TEST REPORT

REPORT NUMBER: I23W00016-RF-Rev4

ON

Type of Equipment:	Tracker
Type of Designation:	Bolt-2
Brand Name：	Prime
Manufacturer:	Micron Electronics LLC.
FCC ID:	ZKQ-G601

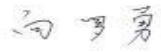
ACCORDING TO

FCC-Part15C-RADIO FREQUENCY DEVICES

ANSI C63.10-2013 American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

Chongqing Academy of Information and Communications Technology

Month date, year
Jun, 15, 2023
Signature



Xiang Luoyong
Director

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of Chongqing Academy of Information and Communications Technology.

Revision Version

Report Number	Revision	Date	Memo
I23W00016-RF	00	2023-05-24	Initial creation of test report
I23W00016-RF-Rev1	Rev1	2023-06-04	--
I23W00016-RF-Rev2	Rev2	2023-06-11	--
I23W00016-RF-Rev3	Rev3	2023-06-12	--
I23W00016-RF-Rev4	Rev4	2023-06-15	--

CONTENTS

1. Test Laboratory

1.1. Testing Location

Name:	Chongqing Academy of Information and Communications Technology
Designation Number:	CN1239
Address:	No.19 East Road, Xiantao Big-data Valley, Yubei District, Chongqing, People's Republic of China Building C, Technology Innovation Center, No.8, Yuma Road, Chayuan New Area, Nan'an District, Chongqing, People's Republic of China
Postal Code:	401336
Telephone:	0086-23-88069965
Fax:	0086-23-88608777

1.2. Testing Environment

Normal Temperature:	15-35℃
Relative Humidity:	30-60%

1.3. Project data

Testing Start Date:	2023-05-09
Testing End Date:	2023-06-10

1.4. Signature

	2023-06-12
Dong Junxin **(Prepared this test report)**	**Date**
	2023-06-12
Li Xu **(Reviewed this test report)**	**Date**
	2023-06-12
Xiang Luoyong **Director of the laboratory** **(Approved this test report)**	**Date**

2. Client Information

2.1. Applicant Information

Company Name:	Micron Electronics LLC.
Address /Post:	1001 Yamato Road, Suite 400, Boca Raton, FL 33431, USA
City:	Boca Raton
Country:	USA
Telephone:	+1 888 538 3489
Fax:	--
Email:	pcheng@micron-electronics.com
Contact Person:	Ping Cheng

2.2. Manufacturer Information

Company Name:	Micron Electronics LLC.
Address /Post:	1001 Yamato Road, Suite 400, Boca Raton, FL 33431, USA
City:	Boca Raton
Country:	USA
Telephone:	+1 888 538 3489
Fax:	--
Email:	pcheng@micron-electronics.com
Contact Person:	Ping Cheng

3. Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	Tracker
Model name	Bolt-2
Brand name	Prime
Operation Frequency	433.92MHz
Modulation	OOK
Extreme Temperature	-20/+60℃
Battery Voltage	7.2VDC
Adapter power supply	12VDC

Note: Photographs of EUT are shown in ANNEX A of this test report.
Note: High and low voltage values in extreme condition test are given by manufacturer.

3.2. Internal Identification of EUT used during the test

EUT ID	SN or IMEI	HW Version	SW Version	Date of receipt
S1	IMEI:866238066361378	G601-V1	G601V02.01B03.I01	2023-04-17
S2	IMEI:866238066366773	G601-V1	G601V02.01B03.I01	2023-04-17

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE used during the test

*AE ID: is used to identify the test sample in the lab internally.

AE ID	Instrument	Manufacturer	Model
Adapter	--	XING YUAN ELECTRONICS CO.LTD	XY36SC-120300VQ-UW Input：AC 100-240V 0.9A output：DC 12V 3A

4. Reference Documents

4.1. Documents supplied by applicant

PICS/PIXIT, referring to Annex B for detailed information, is supplied by the client or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part15.231	Periodic operation in the band 40.66–40.70 MHz and above 70 MHz.	--
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013

5. Test Equipments Utilized

5.1. RF Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacture	Cal.Due Date
1	Spectrum analyzer	FSQ 26	201137/026	--	--	R&S	2023-06-29
2	DC Power Supply	62015-60-6	L020000015 87	--	--	Topward	2023-06-29

5.2. Radiated Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacture	Cal.Due Date
1	Test Receiver	ESU40	100350	01	4.43 SP3	R&S	2023-06-29
2	Ultra-wideband Log Periodic Antenna	VULB 9163	9163-586	--	--	Schwarzbeck	2024-10-28
3	Double Ridged Guide Antenna	9120D	9120D-1103	--	--	Schwarzbeck	2024-05-05
4	Test Receiver	ESW26	101382	--	--	R&S	2023-06-29
5	Amplifier1	SCU-08F1	8320027	--	--	R&S	2023-06-29
6	Amplifier2	SCU-18F	180093	--	--	R&S	2023-06-29

5.3. AC Powerline Conducted Emission Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacture	Cal.Due Date
1	Test Receiver	ESCI	101214	--	--	R&S	2023-06-29
2	LISN	ENV216	101128	--	--	R&S	2024-05-27

5.4. Climate Chamber

No.	Name	Type	SN	Manufacture	Cal.Due Date
1	Fully-Anechoic Chamber	FACT3-2	--	ETS	2025-04-29
2	Fully anechoic chamber	FAC-5	--	TDK	2024-08-30
3	anechoic chamber	FAC-10	--	TDK	2024-08-30

Vibration table

No.	Name	Type	SN	Manufacture	Cal.Due Date
--	--	--	--	--	--

5.5. Test software

No.	Name	version	SN	Manufacture
1	EMC32	V 8.51.00	--	R&S
2	EMC32	V9.26.01	--	R&S
3	EMC32	V10.20.01	--	R&S

6. Test Results

6.1. Summary of Test Results

A brief summary of the tests carried out is shown as following.

FCC Rules	Name of Test	Result
Part 15.231(e)	Transmission Time	Pass
Part 15.231(c)	20dB bandwidth	Pass
--	99% Occupied bandwidth	Pass
Part 15.231(e)	Field strength of the Fundamental signal	Pass
Part 15.231(e)	Radiated spurious emission	Pass
15.207	AC Powerline Conducted Emission	Pass
'Note 1: --		

6.2. Transmission Time

Specifications:	Part 15.231(e)
DUT Serial Number:	IMEI:866238066361378
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

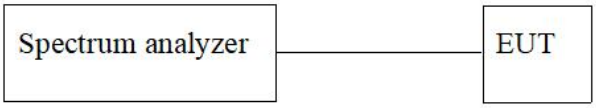
Limit :

In addition, devices operated under the provisions of this paragraph shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than one second and the silent period between transmissions shall be at least 30 times the duration of the transmission but in no case less than 10 seconds.

