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Test Report

Report No.: CQASZ20260300609E-02
Applicant: Shenzhen Interthings Technology Co.,Ltd.
Address of Applicant: 701, Building 1, Lechuanghui Building, No. 1211 Guanguang Road, Longhua District, Shenzhen, China
Equipment Under Test (EUT):
Product: Smart Baby Camera
Model No.: IPC272, HUVIPC214
Test Model No.: IPC272
Brand Name: N/A
FCC ID: 2AQ7B-IPC272
Standards: 47 CFR Part 15, Subpart E
KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Date of Receipt: 2026-03-26
Date of Test: 2026-03-26 to 2026-08-26
Date of Issue: 2026-09-24
Test Result: **PASS***

*In the configuration tested, the EUT complied with the standards specified above.

Tested By:

Azir Wang

(Azir Wang)

Reviewed By:

Timo Lei

(Timo Lei)

Approved By:

Jack Ai

(Jack Ai)



1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20260300609E-02	Rev.01	Initial report	2026-09-24

Note:

Model No.:IPC272, HUVIPC214

Their electrical circuit design, layout, components used and internal wiring are identical,

Only the appearance is different.

2 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
AC Power Line Conducted Emission	47 CFR Part 15 Subpart E Section 15.207	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
Maximum Conducted Output Power	47 CFR Part 15 Subpart C Section 15.407 (a)	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
Emission Bandwidth	47 CFR Part 15 Subpart C Section 15.407 (a)(e)	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
Maximum Power Spectral Density	47 CFR Part 15 Subpart E Section 15.407 (a)	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
Band Edge Measurements	47 CFR Part 15 Subpart C Section 15.209 & 15.407(b)	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
Frequency stability	47 CFR Part 15 Subpart E Section 15.407 (g)	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS
Operation in the absence of information to the transmit	47 CFR Part 15 Subpart E Section 15.407 (c)	47 CFR Part 15 Subpart E	PASS
Radiated Spurious Emissions	47 CFR Part 15 Subpart E Section 15.407 (b)	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024; KDB789033	PASS

Remark:

The tested sample(s) and the sample information are provided by the client.

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radiated Frequency.

CH: In this whole report CH means channel.

Volt: In this whole report Volt means Voltage.

Temp: In this whole report Temp means Temperature.

Humid: In this whole report Humid means humidity.

Press: In this whole report Press means Pressure.

N/A: In this whole report not application

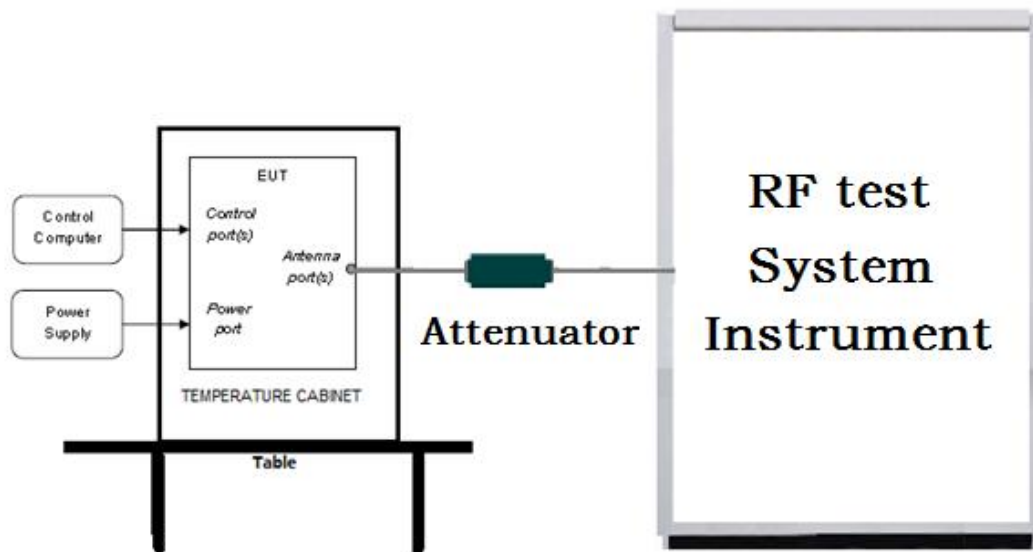
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3 Test Requirement

3.1 Test setup

3.1.1 For Conducted test setup



3.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

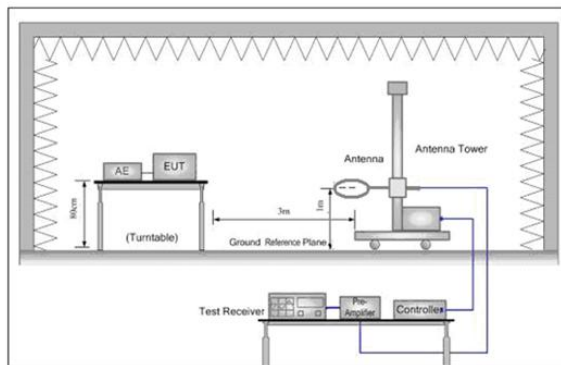


Figure 1. Below 30MHz

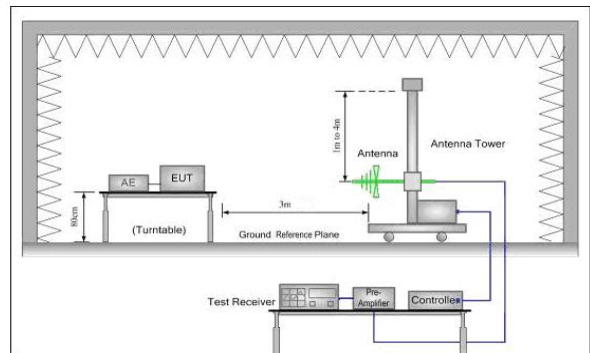


Figure 2. 30MHz to 1GHz

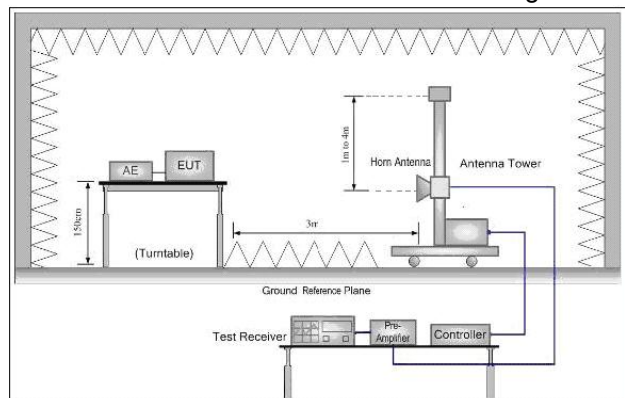
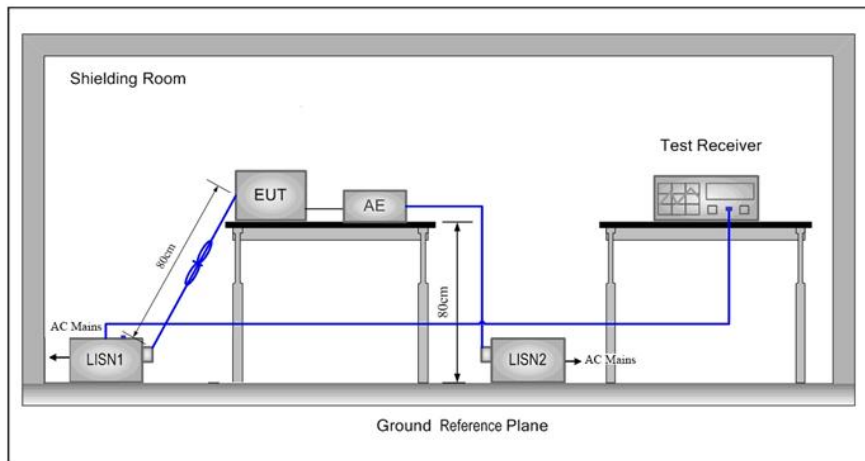


Figure 3. Above 1GHz

3.1.3 For Conducted Emissions test setup

Conducted Emissions setup



3.2 Test Environment

Operating Environment:		
Conducted Emissions:		
Temperature:	25.6 °C	
Humidity:	60 % RH	
Atmospheric Pressure:	1009 mbar	
Radiated Emissions:		
Temperature:	25.5 °C	
Humidity:	54 % RH	
Atmospheric Pressure:	1009mbar	
Radio conducted item test (RF Conducted test room):		
Temperature:	25.3 °C	
Humidity:	50 % RH	
Atmospheric Pressure:	1009 mbar	
Test Condition	Temperature (°C)	Voltage (V)
TN/VN	+15 to +35	5
TL/VL	-30	4.5
TH/VL	50	4.5
TL/VH	-30	5.5
TH/VH	50	5.5
Remark:		
1)The EUT just work in such extreme temperature of -30 °C to 50 °C and the extreme voltage of 4.5V to 5.5V, so here the EUT is tested in the temperature of -30 °C to 50 °C and the voltage of 4.5V to 5.5V.		
2)VN: Normal Voltage; TN: Normal Temperature;		
TL: Low Extreme Test Temperature; TH: High Extreme Test Temperature;		
VL: Low Extreme Test Voltage; VH: High Extreme Test Voltage.		

