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# **TEST REPORT**

FCC ID: 2AIZN-X6873 **Product: Mobile Phone** Model No.: X6873 WSE7 WSET **Trade Mark: Infinix** Report No.: WSCT-ANAB-R&E250100001A-NFC **Issued Date: 26 February 2025** 

Issued for: [7]

**INFINIX MOBILITY LIMITED** FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI **STREET FOTAN NT HONGKONG** 

Issued By:

World Standardization Certification & Testing Group(Shenzhen) Co., Ltd. Building A-B, Baoli'an Industrial Park, No.58 and 60, Tangtou Avenue, Shivan Street, Bao'an District, Shenzhen City, Guangdong Province, China TEL: +86-755-26996192

FAX: +86-755-86376605

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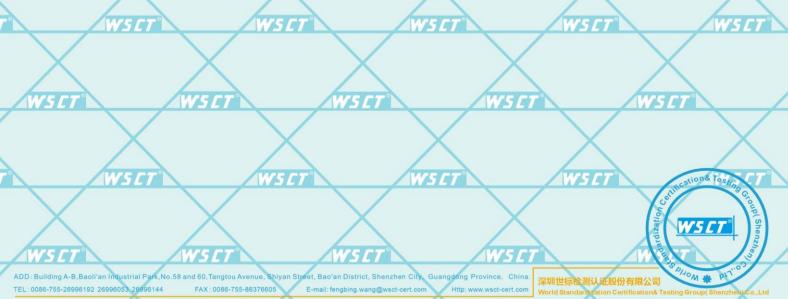
Report No.: WSCT-ANAB-R&E250100001A-NFC

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	Product:	N	Mobile Phone	WSET	WSET	WS CT
$\bigtriangledown$	Model No.:	1	X6873		/	
$\wedge$	Trade Mark	k:	Infinix	$ \land \land$		
NSCT	Applicant:	1975	INFINIX MOBILITY LI	MITED W5	CT W	SET
	X		FLAT N 16/F BLOCK E STREET FOTAN NT H	3 UNIVERSAL INDUSTRIA	AL CENTRE 19-25 SH	HAN MEI
	Manufactu	irer:	INFINIX MOBILITY LI			
	W5ET		FLAT N 16/F BLOCK E STREET FOTAN NT F	3 UNIVERSAL INDUSTRI. IONGKONG	AL CENTRE 19-25 SI	HAN MEI WSCT
X	Date of Tes	st:	07 January 2025 to 2	6 February 2025		X
wsct	Applicable Standards		FCC CFR Title 47 Part KDB 558074 D01 DTS	t 15 Subpart C Meas Guidance v04	CT W	15CT°
		Contraction of the local sector		I I MA II Otradaul		0 Testine

The above equipment has been tested by World Standardization Certification & Testing Group(Shenzhen)Co., Ltd. and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

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Approved By:	(Li Huaibi)	Date: 2	February) WSET	WSET
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## 2. Test Result Summary

				WSET
$\checkmark$	Requirement	CFR 47 Section	Result	WJET
$\overline{\ }$	Antenna requirement	§15.203	PASS	
' <i>5 C T</i> °	Emission Bandwidth	WSCT §15.215 WSCT	PASS'557	
	Field Strength of Fundamental Emissions	§15.225(a)	PASS	$\boldsymbol{i}$
	Radiated Emissions	§15.225(d) / 15.209	PASS	WSCT®
$\times$	Frequency Stability	§15.225(e)	PASS	
5 <i>CT</i> °	Conducted Emission	<b>WSET §15.207 WSET</b>	PASS/SCT	

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Note: The EUT has a permanently and irreplaceable attached antenna, which complies with the requirement FCC 15.203

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- 1. PASS: Test item meets the requirement.
- 2. Fail: Test item does not meet the requirement.
- 3. N/A: Test case does not apply to the test object.
- 4. The test result judgment is decided by the limit of test standard.

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Report No.: WSCT-ANAB-R&E250100001A-NFC

## 3. EUT Description

	Product Name:	Mobile Phone WSCT WSCT	VSET
$\checkmark$	Model :	X6873	
	Trade Mark:	Infinix	/
	<b>Operation Frequency:</b>	NFC: 13.553-13.567MHz(TX/RX)	$ \rightarrow $
	Antenna Type	Integral Antenna	$\times$
	Modulation Technology:	ASK(NFC) WSCT	VSET
	Operating Voltage:	Adapter: U450XSB Input: 100-240V~50/60Hz 1.8A Output: 5.0V3.0A 15.0W or 5.0-11.0V4.5A or 11.04.1A 45.0W MAX Rechargeable Li-ion Polymer Battery: BL-55AX Rated Voltage: 3.91V Rated Capacity: 5350mAh/20.92Wh Typical Capacity: 5500mAh/21.51Wh Limited Charge Voltage: 4.50V	VSET
ET	Remark:	N/A. WSET	/
the second s	later 4 NI/A standa for no anni		

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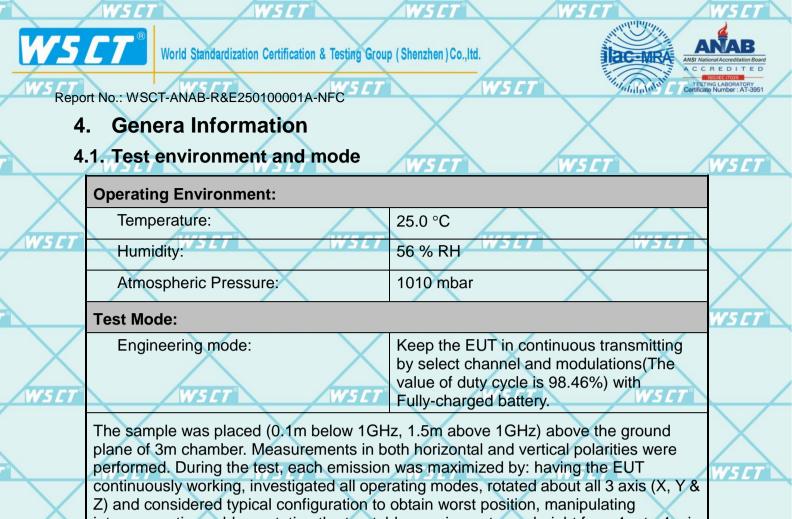
Note: 1. N/A stands for no applicable.