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	--

Test Setup:



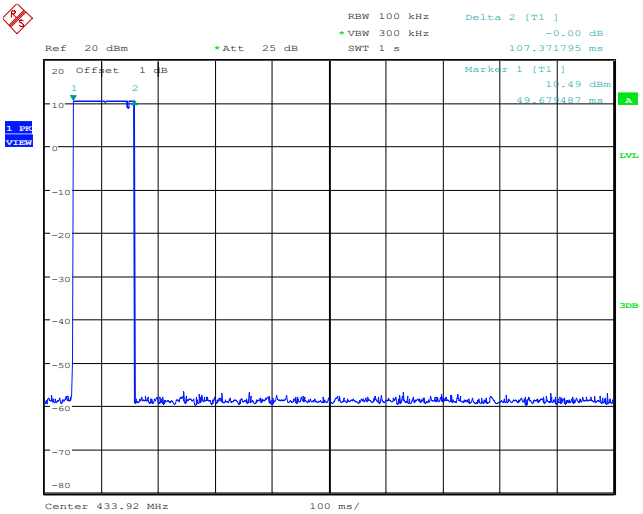
Test Method:

1. Connect the transmitter to the spectrum analyzer
2. Set the transmitter to the maximum power continuous transmission state
3. The spectrum analyzer uses the following settings:
   Frequency=Carrier center frequency
   RBW=100kHz,VBW=300kHz,Span=zero
   Sweep time=10 second,Detector function=peak
4. Measure and record in the report

.**Note:** --

Duration time

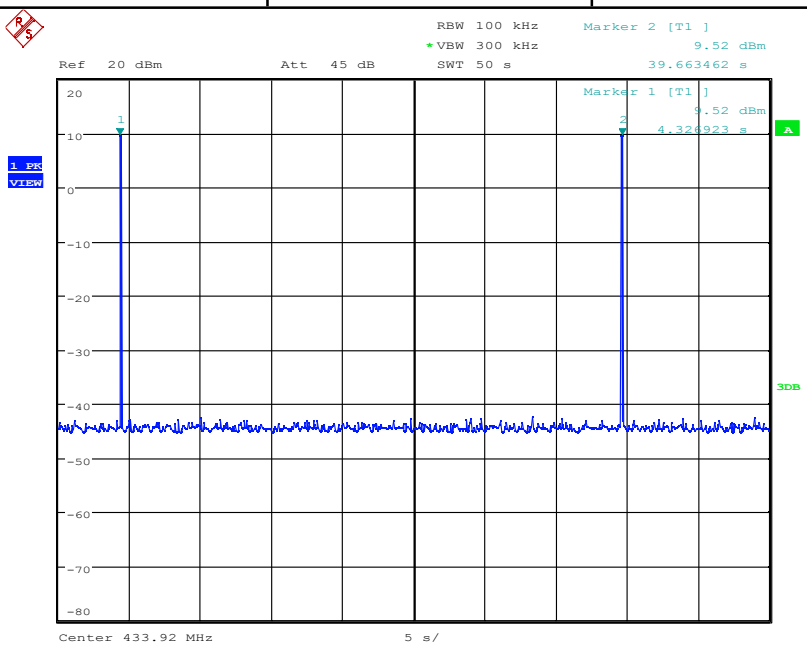
Duration time(millisecond)	limit(second)	result
107.37	＜1	pass



Date: 11.MAY.2023 18:46:59

silent period

silent period(second)	limit(second)	result
35.33	＞10 or 30*Duration time	pass



Date: 9.MAY.2023 20:54:11

6.3. 20dB bandwidth

Specifications:	Part 15.231(c)
DUT Serial Number:	IMEI:866238066361378
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit :

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz.

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	±10.04kHz

Test Setup:

Test Method:

1、Connect the transmitter to the spectrum analyzer

2、The spectrum analyzer uses the following settings:

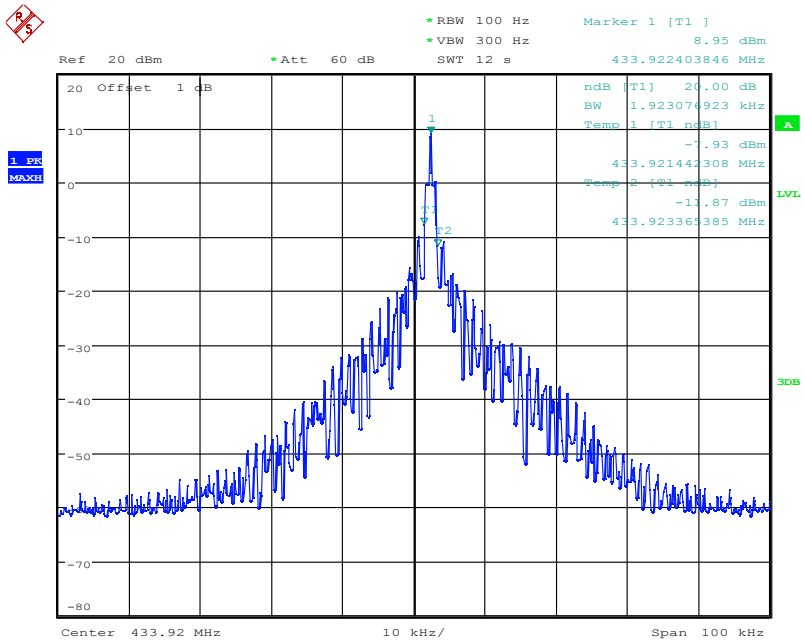
Frequency=Carrier center frequency
RBW=100Hz,VBW=300Hz
Span=Approximately 2 to 3 times the 20dB bandwidth
Sweep time=Auto
Detector function=peak
Trace=max hold

3、Set the transmitter to continuous transmission mode

4、Measure the maximum width of the emission, limited by the two outermost frequencies, relative to the maximum horizontal attenuation measured in the basic emission by 20 dB, and record the relevant measurement values.

.**Note:** 433.92MHz*0.25%=1.0848MHz

20dB bandwidth（kHz）	Limit（kHz）	result
1.92	1084.8	pass



6.4. 99% Occupied bandwidth

Specifications:	--
DUT Serial Number:	IMEI:866238066361378
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit :

--

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	±10.04kHz

Test Setup:

Test Method:

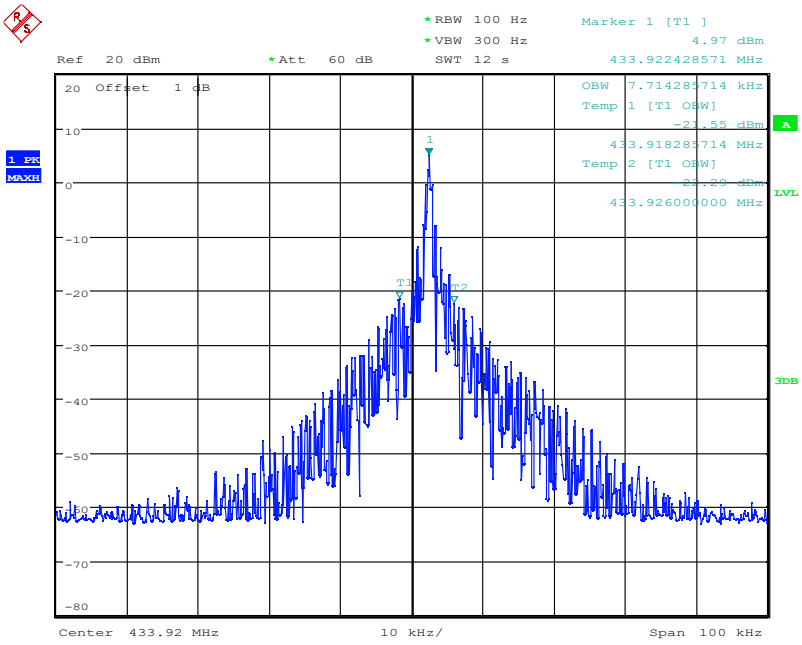
1、Connect the transmitter to the spectrum analyzer

2、The spectrum analyzer uses the following settings:

Frequency=Carrier center frequency
RBW=1%~5%OBW,VBW＞3*VBW
Span≥1.5*OBW
Sweep time=Auto
Detector function=peak
Trace=max hold

5、Set the transmitter to continuous transmission mode and observe its waveform.

