TEST REPORT

Product	:	Gemstone Bike,Gemstone
Trade mark	:	Copenhagen Trackers
Model/Type reference	:	81000,81001
Serial Number	:	N/A
Report Number	:	EED32P81875002
FCC ID	:	2BDTD-CPHTRACKERSG1
Date of Issue	:	Feb. 20, 2024
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:

Copenhagen Trackers ApS
Vibækvej 100,DK-5690 Tommerup, Denmark

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
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Compiled by: Frazer Li — Reviewed by: Tom Chen

Approved by: Aaron Ma — Date: Feb. 20, 2024

Check No.:4253201123

2 Version

Version No.	Date	Description
00	Feb. 20, 2024	Original

3 Test Summary

Test Item	Test Requirement	Test method	Result
FCC Part 22 (GSM 850, LTE Band 5,LTE Band 26)			
Conducted output power	Part 2.1046(a)/Part 22.913(a)	TIA-603-E-2016 &KDB 971168 D01v02r02	NOTE
Effective Radiated Power of Transmitter(ERP)	Part 2.1046(a)/Part 22.913(a)	TIA-603-E-2016 &KDB 971168 D01v02r02	PASS
99% & 26dB Occupied Bandwidth	Part 2.1049(h)	Part 22.917(b) &KDB 971168 D01v02r02	NOTE
Band Edge at antenna terminals	Part 2.1051/Part 22.917(a)	Part 22.917(b) &KDB 971168 D01v02r02	NOTE
Spurious emissions at antenna terminals	Part 2.1051/ Part 2.1057/ Part 22.917(a)(b)	TIA-603-E-2016 &KDB 971168 D01v02r02	NOTE
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	NOTE
FCC Part 24 (GSM 1900, LTE Band 2,LTE Band 25)			
Conducted output power	Part 2.1046(a) /Part 24.232(c)	TIA-603-E-2016&KDB 971168 D01v02r02	NOTE
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	NOTE
99% & 26dB Occupied Bandwidth	Part 2.1049(h)	Part 24.238(b) &KDB 971168 D01v02r02	NOTE
Band Edge at antenna terminals	Part 2.1051/ Part 24.238(a)	Part 24.238(b) &KDB 971168 D01v02r02	NOTE
Spurious emissions at antenna terminals	Part 2.1051/ Part 2.1057/ Part 24.238(a)(b)	TIA-603-E-2016 &KDB 971168 D01v02r02	NOTE
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	NOTE
FCC Part 27 (LTE Band 4,LTE Band 12,LTE Band 13,LTE Band 66,LTE Band 85)			
Conducted output power	Part 2.1046(a) /Part 27.50(d)	TIA-603-E-2016&KDB 971168 D01v03r01	NOTE
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	NOTE

99% & 26dB Occupied Bandwidth	Part 2.1049(h)	Part 27.53(h) &KDB 971168 D01v03r01	NOTE
Band Edge at antenna terminals	Part 2.1051/ Part 27.53(h)	Part 27.53(h) &KDB 971168 D01v03r01	NOTE
Spurious emissions at antenna terminals	Part 2.1051/ Part 27.53(h)	TIA-603-E-2016&KDB 971168 D01v03r01	NOTE
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	NOTE
FCC Part 90 (LTE Band 26)			
Conducted output power	Part 2.1046/Part 90.635(b)	ITA-603-E-2016&KDB 971168 D01v03r01	NOTE
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	NOTE
Emission Masks	90.210(b)	ITA-603-E-2016&KDB 971168 D01v03r01	NOTE
Band Edge at antenna terminals	Part 2.1051/Part 90.543	ITA-603-E-2016&KDB 971168 D01v03r01	NOTE
Spurious emissions at antenna terminals	Part 90.543(e)	ITA-603-E-2016&KDB 971168 D01v03r01	NOTE
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	NOTE

Remark:

NOTE:The test data refer to report of No. R2003A0168-R1, R2003A0168-R2, R2003A0168-R3V1,R2003A0168-R4,R2003A0168-R6V1,R2003A0168-R8,(FCC ID:XMR202004BG600LM3).

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.
Model No.: 81000, 81001

Only the model 81000 was tested. All models have same circuitry, components, PCB and layout, only the model's names, product name and appearance view are different for marketing requirements.

