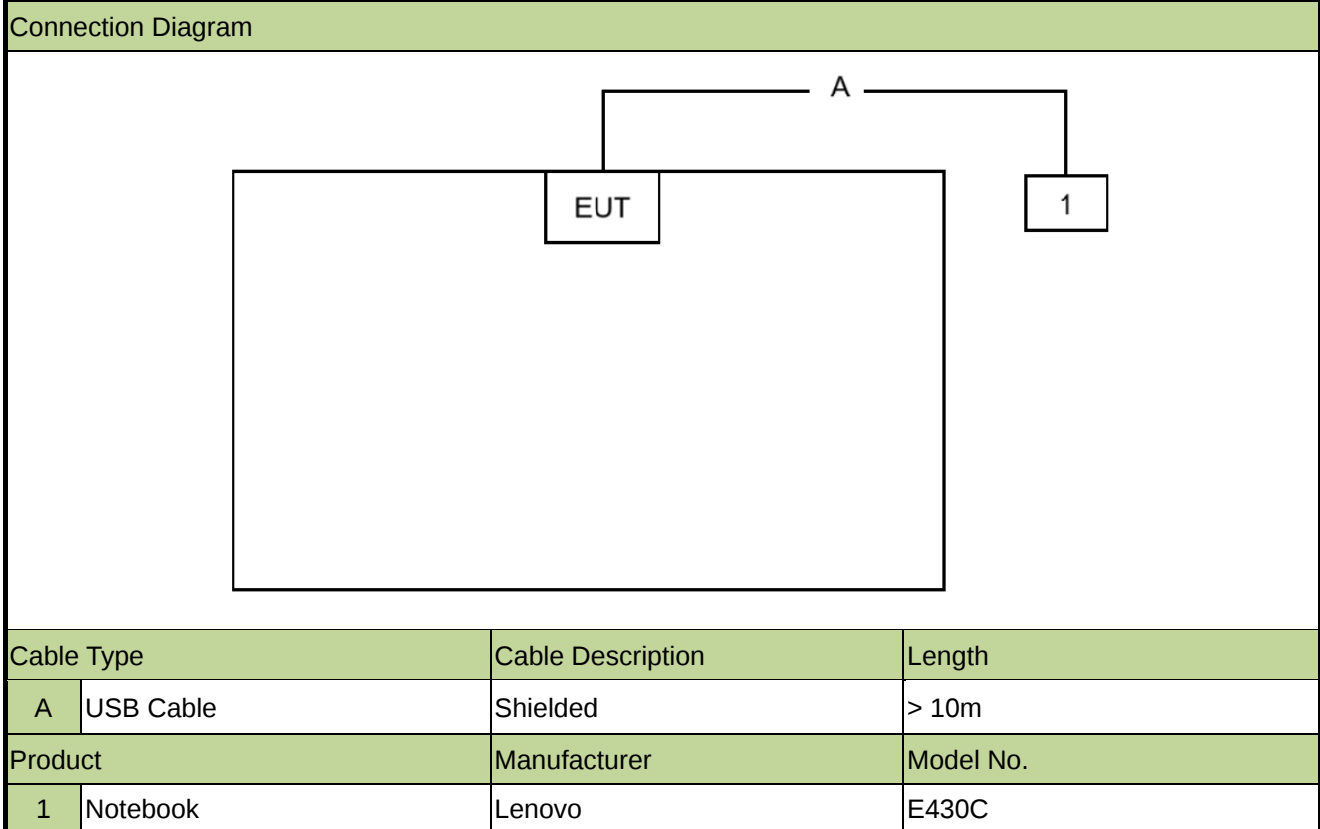
2.1. Test Mode

Mode 1: Transmit by 802.11ax-HE160 at 6665MHz

Note: The above test mode is the worst-case mode from the original report.

2.2. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10: 2013 was used to reference the appropriate EUT setup for radiated emissions testing.



2.3. Test Software

The test utility software used during testing was “QRCT”, and the version was 4.0.00204.0.