3.3 Test Condition

Test channel:

Test Mode	Tx/Rx	RF Channel		
		Low(L)	Middle(M)	High(H)
802.11a/n/ac(20M)	5150MHz ~5250 MHz	Channel 36	Channel 40	Channel 48
		5180MHz	5200MHz	5240MHz
802.11n/ac(40M)	5150MHz ~5250 MHz	Channel 38	N/A	Channel 46
		5190MHz	N/A	5230MHz
802.11a/n/ac/ax(20M)	5725MHz ~5850 MHz	Channel 149	Channel 157	Channel 165
		5745MHz	5785MHz	5825MHz
802.11n/ac/ax(40M)	5725MHz ~5850 MHz	Channel 151	N/A	Channel 159
		5755MHz	N/A	5795MHz

```

serial-com3 (7) - SecureCRT
文件(F) 编辑(E) 查看(V) 选项(O) 传输(T) 脚本(S) 工具(L) 帮助(H)
[Icons] 输入主机 <Alt+R> [Icons] 清除屏幕和回滚(K)
serial-com3 (7)
"setversion" : "V1.2.0.13"
1[00:00:15,977] [HLUpgrade.cxx: 310] no need Upgrade ver : V1.2.0.13
cmd SX1280Set DutMode 1 1
1[00:01:42,011] [HLDebugCmd.cxx: 680] cmd: SX1280Set Usage: SX1280SetConfig channe
[A/channel/B/powerA/powerB/speed/baudrate/Hop/ChangeSet/ChangeSetAllTime/Chan
geSetCompTime/Reset/Debug/DutMode/AllTt]
[root@hollyland]:/$:2[00:01:42,021] [HLSX1280Com.cxx:1227] Received ver: 13
1[00:01:42,023] [HLSX1280Com.cxx:1334] B SetMode : 1
1[00:01:42,070] [HLSX1280Com.cxx:1341] B SetSetConfigTime: 0
cmd SX1280Set channelB 2
[root@hollyland]:/$:1[00:01:46,347] [HLDebugCmd.cxx: 680] cmd: SX1280Set Usage:
SX1280SetConfig channel[A/channel/B/powerA/powerB/speed/baudrate/Hop/ChangeSet/Chan
geSetAllTime/ChangeSetCompTime/Reset/Debug/DutMode/AllTt]
1[00:01:46,354] [HLSX1280Com.cxx:1038] SetChannelB 20 -----
cmd SX1280Set powerB -5
[root@hollyland]:/$:2[00:01:50,643] [HLDebugCmd.cxx: 680] cmd: SX1280Set Usage:
SX1280SetConfig channel[A/channel/B/powerA/powerB/speed/baudrate/Hop/ChangeSet/Chan
geSetAllTime/ChangeSetCompTime/Reset/Debug/DutMode/AllTt]
1[00:01:50,646] [HLSX1280Com.cxx:1050] SetPowerB -5

[root@hollyland]:/$:
[root@hollyland]:/$:
Default
Serial: COM3, 115200 24, 21 24行, 80列 Linux 大写 数字

```

Pre-scan under all rate at lowest channel for Ant1

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4 General Information

4.1 Client Information

Applicant:	Shenzhen Interthings Technology Co.,Ltd.
Address of Applicant:	701, Building 1, Lechuanghui Building, No. 1211 Guanguang Road, Longhua District,Shenzhen, China
Manufacturer:	Shenzhen Interthings Technology Co.,Ltd.
Address of Manufacturer:	701, Building 1, Lechuanghui Building, No. 1211 Guanguang Road, Longhua District,Shenzhen, China
Factory:	Shenzhen Interthings Technology Co.,Ltd.
Address of Factory:	701, Building 1, Lechuanghui Building, No. 1211 Guanguang Road, Longhua District,Shenzhen, China

4.2 General Description of EUT

Product Name:	Smart Baby Camera
Model No.:	IPC272, HUVIPC214
Test Model No.:	IPC272
Trade Mark:	N/A
Software Version:	7.2723.111
Hardware Version:	IPC272KS3-M-V1.1
EUT Power Supply:	Adapter: MODEL:BS05A-0501000US INPUT:100-240V~50/60Hz 0.25A OUTPUT:5V $\overline{\text{---}}$ 1000mA
EUT Supports Radios application:	U-NII-1: 5.15-5.25GHz; U-NII-3: 5.725-5.850GHz
EUT Type:	Client devices

4.3 Product Specification subjective to this standard

Operation Frequency:	IEEE 802.11a/n/ac/ax(20M): 5150MHz ~5250 MHz IEEE802.11n/ac/ax(40M): 5150MHz ~5250 MHz IEEE 802.11a/n/ac/ax(20M): 5725MHz ~5850 MHz IEEE802.11n/ac/ax(40M): 5725MHz ~5850 MHz
Channel Numbers:	IEEE 802.11a/n/ac/ax(20M): 5150MHz ~5250MHz/ 4 channel IEEE 802.11n/ac/ax(40M): 5150MHz ~5250MHz/ 2 channel IEEE 802.11a/n/ac/ax(20M): 5725MHz ~5850MHz/ 5 channel IEEE 802.11n/ac/ax(40M): 5725MHz ~5850MHz/ 2 channel
Type of Modulation:	IEEE for 802.11a/n/ac: OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11ax(HE20 and HE40): OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Sample Type:	☒ Mobile ☐ Portable
Test Software of EUT:	serial-com
Antenna Type:	FPC antenna
Antenna gain:	1.87dBi

Operation Frequency each of channel

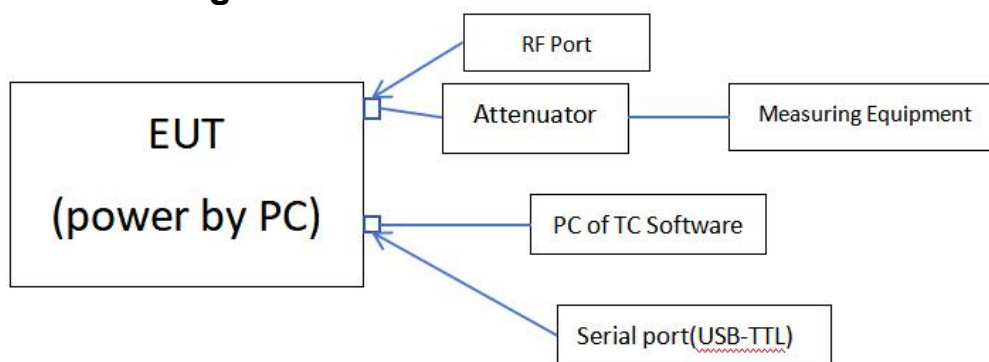
(U-NII-1) 5180MHz-5240MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	36	5180	40	5200
	44	5220	48	5240
40MHz	38	5190	46	5230
(U-NII-3) 5745MHz-5825MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	149	5745	153	5765
	157	5785	161	5805
	165	5825	/	/
40MHz	151	5755	159	5795

4.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.	Certification	Supplied by
/	/	/	/	/

4.5 Test configuration



4.6 Test Location

All tests were performed at:

SHENZHEN HUAXIA TESTING TECHNOLOGY CO., LTD

102A, 102B, Building 2, Shanghenglang New Industrial Zone, Shanghenglang Community,
Dalang Street, Longhua District, Shenzhen, Guangdong, People's Republic of China, 518000

4.7 Test Facility

• **A2LA (Certificate No. 4742.01)**

SHENZHEN HUAXIA TESTING TECHNOLOGY CO., LTD, Shenzhen EMC Laboratory is accredited by the

American Association for Laboratory Accreditation(A2LA). Certificate No. 4742.01.

• **FCC Registration No.: 522263**

SHENZHEN HUAXIA TESTING TECHNOLOGY CO., LTD, Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.:522263

4.8 Deviation from Standards

None.

4.9 Abnormalities from Standard Conditions

None.

4.10 Other Information Requested by the Customer

None.