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5 Test Requirement

5.1 Test setup

5.1.1 For Radiated Emissions test setup

Radiated Emissions setup:

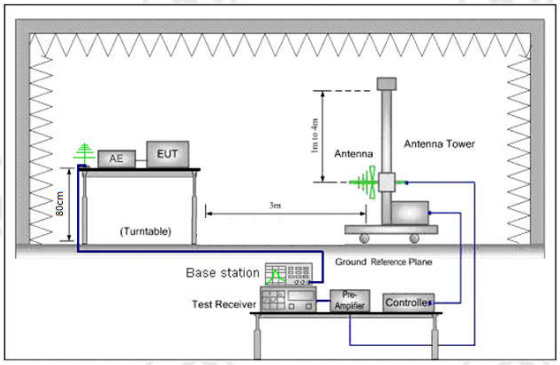


Figure 1.30MHz to 1GHz

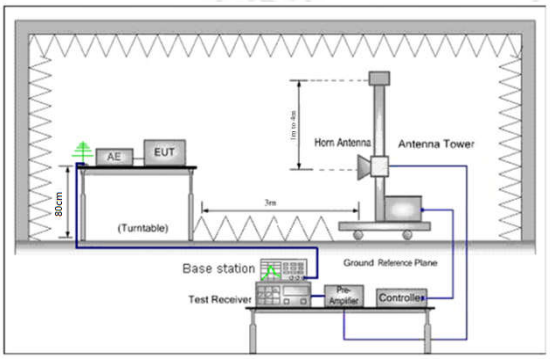


Figure 2. above 1GHz

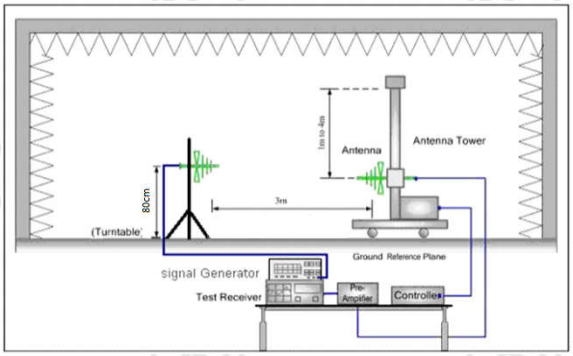


Figure 1. 30MHz to 1GHz

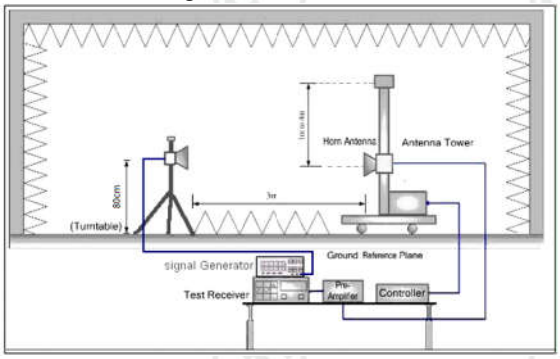


Figure 2. above 1GHz

5.2 Test Environment

Operating Environment:	
Temperature:	24.0 °C
Humidity:	51 % RH
Atmospheric Pressure:	1010mbar

6 General Information

6.1 Client Information

Applicant:	Copenhagen Trackers ApS
Address of Applicant:	Vibækvej 100, DK-5690 Tommerup, Denmark
Manufacturer:	Copenhagen Trackers ApS
Address of Manufacturer:	Vibækvej 100, DK-5690 Tommerup, Denmark
Factory:	Cre8tek (Shenzhen) Company Limited
Address of Factory:	F4, Building A2, XinJianXing Science and Technology Industrial Park, Fengxin Road, Loucun, Xinhu, GuangMing New District, Shenzhen, Guangdong, China

