FCC/ IC REPORT

Applicant:	COPPERNIC
Address of Applicant:	185 avenue Archimede, 13857 Aix en Provence, FRANCE
Equipment Under Test (EUT)	
Product Name:	C-One HF iClass / LF Prox
Model No.:	C-One HLF HID
Trade mark:	COPPERNIC
FCC ID:	XGK-C-ONE-HLF-HID
Canada IC:	8402A-CONEHLFHID
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C RSS-210 Issue 10, December 2019 RSS-Gen Issue 5, March 2019 Amendment 1
Date of sample receipt:	07 Apr., 2020
Date of Test:	07 Apr., 2020 to 29 Apr., 2020
Date of report issue:	16 Jun., 2020
Test Result:	PASS*

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Bruce Zhang
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of theCCISproduct certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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2 Version

Version No.	Date	Description
00	*16 Jun., 2020*	*Original*

Tested by: Carey Chen ***Date:*** *16 Jun., 2020*

Test Engineer

Reviewed by: Winner zhang ***Date:*** *16 Jun., 2020*

Project Engineer

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4 Test Summary

Test Item	Section		Result
	FCC	IC	
Antenna requirement	15.203	/	Pass
AC Power Line Conducted Emission	15.207	RSS-GEN Section 8.8	Pass
99% Bandwidth	2.202(a)	RSS-GEN Section 6.7	Pass
Field strength of the fundamental signal	15.209	RSS-GEN 210 Annex B Section B.6	Pass
Radiated Spurious Emission	15.209	RSS-GEN Section 8.9	Pass
Frequency Stability	/	RSS-GEN 210 Annex B Section B.6	Pass

Remark:
Pass: The EUT complies with the essential requirements in the standard.

Test Method:	*ANSI C63.10-2013* *FCC PART 2* *RSS-GEN Issue 5*

5 General Information

5.1 Client Information

Applicant:	COPPERNIC
Address:	185 avenue Archimede, 13857 Aix en Provence, FRANCE
Manufacturer:	ASKEY COMPUTER Corp.
Address:	10 F, N°119, JIANKANG RD., ZHONGHE DIST., New Tapei City, TAIWAN

5.2 General Description of E.U.T.

Product Name:	C-One HF iClass / LF Prox
Model No.:	C-One HLF HID
Operation Frequency:	13.56MHz
Channel numbers:	1
Modulation type:	ASK
Antenna Type:	Internal Antenna
Power supply:	Rechargeable Li-ion Battery DC3.7V-3300mAh
AC adapter:	Model: SYS1561-1105-1 Input: AC100-240V, 50/60Hz, 1A Output: DC 5.35V, 2A
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

5.3 Test mode

Transmitting mode:	Keep the EUT in transmitting mode with modulation		
Pre-Test Mode:			
CCIS has verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:			
Axis	X	Y	Z
	13.56MHz	13.56MHz	13.56MHz
Field Strength(dBuV/m)	69.26	65.38	64.32
Final Test Mode:			
According to ANSI C63.4 standards, the test results are both the “worst case” and “worst setup”: Y axis (see the test setup photo).			

5.4 Description of Support Units

The EUT has been tested as an independent unit.

5.5 Measurement Uncertainty

Parameters	Expanded Uncertainty
Conducted Emission (9kHz ~ 30MHz)	±1.60 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	±3.12 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	±4.32 dB (k=2)

5.6 Additions to, deviations, or exclusions from the method

No

5.7 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1211**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.8 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Address: No.110~116, Building B, Jinyuan Business Building, Xixiang Road,

Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info@ccis-cb.com, Website**: http://www.ccis-cb.com**