4.11 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	3×10^{-8}
2	RF power, conducted	0.86dB
3	Radiated Spurious emission test	5.12dB (Below 1GHz)
		4.6dB (Above 1GHz)
4	Conduction emission	3.5dB (9kHz to 150kHz)
		3.1dB (150kHz to 30MHz)
5	Temperature test	0.8°C
6	Humidity test	2.0%
7	DC power voltages	0.5%

5 Equipment List

Test Equipment	Manufacturer	Model No.	Instrument No.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR7	CQA-005	2025/9/1	2026/8/31
Spectrum analyzer	R&S	FSU26	CQA-038	2025/9/1	2026/8/31
Spectrum analyzer	R&S	FSU40	CQA-075	2025/9/1	2026/8/31
Preamplifier	MITEQ	AFS4-00010300-18-10P-4	CQA-035	2025/9/1	2026/8/31
Preamplifier	MITEQ	AMF-6D-02001800-29-20P	CQA-036	2025/9/1	2026/8/31
Preamplifier	EMCI	EMC184055SE	CQA-089	2025/9/1	2026/8/31
Loop antenna	Schwarzbeck	FMZB1516	CQA-060	2023/9/8	2026/9/7
Bilog Antenna	R&S	VULB 9163	CQA-101	2023/11/01	2026/10/31
Horn Antenna	R&S	HF906	CQA-012	2023/11/01	2026/10/31
Horn Antenna	Schwarzbeck	BBHA 9170	CQA-088	2023/9/7	2026/9/6
Coaxial Cable (Above 1GHz)	CQA	N/A	C007	2025/9/1	2026/8/31
Coaxial Cable (Below 1GHz)	CQA	N/A	C013	2025/9/1	2026/8/31
Antenna Connector	CQA	RFC-01	CQA-080	2025/9/1	2026/8/31
RF cable(9KHz~40GHz)	CQA	RF-01	CQA-079	2025/9/1	2026/8/31
Power meter	R&S	NRVD	CQA-029	2025/9/1	2026/8/31
Power divider	MIDWEST	PWD-2533-02-SMA-79	CQA-067	2025/9/1	2026/8/31
EMI Test Receiver	R&S	ESR7	CQA-005	2025/9/1	2026/8/31
LISN	R&S	ENV216	CQA-003	2025/9/1	2026/8/31
Coaxial cable	CQA	N/A	CQA-C009	2025/9/1	2026/8/31
DC power	KEYSIGHT	E3631A	CQA-028	2025/9/1	2026/8/31

Test software:

	Manufacturer	Software brand	Software version
Radiated Emissions test software	Tonscend	JS1120-3	Version:8
Conducted Emissions test software	Audix	e3	Version:9
RF Conducted test software	Audix	e3	V3.5.39

Note:

The temporary antenna connector is soldered on the pcb board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

6 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	FCC Part15E	Subpart C-Intentional Radiators
2	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024	American National Standard for Testing Unlicensed Wireless Devices
3	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01	Guidelines for compliance testing of unlicensed national information infrastructure (U-NII) device part 15, subpart E

Appendix A): Emission Bandwidth

26dB Emission bandwidth

Test Requirement: 47 CFR Part 15, Subpart C 15.407 (a)

Test Method: KDB 789033 D02 II C 1

6 dB bandwidth (5.725-5.85 GHz band)

Test Requirement 47 CFR Part 15, Subpart C 15.407 (e)

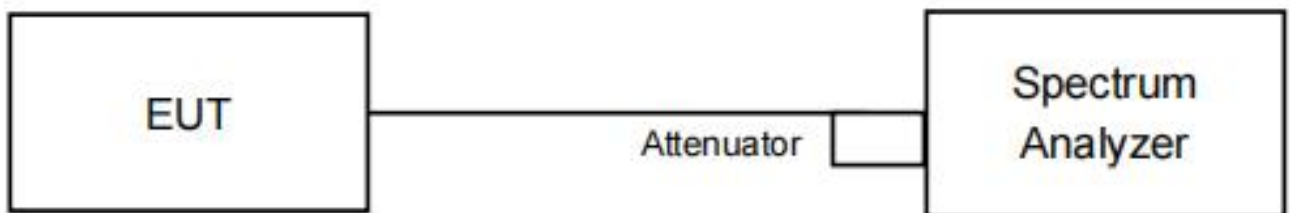
Test Method: KDB 789033 D02 II C 2

Limit: ≥ 500 kHz

Test Procedure:

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

Test Setup Diagram



Measurement Data

Please Refer to Appendix for Details

Appendix B): Maximum Conduct Output Power

1.Duty Cycle (x)

Test Requirement KDB 789033 D02 II B 1

Test Method: KDB 789033 II B 1

Test Procedure:

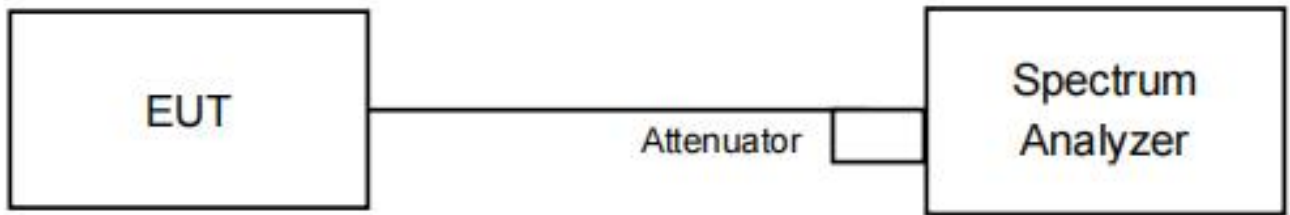
Set RBW = 20MHz

Set VBW = 40MHz

Set detector = peak.

Set span =0Hz

Test Setup Diagram



Measurement Data

Please Refer to Appendix for Details

2. Maximum Conducted Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.407 (a)

Test Method: KDB 789033 D02 II E

Limit:

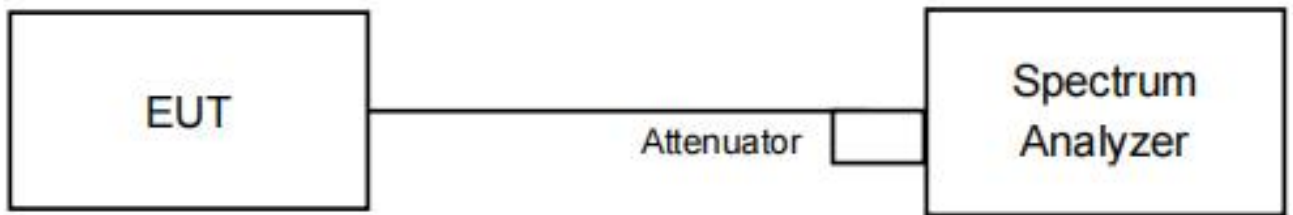
Frequency band(MHz)	Limit
5150-5250	$\leq 1\text{W}(30\text{dBm})$ for master device
	$\leq 250\text{mW}(24\text{dBm})$ for client device
5250-5350	$\leq 250\text{mW}(24\text{dBm})$ for client device or $11\text{dBm}+10\log B^*$
5470-5725	$\leq 250\text{mW}(24\text{dBm})$ for client device or $11\text{dBm}+10\log B^*$
5725-5850	$\leq 1\text{W}(30\text{dBm})$
Remark:	* Where B is the 26dB emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

Test Procedure:

Method SA-2 (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

- (1) Set RBW = 1 MHz.
- (2) Set VBW ≥ 3 MHz.
- (3) Detector = power average
- (4) Sweep time = auto.
- (5) Add duty cycle to the measured average power.

Test Setup Diagram



Measurement Data

Please Refer to Appendix for Details

Appendix C): Maximum Power Spectral Density

Test Requirement 47 CFR Part 15, Subpart C 15.407 (a)

Test Method: KDB 789033 D02 II F

Test Procedure:

For 5150-5725MHz:

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on operation frequency individually.
3. Set RBW = 1MHz.
4. Set the VBW $\geq 3 \times$ RBW. Detector = Peak. Trace mode = max hold.

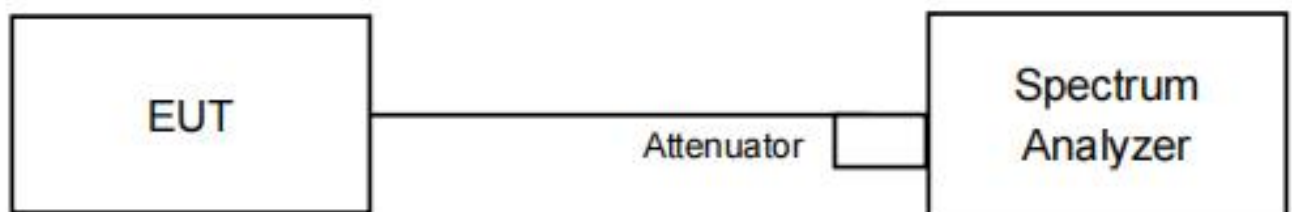
For 5725-5850MHz:

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on operation frequency individually.
3. Set RBW = 500KHz.
4. Set the VBW $\geq 3 \times$ RBW. Detector = Peak. Trace mode = max hold.

Limit:

Frequency band(MHz)	Limit
5150-5250	$\leq 17\text{dBm}$ in 1MHz for master device
	$\leq 11\text{dBm}$ in 1MHz for client device
5250-5350	$\leq 11\text{dBm}$ in 1MHz for client device
5470-5725	$\leq 11\text{dBm}$ in 1MHz for client device
5725-5850	$\leq 30\text{dBm}$ in 500 kHz
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.

