

TEST REPORT

Product : Sierra MDX
Trade mark : Sierra
Model/Type reference : MDXTAB-01
Serial Number : N/A
Report Number : EED32P80394905
FCC ID : 2BA33-TAB
Date of Issue : Jul. 09, 2025
Test Standards : 47 CFR Part 2
47 CFR Part 22 subpart H
47 CFR Part 24 subpart E
47 CFR Part 27
47 CFR Part 90
Test result : PASS

Prepared for:

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8699 Escarpment Way, Unit 11 Milton ON L9T 0J5 Canada

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Date:

Jul. 09, 2025



Check No.: 3735230323

1 Version

Version No.	Date	Description
00	Jul. 09, 2025	Original

2 Test Summary

Test Item	Test Requirement	Test method	Result
FCC Part 22 (GSM 850,WCDMA Band V,LTE Band 5,LTE Band 26)			
Conducted output power	Part 2.1046(a)/Part 22.913(a)	TIA-603-E-2016 &KDB 971168 D01v02r02	PASS
Effective Radiated Power of Transmitter(ERP)	Part 2.1046(a)/Part 22.913(a)	TIA-603-E-2016 &KDB 971168 D01v02r02	PASS
99% &26dBOccupied Bandwidth	Part 2.1049(h)	Part 22.917(b) &KDB 971168 D01v02r02	PASS
Band Edge at antenna terminals	Part 2.1051/Part 22.917(a)	Part 22.917(b) &KDB 971168 D01v02r02	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 2.1057/ Part 22.917(a)(b)	TIA-603-E-2016 &KDB 971168 D01v02r02	PASS
Field strength of spurious radiation	Part 2.1053/ Part 2.1057/ Part 22.917(a)(b)	TIA-603-E-2016 &KDB 971168 D01v02r02	PASS
Frequency stability	Part 2.1055/ Part 22.355	TIA-603-E-2016 &KDB 971168 D01v02r02	PASS
FCC Part 24 (GSM 1900,WCDMA Band II,LTE Band 2,LTE Band 25)			
Conducted output power	Part 2.1046(a) /Part 24.232(c)	TIA-603-E-2016&KDB 971168 D01v02r02	PASS
Effective Radiated Power of Transmitter(EIRP)	Part 2.1046(a) / Part 24.232(c)	TIA-603-E-2016 &KDB 971168 D01v02r02	PASS
peak-to-average ratio	Part 24.232(d)	KDB 971168 D01v02r02	PASS
99% &26dBOccupied Bandwidth	Part 2.1049(h)	Part 24.238(b) &KDB 971168 D01v02r02	PASS
Band Edge at antenna terminals	Part 2.1051/ Part 24.238(a)	Part 24.238(b) &KDB 971168 D01v02r02	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 2.1057/ Part 24.238(a)(b)	TIA-603-E-2016 &KDB 971168 D01v02r02	PASS
Field strength of spurious radiation	Part 2.1053 /Part 2.1057 / Part 24.238(a)(b)	TIA-603-E-2016 &KDB 971168 D01v02r02	PASS
Frequency stability	Part 2.1055/Part 24.235	TIA-603-E-2016 &KDB 971168 D01v02r02	PASS
FCC Part 27 (WCDMA Band IV,LTE Band 4,LTE Band 7,LTE Band 12,LTE Band 13,LTE Band 17)			
Conducted output power	Part 2.1046(a) /Part 27.50(d)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(EIRP)	Part 2.1046(a) / Part 27.50(d)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
peak-to-average ratio	Part 27.50(d)	KDB 971168 D01v03r01	PASS

99% &26dBOccupied Bandwidth	Part 2.1049(h)	Part 27.53(h) &KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	Part 2.1051/ Part 27.53(h)	Part 27.53(h) &KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 27.53(h)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 2.1053/ Part 27.53(h)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Frequency stability	Part 2.1055/Part 27.54	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
FCC Part 90 (LTE Band 26)			
Conducted output power	Part 2.1046/Part 90.635(b)	ITA-603-E-2016&KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(ERP)	Part 90.542	ITA-603-E-2016&KDB 971168 D01v03r01	PASS
99% &26dB Occupied Bandwidth	Part 2.1049/Part 90.209	ITA-603-E-2016&KDB 971168 D01v03r01	PASS
Emission Masks	90.210(b)	ITA-603-E-2016&KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	Part 2.1051/Part 90.543	ITA-603-E-2016&KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 90.543(e)	ITA-603-E-2016&KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 90.543(e)	ITA-603-E-2016&KDB 971168 D01v03r01	PASS
Frequency stability	Part 90.539(c)	ITA-603-E-2016&KDB 971168 D01v03r01	PASS

Remark:

Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

- Tx: In this whole report Tx (or tx) means Transmitter.
- Rx: In this whole report Rx (or rx) means Receiver.
- RF: In this whole report RF means Radiated Frequency.
- CH: In this whole report CH means channel.
- Volt: In this whole report Volt means Voltage.
- Temp: In this whole report Temp means Temperature.
- Humid: In this whole report Humid means humidity.
- Press: In this whole report Press means Pressure.
- N/A: In this whole report not application

