FCC TEST REPORT

Test report
On Behalf of
GUANGDONG YUXING TECHNOLIGY INDUSTRY CO.,LTD
For
Building block series
Model No.: 17013, Please see page 6 for series models

FCC ID: 2A59K-17013

Prepared for : GUANGDONG YUXING TECHNOLIGY INDUSTRY CO.,LTD
XIANGNAN INDUSTRIAL ZONE, SHANGKENG,GUANGYI STREET, CHENGHAI DISTRICT, SHANTOU CITY, GUANGDONG PROVINCE, CHINA

Prepared By : Shenzhen HUAK Testing Technology Co., Ltd.
1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Date of Test: Mar. 07, 2022 ~ Mar. 25, 2022
Date of Report: Mar. 25, 2022
Report Number: HK2203070928-E

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

TEST RESULT CERTIFICATION

Applicant's name ..... : GUANGDONG YUXING TECHNOLIGY INDUSTRY CO.,LTD

Address..... : XIANGNAN INDUSTRIAL ZONE, SHANGKENG, GUANGYI STREET, CHENGHAI DISTRICT, SHANTOU CITY, GUANGDONG PROVINCE, CHINA

Manufacture's Name..... : GUANGDONG YUXING TECHNOLIGY INDUSTRY CO.,LTD

Address..... : XIANGNAN INDUSTRIAL ZONE, SHANGKENG, GUANGYI STREET, CHENGHAI DISTRICT, SHANTOU CITY, GUANGDONG PROVINCE, CHINA

Product description

Trade Mark: N/A

Product name ..... : Building block series

Model and/or type reference : 17013, Please see page 6 for series models

Standards ..... : FCC Rules and Regulations Part 15 Subpart C Section 15.249
ANSI C63.10: 2013

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen HUAK Testing Technology Co., Ltd. is acknowledged as copyright owner and source of the material. Shenzhen HUAK Testing Technology Co., Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Date of Test ..... :

Date (s) of performance of tests..... : **Mar. 07, 2022 ~ Mar. 25, 2022**

Date of Issue ..... : **Mar. 25, 2022**

Test Result..... : **Pass**

Testing Engineer : Gary Qian

(Gary Qian)

Technical Manager : Eden Hu

(Eden Hu)

Authorized Signatory : Jason Zhou

(Jason Zhou)

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

Table of Contents **Page**

1 . TEST SUMMARY 5

2 . GENERAL INFORMATION 6

2.1 GENERAL DESCRIPTION OF EUT 6

2.2 Carrier Frequency of Channels 9

2.3 Operation of EUT during testing 9

2.4 DESCRIPTION OF TEST SETUP 10

2.5 MEASUREMENT INSTRUMENTS LIST 11

3 . CONDUCTED EMISSIONS TEST 12

3.1 Conducted Power Line Emission Limit 12

3.2 Test Setup 12

3.3 Test Procedure 12

3.4 Test Result 13

4 RADIATED EMISSION TEST 15

4.1 Radiation Limit 15

4.2 Test Setup 15

4.3 Test Procedure 16

4.4 Test Result 16

5 BAND EDGE 22

5.1 Limits 22

5.2 Test Procedure 22

5.3 Test Result 23

6 OCCUPIED BANDWIDTH MEASUREMENT 25

6.1 Test Setup 25

6.2 Test Procedure 25

6.3 Measurement Equipment Used 25

6.4 Test Result 25

7 ANTENNA REQUIREMENT 27

8 PHOTOGRAPH OF TEST 28

8.1 Radiated Emission 28

9 PHOTOS OF THE EUT 30

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

** Modified History **

Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	Mar. 25, 2022	Jason Zhou

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

1. TEST SUMMARY

1.1 TEST PROCEDURES AND RESULTS

DESCRIPTION OF TEST		RESULT
CONDUCTED EMISSIONS TEST	§ 15.207	COMPLIANT
RADIATED EMISSION TEST	§ 15.249 (a) / §15.209	COMPLIANT
BAND EDGE	§ 15.249 (d)/ §15.209	COMPLIANT
OCCUPIED BANDWIDTH MEASUREMENT	§ 15.215 (c)	COMPLIANT
ANTENNA REQUIREMENT	§ 15.203	COMPLIANT

1.2 INFORMATION OF THE TEST LABORATORY

Shenzhen HUAK Testing Technology Co., Ltd.
Add.: 1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Testing Laboratory Authorization：
A2LA Accreditation Code is 4781.01.
FCC Designation Number is CN1229.
Canada IC CAB identifier is CN0045.
CNAS Registration Number is L9589.

1.3 MEASUREMENT UNCERTAINTY

Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Radiated emission expanded uncertainty(9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty(30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty(Above 1GHz)	=	4.06dB, k=2

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product Name:	Building block series
Model/Type reference:	17013
Series Model:	11006, 11012, 11013, 11014, 11015, 11016, 11017, 11018, 11019, 11020, 11021, 11022, 11023, 11024, 11025, 11026, 11027, 11028, 11029, 11030, 11031, 11032, 11033, 11034, 11035, 11036, 11037, 11038, 11039, 11040, 11041, 11042, 11043, 11044, 11045, 11046, 11047, 11048, 11049, 11050, 11051, 11052, 11053, 11054, 11055, 11056, 11057, 11058, 11059, 11060, 11061, 11062, 11063, 11064, 11065, 11066, 11067, 11068, 11069, 11070, 11071, 11072, 11073, 11074, 11075, 11076, 11077, 11078, 11079, 11080, 11081, 11082, 11083, 11084, 11085, 11086, 11087, 11088, 11089, 11090, 11091, 11092, 11093, 11094, 11095, 11096, 11097, 11098, 11099, 11100, 12001, 12002, 12003, 12004, 12005, 12006, 12007, 12010, 12012, 12015, 12016, 12017, 12018, 12019, 12020, 12021, 12022, 12023, 12024, 12025, 12026, 12027, 12028, 12029, 12030, 12031, 12032, 12033, 12034, 12035, 12036, 12037, 12038, 12039, 12040, 13001, 13002, 13003, 13004, 13005, 13006, 13007, 13008, 13009, 13010, 13011, 13012, 13013, 13014, 13015, 13016, 13017, 13018, 13019, 13020, 13021, 13022, 13023, 13024, 13025, 13026, 13027, 13028, 13029, 13030, 13031, 13032, 13033, 13034, 13035, 13036, 13037, 13038, 13039, 13040, 13041, 13042, 13043, 13044, 13045, 13046, 13048, 13061, 13063, 13050, 13051, 13052, 13056, 13057, 13067, 13070, 13073, 13078, 13059, 13060, 13079, 13080, 13081, 13082, 13083, 13085, 13088, 13089, 13090, 13094, 13095, 13096, 13098, 13099, 13100, 13106, 13107, 13108, 13112, 13122, 13123, 13124, 13126, 13130, 13131, 13139, 13144, 13145, 13146, 13152, 13170, 13014S, 13056S, 13056S+D, 13056D, 13056SD, 13057S, 13057S+D, 13057D, 13057SD, 13080D, 13090D, 13090SD, 13108D, 13122S, 13145D, 13145S, 13145SD, 13124D, 13131D, 13090S, 13060D, 13127, 13128, 13133, 13136, 13137, 13140, 13141, 13142, 13143, 13147, 13148, 13149, 13150, 13151, 13153, 13154, 13155, 13156, 13157, 13158, 13159, 13160, 13161, 13162, 13163, 13164, 13165, 13167, 13168, 13169, 13171, 13173, 13174, 13176, 13177, 13178, 13179, 13180, 13181, 13182, 13183, 13184, 13185, 13186, 13187, 13188, 13189, 13190, 13191, 13192, 13193, 13194, 13195, 13196, 13197, 13198, 13199, 13200, 13201, 13202, 13203, 13204, 13205, 13206, 13207, 13208, 13209, 13210, 13211, 13212, 13213, 13214, 13215, 13216, 13217, 13218, 13219, 13220, 13221, 13222, 13223, 13224, 13225, 13226, 13227, 13228, 13229, 13230, 13231, 13232, 13233, 13234, 13235, 13236, 13237, 13238, 13239, 13240, 13241, 13242, 13243, 13244, 13245, 13246, 13247, 13248, 13249, 13250, 13251, 13252, 13253, 13254, 13255, 13256, 13257, 13258, 15001, 15002, 15003, 15004, 15006, 15007, 15008, 15009, 15012, 15013, 15014, 15015, 15016, 15017, 15018, 15019, 15020, 15024, 15025, 15026, 15027, 15028, 15029, 15030, 15031, 15032, 15033, 15034, 15035, 15036, 15037, 15038, 15039, 15040, 15041, 15042, 15043, 15044, 15045, 15046, 15047, 15048, 15049, 15050, 15051, 15052, 15053, 15054, 15055,15056, 15057, 15058, 15059, 15060, 15061, 15062, 15063, 15064, 15065, 15066, 15067, 15068, 15069, 15070, 15071, 15072, 15073, 15074, 15075, 15076, 15077, 15078, 15079, 15080, 15081, 15082, 15083, 15084, 15085, 15086, 15087, 15088, 15089, 15090, 15091, 15092, 15093, 15094, 15095, 15096, 15097, 15098, 15099, 15100, 15101, 15102, 15103, 15104, 15105, 15106, 17001, 17002, 17003, 17004, 17005, 17006, 17007, 17008, 17009, 17010, 17011, 17012, 17014, 17015, 17016, 17017, 17018, 17019,