Test Setup Diagram



Measurement Data
Please Refer to Appendix for Details

Appendix D): Band Edge Measurements

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.407(b)

Test Method: KDB 789033 D02 II G

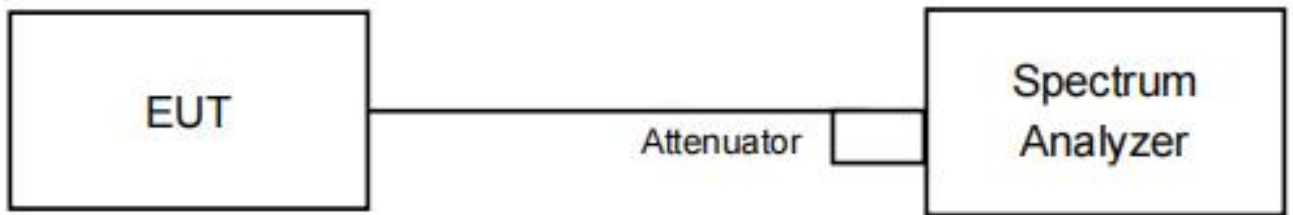
Test Procedure:

1. The EUT operates at transmitting mode. The operate channel is tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.
2. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz ; VBW=1/on time(1KHz) / Sweep=AUTO

Limit:

For transmitters operating in the 5.15-5.25 GHz band:	All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.25-5.35 GHz band:	All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.47-5.725 GHz band:	All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.725-5.85 GHz band:	(i) All emissions shall be limited to a level of -27 dBm/MHz (68.2dBuV/m) at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz (105.2dBuV/m) at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz (110.8dBuV/m) at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz (122.2dBuV/m) at the band edge.

Test Setup Diagram



Measurement Data

Please Refer to Appendix for Details

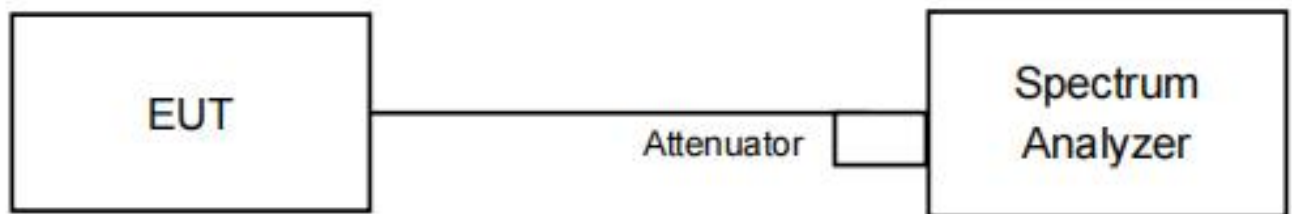
Appendix E): Frequency Stability

Test Requirement 47 CFR Part 15, Subpart C 15.407 (g)

Test Method: ANSI C63.10 (2020) Section 6.8

Limit: The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of -30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

Test Setup Diagram



Measurement Data

Frequency Stability Versus Temp.			
Operating Frequency: 5240 MHz			
Temp	Voltage	Measured Frequency	Limit
(°C)		(MHz)	(MHz)
50	VN	5240.21	5150-5250
40		5240.57	5150-5250
30		5240.41	5150-5250
20		5240.52	5150-5250
10		5240.37	5150-5250
0		5240.77	5150-5250
-10		5240.41	5150-5250
-30		5240.52	5150-5250

Frequency Stability Versus Temp.			
Operating Frequency: 5210 MHz			
Temp.	Voltage	Measured Frequency	Limit
		(MHz)	(MHz)
TN	VL	5210.01	5150-5250
	VN	5210.10	5150-5250
	VH	5210.11	5150-5250

Note: All the modulation and channels had been tested, but only the worst data recorded in the report.

Appendix F): Antenna Requirement

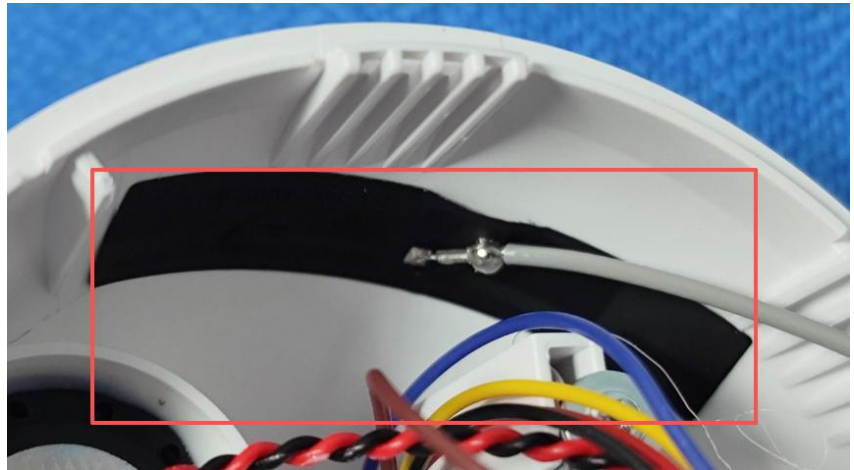
15.203 requirement:

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.407(a)(1) (2) requirement:

The conducted output power limit specified in paragraph (a) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (a) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power and the peak power spectral density shall be reduced by the by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:



The antenna is FPC antenna.

The connection/connection type between the antenna to the EUT's antenna port is:
unique coupling

This is either permanently attachment or a unique coupling that satisfies the requirement.

Appendix G): Operation in the absence of information to the transmit

15.407(c) requirement:

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signal ling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

Operation in the absence of information to the transmit

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ASK message transmitting from remote device and verify whether it shall resend or discontinue transmission. (manufacturer declare)

Appendix H): AC Power Line Conducted Emission

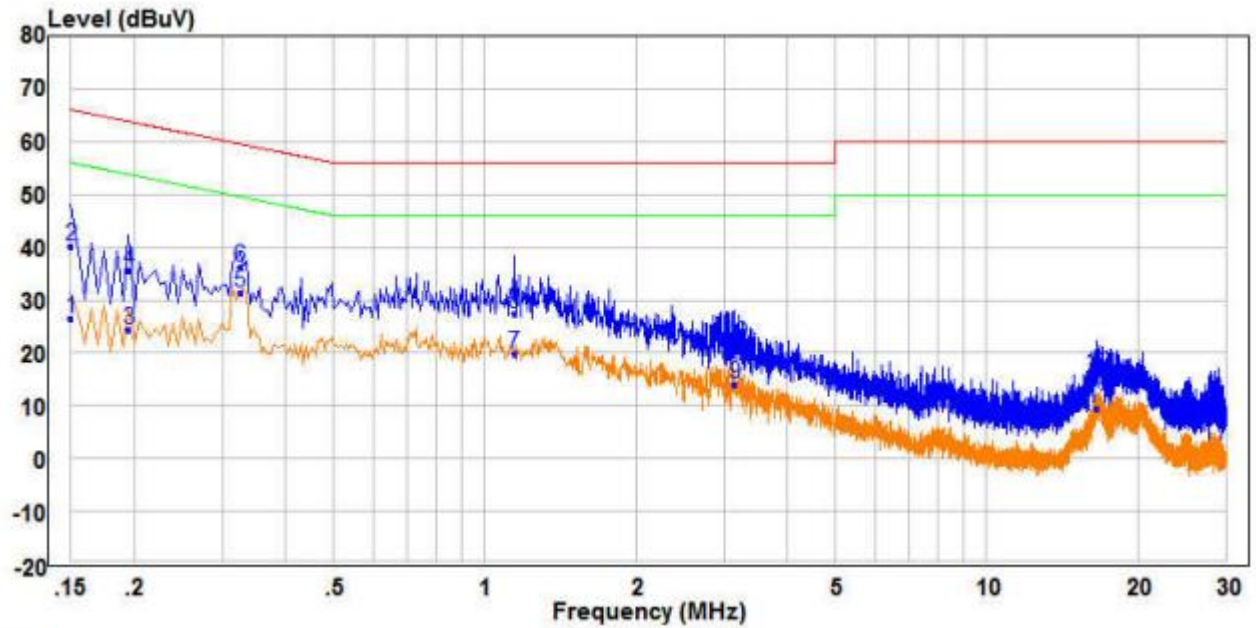
Test Procedure:	Test frequency range :150KHz-30MHz 1)The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded. 3)The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.														
Limit:	<table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBμV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>5-30</td><td>60</td><td>50</td></tr></table> * The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz. NOTE : The lower limit is applicable at the transition frequency	Frequency range (MHz)	Limit (dBμV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBμV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													

Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

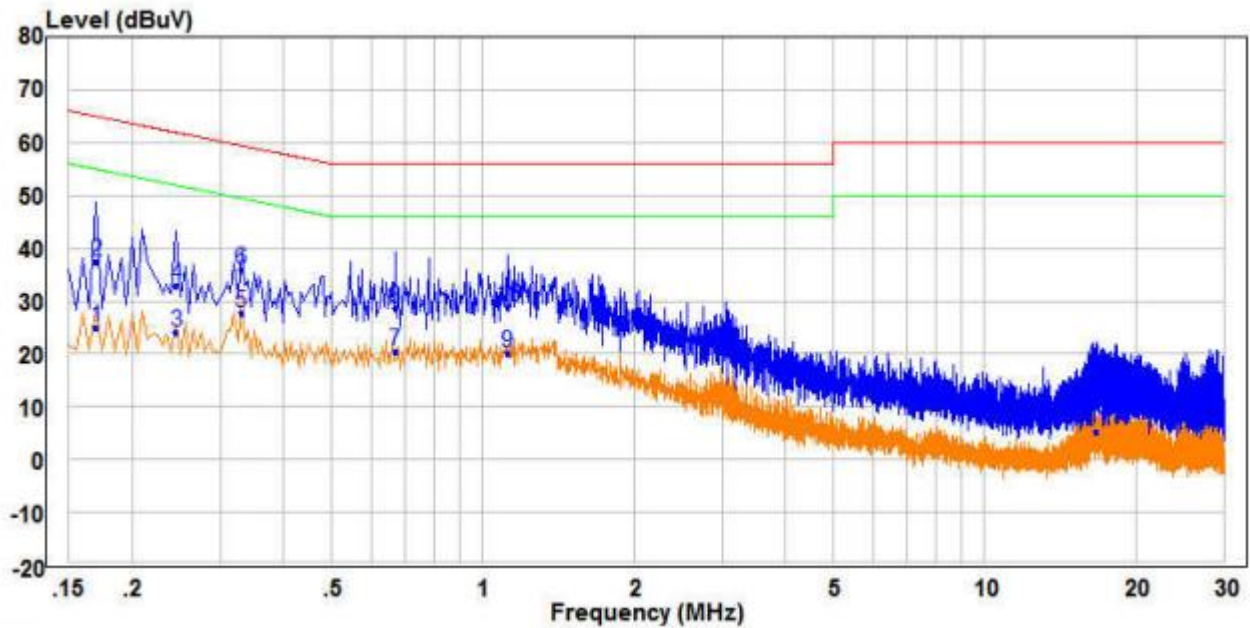
Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Live line:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.150	16.67	9.70	26.37	56.00	-29.63	Average	Line
2	0.150	30.47	9.70	40.17	66.00	-25.83	QP	Line
3	0.195	14.84	9.70	24.54	53.82	-29.28	Average	Line
4	0.195	25.85	9.70	35.55	63.82	-28.27	QP	Line
5 PP	0.325	21.74	9.75	31.49	49.58	-18.09	Average	Line
6 QP	0.325	26.51	9.75	36.26	59.58	-23.32	QP	Line
7	1.145	10.07	9.79	19.86	46.00	-26.14	Average	Line
8	1.145	17.57	9.79	27.36	56.00	-28.64	QP	Line
9	3.150	4.16	9.81	13.97	46.00	-32.03	Average	Line
10	3.150	11.70	9.81	21.51	56.00	-34.49	QP	Line
11	16.590	-0.55	10.20	9.65	50.00	-40.35	Average	Line
12	16.590	5.55	10.20	15.75	60.00	-44.25	QP	Line

Neutral line:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.170	15.42	9.70	25.12	54.96	-29.84	Average	Neutral
2	0.170	27.69	9.70	37.39	64.96	-27.57	QP	Neutral
3	0.245	14.35	9.68	24.03	51.92	-27.89	Average	Neutral
4	0.245	23.37	9.68	33.05	61.92	-28.87	QP	Neutral
5 PP	0.330	17.99	9.65	27.64	49.45	-21.81	Average	Neutral
6 QP	0.330	26.43	9.65	36.08	59.45	-23.37	QP	Neutral
7	0.670	10.56	9.77	20.33	46.00	-25.67	Average	Neutral
8	0.670	18.81	9.77	28.58	56.00	-27.42	QP	Neutral
9	1.120	10.37	9.69	20.06	46.00	-25.94	Average	Neutral
10	1.120	19.26	9.69	28.95	56.00	-27.05	QP	Neutral
11	16.640	-5.03	10.18	5.15	50.00	-44.85	Average	Neutral
12	16.640	5.25	10.18	15.43	60.00	-44.57	QP	Neutral

Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
3. The 6Mbps of rate of 802.11A_5240 is the worst case, only the worst data recorded in the report.

Appendix I): Restricted bands around fundamental frequency (Radiated Emission)

Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10Hz	Average
Test Procedure:	Below 1GHz test procedure as below: - The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter 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. - The antenna 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 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. - Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel Above 1GHz test procedure as below: - Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre(Above 18GHz the distance is 1 meter and table is 1.5 metre). - Test the EUT in the lowest channel , the Highest channel - The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case. - Repeat above procedures until all frequencies measured was complete.				
Limit:	Frequency	Limit (dB μ V/m @3cm)	Remark		
	30MHz-88MHz	40.0	Quasi-peak Value		
	88MHz-216MHz	43.5	Quasi-peak Value		
	216MHz-960MHz	46.0	Quasi-peak Value		
	960MHz-1GHz	54.0	Quasi-peak Value		
	Above 1GHz	54.0	Average Value		
		74.0	Peak Value		

Test plot as follows:

Worse case mode:		802.11a		Test channel:		36			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5150.00	59.06	-3.63	55.43	74	-18.57	peak	H	1.5	101
5150.00	44.01	-3.63	40.38	54	-13.62	AVG	H	1.5	63
5150.00	60.11	-3.63	56.48	74	-17.52	peak	V	1.5	151
5150.00	46.85	-3.63	43.22	54	-10.78	AVG	V	1.5	254

Worse case mode:		802.11a		Test channel:		64			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	58.89	-3.59	55.30	74	-18.70	peak	H	1.5	133
5350.00	44.27	-3.59	40.68	54	-13.32	AVG	H	1.5	172
5350.00	59.72	-3.59	56.13	74	-17.87	peak	V	1.5	231
5350.00	46.21	-3.59	42.62	54	-11.38	AVG	V	1.5	340

Worse case mode:		802.11a		Test channel:		165			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5850.00	57.51	-3.44	54.07	74	-19.93	peak	H	1.5	153
5850.00	44.25	-3.44	40.81	54	-13.19	AVG	H	1.5	2
5850.00	58.04	-3.44	54.60	74	-19.40	peak	V	1.5	81
5850.00	45.79	-3.44	42.35	54	-11.65	AVG	V	1.5	26

Worse case mode:		802.11n(HT20)		Test channel:		36			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5150.00	58.91	-3.63	55.28	74	-18.72	peak	H	1.5	0
5150.00	44.15	-3.63	40.52	54	-13.48	AVG	H	1.5	106
5150.00	59.87	-3.63	56.24	74	-17.76	peak	V	1.5	159
5150.00	46.47	-3.63	42.84	54	-11.16	AVG	V	1.5	33

Worse case mode:		802.11n(HT20)		Test channel:		64			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	58.86	-3.59	55.27	74	-18.73	peak	H	1.5	18
5350.00	44.08	-3.59	40.49	54	-13.51	AVG	H	1.5	281
5350.00	59.31	-3.59	55.72	74	-18.28	peak	V	1.5	12
5350.00	46.30	-3.59	42.71	54	-11.29	AVG	V	1.5	102

Worse case mode:		802.11n(HT20)		Test channel:		165			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5850.00	58.46	-3.42	55.04	74	-18.96	peak	H	1.5	251
5850.00	44.65	-3.42	41.23	54	-12.77	AVG	H	1.5	235
5850.00	59.73	-3.42	56.31	74	-17.69	peak	V	1.5	78
5850.00	46.23	-3.42	42.81	54	-11.19	AVG	V	1.5	29

Worse case mode:		802.11n(HT40)		Test channel:		38			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5150.00	58.91	-3.63	55.28	74	-18.72	peak	H	1.5	0
5150.00	44.15	-3.63	40.52	54	-13.48	AVG	H	1.5	106
5150.00	59.87	-3.63	56.24	74	-17.76	peak	V	1.5	159
5150.00	46.47	-3.63	42.84	54	-11.16	AVG	V	1.5	33

Worse case mode:		802.11n(HT40)		Test channel:		62			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	58.86	-3.59	55.27	74	-18.73	peak	H	1.5	18
5350.00	44.08	-3.59	40.49	54	-13.51	AVG	H	1.5	281
5350.00	59.31	-3.59	55.72	74	-18.28	peak	V	1.5	12
5350.00	46.30	-3.59	42.71	54	-11.29	AVG	V	1.5	102

Worse case mode:		802.11n(HT40)		Test channel:		159			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5850.00	58.46	-3.42	55.04	74	-18.96	peak	H	1.5	251
5850.00	44.65	-3.42	41.23	54	-12.77	AVG	H	1.5	235
5850.00	59.73	-3.42	56.31	74	-17.69	peak	V	1.5	78
5850.00	46.23	-3.42	42.81	54	-11.19	AVG	V	1.5	29

Worse case mode:		802.11ac(VHT20)		Test channel:		36			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5150.00	58.46	-3.42	55.04	74	-18.96	peak	H	1.5	251
5150.00	44.65	-3.42	41.23	54	-12.77	AVG	H	1.5	235
5150.00	59.73	-3.42	56.31	74	-17.69	peak	V	1.5	78
5150.00	46.23	-3.42	42.81	54	-11.19	AVG	V	1.5	29

