

TEST REPORT

FCC ID: 2AIZN-X6856

Product: Mobile Phone

Model No.: X6856

Trade Mark: Infinix

Report No.: WSCT-ANAB-R&E241200075A-WPT

Issued Date: 06 January 2025

Issued for:

INFINIX MOBILITY LIMITED

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

Issued By:

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1. Test Certification

Product:	Mobile Phone
Model No.:	X6856
Additional Model:	Infinix
Applicant:	INFINIX MOBILITY LIMITED FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Manufacturer:	INFINIX MOBILITY LIMITED FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Date of Test:	11 November 2024 to 06 January 2025
Applicable Standards:	FCC CFR Title 47 Part 15 Subpart C ANSI C63.10-2014

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.

Tested By:



(Wang Xiang)

Checked By:



(Chen Xu)

Approved By:



(Li Huaibi)

Date:



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2. Test Result Summary

Requirement	CFR 47 Section	Result
AC Power Line Conducted Emission	§15.207	NA
20 dB Emission Bandwidth	§15.215	PASS
Radiated Emission Test	§15.205/§15.209	PASS

Note:

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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3. EUT Description

Product Name:	Mobile Phone
Model :	X6856
Trade Mark:	Infinix
Operation Frequency:	115-148kHz
Modulation Type:	ASK&FSK
Antenna Type:	Coil Antenna
Operating Voltage:	Adapter: U900XSA Input: 100-240V~50/60Hz 0.6A Output: 5.0V~2.4A or 7.5V~2.4A 18.0W MAX Rechargeable Li-ion Polymer Battery Model: BL-5ABX Rated Voltage: 3.86V Rated Capacity: 4900mAh/18.97Wh Typical Capacity: 5000mAh/19.35Wh Limited Charge Voltage: 4.45V
Remark:	N/A.

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

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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4. Genera Information

4.1. Test environment and mode

Operating Environment:	
Temperature:	25.0 °C
Humidity:	56 % RH
Atmospheric Pressure:	1010 mbar
Test Mode:	
Wireless Charging	

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.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
Phone	/	/	/	Infinix

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, 20dB Occupied Bandwidth, Carrier Frequencies Separation, Hopping Channel Number, Dwell Time, 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

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, Shiyao Street, Bao'an District, Shenzhen City, Guangdong Province, China** of the World Standardization Certification & Testing Group (Shenzhen) Co., Ltd.

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

5.3. Measurement Uncertainty

No.	Item	MU
1	AC Power Line Conducted Emission	$\pm 3.2\text{dB}$
2	20 dB Emission Bandwidth	$\pm 2.4\%$
3	All emissions, radiated(<1GHz)	9 kHz-30 MHz: $\pm 3.2\text{dB}$, 30 MHz-1 GHz: $\pm 3.3\text{dB}$
4	All emissions, radiated(>1GHz)	$\pm 4.7\text{dB}$
5	Temperature	$\pm 0.5^{\circ}\text{C}$
6	Humidity	$\pm 2.0\%$

NOTE:1.The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

2. The U_{lab} is less than U_{cispr} , 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 additional uncertainty in the test system over and above that specified in harmonized standard should be used to tighten the test requirements-making the test harder to pass. This procedure will ensure that a test system not compliant with harmonized standard does not increase the probability of passing a EUT that would otherwise have failed a test if a test system compliant with harmonized standard had been used.