99% Occupied bandwidth（kHz）	limit	result
7.71	--	pass



Date: 10.MAY.2023 02:14:59

6.5. Field strength of the Fundamental signal

Specifications:	FCC Part 15.231
DUT Serial Number:	IMEI:866238066366773
Test conditions:	Ambient Temperature:21.8-22.0℃ Relative Humidity:54.0-59.0% Air pressure: 98.8kPa
Test Results:	Pass

Limit Level Construction:

According to FCC Part 15.231:

Fundamental frequency (MHz)	Field strength of fundamental (microvolts/meter)	Field strength of spurious emission (microvolts/meter)
40.66–40.70	1,000	100
70–130	500	50
130–174	500 to 1,500[1]	50 to 150[1]
174–260	1,500	150
260–470	1,500 to 5,000[1]	150 to 500[1]
Above 470	5,000	500

Measurement Uncertainty:

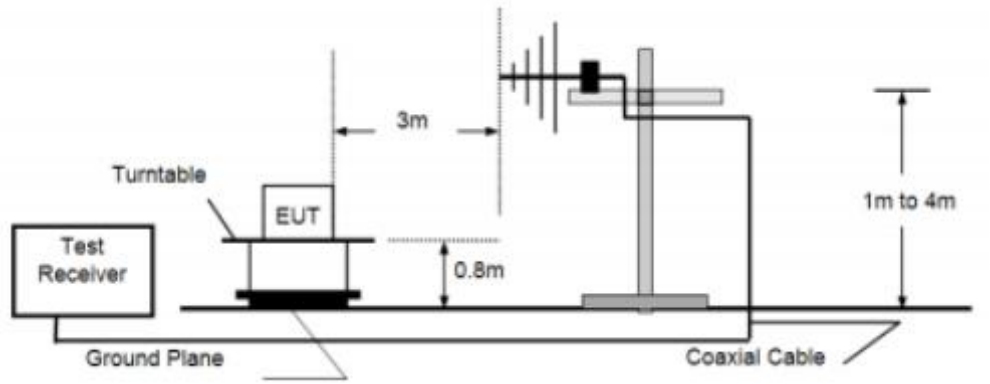
Item	Uncertainty
Expanded Uncertainty（30MHz-150MHz）	3.79 dB (k=2)
Expanded Uncertainty（150MHz-1000MHz）	3.51 dB (k=2)
Expanded Uncertainty（1000MHz-6000MHz）	4.84dB (k=2)

Test Setup:

The EUT was placed in an anechoic chamber. The Wireless Communications Test Set was used to set the TX channel and power level and modulate the TX signal with different bit patterns.

Test Method:

30 MHZ ~ 1 GHz



TEST PROCEDURE

1. The EUT was setup and tested according to ANSI C63.10
2. The EUT is placed on a tur table which is 0.8 meter above ground for below 1GHz, The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-ampand a high pass fiter are used for the test in order to get better signal level to comply with the guidelines.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Use the following spectrum analyzer settings

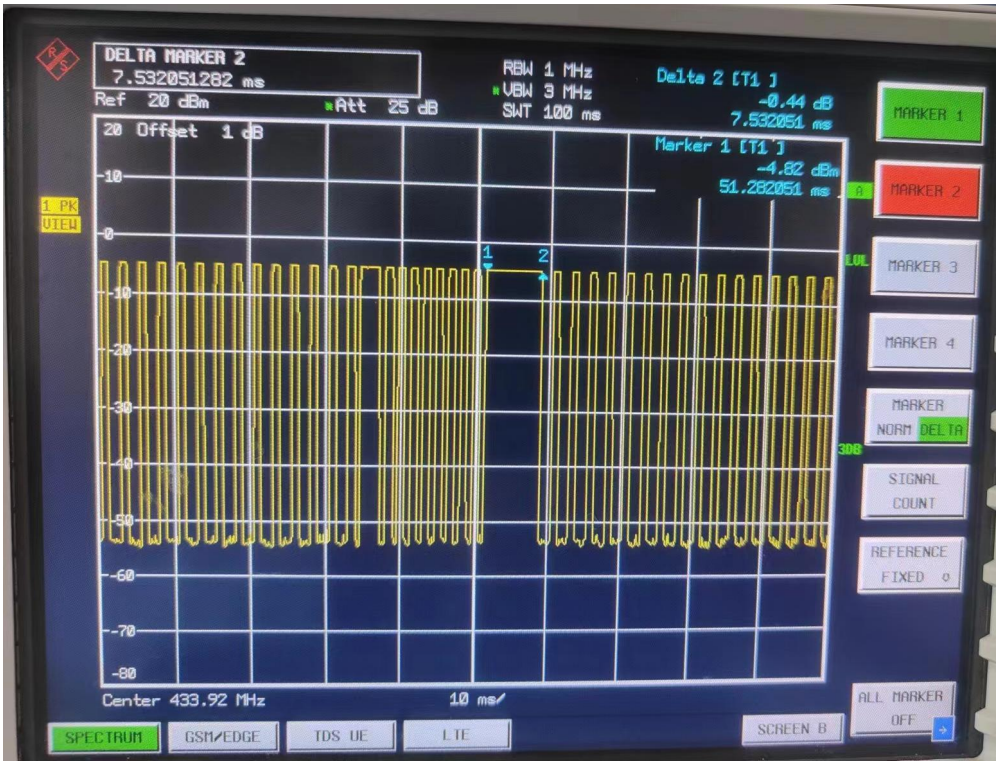
a) Span shall wide enough to fully capture the emission being measured.