Worse case mode:		802.11ac(VHT20)		Test channel:		64			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	58.98	-3.59	55.39	74	-18.61	peak	H	1.5	358
5350.00	44.68	-3.59	41.09	54	-12.91	AVG	H	1.5	177
5350.00	59.31	-3.59	55.72	74	-18.28	peak	V	1.5	199
5350.00	46.82	-3.59	43.23	54	-10.77	AVG	V	1.5	5

Worse case mode:		802.11ac(VHT20)		Test channel:		165			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5850.00	58.77	-3.42	55.35	74	-18.65	peak	H	1.5	257
5850.00	44.22	-3.42	40.80	54	-13.20	AVG	H	1.5	304
5850.00	59.67	-3.42	56.25	74	-17.75	peak	V	1.5	145
5850.00	46.79	-3.42	43.37	54	-10.63	AVG	V	1.5	213

Worse case mode:		802.11ac(VHT40)		Test channel:		38			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5150.00	58.71	-3.63	55.08	74	-18.92	peak	H	1.5	248
5150.00	44.38	-3.63	40.75	54	-13.25	AVG	H	1.5	256
5150.00	59.75	-3.63	56.12	74	-17.88	peak	V	1.5	308
5150.00	46.27	-3.63	42.64	54	-11.36	AVG	V	1.5	113

Worse case mode:		802.11ac(VHT40)		Test channel:		62			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	58.38	-3.59	54.79	74	-19.21	peak	H	1.5	208
5350.00	44.27	-3.59	40.68	54	-13.32	AVG	H	1.5	143
5350.00	60.10	-3.59	56.51	74	-17.49	peak	V	1.5	200
5350.00	46.75	-3.59	43.16	54	-10.84	AVG	V	1.5	52

Worse case mode:		802.11ac(VHT40)		Test channel:		159			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)			(m)	(Degree)
5850.00	58.77	-3.42	55.35	74	-18.65	peak	H	1.5	257
5850.00	44.22	-3.42	40.80	54	-13.20	AVG	H	1.5	304
5850.00	59.67	-3.42	56.25	74	-17.75	peak	V	1.5	145
5850.00	46.79	-3.42	43.37	54	-10.63	AVG	V	1.5	213

Worse case mode:		802.11ax(HE20)		Test channel:		36			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5150.00	58.77	-3.42	55.35	74	-18.65	peak	H	1.5	107
5150.00	44.37	-3.42	40.95	54	-13.05	AVG	H	1.5	264
5150.00	59.61	-3.42	56.19	74	-17.81	peak	V	1.5	179
5150.00	46.42	-3.42	43.00	54	-11.00	AVG	V	1.5	113

Worse case mode:		802.11ax(HE20)		Test channel:		64			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	58.44	-3.59	54.85	74	-19.15	peak	H	1.5	287
5350.00	44.17	-3.59	40.58	54	-13.42	AVG	H	1.5	167
5350.00	59.39	-3.59	55.80	74	-18.20	peak	V	1.5	79
5350.00	46.22	-3.59	42.63	54	-11.37	AVG	V	1.5	121

Worse case mode:		802.11ax(HE20)		Test channel:		165			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5850.00	58.77	-3.42	55.35	74	-18.65	peak	H	1.5	107
5850.00	44.37	-3.42	40.95	54	-13.05	AVG	H	1.5	264
5850.00	59.61	-3.42	56.19	74	-17.81	peak	V	1.5	179
5850.00	46.42	-3.42	43.00	54	-11.00	AVG	V	1.5	113

Worse case mode:		802.11ax(HE40)		Test channel:		38			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5150.00	58.73	-3.63	55.10	74	-18.90	peak	H	1.5	327
5150.00	44.73	-3.63	41.10	54	-12.90	AVG	H	1.5	315
5150.00	59.70	-3.63	56.07	74	-17.93	peak	V	1.5	151
5150.00	46.10	-3.63	42.47	54	-11.53	AVG	V	1.5	282

Worse case mode:		802.11ax(HE40)		Test channel:		62			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	59.10	-3.59	55.51	74	-18.49	peak	H	1.5	175
5350.00	44.33	-3.59	40.74	54	-13.26	AVG	H	1.5	112
5350.00	59.40	-3.59	55.81	74	-18.19	peak	V	1.5	22
5350.00	46.37	-3.59	42.78	54	-11.22	AVG	V	1.5	104

Worse case mode:		802.11ax(HE40)		Test channel:		159			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)			(m)	(Degree)
5850.00	59.10	-3.42	55.68	74	-18.32	peak	H	1.5	40
5850.00	44.22	-3.42	40.80	54	-13.20	AVG	H	1.5	61
5850.00	60.15	-3.42	56.73	74	-17.27	peak	V	1.5	240
5850.00	46.67	-3.42	43.25	54	-10.75	AVG	V	1.5	44

Note:

1) Through Pre-scan transmitting mode with all kind of modulation and data rate, Only the worst case is recorded in the report.

2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor - Antenna Factor - Cable Factor

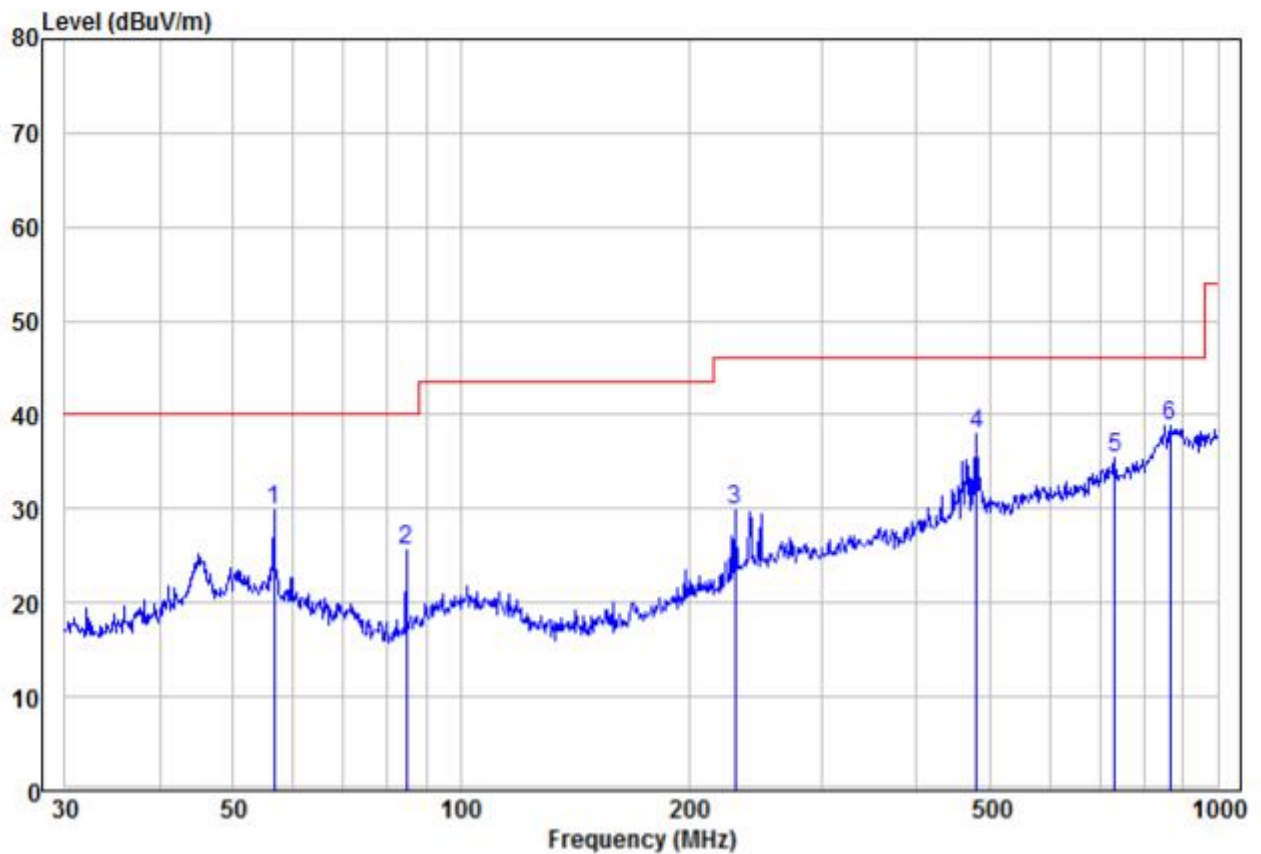
Appendix J): Radiated Spurious Emissions

Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10Hz	Average
Test Procedure:					
Below 1GHz test procedure as below: a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. Above 1GHz test procedure as below: g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre(Above 18GHz the distance is 1 meter and table is 1.5 metre) h. Test the EUT in the lowest channel ,the middle channel ,the Highest channel i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case. j. Repeat above procedures until all frequencies measured was complete.					
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dBµV/cm)	Remark	Measurement distance (cm)
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz-88MHz	100	40.0	Quasi-peak	3
	88MHz-216MHz	150	43.5	Quasi-peak	3
	216MHz-960MHz	200	46.0	Quasi-peak	3
	960MHz-1GHz	500	54.0	Quasi-peak	3
	Above 1GHz	500	54.0	Average	3
	Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.				
Test result: PASS					

