



RF TEST REPORT

Report No.: SHATBL2601003W08

Applicant : Shenzhen DOOGEE Hengtong Technology CO.,LTD

Product Name : Smart Phone

Brand Name : DOOGEE

Model Name : B10

Series Model : B10 Pro,B10 Plus,B10 Max,B10 Pro Max,B10 Ultra,
B10 Power,B10 SE,B10 Lite,B10 Turbo,B20,B20 Pro,
B20 Plus,B20 Max,B20 Ultra

FCC ID : 2AX4YB10

Test Standard : FCC Part 15 Subpart C §15.225

Date of Sample Arrival : Dec.23, 2025

Date of Test : Dec.30, 2025~Jan.13, 2026

Issue Date : Jan.14, 2026

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REVISION HISTORY

Rev.	Issue Date	Report No.	Effect Page	Contents
00	Jan.14, 2026	SHATBL2601003W08	ALL	Initial Release

DECLARATION OF REPORT

1. The device has been tested by ATBL, and the test results show that the equipment under test (EUT) is in compliance with the requirements of FCC Part 15 Subpart C §15.225. And it is applicable only to the tested sample identified in the report.

2. This report shall not be reproduced except in full, without the written approval of ATBL, this document only be altered or revised by ATBL, personal only, and shall be noted in the revision of the document.

3. The general information of EUT in this report is provided by the customer or manufacture, ATBL is only responsible for the test data but not for the information provided by the customer or manufacture.

4. The results in this report is only apply to the sample as tested under conditions. The customer or manufacturer is responsible for ensuring that the additional production units of this model have the same electrical and mechanical components.

1 Test Summary

1.1 Test Standards

The tests were performed according to following standards:

No.	Identity	Document Title
1	FCC 47 CFR Part 2	Frequency allocations and radio treaty matters; general rules and regulations
2	FCC 47 CFR Part 15	Radio Frequency Devices
3	ANSI C63.10-2020	American National Standard for Testing Unlicensed Wireless Devices

1.2 Requirements for antennas

Standard 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 antennathat uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a brokenantenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.
EUT Antenna: The non-detachable antenna inside the device cannot be replaced by the user at will. The gain of the antenna is 0dBi.

1.2 Test Items And The Results

No.	Basic Standard	Description Of Test	Test Mode	Result
1	§15.203	Antenna Equipment	TX	Pass
2	15.225(a)(b)(c)	Field Strength of Fundamental	TX	Pass
3	§15.209	Radiated Emission	TX	Pass
4	§15.215(c)	20dB Bandwidth	TX	Pass
5	§15.205(a)	Restricted Bands of Operation	TX	Pass
6	§15.225(e)	Frequency Stability	TX	Pass
7	§15.207	AC Power Line Conducted Emission	TX	Pass

Note: 1.N/A means not applicable.

1.3 Description of test mode

Summary table of Test Cases	
Test Item	Sepecification / Modulation
	NFC/ ASK
Radiated&Conducted Test Cases	Mode 1: NFC Tx _13.56 MHz
AC Conducted Emission	Mode 2: NFC Link+Changer(by adapter)

Note:

1. Only the result of the worst case was recorded in the report, if no other cases.
2. The battery is full-charged during the test.
3. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
4. For Conducted Test method, a temporary antenna connector is provided by the manufacture.

1.4 Statement of the measurement uncertainty

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

Item	Measurement Uncertainty
Uncertainty of Conducted Emission for AC Port	$U_c = \pm 3.1 \text{ dB}$
Uncertainty of Radiated Emission below 150kHz	$U_c = \pm 4.2 \text{ dB}$
Uncertainty of Radiated Emission below 30MHz	$U_c = \pm 3.8 \text{ dB}$
Uncertainty of Radiated Emission below 1GHz	$U_c = \pm 4.0 \text{ dB}$
Uncertainty of total RF power, conducted	$U_c = \pm 0.8 \text{ dB}$
Uncertainty of RF power density, conducted	$U_c = \pm 2.6 \text{ dB}$
Uncertainty of spurious emissions, conducted	$U_c = \pm 2 \%$
Uncertainty of Occupied Channel Bandwidth	$U_c = \pm 2 \%$

1.5 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature	Normal Temperature	25°C
	High Temperature	50°C
	Low Temperature	-20°C
Voltage	Normal Voltage	3.84V
	High Voltage	4.224V
	Low Voltage	3.456V
Other	Relative Humidity	56 %
	Air Pressure	100 kPa

2 General Information

2.1 Applicant

Name : Shenzhen DOOGEE Hengtong Technology CO.,LTD
Address : B, 2/F, Building A4, Silicon Valley Power Digital Industrial Park, No.22,Longhua New District Shenzhen China

2.2 Manufacturer

Name : Shenzhen DOOGEE Hengtong Technology CO.,LTD
Address : B, 2/F, Building A4, Silicon Valley Power Digital Industrial Park, No.22,Longhua New District Shenzhen China

2.3 Factory

Name : Shenzhen DOOGEE Hengtong Technology CO.,LTD
Address : B, 2/F, Building A4, Silicon Valley Power Digital Industrial Park, No.22,Longhua New District Shenzhen China

2.4 Test Facility

Company Name	:	Shanghai ATBL Technology Co., Ltd.
Address	:	Building 8, No. 160, Basheng Road, Waigaoqiao Free Trade Zone, Pudong New Area, Shanghai
Telephone	:	+86(0)21-51298625
FCC-Registration Number:	:	485917
Designation Number:	:	CN1306
A2LA-Lab Cert. No.:	:	6184.01
ISED Designation Number:	:	27371

2.5 EUT Information

Equipment Name:	Smart Phone
Model Name:	B10
Series Model:	B10 Pro,B10 Plus,B10 Max,B10 Pro Max,B10 Ultra,B10 Power, B10 SE,B10 Lite,B10 Turbo,B20,B20 Pro,B20 Plus,B20 Max, B20 Ultra
Difference of Model:	Only the model name, appearance color, and memory different.
Power supply:	DC 3.84V
Adapter	Input:AC100-240V~50/60Hz 0.7A Max Output:5.0V=3.0A 15.0W;9.0V=3.0A 27.0W;12.0V=2.5A 30.0W; 15.0V=2.0A 30.0W;20.0V=1.5A 30.0W PPS:5.0V-11.0V=3.0A 33.0W 20.0V=1.5A 30.0W Power:33.0W Max
Battery	DC 3.84V 7600mAh
Hardware Version:	G13U_MB_V1.0.1_20251126
Software Version:	DOOGEE-B10-EEA-Android16.0_20260112_user
Permitted Range Of Operating Frequency:	13,553 MHz to 13,567 MHz
Operation frequency:	13.56MHz
Modulation:	ASK
NFC Out Power(ERP)	0.00000402 mW
Number of Channels:	1 Channel
Antenna Gain	0dBi
Antenna Type:	PIFA Antenna
Receiver category	3
Product Class:	1
Equipment type:	Tagging systems

2.6 Measurement Instruments List

For Conducted test

Kind of Equipment	Manufacturer	Type No.	Serial No.	equipment number	Calibrated until	Calibrated due until	Cal. Interval
Power sensor	DARE	RPR3006W	16I00054SN016	SHATBL-W008	2025.07.28	2026.07.27	1 year
Adjustable Attenuator	Agilent	8494B	MY42144015	SHATBL-W009	2025.07.28	2026.07.27	1 year
Adjustable Attenuator	Agilent	8496B	MY42143776	SHATBL-W010	2025.07.28	2026.07.27	1 year
Environmental Test Chamber	KSON	THS-B6C-150	9159K	SHATBL-W019	2025.03.17	2026.03.16	1 year
Signal analyzer	Keysight	N9020A	MY50510136	SHATBL-W003	2025.07.18	2026.07.17	1 year
Vector signal generator	Agilent	N5182A	MY48180764	SHATBL-W043	2025.07.18	2026.07.17	1 year
Analog signal generator	Keysight	N5182B	MY57300196	SHATBL-W005	2025.07.18	2026.07.17	1 year
Wideband radio communication tester	R&S	CMW500	101331	SHATBL-W007	2025.07.28	2026.07.27	1 year
Switch Box	Cesheng	smu 1003	WCS20221215	SHATBL-W046	2025.03.19	2026.03.18	1 year
Thermometer	DeLi	N/A	N/A	SHATBL-W011	2025.08.01	2026.07.31	1 year
Test Software	Cesheng	WCS-WC N	N/A	SHATBL-W021	N/A	N/A	N/A

