

TEST REPORT

Report No..... : ATA0126090422

FCC ID..... : 2BXOX-H10

Applicant..... : Shenzhen Gandong IoT Technology Co., Ltd

Address..... : Room 401, Building 8, Xinghui Industrial City, No. 90 Yanluo Road,
Yanluo Subdistrict, Bao'an District, Shenzhen

Manufacturer..... : Shenzhen Gandong IoT Technology Co., Ltd

Address..... : Room 401, Building 8, Xinghui Industrial City, No. 90 Yanluo Road,
Yanluo Subdistrict, Bao'an District, Shenzhen

Product Name..... : Music Player

Trade Mark..... : HiiiMAN

Model/Type reference..... : H10

Listed Model(s)..... : H10 Pro, H10 Ultra, H20, H20 Pro, H20 Ultra, H30, H30 Pro, H30
Ultra, H50, H50 Pro, H50 Ultra, H60, H60 Pro, H60 Ultra

Standard..... : FCC CFR Title 47 Part 15 Subpart C Section 15.247

Test procedure..... : ANSI C63.10-2020 + Cor.1-2023

KDB 558074 D01 15.247 Meas Guidance v05r02

Date of Receipt..... : Sep. 16, 2026

Date of Test Date..... : Sep. 18, 2026~Sep. 21, 2026

Date of issue..... : Sep. 21, 2026

Test result..... : Pass

Compiled by:

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Lily Zheng

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Approved by:

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Jason Chen



Testing Laboratory Name..... : Shenzhen ATA Testing Lab. Inc

Address..... : 4th Floor, Building 10, No. 60 Nanchang Road, Nanchang
Community, Xixiang Street, Bao'an District, Shenzhen City,
Guangdong, China

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1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.247: Operation within the bands of 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz.

ANSI C63.10-2020 + Cor.1-2023: American National Standard for Testing Unlicensed Wireless Devices.

1.2. Report version

Revised No.	Date of issue	Description
01	Sep. 21, 2026	Original



1.3. Test Description

FCC Part 15 Subpart C(15.247)			
Test Item	Standard Section	Result	Remark
	FCC		
Antenna Requirement	15.203	Pass	
Conducted Emission	15.207	Pass	
Restricted Bands	15.205	Pass	
Output Power	15.247(b)	Pass	
Band Edge Emissions	15.247(d)	Pass	
Power Spectral Density	15.247(e)	Pass	
Radiated Emission	15.205&15.209	Pass	
Occupied Bandwidth	15.247(a)(1)(i)(2)	Pass	

Note:(1) "N/A" denotes test is not applicable to this device.



1.4. Test Facility

Test Site:	Shenzhen ATA Testing Lab. Inc
Test Site Location:	4th Floor, Building 10, No.60 Nanchang Road, Nanchang Community, Xixiang Street, Bao'an District, Shenzhen City, China
Telephone:	+86 0755-2783-0095
Fax:	+86 0755-2783-0095
The Test Facility Is Recognized, Certified, Or Accredited By These Organizations:	A2LA Accreditation Lab Certificate Number: 839205
	FCC Accreditation Lab Designation Number: CN1455
	ISED Accreditation Lab Designation Number: CN0201
	CNAS Certificate Registration Number is L25904.



1.5. Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the Shenzhen ATA Testing Lab. Inc. system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device. Below is the best measurement capability for Shenzhen ATA Testing Lab. Inc.

Test Items	Measurement Uncertainty	U(k=2)
Radiated Emissions 9K-30MHz	± 2.70 dB	1.96
Radiated Emissions 30~1000MHz	± 5.432 dB	1.96
Radiated Emissions 1~18GHz	± 3.88 dB	1.96
Radiated Emissions 18~40GHz	± 5.32 dB	1.96
Conducted Emissions 9kHz~150KHz	± 3.90 dB	1.96
Conducted Emissions 150Hz~30MHz	± 3.52 dB	1.96
Conducted spurious emissions	± 1.60 dB	1.96
RF Output Power Conducted	± 0.58 dB	1.96
Time Domain Measurements Using SA	3.39%	1.96
RF Frequency	± 12.75 Hz	1.96
Power Spectral Density Conducted	± 1.52 dB	1.96
Occupied Bandwidth	$\pm 0.463\%$	1.96
Humidity uncertainty	$\pm 2.0\%$ RH	1.96
Temperature uncertainty	$\pm 0.6^{\circ}\text{C}$	1.96
Barometric pressure uncertainty	0.5hPa	1.96

Note (1): This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=1.96$.

1.6. Environmental conditions

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

Temperature:	15~35°C
Relative Humidity:	30~60 %
Air Pressure:	950~1050hPa

2. GENERAL INFORMATION

2.1. General Description of EUT

Product Name:	Music Player
Model/Type reference:	H10
Listed Model(s):	H10 Pro, H10 Ultra, H20, H20 Pro, H20 Ultra, H30, H30 Pro, H30 Ultra, H50, H50 Pro, H50 Ultra, H60, H60 Pro, H60 Ultra
Model Difference:	All the model are the same circuit and RF module, only the names and appearance colors are differen.
Power Source:	Input: DC 5V 2A
Adapter	N/A
Battery	3.85Vdc, 2000mAh, 7.7Wh
Hardware version:	/
Software version:	/
2.4GHz WIFI	
Modulation:	IEEE 802.11b : DSSS (DBPSK, DQPSK, CCK) IEEE 802.11g/n (HT20/HT40) : OFDM (64QAM, 16QAM, QPSK, BPSK)
Operation frequency:	802.11b/g/n20:2412~2462 MHz 802.11n40:2422~2452 MHz
Max Peak Output Power:	8.91dBm
Channel number:	802.11b/g/n20:11CH 802.11n 40:7CH
Bit Rate of transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6Mbps 802.11n(20MHz) use 800 ns GI: 65.0/58.5/52.0/39.0/26.0/19.5/13.0/6.5 Mbps (MCS0~MCS7) 802.11n(40MHz) use 800 ns GI: 13.5/27/40.5/54/81/108/121.5/135Mbps
Antenna type:	FPC antenna
Antenna gain:	0.11dBi
Note:(1)All antenna information is provided by the manufacturer, test laboratory will not be responsible if any error. (2) The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity. (3) "N/A" Indicates in applicability	

2.2. Operation state

Operation Frequency List: The EUT has been tested under typical operating condition. The Applicant provides communication tools software to control the EUT for staying in continuous transmitting and receiving mode for testing. 2.4GWIFI, 11 channels are provided to the EUT. were selected for testing.

Operation Frequency List:

Channel List for 802.11b/g/n (20)

Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437	\	\

Channel List for 802.11n (40)

Channel	Frequency (MHz)	Channel	Frequency (MHz)
03	2422	07	2442
04	2427	08	2447
05	2432	09	2452
06	2437	\	\

2.3. DESCRIPTION OF THE TEST MODES

Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was Evaluated respectively.

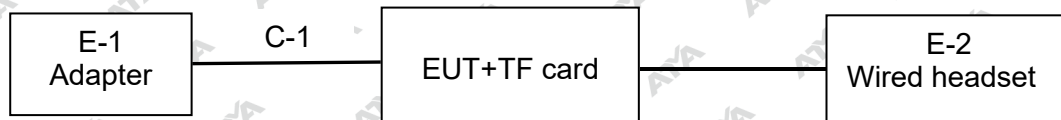
Test Items	Mode	Data Rate	Channel	Ant
AC Power Line Conducted Emissions	Normal Link	-	-	-
Maximum Conducted Output Power	11b/CCK	1 Mbps	1/6/11	1
	11g/BPSK	6 Mbps	1/6/11	1
	11n HT20	MCSO	1/6/11	1
	11n HT40	MCSO	3/6/9	1
Power Spectral Density	11b/CCK	1 Mbps	1/6/11	1
	11g/BPSK	6 Mbps	1/6/11	1
	11n HT20	MCSO	1/6/11	1
	11n HT40	MCSO	3/6/9	1
6dB Spectrum Bandwidth	11b/CCK	1 Mbps	1/6/11	1
	11g/BPSK	6 Mbps	1/6/11	1
	11n HT20	MCSO	1/6/11	1
	11n HT40	MCSO	3/6/9	1
Radiated Emissions Below 1GHz	Normal Link	-	-	-
Radiated Emissions Above 1GHz	11b/CCK	1 Mbps	1/6/11	1
	11g/BPSK	6 Mbps	1/6/11	1
	11n HT20	MCSO	1/6/11	1
	11n HT40	MCSO	3/6/9	1
Band Edge Emissions	11b/CCK	1 Mbps	1/6/11	1
	11g/BPSK	6 Mbps	1/6/11	1
	11n HT20	MCSO	1/6/11	1
	11n HT40	MCSO	3/6/9	1

Note:

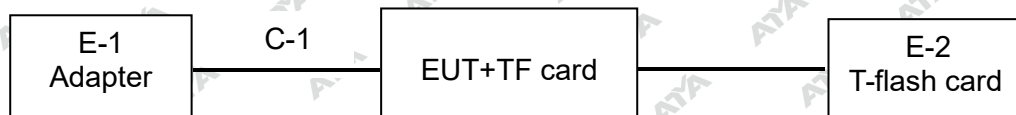
1. The measurements are performed at the highest, middle, lowest available channels.
2. During the test, the duty cycle >98%, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.

2.4. BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

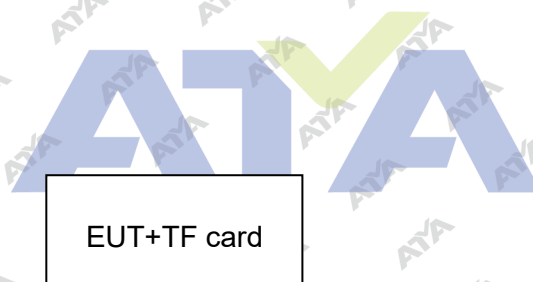
Radiated Spurious Emission Test



Conducted Emission Test



RF Conducted Test



2.5. DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test Configuration during the tests.

Item	Equipment	Mfr/Brand	Mode/Type	Note
E-1	Adapter	San gu	SG-0502000AU	Test use
E-2	Wired headset	/	/	Test use

Item	Equipment	Mfr/Brand	Length	Note
C-1	Type C Cable	/	1m	Test use

Note : (1) For detachable type I/O cable should be specified the length in cm in Length a column.
(2)"YES" is means"with core";"NO" is means "without core".

