RF TEST REPORT

Report No.:	20240517G07667X-W4
Product Name:	RCP-P1
Model No. :	HSA-20NP-PB, HSA-20NP-PA
FCC ID:	2AHPN-HSA-20NP-PB
IC:	6434C-HSA20NPPB
Applicant:	Harman International Industries Incorporated
Address:	30001, Cabot Drive, Novi, MI 48377, USA
Dates of Testing:	05/08/2024 - 05/16/2024
Issued by:	CCIC Southern Testing Co., Ltd.
Lab Location:	Electronic Testing Building, No.43, Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China

Tel：86-755-26627338 **E-Mail**：manager@ccic-set.com

Test Report

Product ..... :	RCP-P1
Brand Name ..... :	Ride Command Plus
Applicant ..... :	Harman International Industries Incorporated
Applicant Address ..... :	30001, Cabot Drive, Novi, MI 48377, USA
Manufacturer ..... :	Harman International Industries Incorporated
Manufacturer Address..... :	30001, Cabot Drive, Novi, MI 48377, USA
Test Standards ..... :	47 CFR Part 2/22/24/27 RSS-Gen, Issue 5: Feb 2021 RSS-130, issue 2: Feb 2019 RSS-132, Issue 4: Jan 2023 RSS-133, Issue 6: Jan 2018 RSS-139-Issue 4: Sep 2022 RSS-199, issue 4: July 2023
Test Result ..... :	Pass

Tested by ..... :	Kim Li	2024.05.17
	Kim Li, Test Engineer	
Reviewed by..... :	Chris You	2024.05.17
	Chris You, Senior Engineer	
Approved by..... :	Yang Fan	2024.05.17
	Yang Fan, Manager	

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Change History		
Issue	Date	Reason for change
1.0	2024.05.17	First edition

1. GENERAL INFORMATION

1.1 EUT Description

EUT Name	RCP-P1
Hardware Version	V1.0
Software Version	N75NA_POPLS_R6.2.4
EUT supports Radios application	LTE Band 2/4/5/7/12/13/66
Frequency Range(Tx)	LTE Band 2: 1850.7MHz~1909.3MHz LTE Band 4: 1710.7MHz~1754.3MHz LTE Band 5: 824.7MHz~848.3MHz LTE Band 7: 2502.5MHz~2567.5MHz LTE Band 12: 699.7MHz~715.3MHz LTE Band 13: 779.5MHz~784.5MHz LTE Band 66: 1710.7MHz~1779.3MHz
Maximum Output Power to Antenna	LTE Band 2: 23.46dBm LTE Band 4: 23.13dBm LTE Band 5: 24.43dBm LTE Band 7: 24.43dBm LTE Band 12: 24.20dBm LTE Band 13: 24.53dBm LTE Band 66: 23.99dBm
Bandwidth	LTE Band 2: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz LTE Band 4: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz LTE Band 5: 1.4MHz/3MHz/5MHz/10MHz LTE Band 7: 5MHz/10MHz/15MHz/20MHz LTE Band 12: 1.4MHz/3MHz/5MHz/10MHz LTE Band 13: 5MHz/10MHz LTE Band 66: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz
Modulation Type	QPSK/16QAM/64QAM(downlink only)
Antenna Gain	LTE Band 2/4/5/7/12/13/66: 1.0 dBi
Antenna Type	Internal Antenna
Power supply	DC 9V-16V

Note: This amend report refer to original SET2021-17306. Some PCB board materials have been replaced, and the parameters and functions of the replaced materials are the same as those of the original materials. Retest the Radiated Spurious Emissions items.