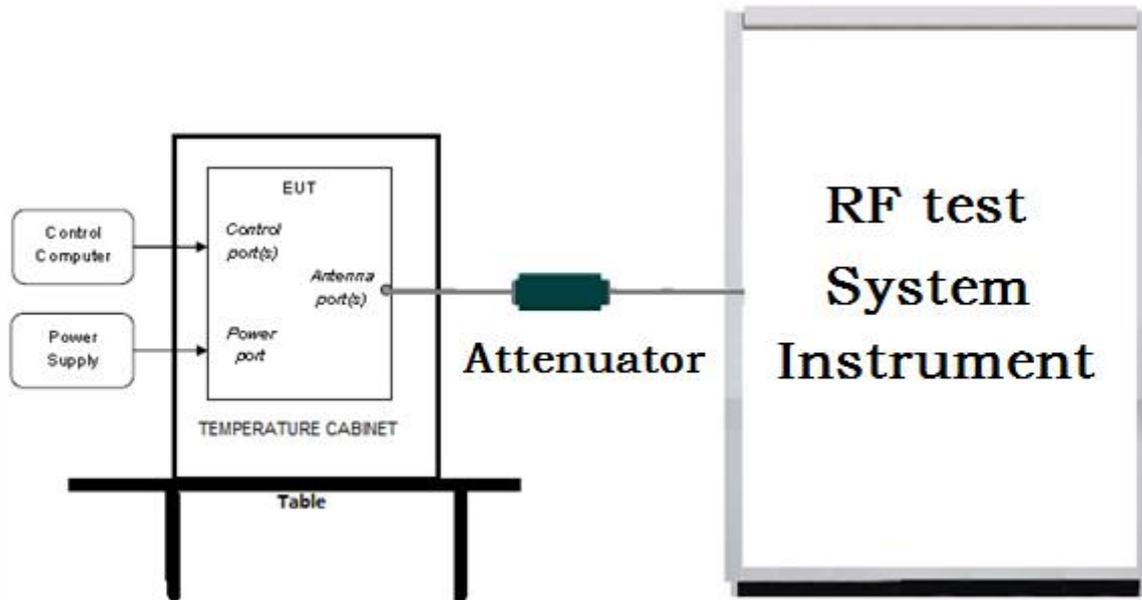
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4 Test Requirement

4.1 Test setup

4.1.1 For Conducted test setup



4.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

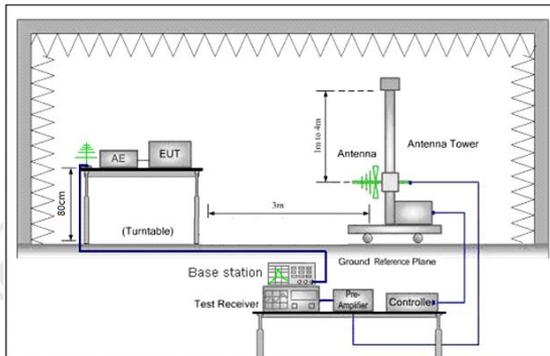


Figure 1.30MHz to 1GHz

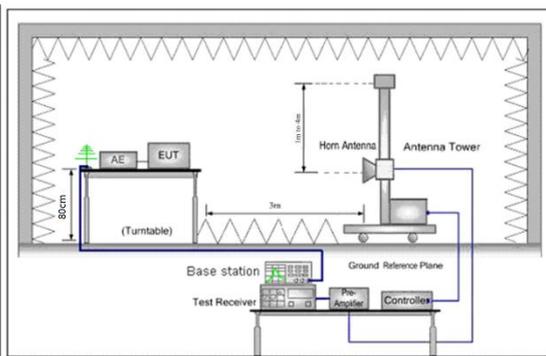


Figure 2. above 1GHz

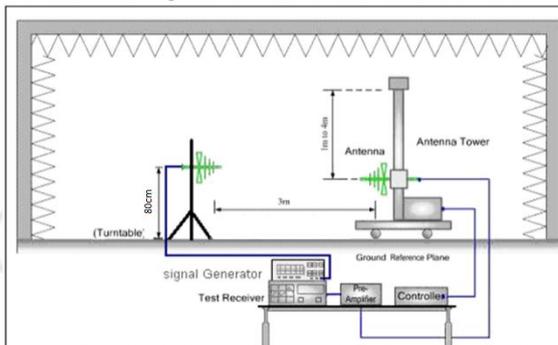


Figure 1. 30MHz to 1GHz

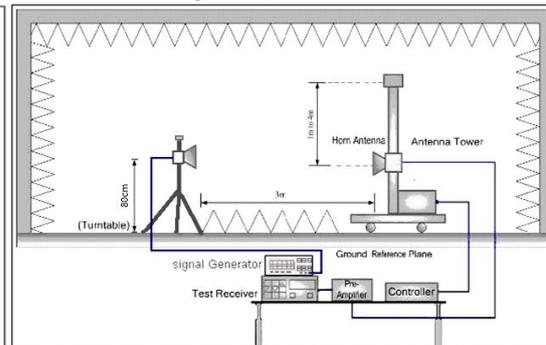


Figure 2. above 1GHz

4.2 Test Environment

Operating Environment:	
Temperature:	24.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010mbar

5 General Information

5.1 Client Information

Applicant:	Sierra International LLC
Address of Applicant:	1 Sierra Place, Litchfield, IL, 62056, United States
Manufacturer:	Estone Technology LTD
Address of Manufacturer:	2F, Building No.1, Jia'an Industrial Park, No.2 Long Chang Road, Bao'an, Shenzhen 518101, China.
Factory:	Estone Technology LTD
Address of Factory:	2F, Building No.1, Jia'an Industrial Park, No.2 Long Chang Road, Bao'an, Shenzhen 518101, China.