2.6. Measurement Instruments List

Radiation emission							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	ATA-E-001	966 chamber	CRT	9*6*6M	CRTNDCR 966	2025-03-21	2028-03-20
2	ATA-E-011	AC Power Source	XINOUEHUA	APW-1300N	202504292 663	2026-05-07	2027-05-06
3	ATA-E-013	DC Power Source	XINOUEHUA	ADC250-32 D	202504292 667	2026-05-07	2027-05-06
4	ATA-E-033	Receiver	R&S	ESPI7	100092	2026-05-07	2027-05-06
5	ATA-E-034	Broadband antenna	Schwarzbeck	VULB9168	01839	2026-07-17	2027-07-16
6	ATA-E-035	High Frequency Horn Antenna	Schwarzbeck	BBHA 9120D	03169	2026-07-17	2027-07-16
7	ATA-E-049	High Frequency Horn Antenna	ECHO	OBH100400	12221225	2026-05-07	2027-05-06
8	ATA-E-038	Cable	Times	0-18GHz	/	2026-05-07	2027-05-06
9	ATA-E-040	6dB attenuator	Zhengchang Liubo	6dB	/	2026-05-07	2027-05-06
10	ATA-E-039	Cable	Times	0-1GHz	/	2026-05-07	2027-05-06
11	ATA-E-052	Cable	HELPLIGHT	18-40GHz	/	2026-05-07	2027-05-06
12	ATA-E-041	Preamplifier	COM MV	DLNA8-1-18 G-2705	10241234	2026-05-07	2027-05-06
13	ATA-E-042	Preamplifier	COM MV	DLNA8-0.00 9-1000-103 4	5252881	2026-05-07	2027-05-06
14	ATA-E-050	Preamplifier	COM MV	DLAN-1800 0-40000-02	10229104	2026-05-07	2027-05-06
15	ATA-E-044	Filter	MWRFTesT	ZHPF6-C30 00-18000-3 129	08252098	2026-05-07	2027-05-06
16	ATA-E-045	Filter	MWRFTesT	ZHPF6-C65 00-18000-1 75	08252097	2026-05-07	2027-05-06
17	ATA-E-046	Filter	MWRFTesT	ZBSF6-C24 00-2483.5-5 43	08252096	2026-05-07	2027-05-06
18	ATA-E-047	Filter	MWRFTesT	ZBSF6-C51 00-5900-57 13	08252095	2026-05-07	2027-05-06
19	ATA-E-051	Spectrum Analyzer	R&S	FSV40-N	101779	2026-07-28	2027-07-27
20	ATA-E-052	Cable	HELPLIGHT	2.92J/2.92J 10M	/	2026-01-19	2027-01-18
21	ATA-E-054	Cable	HELPLIGHT	2.92J/2.92J 0.8M	/	2026-01-19	2027-01-18
22	ATA-E-059	Antenna Tower	CRT	AT-1	/	/	/
23	ATA-E-005	Temperature and humidity meter	deli	LE502-WH	/	2026-05-07	2027-05-06
24	ATA-E-064	Barometer	Qingping	CGP23W	/	2026-01-28	2027-01-27
25	ATA-E-048	Loop Antenna	ZHINA	ZN30900C	21104CCU TSE019	2026-05-07	2027-05-06

Conduction emission							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	ATA-E-032	EMI TEST RECEIVER	Schwarzbeck	ESC13	1009300	2026-05-07	2027-05-06
2	ATA-E-037	Pulse Limiter	Schwarzbeck	VTSD 9561 F-N	/	2026-05-07	2027-05-06
3	ATA-E-069	Conductive test cable	Schwarzbeck	2.5m	N/A	2026-01-28	2027-01-27
4	ATA-E-036	Artificial Mains Network	Schwarzbeck	NSLK 8127	01169	2026-05-07	2027-05-06
5	ATA-E-072	Three-Line V-Network	ZHINAN	2N33770A	13003	2026-01-28	2027-01-27
6	ATA-E-009	Temperature and humidity meter	deli	LE502-WH	/	2026-05-07	2027-05-06
7	ATA-E-010	Barometer	Qingping	CGP23W	/	2026-05-07	2027-05-06

RF Conducted Test							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
	ATA-E-029	Spectrum Analyzer	Keysight	N9020A	MY50530404	2026-05-07	2027-05-06
1	ATA-E-030	MXG Analog Signal Generator	Agilent	N5181A	MY47420598	2026-05-07	2027-05-06
2	ATA-E-031	WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMW500	161163	2026-05-07	2027-05-06
3	ATA-E-043	Radio Control Unit	MWRFTest	MW100-RFCB	MW250428A TA-55	2026-05-07	2027-05-06

Note:

1)The Cal. Interval was one year.

2)The cable loss has calculated in test result which connection between each test instruments.

2.7. Test Software

Software name	Model	Version
Conducted emission Measurement Software	EZ-EMC	FARAD-3A1.1+
Radiated emission Measurement Software	EZ-EMC	FARAD-3A1.1+
Bluetooth and WIFI Test System	MWRF8310	2.0.0.0



3. TEST ITEM AND RESULTS

3.1. Antenna requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1)(i):

(i) Systems operating in the 2400~2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

Antenna Information

The maximum gain of antenna was 0.11 dBi. The EUT antenna is permanent attached FPC antenna. It comply with the standard requirement.



3.2. Conducted Emission

Limit

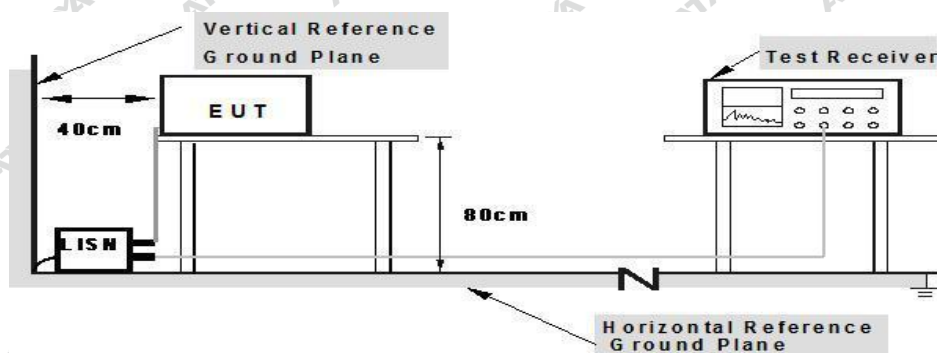
Conducted Emission Test Limit

Frequency	Maximum RF Line Voltage (dB μ V)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Notes:

- (1) *Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

Test Configuration



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

Test Procedure

1. The EUT was setup according to ANSI C63.10:2020+ Cor.1-2023 requirements.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 0.8m above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 0.8m from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
4. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
5. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
6. Conducted Emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
7. During the above scans, the emissions were maximized by cable manipulation.

Test Mode:

Please refer to the clause 2.3.

Test Results

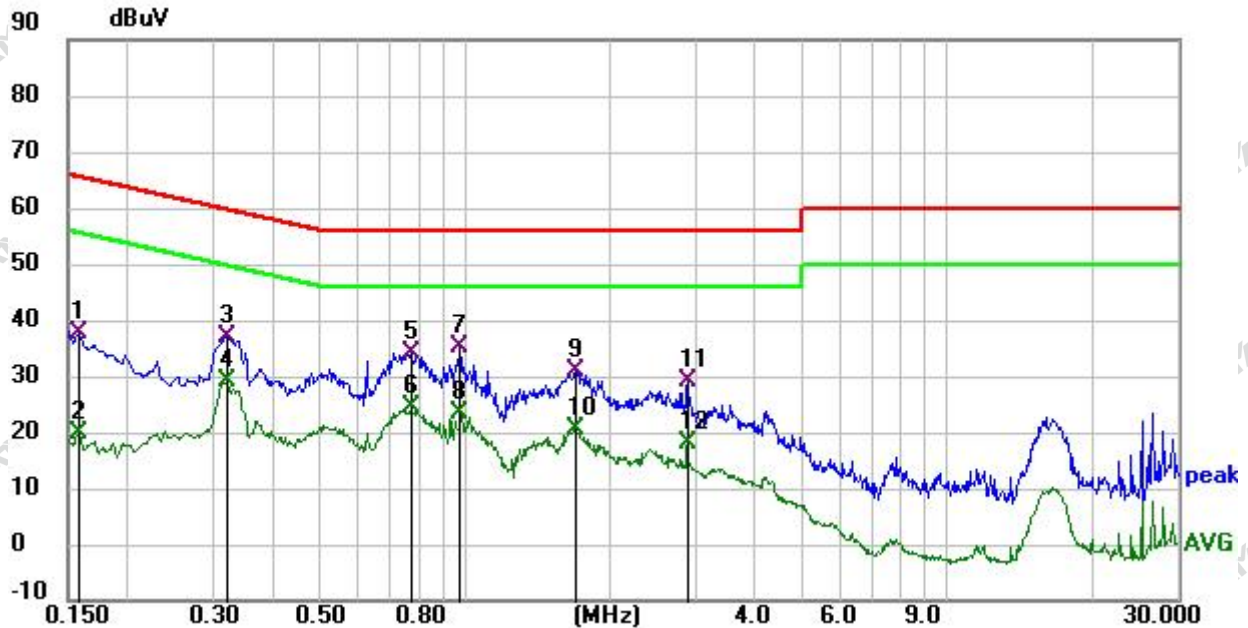
EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	L
Temperature	26°C	Humidity	54%
Test Mode:	Normal Link	Test Voltage:	DC 5V from adapter AC 120V 60Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	33.27	10.11	43.38	66.00	-22.62	QP
2	0.1500	13.26	10.11	23.37	56.00	-32.63	AVG
3	0.3180	30.24	10.11	40.35	59.76	-19.41	QP
4	0.3180	18.22	10.11	28.33	49.76	-21.43	AVG
5	0.4980	25.69	10.13	35.82	56.03	-20.21	QP
6	0.4980	9.74	10.13	19.87	46.03	-26.16	AVG
7	0.7460	26.28	10.15	36.43	56.00	-19.57	QP
8	0.7460	13.03	10.15	23.18	46.00	-22.82	AVG
9 *	0.9980	27.76	10.13	37.89	56.00	-18.11	QP
10	0.9980	11.26	10.13	21.39	46.00	-24.61	AVG
11	1.7460	21.96	10.18	32.14	56.00	-23.86	QP
12	1.7460	7.13	10.18	17.31	46.00	-28.69	AVG

Remark: 1. All readings are Quasi-Peak and Average values
 2. Margin = Result (Result = Reading + Factor) - Limit
 3. Factor = LISN factor + Cable loss + Limiter (10dB)

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	N
Temperature	26°C	Humidity	54%
Test Mode:	Normal Link	Test Voltage:	DC 5V from adapter AC 120V 60Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1580	27.60	10.11	37.71	65.57	-27.86	QP
2	0.1580	9.74	10.11	19.85	55.57	-35.72	AVG
3	0.3220	26.83	10.11	36.94	59.66	-22.72	QP
4 *	0.3220	18.98	10.11	29.09	49.66	-20.57	AVG
5	0.7740	23.99	10.15	34.14	56.00	-21.86	QP
6	0.7740	14.14	10.15	24.29	46.00	-21.71	AVG
7	0.9740	24.99	10.13	35.12	56.00	-20.88	QP
8	0.9740	13.09	10.13	23.22	46.00	-22.78	AVG
9	1.7060	20.80	10.18	30.98	56.00	-25.02	QP
10	1.7060	10.36	10.18	20.54	46.00	-25.46	AVG
11	2.8860	18.91	10.20	29.11	56.00	-26.89	QP
12	2.8860	7.79	10.20	17.99	46.00	-28.01	AVG

Remark: 1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = LISN factor + Cable loss + Limiter (10dB)

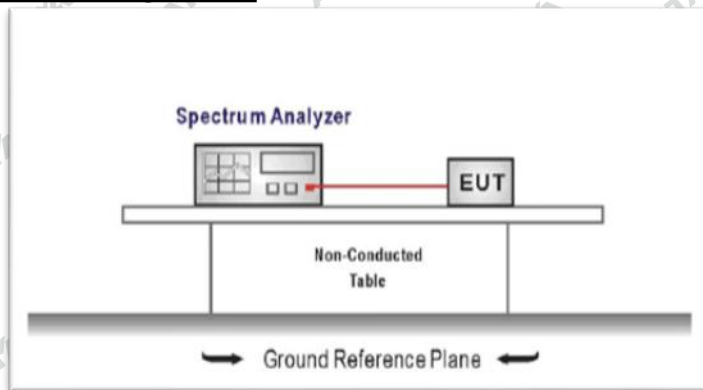
3.3. Band edge and Spurious Emission (conducted)

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d):

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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.

