

TEST REPORT

Applicant : Foshan ABE France Germany Technology Co., Ltd.
Address : Room 402-2, Block J, South China International Innovation Industry Park, Nanhai District, Foshan City, Guangdong Province, China
Manufacturer : Foshan ABE France Germany Technology Co., Ltd.
Address : Room 402-2, Block J, South China International Innovation Industry Park, Nanhai District, Foshan City, Guangdong Province, China
Product Name : 1080P Two-Wire Visual Doorbell
Model Number : TY75T-HTD2(2 Wire IP), TY7X-X(2 wire IP System), TY7X-XX(2 wire IP), TYXX-XXX(2 Wire IP)
Trademark : N/A
FCC ID : 2BT2B-TY75T-HTD2
Test Date : Sept. 03, 2025 - Sept. 11, 2025
Date of Report : Sept. 12, 2025
Test Result : This device described above has been tested by BKC, and the test results show that the equipment under test (EUT) is in compliance with the Standard requirements. And it is applicable only to the tested sample identified in the report.
Test Procedure Used:
Standards : FCC CFR Title 47 Part 15 Subpart C Section 15.247
ANSI C63.10-2020+Cor.1-2023

Prepared by(Test Engineer):
Carey Zheng



Reviewer(Supervisor):
Casey Wang



Approved(Manager):
Jerry Liao



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1. General Information

1.1. Description of Device (EUT)

EUT Name : 1080P Two-Wire Visual Doorbell

Model No. : TY75T-HTD2(2 Wire IP), TY7X-X(2 wire IP System), TY7X-XX(2 wire IP), TYXX-XXX(2 Wire IP)

Model Difference : The product is different for model name and outlook. The mains test model is TY75T-HTD2(2 Wire IP)

Power supply : Input: DC 12-24V
Adapter: Switching Power Supply
MODEL: VZ-0152000U
INPUT: 100-240V~50/60Hz 1A
OUTPUT: 15Vdc/2.0A 30W

Operation frequency : 2.412-2.462GHz

Max. RF output power: : 21.22dBm

Modulation : 802.11b: Direct Sequence Spread Spectrum(DSSS)
802.11g/802.11n(H20)/802.11n(H40):
Orthogonal Frequency Division Multiplexing(OFDM)

Antenna Type : Internal antenna, Maximum Gain is 4.6dBi

Intend use environment : Residential, commercial and light industrial environment

1.2. Channel List

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1	2412	2	2417	3	2422	4	2427
5	2432	6	2437	7	2442	8	2447
9	2452	10	2457	11	2462		

1.3. Summary of test result

RF PART		
Test Items	Test Requirement	Result
Antenna requirement	FCC part 15.203/15.247 (c)	PASS
AC Power Line Conducted Emission	FCC part 15.207	PASS
Conducted Peak Output Power	FCC part 15.247 (b)(3)	PASS
Channel Bandwidth& 99% OCB	FCC part 15.247 (a)(2)	PASS
Power Spectral Density	FCC part 15.247 (e)	PASS
Band Edge	FCC part 15.247(d)	PASS
Spurious Emission	FCC part 15.205/15.209	PASS
Remark: N/A is an abbreviation for Not Applicable. Measurement Uncertainty is not taken into account for conformity statement		

1.4.Special Accessories and Auxiliary Equipment

Description	Manufacturer	Model No.	Hardware Version	Software Version
/	/	/	/	/

Test Software	Power level setup
FCC TEST V12.1.1	1

1.5.Test mode

The special RF test software was used to control EUT work in Continuous WIFI TX mode, and select test channel, wireless mode.

Test mode	Low channel	Middle channel	High channel
802.11b	2412MHz	2437MHz	2462MHz
802.11g	2412MHz	2437MHz	2462MHz
802.11n20	2412MHz	2437MHz	2462MHz
802.11n40	2422MHz	2437MHz	2452MHz

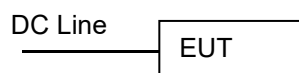
Note: All test modes were pre-tested, but we only recorded the worst case in this report.

1.6.Block Diagram

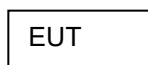
Conducted Emission



Radiated Emission



Conducted Spurious



1.7. Test Conditions

Category	Normal Conditions	Extreme Conditions
Temperature range	15-35°C	N/A
Humidity range	20-75%	N/A
Pressure range	86-106kPa	N/A
Power supply	DC 15V	N/A
Note: N/A is an abbreviation for Not Applicable.		

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

Item	MU	Remark
Uncertainty for radio frequency	$\pm 7 \times 10^{-8}$	
Conducted Emissions (150kHz~30MHz)	$\pm 2.54\text{dB}$	
Radiated Emission(9KHz~30MHz)	$\pm 1.6\text{ dB}$	
Radiated Emission(30MHz~1GHz)	Vertical: $\pm 4.14\text{dB}$ Horizontal: $\pm 4.25\text{dB}$	
Radiated Emission(1GHz~6GHz)	$\pm 3.9\text{dB}$	
Radiated Emission(6GHz~18GHz)	$\pm 4.3\text{dB}$	
Radiated Emission(18GHz~40GHz)	$\pm 3.38\text{dB}$	
Uncertainty for conducted RF Power	$\pm 0.20\text{dB}$	
Conducted spurious emissions	$\pm 0.24\text{dB}$	
Uncertainty for temperature	0.6°C	
Uncertainty for humidity	1%	
Bandwidth	$\pm 1.5 \times 10^{-6}$	
Time	$\pm 2\%$	
Duty Cycle	$\pm 2\%$	
Remark: The coverage Factor (k=2), and measurement Uncertainty for a level of Confidence of 95%		

1.9. Test Facility

Site Description		
Name of Firm	:	Shenzhen BKC Testing Co., Ltd.
Site Location	:	Room 103, 1/F, Huaya Building, Huaya Industrial Park, Longhua Community, Longhua District, Shenzhen, Guangdong, China.
ISED CAB identifier	:	CN0188
ISED Company Number	:	34333
FCC Designation Number	:	CN1416
FCC Test Firm Registration Number	:	701543

1.10. Test Equipment

Conducted Test Site

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	LISN	R&S	ENV216	102762	Mar. 10. 2025	Mar. 09. 2026
2	EMI Test Receiver	R&S	ESCI	101424	Mar. 10. 2025	Mar. 09. 2026
3	Rf cables	HTEC	HCE 2M-CE	N/A	Mar. 10. 2025	Mar. 09. 2026
4	Coupling/ Decoupling Network	Diamond	CX210	N/A	Mar. 10. 2025	Mar. 09. 2026
5	CE Testing software	EZ	EZ-EMC	/	/	/

Radiated Test Site(Below 1G and Above 1G)

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Antenna	Schwarzbeck	VULB 9168	01321	Mar. 20. 2025	Mar. 19. 2028
2	EMI Test Receiver	R&S	ESRP	101478	Mar. 10. 2025	Mar. 09. 2026
3	Preamplifier	HP	8447D	2727A05345	Mar. 10. 2025	Mar. 09. 2026
4	Double Ridged Broadband	SCHWARZBECK	BBHA 9120D	02621	Mar. 10. 2025	Mar. 19. 2028
5	Preamplifier	Schwarzbeck	BBV 9718D	00041	Mar. 10. 2025	Mar. 09. 2026
6	Rf cables	HUBER+SUHNER	8M-RE	N/A	Mar. 10. 2025	Mar. 09. 2026
7	Rf cables	HUBER+SUHNER	1.5M-RE	N/A	Mar. 10. 2025	Mar. 09. 2026
8	Rf cables	HUBER+SUHNER	1.5M-AP-RE	N/A	Mar. 10. 2025	Mar. 09. 2026
9	Loop antenna	TESEQ	HLA6121	58357	Mar. 09. 2025	Mar. 10. 2026
10	Spectrum analyzer	R&S	FSP40	200061	Feb. 13. 2025	Feb. 12. 2026
11	Double Ridged Broadband Horn Antenna	COM-POWER	AH-1840	10100009	Mar. 10. 2025	Mar. 09. 2026
12	Power Meter	Anritu	ML2495A	10084	Jun. 10. 2025	Jun. 09. 2026
13	Spectrum	Agilent	N9020A	MY50510311	Mar. 09. 2025	Mar. 10. 2026
14	RE Testing software	EZ	EZ-EMC	/	/	/