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2. The antenna gain is provided by the customer. For any reported data issues caused by the antenna gain, World Standardization Certification&Testing Group (Shenzhen) Co., Ltd assumes no responsibility.

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	Park,No.58 and 60,Tangtou Avenue, Sh	niyan Street, Bao'an District, Shenzhen City, Gu	angdong Province, China. 深圳世标	检测认证股份有限公司 ndard zation Certification & Testing Group(	Shenzhen Co., Ltd

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interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

#### 4.2. Description of 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.

SCT	Equipment	Model No.	Serial No.	FCC ID	Trade Name
	$\times$		$\times$	/	/

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test. 2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended

use.

3. For conducted measurements (Output Power, 6dB Emission Bandwidth, Power Spectral Density, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

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## 5. Facilities and Accreditations

## 5.1.Facilities

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All measurement facilities used to collect the measurement data are located at Building A-B,Baoli'an Industrial Park,No.58 and 60,Tangtou Avenue, Shiyan Street, Bao'an District, Shenzhen City, Guangdong Province, China of the World Standardization Certification & Testing Group (Shenzhen) Co., Ltd.

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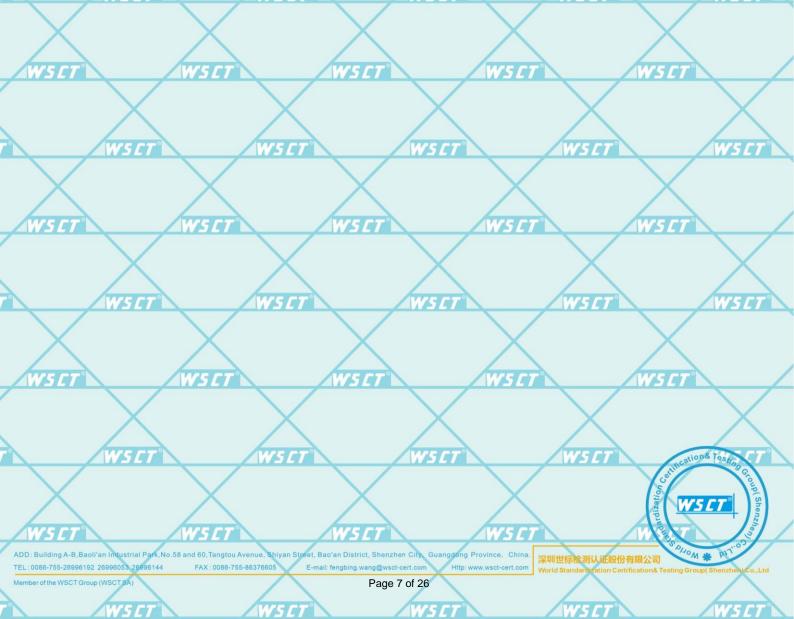
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The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

#### 5.2. ACCREDITATIONS ANAB - Certificate Number: AT-3951

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (ANAB).Certification Number: AT-3951





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### 5.3. Measurement Uncertainty

1. The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

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2. The Ulab is less than Ucispr, compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

3. For conducted emission test of laboratory have a measurement uncertainty greater than that specified in harmonized standard, this equipment can still be used provided that an

adjustment is made follows : any additionan uncertaimty in the test system over and

above that specified in harmonized standard should be used to tighter the test requirements-making the test harder to pass. This procedure will ensure that a test system not comliant with harmonized standard does not increase the probability of passing a EUT that would otherwise have failed a test if a test system comliant with harmonized standard had been used.

	PARAMETER	Value	
_	Conducted emissions (9 kHz-30 MHz)	WSLT 3.2 dB LT W	<u>'5 [7</u> ")
	Radiated emissions (9 kHz-30 MHz)	3.3 dB	
X	Radiated emissions (30 MHz-1 GHz)	3.8 dB	
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## 6. MEASUREMENT INSTRUMENTS