5.2 General Description of EUT

Product Type:	<input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Frequency Band:	GSM 850: TX:824-849MHz, RX:869-894MHz GSM 1900: TX:1850 -1910MHz, RX:1930-1990MHz WCDMA Band II: TX:1850-1910MHz, RX:1930-1990MHz WCDMA Band IV: TX:1710-1755MHz, RX:2110-2155MHz WCDMA Band V: TX:824-849MHz, RX:869-894MHz LTE Band 2: TX:1850-1910MHz, RX:1930-1990MHz LTE Band 4: TX:1710-1755MHz, RX:2110-2155MHz LTE Band 5: TX:824 - 849 MHz, RX:869-894MHz LTE Band 7: TX:2500-2570MHz, RX:2620-2690MHz LTE Band 12: TX:699-716MHz, RX:729-746MHz LTE Band 13: TX: 777-787MHz, RX:746-756MHz LTE Band 17: TX:704 - 716MHz, RX:734-746MHz LTE Band 25: TX:1850 - 1915MHz, RX:1930-1995 MHz LTE Band 26: TX:814 - 849 MHz, RX: 859-894MHz
Modulation Type:	GMSK,8PSK,QPSK,16QAM
Antenna Type:	Internal Antenna
Antenna Gain:	GSM 850: 1.81dBi GSM 1900: 1.67dBi WCDMA Band II: 1.67dBi WCDMA Band IV: 1.59dBi WCDMA Band V: 1.81dBi LTE Band 2: 1.67dBi LTE Band 4: 1.59dBi LTE Band 5: 1.81dBi LTE Band 7: 1.75dBi LTE Band 12: 0.18dBi LTE Band 13: 1.63dBi LTE Band 17: 0.18dBi LTE Band 25: 1.67dBi LTE Band 26: 1.81dBi
Power Supply:	Adapter: model: W0920U-1U05F

		input: 100-240VAC,50/60Hz,0.45A MAX output : 3.6V~6.0V,3A;6V~9V,2A;9V~12V,1.5A
	Battery:	Rechargeable Li-ion Battery model: 456484 nominal voltage: 3.85V rated capacity: 7792mAh/29.99Wh charging limited voltage: 4.4V
Nominal Voltage(NV):	DC 3.850V	
Extreme Hige Voltage(HV):	DC 4.235V	
Extreme Low Voltage(LV):	DC 3.465V	
Sample Received Date:	Mar. 23, 2023	
Sample tested Date:	Mar. 23, 2023 to Jul. 05, 2025	

5.3 Description of Support Units

The EUT has been tested independently.

5.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

5.5 Deviation from Standards

None.

5.6 Abnormalities from Standard Conditions

None.

5.7 Other Information Requested by the Customer

None.

5.8 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.9×10^{-8}
2	RF power, conducted	0.46dB (30MHz-1GHz)
		0.55dB (1GHz-18GHz)
3	Radiated Spurious emission test	4.3dB (30MHz-1GHz)
		4.5dB (1GHz-12.75GHz)
4	Conduction emission	3.5dB (9kHz to 150kHz)
		3.1dB (150kHz to 30MHz)
5	Temperature test	0.64°C
6	Humidity test	3.8%
7	DC power voltages	0.026%

6 Equipment List

2G/3G/4G Communication RF test system					
Equipment	Manufacturer	Model No.	Serial Number	Cal. Date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Spectrum Analyzer	Agilent	E4440A	MY46185649	10-24-2022 10-23-2023 10-22-2024	10-23-2023 10-22-2024 10-21-2025
Signal Generator	Keysight	E8257D	MY53401106	12-19-2022 12-14-2023 12-05-2024	12-18-2023 12-13-2024 12-04-2025
Signal Generator	Agilent	E4438C	MY45095744	12-19-2022 12-11-2023 11-30-2024	12-18-2023 12-10-2024 11-29-2025
Communication test set	R&S	CMW500	120765	12-23-2022 12-23-2022 12-05-2024	12-22-2023 12-13-2024 12-04-2025
DC Power	Keysight	E3642A	MY56376035	12-19-2022 12-11-2023 11-30-2024	12-18-2023 12-10-2024 11-29-2025
RF control unit	JS Tonscend	JS0806-1	158060004	12-23-2022 12-14-2023 12-05-2024	12-22-2023 12-13-2024 12-04-2025
DC power Box	JS Tonscend	JS0806-4	158060007	---	---
high-low temperature test chamber	Dong Guang Qin Zhuo	LK-80GA	QZ20150611879	12-19-2022 12-11-2023 11-30-2024	12-18-2023 12-10-2024 11-29-2025
Temperature/ Humidity Indicator	biaozhi	HM10	1804186	06-16-2022 06-01-2023 05-29-2024 05-26-2025	06-15-2023 05-31-2024 05-28-2025 05-25-2026
Automatic test software	JS Tonscend	JS1120	2.6.9.0518	---	---
band rejection filter	Sinoscite	FL5CX01CA09 CL12-0395-001	---	---	---
band rejection filter	Sinoscite	FL5CX01CA08 CL12-0393-001	---	---	---
band rejection filter	Sinoscite	FL5CX02CA04 CL12-0396-002	---	---	---
band rejection filter	Sinoscite	FL5CX02CA03 CL12-0394-001	---	---	---

band rejection filter	Sinoscite	FL5CX02CA03 CL12-0397-002	---	---	---
High-pass filter	Sinoscite	FL3CX03WG1 8NM12-0398-002	---	---	---

3M Semi-anechoic Chamber (2)- Radiated disturbance Test					
Equipment	Manufacturer	Model	Serial No.	Cal. Date	Due Date
3M Chamber & Accessory Equipment	TDK	SAC-3	---	05/22/2022	05/21/2025
				01-13-2024	01-12-2027
Receiver	R&S	ESCi7	100938-003	09/28/2022	09/27/2023
				09-22-2023	09-21-2024
				09-07-2024	09-06-2025
Communication test set	R&S	CMW500	102898	12-23-2022	12-22-2023
				12-14-2023	12-13-2024
				12-05-2024	12-04-2025
				01-04-2025	01-03-2026
Spectrum Analyzer	R&S	FSV40	101200	07/29/2022	07/28/2023
				07-25-2023	07-24-2024
				07-18-2024	07-17-2025
TRILOG Broadband Antenna	schwarzbeck	VULB 9163	9163-618	05/22/2022	05/21/2025
				05-21-2023	05-20-2024
				05-18-2024	05-17-2025
				05-14-2025	05-13-2026
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-076	04/15/2021	04/14/2024
				04-16-2024	04-15-2025
				04-07-2025	04-06-2026
Microwave Preamplifier	Tonscend	EMC051845SE	980380	12/23/2022	12/23/2023
				12-14-2023	12-13-2024
				12-05-2024	12-04-2025
Horn Antenna	A.H.SYSTEMS	SAS-574	374	05/29/2021	05/28/2024
				2023-06-29	2024-06-28
				2024-06-17	2025-06-16
				2025-05-23	2026-05-22
Horn Antenna	ETS-LINGREN	BBHA 9120D	9120D-1869	04/15/2021	04/14/2024
				04-16-2024	04-15-2025
				04-07-2025	04-06-2026
Preamplifier	Agilent	11909A	12-1	03/28/2023	03/27/2024
				03-22-2024	03-21-2025
				03-03-2025	03-02-2026