6.2 General Description of EUT

Product Name:	Gemstone Bike,Gemstone
Model No.:	81000,81001
Test Model No.:	81000
Trade Mark:	Copenhagen Trackers
Product Type:	☐ Mobile ☐ Portable ☒ Fix Location
Frequency Band:	GSM 850: TX:824-849MHz, RX:869-894MHz GSM 1900: TX:1850 -1910MHz, RX:1930-1990MHz FDD band 2:UL:1850-1910MHz,DL:1930–1990MHz; FDD band 4:UL:1710–1755MHz,DL:2110–2155MHz; FDD band 5:UL:824 – 849 MHz,DL: 869 – 894MHz; FDD band 12:UL:699–716MHz,DL:729–746MHz; FDD band 13:UL:777–787MHz,DL:746–756MHz; FDD band 25:UL:1850–1915MHz,DL:1930–1995 MHz: FDD band 26:UL: 814–824 MHz,DL: 859–869MHz: & UL: 824–849 MHz,DL: 869–894MHz; FDD band 66:UL:1710 – 1780 MHz,DL:2110 – 2200MHz; FDD band 85:UL:698-716 MHz,DL:728-746MHz;
Modulation Type:	GMSK,8PSK,QPSK,16QAM
Antenna Type:	Ceramic Antenna
Antenna Gain:	GSM 850: 1.60dBi; GSM 1900: 3.50dBi; FDD band 2: 3.50dBi; FDD band 4: 3.50dBi; FDD band 5: 1.60dBi; FDD band 12: 0.40dBi; FDD band 13: 0.40dBi;

	FDD band 25: 3.50dBi; FDD band 26: 0.40dBi;(UL: 814–824 MHz),; 1.60dBi;(UL: 824–849 MHz); FDD band 66: 3.50dBi; FDD band 85: 0.40dBi;	
Power Supply:	Battery:	DC 3.60V,4.8Ah
Nominal Voltage(NV):	DC 3.6V	
Extreme Hige Voltage(HV):	DC 3.96V	
Extreme Low Voltage(LV):	DC 3.24V	
Sample Received Date:	Nov. 24, 2023	
Sample tested Date:	Nov. 24, 2023 to Dec. 06, 2023	

6.3 Description of Support Units

The EUT has been tested with associated equipment below.

1）support equipment

Description	Manufacturer	Model No.	Certification	Supplied by
/	/	/	/	/

6.4 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

6.5 Deviation from Standards

None.

6.6 Abnormalities from Standard Conditions

None.

6.7 Other Information Requested by the Customer

None.

6.8 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%

7 Equipment List

3M Semi-anechoic Chamber (2)- Radiated disturbance Test					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. Date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
3M Chamber & Accessory Equipment	TDK	SAC-3	---	05/22/2022	05/21/2025
Receiver	R&S	ESCI7	100938-003	09-22-2023	09-21-2024
Spectrum Analyzer	R&S	FSV40	101200	07/25/2023	07/24/2024
TRILOG Broadband Antenna	schwarzbeck	VULB 9163	9163-618	05/22/2022	05/21/2025
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-076	04/15/2021	04/14/2024
Microwave Preamplifier	Tonscend	EMC051845SE	980380	12/23/2022	12/23/2023
Horn Antenna	A.H.SYSTEMS	SAS-574	374	05/29/2021	05/28/2024
Horn Antenna	ETS-LINGREN	BBHA 9120D	9120D-1869	04/15/2021	04/14/2024
Preamplifier	Agilent	11909A	12-1	03/28/2023	03/27/2024
Preamplifier	CD	PAP-1840-60	6041.6042	07/03/2023	07/02/2024
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	02-26-2024
Spectrum Analyzer	Keysight	N9020B	MY57111112	02-21-2023	02-20-2024
Spectrum Analyzer	Keysight	N9030B	MY57140871	02-21-2023	02-20-2024
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-1148	04-28-2021	04-27-2024
Horn Antenna	Schwarzbeck	BBHA 9170	9170-832	04-15-2021	04-14-2024
Horn Antenna	ETS-LINDGREN	3117	57407	07-04-2021	07-03-2024
Preamplifier	EMCI	EMC184055SE	980597	04-13-2023	04-12-2024
Preamplifier	EMCI	EMC001330	980563	03-28-2023	03-27-2024
Preamplifier	JS Tonscend	TAP-011858	AP21B806112	07-25-2023	07-24-2024
Communication test set	R&S	CMW500	102898	12-23-2022	12-22-2023
Temperature/ Humidity Indicator	biaozhi	GM1360	EE1186631	04-11-2023	04-10-2024
Fully Anechoic Chamber	TDK	FAC-3	---	01-09-2021	01-08-2024
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	---	---

8 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	Effective Radiated Power of Transmitter		Appendix A)
		NT/NV	PASS	
ANSI C63.26-2015	Clause 5.5	Spurious emissions		Appendix B)
		NT/NV	PASS	
		NT/NV	PASS	
		LT/LV	PASS	
		LT/HV	PASS	
		HT/LV	PASS	
		HT/HV	PASS	