RF Test Site

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum	Agilent	N9020A	MY50510311	Mar. 09. 2025	Mar. 10. 2026
2	Vector source	Agilent	N5182A	MY47420223	Mar. 09. 2025	Mar. 10. 2026
3	All instrument	Rohde & Schwarz	CMW 500	101131	Mar. 09. 2025	Mar. 10. 2026
4	control unit	MW	MW100-RFCB	MW200411BK-34	Mar. 09. 2025	Mar. 10. 2026
5	RF Testing software	MW	MTS 8310	/	Mar. 09. 2025	/
6	Spectrum analyzer	R&S	FSP40	200061	Feb. 13. 2025	Feb. 12. 2026

Test software

Software name	RF Testing software
Software version	2.0.0.0
Software name	RE Testing software
Software version	EMEC-03A2 RE+
Software name	CE Testing software
Software version	EMEC-3A1+



2. Conducted emission at the mains terminals test

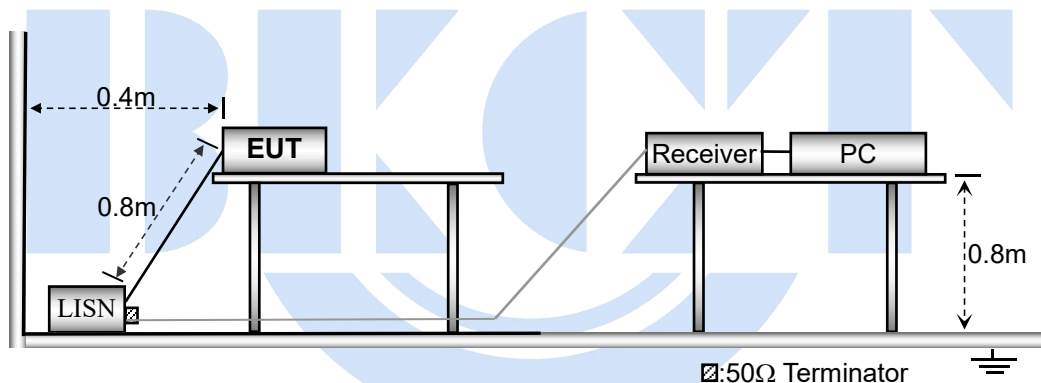
2.1.Limit

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10-2020+Cor.1-2023
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto

Frequency MHz	Limits dB(μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

2.2.Test Setup

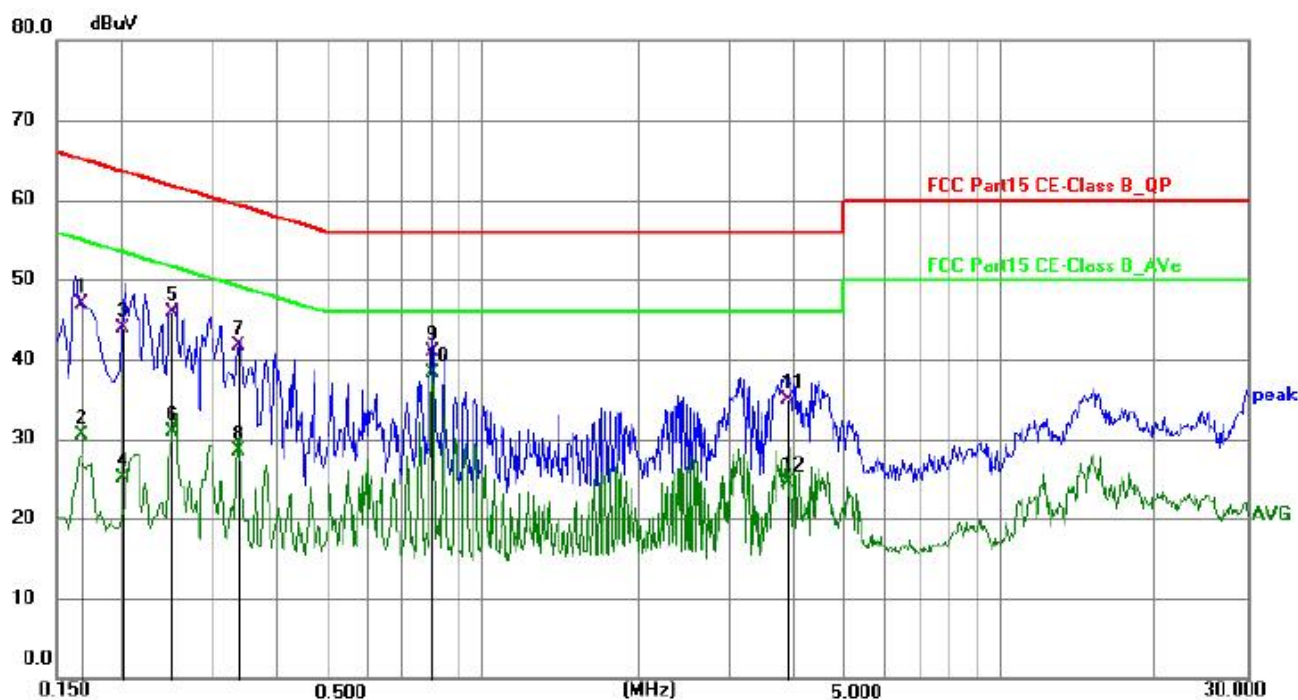


2.3.Test Procedure

1. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
2. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
3. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
4. LISN at least 80 cm from nearest part of EUT chassis.
5. For the actual test configuration, please refer to the related Item - EUT Test Photos.

2.4. Test Result

Conducted Emission at The Mains Terminals Test Data			
Temperature:	25.1°C	Relative Humidity:	56%
Pressure:	1008hPa	Phase:	Line
Test Voltage:	AC 120V/60Hz	Test Mode:	802.11n(CH11)



