



No.:
FCCSZ2025-0071-RF

TEST REPORT

FCC ID : 2BSME-NE-CM03

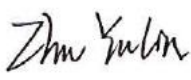
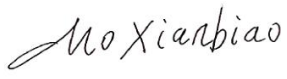
NAME OF SAMPLE : NeoEyes NE-CM03 WiFi-HaLow Module

APPLICANT : Xiamen CamThink Technology Co., Ltd.

CLASSIFICATION OF TEST : N/A

CVC Testing Technology (Shenzhen) Co., Ltd.



Applicant	Name: Xiamen CamThink Technology Co., Ltd. Address: Building C09, Software Park Phase III, Xiamen 361024, Fujian, China		
Manufacturer	Name: Xiamen CamThink Technology Co., Ltd. Address: Building C09, Software Park Phase III, Xiamen 361024, Fujian, China		
Equipment Under Test	Product Name: NeoEyes NE-CM03 WiFi-HaLow Module Model Name: NE-CM03 Additional Model Name: NT-CM03 Brand Name: CamThink Serial No.: N/A Sample NO.: 202507115892-4		
Date of Receipt.	Jul. 14, 2025	Date of Testing	Jul. 14, 2025 ~ Aug. 06, 2025
Test Specification		Test Result	
FCC Part 15, Subpart C, Section 15.247		PASS	
Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. Seal of CVC Issue Date: Aug. 06, 2025		
Compiled by:  Zhu Yulin Name Signature	Reviewed by:  Mo Xianbiao Name Signature	Approved by:  Dong Sanbi Name Signature	
Other Aspects: NONE.			
Abbreviations: OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested			

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.



TABLE OF CONTENTS

RELEASE CONTROL RECORD	4
1 SUMMARY OF TEST RESULTS	5
1.1 TEST LOCATION	5
1.2 LIST OF TEST AND MEASUREMENT INSTRUMENTS	6
1.3 MEASUREMENT UNCERTAINTY	7
2 GENERAL INFORMATION	8
2.1 GENERAL PRODUCT INFORMATION	8
2.2 DESCRIPTION OF ACCESSORIES	8
2.3 CHANNEL FREQUENCY	9
2.4 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL	10
2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS	12
2.6 DESCRIPTION OF SUPPORT UNITS	12
3 TEST TYPES AND RESULTS	13
3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT	13
3.2 6dB BANDWIDTH MEASUREMENT	21
3.3 CONDUCTED OUTPUT POWER	22
3.4 POWER SPECTRAL DENSITY MEASUREMENT	23
3.5 OUT OF BAND EMISSION AND BAND EDGE MEASUREMENTS	24
3.6 OCCUPIED BANDWIDTH MEASUREMENT	25
3.7 ANTENNA REQUIREMENT	26
4 PHOTOGRAPHS OF TEST SETUP	27
5 PHOTOGRAPHS OF THE EUT	28



RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCCSZ2025-0071-RF	Original release	Aug. 06, 2025



1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15 Subpart C			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
FCC Part 15.207	AC Power Conducted Emission	PASS	DC power supply
FCC Part 15.247(d) FCC Part 15.209 FCC Part 15.205	Radiated Emission and Restricted bands Measurements	PASS	See section 3.2
	Conducted Spurious Emission	PASS	Appendix E of FCCSZ2025-0071-RF-A1
	Band Edge Measurements	PASS	Appendix F of FCCSZ2025-0071-RF-A1
FCC Part 15.247(a)(2)	6dB Bandwidth Measurement	PASS	Appendix A of FCCSZ2025-0071-RF-A1
---	Occupied Channel Bandwidth	N/A	Appendix B of FCCSZ2025-0071-RF-A1 (For reference)
FCC Part 15.247(b)	Conducted Output power	PASS	Appendix C of FCCSZ2025-0071-RF-A1
FCC Part 15.247(e)	Power Spectral Density	PASS	Appendix D of FCCSZ2025-0071-RF-A1
FCC Part 15.203 FCC Part 15.247(b)	Antenna Requirement	PASS	See section 3.8

1.1 TEST LOCATION

The tests and measurements refer to this report were performed by EMC testing Lab of CVC Testing Technology (Shenzhen) Co., Ltd.

Address: No. 1301, Guanguang Road, Xinlan Community Guanlan Street, Longhua District, Shenzhen, Guangdong, China

Post Code: 518110 Tel: 0755-23763060-8805
Fax: 0755-23763060 E-mail: sz-kf@cvc.org.cn
FCC(Test firm designation number: CN1363)
IC(Test firm CAB identifier number: CN0137)
CNAS(Test firm designation number: L16091)



