

TEST REPORT



CTK Co., Ltd.
(Ho-dong), 113, Yejik-ro, Cheoin-gu,
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Tel: +82-31-339-9970
Fax: +82-31-624-9501

Report No.:
CTK-2021-03553
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1. Client

- Name : Aptiv Connection Systems Korea LLC
- Address : 3, Hyundaikia-ro, Paltan-myeon, Hwaseong-si, Gyeonggi-do, Republic of Korea
- Date of Receipt : 2021-08-20

2. Manufacturer

- Name : APTIV KUM LLC
- Address : 17, Yangdeungnonggong-gil, Sangbuk-myeon, Ulju-gun, Ulsan, Republic of Korea

3. Use of Report : For FCC Certification

4. Test Sample / Model : Wireless Power Charger / KY WPC

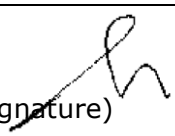
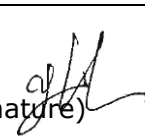
5. Date of Test : 2021-09-03

6. Test Standard(method) used : FCC 47 CFR part 2 subpart J 2.1091

7. Testing Environment: Temp.: (23 ± 1) °C, Humidity: (48 ± 5) % R.H

8. Test Results : Compliance

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full.

Affirmation	Tested by	Technical Manager
	Bong-seok Kim: (Signature) 	Young-taek Lee: (Signature) 

2021-09-28

Republic of KOREA **CTK Co., Ltd.**



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REPORT REVISION HISTORY

Date	Revision	Page No
2021-09-28	Issued (CTK-2021-03553)	all

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1. General Product Description

1.1 Client Information

Company	Aptiv Connection Systems Korea LLC
Contact Point	3, Hyundaiakia-ro, Paltan-myeon, Hwaseong-si, Gyeonggi-do, Republic of Korea
Contact Person	Name : Maeng, MinKyung E-mail : min-kyung.maeng@aptiv.com Tel : +82-31-350-1799

1.2 Product Information

FCC ID	2A29IKYWPC
Product Description	Wireless Power Charger
Model name	KY WPC
Variant Model name	-
Charging Frequency	127.7 kHz
RF Output Power	86 dBuV/m @ 3m
Power Transfer Method	Magnetic induction and only single primary coil coupling secondary coil
Output power from each primary coil	< 10 W
That may have multiple primary coils	No
Antenna Type	Coil
Charging Method	Directly contact
Power Source	DC 12 V

2. Facility and Accreditations

2.1 Test Facility

The measurement facility is located at (Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea.

2.2 Laboratory Accreditations and Listings

Country	Agency	Registration Number
USA	FCC	805871
CANADA	ISED	8737A-2
KOREA	NRRA	KR0025

2.3 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less. All test equipment calibrations are traceable to the Korea Research Institute of Standards and Science (KRISS), therefore, all test data recorded in this report is traceable to KRISS.

3. RF Exposure Assessment

3.1 Maximum Permissible Exposure

Limit

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500	-	-	f/300	6
1,500-100,000	-	-	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500	-	-	f/1500	30
1,500-100,000	-	-	1.0	30

Note 1 : f = frequency in MHz; *Plane-wave equivalent power density
 Note 2 : For the applicable limit, see FCC 1.1310

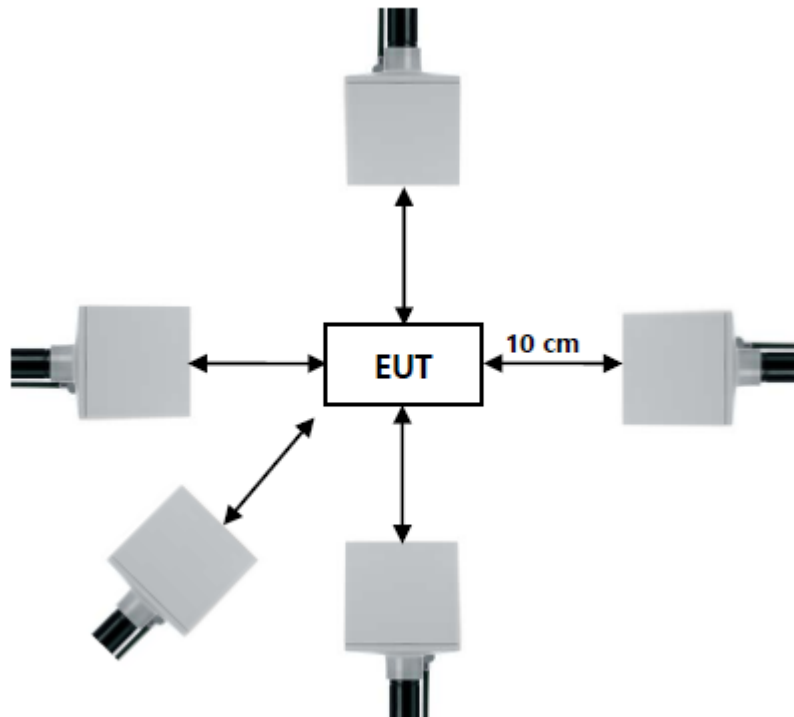
Test method

- Performed aggregate both leakage E-field and H-field at surrounding the device from all simultaneous transmitting coils.
- During testing, the EUT was placed on a non-conductive table top and the ancillary equipment (e.g., mobile phone) was placed on the EUT for charging. Maximum E-field and H-field measurement were tested 10cm from each side of the EUT. Along the side of the EUT to side of E-field probe and H-field probe were positioned at the location to search maximum field strength.

The Worst Condition

Ancillary Equipment	Charging Condition
WPT Load(10W)	Charging Mode

Test Setup



Test results

Maximum Permissible Exposure				
Charging Condition	Separation	Probe from EUT Side	E-field (V/m)	H-field (A/m)
Operating	10 cm	right	3.941	0.163
Operating	10 cm	bottom	4.482	0.232
Operating	10 cm	left	4.325	0.218
Operating	10 cm	top	3.752	0.215
Operating	10 cm	Y-axis above EUT	9.315	0.653
Limit			614	1.63



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APPENDIX A – Test Equipment Used For Tests

No.	Name of Equipment	Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date
1	Electric and Magnetic Field Analyzer	Narda	EHP-200AC	170WX91010	2020-10-19	2021-10-19
2	EHP200-TS Software	Narda	EHP200-TS	650.000.207	-	-
3	Note Computer	HP	15-bs563TU	CND7253QRM	-	-

APPENDIX B – Test Photos