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	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibrated	alibrated until	Use or Not
	EMI Test Receiver	R&S	ESCI	100005	2024-11-05	2025-11-04	$\square$
	Bi-log Antenna	SCHWARZBECK	VULB9168	01488	2024-07-29	2025-07-28	
	Broadband Antenna	SCHWARZBECK	VULB9161	9161-4079	2024-11-05	2025-11-04	
	Loop antenna 📈	SCHNARZBE	FMZB1519B	00023 🧹	2024-11-05	2025-11-04	$\square$
Γ	pre-amplifier	CDSI	PAP-1G18-38	-	2024-11-05	2025-11-04	
	System Controller	СТ 🗙	SC100	X-	2024-11-05	2025-11-04	$\square$
	Spectrum analyzer	R&S	FSU26	200409	2024-11-05	2025-11-04	$\boxtimes$
	H & T Chamber	Guangzhou gongwen	GDJS-500-40	/ 5 0329	2024-11-05	2025-11-04	⊠ ws
Ζ	MXG Vector Signal Generator	KEYSIGHT	N5182B	53060646	2024-11-05	2025-11-04	$\boxtimes$
<b>[</b> 7	EXG Analog Signal Generator	5 CT Agilent	N5171B	40060472	2024-11-05	2025-11-04	
_							
N	MXA Signal Analyzer	Agilent	N9020A	54123254	2024-11-05	2025-11-04	
	USB Wideband Power Sensor	Agilent	U2021XA	52110008	2024-11-05	2025-11-04	
	Simultaneous Sampling DAQ	Agilent	U2531A	53100008	2024-11-05	2025-11-04	
	Coaxial cable	Megalon	LMR400	N/A	2024-11-05	2025-11-04	$\square$
	GPIB cable	megalon	GPIB	N/A	2024-11-05	2025-11-04	$\square$
	Cable	H+S	SUCOFLEX	102(0.2m)	2024-11-05	2025-11-04	$\square$
CT	Cable	SCT H+S	SUCOFLEX	102(1.5m)	2024-11-05	2025-11-04	
	Anechoic chamber	SAEMC	966		2024-11-05	2025-11-04	
				V		V	

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#### **GENERAL TEST CONFIGURATIONS** 7.

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### 7.1.1. Test Environments

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

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	Atmospheric Pressure	100 kPa to 102 kPa		
	Temperature	NT (Normal Temperature)	+22°C to +25°C	WSET
$\times$	Working Voltage of the EUT	NV (Normal Voltage)	DC 3.86V	X

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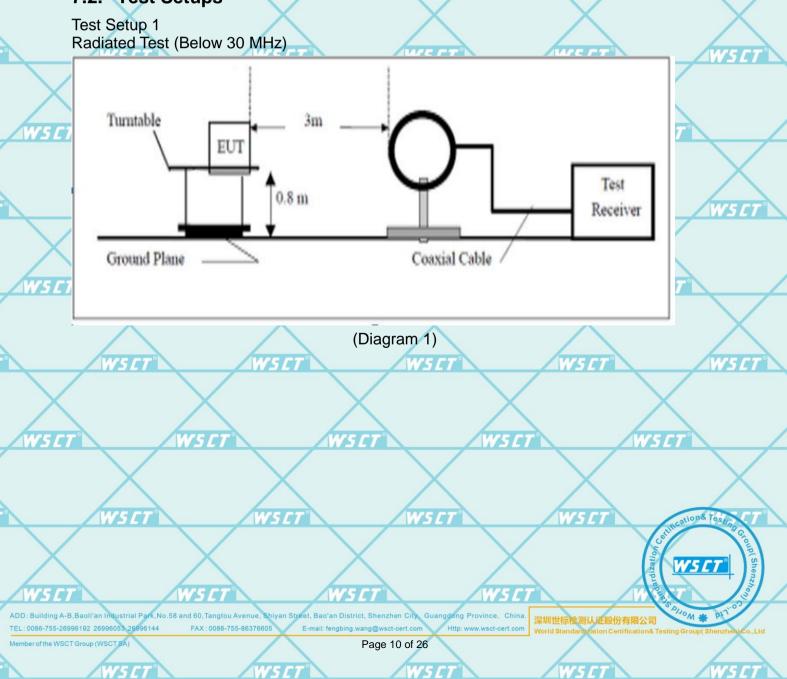
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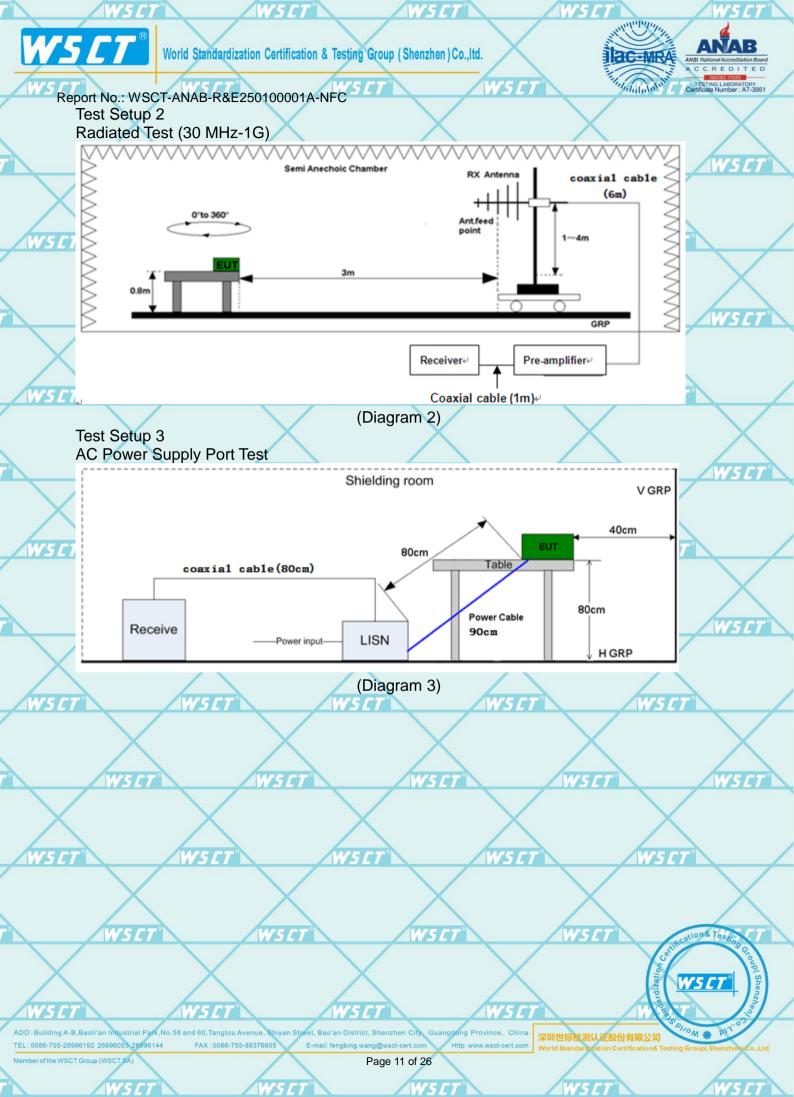
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#### WSET Test Setups 7.2.