5.9 Test Instrumentslist

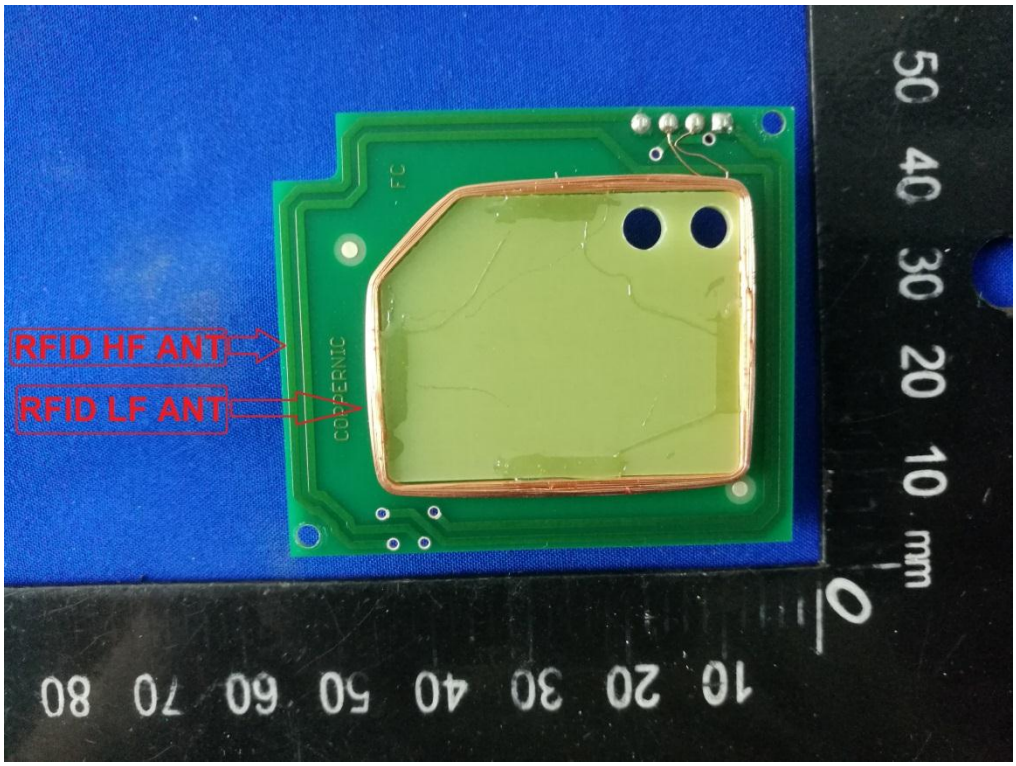
Radiated Emission:					
Test Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal.Date (mm-dd-yy)**	**Cal. Due date (mm-dd-yy)**
3m SAC	SAEMC	9m*6m*6m	966	07-22-2017	07-21-2020
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-07-2020	03-06-2021
Biconical Antenna	SCHWARZBECK	VUBA9117	359	06-22-2017	06-21-2020
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-07-2020	03-06-2021
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2017	06-21-2020
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-18-2019	11-17-2020
Loop Antenna	SCHWARZBECK	FMZB 1519 B	00044	03-07-2020	03-06-2021
EMI Test Software	AUDIX	E3	Version: 6.110919b		
Pre-amplifier	HP	8447D	2944A09358	03-07-2020	03-06-2021
Pre-amplifier	CD	PAP-1G18	11804	03-07-2020	03-06-2021
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-05-2020	03-04-2021
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-18-2019	11-17-2020
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-05-2020	03-04-2021
Signal Generator	Rohde & Schwarz	SMX	835454/016	03-05-2020	03-04-2021
Signal Generator	R&S	SMR20	1008100050	03-05-2020	03-04-2021
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-07-2020	03-06-2021
Cable	MICRO-COAX	MFR64639	K10742-5	03-07-2020	03-06-2021
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-07-2020	03-06-2021

Conducted Emission:					
Test Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
Shielding Room	ZhongShuo Electron	11.0(L)x4.0(W)x3.0(H)	CCIS0061	07-22-2017	07-21-2020
EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	03-05-2020	03-04-2021
LISN	CHASE	MN2050D	CCIS0074	03-05-2020	03-04-2021
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	07-21-2017	07-20-2020
Coaxial Cable	CCIS	N/A	CCIS0086	03-05-2020	03-04-2021
EMI Test Software	AUDIX	E3	Version: 6.110919b		

6 Test results and Measurement Data

6.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
E.U.T Antenna:	
The EUT make use of an Induction coil antenna.	



6.2 Radiated Emission

Test Requirement:	FCC Part15 C Section 15.209 RSS-GEN Section 8.9, RSS-210 Annex B Section B.6
Test Frequency Range:	9 kHz to 1000MHz
Test site:	Measurement Distance: 3m(Semi-Anechoic Chamber)

Receiver setup:

Frequency	Detector	RBW	VBW	Remark
9kHz-150kHz	Quasi-peak	200Hz	600Hz	Quasi-peak Value
150kHz-30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
30MHz-1GHz	Quasi-peak	120kHz	300KHz	Quasi-peak Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value

Limit:

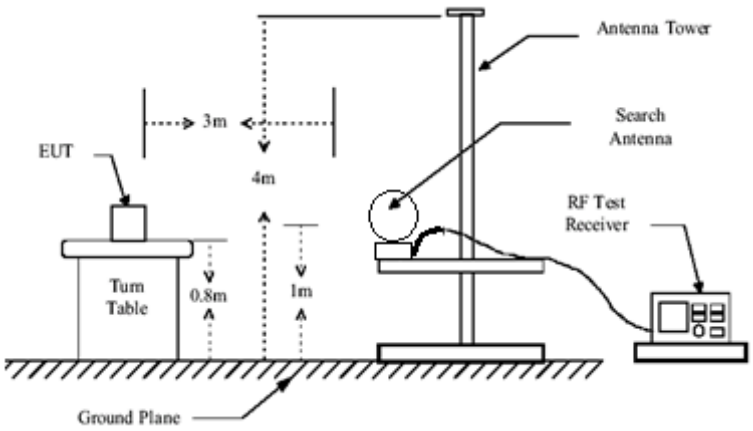
Frequency (MHz)	Limit (uV/m @3m)	Distance (m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 1GHz	500	3