Test Configuration



Test Procedure

1. Connect the antenna port(s) to the spectrum analyzer input.
2. Establish a reference level by using the following procedure
Center frequency=DTS channel center frequency
The span = 1.5 times the DTS bandwidth.
RBW = 100 kHz, VBW $\geq 3 \times$ RBW
Detector = peak, Sweep time = auto couple, Trace mode = max hold
Allow trace to fully stabilize
Use the peak marker function to determine the maximum PSD level

Note: the channel found to contain the maximum PSD level can be used to establish the reference level.

3. Emission level measurement
Set the center frequency and span to encompass frequency range to be measured
RBW = 100 kHz, VBW $\geq 3 \times$ RBW
Detector = peak, Sweep time = auto couple, Trace mode = max hold
Allow trace to fully stabilize
Use the peak marker function to determine the maximum amplitude level.
4. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter waveform on the spectrum analyzer.
5. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band excluding restricted frequency bands) are attenuated by at least the minimum requirements specified (at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz). Report the three highest emissions relative to the limit.

Test Mode

Please refer to the clause 2.3.

Test Results

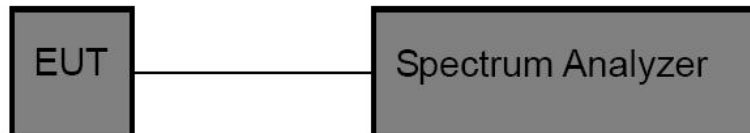
Test data reference attachment B.

3.4. 6dB Bandwidth

Limit

Test Item	Limit	Frequency Range(MHz)
Bandwidth	≥ 500 KHz (6dB bandwidth)	2400~2483.5

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.
3. The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.
4. Spectrum Setting:
6dB bandwidth:
 - (1) Set RBW= shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
 - (2) Set the video bandwidth (VBW) ≥ 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.
 - (6) Allow the trace to stabilize.
- (7) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

NOTE: The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

Test Mode

Please refer to the clause 2.3.

Test Results

Test data reference attachment B.

3.5. Peak Output Power

Limit

Test Item	Limit	Frequency Range(MHz)
Peak Output Power	1 Watt or 30 dBm	2400~2483.5

Test Configuration



Test Procedure

1. The maximum peak conducted output power may be measured using a broadband peak RF power meter.
2. Spectrum Setting:
Peak Detector: $RBW \geq DTS \text{ Bandwidth}$, $VBW \geq 3 * RBW$.
Sweep time=Auto.
Detector= Peak.
Trace mode= Maxhold.
Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.3.

Test Result

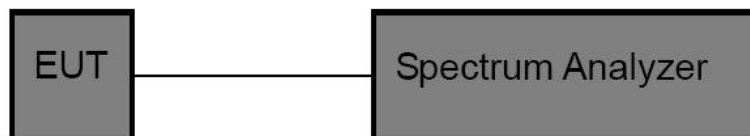
Test data reference attachment B.

3.6. Power Spectral Density

Limit

FCC Part 15 Subpart C(15.247)		
Test Item	Limit	Frequency Range(MHz)
Power Spectral Density	8dBm(in any 3 kHz)	2400~2483.5

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02
3. Spectrum Setting:
 - Set analyzer center frequency to DTS channel center frequency.
 - Set the span to 1.5 times the DTS bandwidth.
 - Set the RBW to: 30 kHz
 - Set the VBW to: 100 kHz
 - Detector: peak
 - Sweep time: auto
 - Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.3.

Test Result

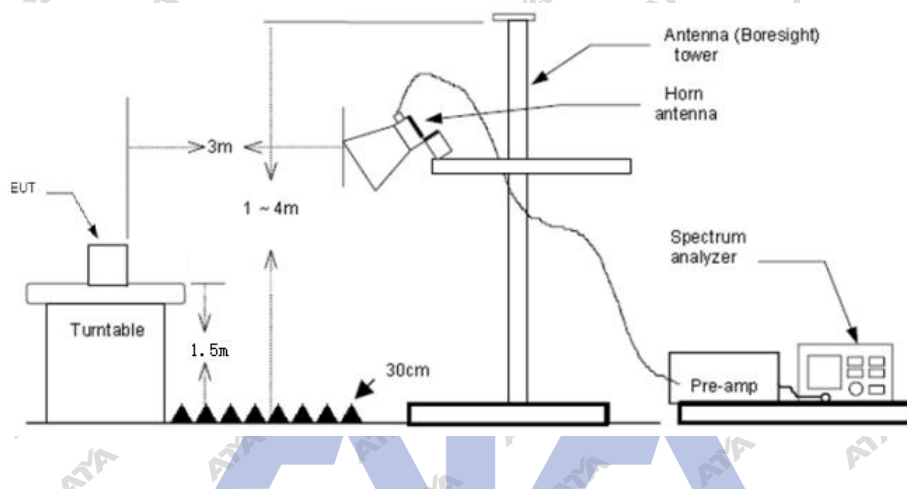
Test data reference attachment B.

3.7. Band Edge Emissions(Radiated)

Limit

Restricted Frequency Band (MHz)	(dBuV/m)(at 3m)	
	Peak	Average
2310 ~2390	74	54
2483.5 ~2500	74	54
Note: All restriction bands have been tested, only the worst case is reported.		

Test Configuration



Test Procedure

1. The EUT was setup and tested according to ANSI C63.10:2020+ Cor.1-2023 requirements.
2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2020+ Cor.1-2023 on radiated measurement.
5. The receiver set as follow:
 RBW=1MHz, VBW=3MHz PEAK detector for Peak value.
 RBW=1MHz, VBW=10Hz with PEAK Detector for Average Value.

Test Mode

Please refer to the clause 2.3.

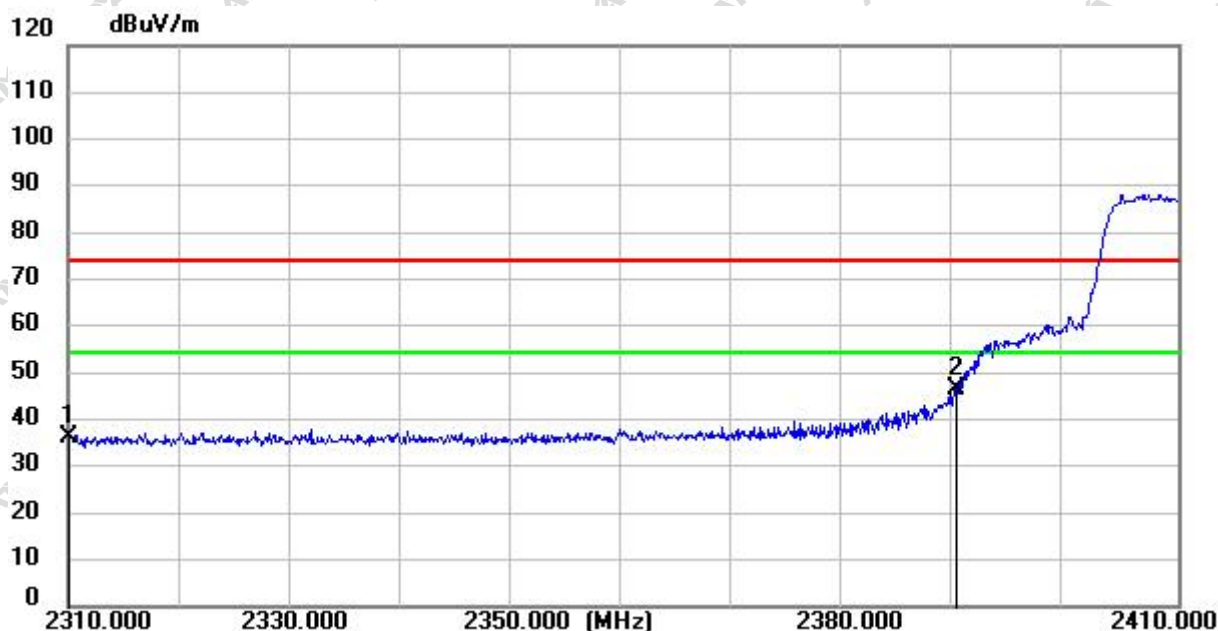
Test Results

Note:

Measurement = Reading level + Correct Factor

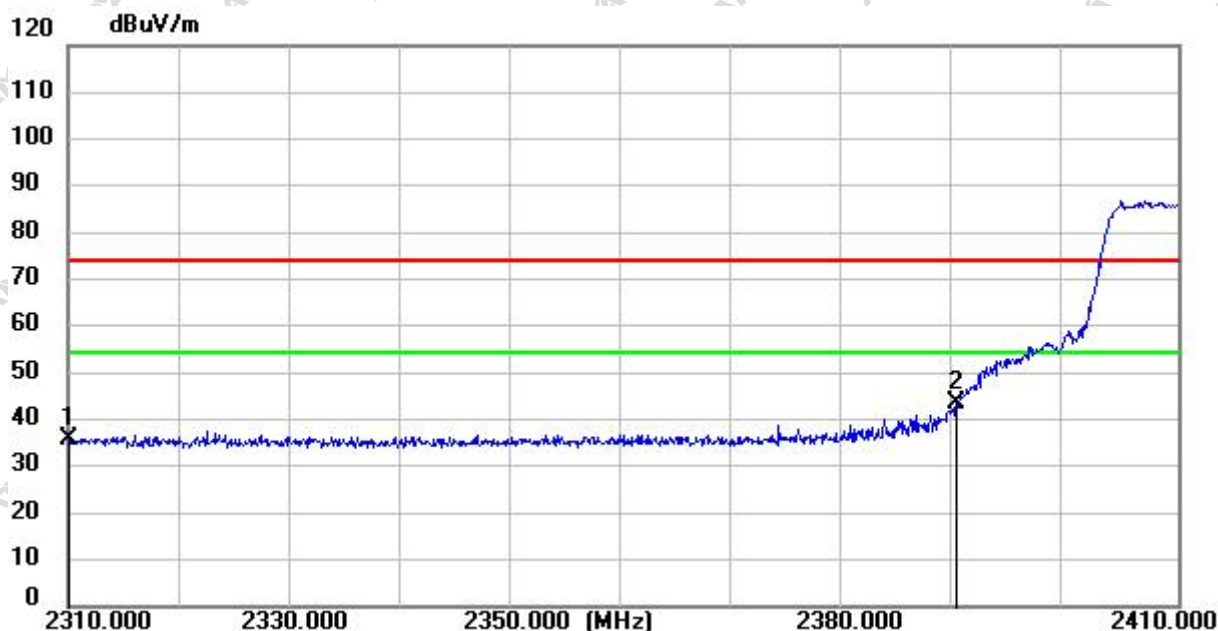
Correct Factor=Antenna Factor + Cable Loss -Preamplifier Factor