2.4. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ANSI C63.10-2013
- FCC KDB 789033 D02v02r01
- FCC KDB 987594 D02v02r01
- FCC KDB 987594 D04v02
- FCC KDB 662911 D01v02r01

2.5. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20 ~ 75%RH

3. Antenna Requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- The antenna of the device is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

4. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
EMI Test Receiver	R&S	ESR3	MRTSUE07111	1 year	2025-04-18	WJ-AC2
EXA Signal Analyzer	Keysight	N9010B	MRTSUE07147	1 year	2025-04-28	WJ-AC2
Active Loop Antenna	Schwarzbeck	FMZB 1519-60 D	MRTSUE07076	1 year	2025-11-19	WJ-AC2
TRILOG Broad Band Antenna	Schwarzbeck	VULB 9163	MRTSUE07097	1 year	2025-04-24	WJ-AC2
Horn Antenna	EMCI	DRH18-E	MRTSUE07105	1 year	2025-05-12	WJ-AC2
Broadband Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE07100	1 year	2025-04-24	WJ-AC2
Preamplifier	EMCI	EMC118A45SE	MRTSUE07102	1 year	2025-04-11	WJ-AC2
Preamplifier	EMCI	EMC184045SE	MRTSUE07103	1 year	2025-04-14	WJ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11315	1 year	2025-06-24	WJ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11332	1 year	2025-06-24	WJ-AC2
Anechoic Chamber	TDK	WJ-AC2	MRTSUE07117	1 year	2025-05-14	WJ-AC2

Software	Version	Function
e3	230711	EMI Test Software
CONTROLLER CO3000	v 1.03.02	RE Antenna & Turntable

5. Decision Rules and Measurement Uncertainty

5.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2.
(Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Radiated Emission Measurement

The maximum measurement uncertainty is evaluated as:

Coaxial:	9kHz~30MHz: 2.35dB
Coplanar:	9kHz~30MHz: 2.37dB
Horizontal:	30MHz~200MHz: 3.46dB
	200MHz~1GHz: 3.78dB
	1GHz~40GHz: 4.97dB
Vertical:	30MHz~200MHz: 4.07dB
	200MHz~1GHz: 5.28dB
	1GHz~40GHz: 4.78dB

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.407(b)(6)	Unwanted Emissions	Radiated	Pass
15.205, 15.209	General Field Strength		Pass
15.407(b)(8), (9), (10)	(Restricted Bands and Radiated Emission)		

6.2. Radiated Spurious Emission Measurement

6.2.1. Test Limit

For 15.407(b)(6) requirement

For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an EIRP. of -27 dBm/MHz.

Refer to 987594 D02 U-NII 6GHz EMC Measurement v02r01 clause G

Use guidance in KDB 789033 for measurements below 1000 MHz and above 1000 MHz. Unwanted emissions outside of restricted bands are measured with a RMS detector. In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [μ V/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.2.2. Test Procedure

KDB 789033 D02v02r01-Section II)G)

6.2.3. Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000MHz	1 MHz

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1GHz

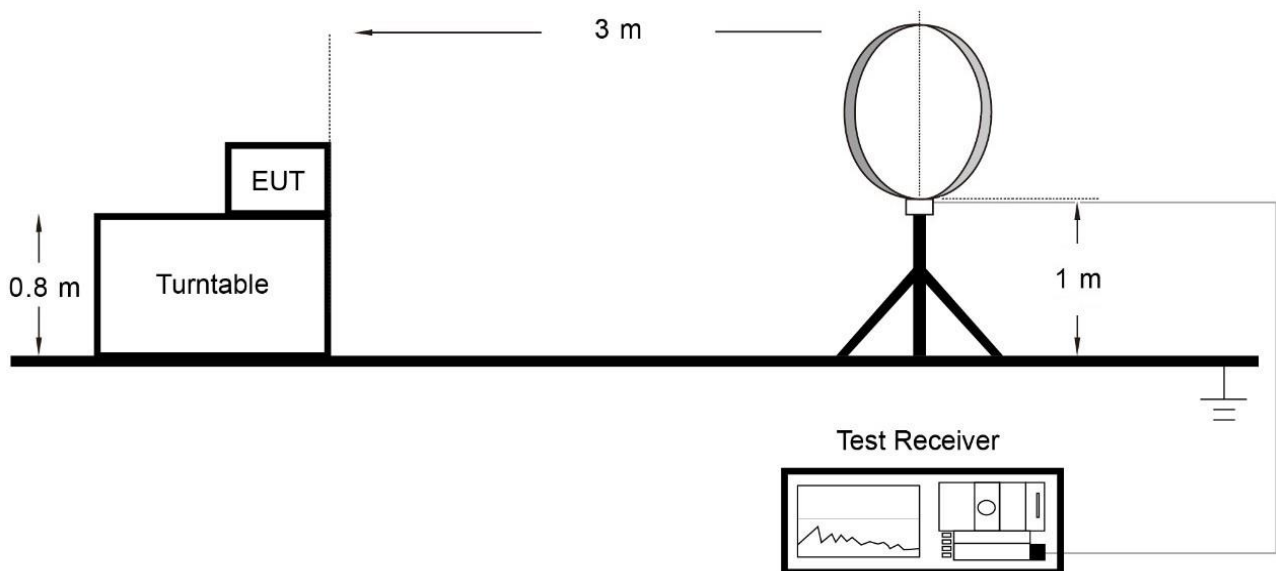
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