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

	17020, 17013H, 17022, 17023, 17024, 17025, 17026, 17027, 17028, 17029, 17030, 17031, 17032, 17033, 17034, 17035, 17036, 17037, 17038,17039, 17040, 17041, 17042, 17043, 17044, 17045, 17046, 17047, 17048, 17049, 17050, 17051, 17052, 17053, 17054, 17055, 17056, 17057, 17058, 17059, 17060, 17061, 17062, 17063, 17064, 17065, 17066, 17067, 17068, 17069, 17070, 17071, 17072, 17073, 17074, 17075, 17076, 17077, 17078, 17079, 17080, 17081, 17082, 17083, 17084, 17085, 17086, 17087, 17088, 17089, 17090, 17091, 17092, 17093, 17094, 17095, 17096, 17097,17098, 17099, 17100, 18001, 18002, 18005, 18006, 18007, 18008, 18009, 18010, 18011, 18012, 18013, 18018, 18019, 18020, 18021, 18023, 18024, 18025, 18026, 18027, 18028, 18029, 18019A, 18019B, 18025A, 18025B, 18024A, 18024B, 18024C, 18024D, 18003, 18004, 18014, 18015, 18016, 18017, 18022, 18030, 18031, 18032, 18033, 18034, 18035, 18036, 18037, 18038, 18039, 18040, 18041, 18042, 18043, 18044, 18045, 18046, 18047, 18048, 18049, 18050, 18051, 18052, 18053, 18054, 18055, 18056, 18057, 18058, 18059, 18060, 18061, 18062, 18063, 18064, 18065, 18066, 18067, 18068, 18069, 18070, 18071, 18072, 18073, 18074, 18075, 18076, 18077, 18078, 18079, 18080, 18081, 18082, 18083, 18084, 18085, 18086, 18087, 18088, 18089, 18090, 18091, 18092, 18093, 18094, 18095, 18096, 18097, 18098, 18099, 18100, 19001, 19002, 19003, 19004, 19005, 19006, 19007, 19008, 19010, 19011, 19012, 19013, 19014, 19005T, 19015,19016, 19017, 18018, 19019, 19020, 19021, 19022, 19023, 19024, 19025, 19026, 19027, 19028, 19029, 19030, 19031, 19032, 19033, 19034, 19035, 19036, 19037, 19038, 19039, 19040, 19041, 19042, 19043, 19044, 19045, 19046, 19047, 19048, 19049, 19050, 19051, 19052, 19053, 19054, 19055, 19056, 19057, 19058, 19059, 19060, 19061, 19062, 19063, 19064, 19065, 19066, 19067, 19068, 19069, 19070, 19071, 19072, 19073, 19074, 19075, 19076, 19077, 19078, 19079, 19080, 19081, 19082, 19083, 19084, 19085, 19086, 19087, 19088, 19089, 19090, 19091, 19092, 19093, 19094, 19095, 19096, 19097, 19098, 19099, 19100, 20001, 20002, 20003, 20004, 20005, 20006, 20007, 20008, 20009, 20010, 20011, 20012, 20013, 20014, 20015, 20016, 20017, 20018, 20019, 20020, 20021, 20022, 20023, 20024, 20025, 20026, 20027, 20028, 20029, 20030, 20031, 20032, 20033, 20034, 20035, 20036, 20037, 20038, 20039, 20040, 20041, 20042, 20043, 20044, 20045, 20046, 20047, 20048, 20049, 20050, 20050, 20051, 20052, 20053, 20054, 20055, 20056, 20057, 20058, 20059, 20060, 20061, 20062, 20063, 20064, 20065, 20066, 20067, 20068, 20069, 20070, 20071, 20072, 20073, 20074, 20075, 20076, 20077, 20078, 20079, 20080, 20081, 20082, 20083, 20084, 20085, 20086, 20087, 20088, 20089, 20090, 20091, 20092, 20093, 20094, 20095, 20096, 20097, 20098, 20099, 20100, 21014, 21009, 21010, 21011, 21012, 21013, 21016, 21017, 21018, 21019, 21024, 21025, 21027, 21028, 21029, 21030, 21031, 21032, 21033, 21035, 21036, 21037, 21038, 21039, 21040, 21041, 21042, 21043, 21044, 21045, 21046, 21047, 21048, 21049, 21050, 21051, 21052, 21053, 21054, 21055, 21056, 21057, 21058, 21059, 21060, 21061, 21062, 21063, 21064, 21065, 21066, 21067, 21068, 21069, 21070, 21071, 21072, 21073, 21074, 21075, 21076, 21077, 21078, 21079, 21080, 21081, 21082, 21083, 21084, 21085, 21086, 21087, 21088, 21089, 21090, 21091, 21092, 21093, 21094, 21095, 21096, 21097, 21098, 21099, 21100, 23011, 23005, 23009, 23010, 23003, 23004, 23006, 23007, 23008, 23010, 23012, 23013, 23014, 23015, 23016, 23017, 23018, 23019, 23020, 23021, 23022, 23023, 23024, 23025, 23026, 23027, 23028, 23029, 23030, 23031, 23032, 23033, 23034, 23035, 23036, 23037, 23038, 23039, 23040, 23041, 23042, 23043, 23044, 23045, 23046, 23047, 23048, 23049, 23050, 23051, 23052, 23053, 23054, 23055, 23056, 23057, 23058, 23059, 23060, 23061, 23062, 23063, 23064, 23065, 23066, 23067, 23068, 23069, 23070, 23071, 23072, 23073, 23074, 23075, 23076, 23077, 23078, 23079, 23080, 23081, 23082, 23083, 23084, 23085, 23086, 23087, 23088, 23089, 23090, 23091,