For Radiated Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	equipment number	Calibrated until	Calibrated due until	Cal. Interval
Signal analyzer	Agilent	N9020A	MY50200811	SHATBL-E017	2025.03.17	2026.03.16	1 year
Amplifier	JPT	JPA0118-55-303A	1910001800055000	SHATBL-E006	2025.03.24	2026.03.23	1 year
Amplifier	JPT	JPA-10M1G32	21010100035001	SHATBL-E005	2025.03.17	2026.03.16	1 year
Antenna/Turn table Controller	Brilliant	N/A	N/A	SHATBL-E007	N/A	N/A	N/A
Loop Antenna(9kHz-30 MHz)	Daze	ZN30900C	20077	SHATBL-E042	2025.05.13	2026.05.12	1 year
Bilog Antenna	SCHWARZBECK	VULB 9168	01174	SHATBL-E008	2025.05.20	2026.05.19	1 year
Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120D	02334	SHATBL-E009	2025.05.20	2026.05.19	1 year
Horn Antenna	COM-POWER	AH-1840	10100008	SHATBL-E043	2025.07.27	2026.07.26	1 year
Thermometer	DeLi	N/A	N/A	SHATBL-E015	2025.08.01	2026.07.31	1 year
Test Software	FALA	EMC-RI(Ver.4A2)	N/A	N/A	N/A	N/A	N/A
Wideband radio communication tester	R&S	CMW500	101331	SHATBL-W044	2025.07.28	2026.07.27	1 year
Spectrum analyzer	R&S	FSV40-N	101761	SHATBL-W036	2025.07.28	2026.07.27	1 year

3 Test Items and Results

3.1 Field Strength of Fundamental

Provisions Applicable

Rules and specifications	FCC CFR 47 Part 15 section 15.225			
Description	Compliance with the spectrum mask is tested with RBW set to 9kHz.			
Freq. of Emission (MHz)	Field Strength (μV/m) at 30m	Field Strength (dBμV/m) at 30m	Field Strength (dBμV/m) at 10m	Field Strength (dBμV/m) at 3m
1.705~13.110	30	29.5	48.58	69.5
13.110~13.410	106	40.5	59.58	80.5
13.410~13.553	334	50.5	69.58	90.5
13.553~13.567	15848	84.0	103.08	124.0
13.567~13.710	334	50.5	69.58	90.5
13.710~14.010	106	40.5	59.58	80.5
14.010~30.000	30	29.5	48.58	69.5

Test Procedure

- 1.The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2.Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3.The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4.For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5.Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6.For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7.When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8.If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not

have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.

9.For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

10.In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

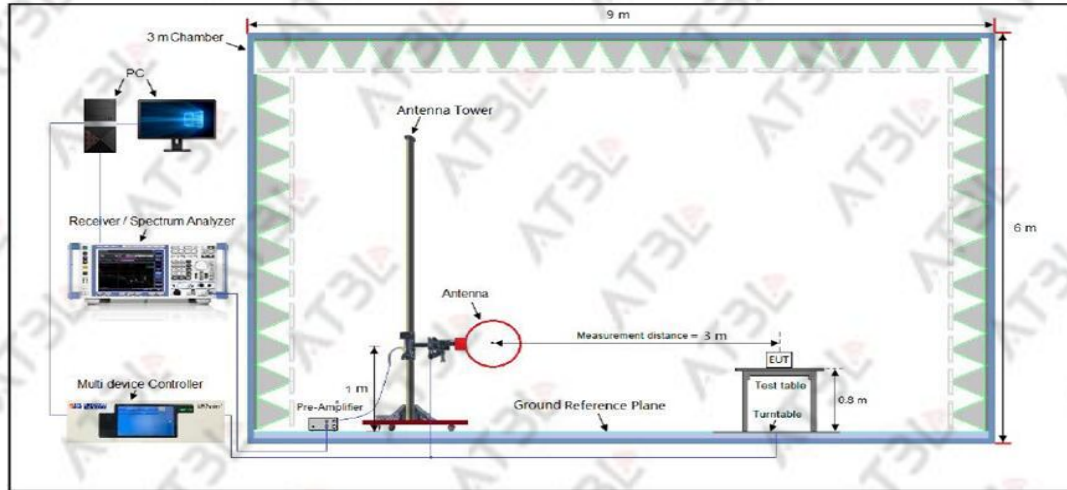
The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP
Start ~Stop Frequency	1GHz~26.5GHz 1MHz/3MHz for Peak, 1MHz/3MHz for Average

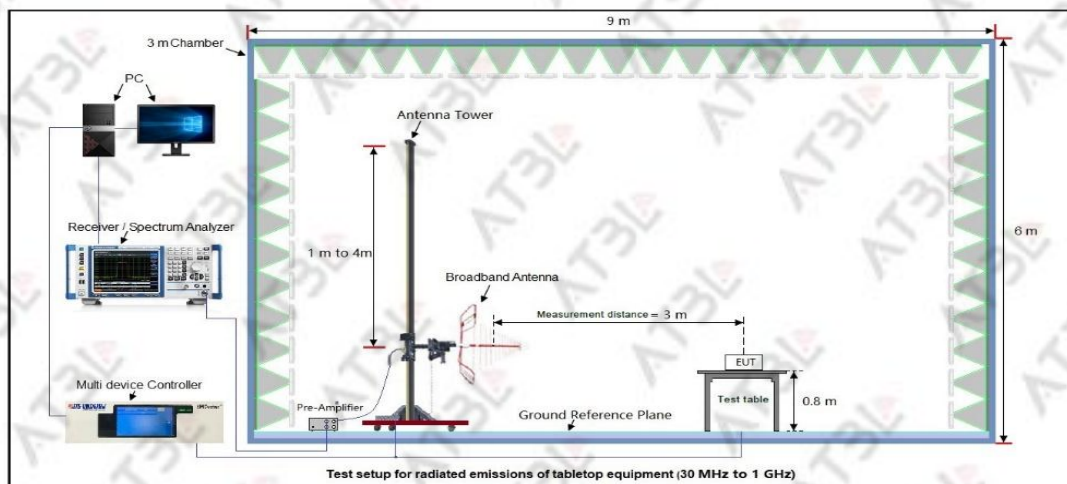
Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP

Test Setup(Block Diagram of Configuration)