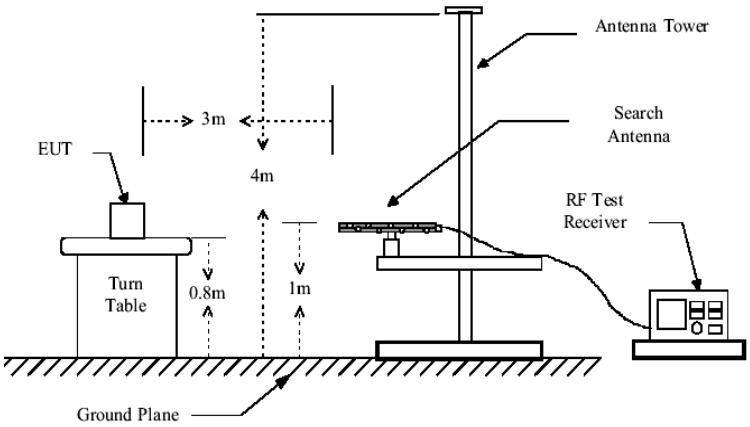
Test Procedure:

a. The EUT was placed on the top of a rotating table 0.8 meters above the groundat a 3 meter semi-anechoic camber. The table was rotated 360 degrees todetermine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower.
c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatabletable was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode.
f. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified andthen reported in a data sheet.

Test setup:

9kHz-30MHz

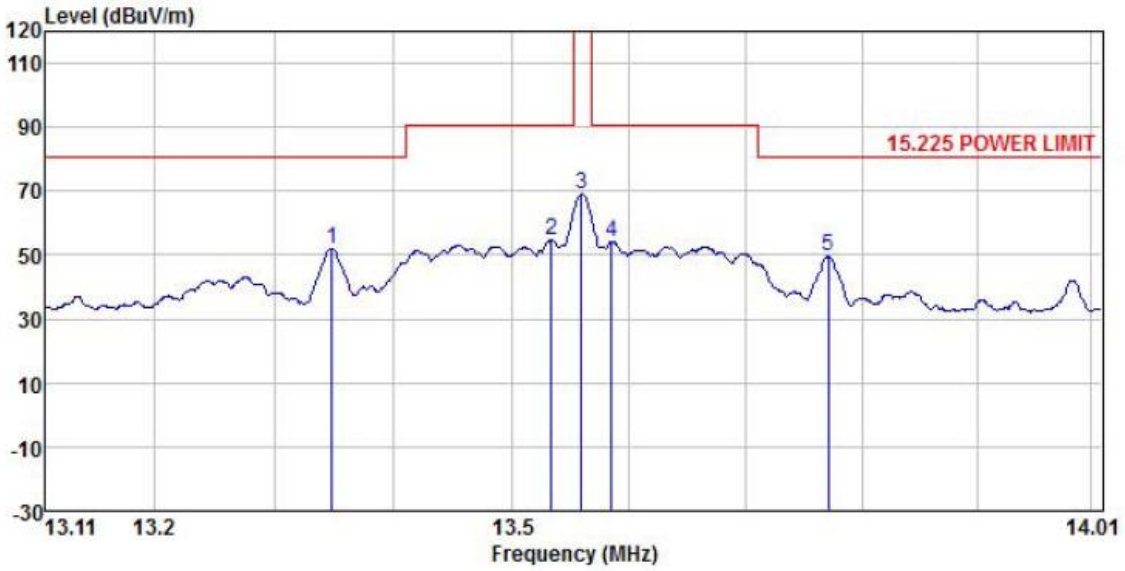


	30MHz-1GHz 
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Spurious Emissions:

Field Strength of fundamental signal:

Product Name:	C-One HF iClass / LF Prox	**Product Model:**	C-One HLF HID
Test By:	Carey	**Test mode:**	RFID 13.56MHz Tx mode
Test Voltage:	AC 120/60Hz	**Environment:**	Temp: 24℃ Huni: 57%



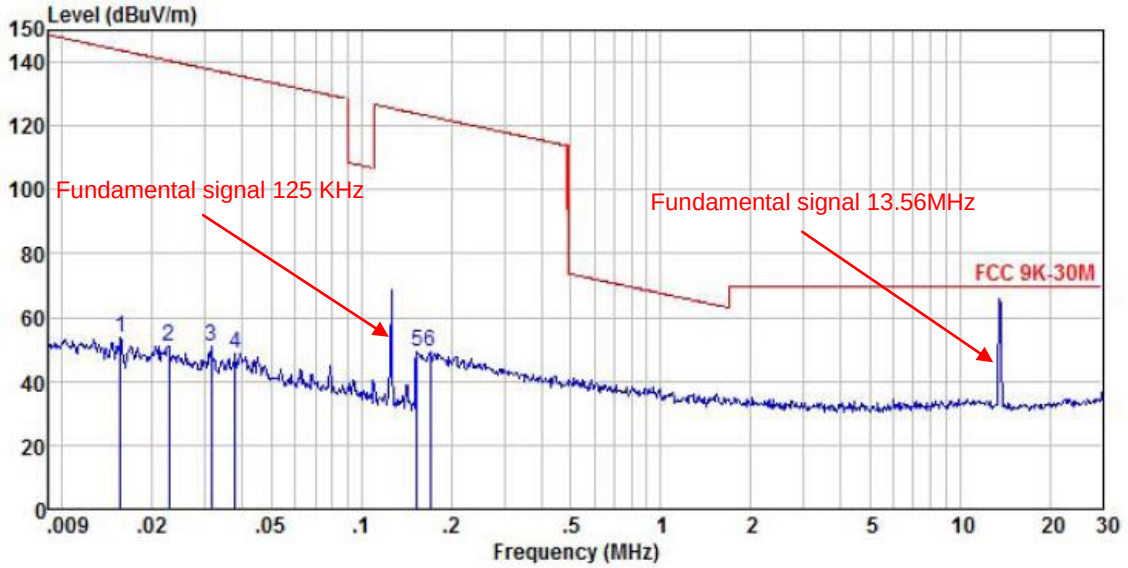
	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	13.348	26.33	-26.47	0.63	0.00	51.99	80.50	-28.51	Peak
2	13.534	28.90	-26.47	0.64	0.00	54.57	90.50	-35.93	Peak
3	13.559	43.59	-26.47	0.64	0.00	69.26	124.00	-54.74	Peak
4	13.585	28.44	-26.47	0.64	0.00	54.11	90.50	-36.39	Peak
5	13.771	23.86	-26.48	0.64	0.00	49.52	80.50	-30.98	Peak