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

	23092, 23093, 23094, 23095, 23096, 23097, 23098, 23099, 23100, 25001, 25002, 25003, 25004, 25005, 25006, 25007, 25008, 25009, 25010, 25011, 25012, 25013, 25014, 25015, 25016, 25017, 25018, 25019, 25020, 25021, 25022, 25023, 25024, 25025, 25026, 25027, 25028, 25029, 25030, 25031, 25032, 25033, 25034, 25035, 25036, 25037, 25038, 25039, 25040, 25041, 25042, 25043, 25044, 25045, 25046, 25047, 25048, 25049, 25050, 25051, 25052, 25053, 25054, 25055, 25056, 25057, 25058, 25059, 25060, 25061, 25062, 25063, 25064, 25065, 25066, 25067, 25068, 25069, 25070, 25071, 25072, 25073, 25074, 25075, 25076, 25077, 25078, 25079, 25080, 25081, 25082, 25083, 25084, 25085, 25086, 25087, 25088, 25089, 25090, 25091, 25092, 25093, 25094, 25095, 25096, 25097, 25098, 25099, 25100, 26001, 26002, 26003, 26004, 26005, 26006, 26007, 26008, 26009, 26010, 26011, 26012, 26013, 26014, 26015, 26016, 26017, 26018, 26019, 26020, 26021, 26022, 26023, 26024, 26025, 26026, 26027, 26028, 26029, 26030, 26031, 26032, 26033, 26034, 26035, 26036, 26037, 26038, 26039, 26040, 26041, 26042, 26043, 26044, 26045, 26046, 26047, 26048, 26049, 26050, 26051, 26052, 26053, 26054, 26055, 26056, 26057, 26058, 26059, 26060, 26061, 26062, 26063, 26064, 26065, 26066, 26067, 26068, 26069, 26070, 26071, 26072, 26073, 26074, 26075, 26076, 26077, 26078, 26079, 26080, 26081, 26082, 26083, 26084, 26085, 26086, 26087, 26088, 26089, 26090, 26091, 26092, 26093, 26094, 26095, 26096, 26097, 26098, 26099, 26100, 53001, 53002, 53003, 53004, 53005, 53006, 53007, 53008, 53009, 53010, 53011, 53012, 53013, 53014, 53015, 53016, 53017, 53018, 53019, 53020, 53021, 53022, 53023, 53024, 53025, 53026, 53027, 53028, 53029, 53030, 53031, 53032, 53033, 53034, 53035, 53036, 53037, 53038, 53039, 53040, 53041, 53042, 53043, 53044, 53045, 53046, 53047, 53048, 53049, 53050, 53051, 53052, 53053, 53054, 53055, 53056, 53057, 53058, 53059, 53060, 53061, 53062, 53063, 53064, 53065, 53066, 53067, 53068, 53069, 53070, 53071, 53072, 53073, 53074, 53075, 53076, 53077, 53078, 53079, 53080, 53081, 53082, 53083, 53084, 53085, 53086, 53087, 53088, 53089, 53090, 53091, 53092, 53093, 53094, 53095, 53096, 53097, 53098, 53099, 53100, M-0006, M-0018, M-0019, M-0021, M-0006S, KB120, KB800, B771, B772, B773, B774, B776, B778, B779, B880, B881, B882, B883, B884, B885, B886, B887, B888, B889, B890, B891, B892, B893, B894, B895, B896, B897, B898, B899, B900, B901, B902, B903, B904, B905, B906, B907, B908, B909, B910, B911, B912, B913, B914, B915, B916, B917, B918, B919, B920, B921, B922, B923, B924, B925, B926, B927, B928, B929, B930, B931, B932, B933, B934, B935, B936, B937, B938, B939, B940, B941, B942, B943, B944, B945, B946, B947, B948, B949, B950, B951, B952, B953, B954, B955, B956, B957, B958, B959, B960
Model Difference:	All model's the function, software and electric circuit are the same, only with a product color, appearance and model named different. Test sample model: 17013.
FCC ID	2A59K-17013
Antenna Type	Internal Antenna
Antenna Gain	0dBi
Operation frequency	2410-2475MHz
Number of Channels	66CH
Modulation Type	GFSK
Power Source	DC 3.7V from Battery or DC 5V from micro USB
Power Rating	DC 3.7V from Battery or DC 5V from micro USB

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

2.2 Carrier Frequency of Channels

Description of Channel:							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2410	19	2428	37	2446	55	2464
2	2411	20	2429	38	2447	56	2465
3	2412	21	2430	39	2448	57	2466
4	2413	22	2431	40	2449	58	2467
5	2414	23	2432	41	2450	59	2468
6	2415	24	2433	42	2451	60	2469
7	2416	25	2434	43	2452	61	2470
8	2417	26	2435	44	2453	62	2471
9	2418	27	2436	45	2454	63	2472
10	2419	28	2437	46	2455	64	2473
11	2420	29	2438	47	2456	65	2474
12	2421	30	2439	48	2457	66	2475
13	2422	31	2440	49	2458		
14	2423	32	2441	50	2459		
15	2424	33	2442	51	2460		
16	2425	34	2443	52	2461		
17	2426	35	2444	53	2462		
18	2427	36	2445	54	2463		

2.3 Operation of EUT during testing

Operating Mode

The mode is used: **Transmitting mode**

Low Channel: 2410MHz

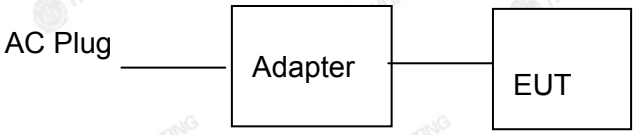
Middle Channel: 2443MHz

High Channel: 2475MHz

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

2.4 DESCRIPTION OF TEST SETUP

Operation of EUT during radiation below 1GHz and Conducted testing:



Operation of EUT during radiation above 1GHz testing:

- Adapter information
  Model: HW-059200CHQ
  Input: 100-240V~50/60Hz 0.5A
  Output: 5VDC, 2A

The sample was placed (0.8m below 1GHz, 1.5m above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. 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, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. The worst case is X position

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

2.5 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	R&S	ENV216	HKE-002	Dec. 09, 2021	1 Year
2.	Receiver	R&S	ESR-7	HKE-010	Dec. 09, 2021	1 Year
3.	RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 09, 2021	1 Year
4.	Spectrum analyzer	R&S	FSP40	HKE-025	Dec. 09, 2021	1 Year
5.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 09, 2021	1 Year
6.	Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Dec. 09, 2021	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESCI 7	HKE-010	Dec. 09, 2021	1 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	Dec. 09, 2021	1 Year
9.	Loop Antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Dec. 09, 2021	1 Year
10.	Horn Antenna	Schewarzbeck	9120D	HKE-013	Dec. 09, 2021	1 Year
11.	Pre-amplifier	EMCI	EMC051845SE	HKE-015	Dec. 09, 2021	1 Year
12.	Pre-amplifier	Agilent	83051A	HKE-016	Dec. 09, 2021	1 Year
13.	EMI Test Software EZ-EMC	Tonscend	JY3120-B Version	HKE-083	Dec. 09, 2021	N/A
14.	Power Sensor	Agilent	E9300A	HKE-086	Dec. 09, 2021	1 Year
15.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 09, 2021	1 Year
16.	Signal generator	Agilent	N5182A	HKE-029	Dec. 09, 2021	1 Year
17.	Signal Generator	Agilent	83630A	HKE-028	Dec. 09, 2021	1 Year
18.	Shielded room	Shiel Hong	4*3*3	HKE-039	Dec. 17, 2020	3 Year
19.	High gain antenna	Schewarzbeck	LB-180400KF	HKE-054	Dec. 09, 2021	1 Year