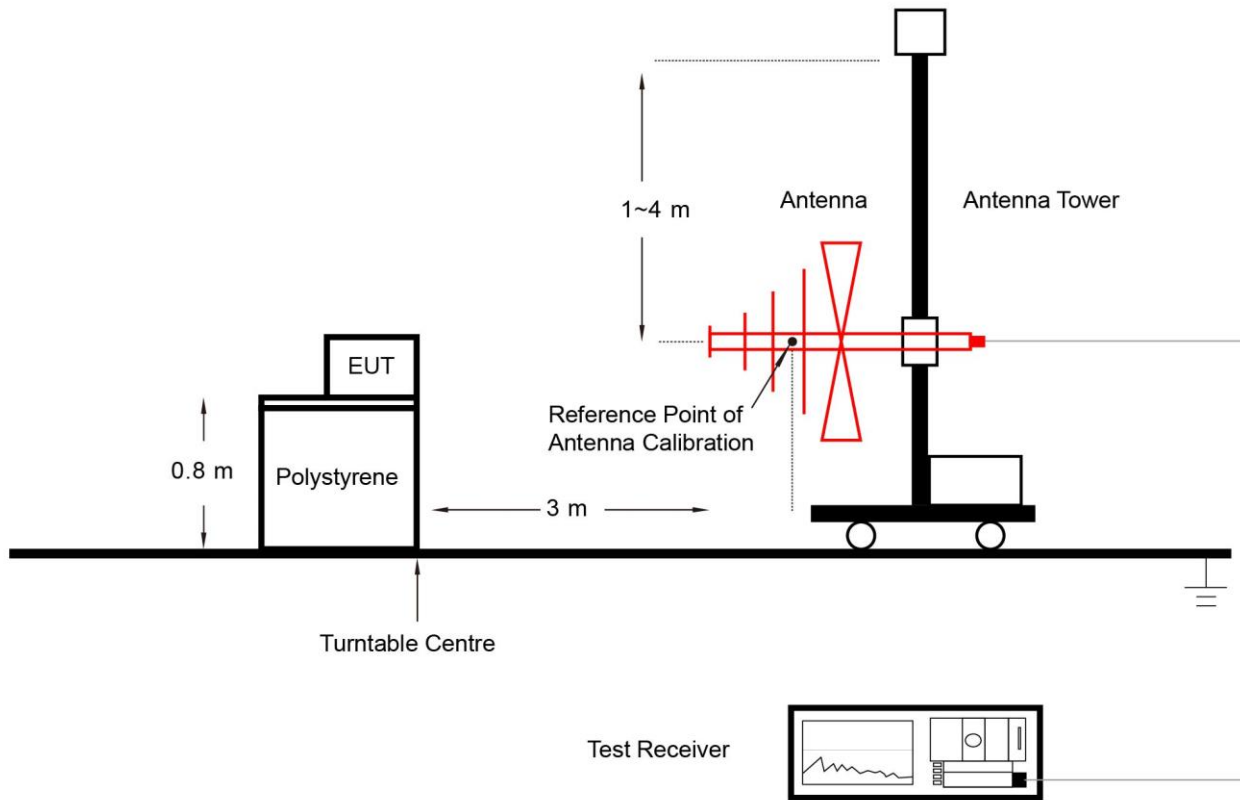
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration.
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Trace was allowed to stabilize