RADIATED EMISSION TEST SETUP 9KHz-30MHz

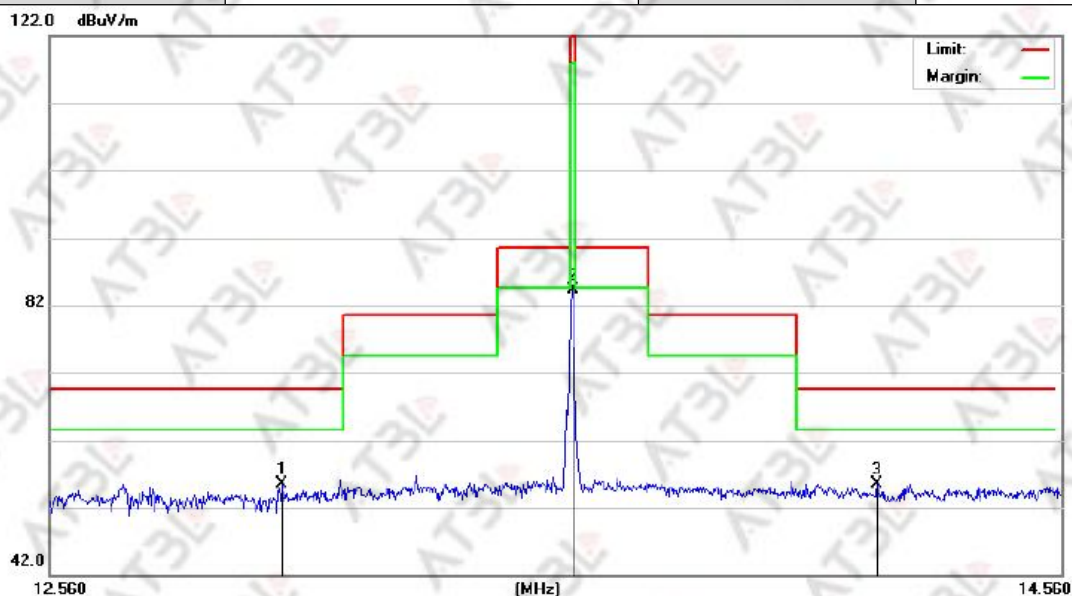


RADIATED EMISSION TEST SETUP 30MHz-1000MHz



Test Results

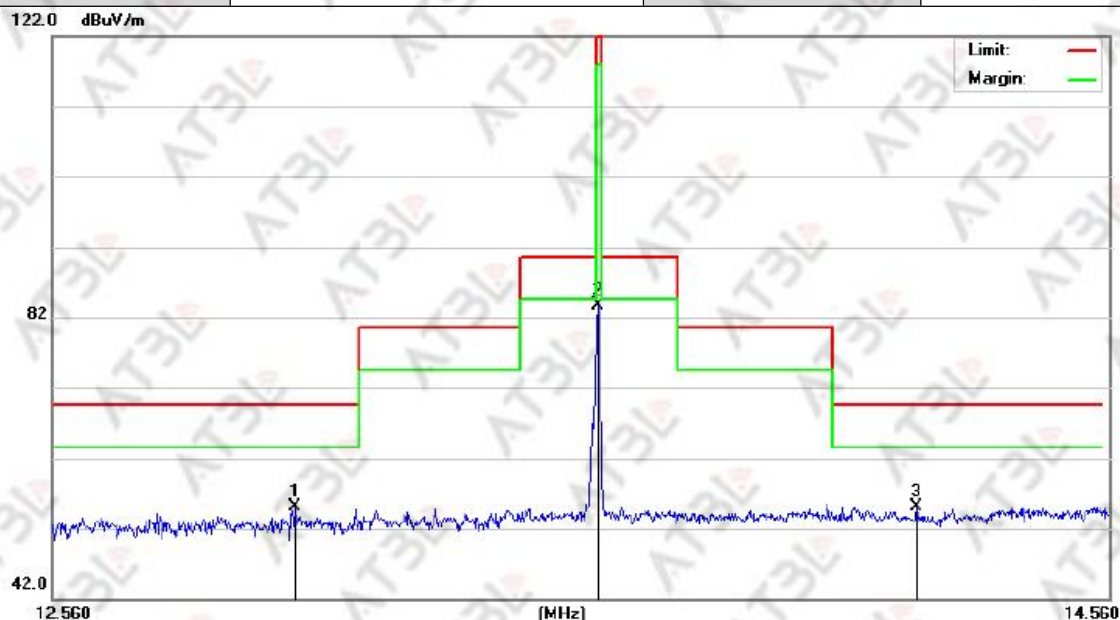
EUT	Smart Phone	Model Name	B10
Temperature	22°C	Relative Humidity	52%
Pressure	102hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Face



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	12.9960	0.97	54.60	55.57	69.50	-13.93	peak
2		13.5600	29.70	54.64	84.34	124.0	-39.66	peak
3		14.1740	0.87	54.68	55.55	69.50	-13.95	peak

Results: Pass

EUT	Smart Phone	Model Name	B10
Temperature	22°C	Relative Humidity	52%
Pressure	102hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Side



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		MHz	Level	Factor	ment			
			dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	12.9960	0.47	54.60	55.07	69.50	-14.43	peak
2		13.5579	29.08	54.64	83.72	124.0	-40.28	peak
3		14.1739	0.37	54.68	55.05	69.50	-14.45	peak

Results: Pass



3.2 Radiated Emission

Limit

According to 15.35, on any frequency or frequencies below or equal to 1000 MHz, the limits Shown are based on measuring equipment employing a CISPR quasi-peak detector function and related measurement bandwidths, 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.

The field strength of any emissions which appear outside of 13.110 ~14.010MHz band shall not exceed the general radiated emissions limits.

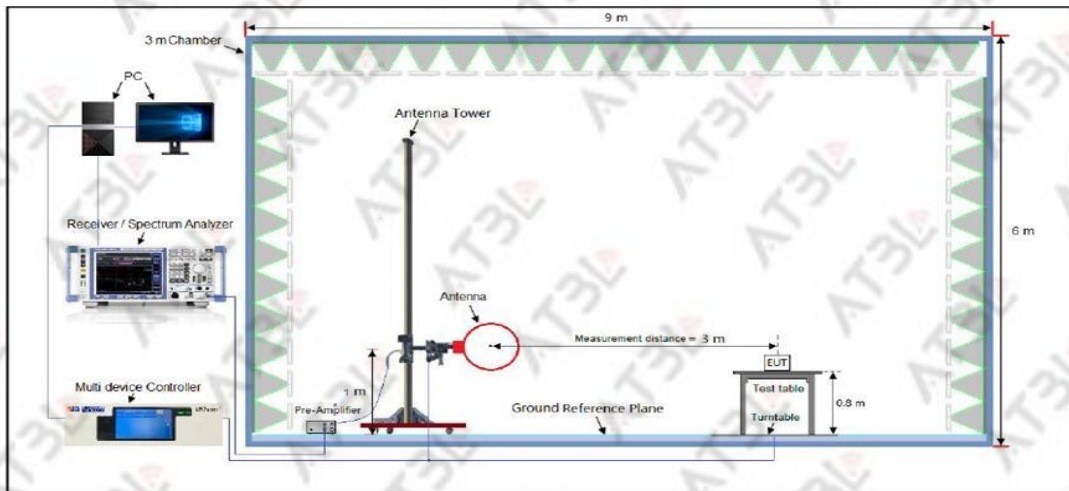
15.209 Limit in the below table has to be followed:

Frequency (MHz)	Distance Meters	Field Strengths Limit	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
0.009 ~ 0.490	300	$2400/\text{F}(\text{kHz})$	---
0.490 ~ 1.705	30	$24000/\text{F}(\text{kHz})$	---
1.705 ~ 30	30	30	---
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	
Remark: (1) Emission level $\text{dB}\mu\text{V} = 20 \log$ Emission level $\mu\text{V/m}$ (2) The smaller limit shall apply at the cross point between two frequency bands. (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.			