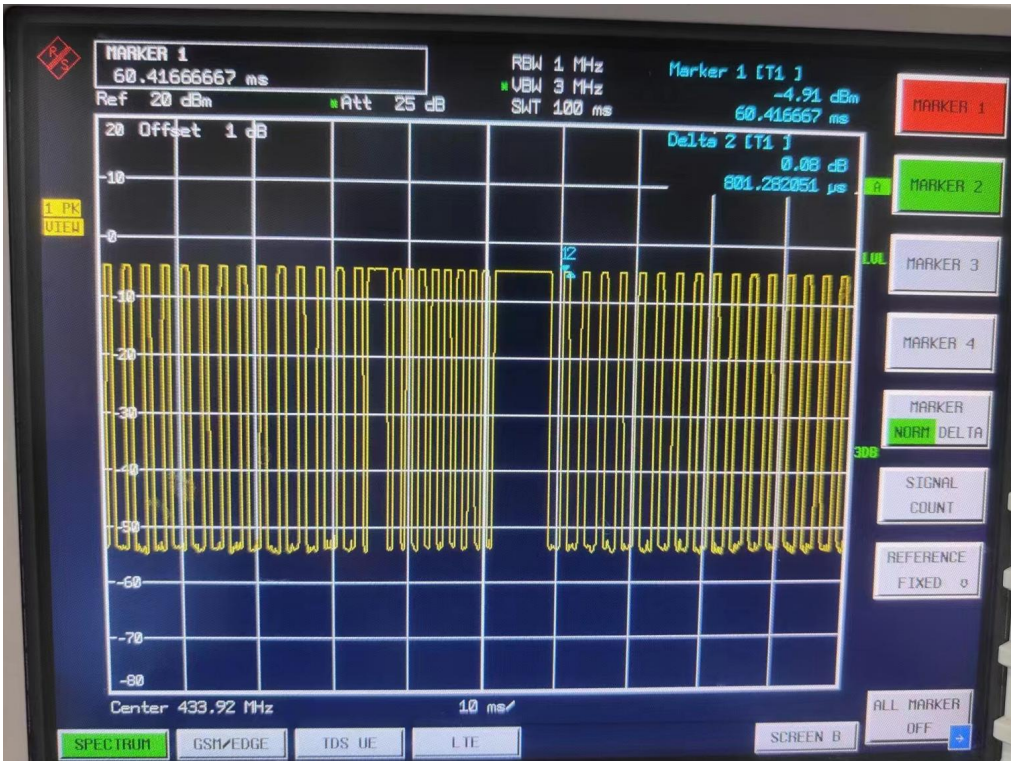
b) RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold.if the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limitthe peak emission level will be reported. Otherwise, the emission measurement will be repeatedusing the quasi-peak detector and reported.

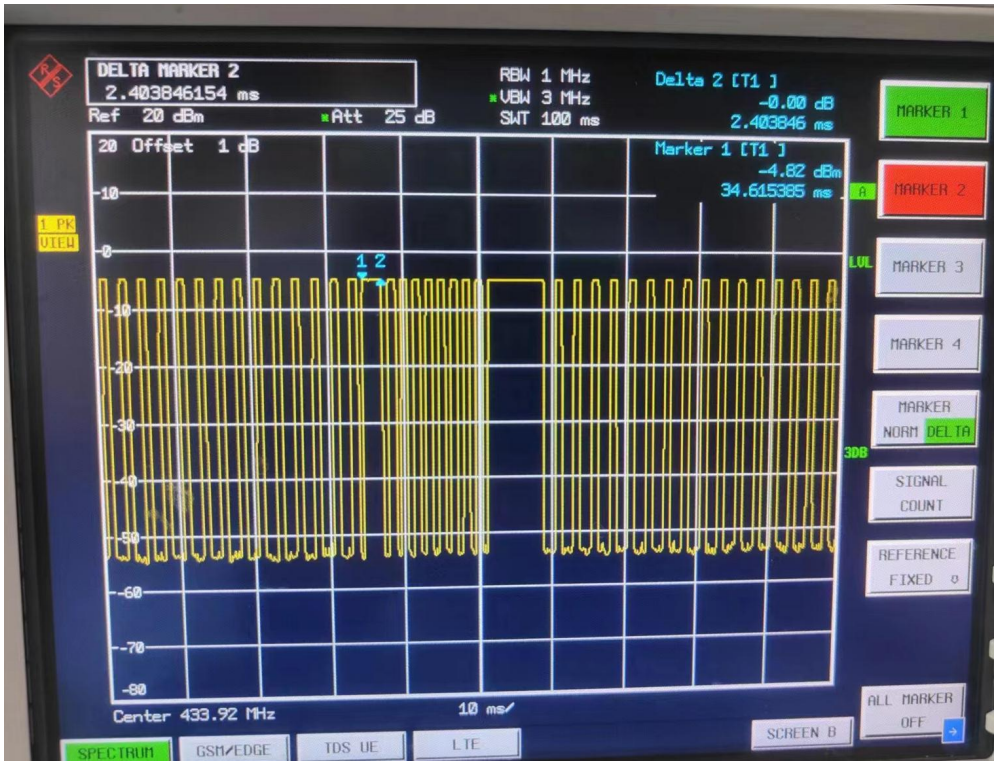
RESULT

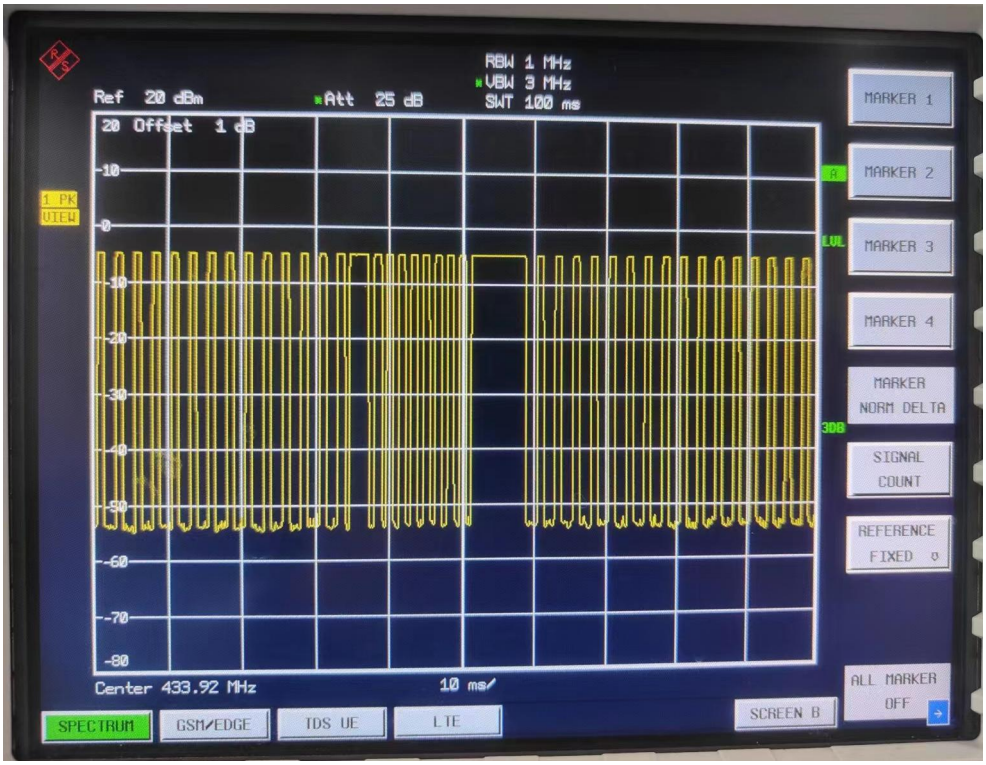
Note:

1) Level= Reading + Factor;
2) Factor =Antenna Factor+ Cable Loss- Preamp Factor.
3) Over Limit = Level - Limit