1.2 LIST OF TEST AND MEASUREMENT INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial Number	Cal. interval	Cal. Due
Antenna Port Conducted Test (BT/WiFi)					
Spectrum Analyzer	R&S	FSV 30	CS030002	1 year	2026/04/22
Analog signal Generator	R&S	SMB 100A	CS0300015	1 year	2026/04/22
Vector signal Generator	R&S	SGT 100A	CS0300017	1 year	2026/04/22
RF control unit(BT/WIFI)	Tonscend	JS0806-2-8CH	CS0300023	1 year	2026/04/22
RF control unit(DTV)	Tonscend	JS0806-1	CS0300024	1 year	2026/04/22
DC power supply	R&S	HMC8041-G	CS0300026	1 year	2026/04/22
#3Shielding room	MORI	443	CS0300009	3 year	2026/05/16
Digital multimeter	FLUKE	18B+	CS0200056	1 year	2026/05/21
Attenuator	GWAVE	2.92-CA110-E	CS0300145	1 year	2026/06/05
Power Sensor	R&S	NRP18S-10	101843	1 year	2025/09/19
Power splitter	Anritsu	K240CPOWERDIVIDER	012334	1 year	2026/06/05
Temperature and humidity meter	UNI-T	A10T	C193561457	1 year	2026/04/28
Radiation Spurious Test - 3M Chamber #2					
Spectrum Analyzer	R&S	FSV 40	CS030001	1 year	2026/04/22
Spectrum Analyzer	R&S	FSVA 3044	CS030004	1 year	2026/05/21
EMI Test Receiver	R&S	ESR3	CS0300005	1 year	2026/05/21
Horn antenna(1GHz-18GHz)	ETS-Lindgren	3117	CS0300007	1 year	2026/03/28
Horn antenna(18GHz-40GHz)	STEATITE	QMS-00880	CS0300008	1 year	2026/03/21
Automatic control unit(RSE)	R&S	OSP220	CS0300019	1 year	2026/06/05
Filter group(RSE-BT/WiFi)	R&S	WiFi/BT Variant 1	CS0300020	1 year	2026/04/22
Filter group(RSE-Cellular)	R&S	Cellular Variant 1	CS0300021	1 year	2026/04/22
Preamplifier(1GHz-18GHz)	R&S	SCU18F	CS0300031-1	1 year	2026/04/22
Preamplifier(1GHz-18GHz)	R&S	SCU-18F	CS0300031	1 year	2026/04/22
Comprehensive Test Instrument	R&S	CMW 500	CS0300033	1 year	2026/05/22
Antenna(30MHz~1001MHz)	SCHWARZBECK	VULB9168	CS0200006	1 year	2026/01/22
Preamplifier(1GHz-18GHz)	R&S	SCU-01F	CS0200042	1 year	2026/04/22
Preamplifier(18GHz-40GHz)	R&S	SCU40A	CS0200045	1 year	2026/04/22
Attenuator	boyang	BY--N-2W-5dB	/	1 year	2026/01/22
Temperature and humidity meter	yuhuaze	/	WK0001	1 year	2026/04/28
#2 control room	MORI	433	CS0300028	3 year	2026/05/16
3m anechoic chamber	MORI	966	CS0300011	3 year	2026/05/16
Radiation Spurious Test - 3M Chamber #1					
EMI Test Receiver	Rohde&Schwarz	ESR 26	101718	1 year	2026/05/21
Loop antenna (8.3k~30MHz)	Rohde&Schwarz	HFH2-Z2E	100951	1 year	2026/06/18
Antenna(30MHz~1000MHz)	SCHWARZBECK	VULB 9168	1132	1 year	2026/02/27
3m anechoic chamber	MORI	966	N/A	1 year	2026/05/18
Preamplifier(10kHz-1GHz)	Rohde&Schwarz	SCU-01F	100298	1 year	2026/04/22
Preamplifier(1GHz-18GHz)	Rohde&Schwarz	SCU-18F	100799	1 year	2026/04/22
#1 control room	MORI	433	/	3year	2026/05/16
Temperature and humidity meter	/	C193561473	C193561473	1 year	2026/04/28



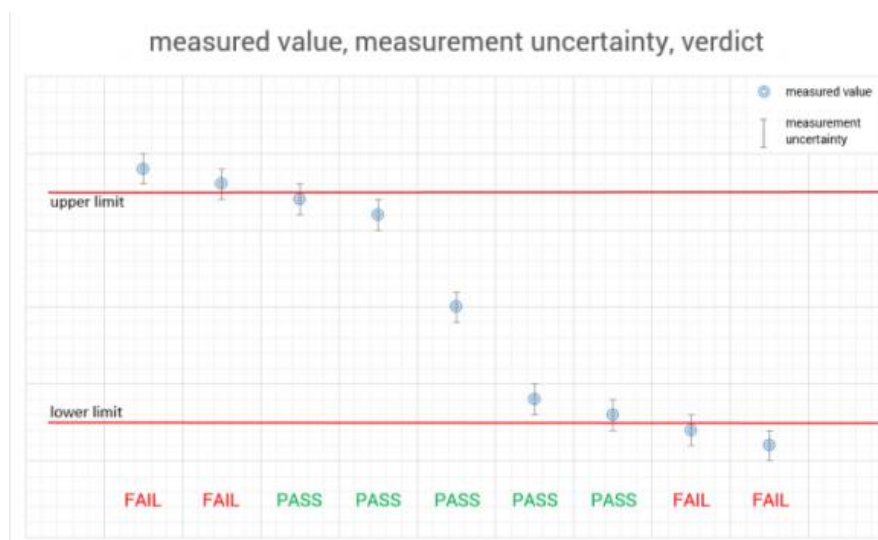
1.3 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