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## 8. TEST ITEMS

### 8.1. Antenna Requirements

#### 8.1.1. Relevant Standards

#### FCC §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 shall be considered sufficient to comply with the provisions of this section. 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. This requirement does not apply 57 to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer

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shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

#### 8.1.2. Antenna Anti-Replacement Construction

-	The Antenna Anti-Replacement as following	method:
	Protected Method	Description
5	The antenna is embedded in the product.	An embedded-in antenna design is used

				/
Reference Documents		Item		
Photo		Please refer EUT internal photos.		
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#### 8.2. Emission Bandwidth

#### 8.2.1. Definition

#### 15.215(c);

Intentional radiators operating under the alternative provisions to the general emission limits must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

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The following conditions shall be observed for measuring the occupied bandwidth and x dB bandwidth:

• The transmitter shall be operated at its maximum carrier power measured under normal test conditions.

• The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.

• The detector of the spectrum analyzer shall be set to "Sample". However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or "Max Hold") may be necessary to determine the occupied / x dB bandwidth if the device is W51 not transmitting continuously.

• The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

Note: It may be necessary to repeat the measurement a few times until the RBW and VBW are in compliance with the above requirement.

For the 99% emission bandwidth, the trace data points are recovered and directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99% emission bandwidth).

#### 8.2.2. Test Setup

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See section 7.2(Diagram 1)

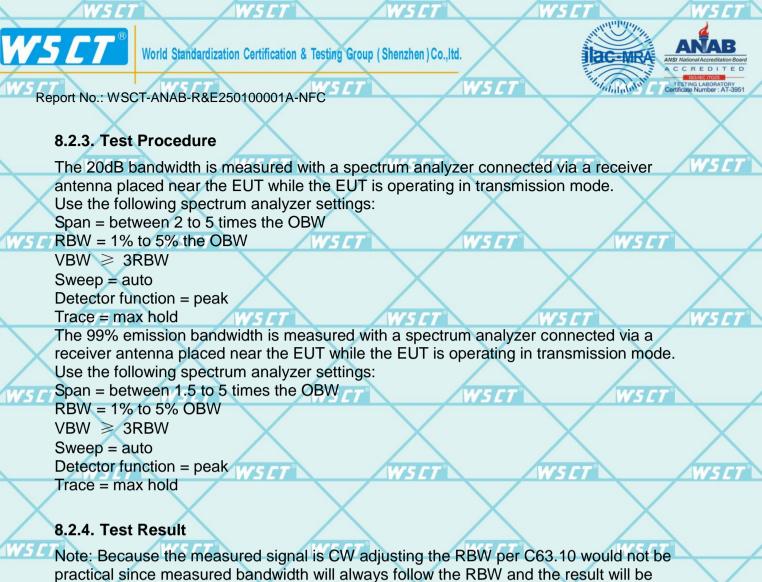
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approximately twice the RBW.

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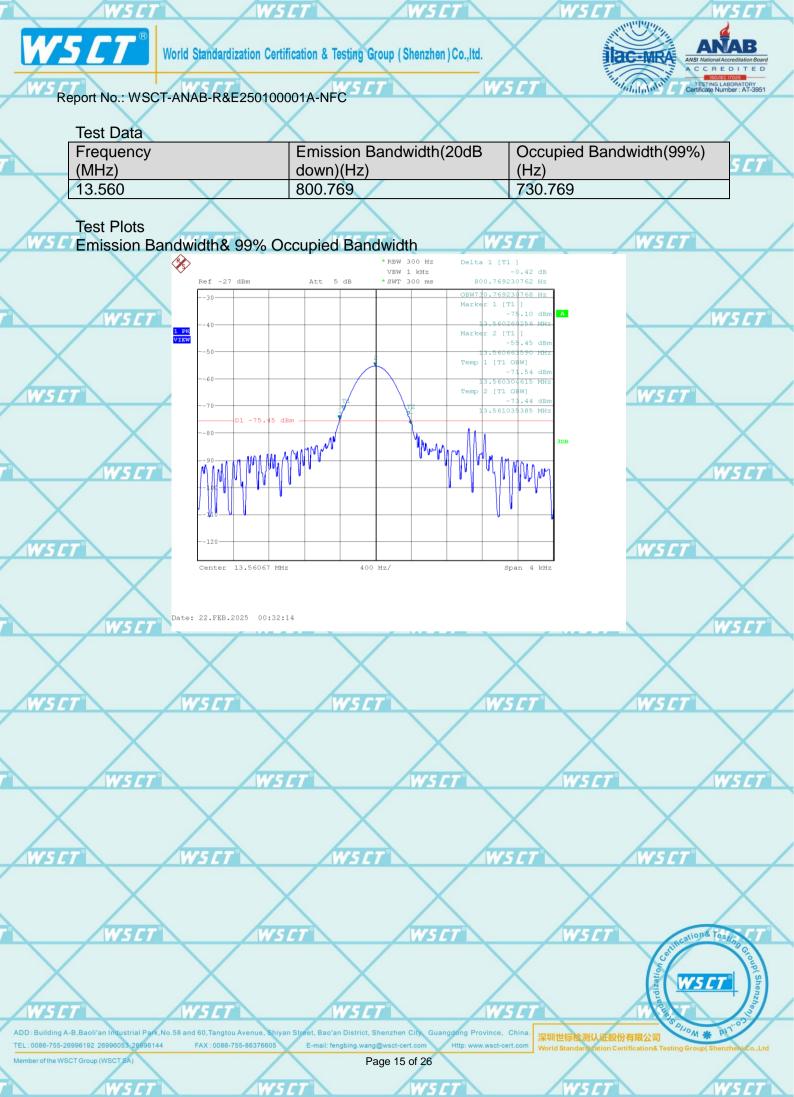
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### 8.3. Field Strength of Fundamental Emissions and Radiated Emissions

