

Test Report No:
2680148R-RFUSV16S-A

TEST REPORT

FCC Co-location Rules&Regulations

Product Name	WiFi 7 (802.11be) 2x2 Dual Band Dual Concurrent Wireless Module
Brand Name	COMPEX
Model No.	WLTE7002E25
FCC ID	TK4WLE7002E25
Applicant's Name / Address	Compex Systems Pte Ltd No 178 Paya Lebar Road #05-05 Singapore 409030
Manufacturer's Name / Address	Compex Systems Pte Ltd No 178 Paya Lebar Road #05-05 Singapore 409030
Test Method Requested, Standard	FCC 47 CFR Part 15C, Part 15E, Part 22, Part 24, Part 25, Part 27, Part 90, Part 96 (co-location)
Verdict Summary	IN COMPLIANCE
Documented By	 Hailey Peng
Approved By	 Rueyyan Lin
Date of Receipt	Aug. 06, 2026
Date of Issue	Sep. 23, 2026
Report Version	V1.0

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Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

General Conditions

1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Sep. 23, 2026

Permissive Change

Permissive Change	Modifications
Class II Permissive Change (C2PC)	The following is only applicable to Wi-Fi 2.4 GHz and Wi-Fi 5 GHz UNII-1 and UNII-3. 1. Additional platform added (Product: Peplink Pepwave Wireless Product, Brand:  PEPWAVE, Model: MBX Pro). 2. Added one set of omni-directional antennas of the same type as those in the original application, but with lower gain. Therefore, the worst-case result from the original report was selected for the Transmitter Radiated Spurious Emission Co-location test and is recorded in this report.

Summary of Test Result

Report Clause	Test Items	Result (PASS/FAIL)	Remark
3	Transmitter Radiated Spurious Emission Co-location	PASS	-

Comments and Explanations

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1. General Information

1.1. EUT Description

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
Wi-Fi 2.4 GHz	2400 ~ 2483.5	2412 ~ 2462	802.11b: DSSS 802.11g/n: OFDM 802.11ax/be: OFDMA
Wi-Fi 5 GHz	5150 ~ 5250 5725 ~ 5850	5180 ~ 5240 5745 ~ 5825	802.11a/n/ac: OFDM 802.11ax/be: OFDMA

The WWAN maximum conducted output power is referred to the certified module certificate.

(WWAN module Information: Telit Communications S.p.A. / FN990B40, FCC ID: R17FN990B40)

Accessories Information for the Added Platform					
No.	Equipment Name	Brand Name	Model No.	Rating	Remark
1	Adapter	FSP	FSP400-AWAN3	INPUT: 100-240V, 4.5A,50-60Hz OUTPUT: 54.0V=7.14A, 400.0W	With power cable: Non-Shielded, 1.5m (with a ferrite core)
No.	Equipment Name	Description			
2	Jumper cable	Shielded, 0.15m			
3	Grounding cable	Shielded, 0.1m			
4	AC power cord	Non-Shielded, 1.8m			

Antenna Information for the Wi-Fi Function			
Set	Brand Name	Model No.	Type
1	WIESON	ARY121-1976-001-00	Omni-directional

Antenna Information for the GNSS Function			
Ant.	Brand Name	Model No.	Type
1	YUAN CHEN	A400-00001-01	Patch

Note: The above EUT information is declared by the manufacturer.

1.2. EUT Information

EUT Power Type	From Adapter
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1.3. Reference Standard

FCC CFR Title 47 Part 15 Subpart C Section 15.247

FCC CFR Title 47 Part 15 Subpart E Section 15.407

FCC CFR Title 47 Part 22 Subpart H

FCC CFR Title 47 Part 24 Subpart E

FCC CFR Title 47 Part 25 Subpart B

FCC CFR Title 47 Part 27 Subpart D, Subpart F, Subpart H, Subpart L, Subpart O, Subpart P, Subpart Q, Subpart M

FCC CFR Title 47 Part 90 Subpart S, Subpart R

FCC CFR Title 47 Part 96

KDB Publication 996369

1.4. Testing Location Information

Testing Location Information		
Test Laboratory : DEKRA Testing and Certification Co., Ltd.		
1 (TAF: 3024)	ADD: No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.	
2 (TAF: 3024)	ADD: No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.	
Test site number for address 1 includes HC-SR02 and HC-CB10. Test site number for address 2 includes HC-CB02, HC-CB04, HC-SR10 and HC-SR12.		