Preamplifier	CD	PAP-1840-60	6041.6042	07/05/2022 07-03-2023 06-19-2024 05-26-2025	07/04/2023 07-02-2024 06-18-2025 05-25-2026
Test software	Fara	EZ-EMC	EMEC-3A1-Pre	---	---
Cable line	Fulai(7M)	SF106	5219/6A	---	---
Cable line	Fulai(6M)	SF106	5220/6A	---	---
Cable line	Fulai(3M)	SF106	5216/6A	---	---
Cable line	Fulai(3M)	SF106	5217/6A	---	---

3M full-anechoic Chamber					
Equipment	Manufacturer	Model No.	Serial Number	Cal. Date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
RSE Automatic test software	JS Tonscend	JS36-RSE	10166	---	---
Receiver	Keysight	N9038A	MY57290136	02-27-2023 01-09-2024 01-04-2025	02-26-2024 01-08-2025 01-03-2026
Spectrum Analyzer	Keysight	N9020B	MY57111112	02-21-2023 01-29-2024 01-14-2025	02-20-2024 01-28-2025 01-13-2026
Spectrum Analyzer	Keysight	N9030B	MY57140871	02-21-2023 01-23-2024 01-14-2025	02-20-2024 01-22-2025 01-13-2026
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-1148	04-28-2021 04-28-2024 04-12-2025	04-27-2024 04-27-2025 04-11-2026
Horn Antenna	Schwarzbeck	BBHA 9170	9170-832	04-15-2021 04-16-2024 04-12-2025	04-14-2024 04-15-2025 04-11-2026
Horn Antenna	ETS-LINDGREN	3117	57407	07-04-2021 07-03-2024 06-29-2025	07-03-2024 07-02-2025 06-28-2026
Preamplifier	EMCI	EMC184055SE	980597	04-20-2022 04-13-2023 04-12-2024 04-11-2025	04-19-2023 04-12-2024 04-11-2025 04-10-2026
Preamplifier	EMCI	EMC001330	980563	03-28-2023 03-08-2024 03-03-2025	03-27-2024 03-07-2025 03-02-2026
Preamplifier	JS Tonscend	TAP-011858	AP21B806112	07-29-2022 07-25-2023 07-18-2024	07-28-2023 07-24-2024 07-17-2025
Communication test set	R&S	CMW500	102898	12-23-2022 12-14-2023 12-05-2024	12-22-2023 12-13-2024 12-04-2025

Temperature/ Humidity Indicator	biaozhi	GM1360	EJ1611459	02-15-2023 01-30-2024 01-22-2025	02-14-2024 01-29-2025 01-21-2026
Fully Anechoic Chamber	TDK	FAC-3	---	01-09-2021 01-09-2024	01-08-2024 01-08-2027
Cable line	Times	SFT205-NMSM-2.50M	394812-0001	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0002	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0003	---	---
Cable line	Times	SFT205-NMSM-2.50M	393495-0001	---	---
Cable line	Times	EMC104-NMNM-1000	SN160710	---	---
Cable line	Times	SFT205-NMSM-3.00M	394813-0001	---	---
Cable line	Times	SFT205-NMNM-1.50M	381964-0001	---	---
Cable line	Times	SFT205-NMSM-7.00M	394815-0001	---	---
Cable line	Times	HF160-KMKM-3.00M	393493-0001	---	---

7 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	PART 22	PART 22 – PUBLIC MOBILE SERVICES Subpart H – Cellular Radiotelephone Service
2	PART 24	PART 24 – PERSONAL COMMUNICATIONS SERVICES Subpart E – Broadband PCS
3	PART 27	PART 27 – MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES Subpart C – Technical Standards
4	PART 90	PART 90—PRIVATE LAND MOBILE RADIO SERVICES
5	PART 2	Frequency allocations and radio treaty matters; general rules and regulations
6	TIA-603-E-2016	Land Mobile FM or PM -Communications Equipment -Measurement and Performance Standards
7	KDB971168 D01	KDB971168 D01 Power Meas License Digital Systems v02r02
8	ANSI C63.26-2015	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

Test Results List:

Test Method:		Test Descriptions & Test Conditions	Verdict	Note
ANSI C63.26-2015	Clause 5.2	RF output power		Note 1
		NT/NV	PASS	
ANSI C63.26-2015	Clause 5.4	99% & 26dB Occupied Bandwidth		Note 1
		NT/NV	PASS	
ANSI C63.26-2015	Clause 5.2	Peak to average power ratio		Note 1
		NT/NV	PASS	
ANSI C63.26-2015	Clause 5.5	Spurious emissions		Appendix A)
		NT/NV	PASS	
ANSI C63.26-2015	Clause 5.7	Spurious emissions at antenna terminals		Note 1
		NT/NV	PASS	
ANSI C63.26-2015	Clause 5.6	Frequency stability		Note 1
		NT/NV	PASS	
		LT/LV	PASS	
		LT/HV	PASS	
		HT/LV	PASS	
		HT/HV	PASS	

Note 1:

The test data please refer to
 Appendix: GSM of EED32P80394905, Appendix: WCDMA of EED32P80394905,
 Appendix: LTE Band2 of EED32P80394905, Appendix: LTE Band4 of EED32P80394905,
 Appendix: LTE Band5 of EED32P80394905, Appendix: LTE Band7 of EED32P80394905,
 Appendix: LTE Band12 of EED32P80394905, Appendix: LTE Band13 of EED32P80394905,
 Appendix: LTE Band17 of EED32P80394905, Appendix: LTE Band25 of EED32P80394905,
 Appendix: LTE Band26 of EED32P80394905.