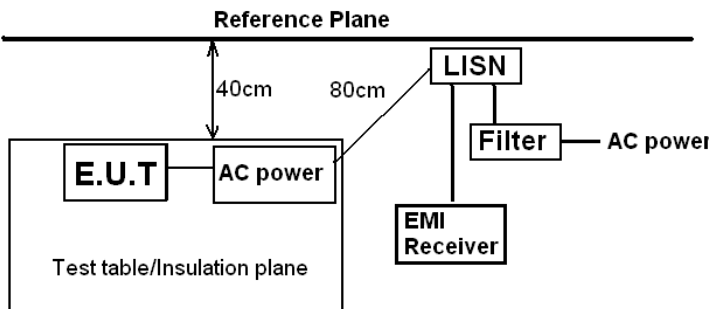
5.4. MEASUREMENT INSTRUMENTS

NAME OF EQUIPMENT	MANUFACTURER	MODEL	SERIAL NUMBER	Calibration Date	Calibration Due.
Test software	--	EZ-EMC	CON-03A	-	-
Test software	--	MTS8310	-	-	-
EMI Test Receiver	R&S	ESCI	100005	11/05/2024	11/04/2025
Coaxial cable	Megalon	LMR400	N/A	11/05/2024	11/04/2025
GPIO cable	Megalon	GPIO	N/A	11/05/2024	11/04/2025
Pre Amplifier	H.P.	HP8447E	2945A02715	11/05/2024	11/04/2025
Pre-Amplifier	CDSI	PAP-1G18-38	--	11/05/2024	11/04/2025
Bi-log Antenna	SCHWARZBECK	VULB9168	01488	7/29/2024	7/28/2025
Cable	TIME MICROWAVE	LMR-400	N-TYPE04	11/05/2024	11/04/2025
System-Controller	CCS	N/A	N/A	N.C.R	N.C.R
Turn Table	CCS	N/A	N/A	N.C.R	N.C.R
Antenna Tower	CCS	N/A	N/A	N.C.R	N.C.R
RF cable	Murata	MXHQ87WA3000	-	11/05/2024	11/04/2025
Loop Antenna	EMCO	6502	00042960	11/05/2024	11/04/2025
Spectrum Analyzer	Keysight	N9010B	MY60241089	11/05/2024	11/04/2025

6. Test Results and Measurement Data

6.1. AC Power Line Conducted Emission

6.1.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.207														
Test Method:	ANSI C63.10:2014														
Frequency Range:	150 kHz to 30 MHz														
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto														
Limits:	<table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBuV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>5-30</td><td>60</td><td>50</td></tr></table>	Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBuV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													
Test Setup:	Reference Plane  Remark E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m														
Test Mode:	Wireless Charging														
Test Procedure:	1. The E.U.T is connected to an adapter through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2014 on conducted measurement.														
Test Result:	N/A														

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Test data

Note: Not Applicable, the device was powered by battery when operating.

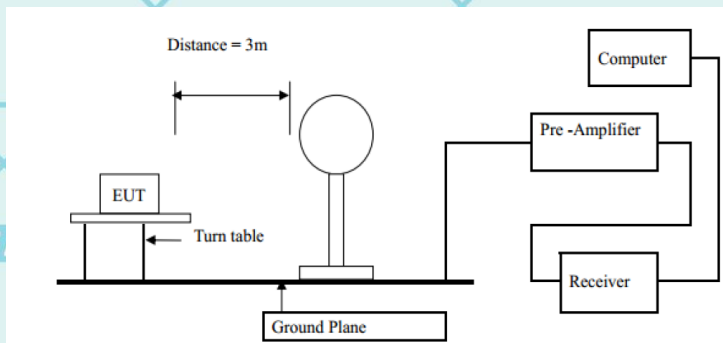
6.2. 20 dB Emission Bandwidth

6.2.1. Test Specification

FCC §15.215

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §15.217 through § 15.257 and in Subpart E of this part, 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. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of band operation.

6.2.2. EUT Setup



6.2.3. Test Procedure

1. Position the EUT on the test table without connection to measurement instrument. Turn on the EUT. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
2. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
3. Measure the 99% Occupied bandwidth use the 99% Occupied bandwidth function of the test equipment.

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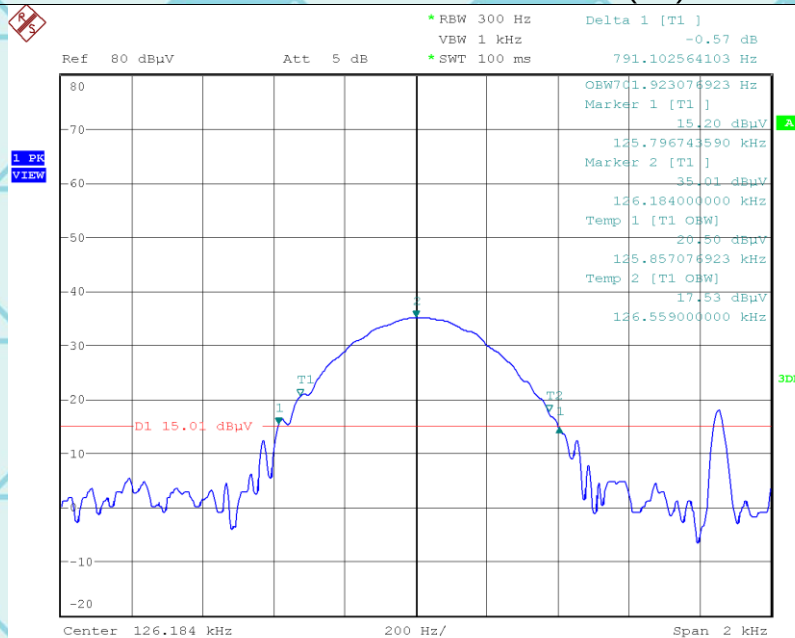
6.2.4. Test data