No.	Item	Measurement Uncertainty
1	Conducted emission test	+/-2.7 dB
2	Radiated emission 9kHz-30MHz	+/-5.6 dB
3	Radiated emission 30MHz-1GHz	+/-4.6 dB
4	Radiated emission 1GHz-18GHz	+/-4.4 dB
5	Radiated emission 18GHz-40GHz	+/-5.1 dB
6	RF power	+/-0.9 dB
7	Power Spectral Density	+/-0.8 dB
8	Conducted spurious emissions	+/-2.7 dB
9	Transmission Time	+/-0.27%
10	Occupied Bandwidth	+/-1.86%
Remark: 95% Confidence Levels, k=2.		

Only the measured values related to their corresponding limits will be used to decide whether the equipment under test meets the requirements of the test standards listed.

The measurement uncertainty is mentioned in this test report, but is not taken into account - neither to the limits nor to the measurement results. Measurement results with a smaller margin to the corresponding limits than the measurement uncertainty have a potential risk of more than 5% that the decision might be wrong.





2 GENERAL INFORMATION

2.1 GENERAL PRODUCT INFORMATION

PRODUCT NAME	NeoEyes NE-CM03 WiFi-HaLow Module
BRAND NAME	CamThink
MODEL NAME	NE-CM03
ADDITIONAL MODEL NAME (Remark 6)	NT-CM03
POWER SUPPLY	DC 3.3V
MODULATION TYPE	OFDM
OPERATING FREQUENCY	903.5 ~ 926.5MHz for 1MHz 905 ~ 925MHz for 2MHz 906 ~ 922MHz for 4MHz 908 ~ 916MHz for 8MHz
NUMBER OF CHANNEL	See section 2.3
PEAK OUTPUT POWER	18.30dBm
ANTENNA TYPE (Remark 4/5)	PCB Antenna, with -5.44dBi Gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A
Remark: - For more detailed features description, please refer to the manufacturer's specifications or the User's Manual. - For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report. - Please refer to the EUT photo document for detailed product photo. (Report NO.: FCCSZ2025-0071-EUT) - Please refer to the antenna report. - 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, CVC is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion. - This sample only differs in model name.	

2.2 DESCRIPTION OF ACCESSORIES

N/A



2.3 CHANNEL FREQUENCY

WiFi-HaLow 1MHz					
CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
0	903.5	8	911.5	16	919.5
1	904.5	9	912.5	17	920.5
2	905.5	10	913.5	18	921.5
3	906.5	11	914.5	19	922.5
4	907.5	12	915.5	20	923.5
5	908.5	13	916.5	21	924.5
6	909.5	14	917.5	22	925.5
7	910.5	15	918.5	23	926.5

WiFi-HaLow 2MHz					
CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
0	905	4	913	6	921
1	907	5	915	7	923
2	909	6	917	8	925
3	911	7	919		

WiFi-HaLow 4MHz					
CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
0	906	2	914	4	922
1	910	3	918		

WiFi-HaLow 8MHz					
CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
0	908	1	916	/	/

1. The channels which were indicated in bold type of the above channel list were selected as representative test channel. Therefore only the data of the test channels were recorded in this report.
2. By means of mobile phone engineering mode fix frequency, the power levels during the tests were set according to the following codes:

WiFi-HaLow							
1MHz		2MHz		4MHz		8MHz	
FREQUENCY (MHZ)	POWER SETTING	FREQUENCY (MHZ)	POWER SETTING	FREQUENCY (MHZ)	POWER SETTING	FREQUENCY (MHZ)	POWER SETTING
903.5	15	905	15	906	15	908	15
915.5	15	917	15	918	15	916	15
926.5	15	925	15	922	15		



2.4 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 xaxis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	APPLICABLE TEST ITEMS				DESCRIPTION
	RSE<1G	RSE≥1G	PLC	APCM	
A	√	√	√	√	WiFi HaLow link

Where **RSE<1G**: Radiated Emission below 1GHz.

RSE≥1G: Radiated Emission above 1GHz.

PLC: Power Line Conducted Emission.

APCM: Antenna Port Conducted Measurement.