Appendix A) Effective Radiated Power of Transmitter

Mode	Channel	Frequency (MHz)	Conducted power (dBm)	Antenna gain (dBi)	EIRP (dBm)	ERP (dBm)
GSM 850	251	848.8	32.86	1.6	34.46	32.31
LTE Band 26 (FCC Part 22)	26840	829.0	22.09	0.4	22.49	20.34
LTE Band 2	19193	1909.3	22.03	3.5	25.53	23.38
LTE Band 25	26640	1910.0	21.98	3.5	25.48	23.33
LTE Band 4	20175	1732.5	21.86	3.5	25.36	23.21
LTE Band 12	23130	711.0	22.08	0.4	22.48	20.33
LTE Band 13	23230	782.0	21.57	0.4	21.97	19.82
LTE Band 66	132665	1779.3	22.27	3.5	25.77	23.62
LTE Band 85	134027	700.5	21.44	0.4	21.84	30.71
LTE Band 5	20525	836.5	21.75	1.6	23.35	21.20
GSM 1900	810	1909.8	29.60	3.5	33.10	30.95
LTE Band 26 (FCC Part 90)	26740	819.0	22.18	1.6	23.78	21.63

Note:

①The test data refer to report of No. R2003A0168-R1, R2003A0168-R2, R2003A0168-R3V1,R2003A0168-R4,R2003A0168-R6V1,R2003A0168-R8.And only the worst case data was recorded in the report.

②EIRP(dBm)=Conducted power(dBm)+Antenna gain(dBi);

③ERP(dBm)=EIRP(dBm)-2.15;

Appendix B) Field strength of spurious radiation

<table>
<tr><td>Receiver Setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr>
<tr><td>0.009MHz-30MHz</td><td>Peak</td><td>10kHz</td><td>30kHz</td><td>Peak</td></tr>
<tr><td>30MHz-1GHz</td><td>Peak</td><td>120kHz</td><td>300kHz</td><td>Peak</td></tr>
<tr><td>Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr>
</table>
</td></tr>
<tr><td>Measurement Procedure:</td><td>
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.
Test procedure as below:
1) The EUT was powered ON and placed on a 0.8m hight 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:
ERP(dBm) = Pg(dBm) – cable loss (dB) + antenna gain (dBd)
EIRP(dBm) = Pg(dBm) – cable loss (dB) + antenna gain (dBi)
EIRP=ERP+2.15dB
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.
</td></tr>
<tr><td>Limit:</td><td>Attenuated at least 43+10log(P)</td></tr>
</table>

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	80.062	150	3	-66.74	-13.00	53.74	PASS	Horizontal
2	208.9038	150	214	-70.93	-13.00	57.93	PASS	Horizontal
3	649.954	150	167	-67.55	-13.00	54.55	PASS	Horizontal
4	1276.4276	150	98	-57.38	-13.00	44.38	PASS	Horizontal
5	5007.1004	150	16	-55.35	-13.00	42.35	PASS	Horizontal
6	14366.8183	150	280	-45.45	-13.00	32.45	PASS	Horizontal
7	54.6429	150	26	-63.92	-13.00	50.92	PASS	Vertical
8	184.2609	150	305	-66.50	-13.00	53.50	PASS	Vertical
9	649.954	150	266	-67.38	-13.00	54.38	PASS	Vertical
10	1278.8279	150	165	-58.04	-13.00	45.04	PASS	Vertical
11	4470.0735	150	148	-56.64	-13.00	43.64	PASS	Vertical
12	14333.8167	150	339	-45.82	-13.00	32.82	PASS	Vertical