Appendix A) Field strength of spurious radiation

Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-30MHz	Peak	10kHz	30kHz	Peak
	30MHz-1GHz	Peak	120kHz	300kHz	Peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
Measurement Procedure:	<ol style="list-style-type: none"> 1. Scan up to 10th harmonic, find the maximum radiation frequency to measure. 2. The technique used to find the Spurious Emissions of the transmitter was the antenna substitution method. Substitution method was performed to determine the actual ERP/EIRP emission levels of the EUT. <p>Test procedure as below:</p> <ol style="list-style-type: none"> 1) The EUT was powered ON and placed on a 0.8m high table at a 3 meter fully Anechoic Chamber. The antenna of the transmitter was extended to its maximum length. modulation mode and the measuring receiver shall be tuned to the frequency of the transmitter under test. 2) The EUT was set 3 meters(above 18GHz the distance is 1 meter) away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3) The disturbance of the transmitter was maximized on the test receiver display by raising and lowering from 1m to 4m the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made. 4) Steps 1) to 3) were performed with the EUT and the receive antenna in both vertical and horizontal polarization. 5) The transmitter was then removed and replaced with another antenna. The center of the antenna was approximately at the same location as the center of the transmitter. 6) A signal at the disturbance was fed to the substitution antenna by means of a non-radiating cable. With both the substitution and the receive antennas horizontally polarized, the receive antenna was raised and lowered to obtain a maximum reading at the test receiver. The level of the signal generator was adjusted until the measured field strength level in step 3) is obtained for this set of conditions. 7) The output power into the substitution antenna was then measured. 8) Steps 6) and 7) were repeated with both antennas polarized. 9) Calculate power in dBm by the following formula: $\text{ERP(dBm)} = \text{Pg(dBm)} - \text{cable loss (dB)} + \text{antenna gain (dBd)}$ $\text{EIRP(dBm)} = \text{Pg(dBm)} - \text{cable loss (dB)} + \text{antenna gain (dBi)}$ $\text{EIRP} = \text{ERP} + 2.15\text{dB}$ where: Pg is the generator output power into the substitution antenna. 10) Test the EUT in the lowest channel, the middle channel the Highest channel 11) The radiation measurements are performed in X, Y, Z axis positioning for EUT operation mode, And found the X axis positioning which it is worse case. 12) Repeat above procedures until all frequencies measured was complete. 				
Limit:	Attenuated at least 43+10log(P)				

Measurement Data:

Remark: Only the worst case data was recorded in the report.

Mode	GSM	Remark	
Band	850	Channel	190

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.1204	150	360	-62.36	-13.00	49.36	PASS	Horizontal
2	120.034	150	3	-57.96	-13.00	44.96	PASS	Horizontal
3	597.1754	150	350	-64.64	-13.00	51.64	PASS	Horizontal
4	1672.8673	150	146	-46.79	-13.00	33.79	PASS	Horizontal
5	2510.151	150	206	-41.25	-13.00	28.25	PASS	Horizontal
6	3337.5169	150	158	-54.95	-13.00	41.95	PASS	Horizontal
7	49.4039	150	32	-54.13	-13.00	41.13	PASS	Vertical
8	132.4525	150	360	-61.26	-13.00	48.26	PASS	Vertical
9	360.06	150	176	-70.73	-13.00	57.73	PASS	Vertical
10	1673.2673	150	295	-50.57	-13.00	37.57	PASS	Vertical
11	2509.551	150	43	-49.23	-13.00	36.23	PASS	Vertical
12	3328.5164	150	329	-53.94	-13.00	40.94	PASS	Vertical

Mode	GSM	Remark	
Band	1900	Channel	661

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.1204	150	343	-63.36	-13.00	50.36	PASS	Horizontal
2	122.9446	150	302	-61.50	-13.00	48.50	PASS	Horizontal
3	258.7718	150	184	-62.34	-13.00	49.34	PASS	Horizontal
4	597.1754	150	333	-64.81	-13.00	51.81	PASS	Horizontal
5	7402.9403	150	73	-53.26	-13.00	40.26	PASS	Horizontal
6	17621.9622	150	328	-45.60	-13.00	32.60	PASS	Horizontal
7	35.6271	150	13	-59.45	-13.00	46.45	PASS	Vertical
8	120.034	150	3	-59.37	-13.00	46.37	PASS	Vertical
9	160.006	150	3	-62.15	-13.00	49.15	PASS	Vertical
10	3760.5761	150	42	-47.48	-13.00	34.48	PASS	Vertical
11	5640.264	150	256	-47.32	-13.00	34.32	PASS	Vertical
12	16492.3492	150	70	-46.10	-13.00	33.10	PASS	Vertical

Mode	WCDMA	Remark	
Band	II	Channel	9400

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.5085	150	115	-62.84	-13.00	49.84	PASS	Horizontal
2	108.9738	150	14	-58.50	-13.00	45.50	PASS	Horizontal
3	261.2943	150	14	-65.25	-13.00	52.25	PASS	Horizontal
4	438.0636	150	308	-59.78	-13.00	46.78	PASS	Horizontal
5	5560.628	150	340	-42.56	-13.00	29.56	PASS	Horizontal
6	14375.8188	150	240	-46.12	-13.00	33.12	PASS	Horizontal
7	51.5383	150	244	-59.45	-13.00	46.45	PASS	Vertical
8	120.034	150	3	-62.10	-13.00	49.10	PASS	Vertical
9	177.4695	150	355	-60.44	-13.00	47.44	PASS	Vertical
10	306.1172	150	360	-58.62	-13.00	45.62	PASS	Vertical
11	3706.5353	150	75	-43.09	-13.00	30.09	PASS	Vertical
12	5559.878	150	316	-36.82	-13.00	23.82	PASS	Vertical