1.2 Maximum ERP/EIRP, Frequency Tolerance, and Emission Designator

FCC/IC					
Band	Type of Modulation	BW (MHz)	Emission Designator	Frequency Tolerance (ppm)	Maximum ERP/EIRP(W)
LTE Band 2	QPSK	1.4	1M09G7D	—	0.195
LTE Band 2	16QAM	1.4	1M09W7D	—	0.159
LTE Band 2	QPSK	3	2M68G7D	—	0.194
LTE Band 2	16QAM	3	2M68W7D	—	0.168
LTE Band 2	QPSK	5	4M49G7D	—	0.195
LTE Band 2	16QAM	5	4M49W7D	—	0.176
LTE Band 2	QPSK	10	8M91G7D	0.004	0.208
LTE Band 2	16QAM	10	8M91W7D	—	0.157
LTE Band 2	QPSK	15	13M4G7D	—	0.206
LTE Band 2	16QAM	15	13M4W7D	—	0.184
LTE Band 2	QPSK	20	17M9G7D	—	0.212
LTE Band 2	16QAM	20	17M9W7D	—	0.155
LTE Band 4	QPSK	1.4	1M09G7D	—	0.185
LTE Band 4	16QAM	1.4	1M08W7D	—	0.166
LTE Band 4	QPSK	3	2M68G7D	—	0.186
LTE Band 4	16QAM	3	2M68W7D	—	0.160
LTE Band 4	QPSK	5	4M49G7D	—	0.185
LTE Band 4	16QAM	5	4M49W7D	—	0.153
LTE Band 4	QPSK	10	8M92G7D	0.006	0.185
LTE Band 4	16QAM	10	8M91W7D	—	0.151
LTE Band 4	QPSK	15	13M4G7D	—	0.186
LTE Band 4	16QAM	15	13M4W7D	—	0.151
LTE Band 4	QPSK	20	17M8G7D	—	0.187
LTE Band 4	16QAM	20	17M8W7D	—	0.153

LTE Band 7	QPSK	5	4M49G7D	—	0.196
LTE Band 7	16QAM	5	4M49W7D	—	0.157
LTE Band 7	QPSK	10	8M90G7D	0.005	0.206
LTE Band 7	16QAM	10	8M90W7D	—	0.155
LTE Band 7	QPSK	15	13M4G7D	—	0.206
LTE Band 7	16QAM	15	13M4W7D	—	0.173
LTE Band 7	QPSK	20	17M9G7D	—	0.208
LTE Band 7	16QAM	20	17M8W7D	—	0.149
LTE Band 12	QPSK	1.4	1M09G7D	—	0.120
LTE Band 12	16QAM	1.4	1M09W7D	—	0.085
LTE Band 12	QPSK	3	2M68G7D	—	0.121
LTE Band 12	16QAM	3	2M68W7D	—	0.092
LTE Band 12	QPSK	5	4M49G7D	—	0.121
LTE Band 12	16QAM	5	4M48W7D	—	0.086
LTE Band 12	QPSK	10	8M90G7D	-0.027	0.123
LTE Band 12	16QAM	10	8M90W7D	—	0.093
LTE Band 13	QPSK	5	4M48G7D	—	0.120
LTE Band 13	16QAM	5	4M49W7D	—	0.102
LTE Band 13	QPSK	10	8M91G7D	-0.005	0.121
LTE Band 13	16QAM	10	8M90W7D	—	0.099
LTE Band 66	QPSK	1.4	1M09G7D	—	0.174
LTE Band 66	16QAM	1.4	1M09W7D	—	0.139
LTE Band 66	QPSK	3	2M69G7D	—	0.167
LTE Band 66	16QAM	3	2M68W7D	—	0.140
LTE Band 66	QPSK	5	4M49G7D	—	0.167
LTE Band 66	16QAM	5	4M49W7D	—	0.133
LTE Band 66	QPSK	10	8M91G7D	-0.006	0.171
LTE Band 66	16QAM	10	8M90W7D	—	0.137
LTE Band 66	QPSK	15	13M4G7D	—	0.175

LTE Band 66	16QAM	15	13M4W7D	—	0.141
LTE Band 66	QPSK	20	17M8G7D	—	0.188
LTE Band 66	16QAM	20	17M8W7D	—	0.129