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Horizontal
Temperature	26°C	Humidity	54%
Test Mode:	11g 2412MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



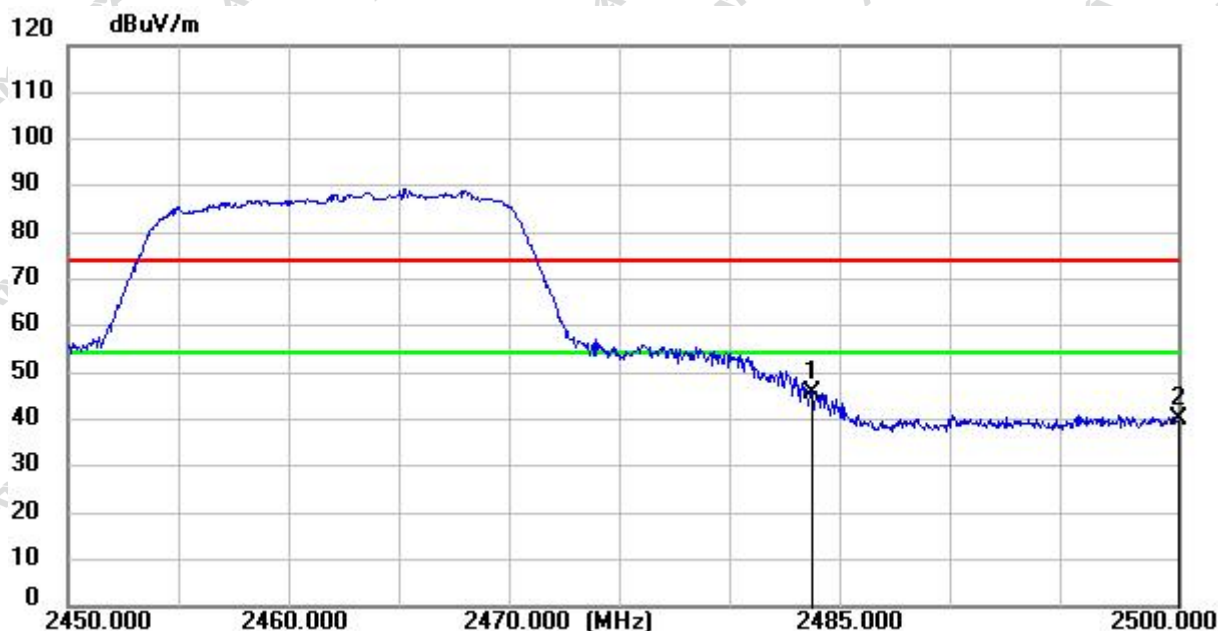
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2310.0000	60.33	-24.24	36.09	74.00	-37.91	peak
2 *	2390.0000	70.62	-24.02	46.60	74.00	-27.40	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Vertical
Temperature	26°C	Humidity	54%
Test Mode:	11g 2412MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



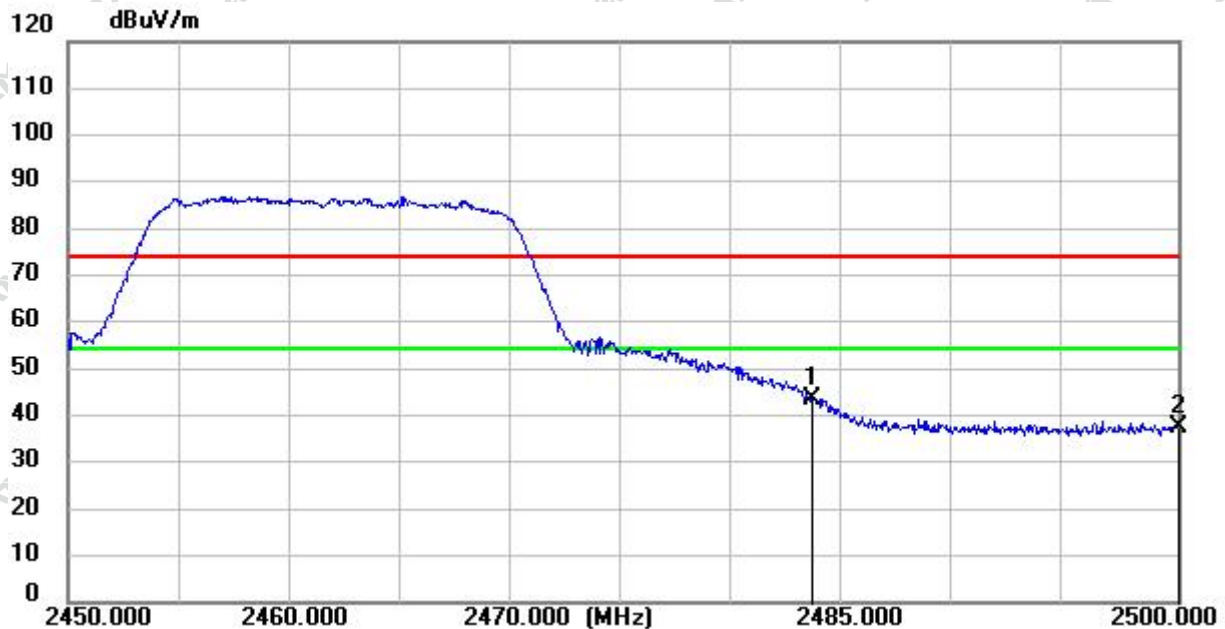
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2310.0000	60.15	-24.24	35.91	74.00	-38.09	peak
2 *	2390.0000	67.60	-24.02	43.58	74.00	-30.42	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Horizontal
Temperature	26°C	Humidity	54%
Test Mode:	11g 2462MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	2483.5000	69.37	-23.53	45.84	74.00	-28.16	peak
2	2500.0000	63.34	-23.40	39.94	74.00	-34.06	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Vertical
Temperature	26°C	Humidity	54%
Test Mode:	11g 2462MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	2483.5000	66.98	-23.53	43.45	74.00	-30.55	peak
2	2500.0000	60.75	-23.40	37.35	74.00	-36.65	peak

Note:

1. All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
2. All the modulation modes have been tested, and only the worst results are reflected in the report.
3. "802.11g" mode is the worst mode. When PK value is lower than the Average value limit, average don't record.

3.8. Spurious Emission (Radiated)

Limit

Radiated Emission Limits (9 kHz~1000 MHz)

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

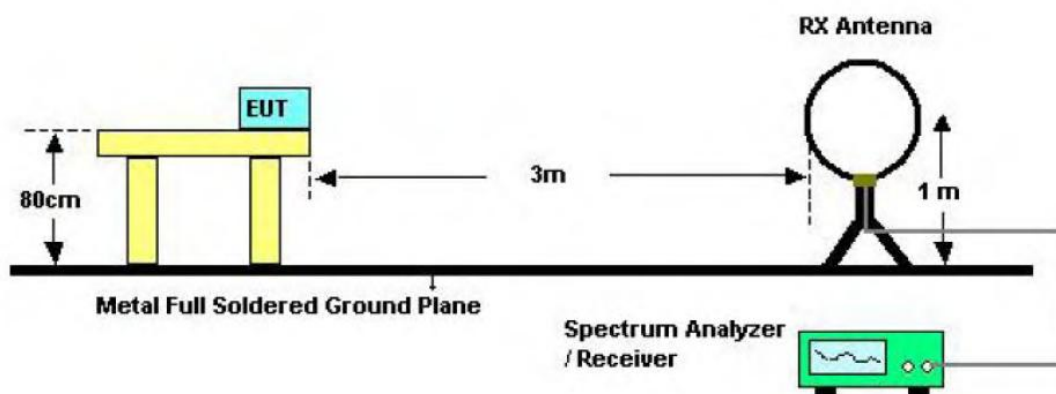
Radiated Emission Limit (Above 1000MHz)

Frequency (MHz)	Distance Meters(at 3m)	
	Peak	Average
Above 1000	74	54

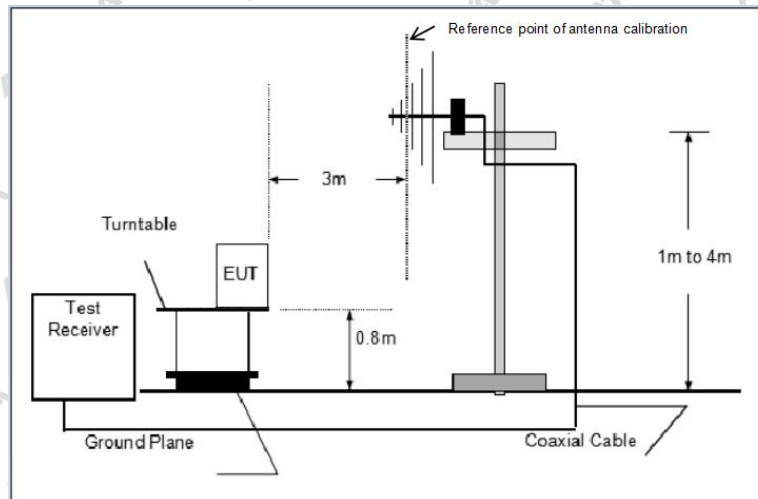
Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBuV/m)=20log Emission Level (uV/m).