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
Radiated Emission	HC-CB04	Cyril Chen, Ling Chen	22.8~23.2 / 56~58	2026/08/24~2026/08/25

1.5. Measurement Uncertainty

Uncertainties have been calculated according to the DEKRA internal document with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Test Item	Uncertainty
Transmitter Radiated Spurious Emission Co-location	± 3.72 dB below 1 GHz ± 3.18 dB above 1 GHz

1.6. List of Test Equipment

HC-CB04

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Cal. Date	Next Cal. Date
EMI Test Receiver	R&S	ESR7	102260	10 Hz-7 GHz	2025/10/31	2026/10/30
Signal and Spectrum Analyzer	R&S	FSVA40	101435	10 Hz-40 GHz	2026/05/11	2027/05/10
Trilog Broadband Antenna	Schwarzbeck	VULB 9168	1209	30 MHz-2 GHz	2026/07/03	2027/07/02
Double Ridged Horn Antenna	RF SPIN	DRH18-E	211212A18EN	1G-18GHz	2025/11/03	2026/11/02
Horn Antenna	Schwarzbeck	BBHA 9170	203	18G-40GHz	2025/12/04	2026/12/03
Pre-Amplifier	EMEC	EM01G18GA	060835	1-18 GHz, 50 dB	2026/07/06	2027/07/05
Pre-Amplifier	EMCI	EMC003240	980324	0.3-2500 MHz, 40 dB	2024/10/28	2026/10/27
Pre-Amplifier	DEKRA	AP-400C	201801231	18G-40 GHz, 48 dB	2025/10/16	2026/10/15
Wideband Radio Communication Tester	R&S	CMW500	106071	LTE 4G	2026/03/02	2027/03/01
Wireless Conn. Tester	R&S	CMW500	157118	Simulator	2026/07/08	2027/07/07
UXM 5G Wireless Test Platform	Keysight	E7515B	MY59321672	5G NR	2026/07/07	2027/07/06
Radio Communication Test Station	Anritsu	MT8000A	6262134961	500MHz~43.5GHz	2026/05/04	2027/05/03
Coaxial Cable	Huber+Suhner	SF104	HC-CB04	30 MHz-18 GHz, 11m	2026/08/06	2027/08/05
Coaxial Cable	Huber+Suhner, Ro snol	SF102_UP0264	HC-CB04-1	18-40 GHz, 3m	2026/08/11	2027/08/10
Radiated Software	Audix	e3 V9	HC-CB04_1	N/A	N/A	N/A

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2. Test Configuration of EUT

2.1. Test Condition

EUT Operational Condition	
Testing Voltage	AC 120V/60Hz to DC 54V (AC Adapter)