FCC					
Band	Type of Modulation	BW (MHz)	Emission Designator	Frequency Tolerance (ppm)	Maximum ERP(W)
LTE Band 5	QPSK	1.4	1M09G7D	—	0.121
LTE Band 5	16QAM	1.4	1M09W7D	—	0.099
LTE Band 5	QPSK	3	2M68G7D	—	0.122
LTE Band 5	16QAM	3	2M68W7D	—	0.100
LTE Band 5	QPSK	5	4M49G7D	—	0.121
LTE Band 5	16QAM	5	4M48W7D	—	0.088
LTE Band 5	QPSK	10	8M90G7D	-0.004	0.122
LTE Band 5	16QAM	10	8M90W7D	—	0.090

IC					
Band	Type of Modulation	BW (MHz)	Emission Designator	Frequency Tolerance (ppm)	Maximum EIRP(W)
LTE Band 5	QPSK	1.4	1M09G7D	—	0.198
LTE Band 5	16QAM	1.4	1M09W7D	—	0.163
LTE Band 5	QPSK	3	2M68G7D	—	0.200
LTE Band 5	16QAM	3	2M68W7D	—	0.164
LTE Band 5	QPSK	5	4M49G7D	—	0.198
LTE Band 5	16QAM	5	4M48W7D	—	0.144
LTE Band 5	QPSK	10	8M90G7D	-0.004	0.201
LTE Band 5	16QAM	10	8M90W7D	—	0.148

1.3 Test Standards and Results

The objective of the report is to perform testing according to FCC/IC Certification:

1. 47 CFR Part 2, 22(H), 24(E), 27(L).
2. ANSI C63.26:2015.
3. FCC KDB 971168 D01 Power Meas License Digital Systems v03r01.
4. RSS-GEN Issue 5.
5. RSS-130 Issue 2, RSS-132 Issue 4, RSS-133 Issue 6, RSS-139 Issue 4, RSS-199 Issue 4.

Test detailed items/section required by FCC/IC rules and results are as below:

No.	FCC Rule	IC Rule	Description	Limit	Result
1	2.1053 22.917 (a) 24.238 (a) 27.53 (c) 27.53 (g) 27.53 (h)	RSS-GEN, 6.13 RSS-130,4.7 RSS-132,5.5 RSS-133,6.5 RSS-139,6.6	Radiated Spurious Emission (Band 2/4/5/12/13/66)	＜ 43+10log10(P [watt])	PASS
	2.1051 27.53 (m)(4)	RSS-GEN, 6.13 RSS-199,4.5	Radiated Spurious Emission (Band 7)	＜ 55+10log10(P [watt])	PASS

Remark：

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15 Subpart B and ICES-003 Issue 7 October 2020, recorded in a separate test report.

1.4 Test Configuration of Equipment Under Test

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Items	Band	Bandwidth(MHz)						Modulation		RB#			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Radiated Spurious Emission	2	Worst case												√	
	4	Worst case												√	
	5	Worst case												√	
	7	Worst case												√	
	12	Worst case												√	
	13	Worst case												√	
	66	Worst case												√	
Note:1. The mark “√” means that this configuration is chosen for testing.															

1.5 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + Power Splitter + attenuator factor..

Following shows an offset computation example with cable loss 1dB, 3dB Power Splitter, 10dB attenuator.

Example: Offset (dB) = RF cable loss(dB) + Power Splitter(dB) + attenuator factor(dB).

= 1 + 3 + 10 = 14 (dB)

1.6 Facilities and Accreditations

1.6.1 Test Facilities

FCC-Registration No.: 406086

CCIC Southern Testing Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Designation Number: CN1283, valid time is until June 30, 2025.

ISED Registration: 11185A-1

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A-1 on Aug. 04, 2016, valid time is until June 30, 2025.

A2LA Code: 5721.01

CCIC-SET is a third party testing organization accredited by A2LA according to ISO/IEC 17025.

1.6.2 Test Environment Conditions

Temperature (℃):	15℃- 35℃
Relative Humidity (%):	30% -60%
Atmospheric Pressure (kPa):	86KPa-106KPa

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

2. TEST REQUIREMENTS

2.1 Radiated Out of Band Emissions

2.1.1 Requirement

The radiated spurious emission was measured by substitution method according to ANSI / TIA /EIA-603-C-2004.