Mode	WCDMA	Remark	
Band	IV	Channel	1450

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.1204	150	115	-62.77	-13.00	49.77	PASS	Horizontal
2	137.6915	150	252	-61.44	-13.00	48.44	PASS	Horizontal
3	437.4815	150	252	-65.97	-13.00	52.97	PASS	Horizontal
4	3477.7739	150	4	-46.94	-13.00	33.94	PASS	Horizontal
5	5222.3611	150	235	-46.57	-13.00	33.57	PASS	Horizontal
6	6963.1982	150	202	-47.41	-13.00	34.41	PASS	Horizontal
7	52.5085	150	38	-61.40	-13.00	48.40	PASS	Vertical
8	120.034	150	3	-63.40	-13.00	50.40	PASS	Vertical
9	725.6291	150	3	-54.07	-13.00	41.07	PASS	Vertical
10	3478.5239	150	75	-42.58	-13.00	29.58	PASS	Vertical
11	5223.8612	150	124	-45.12	-13.00	32.12	PASS	Vertical
12	6955.6978	150	297	-43.84	-13.00	30.84	PASS	Vertical

Mode	WCDMA	Remark	
Band	V	Channel	4175

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.1204	150	143	-62.56	-13.00	49.56	PASS	Horizontal
2	121.7804	150	291	-61.46	-13.00	48.46	PASS	Horizontal
3	356.5673	150	310	-67.27	-13.00	54.27	PASS	Horizontal
4	2383.3383	150	263	-54.16	-13.00	41.16	PASS	Horizontal
5	3338.2338	150	310	-52.46	-13.00	39.46	PASS	Horizontal
6	9724.2724	150	272	-48.85	-13.00	35.85	PASS	Horizontal
7	49.4039	150	0	-60.73	-13.00	47.73	PASS	Vertical
8	120.034	150	357	-64.21	-13.00	51.21	PASS	Vertical
9	475.5131	150	347	-70.72	-13.00	57.72	PASS	Vertical
10	1425.6426	150	109	-56.87	-13.00	43.87	PASS	Vertical
11	2387.5388	150	66	-56.51	-13.00	43.51	PASS	Vertical
12	3336.8337	150	109	-54.09	-13.00	41.09	PASS	Vertical

Mode	LTE	Remark	
Band	Band=2 BW=20MHz	Channel	18900

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.7025	150	3	-58.78	-13.00	45.78	PASS	Horizontal
2	129.93	150	12	-59.36	-13.00	46.36	PASS	Horizontal
3	475.5131	150	3	-64.21	-13.00	51.21	PASS	Horizontal
4	3760.538	150	306	-52.84	-13.00	39.84	PASS	Horizontal
5	5640.132	150	243	-44.00	-13.00	31.00	PASS	Horizontal
6	7520.476	150	0	-50.43	-13.00	37.43	PASS	Horizontal
7	51.9264	150	38	-61.10	-13.00	48.10	PASS	Vertical
8	120.034	150	3	-62.30	-13.00	49.30	PASS	Vertical
9	731.6443	150	347	-67.38	-13.00	54.38	PASS	Vertical
10	3760.538	150	78	-45.87	-13.00	32.87	PASS	Vertical
11	5640.132	150	158	-36.45	-13.00	23.45	PASS	Vertical
12	7520.476	150	186	-49.44	-13.00	36.44	PASS	Vertical

Mode	LTE	Remark	
Band	Band=4 BW=20MHz	Channel	20175

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.9264	150	335	-62.17	-13.00	49.17	PASS	Horizontal
2	120.034	150	3	-60.92	-13.00	47.92	PASS	Horizontal
3	477.6475	150	3	-63.80	-13.00	50.80	PASS	Horizontal
4	3465.0233	150	1	-46.76	-13.00	33.76	PASS	Horizontal
5	5197.6099	150	241	-42.46	-13.00	29.46	PASS	Horizontal
6	6930.9465	150	206	-45.54	-13.00	32.54	PASS	Horizontal
7	49.2098	150	3	-59.08	-13.00	46.08	PASS	Vertical
8	126.8254	150	360	-63.08	-13.00	50.08	PASS	Vertical
9	727.9576	150	3	-53.89	-13.00	40.89	PASS	Vertical
10	3465.0233	150	58	-44.58	-13.00	31.58	PASS	Vertical
11	5197.6099	150	330	-39.82	-13.00	26.82	PASS	Vertical
12	6930.1965	150	157	-40.22	-13.00	27.22	PASS	Vertical

Mode	LTE	Remark	
Band	Band=5 BW=20MHz	Channel	20525

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.7323	150	355	-62.54	-13.00	49.54	PASS	Horizontal
2	120.034	150	3	-58.60	-13.00	45.60	PASS	Horizontal
3	477.6475	150	3	-64.13	-13.00	51.13	PASS	Horizontal
4	2379.069	150	322	-56.14	-13.00	43.14	PASS	Horizontal
5	3328.3164	150	314	-54.83	-13.00	41.83	PASS	Horizontal
6	6467.9734	150	20	-56.07	-13.00	43.07	PASS	Horizontal
7	49.4039	150	11	-59.92	-13.00	46.92	PASS	Vertical
8	120.034	150	357	-62.31	-13.00	49.31	PASS	Vertical
9	715.9272	150	281	-62.75	-13.00	49.75	PASS	Vertical
10	1429.1215	150	123	-58.02	-13.00	45.02	PASS	Vertical
11	2383.9692	150	332	-56.19	-13.00	43.19	PASS	Vertical
12	3336.7168	150	264	-55.68	-13.00	42.68	PASS	Vertical