Test Data:

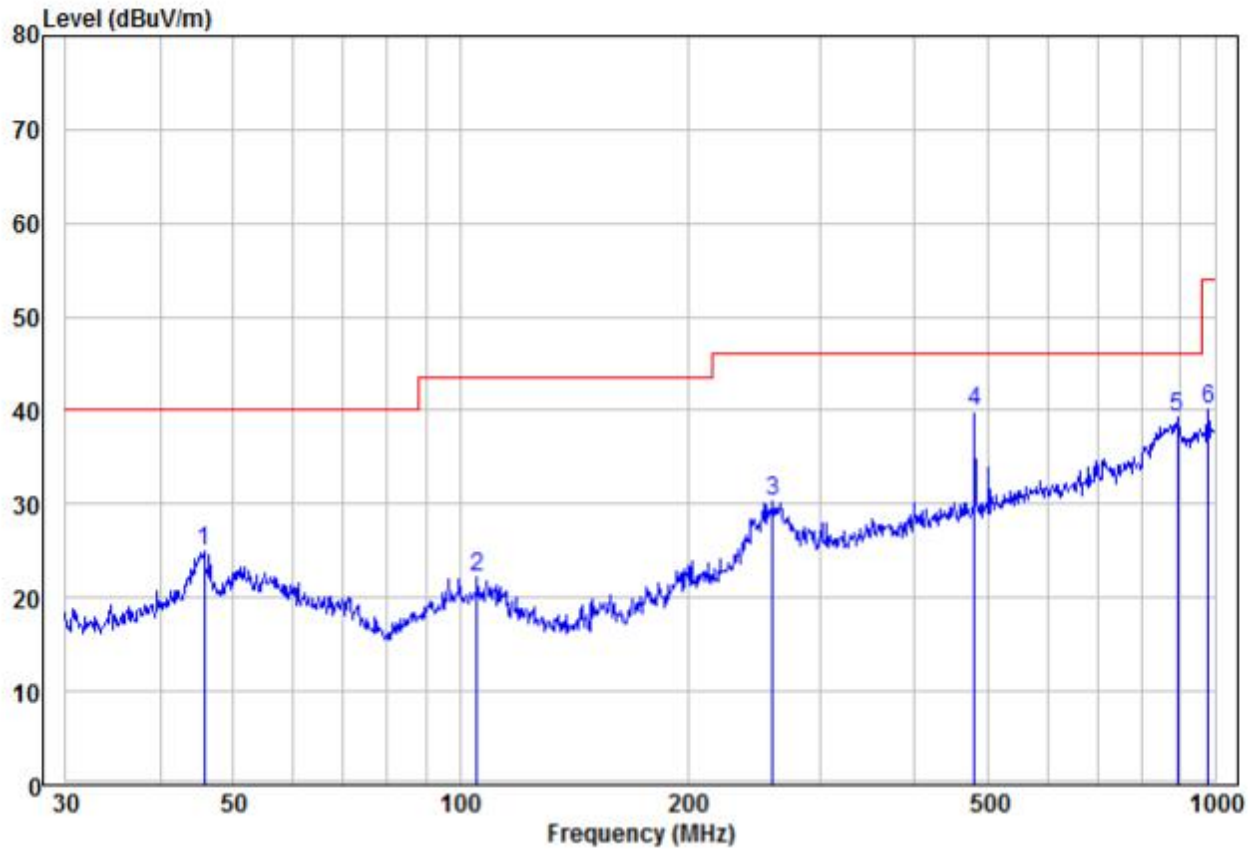
Radiated Emission below 1GHz

30MHz~1GHz		
Test mode:	Transmitting (802.11a 36CH)	Vertical



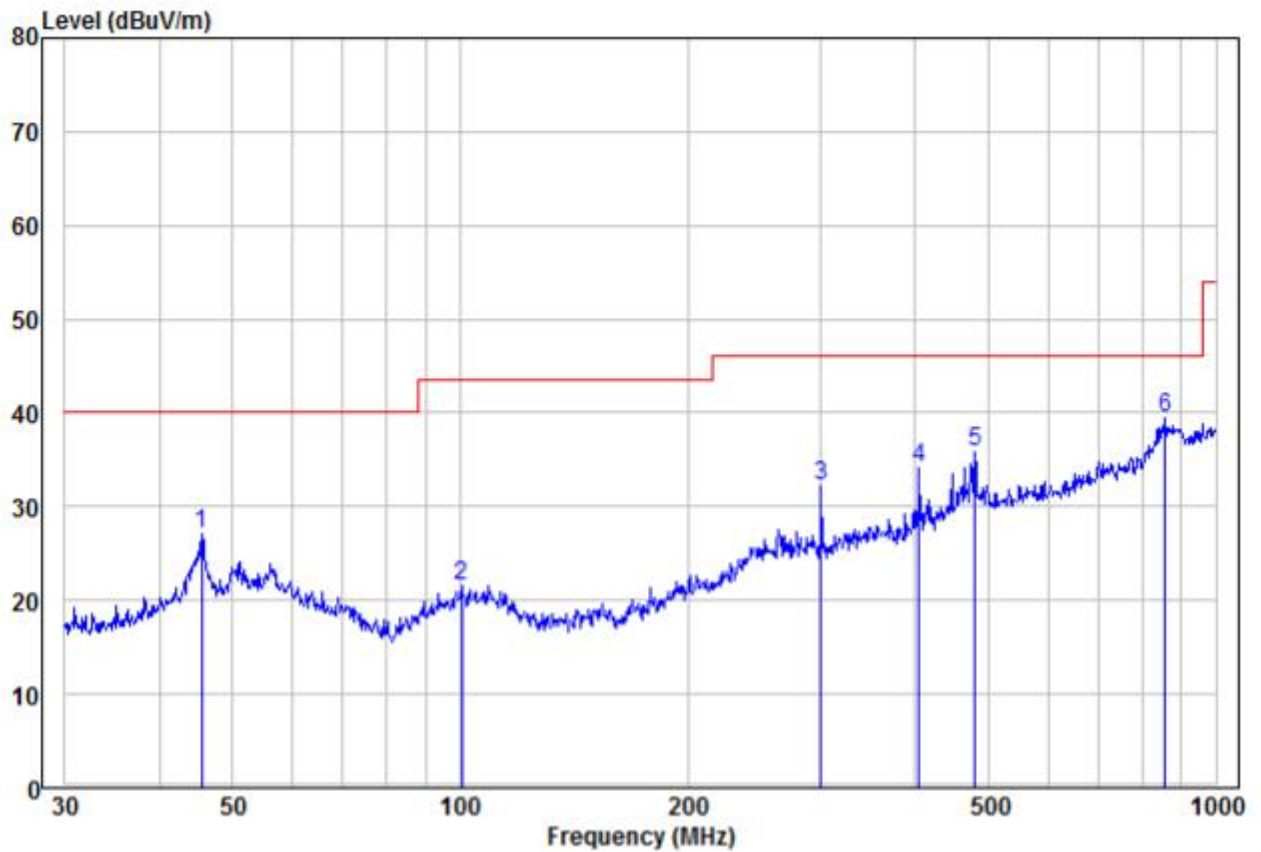
	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1	56.59	17.21	12.59	29.80	40.00	-10.20	Peak	VERTICAL
2	84.70	16.61	8.90	25.51	40.00	-14.49	Peak	VERTICAL
3	230.10	15.76	14.17	29.93	46.00	-16.07	Peak	VERTICAL
4	480.53	17.56	20.34	37.90	46.00	-8.10	Peak	VERTICAL
5	731.92	11.39	24.10	35.49	46.00	-10.51	Peak	VERTICAL
6 pp	866.09	10.03	28.73	38.76	46.00	-7.24	Peak	VERTICAL