DELTA MARKER 2
7.532051282 ms
RBW 1 MHz
VBW 3 MHz
SWT 100 ms
Delta 2 [T1]
-0.44 dB
7.532051 ms
Ref 20 dBm
Att 25 dB
20 Offset 1 dB
Marker 1 [T1]
-4.82 dBm
51.282051 ms
1 PK
VIEW
MARKER 1
MARKER 2
MARKER 3
MARKER 4
MARKER
NORM DELTA
SIGNAL
COUNT
REFERENCE
FIXED
Center 433.92 MHz
10 ms
ALL MARKER
OFF
SPECTRUM
GSM/EDGE
TDS UE
LTE
SCREEN B


MARKER 1
60.41666667 ms
RBW 1 MHz
VBW 3 MHz
SWT 100 ms
Marker 1 [T1]
-4.91 dBm
60.416667 ms
Ref 20 dBm
Att 25 dB
20 Offset 1 dB
Delta 2 [T1]
0.08 dB
801.282051 µs
1 PK
VIEW
MARKER 1
MARKER 2
MARKER 3
MARKER 4
MARKER
NORM DELTA
SIGNAL
COUNT
REFERENCE
FIXED
Center 433.92 MHz
10 ms
ALL MARKER
OFF
SPECTRUM
GSM/EDGE
TDS UE
LTE
SCREEN B


DELTA MARKER 2
2.403846154 ms
RBW 1 MHz
VBW 3 MHz
SWT 100 ms
Delta 2 [T1]
-0.00 dB
2.403846 ms
Ref 20 dBm
Att 25 dB
20 Offset 1 dB
Marker 1 [T1]
-4.82 dBm
34.615385 ms
1 PK VIEW
1 2
MARKER 1
MARKER 2
MARKER 3
MARKER 4
MARKER NORM DELTA
SIGNAL COUNT
REFERENCE FIXED
ALL MARKER OFF
Center 433.92 MHz
10 ms/
SPECTRUM
GSM/EDGE
TDS UE
LTE
SCREEN B


RBW 1 MHz
VBW 3 MHz
SWT 100 ms
Ref 20 dBm
Att 25 dB
20 Offset 1 dB
1 PK VIEW
MARKER 1
MARKER 2
MARKER 3
MARKER 4
MARKER NORM DELTA
SIGNAL COUNT
REFERENCE FIXED
ALL MARKER OFF
Center 433.92 MHz
10 ms/
SPECTRUM
GSM/EDGE
TDS UE
LTE
SCREEN B

Duty Cycle:（7.53*1+0.80*38+2.4*1）/100==0.4033
Duty Cycle Corrected Factor:20*LOG（0.4033）= -7.89

field strength Result：

Frequency (MHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	level (dBμV/m)	Limit (dBμV/m)	Detector
433.92	100	H	45	-5.6	12.569	80.30	92.869	PK
433.92	--	--	--	--	0.459	72.41	72.869	AV

Frequency (MHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	level (dBμV/m)	Limit (dBμV/m)	Detector
433.92	100	V	258	-5.6	15.599	77.27	92.869	PK
433.92	--	--	--	--	3.489	69.38	72.869	AV

6.6. Radiated spurious emission

Specifications:	FCC Part 15.231
DUT Serial Number:	IMEI:866238066366773
Test conditions:	Ambient Temperature:21.8-22.0℃ Relative Humidity:54.0-59.0% Air pressure: 98.8kPa
Test Results:	Pass

Limit Level Construction:

According to FCC Part 15.231:

FCC CFR Title 47 Part 15 Subpart C Section 15.209

Frequency	Limit (dBuV/m)	Value
0.009 MHz ~0.49 MHz	2400/F(kHz) @300m	Quasi-peak
0.49 MHz ~ 1.705 MHz	24000/F(kHz) @30m	Quasi-peak
1.705 MHz ~30 MHz	30 @30m	Quasi-peak

Note: Limit dBuV/m @3m = Limit dBuV/m @300m + 40*log(300/3)= Limit dBuV/m @300m +80,

Limit dBuV/m @3m = Limit dBuV/m @30m +40*log(30/3)= Limit dBuV/m @30m + 40.

Frequency	Limit (dBuV/m @3m)	Value
30MHz~88MHz	40.00	Quasi-peak
88MHz~216MHz	43.50	Quasi-peak
216MHz~960MHz	46.00	Quasi-peak
960MHz~1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
	74.00	Peak

Fundamental frequency (MHz)	Field strength of fundamental (microvolts/meter)	Field strength of spurious emission (microvolts/meter)
40.66–40.70	1,000	100
70–130	500	50
130–174	500 to 1,500[1]	50 to 150[1]
174–260	1,500	150
260–470	1,500 to 5,000[1]	150 to 500[1]
Above 470	5,000	500

Measurement Uncertainty:

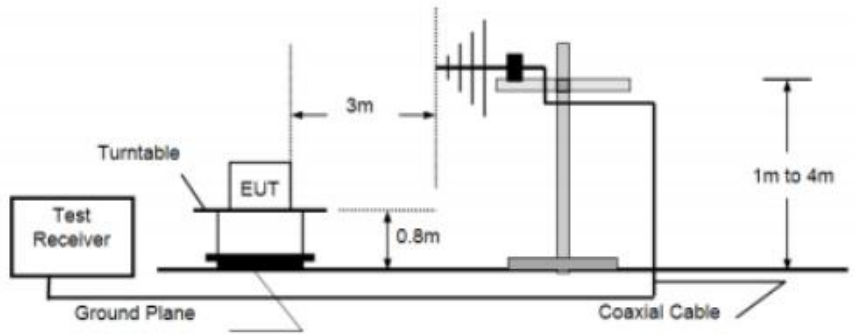
Item	Uncertainty
Expanded Uncertainty（30MHz-150MHz）	3.79 dB (k=2)
Expanded Uncertainty（150MHz-1000MHz）	3.51 dB (k=2)
Expanded Uncertainty（1000MHz-6000MHz）	4.84dB (k=2)

Test Setup:

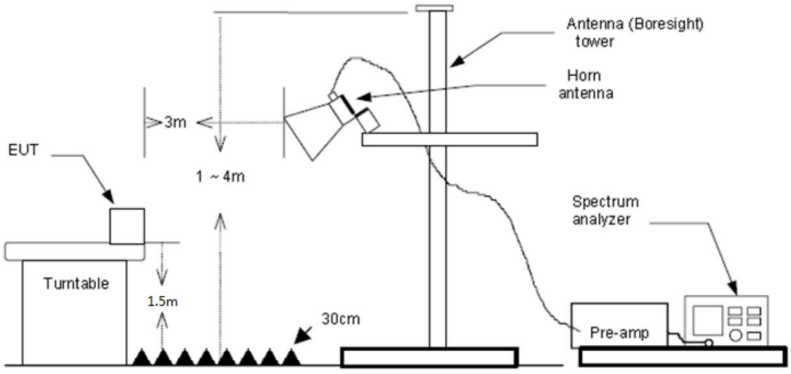
The EUT was placed in an anechoic chamber. The Wireless Communications Test Set was used to set the TX channel and power level and modulate the TX signal with different bit patterns.