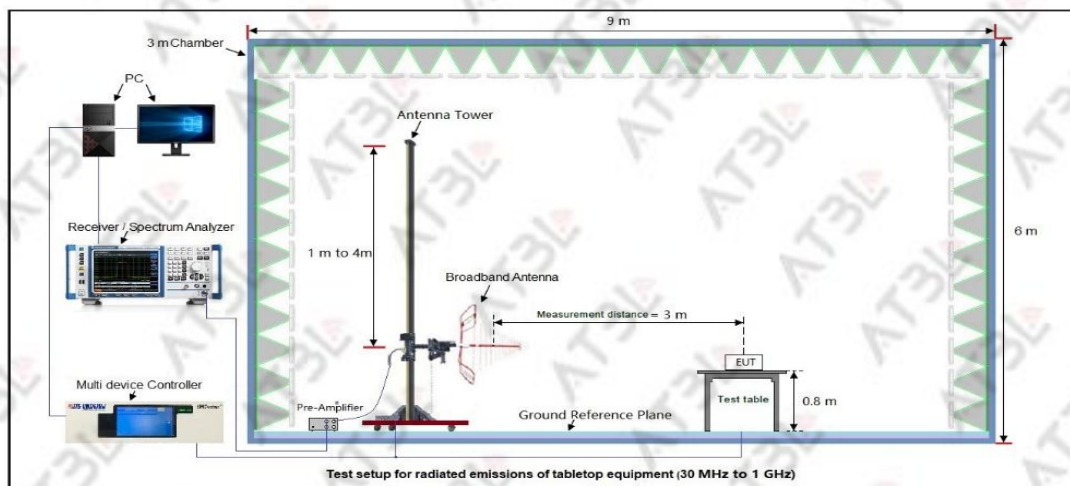
Note: All modes were tested for restricted band radiated emission, the test records reported below are the worst result compared to other modes.

Test Setup:

RADIATED EMISSION TEST SETUP 9KHz-30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



Test Procedure

1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

The following table is the setting of spectrum analyzer and receiver.

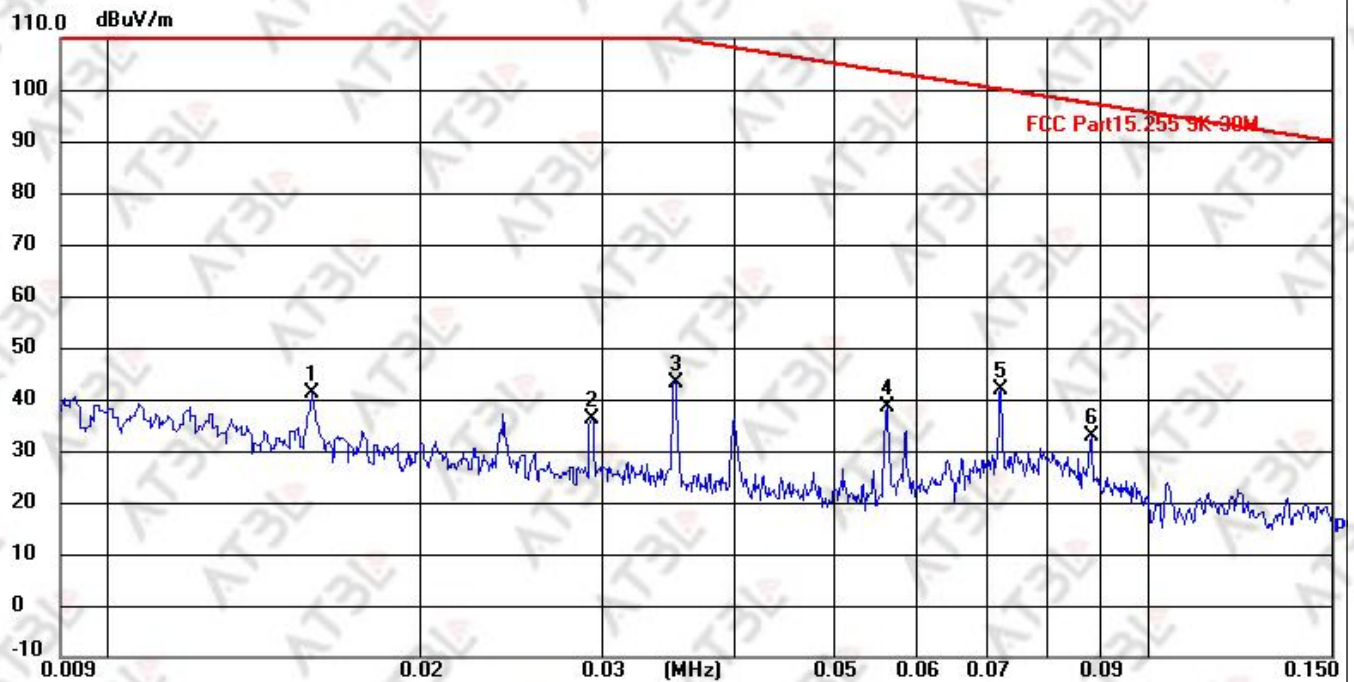
Spectrum Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP
Start ~Stop Frequency	1GHz~26.5GHz 1MHz/3MHz for Peak, 1MHz/3MHz for Average

Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP

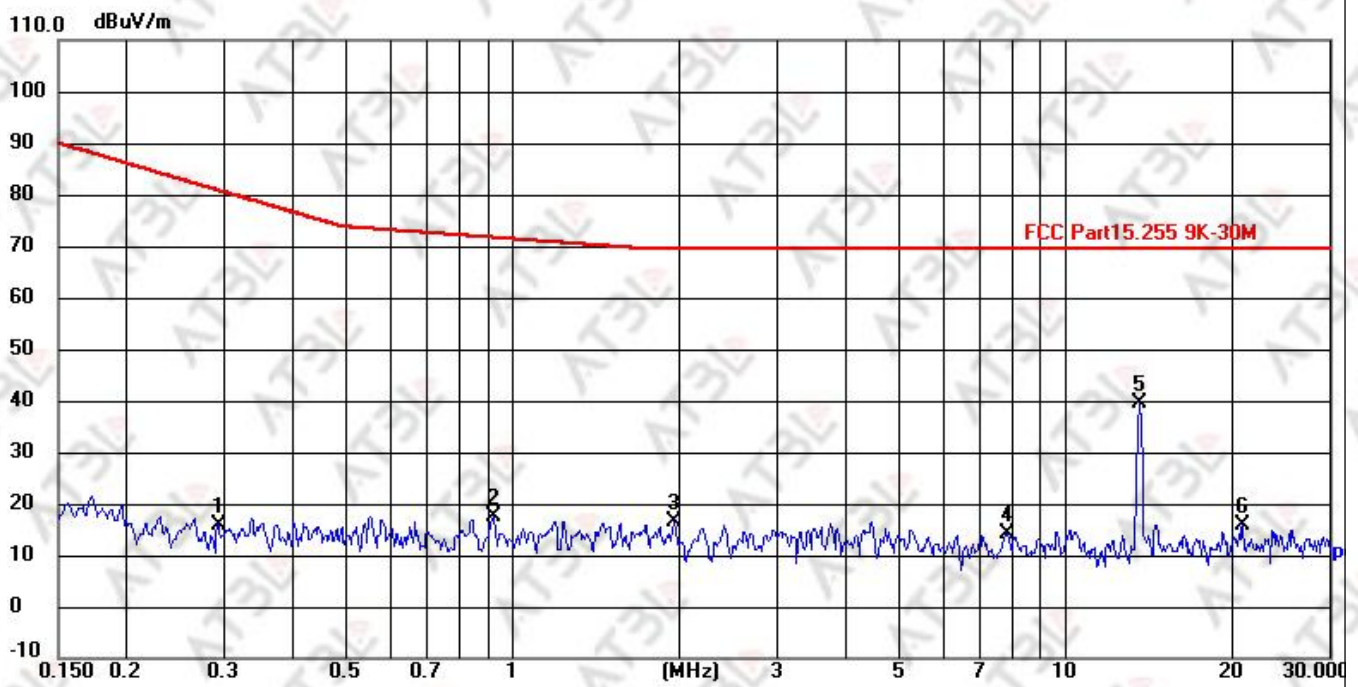
Test Results

RADIATED EMISSION For 30MHz Below

EUT	Smart Phone	Model Name	B10
Temperature	22°C	Relative Humidity	52%
Pressure	102hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	0.015700	7.44	33.87	41.31	120.90	-79.59	peak
2	0.029100	7.20	28.83	36.03	112.45	-76.42	peak
3	0.035100	15.69	27.47	43.16	109.89	-66.73	peak
4	0.056000	13.06	25.56	38.62	103.49	-64.87	peak
5 *	0.072100	13.33	28.57	41.90	100.03	-58.13	peak
6	0.088100	5.76	27.12	32.88	97.29	-64.41	peak