Mode	GSM	Remark	
Band	1900	Channel	810

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	69.3899	150	168	-68.07	-13.00	55.07	PASS	Horizontal
2	208.9038	150	133	-71.62	-13.00	58.62	PASS	Horizontal
3	649.954	150	56	-69.78	-13.00	56.78	PASS	Horizontal
4	1285.2285	150	3	-49.13	-13.00	36.13	PASS	Horizontal
5	9673.8337	150	357	-49.01	-13.00	36.01	PASS	Horizontal
6	14389.3195	150	357	-45.14	-13.00	32.14	PASS	Horizontal
7	54.6429	150	271	-63.39	-13.00	50.39	PASS	Vertical
8	184.2609	150	3	-66.26	-13.00	53.26	PASS	Vertical
9	739.988	150	3	-58.48	-13.00	45.48	PASS	Vertical
10	1305.2305	150	359	-49.42	-13.00	36.42	PASS	Vertical
11	5043.8522	150	154	-55.05	-13.00	42.05	PASS	Vertical
12	14390.8195	150	92	-45.53	-13.00	32.53	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	69.778	150	360	-67.09	-13.00	54.09	PASS	Horizontal
2	208.9038	150	323	-73.12	-13.00	60.12	PASS	Horizontal
3	649.954	150	31	-67.88	-13.00	54.88	PASS	Horizontal
4	1249.625	150	268	-48.69	-13.00	35.69	PASS	Horizontal
5	5008.6004	150	29	-55.77	-13.00	42.77	PASS	Horizontal
6	14408.0704	150	88	-46.62	-13.00	33.62	PASS	Horizontal
7	54.6429	150	3	-64.47	-13.00	51.47	PASS	Vertical
8	184.2609	150	3	-67.75	-13.00	54.75	PASS	Vertical
9	746.9734	150	3	-60.72	-13.00	47.72	PASS	Vertical
10	1339.0339	150	311	-48.95	-13.00	35.95	PASS	Vertical
11	5016.1008	150	0	-55.38	-13.00	42.38	PASS	Vertical
12	14355.5678	150	179	-45.79	-13.00	32.79	PASS	Vertical

Mode	LTE	Remark	
Band	Band=4 BW=20MHz	Channel	132322

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	69.5839	150	206	-65.36	-13.00	52.36	PASS	Horizontal
2	324.939	150	178	-75.40	-13.00	62.40	PASS	Horizontal
3	736.6893	150	3	-66.32	-13.00	53.32	PASS	Horizontal
4	1311.0311	150	59	-50.06	-13.00	37.06	PASS	Horizontal
5	5071.6036	150	0	-55.89	-13.00	42.89	PASS	Horizontal
6	14366.0683	150	107	-46.25	-13.00	33.25	PASS	Horizontal
7	54.6429	150	309	-65.39	-13.00	52.39	PASS	Vertical
8	184.2609	150	108	-67.50	-13.00	54.50	PASS	Vertical
9	649.954	150	245	-68.72	-13.00	55.72	PASS	Vertical
10	1302.2302	150	65	-49.46	-13.00	36.46	PASS	Vertical
11	5024.3512	150	119	-55.16	-13.00	42.16	PASS	Vertical
12	14330.8165	150	16	-46.58	-13.00	33.58	PASS	Vertical

Mode	LTE	Remark	
Band	Band=5 BW=20MHz	Channel	132322

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	69.3899	150	360	-65.46	-13.00	52.46	PASS	Horizontal
2	160.006	150	3	-70.26	-13.00	57.26	PASS	Horizontal
3	649.954	150	158	-67.67	-13.00	54.67	PASS	Horizontal
4	3172.5086	150	111	-57.70	-13.00	44.70	PASS	Horizontal
5	9720.336	150	289	-49.34	-13.00	36.34	PASS	Horizontal
6	14396.8198	150	357	-46.32	-13.00	33.32	PASS	Horizontal
7	54.6429	150	22	-64.07	-13.00	51.07	PASS	Vertical
8	184.2609	150	133	-67.33	-13.00	54.33	PASS	Vertical
9	649.954	150	13	-66.32	-13.00	53.32	PASS	Vertical
10	1268.2268	150	234	-59.08	-13.00	46.08	PASS	Vertical
11	5004.8502	150	183	-55.10	-13.00	42.10	PASS	Vertical
12	14345.0673	150	22	-45.58	-13.00	32.58	PASS	Vertical