Test Method:

30 MHZ ~ 1 GHz



Above 1GHz



TEST PROCEDURE

7. The EUT was setup and tested according to ANSI C63.10
8. The EUT is placed on a tur table which is 0.8 meter above ground for below 1GHz, The turn table is rotated 360 degrees to determine the position of the maximum emission level.
9. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
10. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-ampand a high pass fiter are used for the test in order to get better signal level to comply with the guidelines.
11. Set to the maximum power setting and enable the EUT transmit continuously.
12. Use the following spectrum analyzer settings

c) Span shall wide enough to fully capture the emission being measured.

d) RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold.if the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limitthe peak

emission level will be reported. Otherwise, the emission measurement will be repeatedusing the quasi-peak detector and reported.

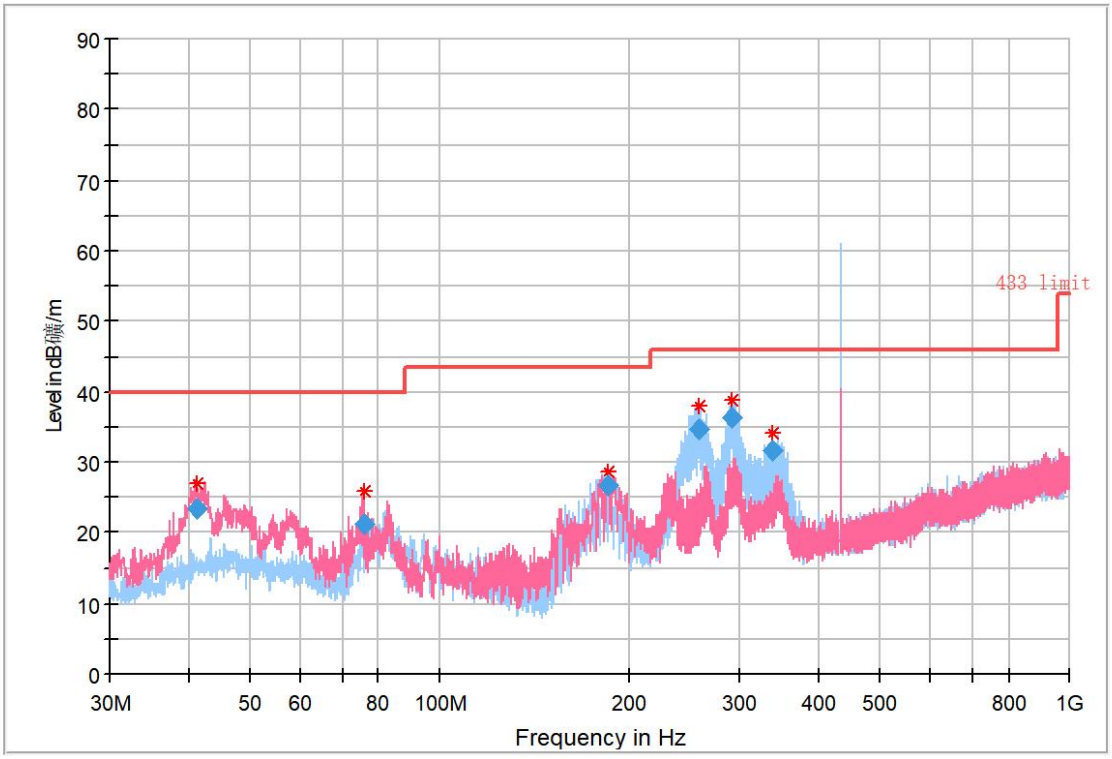
RESULT

Note:

4) Level= Reading + Factor; Factor =Antenna Factor+ Cable Loss- Preamp Factor.

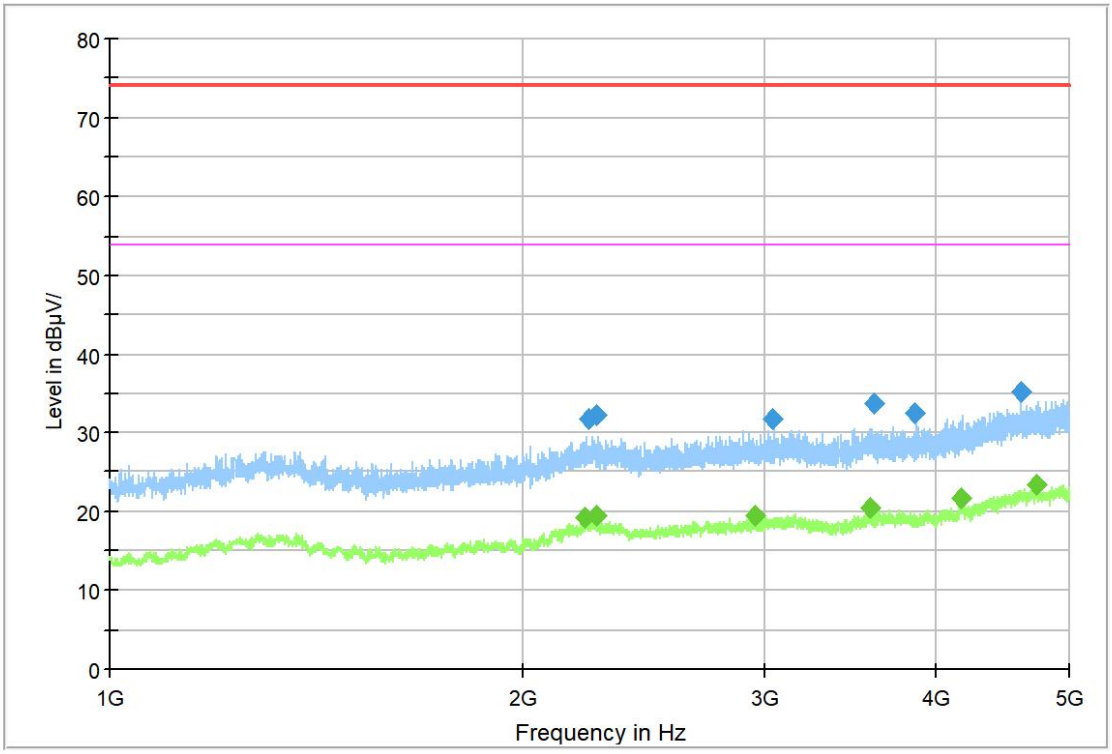
5) Over Limit = Level - Limit

Result：30MHz-1GHz H(redline)&V(blue line)