Test mode:	Transmitting (802.11a 36CH)	Horizontal
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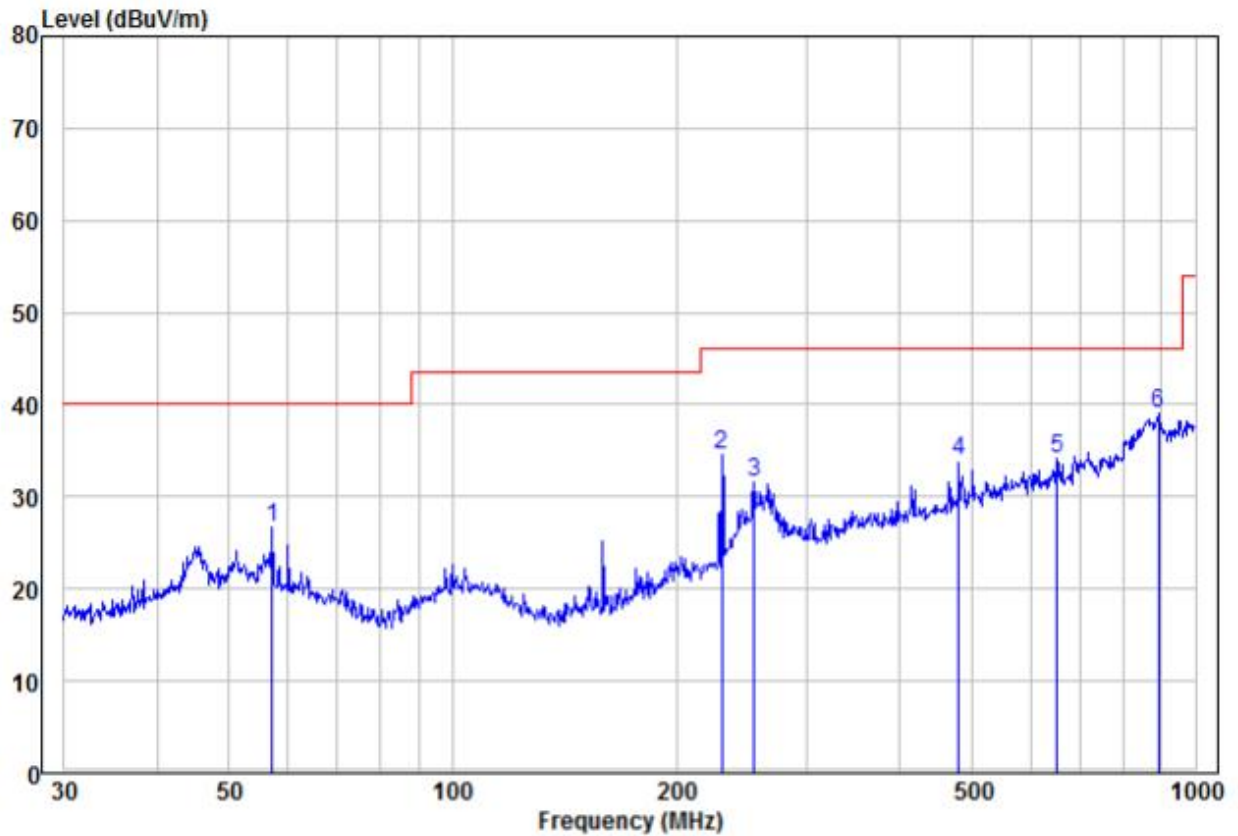
	Read Freq	Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1	45.69	12.85	12.13	24.98	40.00	-15.02	Peak	HORIZONTAL
2	105.27	10.23	11.87	22.10	43.50	-21.40	Peak	HORIZONTAL
3	259.23	14.32	15.93	30.25	46.00	-15.75	Peak	HORIZONTAL
4 pp	480.53	19.60	20.34	39.94	46.00	-6.06	Peak	HORIZONTAL
5	890.73	10.15	29.15	39.30	46.00	-6.70	Peak	HORIZONTAL
6	979.18	11.94	28.18	40.12	54.00	-13.88	Peak	HORIZONTAL

30MHz~1GHz		
Test mode:	Transmitting (802.11a 149CH)	Vertical



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1	45.53	14.98	12.11	27.09	40.00	-12.91	Peak	VERTICAL
2	100.58	9.59	11.87	21.46	43.50	-22.04	Peak	VERTICAL
3	300.37	15.32	16.88	32.20	46.00	-13.80	Peak	VERTICAL
4	404.67	15.66	18.48	34.14	46.00	-11.86	Peak	VERTICAL
5	480.53	15.41	20.34	35.75	46.00	-10.25	Peak	VERTICAL
6 pp	857.02	10.99	28.57	39.56	46.00	-6.44	Peak	VERTICAL

Test mode:	Transmitting (802.11a 149CH)	Horizontal
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	Read Freq	Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1	57.19	14.09	12.50	26.59	40.00	-13.41	Peak	HORIZONTAL
2	230.10	20.36	14.17	34.53	46.00	-11.47	Peak	HORIZONTAL
3	254.73	15.79	15.82	31.61	46.00	-14.39	Peak	HORIZONTAL
4	480.53	13.64	20.34	33.98	46.00	-12.02	Peak	HORIZONTAL
5	651.94	11.32	22.84	34.16	46.00	-11.84	Peak	HORIZONTAL
6 pp	890.73	9.93	29.15	39.08	46.00	-6.92	Peak	HORIZONTAL

Transmitter Emission above 1GHz

Test mode:	802.11a(6Mbps)			Test channel:		36 CH			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
10360	53.78	2.26	56.04	74	-17.96	peak	H	1.5	144
10360	36.71	2.26	38.97	54	-15.03	AVG	H	1.5	154
15540	51.48	3.75	55.23	74	-18.77	peak	H	1.5	196
15540	37.83	3.75	41.58	54	-12.42	AVG	H	1.5	331
10360	55.08	2.26	57.34	74	-16.66	peak	V	1.5	260
10360	39.78	2.26	42.04	54	-11.96	AVG	V	1.5	85
15540	51.69	3.75	55.44	74	-18.56	peak	V	1.5	275
15540	35.64	3.75	39.39	54	-14.61	AVG	V	1.5	233

Test mode:	802.11a(6Mbps)			Test channel:		40 CH			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
10400	52.71	2.31	55.02	74	-18.98	peak	H	1.5	314
10400	36.41	2.31	38.72	54	-15.28	AVG	H	1.5	133
15600	48.59	3.79	52.38	74	-21.62	peak	H	1.5	205
15600	36.56	3.79	40.35	54	-13.65	AVG	H	1.5	305
10400	52.38	2.31	54.69	74	-19.31	peak	V	1.5	245
10400	36.96	2.31	39.27	54	-14.73	AVG	V	1.5	32
15600	49.17	3.79	52.96	74	-21.04	peak	V	1.5	240
15600	35.55	3.79	39.34	54	-14.66	AVG	V	1.5	193

Test mode:	802.11a(6Mbps)			Test channel:		48 CH			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
10480	52.40	2.31	54.71	68.2	-13.49	peak	H	1.5	230
10480	37.86	2.31	40.17	54	-13.83	AVG	H	1.5	314
15720	50.06	3.79	53.85	68.2	-14.35	peak	H	1.5	180
15720	36.22	3.79	40.01	54	-13.99	AVG	H	1.5	280
10480	52.89	2.31	55.20	68.2	-13.00	peak	V	1.5	313
10480	36.79	2.31	39.10	54	-14.90	AVG	V	1.5	56
15720	50.16	3.79	53.95	68.2	-14.25	peak	V	1.5	110
15720	36.22	3.79	40.01	54	-13.99	AVG	V	1.5	331

Test mode:	802.11a(6Mbps)			Test channel:		149 CH			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
11490	52.81	2.54	55.35	68.2	-12.85	peak	H	1.5	87
11490	37.06	2.54	39.60	54	-14.40	AVG	H	1.5	223
17235	50.54	3.94	54.48	68.2	-13.72	peak	H	1.5	42
17235	36.55	3.94	40.49	54	-13.51	AVG	H	1.5	10
11490	53.53	2.54	56.07	68.2	-12.13	peak	V	1.5	355
11490	36.98	2.54	39.52	54	-14.48	AVG	V	1.5	282
17235	51.06	3.94	55.00	68.2	-13.20	peak	V	1.5	186
17235	37.26	3.94	41.20	54	-12.80	AVG	V	1.5	23

Test mode:	802.11a(6Mbps)			Test channel:		157			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
11570	52.81	2.58	55.39	74	-18.61	peak	H	1.5	292
11570	37.73	2.58	40.31	54	-13.69	AVG	H	1.5	165
17355	50.61	4.02	54.63	74	-19.37	peak	H	1.5	193
17355	37.19	4.02	41.21	54	-12.79	AVG	H	1.5	355
11570	54.10	2.58	56.68	74	-17.32	peak	V	1.5	195
11570	38.79	2.58	41.37	54	-12.63	AVG	V	1.5	336
17355	49.33	4.02	53.35	74	-20.65	peak	V	1.5	206
17355	36.67	4.02	40.69	54	-13.31	AVG	V	1.5	341

Test mode:	802.11a(6Mbps)			Test channel:		165 CH			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
11650	51.38	2.58	53.96	74	-20.04	peak	H	1.5	225
11650	37.02	2.58	39.60	54	-14.40	AVG	H	1.5	156
17475	50.00	4.02	54.02	74	-19.98	peak	H	1.5	253
17475	37.51	4.02	41.53	54	-12.47	AVG	H	1.5	229
11650	53.34	2.58	55.92	74	-18.08	peak	V	1.5	300
11650	38.19	2.58	40.77	54	-13.23	AVG	V	1.5	155
17475	50.40	4.02	54.42	74	-19.58	peak	V	1.5	59
17475	37.58	4.02	41.60	54	-12.40	AVG	V	1.5	338

Remark:

- 1) The 802.11a 6Mbps of rate is the worst case, only the worst data recorded in the report.
- 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor
- 3) Scan from 9kHz to 40GHz,The disturbance above 18GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

7 Photographs - EUT Test Setup

Detailed information is given in Appendix A

8 Photographs - EUT Constructional Details

Detailed information is given in Appendix B and Appendix C

*** END OF REPORT ***