Test Frequency	20 dB Emission Bandwidth (Hz)	Conclusion
126.184KHz	791.103	PASS

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Test Graphs

20 dB Emission Bandwidth (Hz)

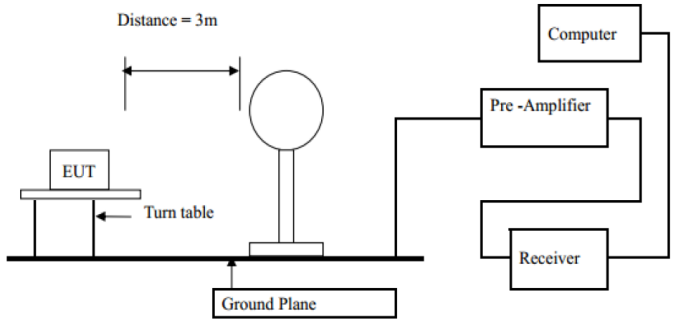


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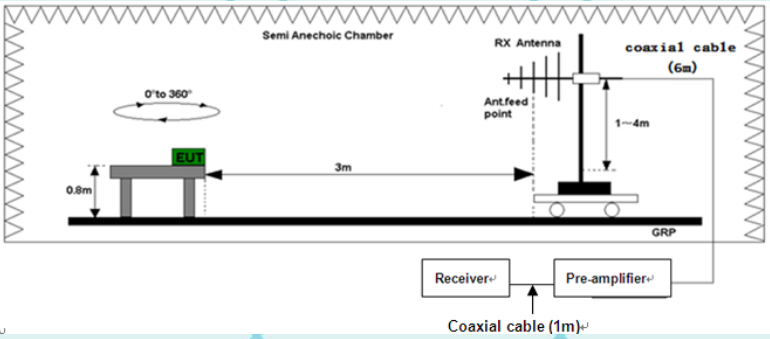
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6.3. Radiated Spurious Emission Measurement

6.3.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.209																								
Test Method:	ANSI C63.10:2014																								
Frequency Range:	9 kHz to 25 GHz																								
Measurement Distance:	3 m																								
Antenna Polarization:	Horizontal & Vertical																								
Receiver Setup:	<table><tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr><tr><td>9kHz- 150kHz</td><td>Quasi-peak</td><td>200Hz</td><td>1kHz</td><td>Quasi-peak Value</td></tr><tr><td>150kHz- 30MHz</td><td>Quasi-peak</td><td>9kHz</td><td>30kHz</td><td>Quasi-peak Value</td></tr><tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>100KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr></table>	Frequency	Detector	RBW	VBW	Remark	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value	150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value				
Frequency	Detector	RBW	VBW	Remark																					
9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value																					
150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value																					
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value																					
Limit:	<table><tr><th>Frequency</th><th>Field Strength (microvolts/meter)</th><th>Measurement Distance (meters)</th></tr><tr><td>0.009-0.490</td><td>2400/F(KHz)</td><td>300</td></tr><tr><td>0.490-1.705</td><td>24000/F(KHz)</td><td>30</td></tr><tr><td>1.705-30</td><td>30</td><td>30</td></tr><tr><td>30-88</td><td>100</td><td>3</td></tr><tr><td>88-216</td><td>150</td><td>3</td></tr><tr><td>216-960</td><td>200</td><td>3</td></tr><tr><td>Above 960</td><td>500</td><td>3</td></tr></table>	Frequency	Field Strength (microvolts/meter)	Measurement Distance (meters)	0.009-0.490	2400/F(KHz)	300	0.490-1.705	24000/F(KHz)	30	1.705-30	30	30	30-88	100	3	88-216	150	3	216-960	200	3	Above 960	500	3
Frequency	Field Strength (microvolts/meter)	Measurement Distance (meters)																							
0.009-0.490	2400/F(KHz)	300																							
0.490-1.705	24000/F(KHz)	30																							
1.705-30	30	30																							
30-88	100	3																							
88-216	150	3																							
216-960	200	3																							
Above 960	500	3																							
Test setup:	For radiated emissions below 30MHz  30MHz to 1GHz																								