Mode	LTE	Remark	
Band	Band=12 BW=20MHz	Channel	132322

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	69.5839	150	360	-66.24	-13.00	53.24	PASS	Horizontal
2	184.2609	150	224	-73.44	-13.00	60.44	PASS	Horizontal
3	360.06	150	3	-73.68	-13.00	60.68	PASS	Horizontal
4	2176.3176	150	59	-57.88	-13.00	44.88	PASS	Horizontal
5	5009.3505	150	109	-55.95	-13.00	42.95	PASS	Horizontal
6	9655.0828	150	240	-48.42	-13.00	35.42	PASS	Horizontal
7	54.6429	150	3	-63.87	-13.00	50.87	PASS	Vertical
8	199.978	150	3	-67.74	-13.00	54.74	PASS	Vertical
9	394.987	150	196	-74.25	-13.00	61.25	PASS	Vertical
10	1271.4271	150	360	-58.97	-13.00	45.97	PASS	Vertical
11	5016.8508	150	46	-55.78	-13.00	42.78	PASS	Vertical
12	14364.5682	150	145	-46.12	-13.00	33.12	PASS	Vertical

Mode	LTE	Remark	
Band	Band=13 BW=20MHz	Channel	132322

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	69.5839	150	353	-67.03	-13.00	54.03	PASS	Horizontal
2	109.944	150	326	-70.58	-13.00	57.58	PASS	Horizontal
3	284.967	150	3	-72.58	-13.00	59.58	PASS	Horizontal
4	1279.828	150	206	-57.80	-13.00	44.80	PASS	Horizontal
5	5007.8504	150	187	-55.92	-13.00	42.92	PASS	Horizontal
6	9694.0847	150	240	-49.51	-13.00	36.51	PASS	Horizontal
7	54.6429	150	249	-65.11	-13.00	52.11	PASS	Vertical
8	184.2609	150	3	-67.81	-13.00	54.81	PASS	Vertical
9	649.954	150	277	-68.02	-13.00	55.02	PASS	Vertical
10	1269.827	150	221	-58.62	-13.00	45.62	PASS	Vertical
11	4993.5997	150	80	-55.86	-13.00	42.86	PASS	Vertical
12	14351.0676	150	106	-46.45	-13.00	33.45	PASS	Vertical

Mode	LTE	Remark	
Band	Band=25 BW=20MHz	Channel	132322

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	69.972	150	360	-65.81	-13.00	52.81	PASS	Horizontal
2	125.079	150	65	-71.79	-13.00	58.79	PASS	Horizontal
3	284.967	150	22	-74.15	-13.00	61.15	PASS	Horizontal
4	1340.6341	150	102	-49.35	-13.00	36.35	PASS	Horizontal
5	5015.3508	150	107	-56.01	-13.00	43.01	PASS	Horizontal
6	14394.5697	150	12	-45.92	-13.00	32.92	PASS	Horizontal
7	54.6429	150	144	-65.07	-13.00	52.07	PASS	Vertical
8	120.034	150	71	-68.49	-13.00	55.49	PASS	Vertical
9	160.006	150	3	-67.52	-13.00	54.52	PASS	Vertical
10	1306.0306	150	360	-48.82	-13.00	35.82	PASS	Vertical
11	5045.3523	150	74	-55.81	-13.00	42.81	PASS	Vertical
12	14379.569	150	50	-46.41	-13.00	33.41	PASS	Vertical

Mode	LTE	Remark	
Band	Band=26 BW=20MHz	Channel	23095

Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	69.778	150	210	-64.00	-13.00	51.00	PASS	Horizontal
2	109.944	150	300	-66.74	-13.00	53.74	PASS	Horizontal
3	284.967	150	66	-73.81	-13.00	60.81	PASS	Horizontal
4	1273.4273	150	54	-58.75	-13.00	45.75	PASS	Horizontal
5	5052.8526	150	116	-55.62	-13.00	42.62	PASS	Horizontal
6	14405.0703	150	332	-45.39	-13.00	32.39	PASS	Horizontal
7	40.2841	150	359	-60.89	-13.00	47.89	PASS	Vertical
8	199.978	150	3	-68.00	-13.00	55.00	PASS	Vertical
9	375.001	150	359	-73.39	-13.00	60.39	PASS	Vertical
10	1322.4322	150	261	-58.92	-13.00	45.92	PASS	Vertical
11	3203.2602	150	33	-57.69	-13.00	44.69	PASS	Vertical
12	9674.5837	150	275	-49.20	-13.00	36.20	PASS	Vertical