For Band 2 & 4 & 5 & 12 & 13 & 66:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For Band 7:

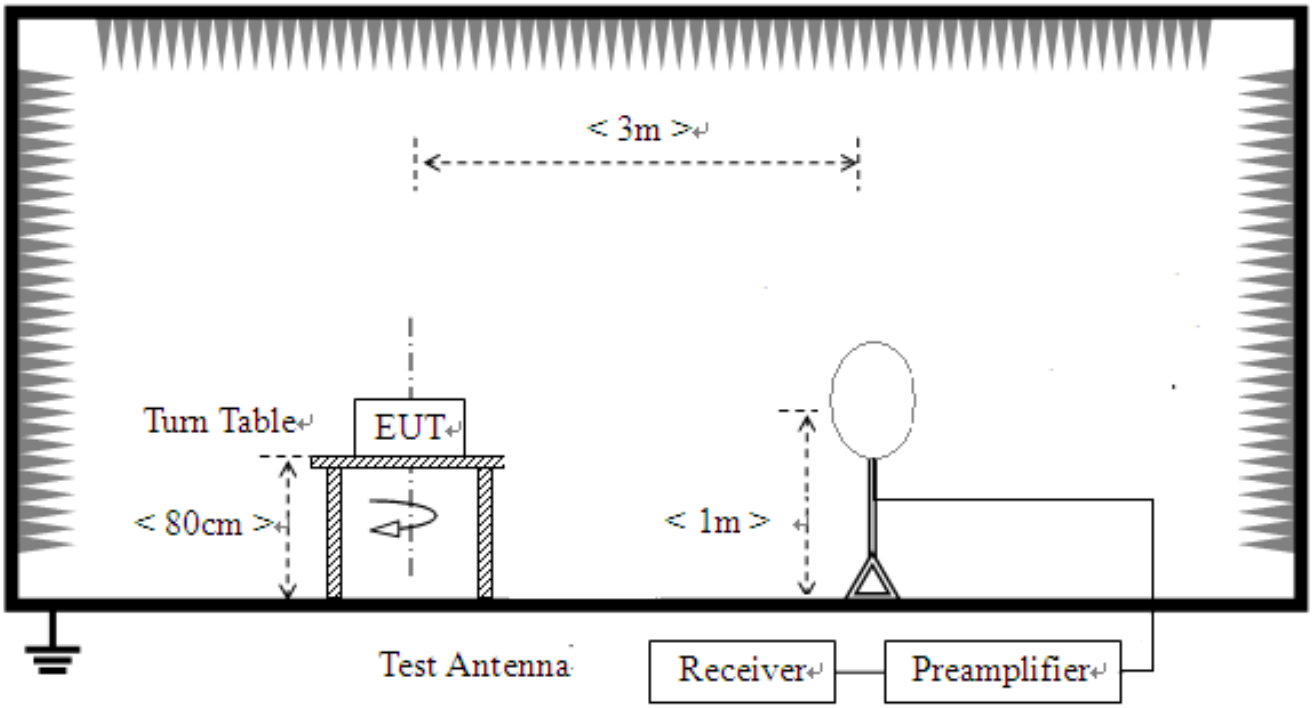
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