RADIATED EMISSION TEST (BELOW 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, XYZ axis, antenna ports (if EUT with antenna diversity architecture) and packet type.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE	PACKET TYPE
A	0 to 23	0, 12, 23	OFDM	1MHz
A	0 to 8	0, 6, 8	OFDM	2MHz
A	0 to 4	0, 3, 4	OFDM	4MHz
A	0 to 1	0, 1	OFDM	8MHz

RADIATED EMISSION TEST (ABOVE 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, XYZ axis, antenna ports (if EUT with antenna diversity architecture) and packet type.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE	PACKET TYPE
A	0 to 23	0, 12, 23	OFDM	1MHz
A	0 to 8	0, 6, 8	OFDM	2MHz
A	0 to 4	0, 3, 4	OFDM	4MHz
A	0 to 1	0, 1	OFDM	8MHz



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, antenna ports (if EUT with antenna diversity architecture), and packet types.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE	PACKET TYPE
A	0 to 23	0, 12, 23	OFDM	1MHz
A	0 to 8	0, 6, 8	OFDM	2MHz
A	0 to 4	0, 3, 4	OFDM	4MHz
A	0 to 1	0, 1	OFDM	8MHz

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	TEST VOLTAGE (SYSTEM)	TESTED BY
RSE<1G	25.2deg. C, 56%RH	DC 3.3V	Liu Yuan
RSE≥1G	25.2deg. C, 56%RH	DC 3.3V	Liu Yuan
PLC	25.2deg. C, 56%RH	DC 3.3V	Wang Zhiming
APCM	25.2deg. C, 56%RH	DC 3.3V	Zhu Yulin



2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

FCC PART 15, Subpart C. Section 15.247

KDB 558074 D01 15.247 Meas Guidance v05r02

ANSI C63.10-2020+Cor.1-2023

All test items have been performed and recorded as per the above standards

2.6 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.

Support Equipment							
NO	Description	Brand	Model No.	Serial Number	Supplied by		
1	NeoEyes NE101 Sensing Camera	CamThink	NE101-HL01	N/A	Client		
Support Cable							
NO	Description	Quantity (Number)	Length (cm)	Detachable (Yes/ No)	Shielded (Yes/ No)	Cores (Number)	Supplied by
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A



3 TEST TYPES AND RESULTS

3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

3.1.1 Limits

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). Other emissions shall be at least 20dB below the highest level of the desired power.

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.
NOTE: 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
NOTE: 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.

3.1.2 Measurement procedure

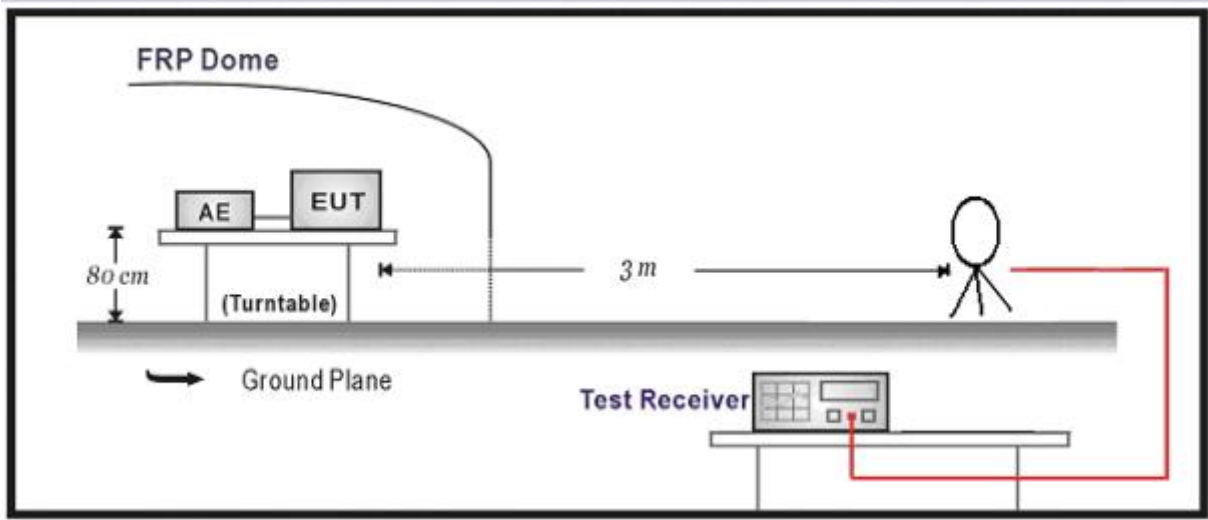
- The EUT was placed on the top of a rotating table 1.5 meters(above 1GHz) and 0.8 meters(below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- For below 1GHz was used bilog antenna, and above 1GHz was used horn 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.
- 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.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.
- 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:

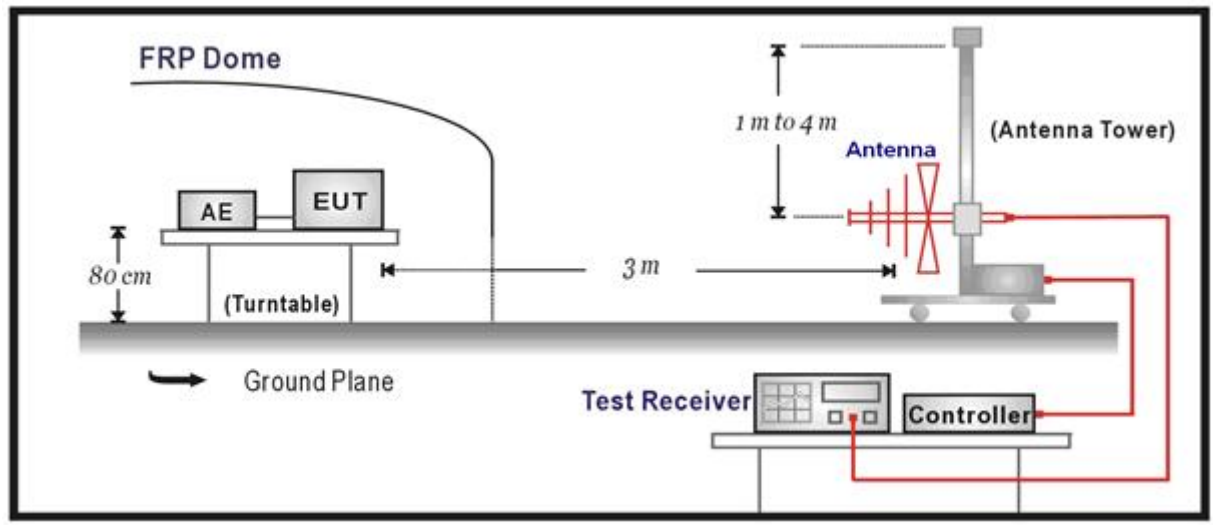
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.
5. The testing of the EUT was performed on all 3 orthogonal axes; the worst-case test configuration was reported on the file test setup photo.

3.1.3 Test setup

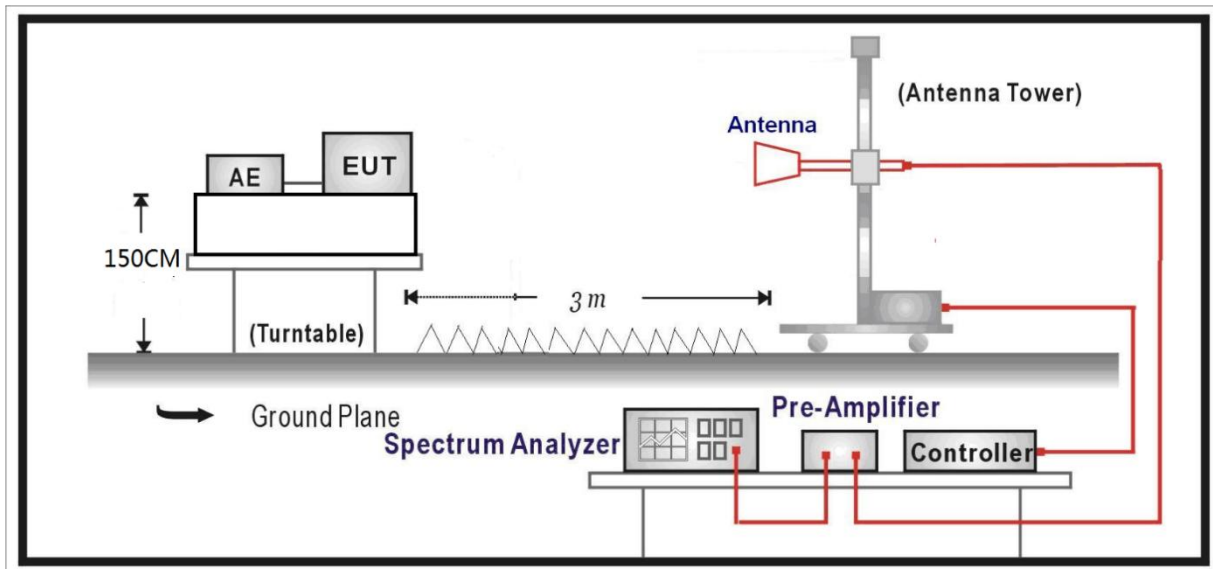
Below 30MHz Test Setup:



Below 1GHz Test Setup:



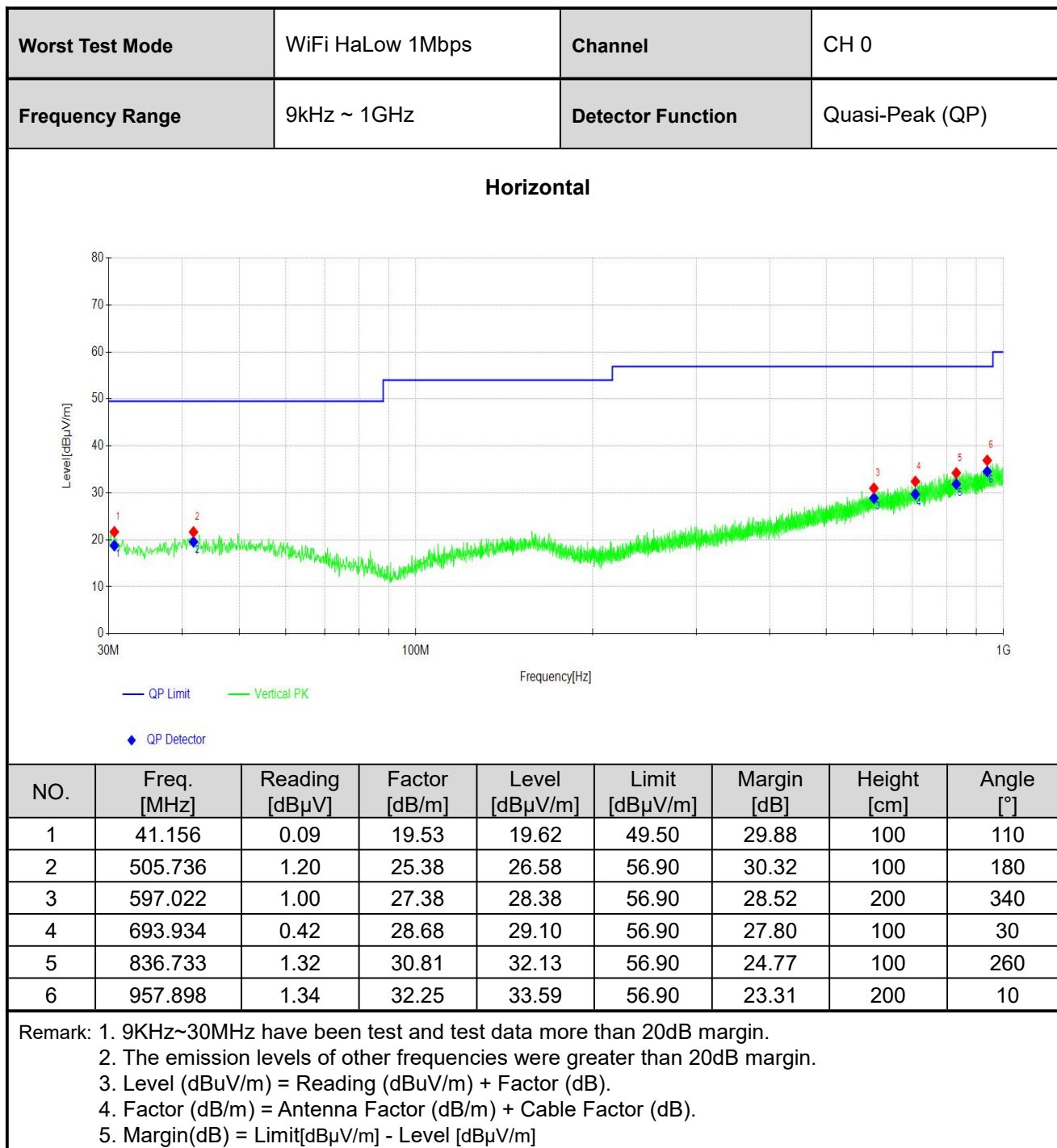
Above 1GHz Test Setup:





3.1.4 Test results

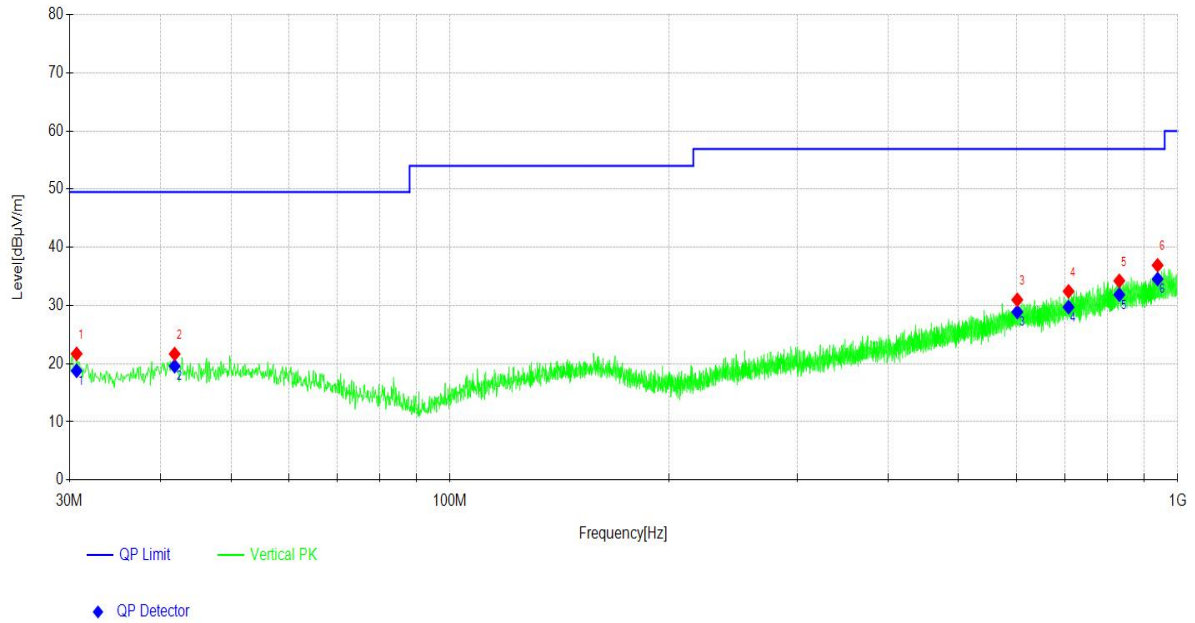
BELOW 1GHz WORST-CASE DATA





Worst Test Mode	WiFi HaLow 1Mbps	Channel	CH 0
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Vertical



NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]
1	30.679	-0.02	18.80	18.78	49.50	30.72	100	40
2	41.835	-0.10	19.68	19.58	49.50	29.92	100	20
3	602.066	1.32	27.57	28.89	56.90	28.01	100	20
4	708.098	0.92	28.80	29.72	56.90	27.18	100	220
5	831.494	1.07	30.80	31.87	56.90	25.03	100	300
6	938.593	2.52	32.03	34.55	56.90	22.35	100	330

Remark: 1. 9KHz~30MHz have been test and test data more than 20dB margin.
2. The emission levels of other frequencies were greater than 20dB margin.
3. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).
4. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
5. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



ABOVE 1GHz DATA

Worst Test Mode		WiFi HaLow 1Mbps		Channel		CH 0	
Frequency Range		1GHz~9.3G		Detector Function		PK/AV	
Horizontal							
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	1807.00	44.08	5.48	49.56	74.00	24.44	PK
2	1807.00	39.13	5.48	44.61	54.00	9.39	RMS
3	2710.50	38.85	9.98	48.83	54.00	5.17	RMS
4	2710.50	54.31	9.98	64.29	74.00	9.71	PK
Vertical							
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	1807.00	47.16	5.48	52.64	74.00	21.36	PK
2	1807.00	38.00	5.48	43.48	54.00	10.52	RMS
3	2710.50	36.33	9.97	46.30	54.00	7.70	RMS
4	2710.50	49.95	9.98	59.93	74.00	14.07	PK
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]							



Worst Test Mode		WiFi HaLow 1Mbps		Channel		CH 12	
Frequency Range		1GHz~9.3G		Detector Function		PK/AV	
Horizontal							
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	1831.00	44.62	5.75	50.37	74.00	23.63	PK
2	1831.00	37.99	5.75	43.74	54.00	10.26	RMS
3	2746.50	35.10	10.91	46.01	54.00	7.99	RMS
4	2746.50	49.16	10.85	60.01	74.00	13.99	PK
Vertical							
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	1831.00	37.53	5.75	43.28	54.00	10.72	RMS
2	1831.00	45.09	5.75	50.84	74.00	23.16	PK
3	2746.50	36.65	10.83	47.48	54.00	6.52	RMS
4	2746.50	46.65	10.83	57.48	74.00	16.52	PK
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]							



Worst Test Mode		WiFi HaLow 1Mbps		Channel		CH 23	
Frequency Range		1GHz~9.3G		Detector Function		PK/AV	
Horizontal							
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	1853.00	47.88	5.99	53.87	74.00	20.13	PK
2	1853.00	42.44	5.99	48.43	54.00	5.57	RMS
3	2779.50	43.99	10.21	54.20	74.00	19.80	PK
4	2779.50	36.92	10.21	47.13	54.00	6.87	RMS
Vertical							
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	1853.00	49.42	5.99	55.41	74.00	18.59	PK
2	1853.00	43.67	5.99	49.66	54.00	4.34	RMS
3	2779.50	45.93	10.75	56.68	74.00	17.32	PK
4	2779.50	37.22	10.21	47.43	54.00	6.57	RMS
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]							



3.2 6dB BANDWIDTH MEASUREMENT

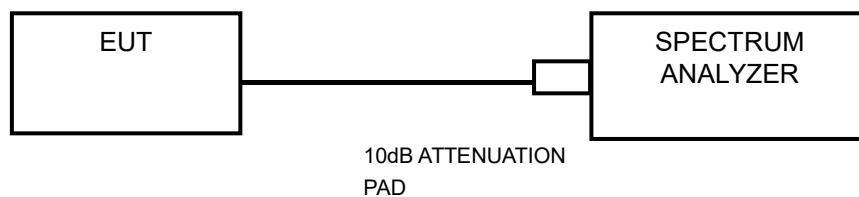
3.2.1 Limits

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

3.2.2 Measurement procedure

- Set resolution bandwidth (RBW) = 100KHz
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.2.3 Test setup





3.3 CONDUCTED OUTPUT POWER

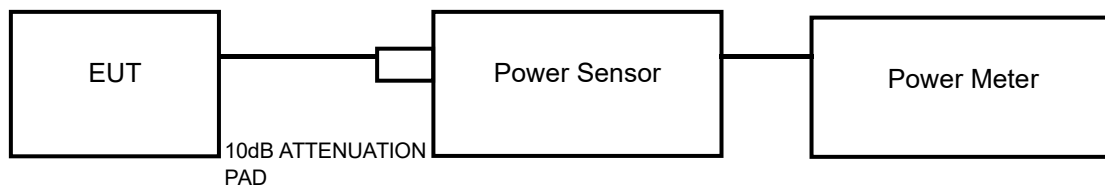
3.3.1 Limits

For systems using digital modulation in the 2400–2483.5 MHz band: 1 Watt (30dBm).