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Test Mode:	Wireless Charging
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. 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 RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $30 \text{ MHz} < f < 1$ GHz, 10 kHz for $150 \text{ kHz} < f < 30$ MHz, 300 Hz for $f < 150$ kHz VBW $\geq$ RBW Sweep = auto Detector function = peak Trace = max hold NOTE: 1. Results (dBμV/m) = Reading (dBμV/m) + Factor (dB/m) The reading level is calculated by software which is not shown in the sheet 2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain (dB) 3. Margin = Limit – Results
Test results:	PASS

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- 1) Field Strength (dB μ V/m) = 20*log [Field Strength (μ V/m)].
- 2) In the emission tables above, the tighter limit applies at the band edges.
- 3) For above 1000 MHz, limit field strength of harmonics: 54 dB μ V/m@3 m (AV) and 74 dB μ V/m@3 m (PK)
- 4) At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). For example, at the frequency 9 kHz, limit @3m = 20*log (2400/f) + 40log (dlimit/dmeasure) where limit = 300m, dmeasure=3m. limit @3m = 20*log (2400/9) + 40log (300/3) = 128.52 (dB μ V/m).
- 5) At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided, When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements). For example, at the frequency 30 MHz, limit @10m = 20*log (100) + 20log (dlimit/dmeasure) where limit = 3m, dmeasure=10m. limit @10m = 20*log (100) + 20log (3/10) = 29.5 (dB μ V/m).

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6.3.2. Test Data

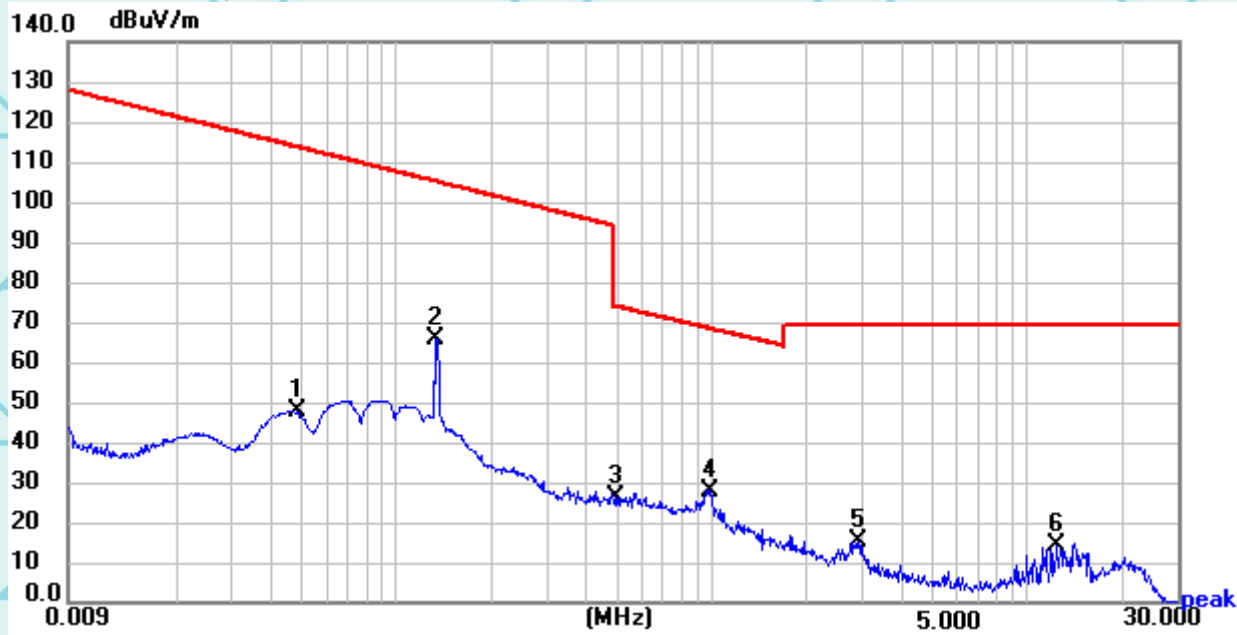
Please refer to following diagram for individual

9kHz-30MHz

Note: Field Strength of Fundamental Emissions tests were performed in X, Y, Z axis direction of EUT. And only the worst axis test condition was recorded in this test report.