2.2. Test Software

Test Software	Tera Term
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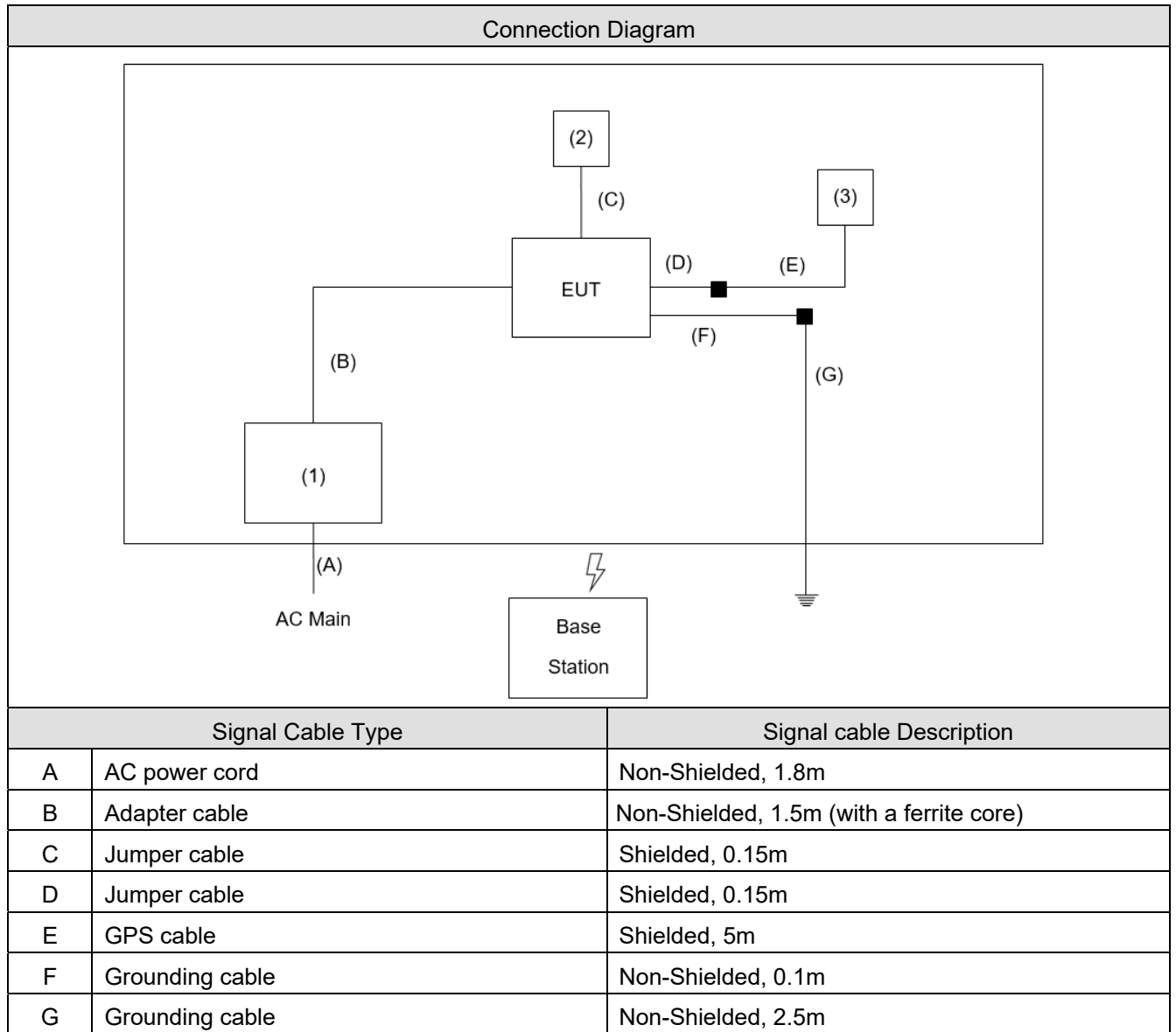
2.3. The Worst Case Measurement Configuration

Tests Item	Transmitter Radiated Spurious Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Transmit
1	Wi-Fi 2.4 GHz_g_2437 MHz + Wi-Fi 5 GHz_ax40_5755 MHz + WCDMA_Band 2_1880 MHz + LTE_Band 25_1882.5 MHz + 5G NR_n2_1880 MHz + 5G NR_n41_2592.99 MHz

2.4. Tested System Details

No.	Equipment	Brand Name	Model No.	Serial No.
1	Adapter	FSP	FSP400-AWAN3	N/A
2	WWAN Antenna		04-410188-00	N/A
3	GPS Antenna	YUAN CHEN	A400-00001-01	N/A

