Maximum Permissible Exposure (Nerve Stimulation)

FCC ID	:	**U4G-Q10SSDL**
Equipment	:	**Dock**
Brand Name	:	**DATALOGIC**
Model Name	:	**DOCK, SINGLE SLOT, CHARGE, MEMOR 20**
Applicant/ Manufacturer	:	**DATALOGIC S.R.L. VIA SAN VITALINO 13 40012 LIPPO DI CALDERARA DI RENO (BO), ITALY**
Standard	:	**47 CFR Part 2.1091**

The product was received on Aug. 02, 2019, and testing was started from Aug. 12, 2019 and completed on Aug. 12, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in KDB680106 D01 RF Exposure Wireless Charging Apps v03 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of United States government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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Photographs of EUT V01

History of this test report

Report No.	Version	Description	Issued Date
FA980128	01	Initial issue of report	Dec. 03, 2019
FA980128	02	Revised accessories information (This report is the latest version replacing for the report issued on Dec. 03, 2019.)	Dec. 04, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.6	-	Maximum Permissible Exposure	PASS	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
None.

Reviewed by: Sam Tsai

Report Producer: Michelle Tsai

1 Human Exposure Assessment

1.1 Maximum Permissible Exposure

1.1.1 Limit of Maximum Permissible Exposure

Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (A/m)**	**Power Density (S) (mW/ cm²)**	**Averaging Time |E|²,|H|² or S (minutes)**
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
300-1500	-	-	F/300	6
1500-100,000	-	-	5	6
Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (A/m)**	**Power Density (S) (mW/ cm²)**	**Averaging Time |E|²,|H|² or S (minutes)**
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
300-1500	-	-	F/1500	30
1500-100,000	-	-	1.0	30
Note 1: f = frequency in MHz ; *Plane-wave equivalent power density Note 2: For the applicable limit, see FCC 1.1310				

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 2.1091
- KDB680106 D01 RF Exposure Wireless Charging Apps v03

1.3 Testing Location Information

Testing Location					
☒	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-327-0973			
Test site Designation No. TW1190 with FCC.					
Test Condition		**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
RF Conducted		TH06-HY	Gary	23.7~24.3°C / 61~63%	12/Aug/2019

1.4 Accessories

Accessories Information		
Type-C cable	Signal Line	1.2 meter, shielded cable, w/o ferrite core

Note: Regarding to more detail and other information, please refer to user manual.

1.5 Support Equipment

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Phone	DATALOGIC	-	-
2	AC Adapter	CHAnnEL WELL	2ACP0183	-

Note: Support equipment No.2 was provided by customer.