6.2.4. Test Setup

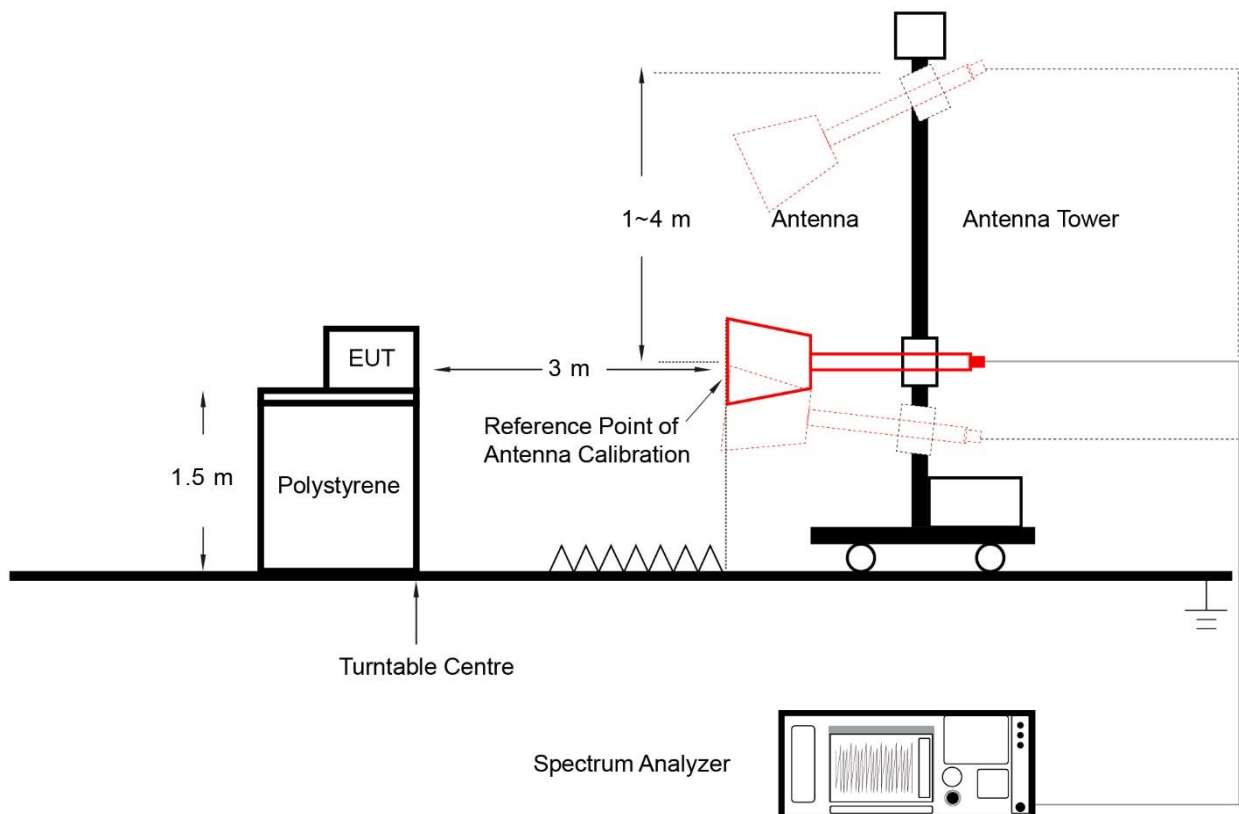
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.2.5. Test Result

Refer to Appendix A.1.

Appendix A – Test Result

A.1 Radiated Spurious Emission Test Result

Product	Mobile Computer	Test Engineer	Bob Zhang
Test Site	WJ-AC2	Test Date	2025-01-23
Test Mode	802.11ax-HE160	Test Channel	143
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	11439.7	42.9	5.3	48.2	74.0	-25.8	Peak	Horizontal
	12034.7	42.4	5.1	47.5	74.0	-26.5	Peak	Horizontal
*	16558.4	44.5	4.7	49.2	88.2	-39.0	Peak	Horizontal
*	17252.0	46.0	3.2	49.2	88.2	-39.0	Peak	Horizontal
	12175.8	43.9	5.1	49.0	74.0	-25.0	Peak	Vertical
	13335.2	43.6	5.1	48.7	74.0	-25.3	Peak	Vertical
*	16371.4	43.6	5.3	48.9	88.2	-39.3	Peak	Vertical
*	17168.7	47.8	3.3	51.1	88.2	-37.1	Peak	Vertical