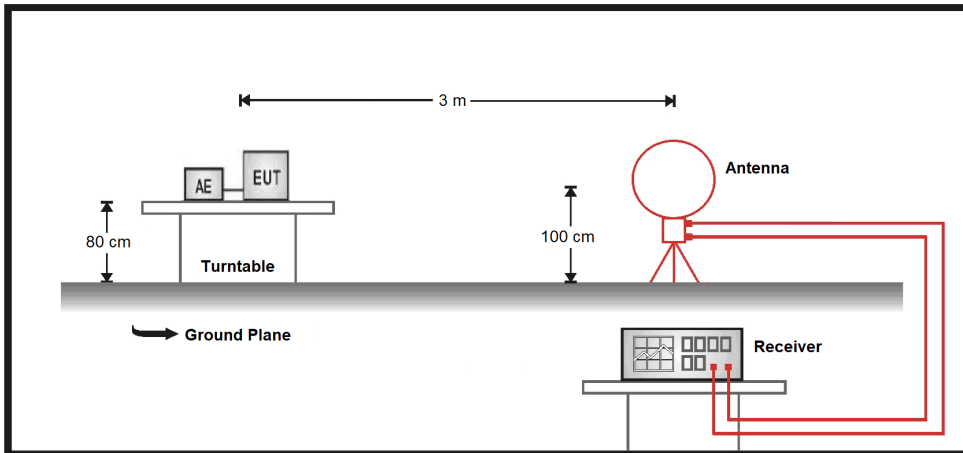
2.5. Configuration of Tested System



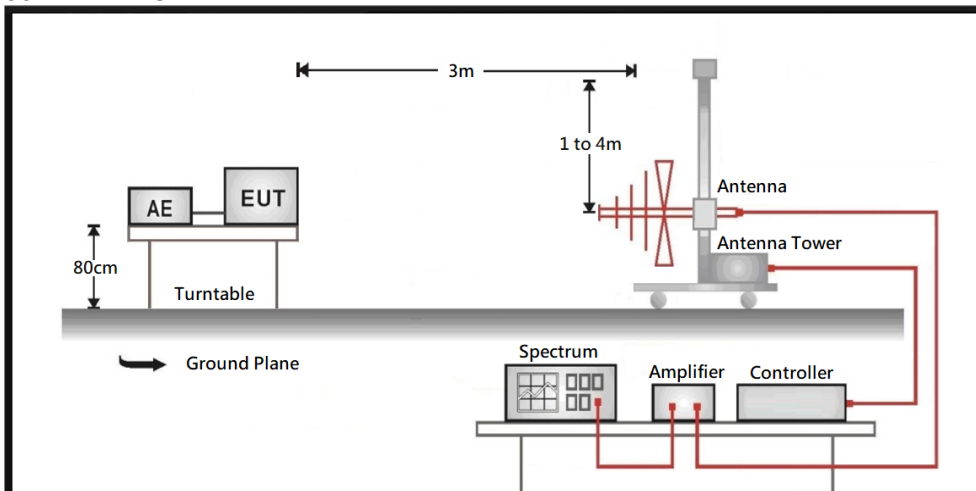
3. Transmitter Radiated Spurious Emission Co-location

3.1. Test Setup

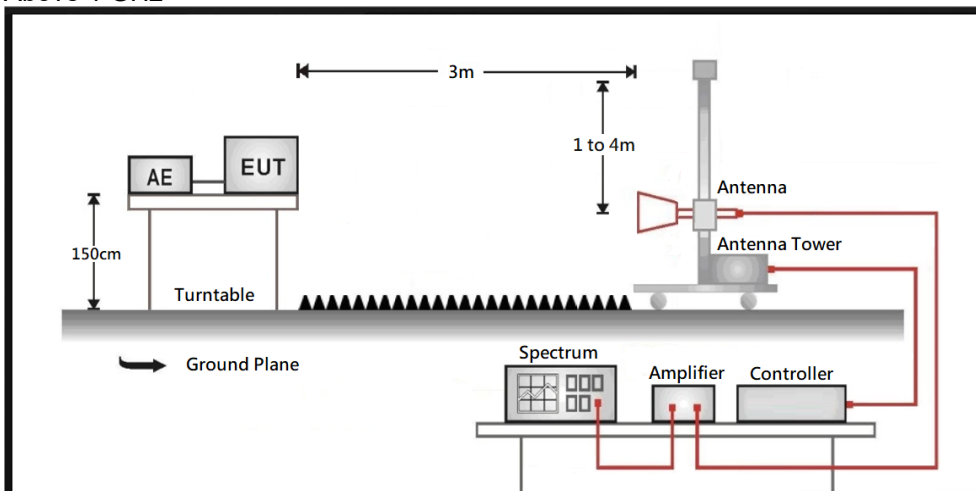
9 kHz ~ 30 MHz



30 MHz ~ 1 GHz



Above 1 GHz



3.2. Test Limit

Frequency (MHz)	Field strength (uV/m)	Field strength (dBuV/m)	Measurement distance (m)
0.009 – 0.490	2400/F(kHz)	20 log (2400/F(kHz))	300
0.490 – 1.705	24000/F(kHz)	20 log (24000/F(kHz))	30
1.705 - 30	30	29.5	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

Remarks:

1. Field strength (dBuV/m) = 20 log Field strength (uV/m)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Unwanted Emission out of the restricted bands Test Limit

Frequency (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength (dBuV/m@3m)
5150 – 5250	-27	68.2
5250 – 5350	-27	68.2
5470 – 5725	-27	68.2
5725 – 5850	-27 ^{*1}	68.2 ^{*1}
	10 ^{*2}	105.2 ^{*2}
	15.6 ^{*3}	110.8 ^{*3}
	27 ^{*4}	122.2 ^{*4}
5850 – 5895	(i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of -7 dBm/MHz at or above 5.925 GHz. (ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of -5 dBm/MHz and shall decrease linearly to an e.i.r.p. of -27 dBm/MHz at or above 5.925 GHz. (iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.	
^{*1} beyond 75 MHz or more above of the band edge. ^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. ^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above. ^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.		