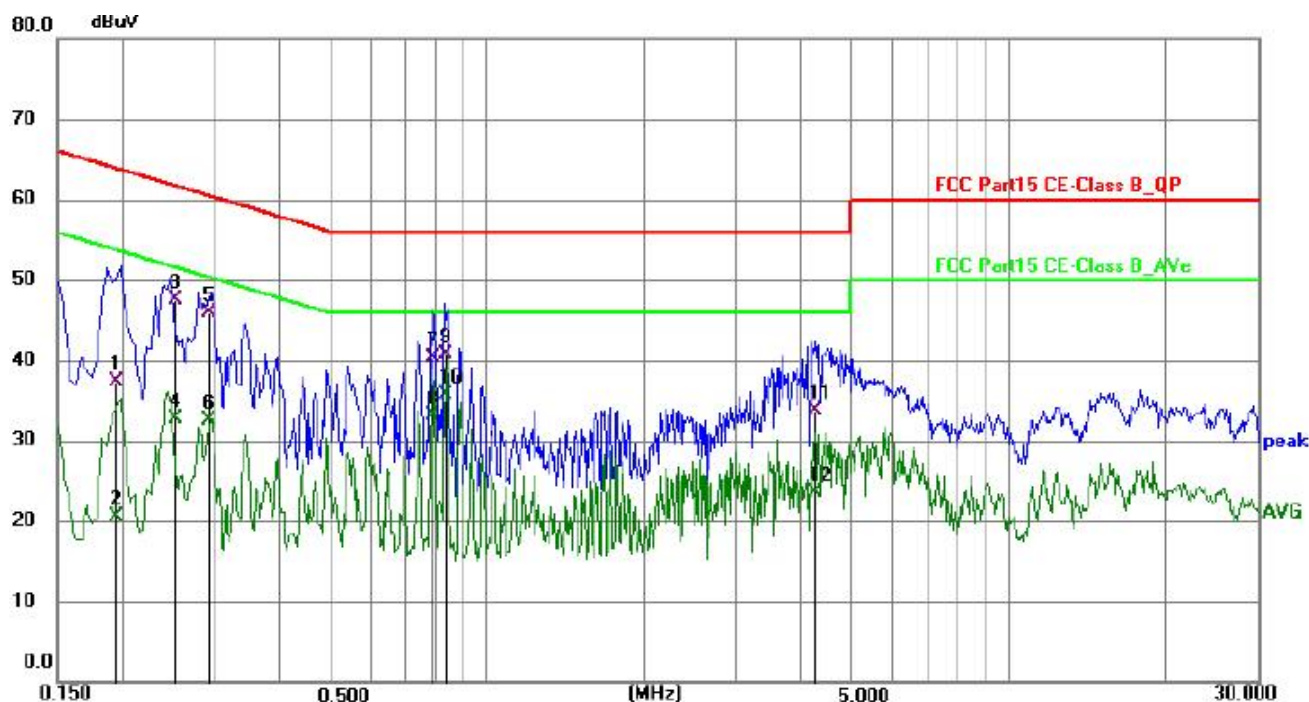
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1679	27.38	19.49	46.87	65.06	-18.19	QP
2	0.1679	11.07	19.49	30.56	55.06	-24.50	AVG
3	0.2010	24.42	19.49	43.91	63.57	-19.66	QP
4	0.2010	5.67	19.49	25.16	53.57	-28.41	AVG
5	0.2518	26.41	19.49	45.90	61.70	-15.80	QP
6	0.2518	11.40	19.49	30.89	51.70	-20.81	AVG
7	0.3363	22.12	19.49	41.61	59.29	-17.68	QP
8	0.3363	9.06	19.49	28.55	49.29	-20.74	AVG
9	0.7989	21.34	19.49	40.83	56.00	-15.17	QP
10 *	0.7989	18.90	19.49	38.39	46.00	-7.61	AVG
11	3.9034	15.26	19.58	34.84	56.00	-21.16	QP
12	3.9034	4.93	19.58	24.51	46.00	-21.49	AVG

Note:

1. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
2. Margin = Reading level + Correct Factor - Limit
3. All the modes have tested and recorded the worst mode(802.11n) in the report

Conducted Emission at The Mains Terminals Test Data

Temperature:	25.1°C	Relative Humidity:	56%
Pressure:	1008hPa	Phase:	Neutral
Test Voltage:	AC 120V/60Hz	Test Mode:	802.11n(CH11)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1937	17.84	19.50	37.34	63.88	-26.54	QP
2	0.1937	1.04	19.50	20.54	53.88	-33.34	AVG
3	0.2531	28.00	19.48	47.48	61.65	-14.17	QP
4	0.2531	13.31	19.48	32.79	51.65	-18.86	AVG
5	0.2935	26.37	19.48	45.85	60.42	-14.57	QP
6	0.2935	13.02	19.48	32.50	50.42	-17.92	AVG
7	0.7928	20.78	19.50	40.28	56.00	-15.72	QP
8	0.7928	13.59	19.50	33.09	46.00	-12.91	AVG
9	0.8373	21.27	19.50	40.77	56.00	-15.23	QP
10 *	0.8373	16.11	19.50	35.61	46.00	-10.39	AVG
11	4.2813	14.10	19.59	33.69	56.00	-22.31	QP
12	4.2813	3.88	19.59	23.47	46.00	-22.53	AVG

Note:

1. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
2. Margin = Reading level + Correct Factor - Limit
3. All the modes have tested and recorded the worst mode(802.11n) in the report

3. Radiated Spurious Emissions

3.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.209 & 15.247
Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;
ANSI C63.10-2020+Cor.1-2023
Test Result: PASS
Measurement Distance: 3m

Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

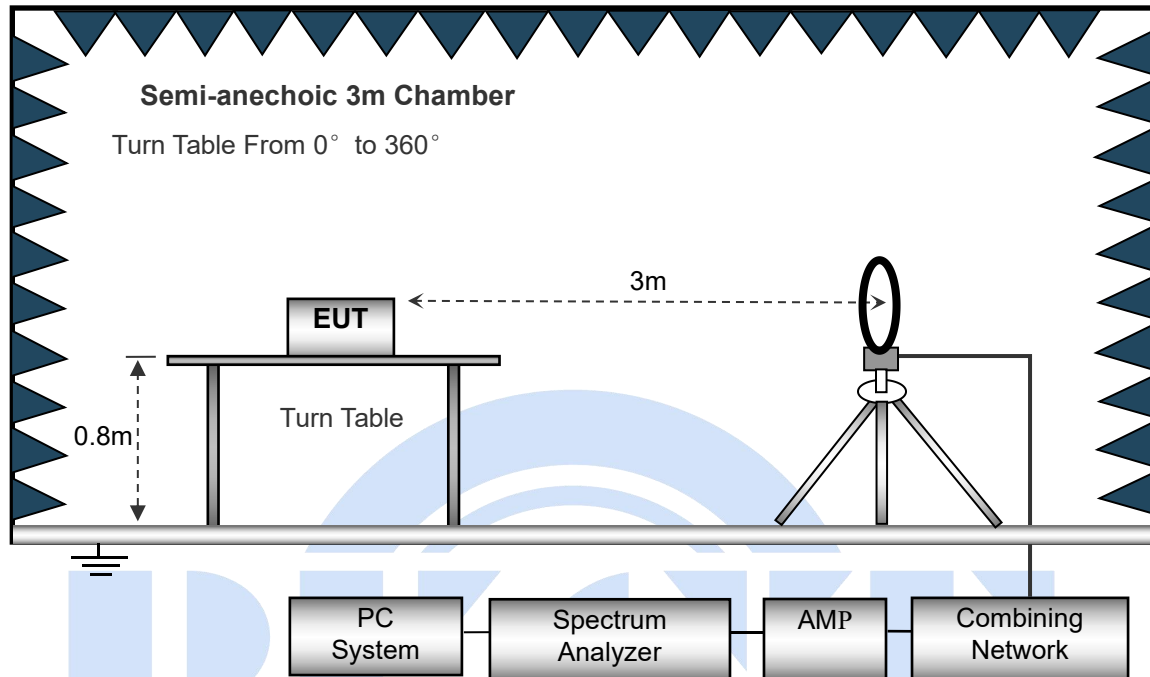
Limit:

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log(2400/F(\text{kHz})) + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log(24000/F(\text{kHz})) + 40$
1.705 ~ 30	30	30	$100 * 30$	$20\log(30) + 40$
30 ~ 88	100	3	100	$20\log(100)$
88 ~ 216	150	3	150	$20\log(150)$
216 ~ 960	200	3	200	$20\log(200)$
Above 960	500	3	500	$20\log(500)$