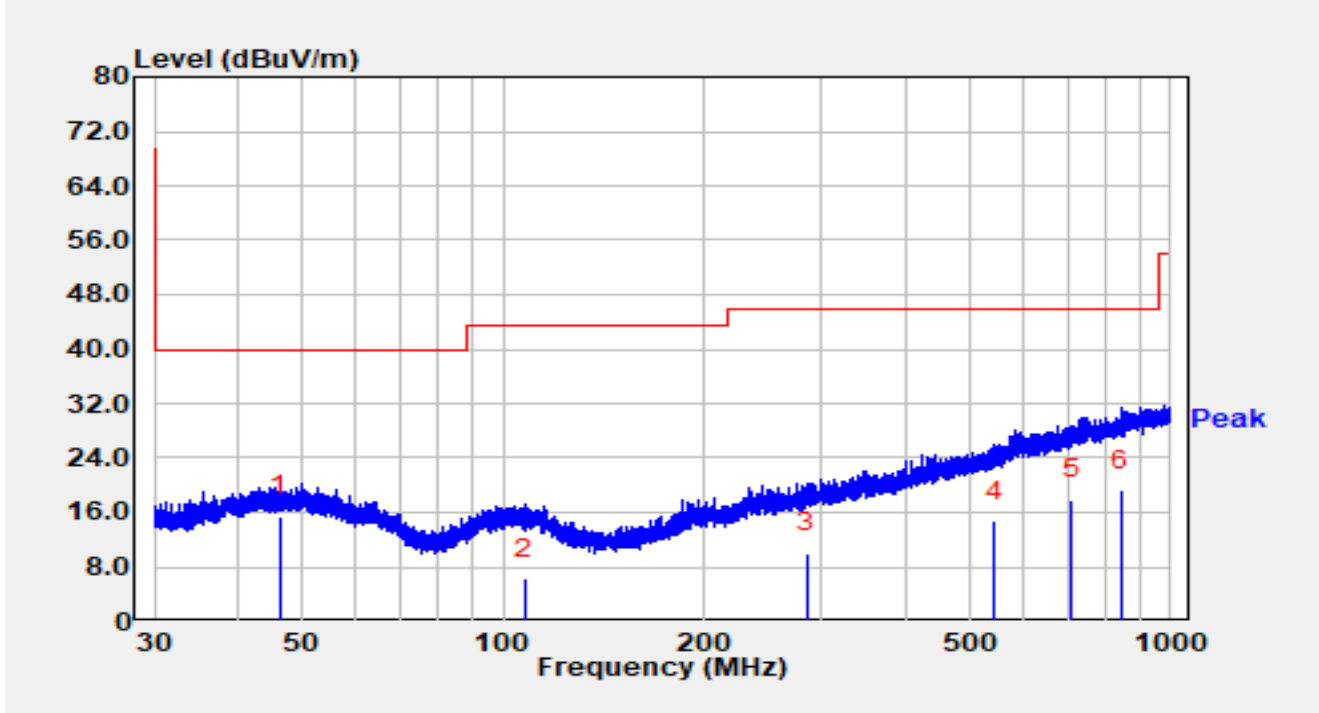
Note 1: “*” is not in restricted band.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The Result of Radiated Emission below 1GHz:

Site	WJ-AC2	Test Date	2025-01-24
Temperature	22.7 °C	Humidity	23.8 %
Limit	FCC_Part 15.209_RSE(3m)	Test Engineer	Bob Zhang
Factor	VULB 9163_07097	Polarity	Horizontal
EUT	Mobile Computer	Test Voltage	By Battery
Test Mode	Transmit by 802.11ax-HE160 at 6665MHz		