Mode	LTE	Remark	
Band	Band=66 BW=20MHz	Channel	23095

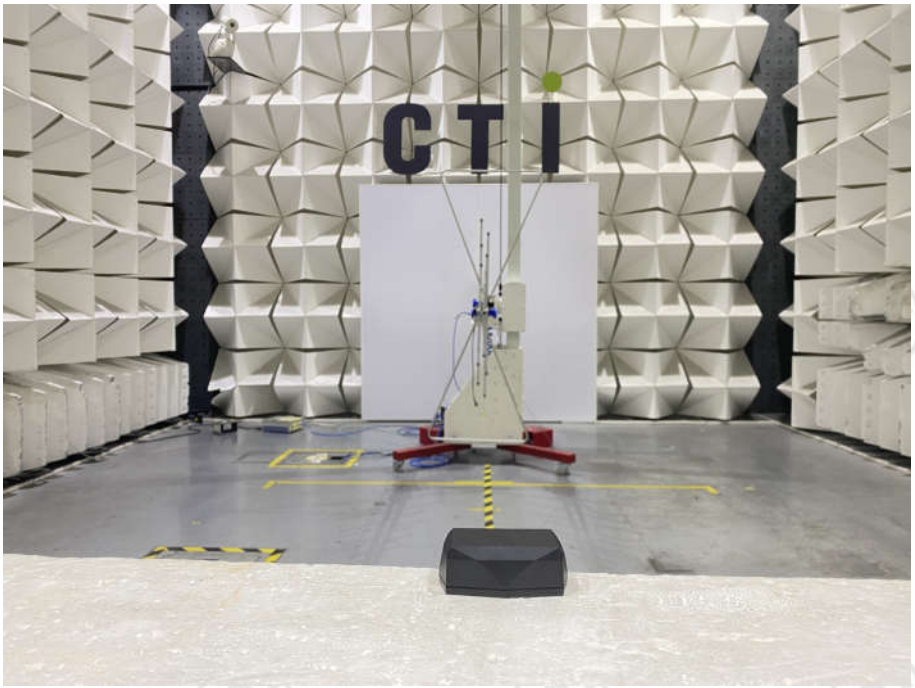
Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	69.778	150	44	-63.80	-13.00	50.80	PASS	Horizontal
2	109.944	150	359	-68.07	-13.00	55.07	PASS	Horizontal
3	375.001	150	359	-71.37	-13.00	58.37	PASS	Horizontal
4	1281.8282	150	129	-49.47	-13.00	36.47	PASS	Horizontal
5	4999.6	150	120	-56.00	-13.00	43.00	PASS	Horizontal
6	14390.8195	150	201	-46.16	-13.00	33.16	PASS	Horizontal
7	54.4489	150	197	-66.56	-13.00	53.56	PASS	Vertical
8	199.978	150	3	-67.63	-13.00	54.63	PASS	Vertical
9	747.9436	150	3	-63.10	-13.00	50.10	PASS	Vertical
10	1312.8313	150	197	-49.78	-13.00	36.78	PASS	Vertical
11	5018.3509	150	75	-56.20	-13.00	43.20	PASS	Vertical
12	14385.5693	150	75	-46.40	-13.00	33.40	PASS	Vertical