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

3. CONDUCTED EMISSIONS TEST

3.1 Conducted Power Line Emission Limit

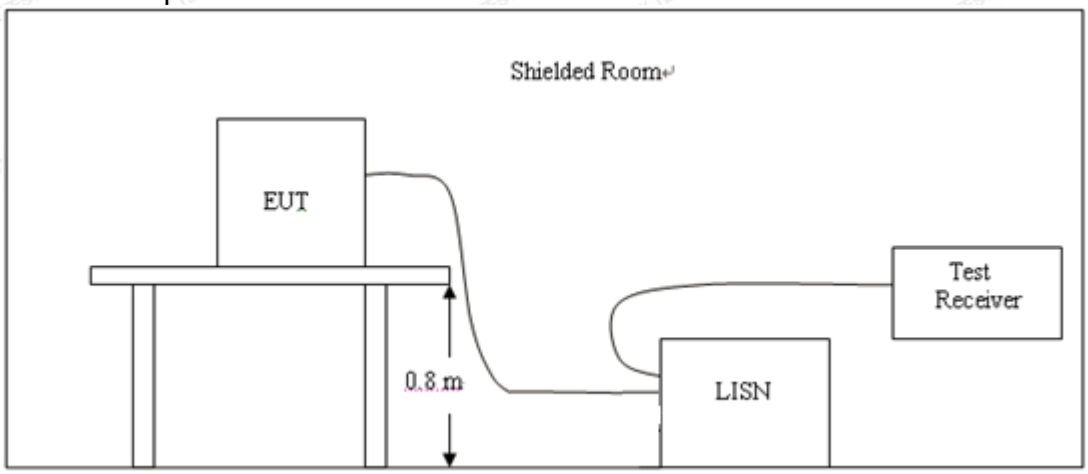
For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following

Frequency (MHz)	Maximum RF Line Voltage (dBμV)			
	CLASS A		CLASS B	
	Q.P.	Ave.	Q.P.	Ave.
0.15 - 0.50	79	66	66-56*	56-46*
0.50 - 5.00	73	60	56	46
5.00 - 30.0	73	60	60	50

* Decreasing linearly with the logarithm of the frequency

For intentional device, according to §15.207(a) Line Conducted Emission Limit is same as above table.

3.2 Test Setup



3.3 Test Procedure

1, The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.

2, Support equipment, if needed, was placed as per ANSI C63.10.

3, All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.

4, If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.

5, All support equipments received AC power from a second LISN, if any.

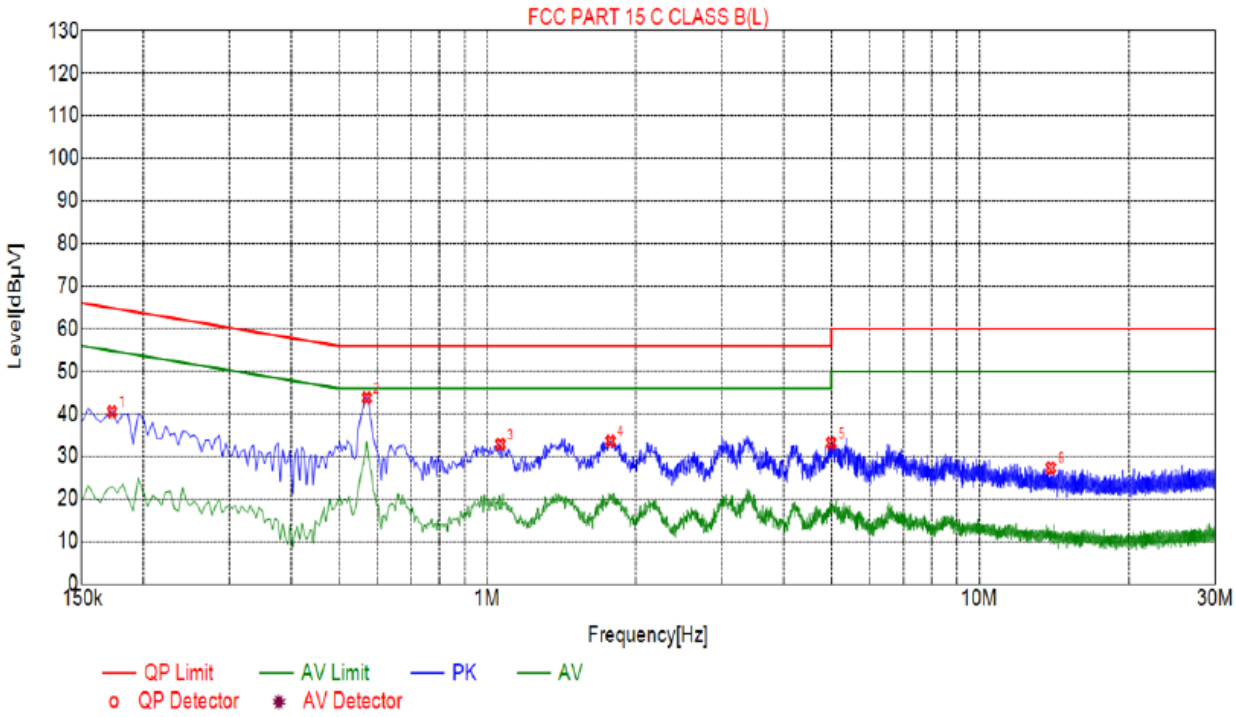
6, The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.

7, Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

3.4 Test Result

Test Specification: Line



Suspected List								
NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1725	40.53	20.04	64.84	24.31	20.49	PK	L
2	0.5685	43.76	20.05	56.00	12.24	23.71	PK	L
3	1.0635	32.90	20.07	56.00	23.10	12.83	PK	L
4	1.7790	33.60	20.14	56.00	22.40	13.46	PK	L
5	4.9965	33.22	20.26	56.00	22.78	12.96	PK	L
6	13.8750	27.30	19.96	60.00	32.70	7.34	PK	L

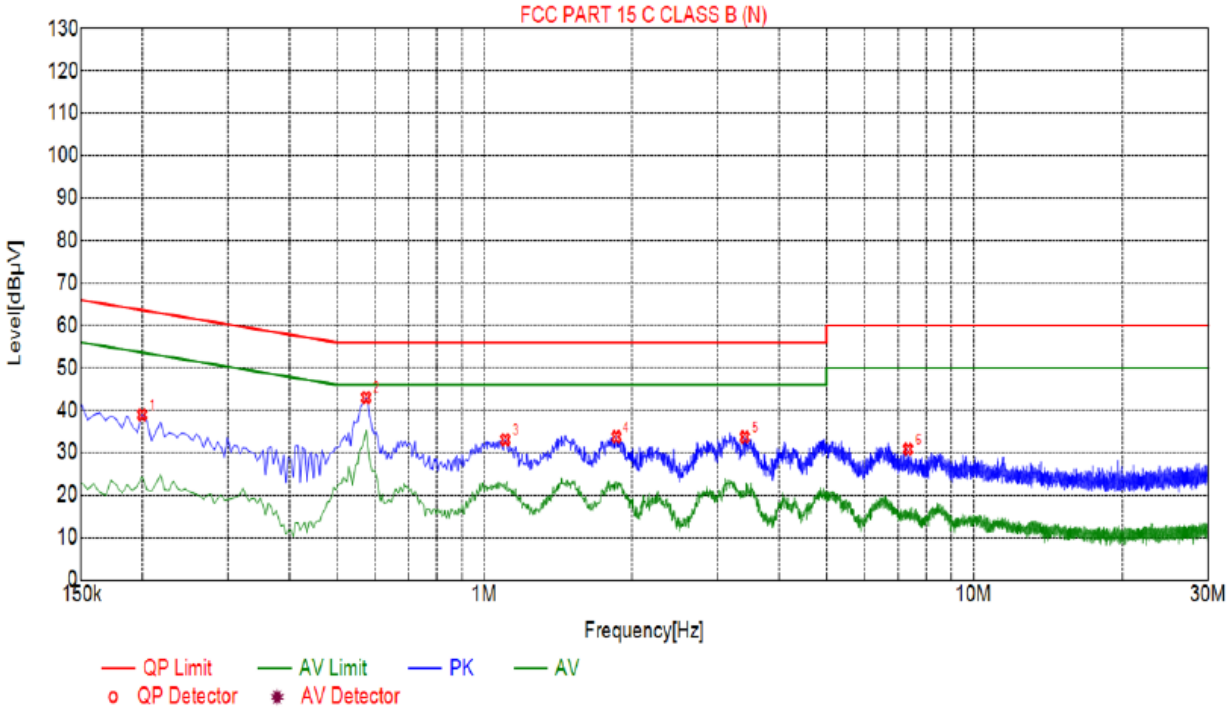
Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