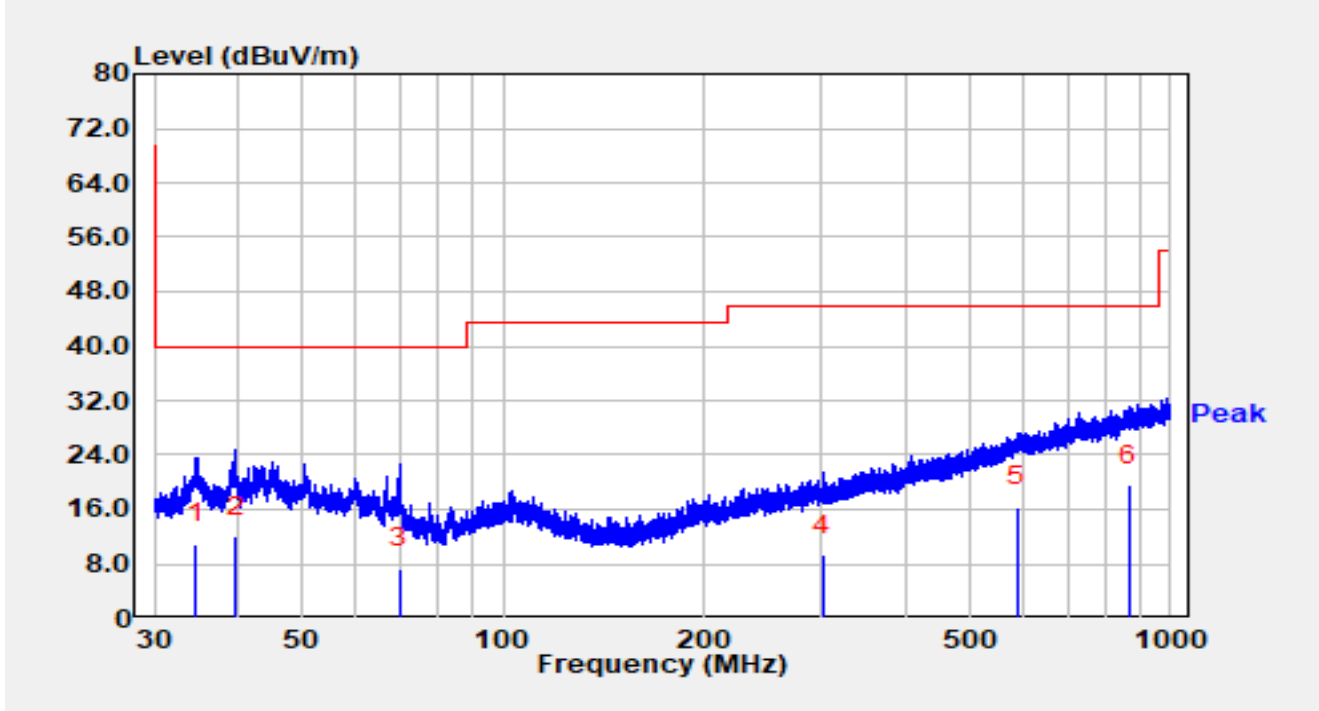


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	46.146	-3.90	19.44	15.54	-24.46	40.00	QP
2		107.661	-11.20	17.50	6.30	-37.20	43.50	QP
3		285.477	-9.70	19.73	10.03	-35.97	46.00	QP
4		543.655	-10.20	24.90	14.70	-31.30	46.00	QP
5		711.175	-9.50	27.36	17.86	-28.14	46.00	QP
6		841.539	-9.60	28.83	19.23	-26.77	46.00	QP

Notes:

1. " * ", means this data is the worst emission level.
2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).
4. The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 40GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Site	WJ-AC2	Test Date	2025-01-24
Temperature	22.7 °C	Humidity	23.8 %
Limit	FCC_Part 15.209_RSE(3m)	Test Engineer	Bob Zhang
Factor	VULB 9163_07097	Polarity	Vertical
EUT	Mobile Computer	Test Voltage	By Battery
Test Mode	Transmit by 802.11ax-HE160 at 6665MHz		



No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		34.663	-5.80	16.81	11.01	-28.99	40.00	QP
2		39.673	-6.40	18.34	11.94	-28.06	40.00	QP
3		69.796	-8.00	15.31	7.31	-32.69	40.00	QP
4		301.000	-10.80	20.04	9.24	-36.76	46.00	QP
5		590.145	-9.70	26.01	16.31	-29.69	46.00	QP
6	*	866.392	-9.70	29.23	19.53	-26.47	46.00	QP

Notes:

1. " * ", means this data is the worst emission level.
2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).
4. The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 40GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Appendix B – Test Setup Photograph

Refer to “R25S1035018-UT” file.

Appendix C – EUT Photograph

Refer to “R25S1035018-UE” file.

_____ The End _____