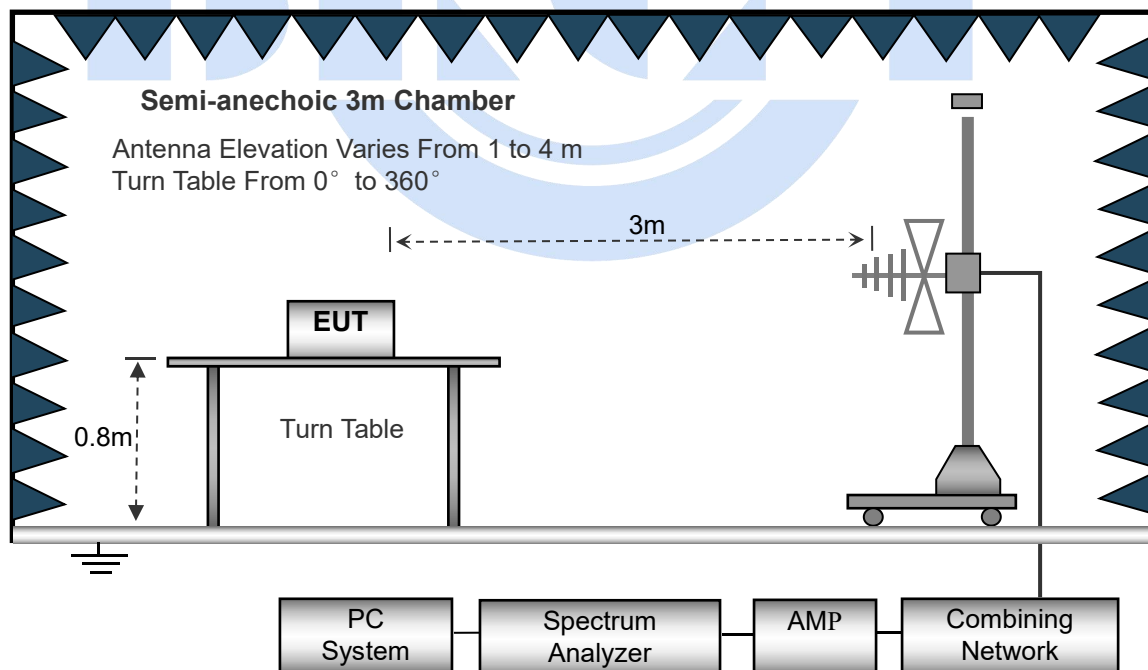
3.2. Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.10.

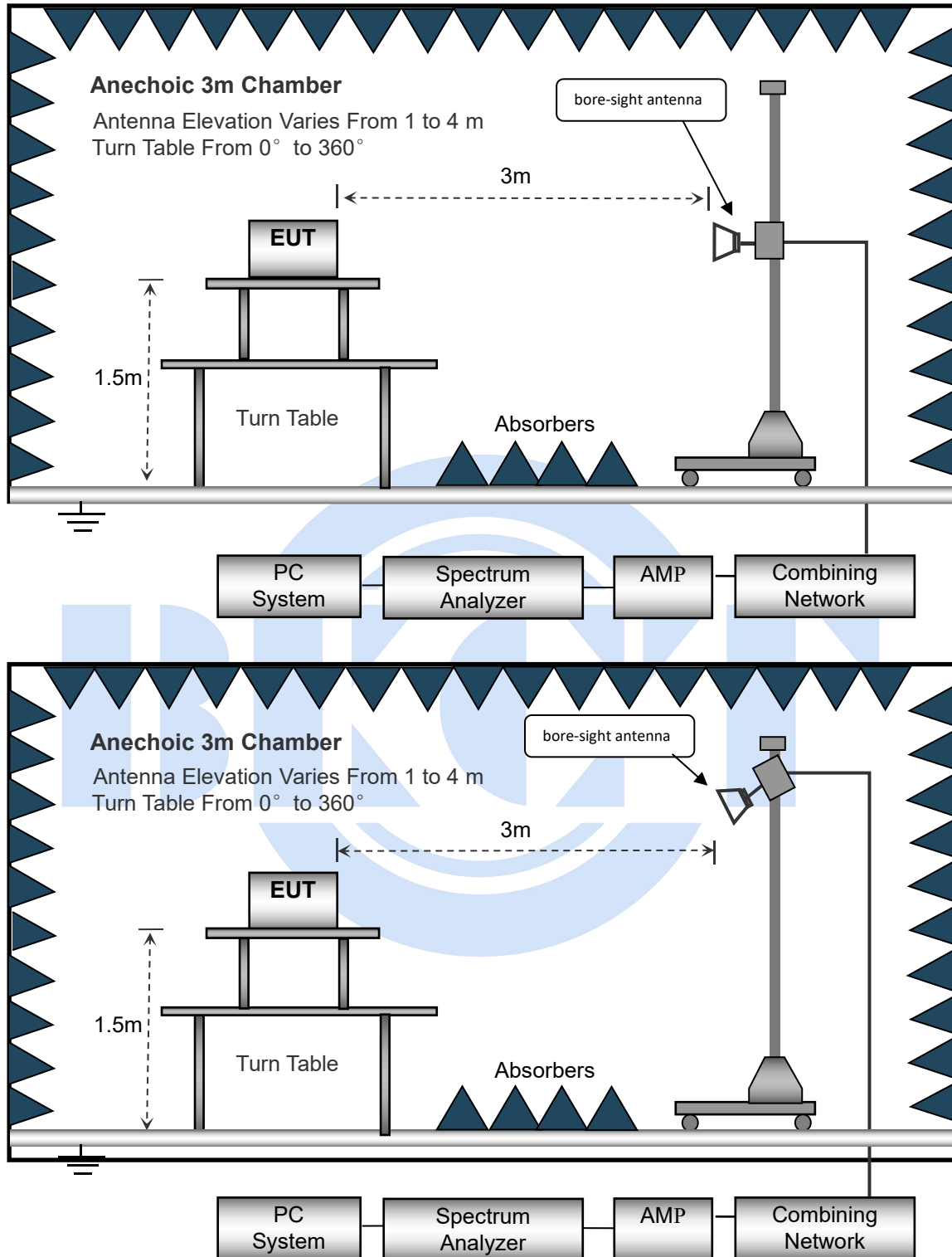
The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz.



3.3. Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above ground plane for below 1GHz and 1.5m for above 1GHz.
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 moved from 1m to 4m to find out the maximum 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 radiation measurements are performed in X, Y and Z axis positioning (X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), the worst condition was tested putting the eut in Z axis, so the worst data were shown as follow.
8. A 2.4GHz high - pass filter is used during radiated emissions above 1GHz measurement.



3.4. Test Result

Test Frequency: 9KHz~30MHz

The measurements were more than 20 dB below the limit and not reported.

Test Frequency : 30MHz ~ 1GHz

Radiation Emission Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase:	Horizontal
Test Voltage:	DC 3.7V	Test Mode	802.11n(CH11)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	247.6818	53.66	-17.89	35.77	46.00	-10.23	QP
2	312.1792	52.68	-15.50	37.18	46.00	-8.82	QP
3	396.2412	51.02	-13.35	37.67	46.00	-8.33	QP
4	446.4139	48.99	-11.94	37.05	46.00	-8.95	QP
5	545.1825	45.50	-9.84	35.66	46.00	-10.34	QP
6 *	942.1304	41.06	-2.78	38.28	46.00	-7.72	QP

Note:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Emission Level = Reading + Factor

Margin=Emission Level-Limit

2. All the modes have tested and recorded the worst mode(802.11n) in the report

Radiation Emission Test Data			
Temperature:	25.1°C	Relative Humidity:	56%
Pressure:	1008hPa	Phase:	Vertical
Test Voltage:	DC 3.7V	Test Mode	802.11n(CH11)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	247.6818	53.24	-17.89	35.35	46.00	-10.65	QP
2	346.8091	51.12	-15.10	36.02	46.00	-9.98	QP
3	396.2412	49.16	-13.35	35.81	46.00	-10.19	QP
4 *	446.4139	50.92	-11.94	38.98	46.00	-7.02	QP
5	545.1825	44.41	-9.84	34.57	46.00	-11.43	QP
6	842.1295	38.60	-4.32	34.28	46.00	-11.72	QP