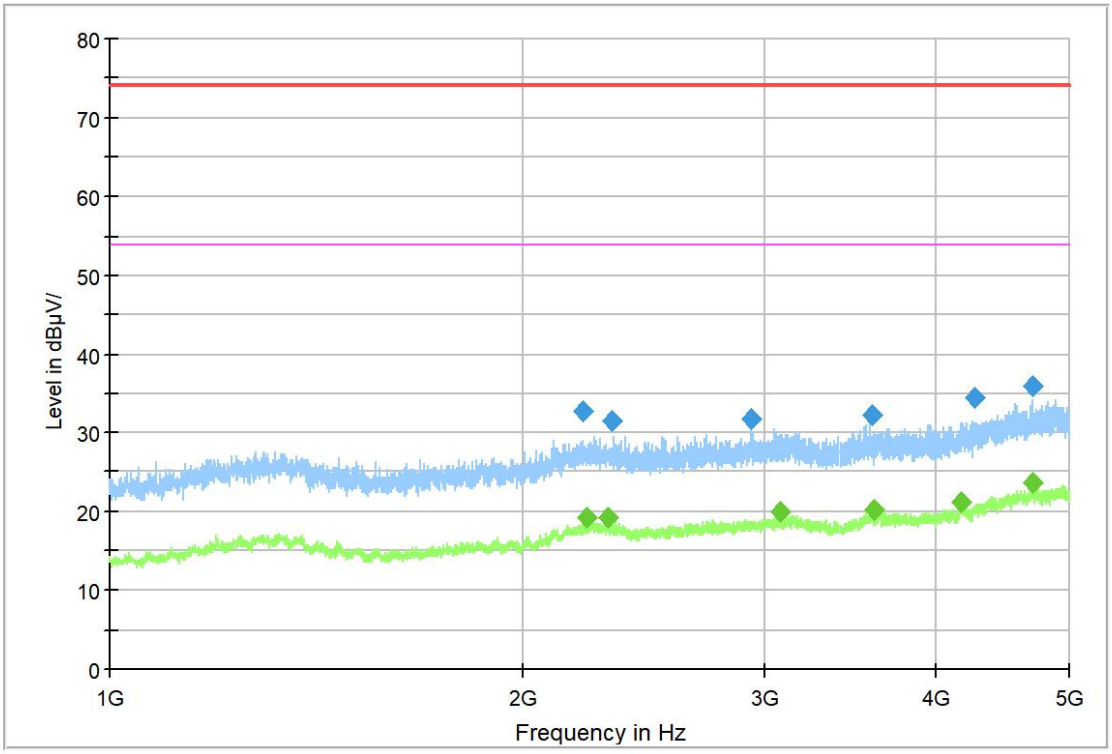
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
41.123500	23.37	40.00	16.63	1000.0	120.000	100.0	V	251.0	-14.1
75.638500	21.16	40.00	18.84	1000.0	120.000	393.0	V	-45.0	-18.0
185.654500	26.80	43.50	16.70	1000.0	120.000	106.0	V	-39.0	-13.7
257.871000	34.54	46.00	11.46	1000.0	120.000	106.0	H	80.0	-10.5
292.415500	36.26	46.00	9.74	1000.0	120.000	106.0	H	260.0	-9.5
339.168000	31.65	46.00	14.35	1000.0	120.000	106.0	H	261.0	-7.8

Result：1GHz-5GHz H



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2215.200000	---	19.19	54.00	34.81	50.0	1000.000	150.0	H	90.0	-9.2
2235.472000	31.68	---	74.00	42.33	50.0	1000.000	150.0	H	180.0	-9.1
2258.854000	32.15	---	74.00	41.85	50.0	1000.000	150.0	H	270.0	-9.0
2262.400000	---	19.46	54.00	34.54	50.0	1000.000	150.0	H	180.0	-9.0
2956.400000	---	19.55	54.00	34.45	50.0	1000.000	150.0	H	270.0	-7.9
3038.250000	31.75	---	74.00	42.25	50.0	1000.000	150.0	H	180.0	-7.6
3580.800000	---	20.38	54.00	33.62	50.0	1000.000	150.0	H	270.0	-6.5
3601.978000	33.63	---	74.00	40.37	50.0	1000.000	150.0	H	180.0	-6.6
3854.956000	32.60	---	74.00	41.40	50.0	1000.000	150.0	H	180.0	-5.6
4170.400000	---	21.54	54.00	32.46	50.0	1000.000	150.0	H	0.0	-4.8
4608.582000	35.18	---	74.00	38.82	50.0	1000.000	150.0	H	90.0	-3.3
4729.200000	---	23.39	54.00	30.61	50.0	1000.000	150.0	H	180.0	-2.7

Result：1GHz-5GHz V



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2210.164000	32.74	---	74.00	41.26	50.0	1000.000	150.0	V	270.0	-9.3
2226.000000	---	19.27	54.00	34.73	50.0	1000.000	150.0	V	270.0	-9.2
2302.800000	---	19.25	54.00	34.75	50.0	1000.000	150.0	V	270.0	-9.2
2322.462000	31.51	---	74.00	42.49	50.0	1000.000	150.0	V	0.0	-9.2
2929.636000	31.71	---	74.00	42.29	50.0	1000.000	150.0	V	90.0	-7.9
3084.000000	---	19.85	54.00	34.15	50.0	1000.000	150.0	V	180.0	-7.4
3588.936000	32.16	---	74.00	41.84	50.0	1000.000	150.0	V	90.0	-6.5
3600.000000	---	20.07	54.00	33.93	50.0	1000.000	150.0	V	90.0	-6.6
4171.200000	---	21.28	54.00	32.72	50.0	1000.000	150.0	V	180.0	-4.8
4266.628000	34.47	---	74.00	39.53	50.0	1000.000	150.0	V	270.0	-4.6
4699.714000	35.92	---	74.00	38.08	50.0	1000.000	150.0	V	270.0	-2.9
4704.800000	---	23.64	54.00	30.36	50.0	1000.000	150.0	V	180.0	-2.9

6.7. AC Powerline Conducted Emission

Method of Measurement: ANSI C63.10-2013-clause 6.2

1.The one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.

2.f the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.

3.The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.

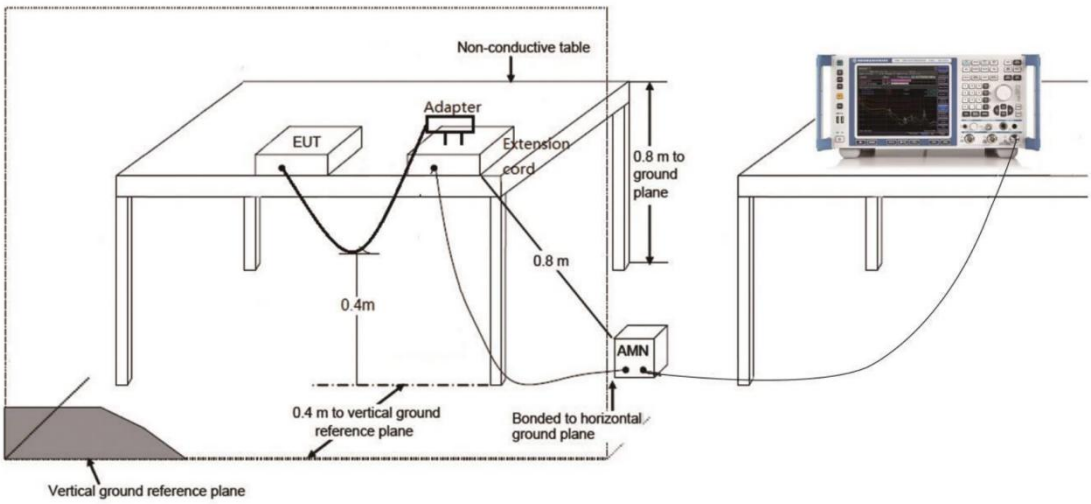
4.If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.