Mode	LTE	Remark	
Band	Band=85 BW=20MHz	Channel	132671

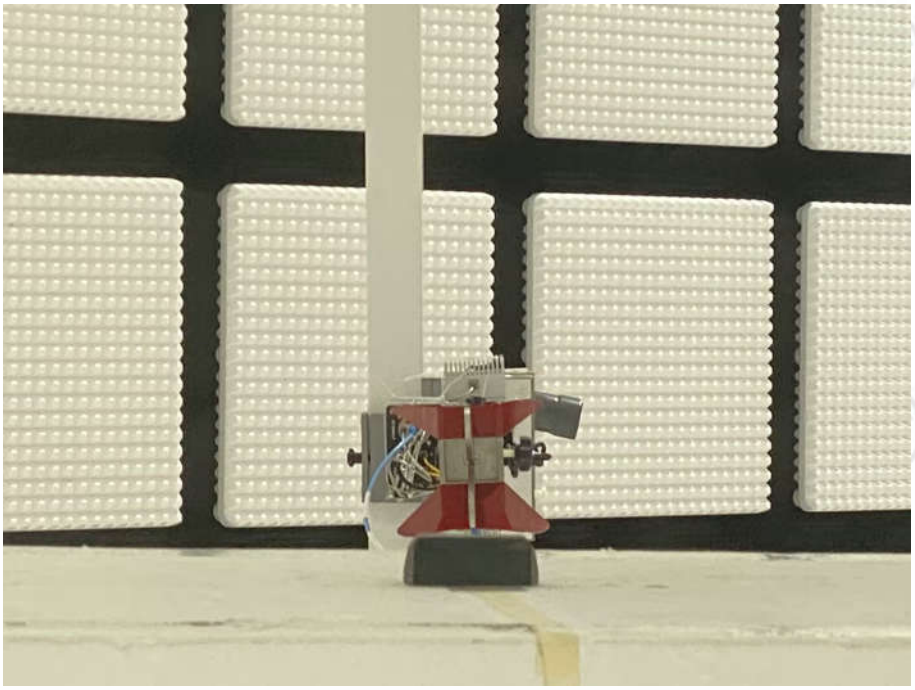
Suspected List								
NO.	Freq. [MHz]	Height [cm]	Azimuth [deg]	Level [dBm]	Limit [dBm]	Margin [dB]	Result	Polarity
1	69.778	150	145	-67.14	-13.00	54.14	PASS	Horizontal
2	125.079	150	38	-71.85	-13.00	58.85	PASS	Horizontal
3	360.06	150	137	-74.67	-13.00	61.67	PASS	Horizontal
4	1382.6383	150	95	-57.88	-13.00	44.88	PASS	Horizontal
5	5043.1022	150	0	-54.67	-13.00	41.67	PASS	Horizontal
6	14348.8174	150	158	-45.18	-13.00	32.18	PASS	Horizontal
7	40.2841	150	100	-61.70	-13.00	48.70	PASS	Vertical
8	166.6033	150	3	-67.11	-13.00	54.11	PASS	Vertical
9	284.967	150	358	-73.39	-13.00	60.39	PASS	Vertical
10	1266.0266	150	138	-57.94	-13.00	44.94	PASS	Vertical
11	5023.6012	150	43	-53.94	-13.00	40.94	PASS	Vertical
12	14384.8192	150	0	-45.64	-13.00	32.64	PASS	Vertical

PHOTOGRAPHS OF TEST SETUP

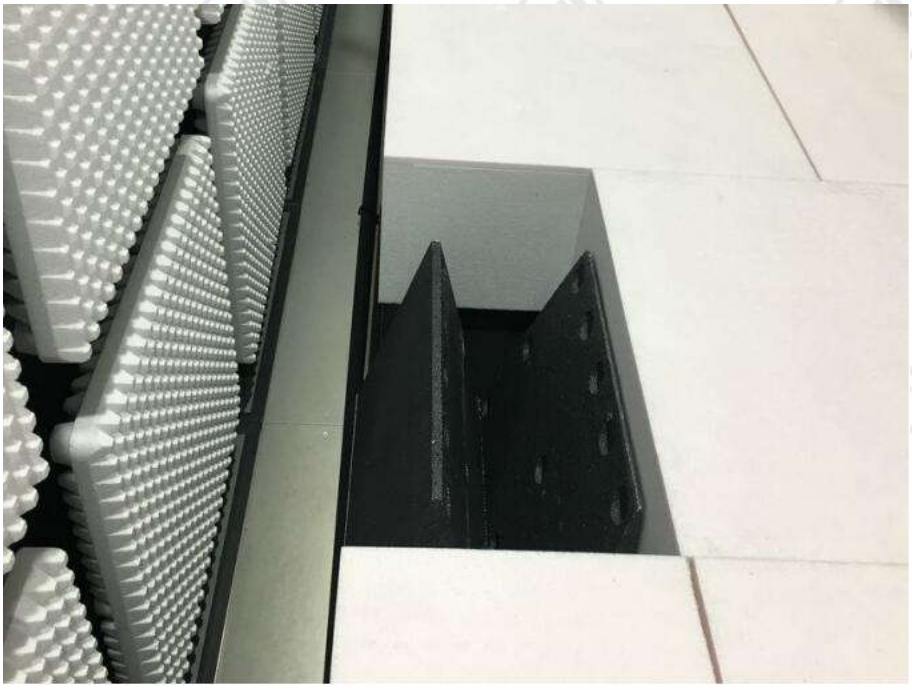
Radiated spurious emission Test Setup-1(Below 1GHz)



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



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. EED32P81875001 for EUT external and internal photos.

*** End of Report ***