Note:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Emission Level = Reading + Factor

Margin=Emission Level-Limit

2. All the modes have tested and recorded the worst mode(802.11n) in the report

1GHz~25GHz

802.11b

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detect or Type
Low Channel:2412MHz									
V	4824.00	45.69	34.11	5.04	32.44	49.06	74.00	-24.94	Pk
V	4824.00	37.39	34.11	5.04	32.44	40.76	54.00	-13.24	AV
V	7236.00	42.74	32.57	6.30	35.89	52.36	74.00	-21.64	Pk
V	7236.00	30.8	32.57	6.30	35.89	40.42	54.00	-13.58	AV
V	9648.00	35.61	32.96	7.56	38.40	48.61	74.00	-25.39	Pk
V	9648.00	24.14	32.96	7.56	38.40	37.14	54.00	-16.86	AV
V	12060.00	32.39	32.06	8.92	39.01	48.26	74.00	-25.74	Pk
V	12060.00	25.19	32.06	8.92	39.01	41.06	54.00	-12.94	AV
H	4824.00	47.7	34.11	5.04	32.44	51.07	74.00	-22.93	Pk
H	4824.00	36.02	34.11	5.04	32.44	39.39	54.00	-14.61	AV
H	7236.00	41.92	32.57	6.30	35.89	51.54	74.00	-22.46	Pk
H	7236.00	30.05	32.57	6.30	35.89	39.67	54.00	-14.33	AV
H	9648.00	35.16	32.96	7.56	38.40	48.16	74.00	-25.84	Pk
H	9648.00	26.18	32.96	7.56	38.40	39.18	54.00	-14.82	AV
H	12060.00	36.63	32.06	8.92	39.01	52.50	74.00	-21.50	Pk
H	12060.00	27.07	32.06	8.92	39.01	42.94	54.00	-11.06	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detect or Type
Middle Channel:2437MHz									
V	4874.00	51.18	34.08	5.08	32.57	54.75	74.00	-19.25	Pk
V	4874.00	35.71	34.08	5.08	32.57	39.28	54.00	-14.72	AV
V	7311.00	42.00	32.62	6.34	35.95	51.67	74.00	-22.33	Pk
V	7311.00	33.17	32.62	6.34	35.95	42.84	54.00	-11.16	AV
V	9748.00	43.46	32.93	7.58	38.40	56.51	74.00	-17.49	Pk
V	9748.00	32.26	32.93	7.58	38.40	45.31	54.00	-8.69	AV
V	12185.00	43.48	31.97	8.89	39.04	59.44	74.00	-14.56	Pk
V	12185.00	27.55	31.97	8.89	39.04	43.51	54.00	-10.49	AV
H	4874.00	48.27	34.08	5.08	32.57	51.84	74.00	-22.16	Pk
H	4874.00	31.93	34.08	5.08	32.57	35.50	54.00	-18.50	AV



H	7311.00	40.45	32.62	6.34	35.95	50.12	74.00	-23.88	Pk
H	7311.00	33.41	32.62	6.34	35.95	43.08	54.00	-10.92	AV
H	9748.00	42.58	32.93	7.58	38.40	55.63	74.00	-18.37	Pk
H	9748.00	25.87	32.93	7.58	38.40	38.92	54.00	-15.08	AV
H	12185.00	37.66	31.97	8.89	39.04	53.62	74.00	-20.38	Pk
H	12185.00	26.36	31.97	8.89	39.04	42.32	54.00	-11.68	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amp lifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
High Channel:2462MHz									
V	4924.00	46.64	34.05	5.14	32.79	50.52	74.00	-23.48	Pk
V	4924.00	34.78	34.05	5.14	32.79	38.66	54.00	-15.34	AV
V	7386.00	41.24	32.67	6.36	35.99	50.92	74.00	-23.08	Pk
V	7386.00	28.03	32.67	6.36	35.99	37.71	54.00	-16.29	AV
V	9848.00	42.18	32.89	7.59	38.37	55.25	74.00	-18.75	Pk
V	9848.00	26.53	32.89	7.59	38.37	39.60	54.00	-14.40	AV
V	12310.00	37.85	31.88	8.82	39.06	53.85	74.00	-20.15	Pk
V	12310.00	24.58	31.88	8.82	39.06	40.58	54.00	-13.42	AV
H	4924.00	46.13	34.05	5.14	32.79	50.01	74.00	-23.99	Pk
H	4924.00	34.71	34.05	5.14	32.79	38.59	54.00	-15.41	AV
H	7386.00	42.05	32.67	6.36	35.99	51.73	74.00	-22.27	Pk
H	7386.00	27.12	32.67	6.36	35.99	36.80	54.00	-17.20	AV
H	9848.00	38.05	32.89	7.59	38.37	51.12	74.00	-22.88	Pk
H	9848.00	26.54	32.89	7.59	38.37	39.61	54.00	-14.39	AV
H	12310.00	37.31	31.88	8.82	39.06	53.31	74.00	-20.69	Pk
H	12310.00	26.36	31.88	8.82	39.06	42.36	54.00	-11.64	AV

802.11g

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampl ifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
Low Channel:2412MHz									
V	4824.00	47.28	34.05	5.14	32.79	51.16	74.00	-22.84	Pk
V	4824.00	35.40	34.05	5.14	32.79	39.28	54.00	-14.72	AV
V	7236.00	41.16	32.67	6.36	35.99	50.84	74.00	-23.16	Pk
V	7236.00	29.52	32.67	6.36	35.99	39.20	54.00	-14.80	AV
V	9648.00	38.17	32.89	7.59	38.37	51.24	74.00	-22.76	Pk
V	9648.00	26.49	32.89	7.59	38.37	39.56	54.00	-14.44	AV
V	12060.00	36.26	31.88	8.82	39.06	52.26	74.00	-21.74	Pk
V	12060.00	20.88	31.88	8.82	39.06	36.88	54.00	-17.12	AV
H	4824.00	46.02	34.05	5.14	32.79	49.90	74.00	-24.10	Pk
H	4824.00	35.65	34.05	5.14	32.79	39.53	54.00	-14.47	AV
H	7236.00	40.37	32.67	6.36	35.99	50.05	74.00	-23.95	Pk
H	7236.00	26.11	32.67	6.36	35.99	35.79	54.00	-18.21	AV
H	9648.00	39.04	32.89	7.59	38.37	52.11	74.00	-21.89	Pk
H	9648.00	24.97	32.89	7.59	38.37	38.04	54.00	-15.96	AV
H	12060.00	35.01	31.88	8.82	39.06	51.01	74.00	-22.99	Pk
H	12060.00	23.84	31.88	8.82	39.06	39.84	54.00	-14.16	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampl ifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
Middle Channel:2437MHz									
V	4874.00	49.08	34.08	5.08	32.57	52.65	74.00	-21.35	Pk
V	4874.00	38.52	34.08	5.08	32.57	42.09	54.00	-11.91	AV
V	7311.00	43.15	32.62	6.34	35.95	52.82	74.00	-21.18	Pk
V	7311.00	31.94	32.62	6.34	35.95	41.61	54.00	-12.39	AV
V	9748.00	40.06	32.93	7.58	38.40	53.11	74.00	-20.89	Pk
V	9748.00	34.76	32.93	7.58	38.40	47.81	54.00	-6.19	AV
V	12185.00	42.33	31.97	8.89	39.04	58.29	74.00	-15.71	Pk
V	12185.00	25.66	31.97	8.89	39.04	41.62	54.00	-12.38	AV
H	4874.00	44.75	34.08	5.08	32.57	48.32	74.00	-25.68	Pk
H	4874.00	32.01	34.08	5.08	32.57	35.58	54.00	-18.42	AV
H	7311.00	42.39	32.62	6.34	35.95	52.06	74.00	-21.94	Pk