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *IC limit level are the same as FCC, So not show in test report.*

Test frequency range: 9 kHz- 30 MHz

Product Name:	C-One HF iClass / LF Prox	**Product Model:**	C-One HLF HID
Test By:	Carey	**Test mode:**	RFID Tx mode
Test Frequency:	9 kHz ~ 30 MHz	**Polarization:**	Vertical
Test Voltage:	AC 120/60Hz	**Environment:**	Temp: 24℃ Huni: 57%

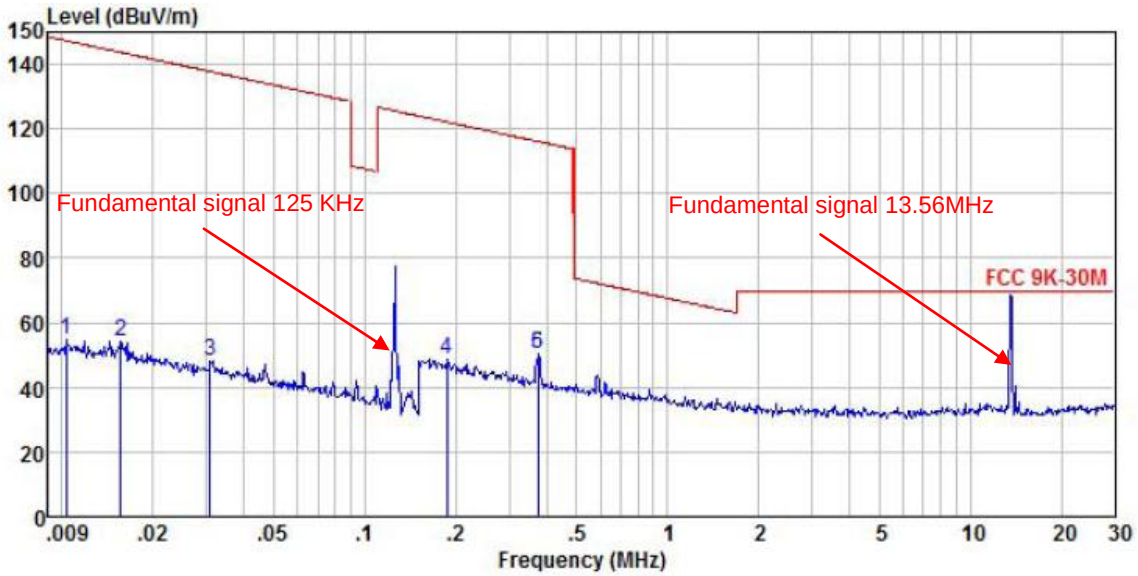


	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.016	27.78	-25.86	0.05	0.00	53.47	143.71	-90.24	Peak
2	0.023	25.52	-25.91	0.08	0.00	51.19	140.47	-89.28	Peak
3	0.031	25.14	-25.95	0.12	0.00	50.81	137.65	-86.84	Peak
4	0.038	23.02	-25.97	0.14	0.00	48.69	136.03	-87.34	Peak
5	0.154	23.38	-26.16	0.27	0.00	48.99	123.88	-74.89	Peak
6	0.170	23.43	-26.18	0.29	0.00	49.04	123.03	-73.99	Peak

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *IC limit level are the same as FCC, So not show in test report.*

Product Name:	C-One HF iClass / LF Prox	**Product Model:**	C-One HLF HID
Test By:	Carey	**Test mode:**	RFID Tx mode
Test Frequency:	9 kHz ~ 30 MHz	**Polarization:**	Horizontal
Test Voltage:	AC 120/60Hz	**Environment:**	Temp: 24℃ Huni: 57%