Remark:

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \text{ uV/m, where P is the eirp (Watts).}$$

3.3. Test Procedure

The EUT was setup according to ANSI C63.10-2020 and tested according to DTS test procedure of KDB 558074. The EUT and its simulators are placed on a turn table which is 0.8 or 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10-2020 on radiated measurement.

On any frequency or frequencies from 9 kHz (include The the lowest oscillator frequency generated within the device up to the 10th harmonic) to 1000 MHz, the limit shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limit shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

The bandwidth below 1 GHz setting on the field strength meter is 120 kHz and above 1 GHz is 1 MHz.

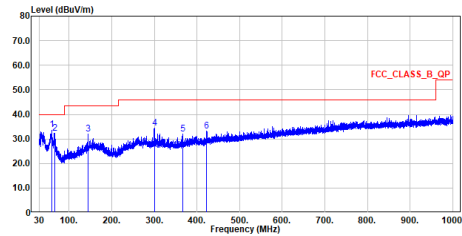
3.4. Test Result of Transmitter Radiated Spurious Emission Co-location (Below 30 MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.5. Test Result of Transmitter Radiated Spurious Emission Co-location

30 MHz ~ 1 GHz:

Site :HC-CB04
Condition :3m Horizontal
Mode :WIFI 2.4G_p_2437MHz+WIFI 5G_ax40_5755MHz+WCDMA_B2_1880MHz
+LTE_B25_1882.5MHz+NR_n2_1880MHz+NR_n41_2592.99MHz
Test by :Ling Chen

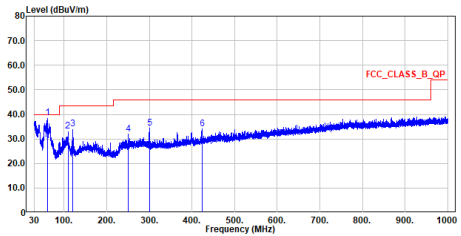


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	58.906	33.69	40.00	-6.31	55.65	-21.96	QP
2	65.405	32.24	40.00	-7.76	55.36	-23.12	QP
3	143.975	31.95	43.50	-11.55	53.79	-21.84	QP
4	299.854	34.40	46.00	-11.60	55.33	-20.93	QP
5	366.396	31.91	46.00	-14.09	51.23	-19.32	QP
6	422.462	33.14	46.00	-12.86	51.03	-17.89	QP

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

Site :HC-CB04
Condition :3m Vertical
Mode :WIFI 2.4G_p_2437MHz+WIFI 5G_ax40_5755MHz+WCDMA_B2_1880MHz
+LTE_B25_1882.5MHz+NR_n2_1880MHz+NR_n41_2592.99MHz
Test by :Ling Chen



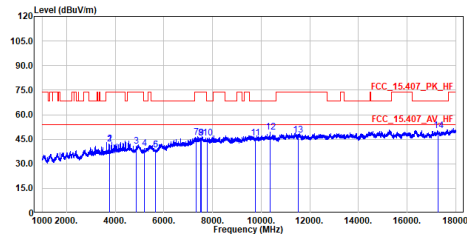
No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	60.264	38.54	40.00	-1.46	60.59	-22.05	QP
2	188.764	33.22	43.50	-10.28	57.95	-24.73	QP
3	120.695	34.18	43.50	-9.32	58.21	-24.03	QP
4	249.996	31.97	46.00	-14.03	54.56	-22.59	QP
5	299.854	34.35	46.00	-11.65	55.28	-20.93	QP
6	423.917	34.17	46.00	-11.83	51.99	-17.82	QP

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

Above 1 GHz:

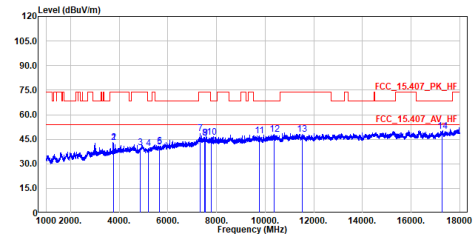
Site :HC-CB04
Condition :3m ,Horizontal
Mode :WiFi 2.4G_g_2437MHz+WiFi 5G_ax40_5755MHz+NCMA_B2_1880MHz
+LTE_B25_1882.5MHz+NR_n2_1880MHz+NR_n41_2592.99MHz
Test by :Ling Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	3760.000	41.93	74.00	-32.07	62.31	-20.38	Peak
2	3765.000	41.93	74.00	-32.07	62.29	-20.36	Peak
3	4874.000	40.87	74.00	-33.13	58.16	-17.29	Peak
4	5185.980	39.37	68.20	-28.83	56.30	-16.93	Peak
5	5640.000	38.68	68.20	-29.52	55.27	-16.59	Peak
6	5647.500	38.68	68.20	-29.52	55.25	-16.57	Peak
7	7311.000	45.97	74.00	-28.03	57.84	-11.87	Peak
8	7520.000	45.55	74.00	-28.45	56.89	-11.34	Peak
9	7530.000	45.78	74.00	-28.22	57.12	-11.34	Peak
10	7778.970	45.80	68.20	-22.40	57.24	-11.44	Peak
11	9748.000	45.92	68.20	-22.28	54.82	-8.90	Peak
12	10371.960	49.17	68.20	-19.03	57.11	-7.94	Peak
13	11510.000	47.71	74.00	-26.29	53.98	-6.27	Peak
14	17265.000	50.11	68.20	-18.09	54.08	-3.97	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

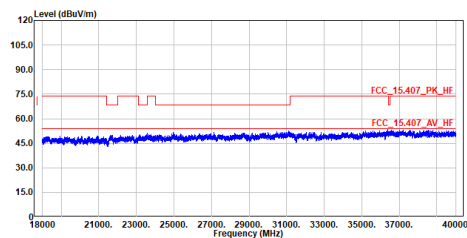
Site :HC-CB04
Condition :3m ,Vertical
Mode :WiFi 2.4G_g_2437MHz+WiFi 5G_ax40_5755MHz+NCMA_B2_1880MHz
+LTE_B25_1882.5MHz+NR_n2_1880MHz+NR_n41_2592.99MHz
Test by :Ling Chen



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	3760.000	42.98	74.00	-31.02	63.36	-20.38	Peak
2	3765.000	42.98	74.00	-31.02	63.34	-20.36	Peak
3	4874.000	39.81	74.00	-34.19	57.10	-17.29	Peak
4	5185.980	39.29	68.20	-28.91	56.22	-16.93	Peak
5	5640.000	40.31	68.20	-27.89	56.90	-16.59	Peak
6	5647.500	40.65	68.20	-27.55	57.22	-16.57	Peak
7	7311.000	48.51	74.00	-25.49	60.38	-11.87	Peak
8	7520.000	45.95	74.00	-28.05	57.29	-11.34	Peak
9	7530.000	45.95	74.00	-28.05	57.29	-11.34	Peak
10	7778.970	46.21	68.20	-21.99	57.65	-11.44	Peak
11	9748.000	47.14	68.20	-21.06	56.04	-8.90	Peak
12	10371.960	47.86	68.20	-20.34	55.80	-7.94	Peak
13	11510.000	48.10	74.00	-25.90	54.37	-6.27	Peak
14	17265.000	49.94	68.20	-18.26	53.91	-3.97	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

Site :HC-CB04
Condition :3m ,Horizontal
Mode :WiFi 2.4G_g_2437MHz+WiFi 5G_ax40_5755MHz+NCMA_B2_1880MHz
+LTE_B25_1882.5MHz+NR_n2_1880MHz+NR_n41_2592.99MHz
Test by :Ling Chen



Site :HC-CB04
Condition :3m ,Vertical
Mode :WiFi 2.4G_g_2437MHz+WiFi 5G_ax40_5755MHz+NCMA_B2_1880MHz
+LTE_B25_1882.5MHz+NR_n2_1880MHz+NR_n41_2592.99MHz
Test by :Ling Chen