If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the ac conducted emissions from a device that operates between 150 kHz and 30 MHz a non-detachable antenna may be replaced with a dummy load for the measurements within the fundamental emission band of the transmitter, but only for those measurements.36 Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

Measurement Uncertainty:

Measurement Uncertainty	1.83db（k=2）

Test Setup



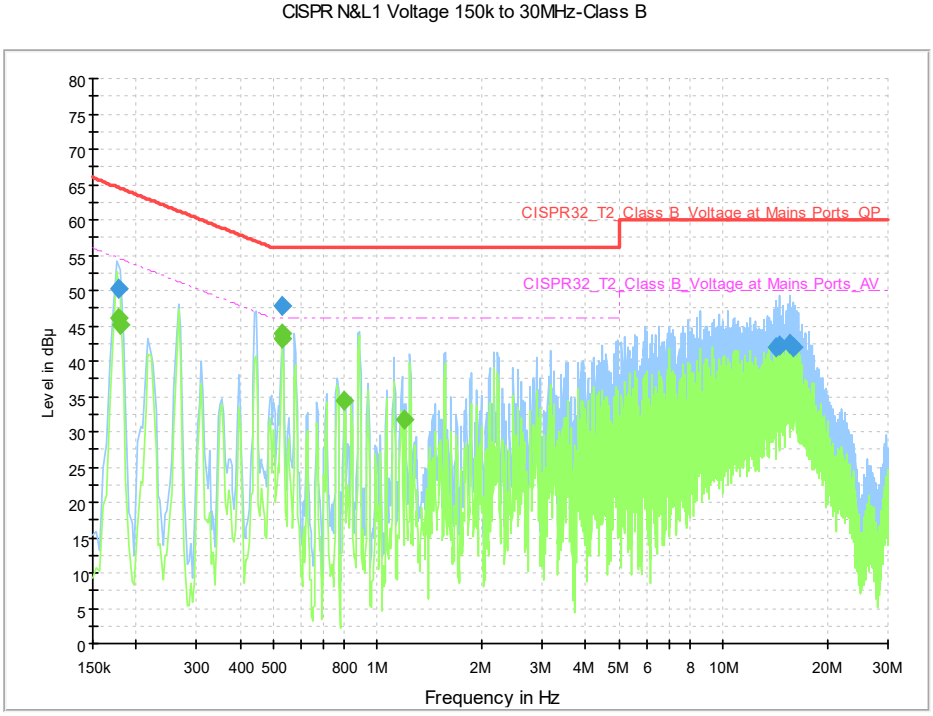
Test Condition

Voltage（V）	Frequency（Hz）
220	60

Measurement Result and limit:
(Quasi-peak-average Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Conclusion
0.15 to 0.5	66 to 56	56 to 46	P
0.5 to 5	56	46	
5 to 30	60	50	
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

Test Data



CE-150KHz-30MHz-L

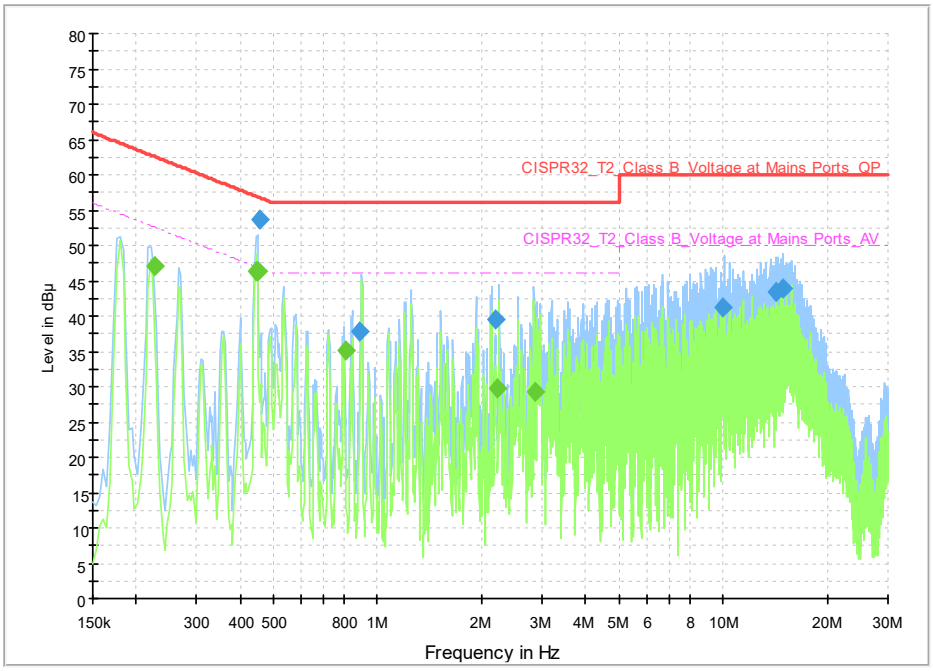
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.178000	50.3	1000.0	9.000	On	L1	9.9	14.3	64.6
0.526769	47.9	1000.0	9.000	On	L1	9.8	8.1	56.0
14.187588	41.8	1000.0	9.000	On	L1	10.0	18.2	60.0
14.550656	42.1	1000.0	9.000	On	L1	10.0	17.9	60.0
15.571138	42.5	1000.0	9.000	On	L1	10.0	17.5	60.0
15.970081	41.9	1000.0	9.000	On	L1	10.0	18.1	60.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.178000	46.2	1000.0	9.000	On	L1	9.9	8.4	54.6
0.179669	45.2	1000.0	9.000	On	L1	9.9	9.3	54.5
0.530769	43.1	1000.0	9.000	On	L1	9.8	2.9	46.0
0.532588	44.0	1000.0	9.000	On	L1	9.8	2.0	46.0
0.799056	34.4	1000.0	9.000	On	L1	9.8	11.6	46.0
1.201256	31.7	1000.0	9.000	On	L1	9.8	14.3	46.0

CISPR N&L1 Voltage 150k to 30MHz-Class B



CE-150KHz-30MHz-N

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.454500	53.6	1000.0	9.000	On	N	9.8	3.2	56.8
0.889981	37.8	1000.0	9.000	On	N	9.8	18.2	56.0
2.184694	39.6	1000.0	9.000	On	N	9.9	16.4	56.0
10.006738	41.1	1000.0	9.000	On	N	9.9	18.9	60.0
14.263050	43.4	1000.0	9.000	On	N	10.0	16.6	60.0
14.984525	43.8	1000.0	9.000	On	N	10.0	16.2	60.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.226000	47.1	1000.0	9.000	On	N	9.8	5.5	52.6
0.448319	46.4	1000.0	9.000	On	N	9.8	0.5	46.9
0.450769	46.3	1000.0	9.000	On	N	9.8	0.6	46.9
0.809981	35.1	1000.0	9.000	On	N	9.8	10.9	46.0
2.208694	29.8	1000.0	9.000	On	N	9.9	16.2	46.0
2.862500	29.4	1000.0	9.000	On	N	9.9	16.6	46.0

Annex A EUT Photos

See the document" I23W00016-External Photos".
See the document" I23W00016-Internal Photos ".

ANNEX B Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

END OF REPORT