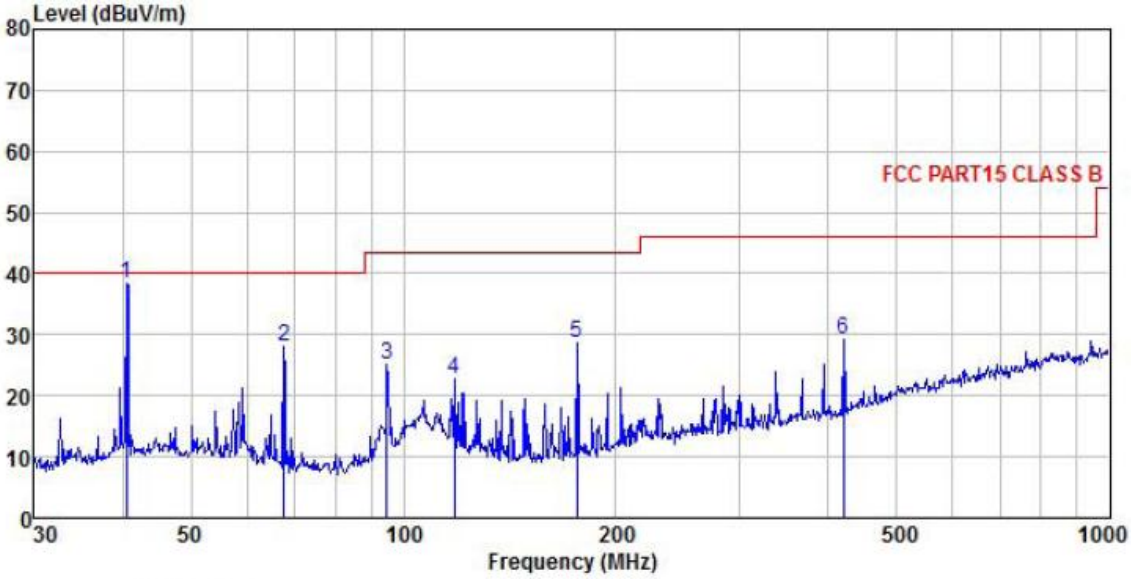
	Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.010	28.84	-25.80	0.03	0.00	54.57	147.30	-92.73	Peak
2	0.016	28.75	-25.86	0.05	0.00	54.44	143.71	-89.27	Peak
3	0.031	22.71	-25.95	0.12	0.00	48.38	137.79	-89.41	Peak
4	0.187	22.91	-26.19	0.32	0.00	48.54	122.18	-73.64	Peak
5	0.373	24.60	-26.27	0.37	0.00	50.20	116.18	-65.98	Peak
6	0.373	24.60	-26.27	0.37	0.00	50.20	116.18	-65.98	Peak

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *IC limit level are the same as FCC, So not show in test report.*

Test frequency range: 30MHz-1000MHz

Product Name:	C-One HF iClass / LF Prox	**Product Model:**	C-One HLF HID
Test By:	Carey	**Test mode:**	RFID Tx mode
Test Frequency:	30 MHz ~ 1 GHz	**Polarization:**	Vertical
Test Voltage:	AC 120/60Hz	**Environment:**	Temp: 24℃ Huni: 57%

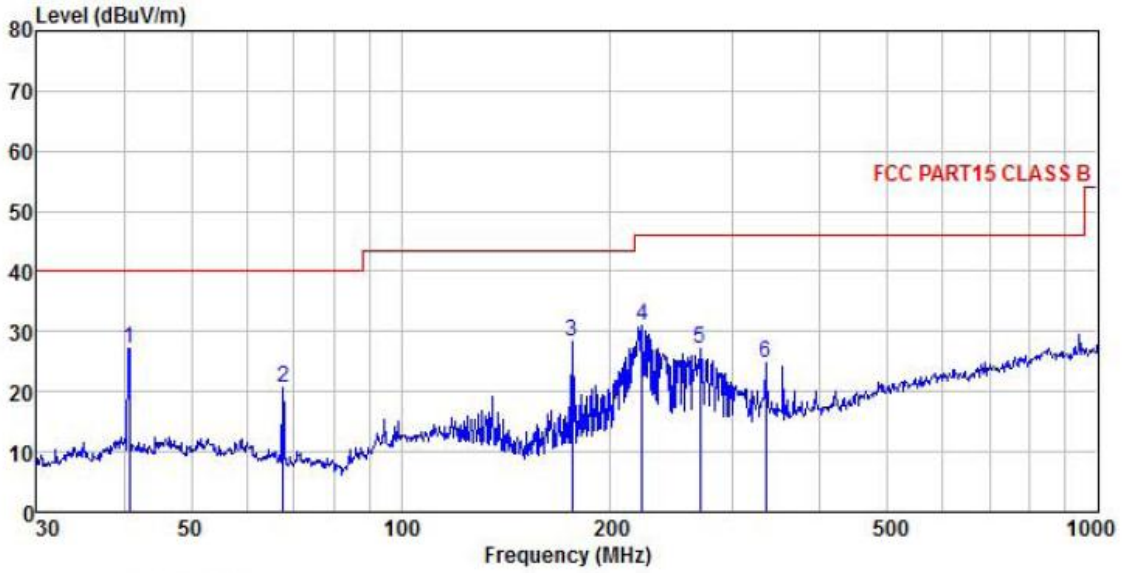


	Freq	Read Level	Antenna Factor	Cable Loss	Aux Factor	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	40.559	54.69	12.39	1.22	0.00	29.90	38.40	40.00	-1.60	QP
2	67.675	47.31	8.99	1.46	0.00	29.74	28.02	40.00	-11.98	QP
3	94.760	41.41	11.30	2.01	0.00	29.55	25.17	43.50	-18.33	QP
4	118.186	39.01	11.04	2.14	0.00	29.40	22.79	43.50	-20.71	QP
5	176.269	45.03	9.86	2.70	0.00	29.00	28.59	43.50	-14.91	QP
6	420.580	38.98	15.81	3.13	0.00	28.82	29.10	46.00	-16.90	QP