Mode	LTE	Remark	
Band	Band=7 BW=20MHz	Channel	21100

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.9264	150	321	-64.59	-13.00	51.59	PASS	Horizontal
2	126.0492	150	3	-60.29	-13.00	47.29	PASS	Horizontal
3	477.6475	150	28	-64.53	-13.00	51.53	PASS	Horizontal
4	3330.0165	150	296	-53.04	-13.00	40.04	PASS	Horizontal
5	5070.1035	150	241	-44.85	-13.00	31.85	PASS	Horizontal
6	7605.2303	150	348	-45.76	-13.00	32.76	PASS	Horizontal
7	49.2098	150	40	-60.11	-13.00	47.11	PASS	Vertical
8	120.034	150	3	-63.02	-13.00	50.02	PASS	Vertical
9	716.5093	150	136	-64.49	-13.00	51.49	PASS	Vertical
10	1419.4419	150	358	-49.66	-13.00	36.66	PASS	Vertical
11	5070.1035	150	340	-42.56	-13.00	29.56	PASS	Vertical
12	7605.2303	150	305	-39.47	-13.00	26.47	PASS	Vertical

Mode	LTE	Remark	
Band	Band=12 BW=20MHz	Channel	23095

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	52.3145	150	321	-63.75	-13.00	50.75	PASS	Horizontal
2	126.8254	150	14	-60.82	-13.00	47.82	PASS	Horizontal
3	475.7071	150	22	-64.19	-13.00	51.19	PASS	Horizontal
4	1422.1211	150	276	-46.28	-13.00	33.28	PASS	Horizontal
5	3334.6167	150	294	-55.18	-13.00	42.18	PASS	Horizontal
6	7002.8001	150	41	-54.53	-13.00	41.53	PASS	Horizontal
7	49.4039	150	22	-61.31	-13.00	48.31	PASS	Vertical
8	120.034	150	3	-61.62	-13.00	48.62	PASS	Vertical
9	477.6475	150	283	-68.75	-13.00	55.75	PASS	Vertical
10	1422.8211	150	360	-51.81	-13.00	38.81	PASS	Vertical
11	2378.3689	150	223	-57.64	-13.00	44.64	PASS	Vertical
12	3335.3168	150	91	-56.24	-13.00	43.24	PASS	Vertical

Mode	LTE	Remark	
Band	Band=13 BW=20MHz	Channel	23230

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.9264	150	128	-64.32	-13.00	51.32	PASS	Horizontal
2	120.034	150	357	-59.86	-13.00	46.86	PASS	Horizontal
3	475.5131	150	13	-64.75	-13.00	51.75	PASS	Horizontal
4	1570.5285	150	322	-52.22	-13.00	39.22	PASS	Horizontal
5	2378.3689	150	339	-55.89	-13.00	42.89	PASS	Horizontal
6	3327.6164	150	295	-52.17	-13.00	39.17	PASS	Horizontal
7	49.5979	150	3	-60.61	-13.00	47.61	PASS	Vertical
8	120.034	150	3	-60.52	-13.00	47.52	PASS	Vertical
9	477.6475	150	259	-68.41	-13.00	55.41	PASS	Vertical
10	2377.6689	150	223	-58.20	-13.00	45.20	PASS	Vertical
11	3329.7165	150	100	-56.15	-13.00	43.15	PASS	Vertical
12	8052.1526	150	126	-53.69	-13.00	40.69	PASS	Vertical

Mode	LTE	Remark	
Band	Band=17 BW=20MHz	Channel	23790

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.9264	150	330	-64.70	-13.00	51.70	PASS	Horizontal
2	120.034	150	357	-59.42	-13.00	46.42	PASS	Horizontal
3	475.5131	150	14	-64.41	-13.00	51.41	PASS	Horizontal
4	1422.8211	150	276	-43.54	-13.00	30.54	PASS	Horizontal
5	3331.8166	150	294	-52.96	-13.00	39.96	PASS	Horizontal
6	8918.0959	150	294	-52.87	-13.00	39.87	PASS	Horizontal
7	35.4331	150	125	-60.24	-13.00	47.24	PASS	Vertical
8	120.034	150	3	-61.88	-13.00	48.88	PASS	Vertical
9	184.2609	150	212	-63.24	-13.00	50.24	PASS	Vertical
10	1427.0214	150	3	-48.91	-13.00	35.91	PASS	Vertical
11	3336.0168	150	90	-55.89	-13.00	42.89	PASS	Vertical
12	7578.2289	150	240	-54.25	-13.00	41.25	PASS	Vertical