Test Specification: Neutral



Suspected List								
NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1995	38.95	20.03	63.63	24.68	18.92	PK	N
2	0.5730	43.00	20.05	56.00	13.00	22.95	PK	N
3	1.1040	33.05	20.07	56.00	22.95	12.98	PK	N
4	1.8600	33.71	20.14	56.00	22.29	13.57	PK	N
5	3.4080	33.65	20.24	56.00	22.35	13.41	PK	N
6	7.3500	30.78	20.18	60.00	29.22	10.60	PK	N

Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

4 RADIATED EMISSION TEST

4.1 Radiation Limit

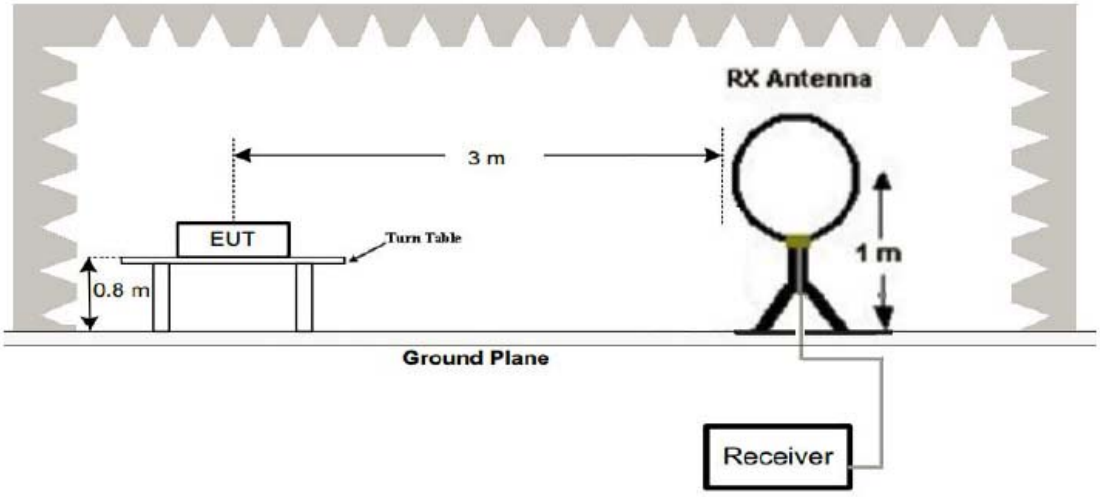
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values：

Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
30-88	3	40	100
88-216	3	43.5	150
216-960	3	46	200
Above 960	3	54	500

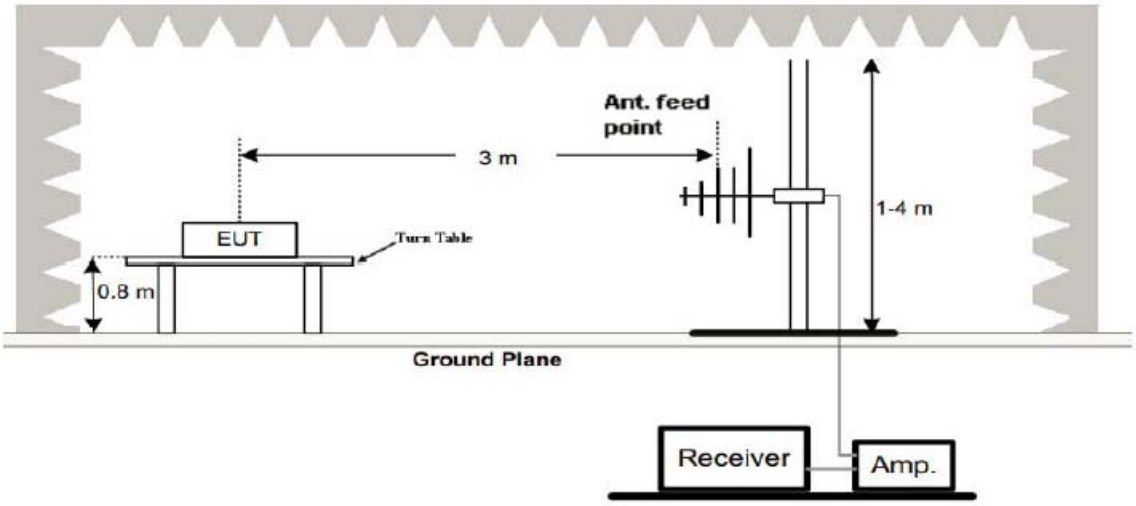
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

4.2 Test Setup

（1）Radiated Emission Test-Up Frequency Below 30MHz

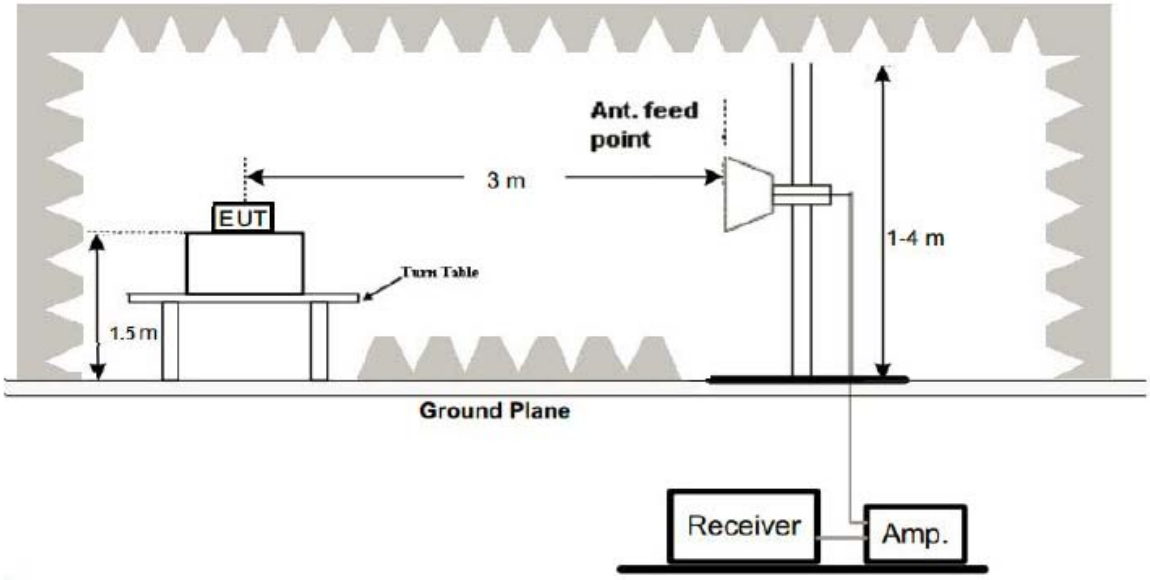


（2）Radiated Emission Test-Up Frequency 30MHz~1GHz



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

（3）Radiated Emission Test-Up Frequency Above 1GHz



4.3 Test Procedure

1. Below 1GHz measurement the EUT is placed on turntable which is 0.8m above ground plane. And above 1GHz measurement EUT was placed on low permittivity and low tangent turn table which is 1.5m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The test frequency range from 9KHz to 25GHz per FCC PART 15.33(a).

Note:
For battery operated equipment, the equipment tests shall be performed using a new battery.