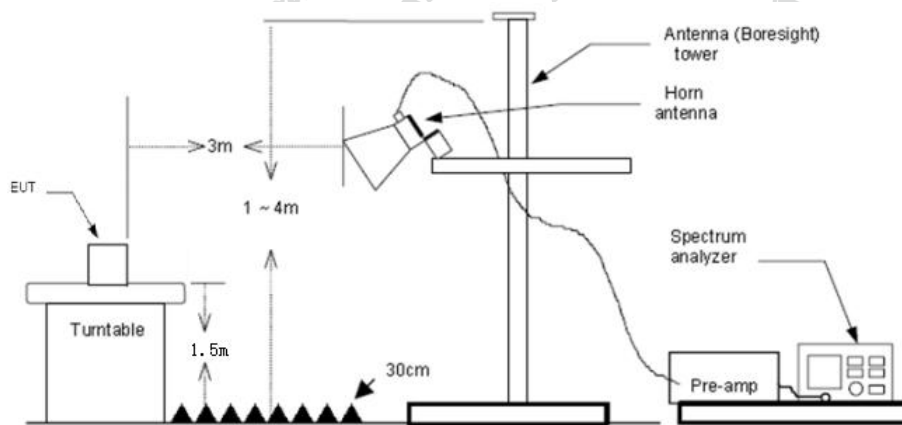
Test Configuration



Below 30MHz Test Setup



Below 1000MHz Test Setup



Above 1GHz Test Setup

Test Procedure

1. The EUT was setup and tested according to ANSI C63.10:2020+ Cor.1-2023
2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. 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-amp and a high pass filter 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
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Below 1 GHz:
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 limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
 - (3) From 1 GHz to 10th harmonic:
RBW=1MHz, VBW=3MHz Peak detector for Peak value.
RBW=1MHz, VBW=10Hz RMS detector for Average value.

Test Mode

Please refer to the clause 2.3.

Test Result**9 KHz~30 MHz**

From 9 KHz~30 MHz : Conclusion: PASS

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	H/V
Temperature	24.8℃	Humidity	52.1%
Test Mode:	Normal Link	Test Voltage:	DC 5V from adapter AC 120V 60Hz

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	--
--	--	--	--	--

Note:

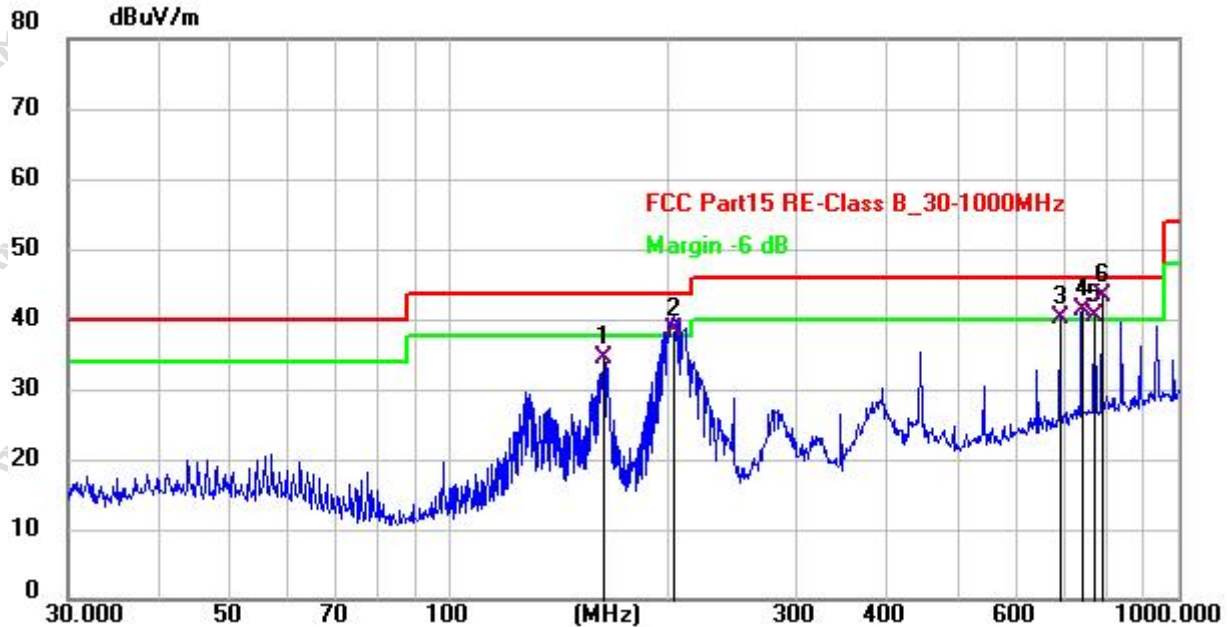
1. For 9kHz-30MHz, the amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Distance extrapolation factor = $40 \log (\text{specific distance/test distance})(\text{dB})$;
3. Limit line = specific limits (dBuV) + distance extrapolation factor.

Note:

- 1) Measurement = Reading level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Preamplifier Factor
- 2) The peak level is lower than average limit (54 dBuV/m), this data is the too weak instrument of signal is unable to test.
- 3) The emission levels of other frequencies are very lower than the limit and not show in test report.
- 4) The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Results of Radiated Emissions (30MHz~ 1000MHz)

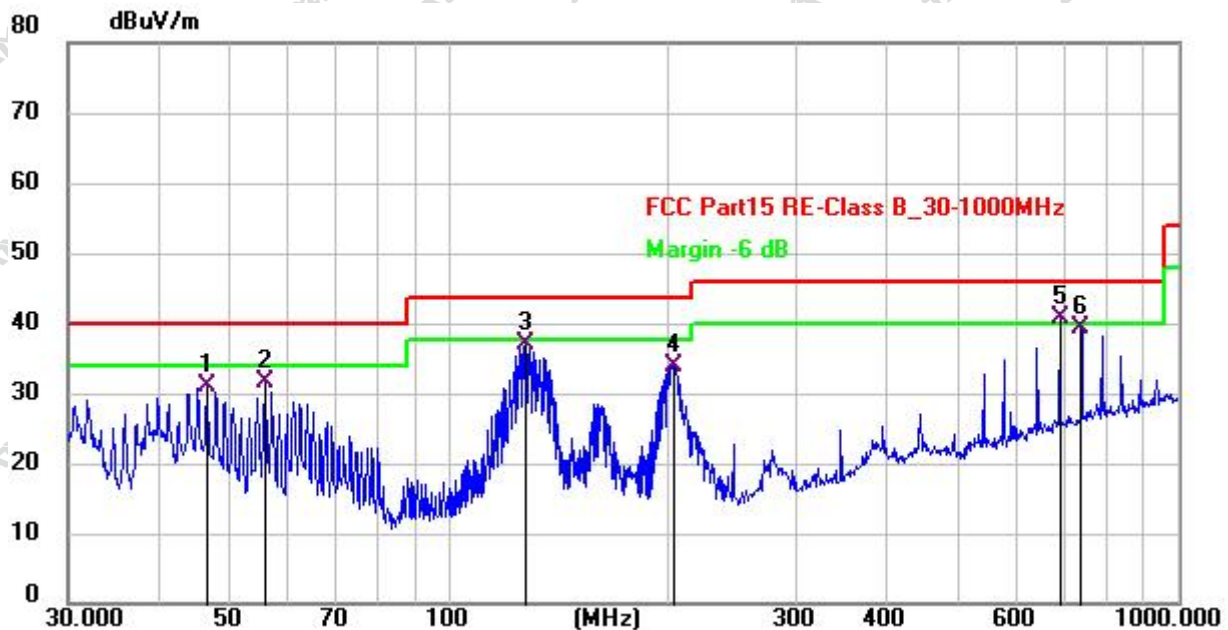
EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Horizontal
Temperature	26℃	Humidity	54%
Test Mode:	Normal Link	Test Voltage:	DC 5V from adapter AC 120V 60Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	162.6105	46.04	-11.71	34.33	43.50	-9.17	QP
2 !	203.5228	53.65	-15.25	38.40	43.50	-5.10	QP
3 !	689.5643	43.19	-2.99	40.20	46.00	-5.80	QP
4 !	739.6603	43.32	-2.02	41.30	46.00	-4.70	QP
5 !	768.7481	41.99	-1.49	40.50	46.00	-5.50	QP
6 *	787.8513	44.68	-1.38	43.30	46.00	-2.70	QP

Emission Level= Read Level+ Correct Factor

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Vertical
Temperature	26°C	Humidity	54%
Test Mode:	Normal Link	Test Voltage:	DC 5V from adapter AC 120V 60Hz

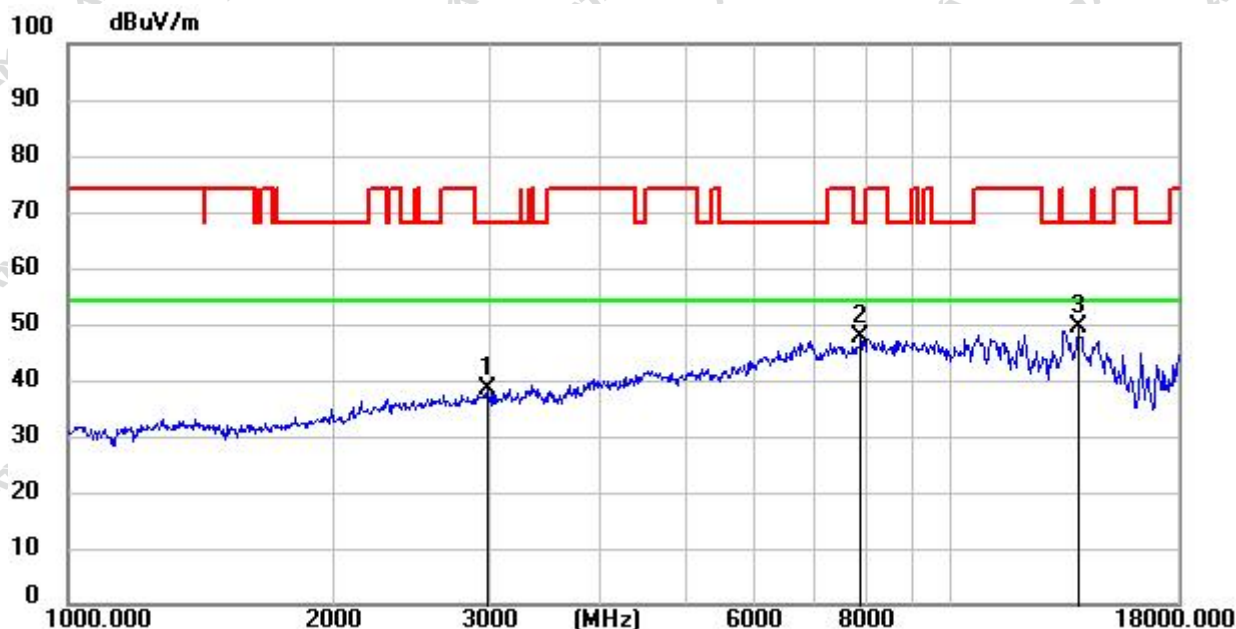


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	46.5030	43.86	-12.99	30.87	40.00	-9.13	QP
2	55.8047	45.04	-13.37	31.67	40.00	-8.33	QP
3	127.6645	50.23	-13.13	37.10	43.50	-6.40	QP
4	203.5227	49.24	-15.25	33.99	43.50	-9.51	QP
5 *	689.5644	43.79	-2.99	40.80	46.00	-5.20	QP
6	737.0712	41.47	-2.08	39.39	46.00	-6.61	QP