2.1.2 Measuring Instruments

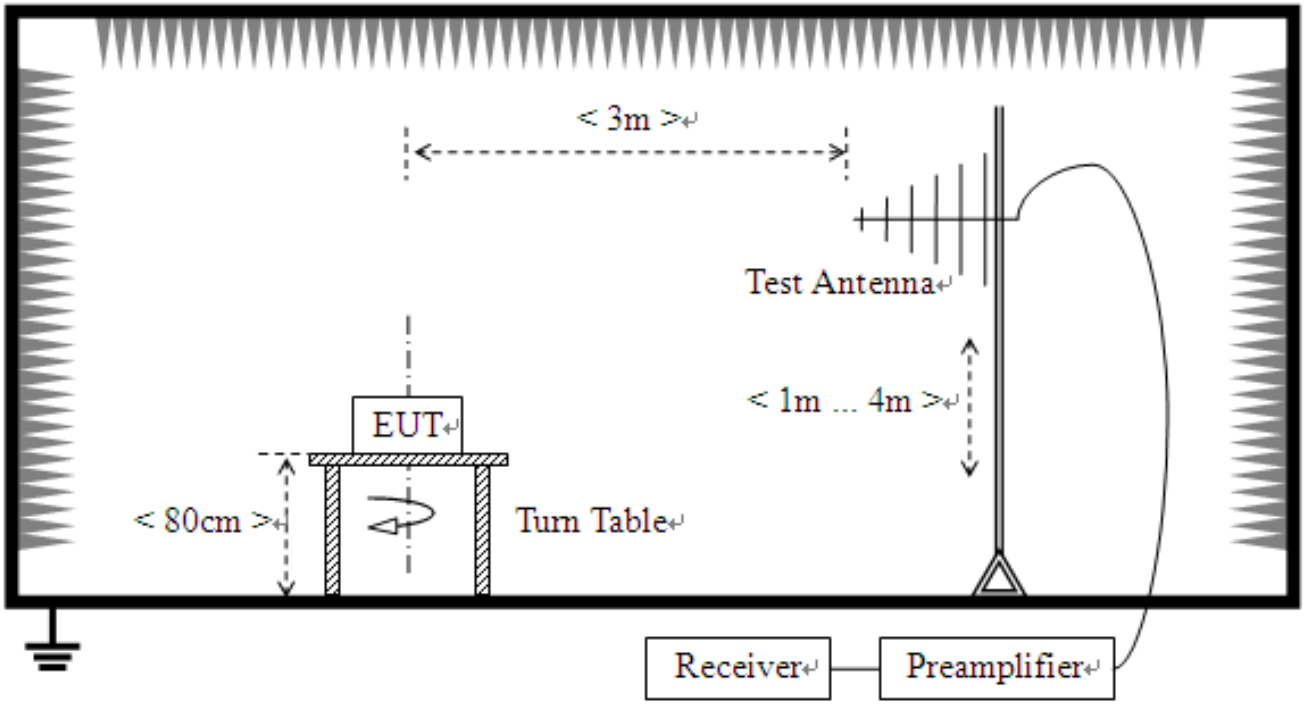
The measuring equipment is listed in the section 3 of this test report.

2.1.3 Test Setup

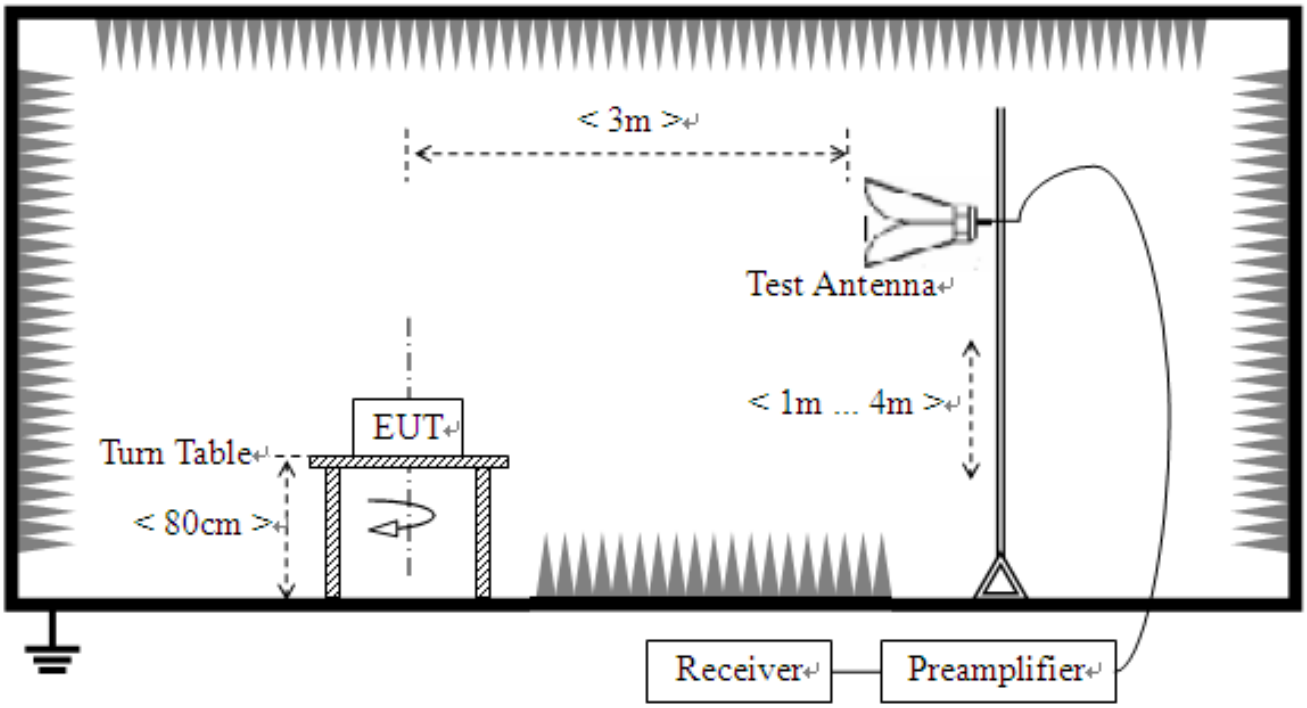
For radiated emissions from 9kHz to 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