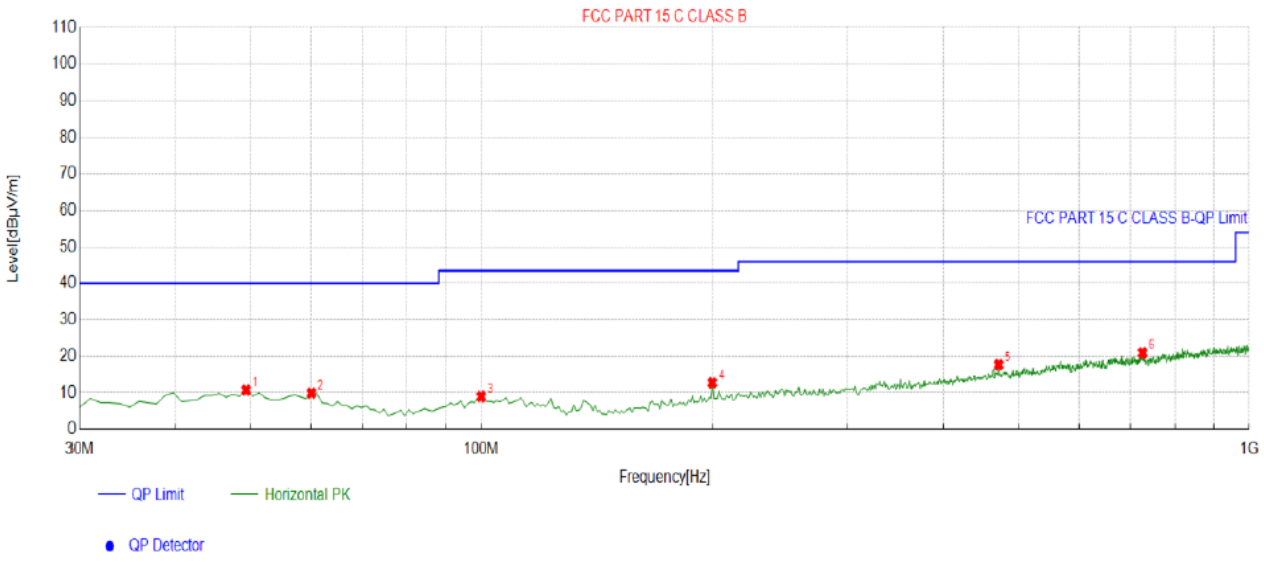
4.4 Test Result

PASS

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

Below 1GHz Test Results:

Antenna polarity: H

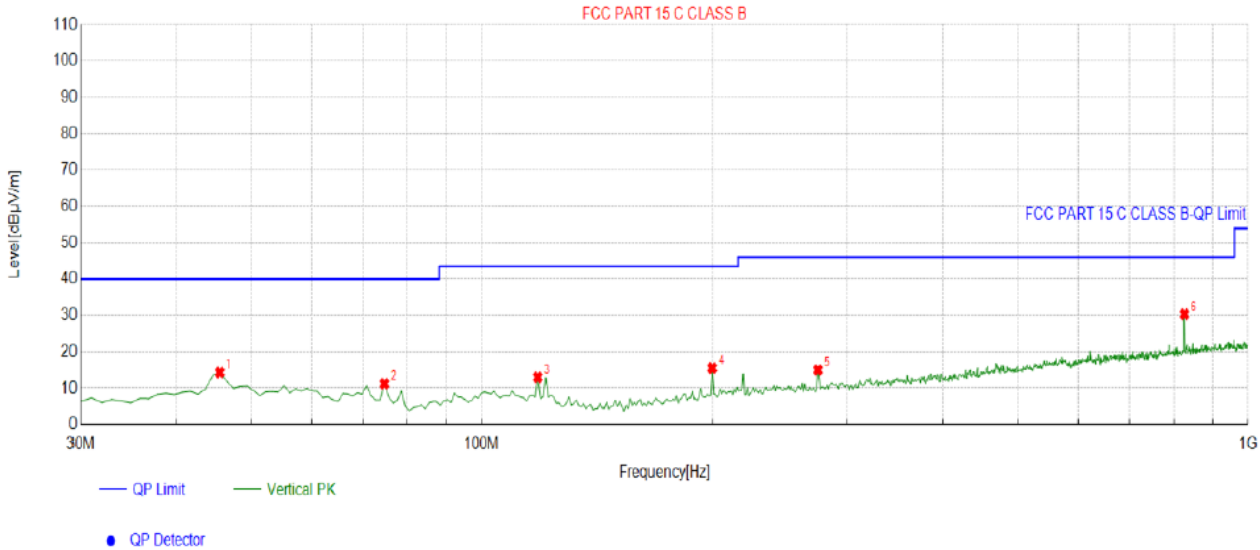


Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	49.4194	-13.65	24.34	10.69	40.00	29.31	100	142	Horizontal
2	60.1001	-15.19	25.09	9.90	40.00	30.10	100	51	Horizontal
3	99.9099	-15.42	24.34	8.92	43.50	34.58	100	11	Horizontal
4	199.9199	-15.07	27.79	12.72	43.50	30.78	100	308	Horizontal
5	471.7918	-8.36	26.04	17.68	46.00	28.32	100	308	Horizontal
6	726.1862	-4.60	25.53	20.93	46.00	25.07	100	347	Horizontal

Remark: Factor = Cable loss + Antenna factor – Preamplifier; Level = Reading + Factor; Margin =Limit – Level

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

Antenna polarity: V



Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	45.5355	-13.65	27.98	14.33	40.00	25.67	100	270	Vertical
2	74.6647	-18.51	29.73	11.22	40.00	28.78	100	48	Vertical
3	118.3584	-16.83	29.82	12.99	43.50	30.51	100	282	Vertical
4	199.9199	-15.07	30.62	15.55	43.50	27.95	100	321	Vertical
5	274.6847	-13.47	28.47	15.00	46.00	31.00	100	155	Vertical
6	826.1962	-2.54	32.85	30.31	46.00	15.69	100	286	Vertical

Remark: Factor = Cable loss + Antenna factor – Preamplifier; Level = Reading + Factor; Margin =Limit – Level

Remark:

(1) Measuring frequencies from 9 KHz to the 1 GHz, Radiated emission test from 9KHz to 30MHz was verified, and no any emission was found except system noise floor.

(2) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.

(3) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

Above 1 GHz Test Results:

CH Low (2410MHz)

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2410	101.65	-5.84	95.81	114	-18.19	peak
2410	88.02	-5.84	82.18	94	-11.82	AVG
4820	60.32	-3.64	56.68	74	-17.32	peak
4820	44.72	-3.64	41.08	54	-12.92	AVG
7230	56.38	-0.95	55.43	74	-18.57	peak
7230	42.06	-0.95	41.11	54	-12.89	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2410	101.33	-5.84	95.49	114	-18.51	peak
2410	85.69	-5.84	79.85	94	-14.15	AVG
4820	59.34	-3.64	55.7	74	-18.3	peak
4820	45.12	-3.64	41.48	54	-12.52	AVG
7230	18.02	-0.95	17.07	74	-56.93	peak
7230	43.34	-0.95	42.39	54	-11.61	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

CH Middle (2443MHz)

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2443	101.34	-5.71	95.63	114	-18.37	peak
2443	86.97	-5.71	81.26	94	-12.74	AVG
4886	58.85	-3.51	55.34	74	-18.66	peak
4886	43.62	-3.51	40.11	54	-13.89	AVG
7329	56.34	-0.82	55.52	74	-18.48	peak
7329	41.11	-0.82	40.29	54	-13.71	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2443	102.65	-5.71	96.94	114	-17.06	peak
2443	88.49	-5.71	82.78	94	-11.22	AVG
4886	58.72	-3.51	55.21	74	-18.79	peak
4886	73.62	-3.51	70.11	54	16.11	AVG
7329	56.45	-0.82	55.63	74	-18.37	peak
7329	42.88	-0.82	42.06	54	-11.94	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

CH High (2475MHz)

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2475	101.89	-5.65	96.24	114	-17.76	peak
2475	86.72	-5.65	81.07	94	-12.93	AVG
4950	59.34	-3.43	55.91	74	-18.09	peak
4950	43.16	-3.43	39.73	54	-14.27	AVG
7425	56.55	-0.75	55.8	74	-18.2	peak
7425	42.01	-0.75	41.26	54	-12.74	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2475	101.65	-5.65	96	114	-18	peak
2475	82.97	-5.65	77.32	94	-16.68	AVG
4950	59.88	-3.43	56.45	74	-17.55	peak
4950	45.12	-3.43	41.69	54	-12.31	AVG
7425	56.28	-0.75	55.53	74	-18.47	peak
7425	43.66	-0.75	42.91	54	-11.09	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark：
(1) Measuring frequencies from 1 GHz to the 25 GHz。
(2) “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency.
(3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
(4)The emissions are attenuated more than 20dB below the permissible limits are not record in the report.
(5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average measurement with peak
detection at frequency above 1GHz.
(6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.
(7)All modes of operation were investigated and the worst-case emissions are reported.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