H	7311.00	30.12	32.62	6.34	35.95	39.79	54.00	-14.21	AV
H	9748.00	43.76	32.93	7.58	38.40	56.81	74.00	-17.19	Pk
H	9748.00	29.04	32.93	7.58	38.40	42.09	54.00	-11.91	AV
H	12185.00	36.06	31.97	8.89	39.04	52.02	74.00	-21.98	Pk
H	12185.00	24.66	31.97	8.89	39.04	40.62	54.00	-13.38	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amp lifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
High Channel:2462MHz									
V	4924.00	48.99	34.05	5.14	32.79	52.87	74.00	-21.13	Pk
V	4924.00	33.51	34.05	5.14	32.79	37.39	54.00	-16.61	AV
V	7386.00	41.09	32.67	6.36	35.99	50.77	74.00	-23.23	Pk
V	7386.00	27.78	32.67	6.36	35.99	37.46	54.00	-16.54	AV
V	9848.00	40.53	32.89	7.59	38.37	53.60	74.00	-20.40	Pk
V	9848.00	28.97	32.89	7.59	38.37	42.04	54.00	-11.96	AV
V	12310.00	34.45	31.88	8.82	39.06	50.45	74.00	-23.55	Pk
V	12310.00	26.99	31.88	8.82	39.06	42.99	54.00	-11.01	AV
H	4924.00	47.17	34.05	5.14	32.79	51.05	74.00	-22.95	Pk
H	4924.00	37.77	34.05	5.14	32.79	41.65	54.00	-12.35	AV
H	7386.00	43.89	32.67	6.36	35.99	53.57	74.00	-20.43	Pk
H	7386.00	27.75	32.67	6.36	35.99	37.43	54.00	-16.57	AV
H	9848.00	37.20	32.89	7.59	38.37	50.27	74.00	-23.73	Pk
H	9848.00	27.10	32.89	7.59	38.37	40.17	54.00	-13.83	AV
H	12310.00	38.60	31.88	8.82	39.06	54.60	74.00	-19.40	Pk
H	12310.00	23.75	31.88	8.82	39.06	39.75	54.00	-14.25	AV

802.11n20

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampl ifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
Low Channel:2412MHz									
V	4824.00	44.45	34.05	5.14	32.79	48.33	74.00	-25.67	Pk
V	4824.00	38.23	34.05	5.14	32.79	42.11	54.00	-11.89	AV
V	7236.00	43.56	32.67	6.36	35.99	53.24	74.00	-20.76	Pk
V	7236.00	28.46	32.67	6.36	35.99	38.14	54.00	-15.86	AV
V	9648.00	39.66	32.89	7.59	38.37	52.73	74.00	-21.27	Pk
V	9648.00	25.57	32.89	7.59	38.37	38.64	54.00	-15.36	AV
V	12060.00	36.09	31.88	8.82	39.06	52.09	74.00	-21.91	Pk
V	12060.00	21.99	31.88	8.82	39.06	37.99	54.00	-16.01	AV
H	4824.00	48.49	34.05	5.14	32.79	52.37	74.00	-21.63	Pk
H	4824.00	33.24	34.05	5.14	32.79	37.12	54.00	-16.88	AV
H	7236.00	38.89	32.67	6.36	35.99	48.57	74.00	-25.43	Pk
H	7236.00	30.70	32.67	6.36	35.99	40.38	54.00	-13.62	AV
H	9648.00	37.47	32.89	7.59	38.37	50.54	74.00	-23.46	Pk
H	9648.00	25.71	32.89	7.59	38.37	38.78	54.00	-15.22	AV
H	12060.00	37.60	31.88	8.82	39.06	53.60	74.00	-20.40	Pk
H	12060.00	24.63	31.88	8.82	39.06	40.63	54.00	-13.37	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampl ifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
Middle Channel:2437MHz									
V	4874.00	48.15	34.08	5.08	32.57	51.72	74.00	-22.28	Pk
V	4874.00	39.85	34.08	5.08	32.57	43.42	54.00	-10.58	AV
V	7311.00	44.30	32.62	6.34	35.95	53.97	74.00	-20.03	Pk
V	7311.00	32.86	32.62	6.34	35.95	42.53	54.00	-11.47	AV
V	9748.00	43.09	32.93	7.58	38.40	56.14	74.00	-17.86	Pk
V	9748.00	35.47	32.93	7.58	38.40	48.52	54.00	-5.48	AV
V	12185.00	41.56	31.97	8.89	39.04	57.52	74.00	-16.48	Pk
V	12185.00	28.48	31.97	8.89	39.04	44.44	54.00	-9.56	AV
H	4874.00	46.43	34.08	5.08	32.57	50.00	74.00	-24.00	Pk
H	4874.00	34.33	34.08	5.08	32.57	37.90	54.00	-16.10	AV
H	7311.00	43.20	32.62	6.34	35.95	52.87	74.00	-21.13	Pk



H	7311.00	30.52	32.62	6.34	35.95	40.19	54.00	-13.81	AV
H	9748.00	45.87	32.93	7.58	38.40	58.92	74.00	-15.08	Pk
H	9748.00	26.29	32.93	7.58	38.40	39.34	54.00	-14.66	AV
H	12185.00	36.87	31.97	8.89	39.04	52.83	74.00	-21.17	Pk
H	12185.00	25.02	31.97	8.89	39.04	40.98	54.00	-13.02	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amp lifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
High Channel:2462MHz									
V	4924.00	47.46	34.05	5.14	32.79	51.34	74.00	-22.66	Pk
V	4924.00	32.20	34.05	5.14	32.79	36.08	54.00	-17.92	AV
V	7386.00	37.99	32.67	6.36	35.99	47.67	74.00	-26.33	Pk
V	7386.00	29.53	32.67	6.36	35.99	39.21	54.00	-14.79	AV
V	9848.00	38.26	32.89	7.59	38.37	51.33	74.00	-22.67	Pk
V	9848.00	30.06	32.89	7.59	38.37	43.13	54.00	-10.87	AV
V	12310.00	34.08	31.88	8.82	39.06	50.08	74.00	-23.92	Pk
V	12310.00	23.59	31.88	8.82	39.06	39.59	54.00	-14.41	AV
H	4924.00	46.37	34.05	5.14	32.79	50.25	74.00	-23.75	Pk
H	4924.00	35.49	34.05	5.14	32.79	39.37	54.00	-14.63	AV
H	7386.00	46.36	32.67	6.36	35.99	56.04	74.00	-17.96	Pk
H	7386.00	28.16	32.67	6.36	35.99	37.84	54.00	-16.16	AV
H	9848.00	38.72	32.89	7.59	38.37	51.79	74.00	-22.21	Pk
H	9848.00	25.42	32.89	7.59	38.37	38.49	54.00	-15.51	AV
H	12310.00	37.31	31.88	8.82	39.06	53.31	74.00	-20.69	Pk
H	12310.00	27.62	31.88	8.82	39.06	43.62	54.00	-10.38	AV