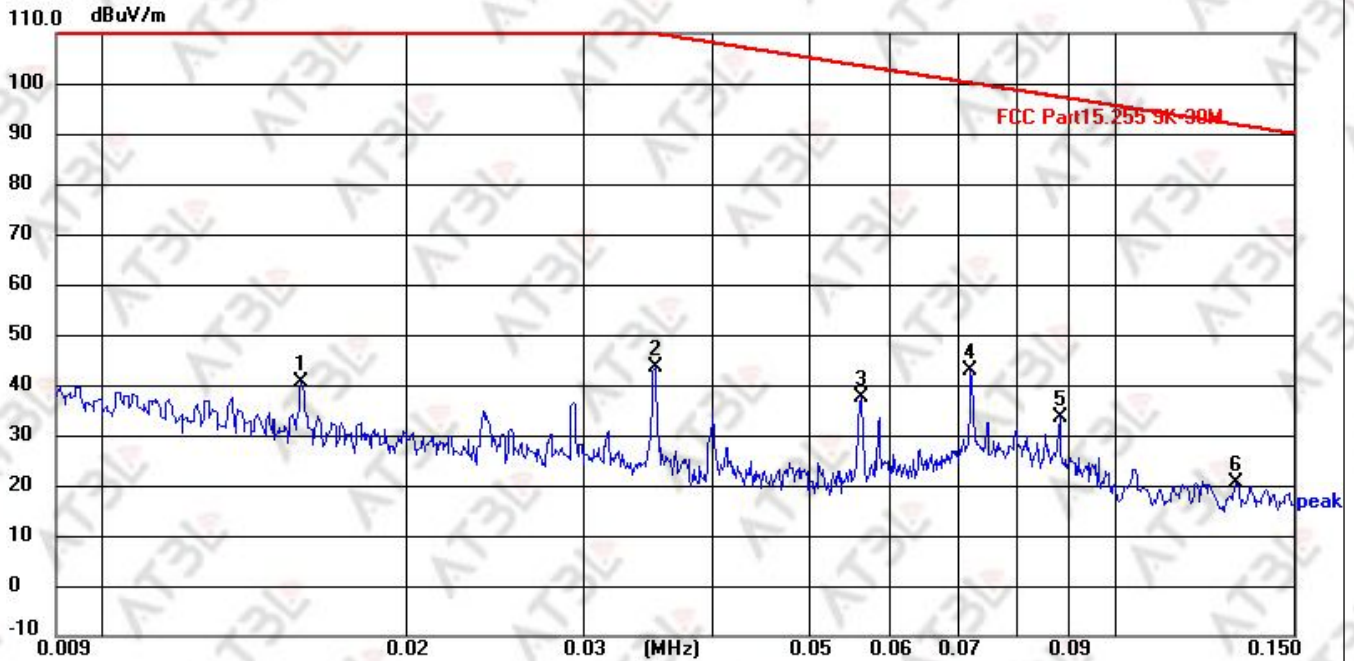


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	0.292	-5.91	21.79	15.88	80.89	-65.01	peak
2	0.918	-4.12	21.76	17.64	71.66	-54.02	peak
3	1.959	-5.27	21.61	16.34	69.54	-53.20	peak
4	7.810	-5.67	19.96	14.29	69.54	-55.25	peak
5 *	13.623	19.77	19.70	39.47	69.54	-30.07	peak
6	20.924	-4.13	19.93	15.80	69.54	-53.74	peak

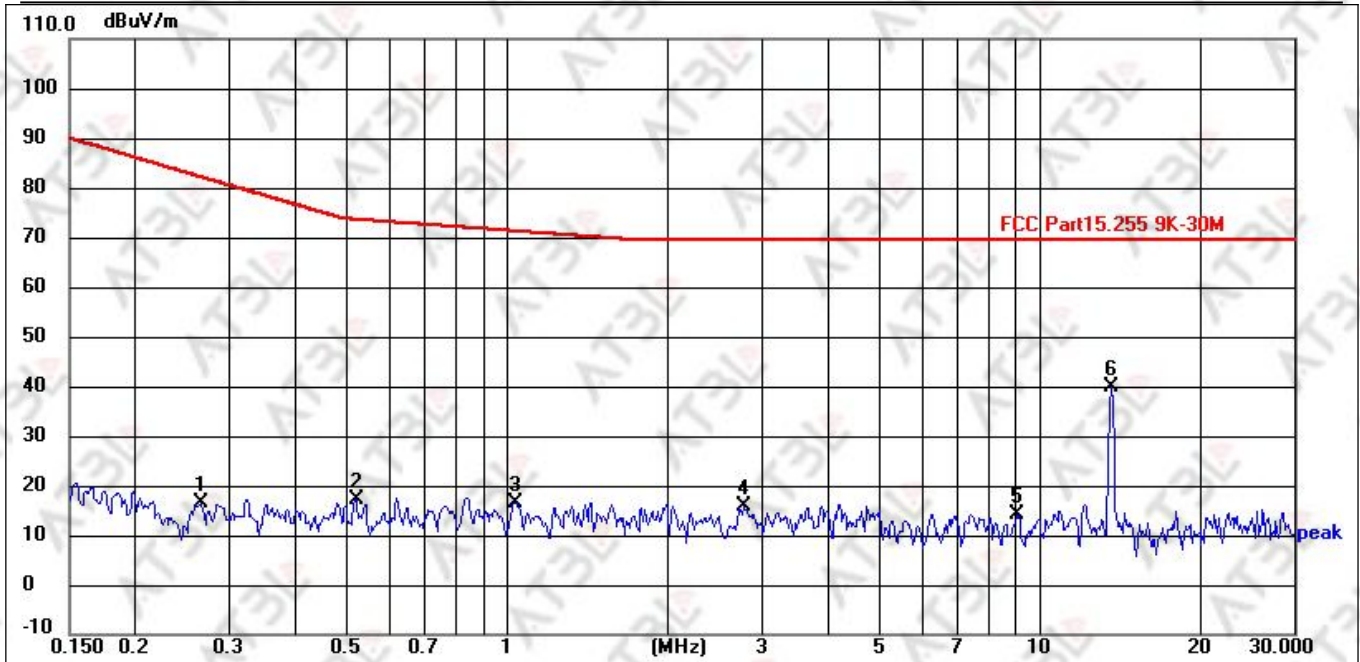
Result: PASS

RADIATED EMISSION For 30MHz Below

EUT	Smart Phone	Model Name	B10
Temperature	22°C	Relative Humidity	52%
Pressure	102hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	0.015700	6.79	33.87	40.66	120.90	-80.24	peak
2	0.035100	15.93	27.47	43.40	109.89	-66.49	peak
3	0.056100	11.85	25.58	37.43	103.47	-66.04	peak
4 *	0.071900	14.30	28.53	42.83	100.07	-57.24	peak
5	0.088100	6.54	27.12	33.66	97.29	-63.63	peak
6	0.131700	-2.14	22.68	20.54	91.79	-71.25	peak