Test Plot

Test Antenna-LOOP, EUT X axis



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0480	37.53	10.00	47.53	113.76	-66.23	peak
2 *	0.1262	55.98	10.00	65.98	105.03	-39.05	peak
3	0.4930	16.44	10.00	26.44	73.95	-47.51	peak
4	0.9821	18.00	10.00	28.00	68.42	-40.42	peak
5	2.9037	5.42	10.00	15.42	69.50	-54.08	peak
6	12.4797	15.48	-1.27	14.21	69.50	-55.29	peak

Freq. = Emission frequency in MHz

Reading level (dBuV) = Receiver reading

Corr. Factor (dB) = Antenna factor + Cable loss - Amplifier factor.

Measurement (dBuV) = Reading level (dBuV) + Corr. Factor (dB)

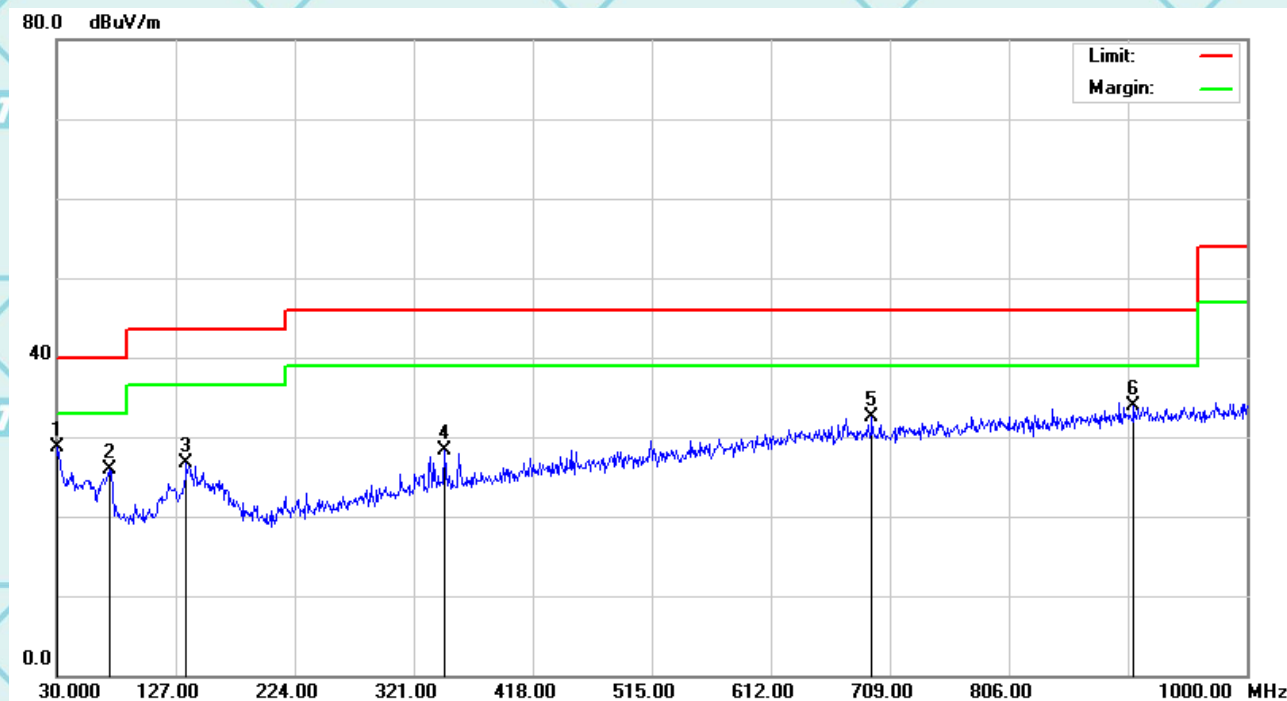
Limit (dBuV) = Limit stated in standard

Margin (dB) = Measurement (dBuV) - Limits (dBuV)