802.11n40

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampl ifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
Low Channel:2422MHz									
V	4844.00	44.05	34.05	5.14	32.79	47.93	74.00	-26.07	Pk
V	4844.00	37.81	34.05	5.14	32.79	41.69	54.00	-12.31	AV
V	7266.00	41.01	32.67	6.36	35.99	50.69	74.00	-23.31	Pk
V	7266.00	28.13	32.67	6.36	35.99	37.81	54.00	-16.19	AV
V	9688.00	37.12	32.89	7.59	38.37	50.19	74.00	-23.81	Pk
V	9688.00	25.43	32.89	7.59	38.37	38.50	54.00	-15.50	AV
V	12110.00	35.41	31.88	8.82	39.06	51.41	74.00	-22.59	Pk
V	12110.00	23.16	31.88	8.82	39.06	39.16	54.00	-14.84	AV
H	4844.00	45.62	34.05	5.14	32.79	49.50	74.00	-24.50	Pk
H	4844.00	35.97	34.05	5.14	32.79	39.85	54.00	-14.15	AV
H	7266.00	41.33	32.67	6.36	35.99	51.01	74.00	-22.99	Pk
H	7266.00	29.27	32.67	6.36	35.99	38.95	54.00	-15.05	AV
H	9688.00	38.85	32.89	7.59	38.37	51.92	74.00	-22.08	Pk
H	9688.00	24.72	32.89	7.59	38.37	37.79	54.00	-16.21	AV
H	12110.00	34.04	31.88	8.82	39.06	50.04	74.00	-23.96	Pk
H	12110.00	28.62	31.88	8.82	39.06	44.62	54.00	-9.38	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampl ifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
Middle Channel:2437MHz									
V	4874.00	47.94	34.08	5.08	32.57	51.51	74.00	-22.49	Pk
V	4874.00	35.36	34.08	5.08	32.57	38.93	54.00	-15.07	AV
V	7311.00	44.80	32.62	6.34	35.95	54.47	74.00	-19.53	Pk
V	7311.00	33.01	32.62	6.34	35.95	42.68	54.00	-11.32	AV
V	9748.00	40.03	32.93	7.58	38.40	53.08	74.00	-20.92	Pk
V	9748.00	33.90	32.93	7.58	38.40	46.95	54.00	-7.05	AV
V	12185.00	43.84	31.97	8.89	39.04	59.80	74.00	-14.20	Pk
V	12185.00	27.61	31.97	8.89	39.04	43.57	54.00	-10.43	AV
H	4874.00	44.94	34.08	5.08	32.57	48.51	74.00	-25.49	Pk
H	4874.00	32.05	34.08	5.08	32.57	35.62	54.00	-18.38	AV
H	7311.00	39.97	32.62	6.34	35.95	49.64	74.00	-24.36	Pk

H	7311.00	29.77	32.62	6.34	35.95	39.44	54.00	-14.56	AV
H	9748.00	46.30	32.93	7.58	38.40	59.35	74.00	-14.65	Pk
H	9748.00	27.46	32.93	7.58	38.40	40.51	54.00	-13.49	AV
H	12185.00	36.09	31.97	8.89	39.04	52.05	74.00	-21.95	Pk
H	12185.00	25.01	31.97	8.89	39.04	40.97	54.00	-13.03	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detect or Type
High Channel:2452MHz									
V	4904.00	48.09	34.05	5.14	32.79	51.97	74.00	-22.03	Pk
V	4904.00	33.47	34.05	5.14	32.79	37.35	54.00	-16.65	AV
V	7356.00	40.63	32.67	6.36	35.99	50.31	74.00	-23.69	Pk
V	7356.00	31.63	32.67	6.36	35.99	41.31	54.00	-12.69	AV
V	9808.00	40.75	32.89	7.59	38.37	53.82	74.00	-20.18	Pk
V	9808.00	25.98	32.89	7.59	38.37	39.05	54.00	-14.95	AV
V	12260.00	37.92	31.88	8.82	39.06	53.92	74.00	-20.08	Pk
V	12260.00	22.52	31.88	8.82	39.06	38.52	54.00	-15.48	AV
H	4904.00	47.48	34.05	5.14	32.79	51.36	74.00	-22.64	Pk
H	4904.00	33.96	34.05	5.14	32.79	37.84	54.00	-16.16	AV
H	7356.00	45.64	32.67	6.36	35.99	55.32	74.00	-18.68	Pk
H	7356.00	28.66	32.67	6.36	35.99	38.34	54.00	-15.66	AV
H	9808.00	39.49	32.89	7.59	38.37	52.56	74.00	-21.44	Pk
H	9808.00	28.74	32.89	7.59	38.37	41.81	54.00	-12.19	AV
H	12260.00	36.43	31.88	8.82	39.06	52.43	74.00	-21.57	Pk
H	12260.00	26.57	31.88	8.82	39.06	42.57	54.00	-11.43	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss - Pre-amplifier,

Margin= Emission Level - Limit

2. If peak below the average limit, the average emission was no test.

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

Radiated Band Emission Measurement:



	Polar (H/V)	Frequen cy (MHz)	Meter Reading (dBuV)	Pre- amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emissi on level (dBuV/ m)	Limit (dBuV/ m)	Margin	Detec tor Type	Result
802.11b		Low Channel 2412MHz									
	H	2390.00	57.89	35.17	3.48	27.49	53.69	74.00	-20.31	Pk	PASS
	H	2390.00	49.52	35.17	3.48	27.49	45.32	54.00	-8.68	AV	PASS
	H	2400.00	60.31	35.16	3.49	27.52	56.16	74.00	-17.84	Pk	PASS
	H	2400.00	49.66	35.16	3.49	27.52	45.51	54.00	-8.49	AV	PASS
	V	2390.00	57.58	35.17	3.48	27.49	53.38	74.00	-20.62	Pk	PASS
	V	2390.00	49.96	35.17	3.48	27.49	45.76	54.00	-8.24	AV	PASS
	V	2400.00	59.51	35.16	3.49	27.52	55.36	74.00	-18.64	Pk	PASS
	V	2400.00	49.53	35.16	3.49	27.52	45.38	54.00	-8.62	AV	PASS
		High Channel 2462MHz									
	H	2483.50	58.06	35.11	3.56	27.75	54.26	74.00	-19.74	Pk	PASS
	H	2483.50	48.65	35.11	3.56	27.75	44.85	54.00	-9.15	AV	PASS
	H	2500.00	59.64	35.10	3.57	27.80	55.91	74.00	-18.09	Pk	PASS
	H	2500.00	49.72	35.10	3.57	27.80	45.99	54.00	-8.01	AV	PASS
	V	2483.50	58.20	35.11	3.56	27.75	54.40	74.00	-19.6	Pk	PASS
	V	2483.50	49.60	35.11	3.56	27.75	45.80	54.00	-8.20	AV	PASS
	V	2500.00	58.40	35.10	3.57	27.80	54.67	74.00	-19.33	Pk	PASS
	V	2500.00	50.33	35.10	3.57	27.80	46.60	54.00	-7.40	AV	PASS
802.11g		Low Channel 2412MHz									
	H	2390.00	57.44	35.17	3.48	27.49	53.24	74.00	-20.76	Pk	PASS
	H	2390.00	50.04	35.17	3.48	27.49	45.84	54.00	-8.16	AV	PASS
	H	2400.00	60.26	35.16	3.49	27.52	56.11	74.00	-17.89	Pk	PASS
	H	2400.00	49.42	35.16	3.49	27.52	45.27	54.00	-8.73	AV	PASS
	V	2390.00	57.82	35.17	3.48	27.49	53.62	74.00	-20.38	Pk	PASS
	V	2390.00	50.50	35.17	3.48	27.49	46.30	54.00	-7.70	AV	PASS
	V	2400.00	59.46	35.16	3.49	27.52	55.31	74.00	-18.69	Pk	PASS
	V	2400.00	50.05	35.16	3.49	27.52	45.90	54.00	-8.10	AV	PASS
		High Channel 2462MHz									
	H	2483.50	57.81	35.11	3.56	27.75	54.01	74.00	-19.99	Pk	PASS
	H	2483.50	48.80	35.11	3.56	27.75	45.00	54.00	-9	AV	PASS
	H	2500.00	59.32	35.10	3.57	27.80	55.59	74.00	-18.41	Pk	PASS
	H	2500.00	50.06	35.10	3.57	27.80	46.33	54.00	-7.67	AV	PASS