Emission Level= Read Level+ Correct Factor

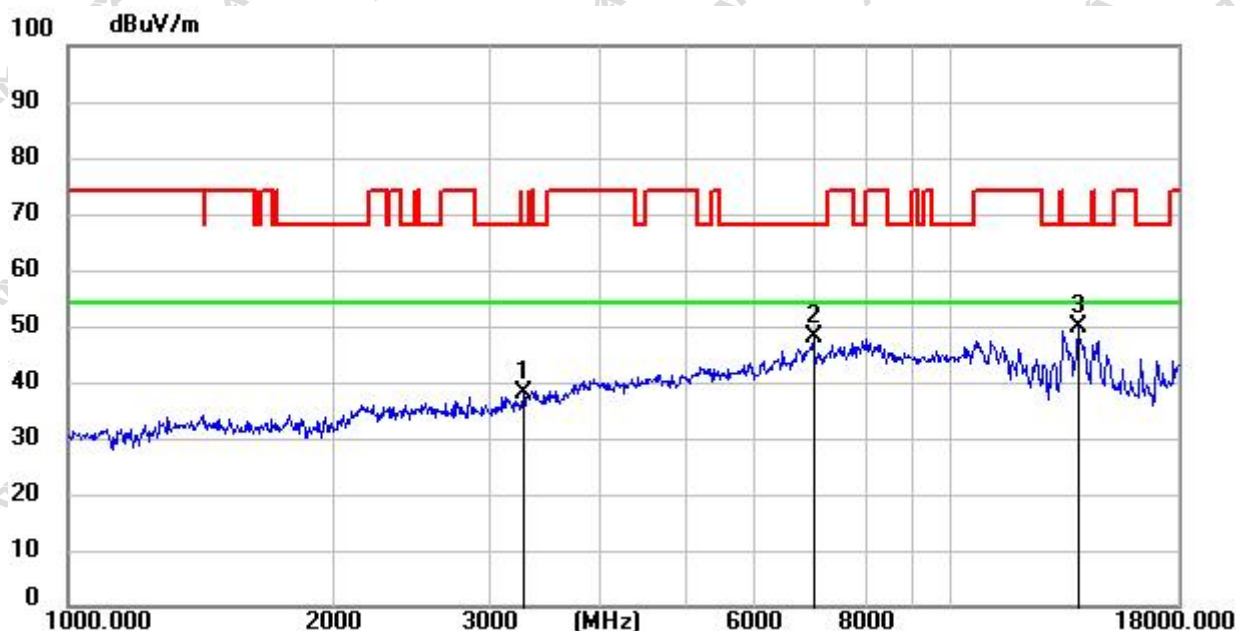
Results of Radiated Emissions (Above 1GHz)

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Horizontal
Temperature	26°C	Humidity	54%
Test Mode:	11g 2412MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



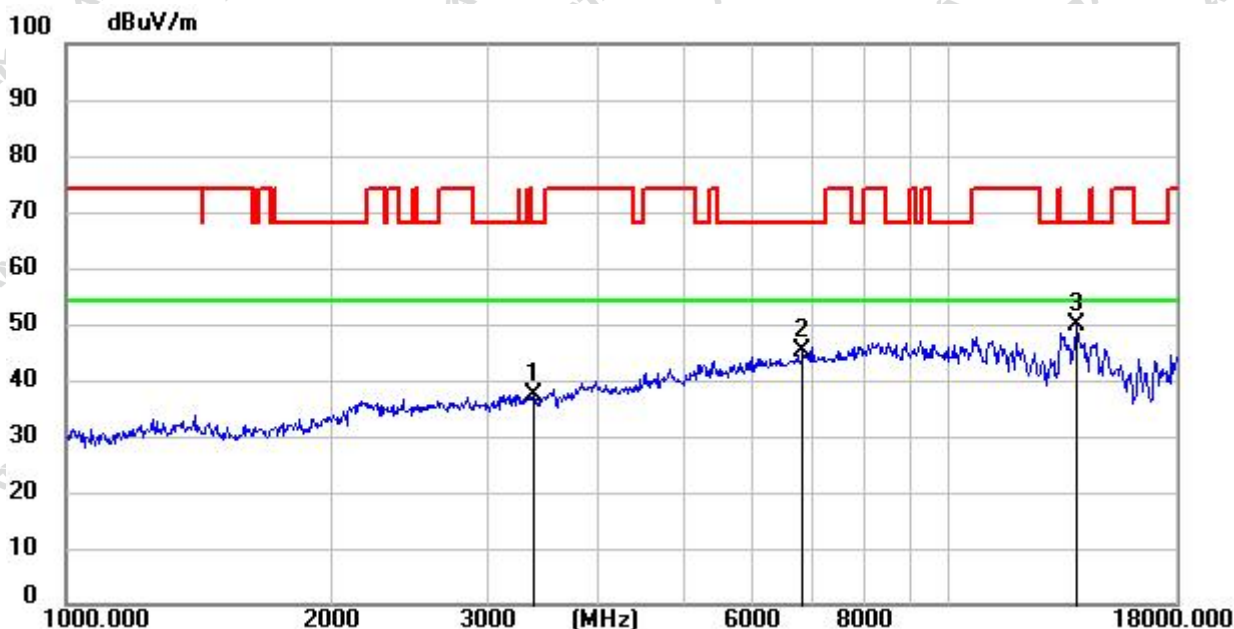
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2981.8993	59.21	-20.74	38.47	68.20	-29.73	peak
2	7875.2540	58.84	-11.04	47.80	68.20	-20.40	peak
3 *	13877.0763	54.39	-4.97	49.42	68.20	-18.78	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Vertical
Temperature	26°C	Humidity	54%
Test Mode:	11g 2412MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



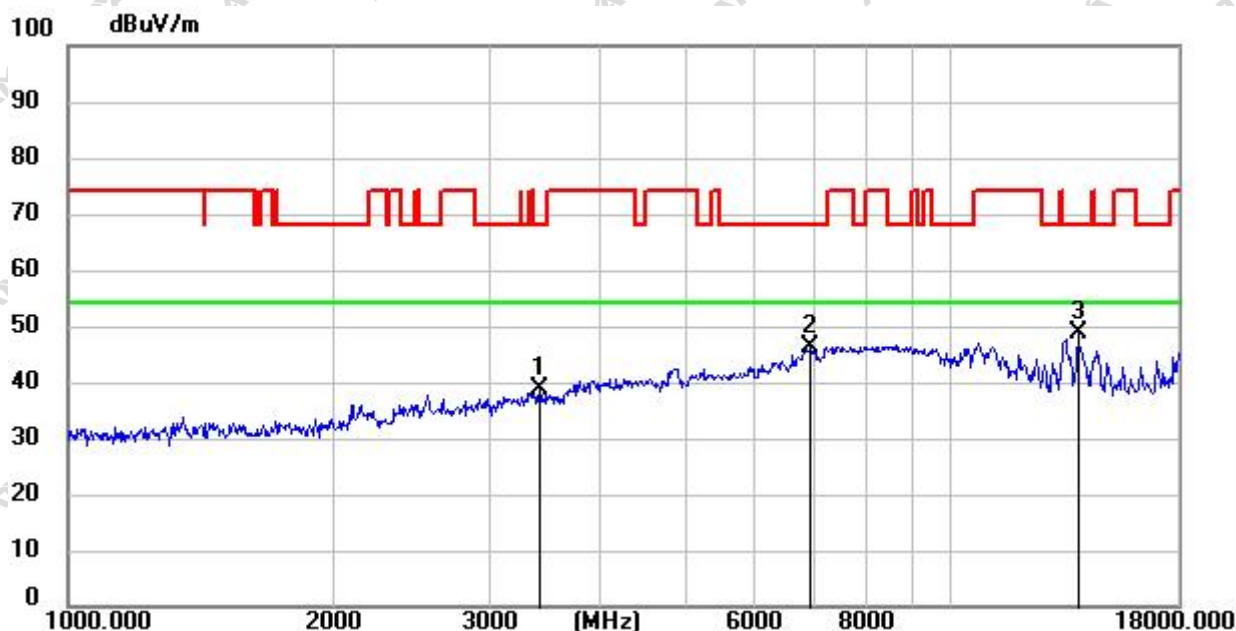
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3280.3260	58.33	-20.39	37.94	68.20	-30.26	peak
2	6974.9825	60.04	-12.18	47.86	68.20	-20.34	peak
3 *	13877.0763	54.76	-4.97	49.79	68.20	-18.41	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Horizontal
Temperature	26°C	Humidity	54%
Test Mode:	11g 2437MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



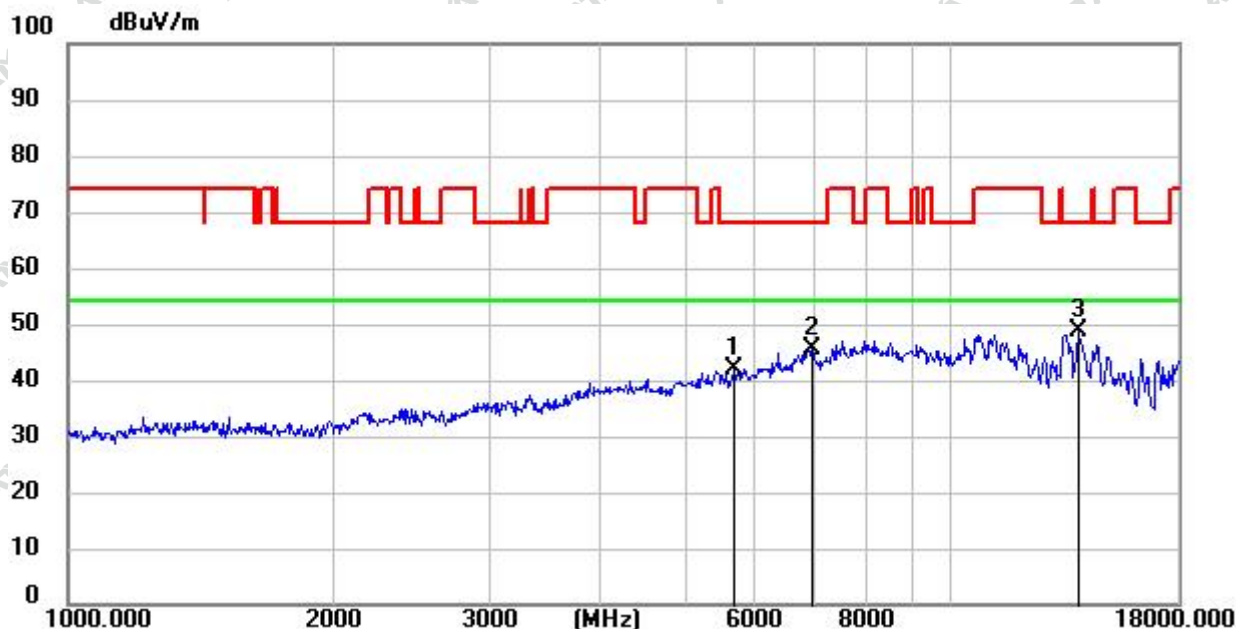
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3376.5230	57.67	-20.32	37.35	68.20	-30.85	peak
2	6815.5505	57.19	-12.17	45.02	68.20	-23.18	peak
3 *	13877.0763	54.96	-4.97	49.99	68.20	-18.21	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Vertical
Temperature	26°C	Humidity	54%
Test Mode:	11g 2437MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