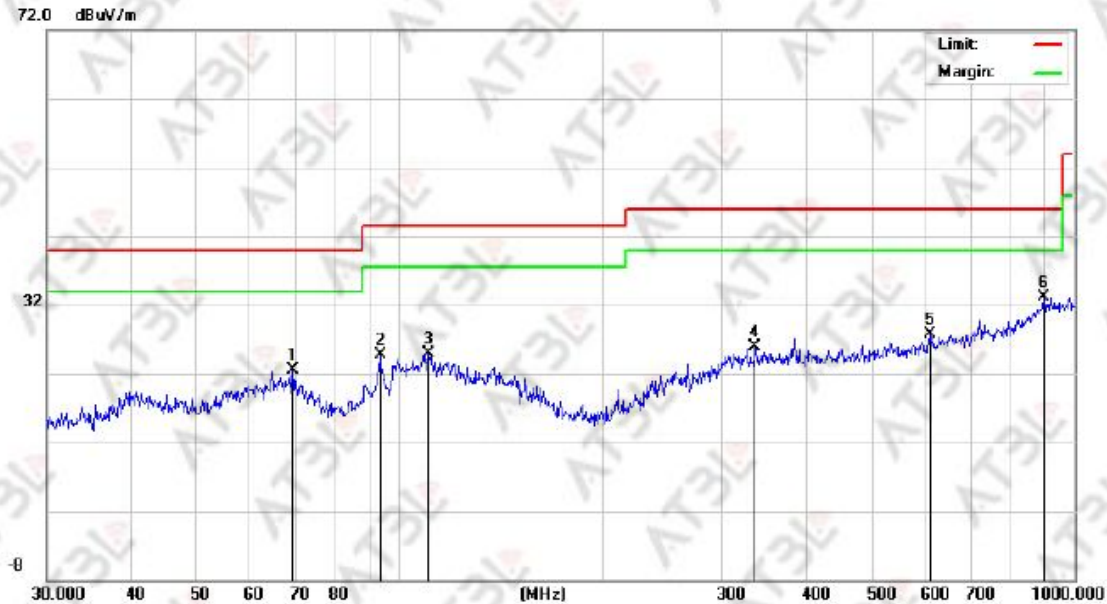


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	0.264	-5.49	21.95	16.46	82.27	-65.81	peak
2	0.518	-4.34	21.66	17.32	73.61	-56.29	peak
3	1.032	-5.25	21.77	16.52	71.26	-54.74	peak
4	2.779	-5.66	21.60	15.94	69.54	-53.60	peak
5	9.059	-5.89	19.99	14.10	69.54	-55.44	peak
6 *	13.623	20.30	19.70	40.00	69.54	-29.54	peak

Result: PASS

RADIATED EMISSION FROM 30MHz ~1000MHz

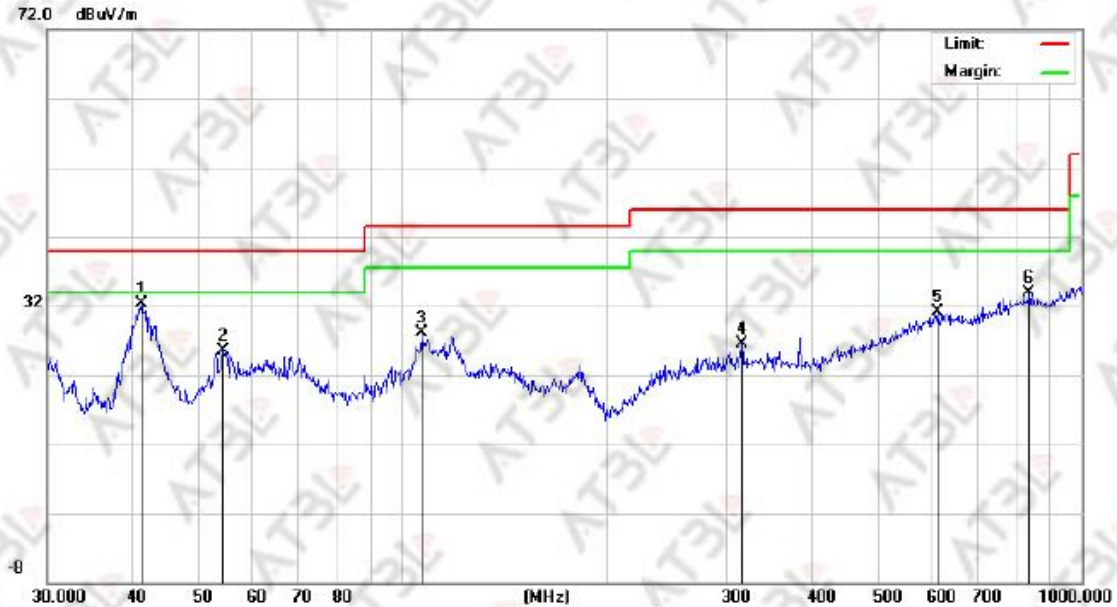
EUT	Smart Phone	Model Name	B10
Temperature	22°C	Relative Humidity	52%
Pressure	102hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		69.3568	5.36	17.07	22.43	40.00	-17.57	peak
2		93.4402	9.82	14.87	24.69	43.50	-18.81	peak
3		110.1816	8.63	16.35	24.98	43.50	-18.52	peak
4		336.0352	5.29	20.53	25.82	46.00	-20.18	peak
5		609.9217	5.68	22.07	27.75	46.00	-18.25	peak
6	*	900.1474	5.14	27.87	33.01	46.00	-12.99	peak

Result: PASS

EUT	Smart Phone	Model Name	B10
Temperature	22°C	Relative Humidity	52%
Pressure	102hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	41.2765	17.41	14.87	32.28	40.00	-7.72	peak
2		54.4516	10.59	14.93	25.52	40.00	-14.48	peak
3		106.7587	13.37	14.69	28.06	43.50	-15.44	peak
4		315.4808	7.09	19.39	26.48	46.00	-19.52	peak
5		612.0642	6.05	24.97	31.02	46.00	-14.98	peak
6		836.2443	6.47	27.49	33.96	46.00	-12.04	peak

Result: PASS

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

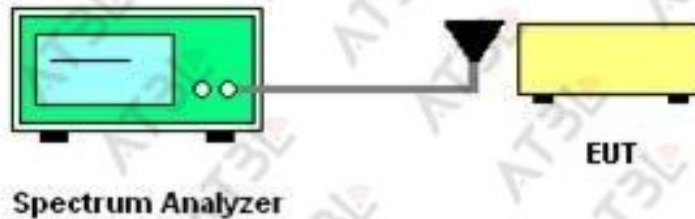
2. All test modes had been pre-tested. The mode 1 is the worst case and recorded in the report.