	V	2483.50	58.65	35.11	3.56	27.75	54.85	74.00	-19.15	Pk	PASS
	V	2483.50	49.56	35.11	3.56	27.75	45.76	54.00	-8.24	AV	PASS
	V	2500.00	58.34	35.10	3.57	27.80	54.61	74.00	-19.39	Pk	PASS
	V	2500.00	50.36	35.10	3.57	27.80	46.63	54.00	-7.37	AV	PASS
802.11 n20	Low Channel 2412MHz										
	H	2390.00	57.93	35.17	3.48	27.49	53.73	74.00	-20.27	Pk	PASS
	H	2390.00	49.83	35.17	3.48	27.49	45.63	54.00	-8.37	AV	PASS
	H	2400.00	60.36	35.16	3.49	27.52	56.21	74.00	-17.79	Pk	PASS
	H	2400.00	49.72	35.16	3.49	27.52	45.57	54.00	-8.43	AV	PASS
	V	2390.00	57.59	35.17	3.48	27.49	53.39	74.00	-20.61	Pk	PASS
	V	2390.00	50.01	35.17	3.48	27.49	45.81	54.00	-8.19	AV	PASS
	V	2400.00	59.28	35.16	3.49	27.52	55.13	74.00	-18.87	Pk	PASS
	V	2400.00	49.90	35.16	3.49	27.52	45.75	54.00	-8.25	AV	PASS
	High Channel 2462MHz										
	H	2483.50	57.96	35.11	3.56	27.75	54.16	74.00	-19.84	Pk	PASS
	H	2483.50	48.74	35.11	3.56	27.75	44.94	54.00	-9.06	AV	PASS
	H	2500.00	59.64	35.10	3.57	27.80	55.91	74.00	-18.09	Pk	PASS
	H	2500.00	50.02	35.10	3.57	27.80	46.29	54.00	-7.71	AV	PASS
	V	2483.50	58.30	35.11	3.56	27.75	54.50	74.00	-19.5	Pk	PASS
	V	2483.50	49.76	35.11	3.56	27.75	45.96	54.00	-8.04	AV	PASS
	V	2500.00	58.28	35.10	3.57	27.80	54.55	74.00	-19.45	Pk	PASS
	V	2500.00	50.47	35.10	3.57	27.80	46.74	54.00	-7.26	AV	PASS
Remark: 1. Emission Level = Meter Reading + Antenna Factor + Cable Loss - Pre-amplifier, Margin= Emission Level - Limit 2. If peak below the average limit, the average emission was no test. 3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.											

4. Conducted Spurious Emissions

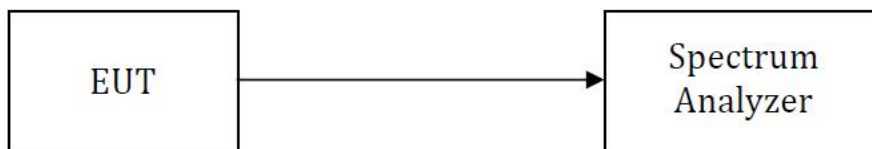
4.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247
Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;
ANSI C63.10-2020+Cor.1-2023
Test Result: PASS

Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, 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) (see Section 15.205(c)).

4.2.Test Setup



4.3.Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
 2. Set the spectrum analyzer:
 - a) Set instrument center frequency to DTS channel center frequency.
 - b) Set the span to ≈ 1.5 times the DTS bandwidth.
 - c) Set the RBW = 100 kHz.
 - d) Set the VBW $\approx [3 \times \text{RBW}]$.
 - e) Detector = peak.
 - f) Sweep time = auto couple.
 - g) Trace mode = max hold.
 - h) Allow trace to fully stabilize.
 - i) Use the peak marker function to determine the maximum PSD level.
- Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

4.4.Test Result

Please see the attachment for data.

5. Band Edge Measurement

5.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02;

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

Test Limit: Regulation 15.247 (d), in any 100 kHz bandwidth outside the frequency band which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Mode: Transmitting

5.2.Test setup



5.3.Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

5.4.Test Result

Please see the attachment for data.

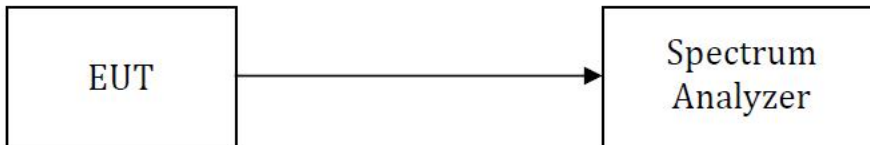
6. -6 dB Bandwidth and 99% Bandwidth Measurement

6.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02; ANSI C63.10-2020+Cor.1-2023

6.2.Test Setup



6.3.Test Procedure

For 6dB Bandwidth Measurement

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 1%-5% OBW, VBW $\geq$ 3RBW

For 99% Bandwidth Measurement

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 1%-5% OBW, VBW $\geq$ 3RBW

6.4.Test Result

Please see the attachment for data.

7. Maximum Output Power& E.I.R.P

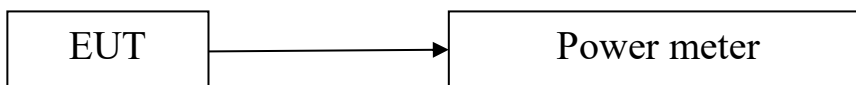
7.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02; ANSI C63.10-2020+Cor.1-2023

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Output Power	1 watt or 30dBm	2400-2483.5	PASS

7.2.Test Setup



7.3.Test Procedure

1. The RF output of EUT was connected to the Power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. Measure the output power and record the results in the test report.

7.4.Test Result

Please see the attachment for data.

8. Power Spectral density

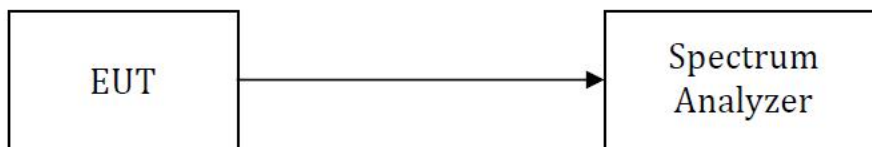
8.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247

Test Method: KDB 558074 D01 15.247 Meas Guidance v05r02; ANSI C63.10-2020+Cor.1-2023

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247	Power Spectral Density	8dBm/3kHz	2400-2483.5	PASS

8.2.Test Setup



8.3.Test Procedure

KDB 558074 D01 15.247 Meas Guidance v05r02;

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set instrument center frequency to DTS channel center frequency
3. Set span to > 1.5 times the OBW.
4. Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
5. Set VBW $\geq [3 \times \text{RBW}]$
6. Detector = power averaging (rms) or sample detector (when rms not available).
7. Ensure that the number of measurement points in the sweep $\geq [2 \times \text{span} / \text{RBW}]$.
8. Sweep time = auto couple.
9. Employ trace averaging (rms) mode over a minimum of 100 traces.
10. Use the peak marker function to determine the maximum amplitude level.
11. If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat(note that this might require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).
12. Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The limit is specified in one of the subparagraphs of this Section Submit this plot.

8.4.Test Result

Please see the attachment for data.

9. Antenna Requirement

According to the FCC Part 15 Paragraph 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. This product has an integrated antenna fulfill the requirement of this section.



10. Test Photographs

Please see Attachment BKC25093855JE-2.

11. Appendix I: Photos of the EUT

Please see Attachment BKC25093855JE-3 and BKC25093855JE-4.