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#### 8.3.1. Limit

FCC §15.225(a), (b), (c)

According to FCC section 15.225, for <30 MHz, Radiated emissions were measured according to ANSI C63.4.

The EUT was set to transmit at the highest output power. The EUT was set 3 meter away from the measuring antenna. The loop antenna was positioned 1 meter above the ground from the center of the loop. The measuring bandwidth was set to 10 kHz. (Note: During testing the receive antenna was rotated about its axis to maximize the emission from the EUT)

There was no detected Restricted bands and Radiated spurious emission below 30MHz. The 30m limit was converted to 3m Limit using square factor(x) as it was found by

measurements as follows; 3 m Limit(dBµV/m) = 20log(X)+40log(30/3)=

20log(15848)+40log(30/3) = 124dBµV

Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency range	Field Strength@30m		Field Strength@10m	Field Strength@3m			
(MHz)	μV/m	dBµV/m	dBµV/m	dBµV/m			
Below 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	103.08	124			
13.567 ~ 13.710	334	50.5	69.58	90.5			
13.710 ~14.010	106	40.5	59.58	80.5			
Above 14.010	30	29.5	48.58	69.5			
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Note:

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1. Field Strength (dB $\mu$ V/m) = 20\*log[Field Strength ( $\mu$ V/m)].

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2. In the emission tables above, the tighter limit applies at the band edges.

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FCC §15.225(d) According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

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Frequency (MHz)	Field Strength (µV/m)	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

#### Note:

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1. For Above 1000 MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. 2. For above 1000 MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK).

#### 8.3.2. Test Setup

See section 7.2(Diagram 1 and Diagram 2)

WSCI

#### 8.3.3. Test Procedure

The measurement frequency range is from 9 kHz to the 10th harmonic of the fundamental frequency. The

Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified.

Only the worst RB size/offset presented. The power of the EUT transmitting frequency should be ignored.

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All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured WSFI

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RBW = 1 MHz for f  $\ge$  1 GHz, 100 kHz for 30 MHz < f < 1 GHz, 10 kHz for 150 kHz < f < 30 MHz.