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are lower than the limit 20dB and not show in test report.*
3. *IC limit level are the same as FCC, So not show in test report.*

Product Name:	C-One HF iClass / LF Prox	**Product Model:**	C-One HLF HID
Test By:	Carey	**Test mode:**	RFID Tx mode
Test Frequency:	30 MHz ~ 1 GHz	**Polarization:**	Horizontal
Test Voltage:	AC 120/60Hz	**Environment:**	Temp: 24℃ Huni: 57%

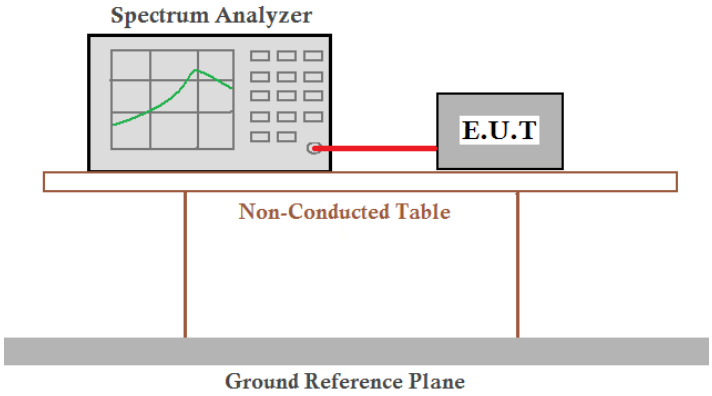


	Freq	Read Level	Antenna Factor	Cable Loss	Aux Factor	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	40.702	43.51	12.39	1.22	0.00	29.89	27.23	40.00	-12.77	QP
2	67.675	40.07	8.99	1.46	0.00	29.74	20.78	40.00	-19.22	QP
3	176.269	44.70	9.86	2.70	0.00	29.00	28.26	43.50	-15.24	QP
4	222.170	45.39	11.59	2.84	0.00	28.69	31.13	46.00	-14.87	QP
5	268.485	39.65	13.06	2.86	0.00	28.51	27.06	46.00	-18.94	QP
6	333.687	36.04	14.30	3.05	0.00	28.52	24.87	46.00	-21.13	QP

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are lower than the limit 20dB and not show in test report.*
3. *IC limit level are the same as FCC, So not show in test report.*

6.3 99% Bandwidth

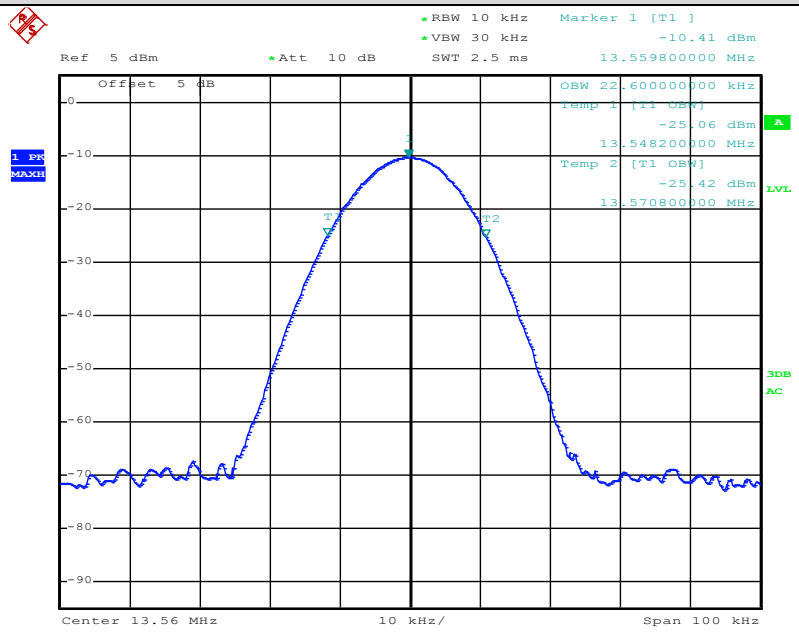
Test Requirement:	FCC Part 2.202(a) RSS-GEN Section 6.7
Limit:	N/A
Test setup:	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data

99% bandwidth	Limit	Results
13.56MHz		
22.6 kHz	N/A	Passed

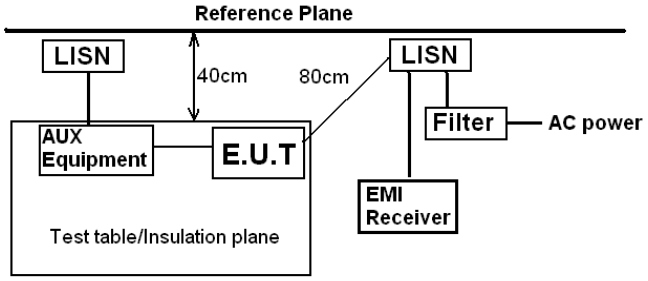
Test plot as follows:

13.56MHz



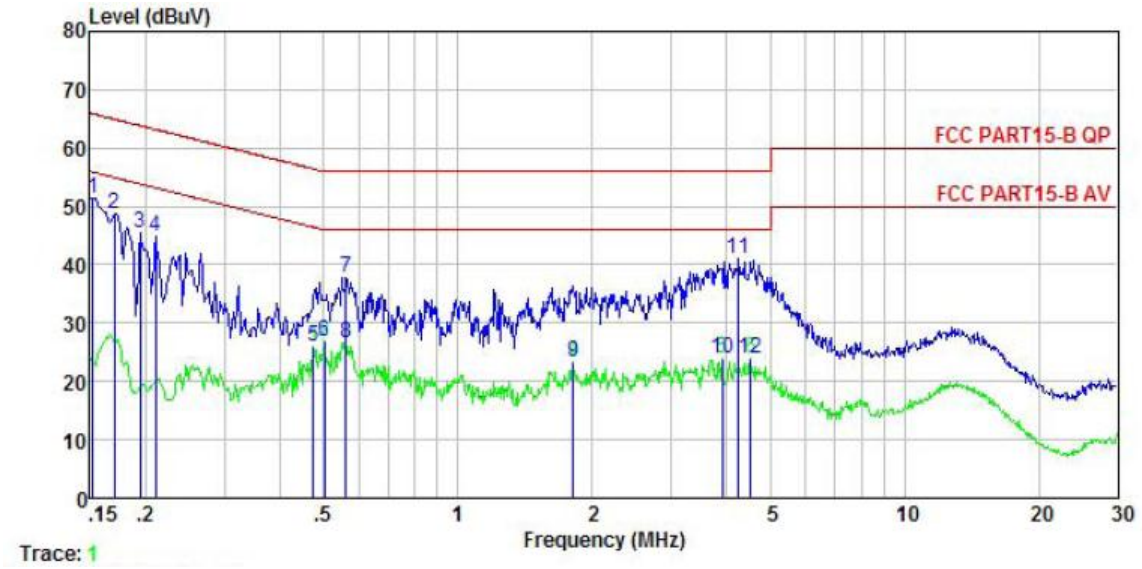
Date: 17.APR.2020 14:48:08

6.4 Conducted Emission

Test Requirement:	FCC Part15 B Section 15.207 RSS-210 RSS-GEN Section 8.8
Test Frequency Range:	150kHz to 30MHz
Class / Severity:	Class B
Receiver setup:	RBW=9kHz, VBW=30kHz
Limit:	Frequency range (MHz) / Limit (dBµV): Quasi-peak / Average 0.15-0.5: 66 to 56* / 56 to 46* 0.5-5: 56 / 46 0.5-30: 60 / 50 * Decreases with the logarithm of the frequency.
Test setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test procedure	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.).It provide 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: 2013 on conducted measurement.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement Data:

Product name:	C-One HF iClass / LF Prox	**Product model:**	C-One HLF HID
Test by:	Carey	**Test mode:**	RFID Tx mode
Test frequency:	150 kHz ~ 30 MHz	**Phase:**	Line
Test voltage:	AC 120 V/60 Hz	**Environment:**	Temp: 22.5℃ Huni: 55%