5 BAND EDGE

5.1 Limits

FCC PART 15.249(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

5.2 Test Procedure

The band edge compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW to 1MHz and VBM to 3MHz to measure the peak field strength and set RBW to 1MHz and VBW to 10Hz to measure the average radiated field strength.The conducted RF band edge was measured by using a spectrum analyzer. Set span wide enough to capture the highest in-band emission and the emission at the band edge. Set RBW to 1MHz and VBW to 3MHz, to measure the conducted peak band edge.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

5.3 Test Result

PASS

Radiated Band Edge Test:

Operation Mode: TX CH Low (2410MHz)

Horizontal (Worst case)

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2310	55.98	-5.81	50.17	74	-23.83	peak
2310	/	-5.81	/	54	/	AVG
2390	56.34	-5.84	50.5	74	-23.5	peak
2390	/	-5.84	/	54	/	AVG
2400	57.14	-5.84	51.3	74	-22.7	peak
2400	/	-5.84	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2310	55.28	-5.81	49.47	74	-24.53	peak
2310	/	-5.81	/	54	/	AVG
2390	56.97	-5.84	51.13	74	-22.87	peak
2390	/	-5.84	/	54	/	AVG
2400	55.01	-5.84	49.17	74	-24.83	peak
2400	/	-5.84	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

Operation Mode: TX CH High (2475MHz)

Horizontal (Worst case)

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.50	57.14	-5.65	51.49	74	-22.51	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	56.32	-5.65	50.67	74	-23.33	peak
2500.00	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.50	57.41	-5.65	51.76	74	-22.24	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	55.92	-5.65	50.27	74	-23.73	peak
2500.00	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

6 OCCUPIED BANDWIDTH MEASUREMENT

6.1 Test Setup

Same as Radiated Emission Measurement

6.2 Test Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as normal operation.
3. Based on ANSI C63.10 section 6.9.2: RBW= 20KHz. VBW= 62 KHz, Span=3MHz.
4. The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.

6.3 Measurement Equipment Used

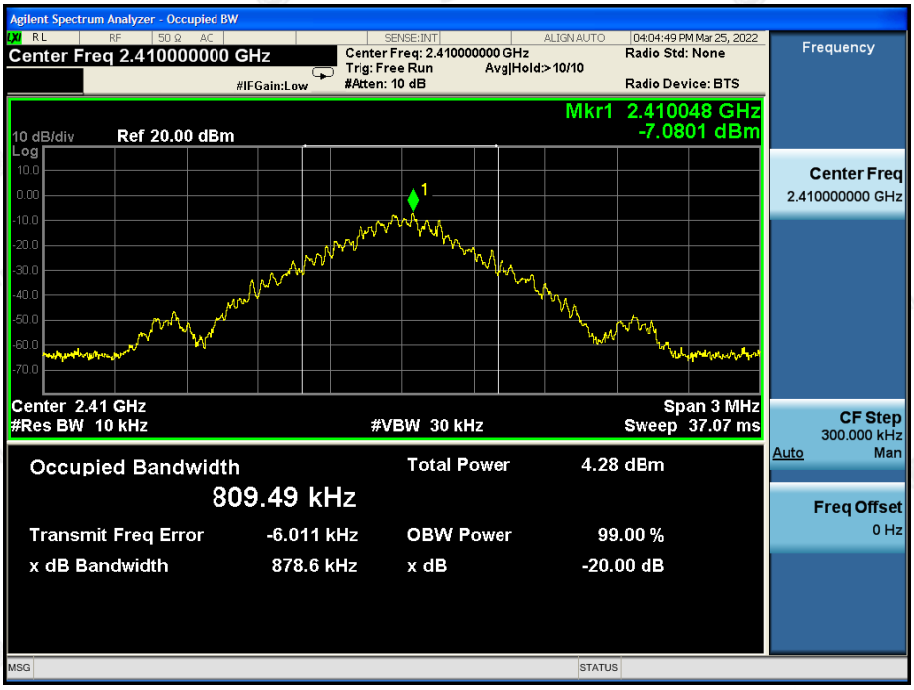
Same as Radiated Emission Measurement

6.4 Test Result

PASS

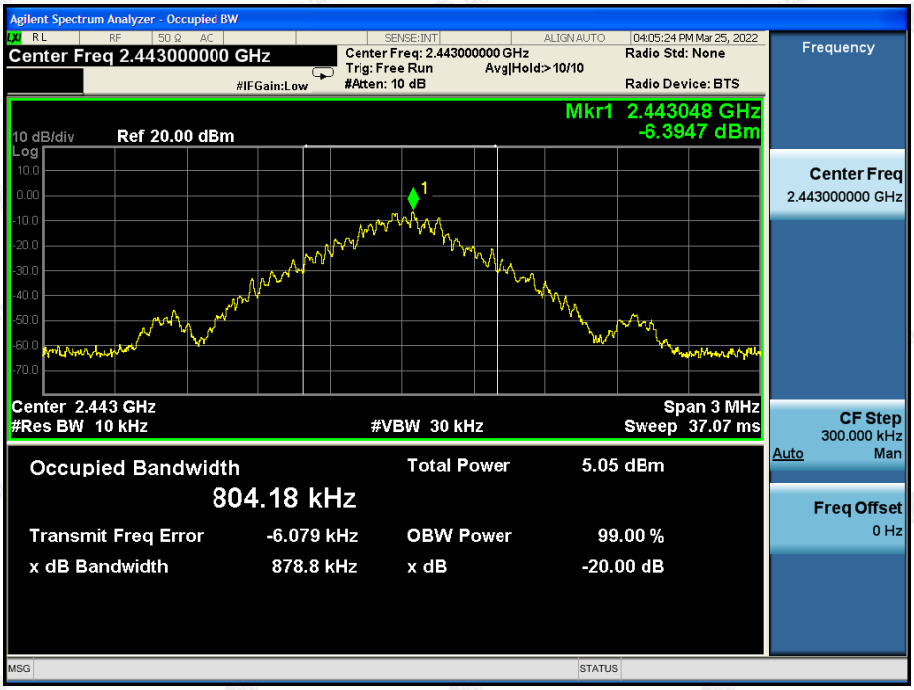
Frequency	20dB Bandwidth (MHz)	Result
2410 MHz	0.8786	**PASS**
2443 MHz	0.8788	**PASS**
2475 MHz	0.8795	**PASS**