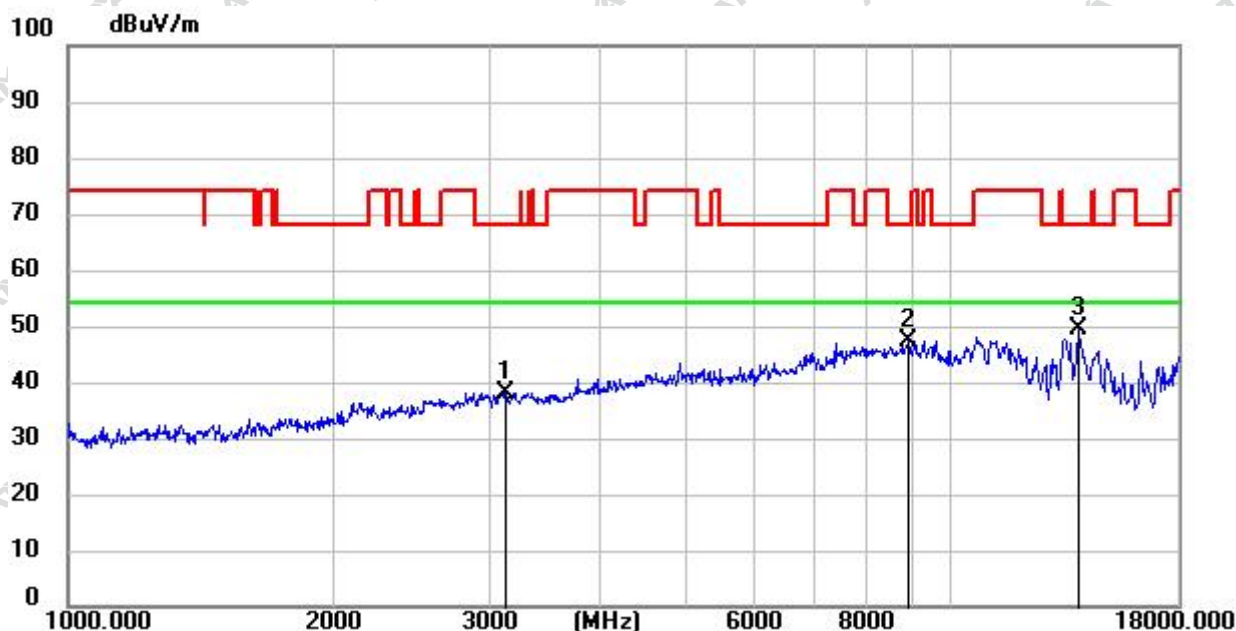
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3415.7872	59.25	-20.48	38.77	68.20	-29.43	peak
2	6914.7631	58.43	-12.09	46.34	68.20	-21.86	peak
3 *	13877.0763	53.75	-4.97	48.78	68.20	-19.42	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Horizontal
Temperature	26°C	Humidity	54%
Test Mode:	11g 2462MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



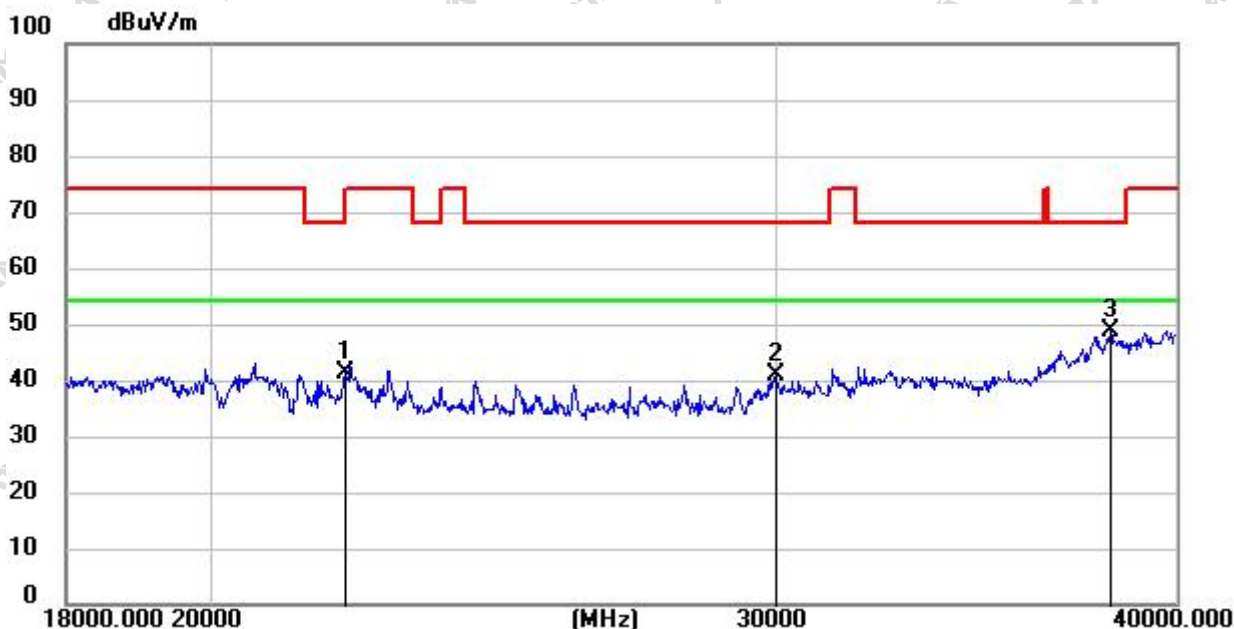
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5680.9210	58.58	-16.61	41.97	68.20	-26.23	peak
2	6954.8513	58.00	-12.41	45.59	68.20	-22.61	peak
3 *	13877.0763	53.56	-4.97	48.59	68.20	-19.61	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Vertical
Temperature	26°C	Humidity	54%
Test Mode:	11g 2462MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



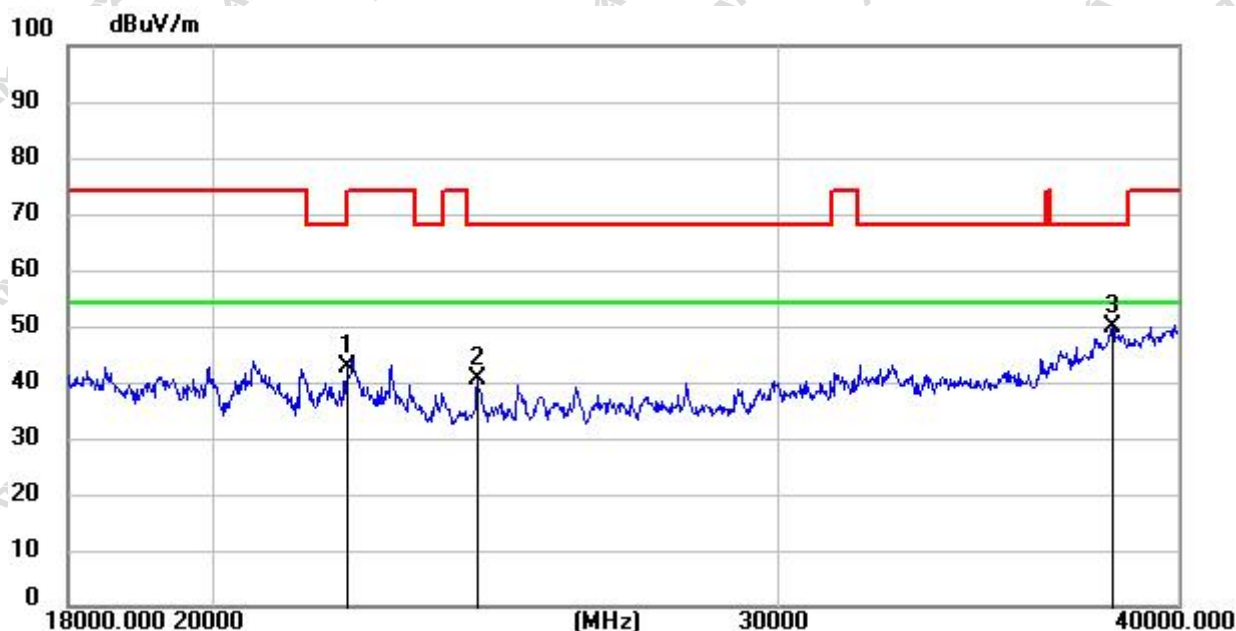
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3132.0785	58.76	-20.58	38.18	68.20	-30.02	peak
2	8943.2744	56.21	-8.91	47.30	68.20	-20.90	peak
3 *	13877.0763	54.35	-4.97	49.38	68.20	-18.82	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Horizontal
Temperature	26°C	Humidity	54%
Test Mode:	11g 2412MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



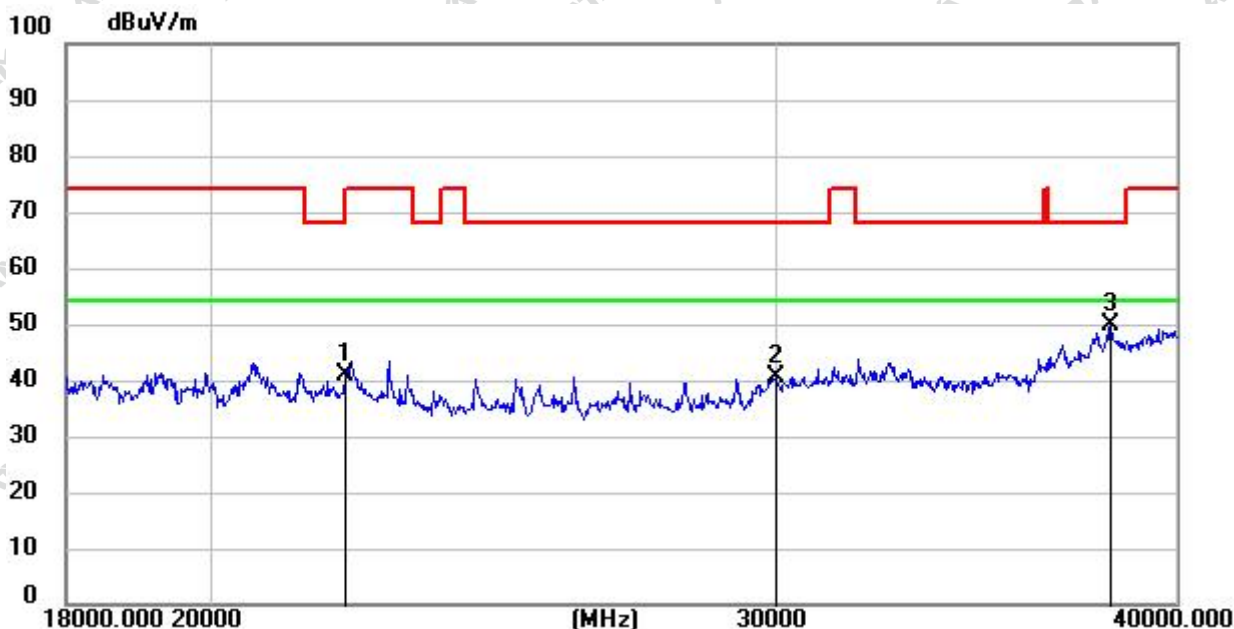
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	21994.6047	41.80	-0.38	41.42	68.20	-26.78	peak
2	29982.6287	35.67	5.19	40.86	68.20	-27.34	peak
3 *	38189.7061	36.60	11.99	48.59	68.20	-19.61	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Vertical
Temperature	26°C	Humidity	54%
Test Mode:	11g 2412MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