NSC

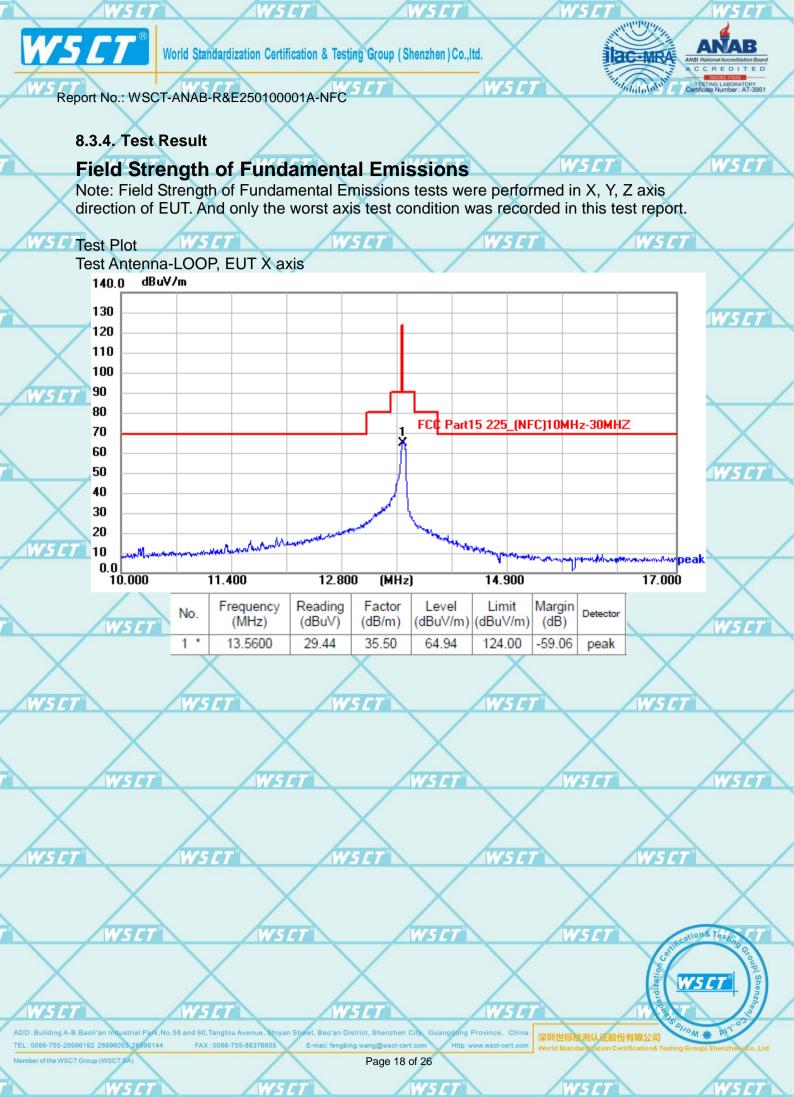
300 Hz for f < 150 kHz

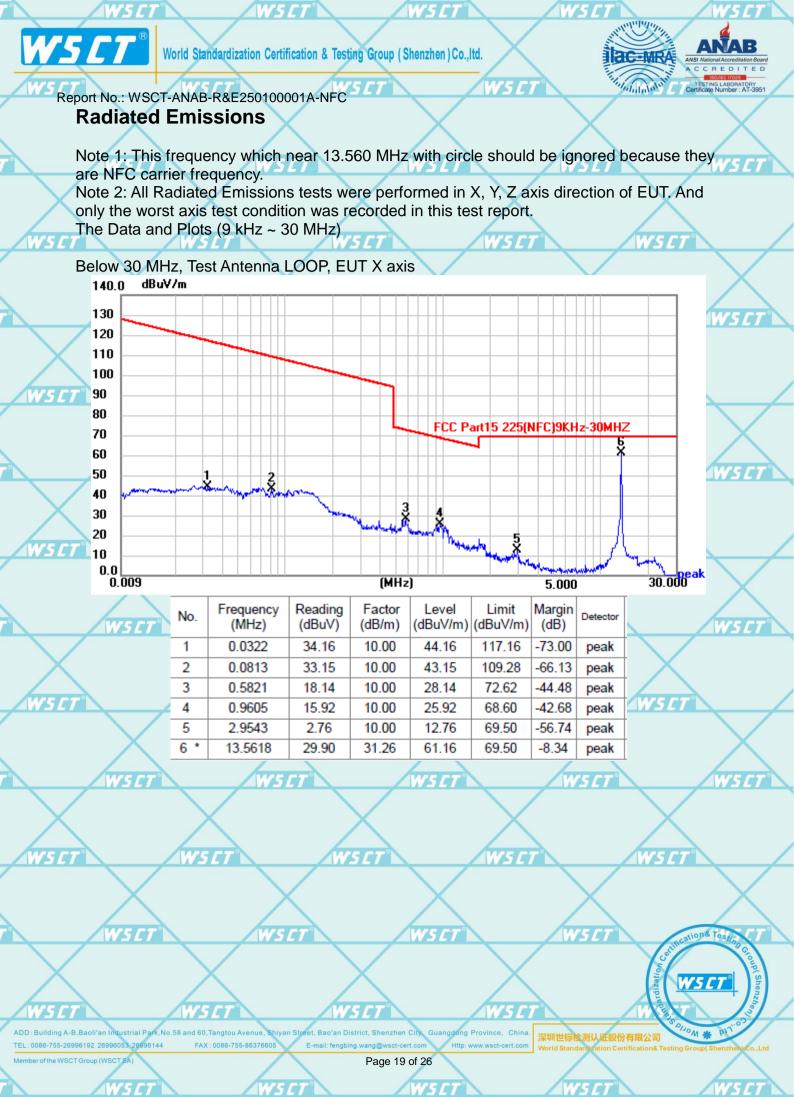
 $VBW \ge RBWWSC7$ Sweep = autoDetector function = peak