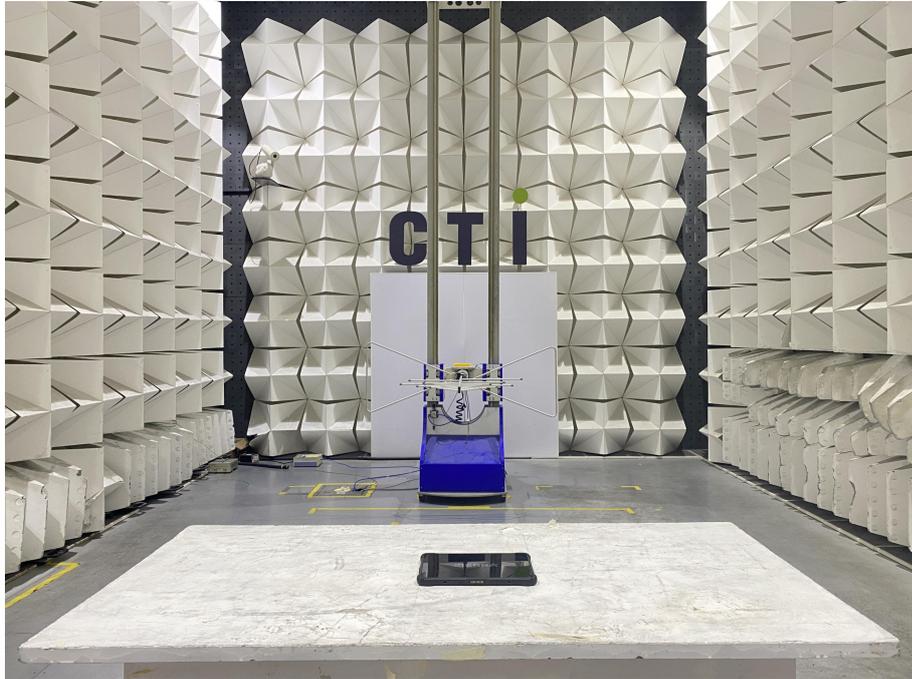
Mode	LTE	Remark	
Band	Band=25 BW=20MHz	Channel	26365

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	108.0036	150	36	-62.70	-13.00	49.70	PASS	Horizontal
2	199.978	150	357	-65.91	-13.00	52.91	PASS	Horizontal
3	477.6475	150	17	-64.61	-13.00	51.61	PASS	Horizontal
4	3765.0383	150	299	-49.76	-13.00	36.76	PASS	Horizontal
5	5647.6324	150	246	-39.64	-13.00	26.64	PASS	Horizontal
6	7530.2265	150	351	-50.31	-13.00	37.31	PASS	Horizontal
7	49.2098	150	15	-61.12	-13.00	48.12	PASS	Vertical
8	120.034	150	357	-60.03	-13.00	47.03	PASS	Vertical
9	477.6475	150	266	-68.86	-13.00	55.86	PASS	Vertical
10	3765.0383	150	87	-48.37	-13.00	35.37	PASS	Vertical
11	5647.6324	150	156	-34.48	-13.00	21.48	PASS	Vertical
12	7530.9765	150	310	-47.79	-13.00	34.79	PASS	Vertical

Mode	LTE	Remark	
Band	Band=26 BW=20MHz	Channel	26865

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	51.7323	150	322	-64.03	-13.00	51.03	PASS	Horizontal
2	120.034	150	357	-57.77	-13.00	44.77	PASS	Horizontal
3	208.9038	150	357	-68.05	-13.00	55.05	PASS	Horizontal
4	1673.4337	150	296	-60.28	-13.00	47.28	PASS	Horizontal
5	3336.7168	150	296	-53.48	-13.00	40.48	PASS	Horizontal
6	7499.125	150	23	-53.92	-13.00	40.92	PASS	Horizontal
7	49.4039	150	31	-61.14	-13.00	48.14	PASS	Vertical
8	153.4087	150	171	-56.30	-13.00	43.30	PASS	Vertical
9	475.5131	150	268	-68.27	-13.00	55.27	PASS	Vertical
10	1432.6216	150	338	-57.83	-13.00	44.83	PASS	Vertical
11	3336.0168	150	100	-55.95	-13.00	42.95	PASS	Vertical
12	7952.0476	150	197	-53.98	-13.00	40.98	PASS	Vertical

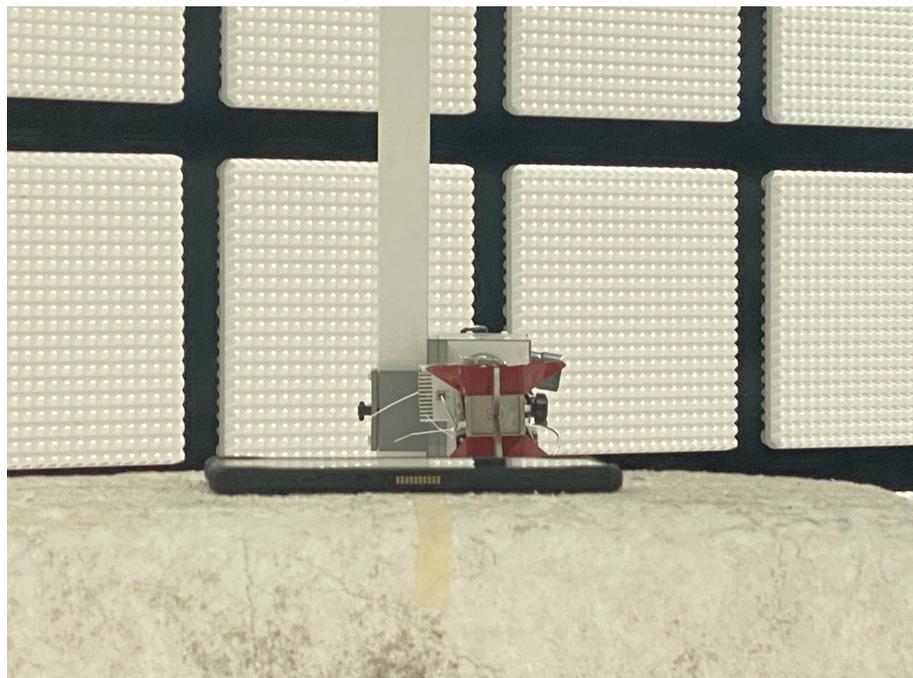
PHOTOGRAPHS OF TEST SETUP



Radiated spurious emission Test Setup-1(Below 1GHz)



Radiated spurious emission Test Setup-2(Below 1GHz)



Radiated spurious emission Test Setup-3(Above 1GHz)



**Radiated spurious emission Test Setup-4(Above 1GHz)
There are absorbing materials under the ground.**

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32P80394901 for EUT external and internal photos.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***