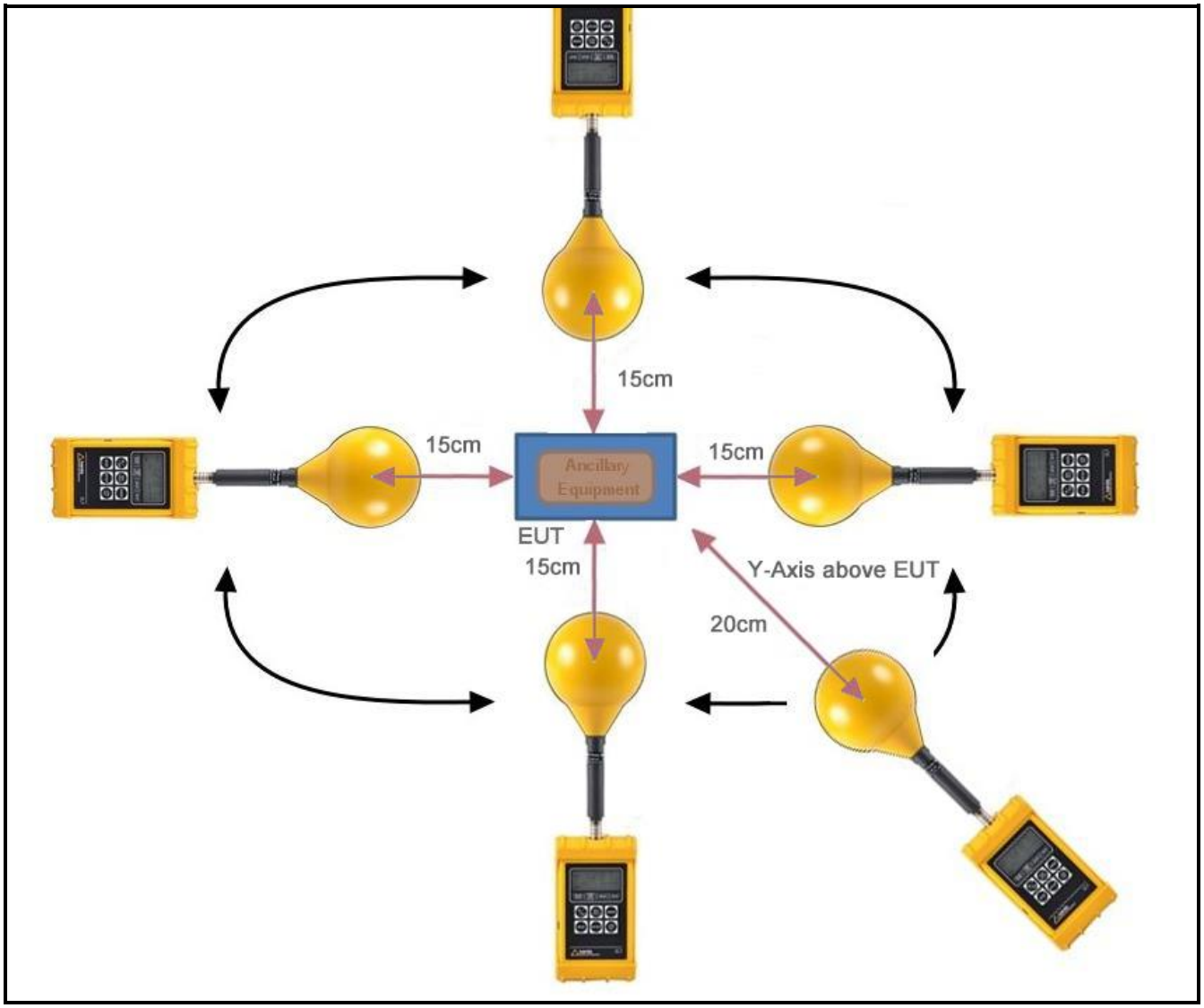
1.6 The Worst Condition

Ancillary Equipment	Charging Condition	Worst Charging Condition
Phone	Charging Mode	Charging Mode

1.6.1 Test Method

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 measurements were tested 10cm from each side of the EUT. Along the side of the EUT to center of E-field probe and H-field probe were positioned at the location to search maximum field strength.
☒	E-field transfer to H-field
-	E-field = Z_0 × H-field H-field = E-field ÷ Z_0 Where Z_0 = Free Space Impedance = 377Ω

1.6.2 Test Setup



Note1 : find worst position for each axis.
Note2 : This shall be measured as the distance from the edge of the device to the center of the measurement probe.

1.6.3 Result of Maximum Permissible Exposure

Maximum Permissible Exposure				
Charging Condition	**Separation**	**Probe from EUT Side**	**E-field (V/m)**	**H-field (A/m)**
Operating	15cm	Left	0.77	0.002
Operating	15cm	Right	0.62	0.002
Operating	15cm	Top	0.94	0.003
Operating	15cm	Bottom	0.9	0.002
Operating	15cm	Y-axis above EUT	0.68	0.002
Limit			614	1.63
Margin Limit (%)			0.15%	0.15%

2 Test Equipment and Calibration Data

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
B-Field Probe	Narda Safety Test Solutions GmbH	B-Field Probe 100 cm^2	M-0652	50Hz~400kHz	20/Jul/2018	19/Jul/2020
Exposure Level Tester	Narda Safety Test Solutions GmbH	ELT-400	N-0210	100kHz~3MHz	20/Jul/2018	19/Jul/2020
Probe EF	Narda Safety Test Solutions GmbH	0391 E-Field	D-0667	0.1MHz ~ 3GHz	20/Jul/2018	19/Jul/2020
Broadband Field Meter	Narda Safety Test Solutions GmbH	NBM-550	E-0847	0.1MHz ~ 3GHz	20/Jul/2018	19/Jul/2020