CH: 2410MHz

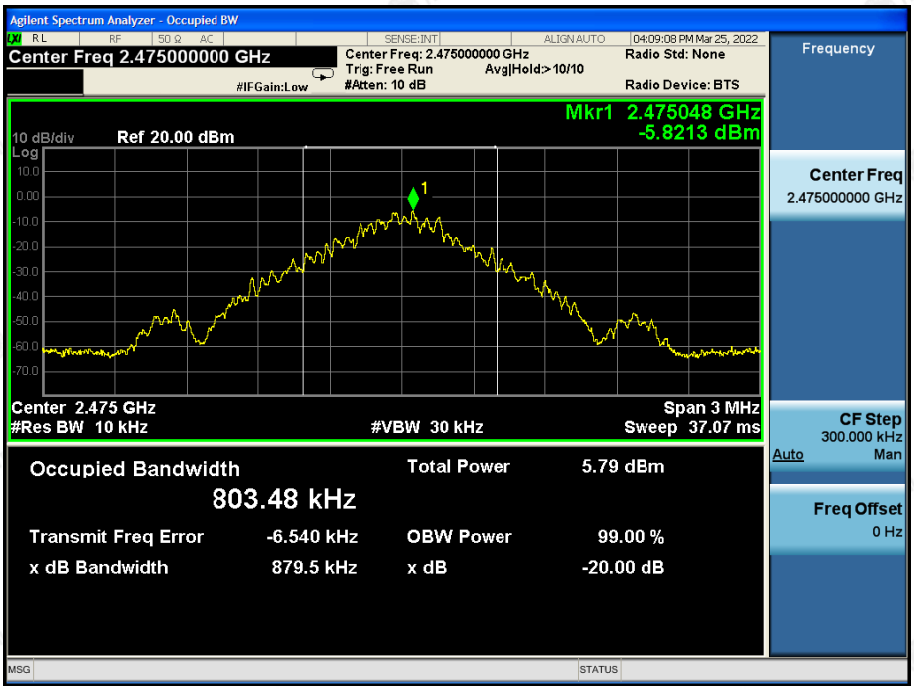


The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

CH 2443MHz



CH 2475MHz



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

7 ANTENNA REQUIREMENT

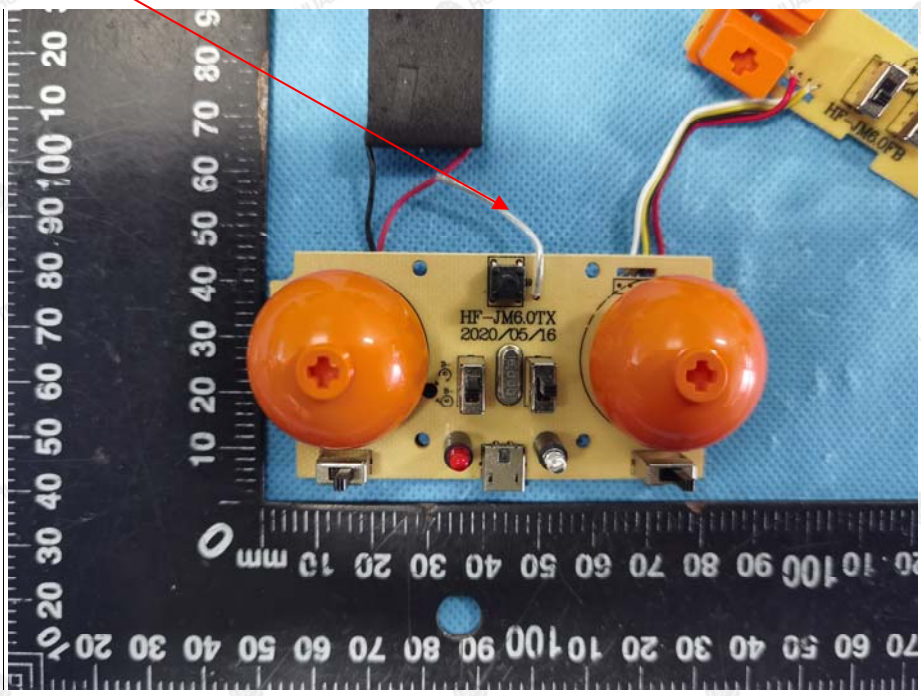
Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

Antenna Connected Construction

The antenna used in this product is a Internal Antenna which permanently attached. It conforms to the standard requirements, The directional gains of antenna used for transmitting is 0dBi.

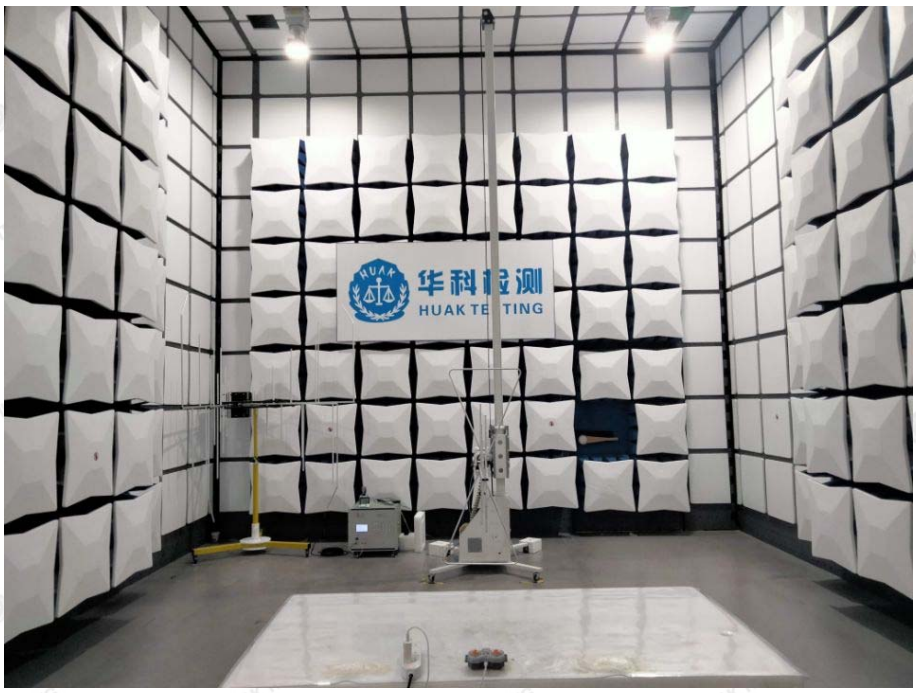
ANTENNA



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

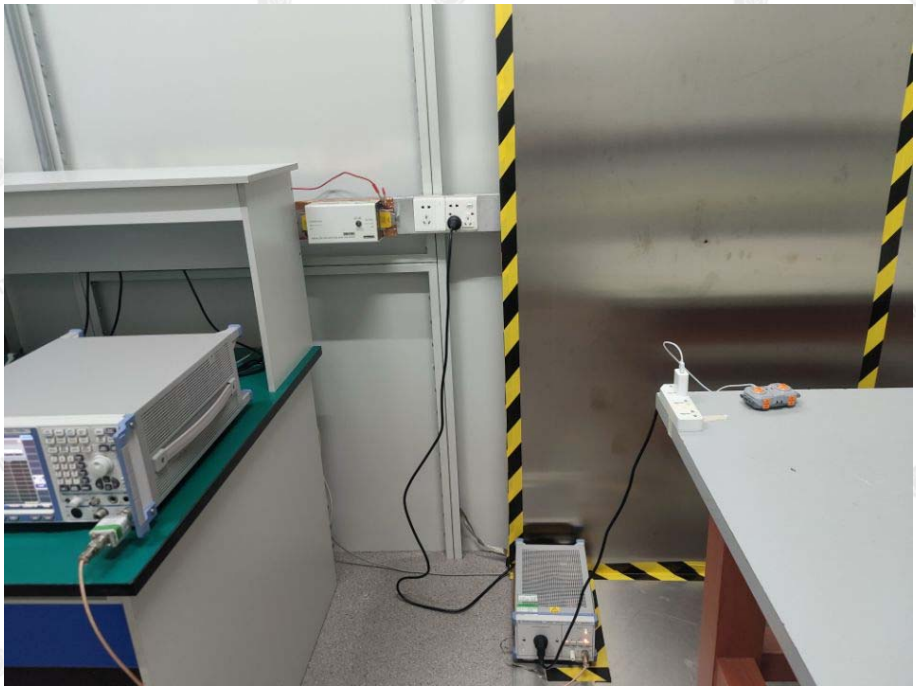
8 PHOTOGRAPH OF TEST

8.1 Radiated Emission



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

8.2 Conducted Emission



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

9 PHOTOS OF THE EUT

Reference to the report: ANNEX A of external photos and ANNEX B of internal photos

---------End of test report---------

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

HUAK Testing Lab TEL : +86-755 2302 9901 FAX : +86-755 2302 9901 E-mail : service@cer-mark.com
1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China