2.1.4 Test Procedures

1. The EUT was placed on a rotatable wooden table with 0.8 meter above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. All Spurious Emission tests were performed in X, Y, Z axis direction and low, middle, high channel. And only the worst axis test condition was recorded in this test report.
11. The spectrum is measured from 9 KHz to the 10^{th} harmonic of the fundamental frequency

of the transmitter using CISPR quasi peak detector below 1GHz. The worst case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.

12. For 9KHz to 30MHz: the amplitude of spurious emissions are attenuated by more than 20dB below the permissible value has no need to be reported.
13. The maximum RB configurations of the Radiated Spurious Emissions as RB Size 1, RB Offset 0.

2.1.5 Test Result (Plots) of Radiated Spurious Emission

Note: 1. within 30MHz-1GHz were found more than 20dB below limit line

Note: 2. Absolute Level=Reading Level + Factor

LTE Band 2 QPSK 20MHz BW Middle Channel							
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	34.37	-101.52	-78.58	-13.00	65.58	22.94	Horizontal
2	304.16	-105.63	-79.49	-13.00	66.49	26.14	Horizontal
3	784.07	-98.64	-62.66	-13.00	49.66	35.98	Horizontal
4	4880.99	-58.86	-44.11	-13.00	31.11	14.75	Horizontal
5	11034.6	-61.61	-38.86	-13.00	25.86	22.75	Horizontal
6	17354.2	-66.59	-37.49	-13.00	24.49	29.10	Horizontal
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	52.81	-96.25	-77.08	-13.00	64.08	19.17	Vertical
2	90.17	-101.26	-77.94	-13.00	64.94	23.32	Vertical
3	393.93	-105.76	-77.72	-13.00	64.72	28.04	Vertical
4	2978.90	-56.73	-50.39	-13.00	37.39	6.34	Vertical
5	4880.29	-59.39	-44.65	-13.00	31.65	14.74	Vertical
6	10980.0	-62.17	-39.40	-13.00	26.40	22.77	Vertical