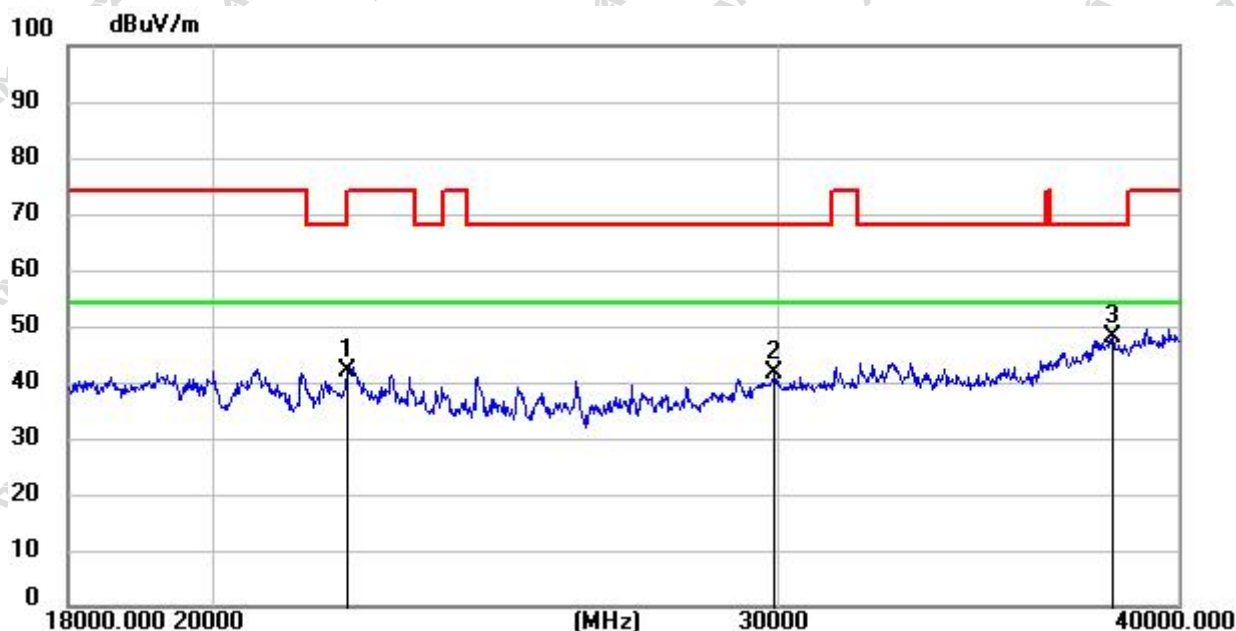
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	21994.6047	43.07	-0.38	42.69	68.20	-25.51	peak
2	24167.7982	41.13	-0.60	40.53	68.20	-27.67	peak
3 *	38159.2235	37.79	12.01	49.80	68.20	-18.40	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Horizontal
Temperature	26°C	Humidity	54%
Test Mode:	11g 2437MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



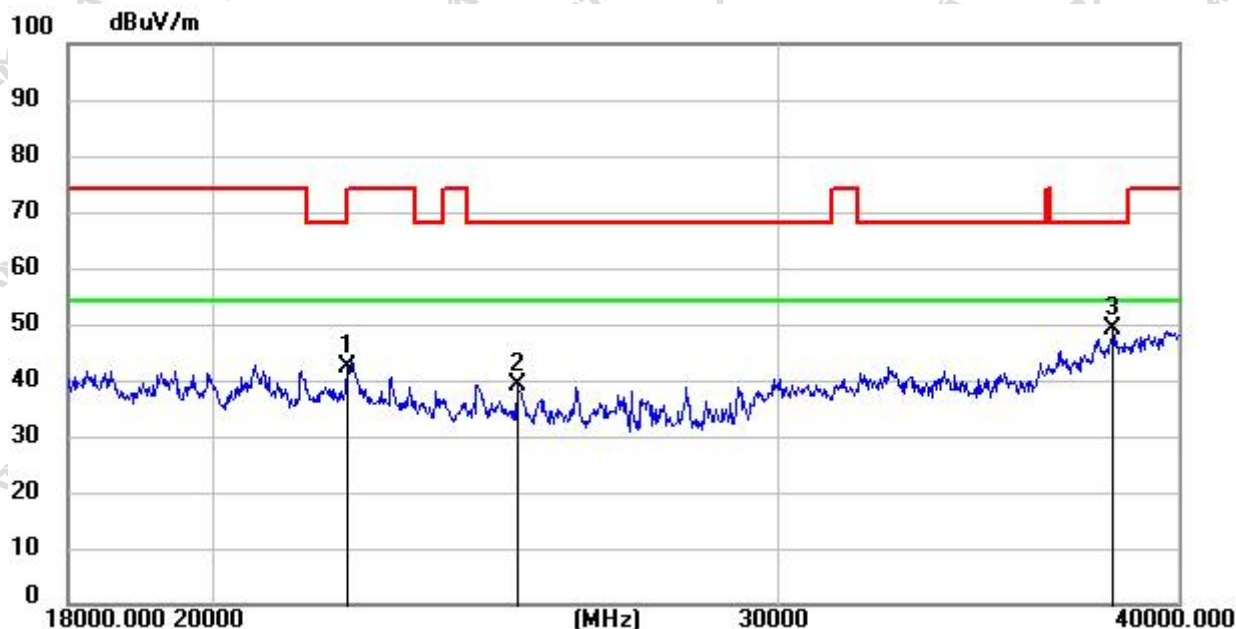
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	21994.6047	41.10	-0.38	40.72	68.20	-27.48	peak
2	29982.6287	35.45	5.19	40.64	68.20	-27.56	peak
3 *	38159.2235	37.67	12.01	49.68	68.20	-18.52	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Vertical
Temperature	26°C	Humidity	54%
Test Mode:	11g 2437MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



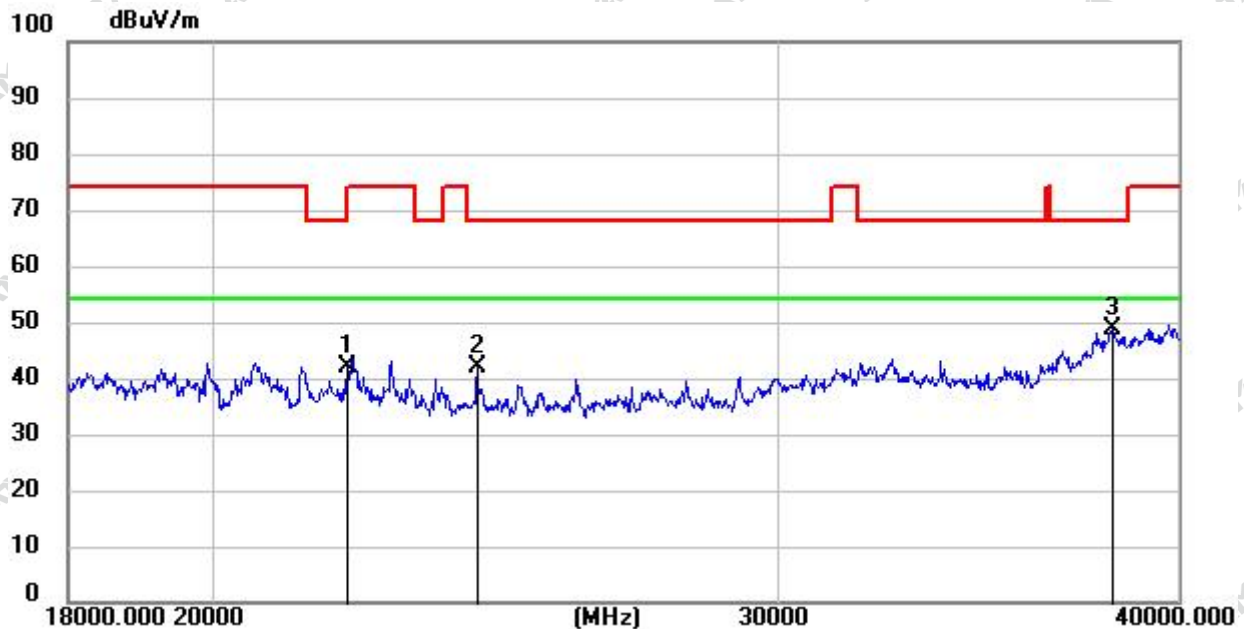
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	21994.6047	42.51	-0.38	42.13	68.20	-26.07	peak
2	29934.7841	36.57	4.96	41.53	68.20	-26.67	peak
3 *	38159.2235	35.99	12.01	48.00	68.20	-20.20	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Horizontal
Temperature	26°C	Humidity	54%
Test Mode:	11g 2462MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	21994.6047	42.67	-0.38	42.29	68.20	-25.91	peak
2	24872.6143	39.12	-0.04	39.08	68.20	-29.12	peak
3 *	38189.7061	37.28	11.99	49.27	68.20	-18.93	peak

EUT:	Music Player	Model Name:	H10
Pressure:	1010 hPa	Phase:	Vertical
Temperature	26℃	Humidity	54%
Test Mode:	11g 2462MHz TX	Test Voltage:	DC 5V from adapter AC 120V 60Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	21994.6047	42.33	-0.38	41.95	68.20	-26.25	peak
2	24167.7982	42.62	-0.60	42.02	68.20	-26.18	peak
3 *	38159.2235	36.74	12.01	48.75	68.20	-19.45	peak

Note:

All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).

Emission Level= Antenna Factor + Cable Loss + Read Level - Preamp Factor.

All the modulation modes have been tested, and only the worst results are reflected in the report.

(2) Other emissions are attenuated more than 20dB below the permissible limits, so it does not recorded in the report.

(3) "802.11g" mode is the worst mode. When PK value is lower than the Average value limit, average don't record.

4. EUT TEST PHOTOS

Note: Refer to the attached test photos

5. PHOTOGRAPHS OF EUT CONSTRUCTIONAL

Note: Refer to the attached exterior and interior photos



*****THE END*****