

Maximum Permissible Exposure

FCC ID : U4GSX5SSD
Equipment : Wireless Power Transmission System
Brand Name : Datalogic
Model Name : SKORPIO X5 SINGLE DOCK WIRELESS CHARGING
Applicant : Datalogic S.r.l.
Via S. Vitalino 13, 40012 Lippo di Calderara di Reno (BO) - Italy
Manufacturer : Datalogic S.r.l.
Via S. Vitalino 13, 40012 Lippo di Calderara di Reno (BO) - Italy
Standard : 47 CFR Part 2.1091

The product was received on Jul. 22, 2020, and testing was started from Jul. 28, 2020 and completed on Jul. 28, 2020. 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 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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History of this test report

Report No.	Version	Description	Issued Date
FA061224	01	Initial issue of report	Oct. 20, 2020
FA061224	02	Revise chapter 1.6 The Worst Condition (This report is the latest version replacing for the report issued on Oct. 20, 2020)	Oct. 22, 2020

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: Ann Hou

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/ cm ²)	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/ cm ²)	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

The following reference test guidance is not within the scope of accreditation of TAF:

- ♦ KDB680106 D01 RF Exposure Wireless Charging Apps v03

1.3 Testing Location Information

Testing Location				
<input checked="" type="checkbox"/>	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan 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	TH01-HY	Gary	22.5~23.9°C / 61~69%	28/Jul/2020

1.4 Accessories

Accessories Information				
AC Adapter	Brand Name	EDACPOWER ELEC.	Model Name	EA10681U-120
	Power Rating	I/P: 100 - 240Vac, 2A, O/P: 12Vdc, 6A		
	Power Cord	1.2 meter, shielded cable, with 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	Mobile computer	Datalogic	SKORPIO X5	-

Note: Support equipment No.1 was provided by customer.



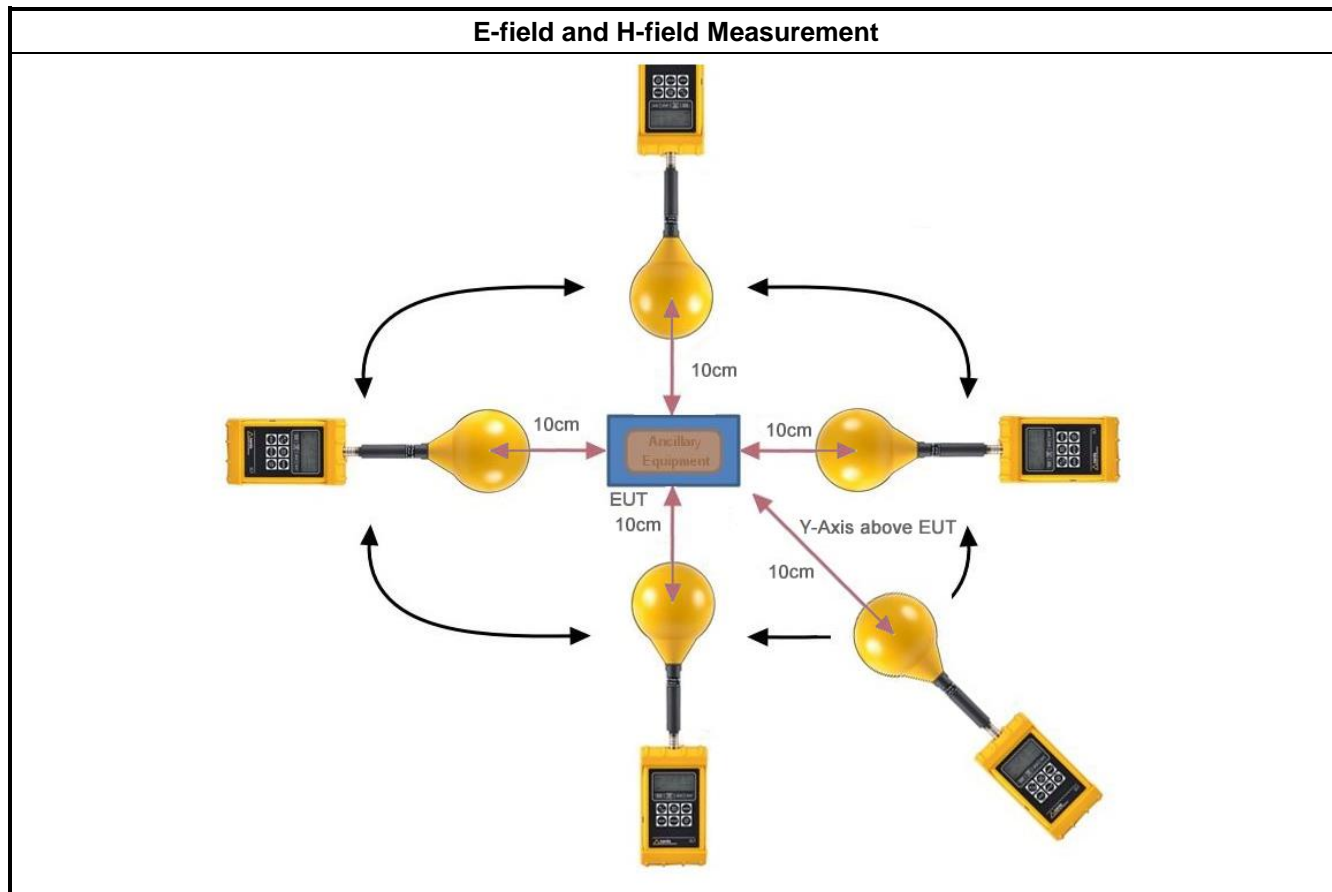
1.6 The Worst Condition

Ancillary Equipment	Charging Condition	Worst Charging Condition
Mobile computer	WPC	The EUT was charging the client device in which the battery level was less than 25%.

1.6.1 Test Method

Test Method	
<input checked="" type="checkbox"/>	Performed aggregate both leakage E-field and H-field at surrounding the device from all simultaneous transmitting coils.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	E-field transfer to H-field
-	E-field = $Z_0 \times$ H-field H-field = E-field \div 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)
Low power<25%	10cm	Left	2.725	0.007
Low power<25%	10cm	Right	3.1375	0.008
Low power<25%	10cm	Top	1.3813	0.004
Low power<25%	10cm	Bottom	4.9031	0.013
Low power<25%	10cm	Y-axis above EUT	5.6188	0.015
Limit			614	1.63
Margin Limit (%)			0.92%	0.92%



2 Test Equipment and Calibration Data

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Electric and Magnetic field Probe - Analyzer	Narda S.T.S. / PMM	EHP 200AC	170WX80309	3kHz~30MHz	08/May/2019	07/May/2021