LTE Band 4 QPSK 20MHz BW Middle Channel							
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	31.94	-96.81	-73.28	-13.00	60.28	23.53	Horizontal
2	140.64	-100.44	-79.78	-13.00	66.78	20.66	Horizontal
3	505.05	-104.58	-71.96	-13.00	58.96	32.62	Horizontal
4	3017.15	-58.01	-50.67	-13.00	37.67	7.34	Horizontal
5	5763.91	-53.48	-39.42	-13.00	26.42	14.06	Horizontal
6	17244.9	-65.88	-37.39	-13.00	24.39	28.49	Horizontal
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	33.40	-99.35	-78.28	-13.00	65.28	21.07	Vertical
2	73.67	-98.18	-76.64	-13.00	63.64	21.54	Vertical
3	579.78	-105.02	-72.63	-13.00	59.63	32.39	Vertical
4	3075.95	-58.42	-51.20	-13.00	38.20	7.22	Vertical
5	5107.98	-59.21	-44.61	-13.00	31.61	14.60	Vertical
6	13159.9	-61.84	-38.58	-13.00	25.58	23.26	Vertical

LTE Band 5 QPSK 10MHz BW Middle Channel							
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	31.94	-97.88	-74.35	-13.00	61.35	23.53	Horizontal
2	67.85	-98.22	-78.86	-13.00	65.86	19.36	Horizontal
3	519.61	-104.13	-71.85	-13.00	58.85	32.28	Horizontal
4	2986.50	-56.93	-50.55	-13.00	37.55	6.38	Horizontal
5	7474.10	-60.23	-40.55	-13.00	27.55	19.68	Horizontal
6	9837.05	-60.88	-38.11	-13.00	25.11	22.77	Horizontal
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	31.94	-97.29	-76.02	-13.00	63.02	21.27	Vertical
2	95.51	-102.87	-78.94	-13.00	65.94	23.93	Vertical
3	503.60	-104.48	-73.86	-13.00	60.86	30.62	Vertical
4	3019.78	-57.20	-49.88	-13.00	36.88	7.32	Vertical
5	7382.67	-58.77	-39.24	-13.00	26.24	19.53	Vertical
6	9823.75	-62.21	-39.48	-13.00	26.48	22.73	Vertical

LTE Band 7 QPSK 20MHz BW Middle Channel							
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	66.88	-96.30	-76.95	-25.00	51.95	19.35	Horizontal
2	362.88	-106.50	-77.97	-25.00	52.97	28.53	Horizontal
3	640.92	-104.37	-70.16	-25.00	45.16	34.21	Horizontal
4	1836.97	-58.04	-55.25	-25.00	30.25	2.79	Horizontal
5	4825.27	-59.11	-44.38	-25.00	19.38	14.73	Horizontal
6	17408.7	-65.94	-36.72	-25.00	11.72	29.22	Horizontal
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	31.94	-96.54	-75.27	-25.00	50.27	21.27	Vertical
2	66.39	-98.06	-77.27	-25.00	52.27	20.79	Vertical
3	97.93	-103.38	-79.18	-25.00	54.18	24.20	Vertical
4	1567.31	-57.82	-57.34	-25.00	32.34	0.48	Vertical
5	5764.85	-56.75	-42.69	-25.00	17.69	14.06	Vertical
6	14507.9	-63.29	-38.30	-25.00	13.30	24.99	Vertical

LTE Band 12 QPSK 10MHz BW Middle Channel							
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	31.94	-97.13	-73.60	-13.00	60.60	23.53	Horizontal
2	51.35	-94.76	-75.52	-13.00	62.52	19.24	Horizontal
3	507.48	-104.77	-72.17	-13.00	59.17	32.60	Horizontal
4	2956.20	-57.57	-51.33	-13.00	38.33	6.24	Horizontal
5	7397.37	-56.64	-37.29	-13.00	24.29	19.35	Horizontal
6	9913.65	-60.86	-38.86	-13.00	25.86	22.00	Horizontal
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	31.94	-97.41	-76.14	-13.00	63.14	21.27	Vertical
2	93.08	-98.23	-74.57	-13.00	61.57	23.66	Vertical
3	283.30	-105.45	-80.49	-13.00	67.49	24.96	Vertical
4	3051.63	-58.03	-50.76	-13.00	37.76	7.27	Vertical
5	5118.31	-58.97	-44.41	-13.00	31.41	14.56	Vertical
6	9928.30	-61.53	-38.56	-13.00	25.56	22.97	Vertical