3.3 20 dB Bandwidth

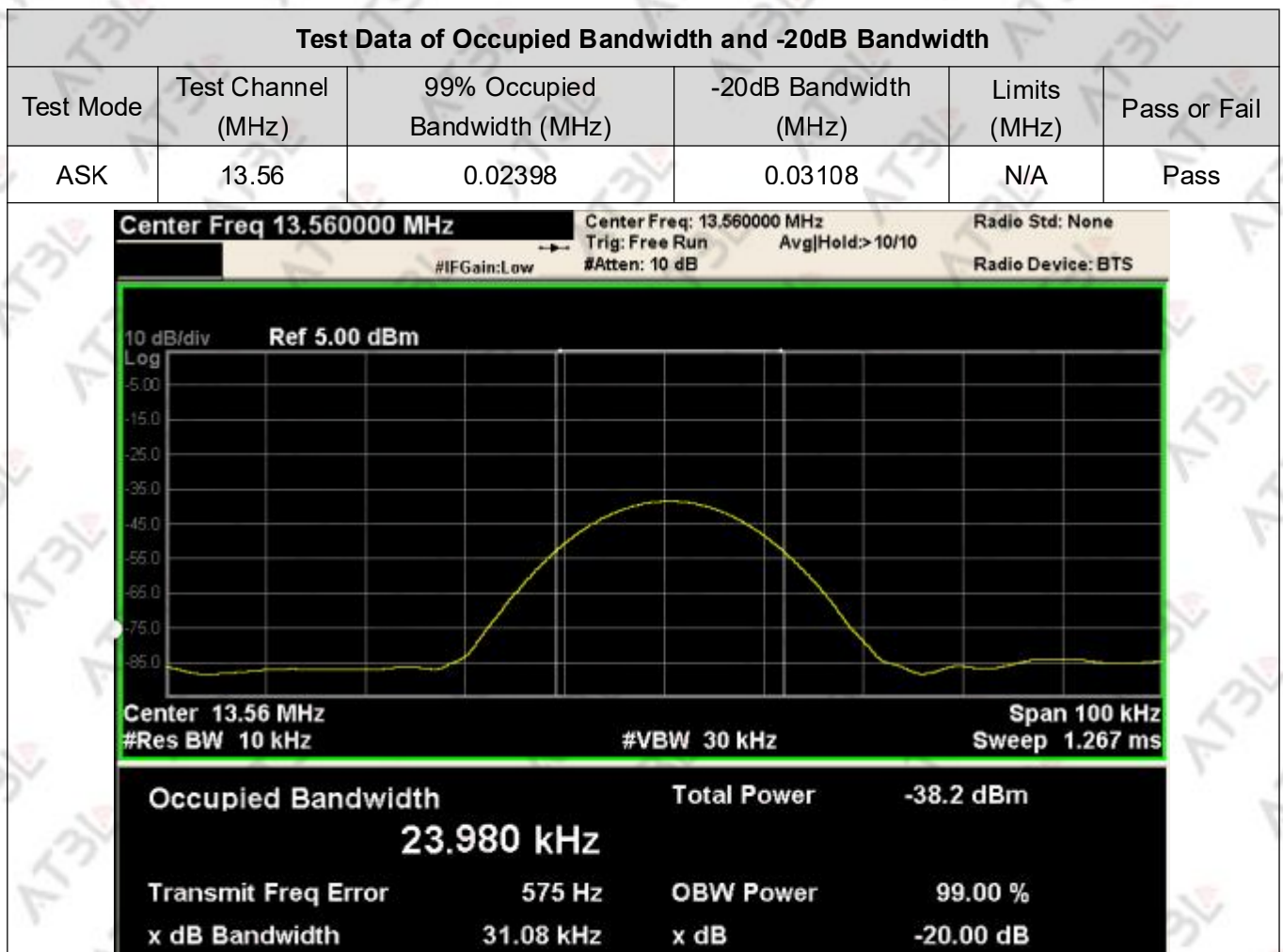
Limit

Intentional radiators must be designed to ensure that the 20dB and 99% emission bandwidth in the specific band 13.553~13.567MHz.

Test Setup:



Test Results

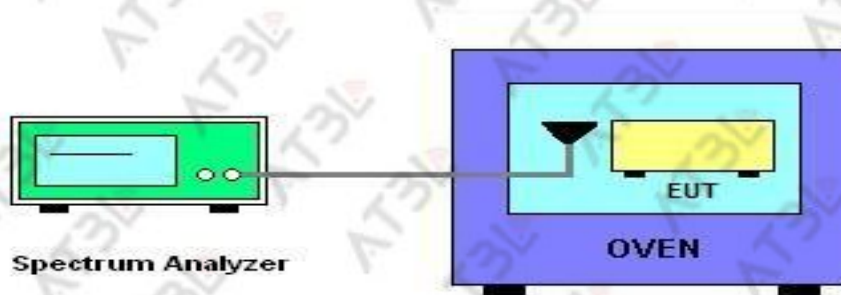


3.4 Frequency Stability

Limit

The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% (100ppm) of the operating 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. For battery operated equipment, the equipment tests shall be performed using a new battery.

Test Setup



Test Procedure

- 1.The spectrum analyzer connected via a receive antenna placed near the EUT.
- 2.EUT have transmitted signal and fixed channelize.
- 3.Set the spectrum analyzer span to view the entire emissions bandwidth.
- 4.Set RBW = 1 kHz, VBW = 3 kHz with peak detector and max hold settings.
- 5.The f_c is declaring of channel frequency. Then the frequency error formula is $(f_c - f)/f_c \times 10^6$ ppm and the limit is less than ± 100 ppm.
- 6.Extreme temperature rule is -10°C~40°C.

Test Result and Limit

Operating frequency: 13.56MHz

Voltage vs. Frequency Stability (Test Temperature: 20°C)

Voltage(V)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Limit(ppm)	Conclusion
3.84	13.56046	+40.56	±100	PASS
3.456	13.56055			
4.224	13.56052			

Temperature vs. Frequency Stability (Test Voltage: 3.84V)

Temperature	Measurement Frequency (MHz)	Max. Deviation (ppm)	Limit(ppm)	Conclusion
-30°C	13.56063	+50.15	±100	PASS
-20°C	13.56060			
-10°C	13.56059			
0°C	13.56055			
10°C	13.56060			
20°C	13.56061			
30°C	13.56063			
40°C	13.56068			
50°C	13.56064			

3.5 AC Power LINE Conducted Emission Test

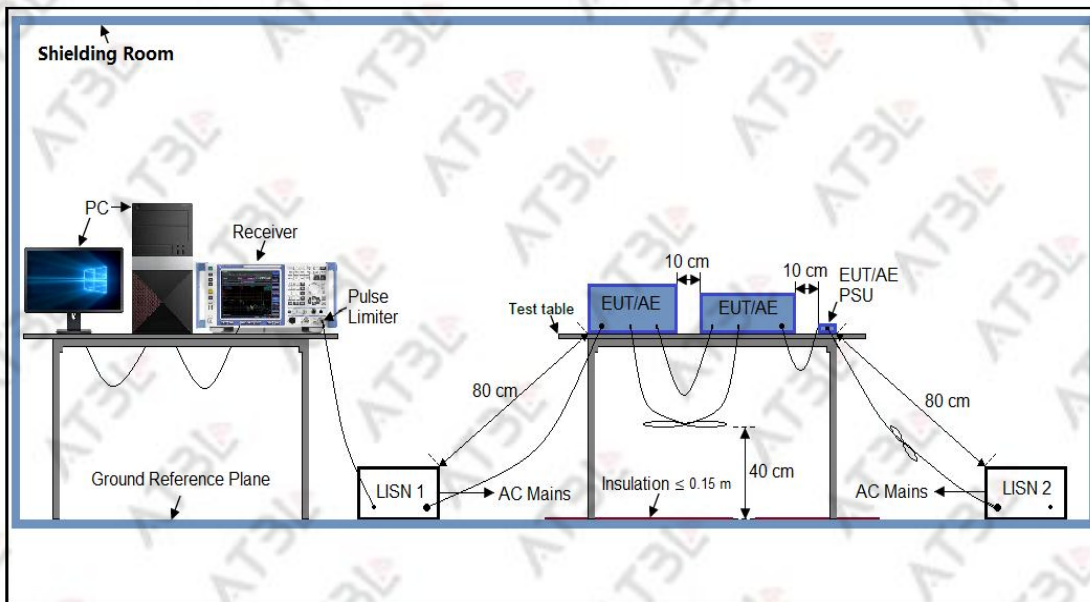
Limit

Frequency	Maximum RF Line Voltage	
	Q.P. (dB μ V)	Average (dB μ V)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Note:

1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

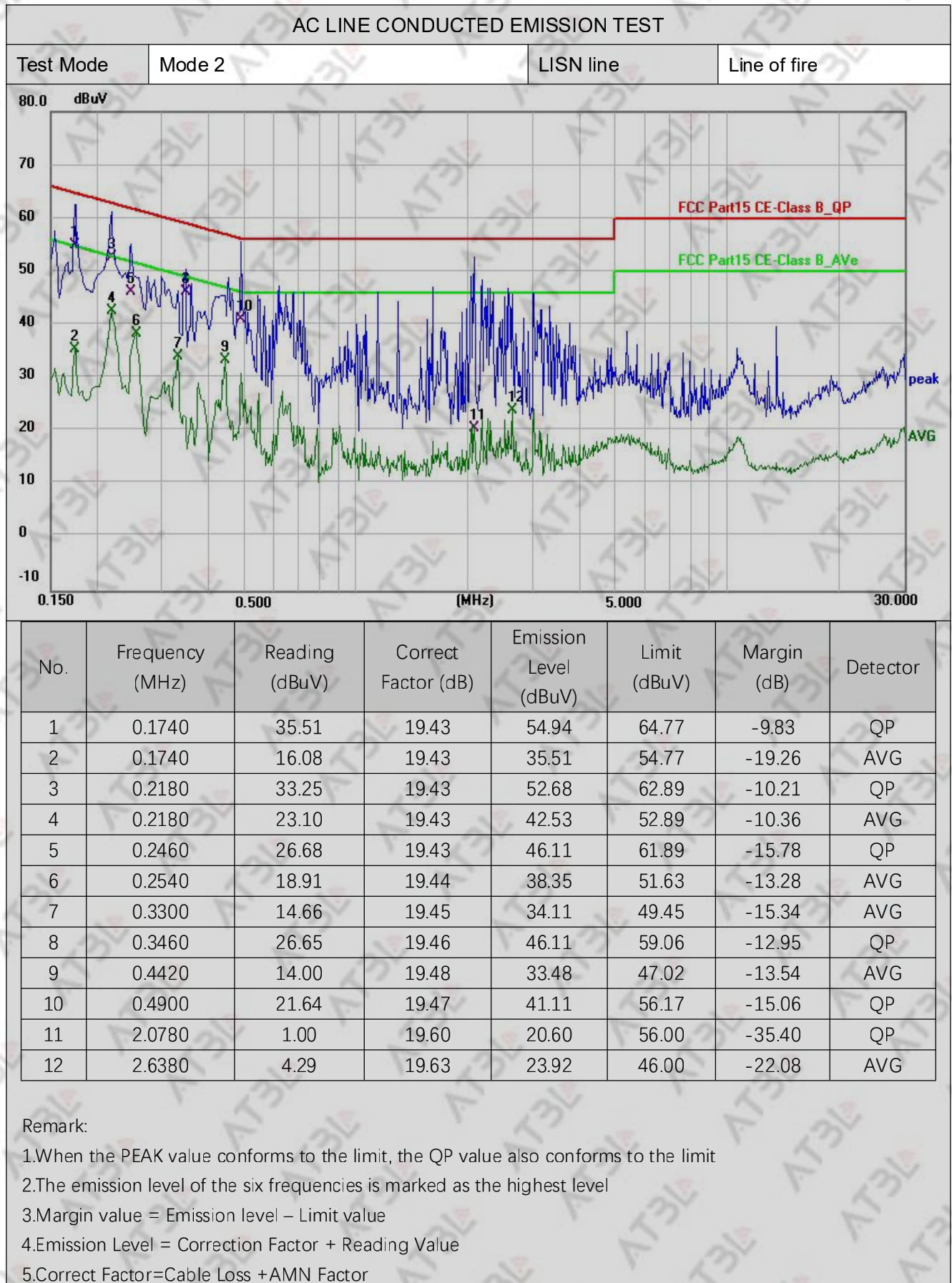
Test Setup:



Test Procedure

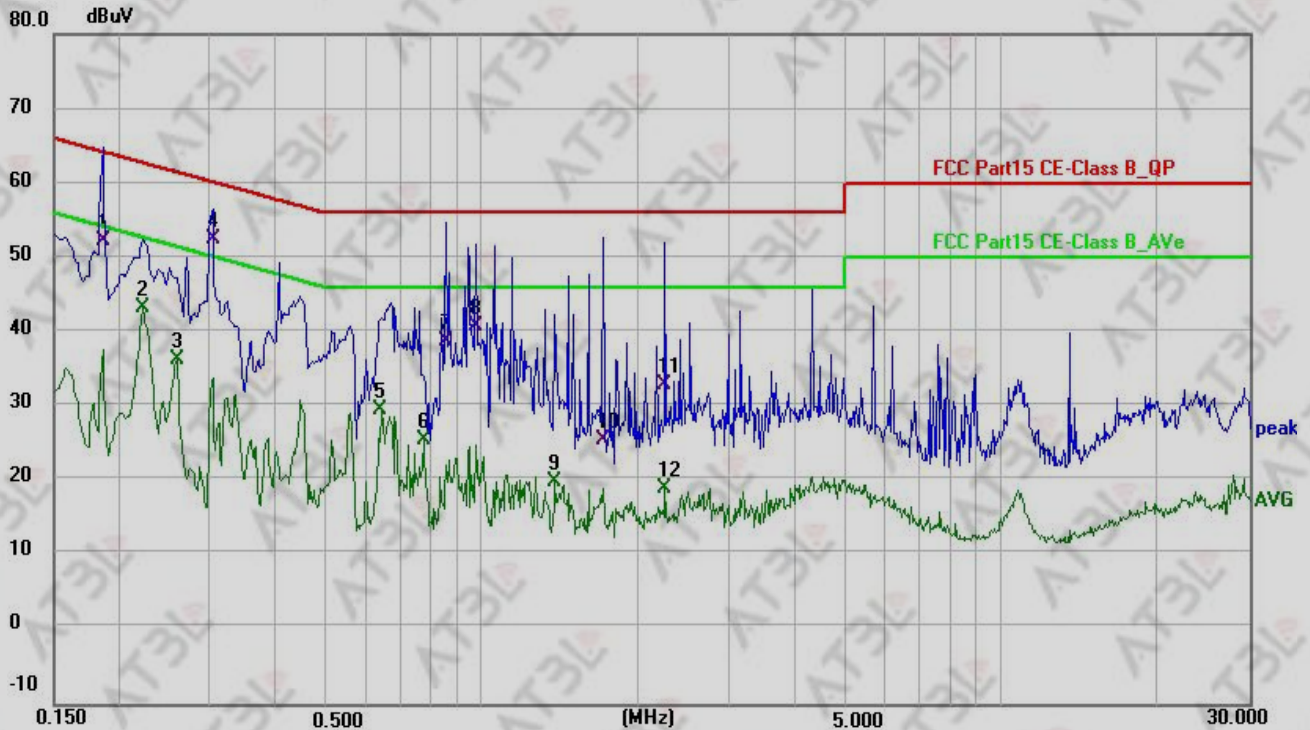
1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. All support equipment received AC120V/60Hz power from a LISN, if any.
5. The EUT received DC 5V power from adapter which received AC120V/60Hz power from a LISN.
6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.
9. The test mode(s) were scanned during the preliminary test.

Test Result



AC LINE CONDUCTED EMISSION TEST

Test Mode	Mode 2	LISN line	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1860	32.95	19.42	52.37	64.21	-11.84	QP
2	0.2220	23.87	19.42	43.29	52.74	-9.45	AVG
3	0.2580	16.97	19.43	36.40	51.50	-15.10	AVG
4	0.3020	33.09	19.43	52.52	60.19	-7.67	QP
5	0.6419	10.04	19.51	29.55	46.00	-16.45	AVG
6	0.7740	6.04	19.50	25.54	46.00	-20.46	AVG
7	0.8540	19.26	19.50	38.76	56.00	-17.24	QP
8	0.9780	21.22	19.51	40.73	56.00	-15.27	QP
9	1.3820	0.49	19.55	20.04	46.00	-25.96	AVG
10	1.7140	6.09	19.56	25.65	56.00	-30.35	QP
11	2.2580	13.40	19.60	33.00	56.00	-23.00	QP
12	2.2580	-0.45	19.60	19.15	46.00	-26.85	AVG

Remark:

- 1.When the PEAK value conforms to the limit, the QP value also conforms to the limit
- 2.The emission level of the six frequencies is marked as the highest level
- 3.Margin value = Emission level – Limit value
- 4.Emission Level = Correction Factor + Reading Value
- 5.Correct Factor=Cable Loss +AMN Factor

4 Test Setup Photos of the EUT

Please refer to the Appendix J.

5 External and Internal Photos of the EUT

External Please refer to the Appendix K.

Internal Please refer to the Appendix K.

※※※※※END OF THE REPORT※※※※※