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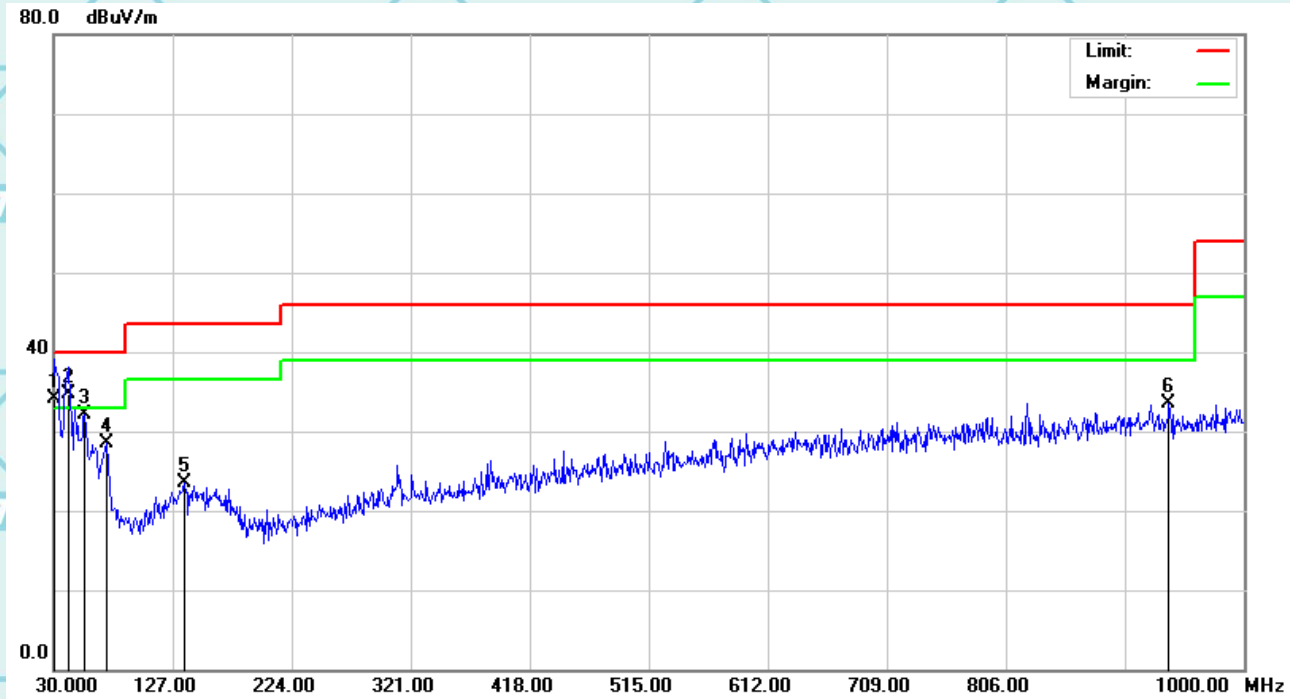
30MHz-1GHz

Horizontal:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	30.0000	31.23	-2.60	28.63	40.00	-11.37	QP
2		73.6500	31.30	-5.33	25.97	40.00	-14.03	QP
3		135.7300	29.37	-2.62	26.75	43.50	-16.75	QP
4		346.2200	29.72	-1.48	28.24	46.00	-17.76	QP
5		694.4500	27.44	5.07	32.51	46.00	-13.49	QP
6		907.8500	26.28	7.68	33.96	46.00	-12.04	QP

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Vertical:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	!	30.9699	36.66	-2.57	34.09	40.00	-5.91	QP
2	*	42.6099	36.59	-1.80	34.79	40.00	-5.21	QP
3		55.2199	34.68	-2.51	32.17	40.00	-7.83	QP
4		73.6500	33.91	-5.33	28.58	40.00	-11.42	QP
5		136.6999	26.08	-2.62	23.46	43.50	-20.04	QP
6		938.8899	25.53	8.06	33.59	46.00	-12.41	QP

Note1:

Freq.= Emission frequency in MHz

Reading level (dBuV) = Receiver reading

Corr. Factor (dB) = Antenna factor + Cable loss - Amplifier factor.

Measurement (dBuV) = Reading level (dBuV) + Corr. Factor (dB)

Limit (dBuV) = Limit stated in standard

Margin (dB) = Measurement (dBuV) – Limits (dBuV)

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7. Test Setup Photographs

Please refer to Annex "Set Up Photos-15C" for test setup photos

*******END OF REPORT*******