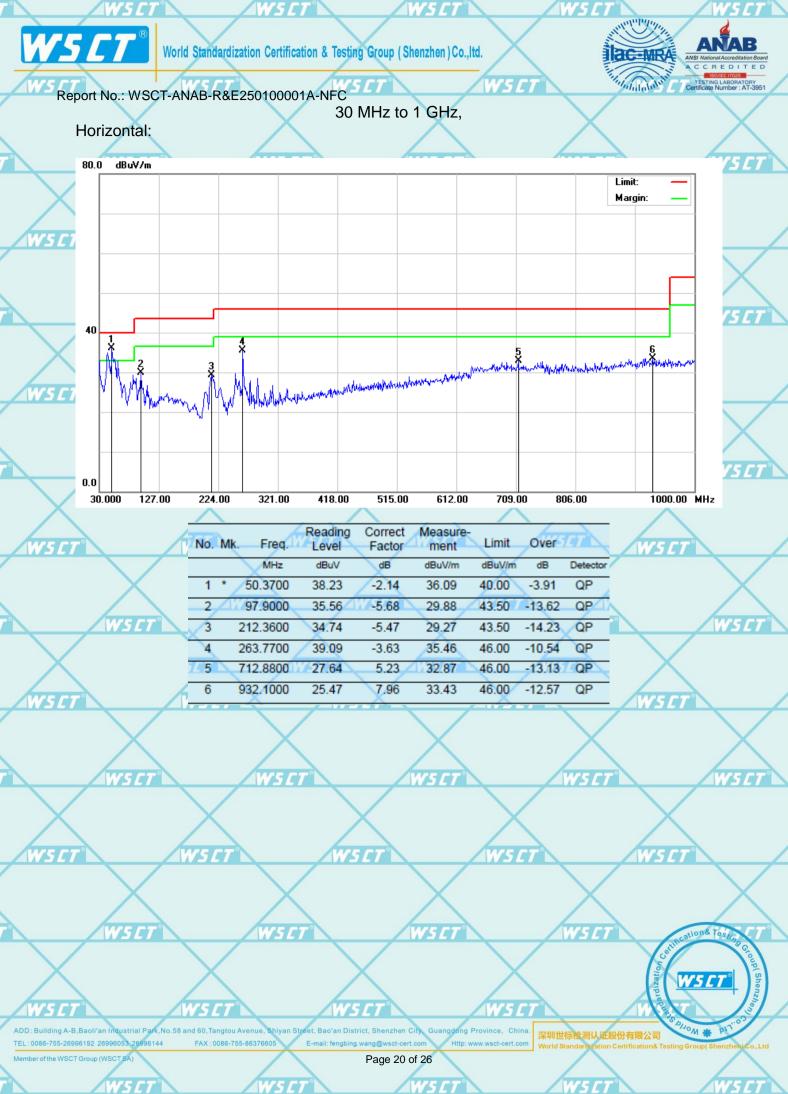
Trace = max hold WSC1

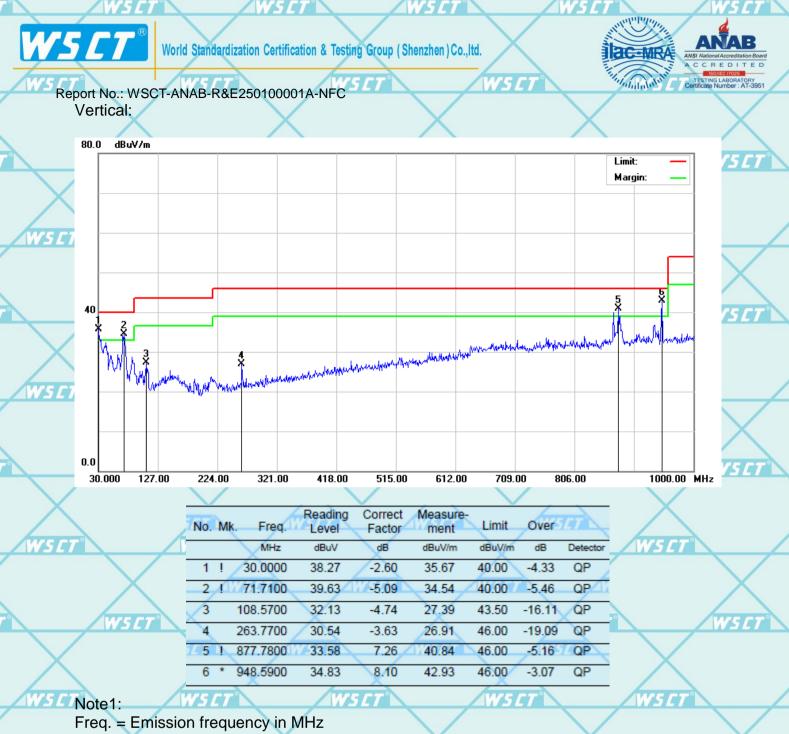
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Freq. = Emission frequency in MHz Reading level  $(dB\mu V)$  = Receiver reading Corr. Factor (dB) = Antenna factor + Cable loss - Amplifier factor. Measurement  $(dB\mu V)$  = Reading level  $(dB\mu V)$  + Corr. Factor (dB)Limit  $(dB\mu V)$  = Limit stated in standard Margin (dB) = Measurement  $(dB\mu V)$  – Limits  $(dB\mu V)$ 

V5 C1

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WSET



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#### **Frequency Tolerance** 8.4.

### 8.4.1. Limit

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#### FCC §15.225(e)

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of -20 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

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C. For battery operated equipment, the equipment tests shall be performed using a new battery.

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### 8.4.2. Test Setup

See section 7.2(Diagram 1)

#### 8.4.3. Test Procedure

- 1. The test is performed in a Temperature Chamber.
- 2. The EUT is configured as MS + DC Power Supply. W5

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#### 8.4.4. Test Result

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Note 1: Because the 85% (3.2895V) and 115% (4.4505V) of the rated supply voltage value exceeds the cut-off voltage upper(4.45V) and lower(3.45V) limit of the manufacturer, the cut-off voltage of EUT is test here.

		V
	OPERATING FREQUENCY:	13560000 Hz
	REFERENCE VOLTAGE:	3.86 V
_	DEVIATION LIMIT:	±0.01%

					$\sim$		
	VOLTAGE (%)	Test Cond	ditions	Frequency(Hz)	Deviation (%)	Verdict	
		Power	Temperature				
WSCT		(VDC)	(°C)				Y5 []
	100		-10	13559957	0.000310	Pass	
	100	$\sim$	0	13559965	0.000257 🔪	Pass	
X	100	X	+10	13559974	0.000193	Pass	
	100		+20	13559968	0.000233	Pass	
	100	3.86	+25	13560017	-0.000123	Pass	
W5C1	100	NSLI	+30	13559975	0.000183	Pass	WS CT
	100		+40	13560001	-0.000007	Pass	
X	100		+50	13559991	0.000068	Pass	
	100		+55	13560046	-0.000339	Pass	
WSLT	MAX(Battery End Point, 85)	3.45	+25	13560040	-0.000293	Pass	VSET
	MIN(Battery End Point, 115)	4.50	+25	13560048	-0.000354	Pass	
$\sim$					1		$\sim$

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#### 8.5. Conducted Emission

8.5.1. Limit

FCC §15.207

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a  $50\mu$ H/50 $\Omega$  line impedance stabilization network (LISN).