3.3.2 Measurement procedure

- A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor and set the detector to PEAK. Record the power level.
- An average power sensor was used on the output port of the EUT. A power meter was used to read the response of the average power sensor and set the detector to AVERAGE. Record the power level.

3.3.3 Test setup





3.4 POWER SPECTRAL DENSITY MEASUREMENT

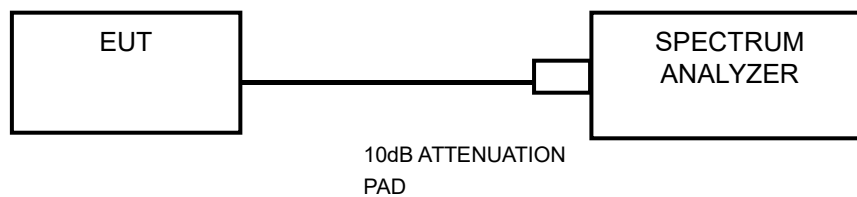
3.4.1 Limits

The Maximum of Power Spectral Density Measurement is 8dBm/3KHz.

3.4.2 Measurement procedure

- Set instrument center frequency to DTS channel center frequency.
- Set the span to 1.5 times the DTS bandwidth.
- Set RBW to: 3KHz
- Set VBW $\geq 3 \times$ RBW.
- Detector = peak
- Ensure that the number of measurement points in the sweep $\geq 2 \times$ span/RBW.
- Sweep time = auto couple.
- Use the peak marker function to determine the maximum amplitude level.

3.4.3 Test setup





3.5 OUT OF BAND EMISSION AND BAND EDGE MEASUREMENTS

3.5.1 Limits

Below -20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

3.5.2 Measurement procedure

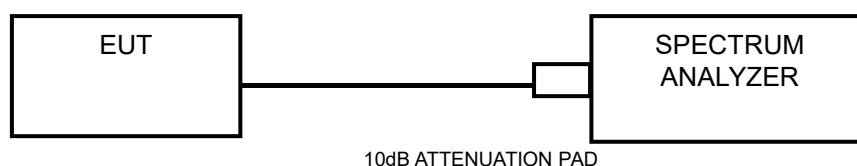
Measurement Procedure -Reference Level

- Set the RBW = 100 kHz.
- Set the VBW $\geq$ 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHzband segment within the fundamental EBW.

Measurement Procedure –Unwanted Emission Level

- Set RBW = 100 kHz.
- Set VBW $\geq$ 300 kHz.
- Set span to encompass the spectrum to be examined
- Detector = peak.
- Trace Mode = max hold.
- Sweep = auto couple.

3.5.3 Test setup





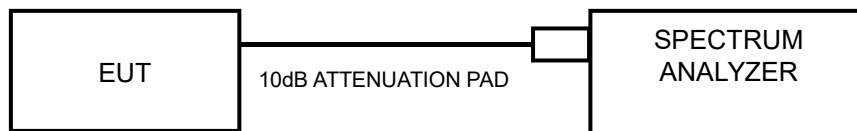
3.6 OCCUPIED BANDWIDTH MEASUREMENT

3.6.1 Measurement procedure

The transmitter antenna output was connected to the spectrum analyzer through an attenuator. The resolution bandwidth shall be set to the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth.

below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

3.6.2 Test setup





3.7 ANTENNA REQUIREMENT

3.7.1 Limits

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. And according to FCC 47 CFR Section 15.247 (b) , if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.7.2 Antenna Anti-Replacement Construction

The antenna used for this product is PCB antenna and that no antenna other than that furnished by the responsible party shall be used with the device

3.7.3 Antenna Gain

The maximum peak gain of the transmit antenna is -5.44 dBi.



4 PHOTOGRAPHS OF TEST SETUP

Please refer to the attached file (Test Photos).



5 PHOTOGRAPHS OF THE EUT

Please refer to the attached file (External Photos and Internal Photos report).

----- End of the Report -----



Important

- (1) The test report is invalid without the official stamp of CVC;
- (2) Any part photocopies of the test report are forbidden without the written permission from CVC;
- (3) The test report is invalid without the signatures of tester, reviewer and approver;
- (4) The test report is invalid if altered;
- (5) Objections to the test report must be submitted to CVC within 15 days;
- (6) Generally, commission test results apply to the samples as received. The sample information is provided by the customer and laboratory is not responsible for its authenticity;
- (7) As for the test result “-” or “N” means “not applicable”, “/” means “not test”, “P” means “pass” and “F” means “fail”

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