LTE Band 13 QPSK 10MHz BW Middle Channel							
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	31.94	-96.18	-72.65	-13.00	59.65	23.53	Horizontal
2	70.28	-96.91	-77.55	-13.00	64.55	19.36	Horizontal
3	519.61	-105.60	-73.32	-13.00	60.32	32.28	Horizontal
4	2175.06	-56.93	-54.74	-13.00	41.74	2.19	Horizontal
5	4866.99	-59.08	-44.34	-13.00	31.34	14.74	Horizontal
6	7437.62	-57.67	-37.90	-13.00	24.90	19.77	Horizontal
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	31.94	-97.25	-75.98	-13.00	62.98	21.27	Vertical
2	93.08	-102.41	-78.75	-13.00	65.75	23.66	Vertical
3	630.73	-104.01	-70.95	-13.00	57.95	33.06	Vertical
4	2433.17	-54.37	-51.01	-13.00	38.01	3.36	Vertical
5	4855.62	-58.41	-43.66	-13.00	30.66	14.75	Vertical
6	7392.19	-56.03	-36.71	-13.00	23.71	19.32	Vertical

LTE Band 66 QPSK 20MHz BW Middle Channel							
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	46.50	-94.97	-74.92	-13.00	61.92	20.05	Horizontal
2	500.69	-105.05	-72.41	-13.00	59.41	32.64	Horizontal
3	885.97	-103.63	-66.55	-13.00	53.55	37.08	Horizontal
4	1096.00	-57.71	-59.78	-13.00	46.78	-2.07	Horizontal
5	5106.58	-57.69	-43.09	-13.00	30.09	14.60	Horizontal
6	11897.2	-62.45	-38.64	-13.00	25.64	23.81	Horizontal
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity
1	33.40	-95.87	-74.80	-13.00	61.80	21.07	Vertical
2	128.99	-103.83	-82.02	-13.00	69.02	21.81	Vertical
3	894.70	-103.37	-66.30	-13.00	53.30	37.07	Vertical
4	2955.20	-57.83	-51.60	-13.00	38.60	6.23	Vertical
5	7485.02	-60.60	-40.92	-13.00	27.92	19.68	Vertical
6	17420.9	-65.62	-36.59	-13.00	23.59	29.03	Vertical

3. LIST OF MEASURING EQUIPMENT

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Receiver	ROHDE&SCHWARZ	ESW26	A180502935	2023.06.08	2024.06.07
2	5M Anechoic Chamber	Albatross	SAC-5MAC 12.8x6.8x6.4m	A0304210	2022.06.09	2026.06.08
3	Loop Antenna	Schwarz beck	HFH2-Z2	A0304220	2022.05.02	2025.05.01
4	Broadband antenna (30MHz~1GHz)	R&S	HL562	A0304224	2023.06.08	2026.06.07
5	EMI Horn Ant. (1-18G)	ETC	MCTD-1209	A150402241	2023.05.16	2026.05.15
6	Horn antenna (18GHz~26.5GHz)	AR	AT4510	A0804450	2023.06.01	2026.05.31
7	Amplifier 30M~1GHz	MILMEGA	80RF1000-1000	A140101634	2023.10.20	2024.10.19
8	Amplifier 1G~18GHz	MILMEGA	AS0104R-800/400	A160302517	2023.10.20	2024.10.19
9	Wideband Radio Communication tester	R&S	CMW500	A130101034	2023.07.13	2024.07.12

4. UNCERTAINTY OF EVALUATION

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2013. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence . The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Emission Measurement (150kHz~30MHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	2.8dB

Uncertainty of Radiated Emission Measurement (9kHz~30MHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	3.5dB

Uncertainty of Radiated Emission Measurement (30MHz~1GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	3.91dB

Uncertainty of Radiated Emission Measurement (1GHz~18GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	4.5dB

Uncertainty of Radiated Emission Measurement (18GHz~40GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	4.9dB

Uncertainty of RF Conducted Measurement (9kHz~40GHz)

Measuring Uncertainty for a level of confidence of 95%(U=2Uc(y))	1.2dB

** END OF REPORT **