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			- T
Frequency range (MHz)	Conducted Limit (dBµV)		
Frequency range (MHz)	Quai-peak	Average	
0.15 - 0.50	66 to 56	56 to 46	
0.50 - 5	56	46	
0.50 - 30	60	50	

#### 8.5.2. Test Setup

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See section 4.2(Diagram 3) 5 C

#### 8.5.3. Test Procedure

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

#### 8.5.4. Test Result

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Note 1: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz ) shown here.

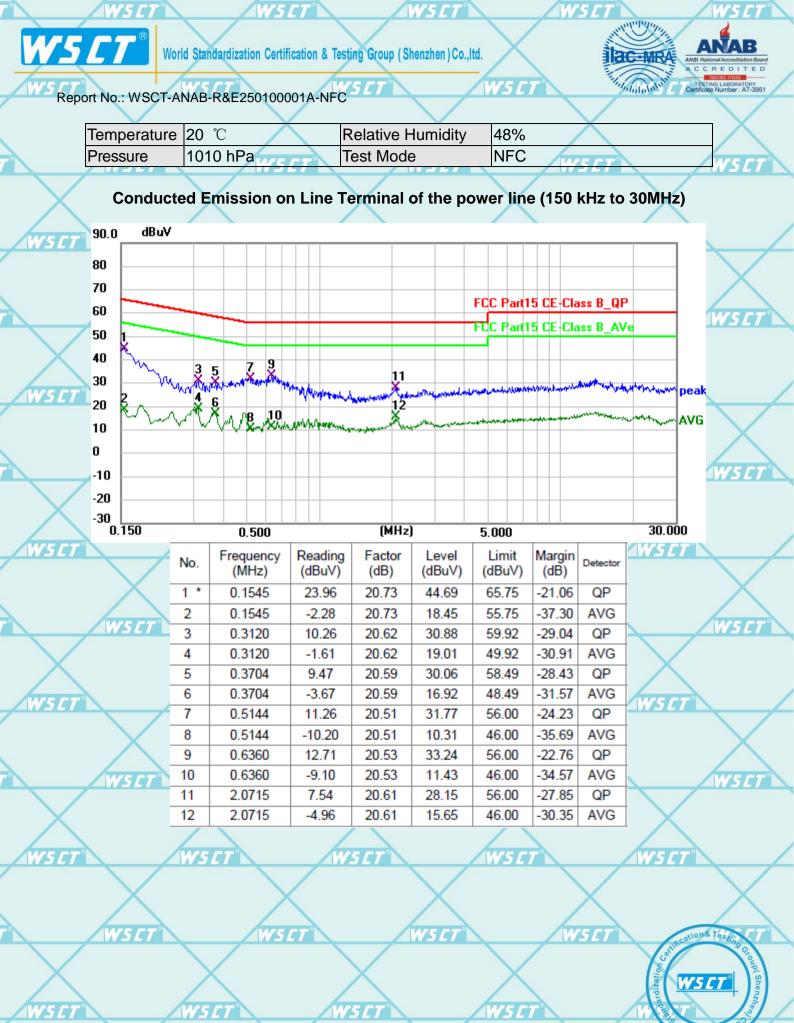
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NSE

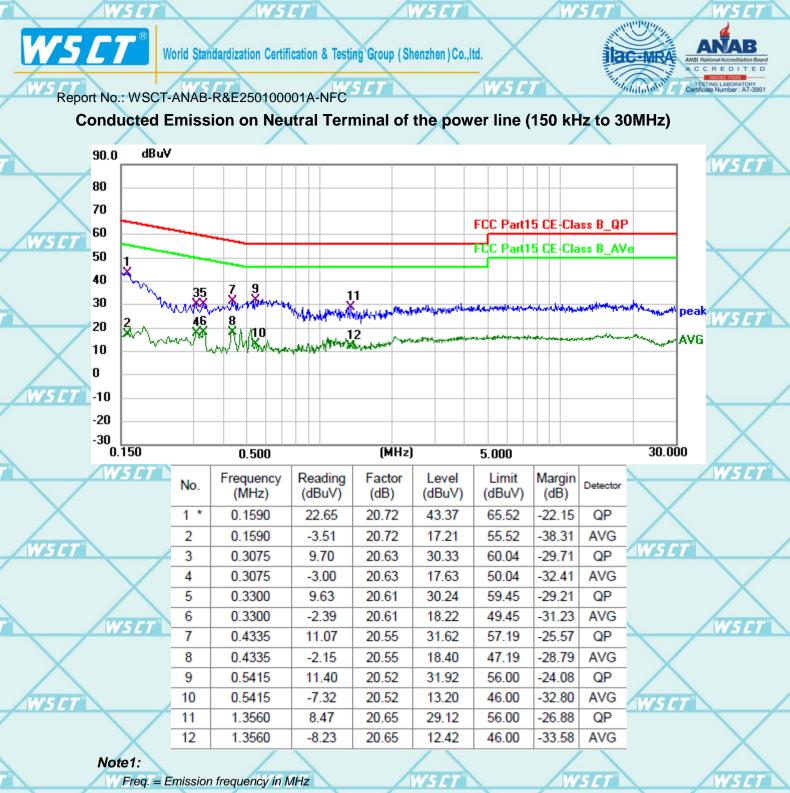


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Reading level ( $dB\mu V$ ) = Receiver reading

Corr. Factor (dB) = LISN Factor + Cable loss

Measurement ( $dB\mu V$ ) = Reading level ( $dB\mu V$ ) + Corr. Factor (dB)

Limit ( $dB\mu V$ ) = Limit stated in standard

Margin (dB) = Measurement (dB $\mu$ V) – Limits (dB $\mu$ V)

Q.P. =Quasi-Peak AVG =average

 $^{\star}$  is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

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