


# RF Exposure Report

**FCC ID** : U4G-MODWLC  
**Equipment** : Wireless Charging Module  
**Brand Name** : Datalogic  
**Model Name** : MODWLC  
**Applicant** : Datalogic S.r.l.  
Via San Vitalino 13, 40012 Lippo di Calderara di Reno (BO) – Italy  
**Manufacture** : Datalogic S.r.l.  
Via San Vitalino 13, 40012 Lippo di Calderara di Reno (BO) – Italy  
**Standard** : FCC CFR 47 part 2.1091

The product was received on Jan. 30, 2024 and testing was started from Jan. 31, 2024 and completed on Jan. 31, 2024. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample provide by manufacturer and the test data has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1091 and FCC KDB 680106 D01v04 and has been pass the FCC requirement.

The 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: Cona Huang / Deputy Manager



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**Revision History**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA3D2933	Rev. 01	Initial issue of report	Mar. 06, 2024

## 1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Wireless Charging Module
Brand Name	Datalogic
Model Name	MODWLC
FCC ID	U4G-MODWLC
Frequency Range	112KHz ~ 148KHz
Modulation Type	ASK

## 2. RF Exposure Limit Introduction

§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency(RF) radiation as specified in § 1.1307(b).

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	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 <sup>2</sup>	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 <sup>2</sup>	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz

\* = Plane-wave equivalent power density

(1) Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when a person is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure. The phrase fully aware in the context of applying these exposure limits means that an exposed person has received written and/or verbal information fully explaining the potential for RF exposure resulting from his or her employment. With the exception of transient persons, this phrase also means that an exposed person has received appropriate training regarding work practices relating to controlling or mitigating his or her exposure. Such training is not required for transient persons, but they must receive written and/or verbal information and notification (for example, using signs) concerning their exposure potential and appropriate means available to mitigate their exposure. The phrase exercise control means that an exposed person is allowed to and knows how to reduce or avoid exposure by administrative or engineering controls and work practices, such as use of personal protective equipment or time averaging of exposure.

(2) General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.



3. KDB 680106 D01v04

Requirement	Devices
(1) Power transfer frequency is less than 1 MHz.	Yes. Operating Frequency is less than 1MHz
(2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts	The maximum output power of primary coil is 10 watts
(3) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact	Yes, Client device is placed directly in contact with the transmitter.
(4) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions)	There is no magnetic connection mechanism between client, mobile exposure condition is applied

4. Test Mode

This device has been tested in the following charging conditions as below:

Test Mode	Test Setup Configuration	Charging Current Condition
TM1	Test w/ Client Device installed	< 25% Battery status
TM2	Test w/ Client Device installed	Equal to 50% Battery status
TM3	Test w/ Client Device installed	> 85% Battery status

5. Measurement Equipment

Instrument	Manufacturer	Model No.	Serial No.	Freq. Range	Last Cal.	Due Date
Electric and Magnetic field Probe-Analyzer	Narda S.T.S / PMM	EHP 200AC	170WX80309	3KHz~30MHz	Nov. 03, 2023	Nov. 02, 2024



6. RF Exposure Evaluation

General Note:

- 1. The device support Wireless Power Consortium with a maximum power transfer to the client is 10W.
2. There is no magnetic connection mechanism between client.
3. This is a WPT charging stand that is powered by DC and will be installed at the air-conditioning outlet of the front console of the vehicle and provides charging for client device. no matter which vehicle it is installed on when the client device is place on WPT device charging, the driver or passenger will away from the WPT device when the vehicle is driving. and will always keep a distance of 5cm from the WPT device.
4. The equipment under test was placed on a desk inside of shield room. The isotropic field probe was used to measure the field strength for 6 EUT surfaces, the detail setup photo please refer to Appendix A.
5. Per KDB 680106 D01, RF exposure evaluation field strengths anywhere at 5 cm surrounding the device from the source coils. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m.

Table with 9 columns: Position, Test Distance (cm), Test Mode, Hinc (A/m), Einc (V/m), Hinc Limit (A/m), Einc Limit (V/m), Hinc Result, Einc Result. It contains 18 rows of test data for various positions and test modes.

Conclusion:

The field strength limit refers to Part 1.1310 and the test result of exposure evaluation is less the applicaple MPE limit.