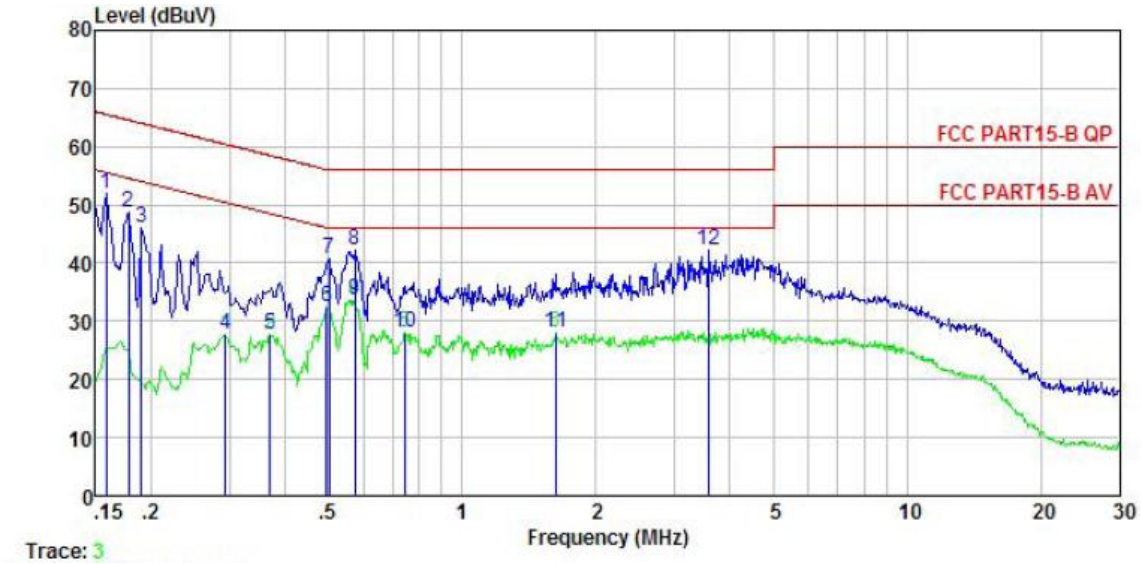


	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	0.152	41.06	-0.45	-0.06	10.78	51.33	65.87	-14.54	QP
2	0.170	38.45	-0.43	-0.10	10.77	48.69	64.94	-16.25	QP
3	0.194	35.28	-0.41	-0.15	10.76	45.48	63.84	-18.36	QP
4	0.211	34.74	-0.41	-0.17	10.76	44.92	63.18	-18.26	QP
5	0.474	15.89	-0.39	-0.18	10.75	26.07	46.45	-20.38	Average
6	0.502	16.85	-0.39	-0.35	10.76	26.87	46.00	-19.13	Average
7	0.561	27.86	-0.39	-0.37	10.76	37.86	56.00	-18.14	QP
8	0.561	16.60	-0.39	-0.37	10.76	26.60	46.00	-19.40	Average
9	1.810	12.90	-0.41	-0.21	10.95	23.23	46.00	-22.77	Average
10	3.901	13.50	-0.46	-0.06	10.89	23.87	46.00	-22.13	Average
11	4.247	30.56	-0.47	-0.01	10.88	40.96	56.00	-15.04	QP
12	4.525	13.36	-0.47	0.02	10.87	23.78	46.00	-22.22	Average

Notes:

1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
3. *Final Level =Receiver Read level + LISN Factor + Aux Factor + Cable Loss.*
4. *IC limit level are the same as FCC, So not show in test report.*

Product name:	C-One HF iClass / LF Prox	Product model:	C-One HLF HID
Test by:	Carey	Test mode:	RFID Tx mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%

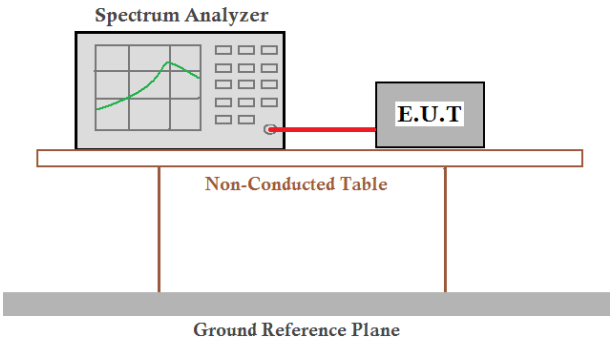


	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	0.158	41.95	-0.68	0.01	10.77	52.05	65.56	-13.51	QP
2	0.178	38.78	-0.69	0.00	10.77	48.86	64.59	-15.73	QP
3	0.190	35.84	-0.69	0.00	10.76	45.91	64.02	-18.11	QP
4	0.294	17.49	-0.63	0.01	10.74	27.61	50.41	-22.80	Average
5	0.369	17.56	-0.64	-0.04	10.73	27.61	48.52	-20.91	Average
6	0.497	22.45	-0.65	0.03	10.76	32.59	46.05	-13.46	Average
7	0.502	30.56	-0.65	0.03	10.76	40.70	56.00	-15.30	QP
8	0.573	32.02	-0.65	0.03	10.76	42.16	56.00	-13.84	QP
9	0.573	23.47	-0.65	0.03	10.76	33.61	46.00	-12.39	Average
10	0.743	17.97	-0.64	0.05	10.79	28.17	46.00	-17.83	Average
11	1.619	17.77	-0.66	0.14	10.93	28.18	46.00	-17.82	Average
12	3.584	31.45	-0.69	0.44	10.90	42.10	56.00	-13.90	QP

Notes:

1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
3. *Final Level =Receiver Read level + LISN Factor + Aux Factor + Cable Loss.*
4. *IC limit level are the same as FCC, So not show in test report.*

6.5 Frequency Stability

Test Requirement:	RSS-210 Annex B Section B.6
Receiver setup:	RBW=200Hz, VBW=300Hz, span=14kHz, detector: Peak
Limit:	±0.01% (±100 ppm).
Test mode:	Transmitting mode
Test Procedure:	**Frequency stability V.S. Temperature measurement** 1. The equipment under test was powered by a fresh battery. 2. RF output was connected to spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to –20℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached **Frequency stability V.S. Voltage measurement** 1. Set chamber temperature to 25℃. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. Reduce the input voltage to specify extreme voltage variation (+/-15%) and endpoint, record the maximum frequency change.
Test setup:	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

13.56MHz:

a) Frequency stability V.S. Temperature measurement

Voltage (Vdc)	Temperature (℃)	Frequency Tolerance (MHz)	Frequency Error (%)	Limit (%)	Results
3.7	-20	-0.00041	-0.0030	±0.01	Pass
	-10	-0.00030	-0.0022	±0.01	Pass
	0	-0.00026	-0.0019	±0.01	Pass
	+10	-0.00028	-0.0021	±0.01	Pass
	+20	-0.00032	-0.0024	±0.01	Pass
	+30	-0.00038	-0.0028	±0.01	Pass
	+40	-0.00040	-0.0029	±0.01	Pass
	+50	-0.00029	-0.0021	±0.01	Pass

b) Frequency stability V.S. Voltage measurement

Temperature (℃)	Voltage (Vdc)	Frequency Tolerance (MHz)	Frequency Error (%)	Limit (%)	Results
25.0	3.5	-0.00038	-0.0028	±0.01	Pass
	3.7	-0.00036	-0.0027	±0.01	Pass
	4.2	-0.00029	-0.0021	±0.01	Pass

Note: This test item not requirement for 125KHz