

# RF Exposure Evaluation Report

Product Name : Wireless image transmission module

Model No. : P301-D

FCC ID : 2A735-SIRASF1E

Applicant : Coretronic Intelligent Robotics Corporation

Address : No.11, Lixing Rd., East Dist., Hsinchu City 30078, Taiwan

Date of Receipt : May 27, 2022

Date of Declaration : Aug. 05, 2022

Report No. : 2250839R-RFUSMPEV02-A

Report Version : V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Issued Date: Aug. 05, 2022

Report No.: 2250839R-RFUSMPEV02-A



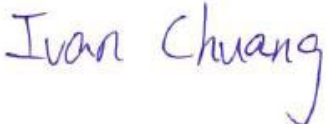
Product Name	Wireless image transmission module	
Applicant	Coretronic Intelligent Robotics Corporation	
Address	No.11, Lixing Rd., East Dist., Hsinchu City 30078, Taiwan	
Manufacturer	Coretronic Intelligent Robotics Corporation	
Model No.	P301-D	
FCC ID.	2A735-SIRASF1E	
Trade Name	FLIR	
Applicable Standard	KDB 447498 D01 v06	<input checked="" type="checkbox"/> Minimum test separation distance $\geq$ 20 cm <input type="checkbox"/> For low power devices
Test Result	Complied	

Documented By :




( Senior Project Specialist / Joanne Lin )

Tested By :



( Senior Engineer / Ivan Chuang )

Approved By :



( Senior Engineer / Jack Hsu )

## Revision History

Report No.	Version	Description	Issued Date
2250839R-RFUSMPEV02-A	V0.1	Initial issue of report.	Aug. 05, 2022

## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	Wireless image transmission module
Trade Name	FLIR
Model No.	P301-D
FCC ID.	2A735-SIRASF1E
Frequency Range	5MBW & 10MBW: 2410-2470MHz 5MBW & 10MBW: 5180-5240MHz, 5740-5820MHz
Channel Control	Auto
Antenna Type	Dipole Antenna
Antenna Gain	Refer to the table "Antenna List"

### 1.2. Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	CIROCOMM	43N15C6V0W0010T	Dipole Antenna	4.0dBi for 2.4GHz 5.0dBi for 5GHz

## 2. Test Facility

**USA** : **FCC Registration Number: TW0033**

**Canada** : **CAB Identifier Number: TW3023 / Company Number: 26930**

Site Description : Accredited by TAF  
Accredited Number: 3023

Test Laboratory : DEKRA Testing and Certification Co., Ltd  
Address : No. 5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan  
Performed Location : No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan, R.O.C.  
Phone number : +886-3-275-7255  
Fax number : +866-3-327-8031  
Email address : [info.tw@dekra.com](mailto:info.tw@dekra.com)  
Website : <http://www.dekra.com.tw>

### 3. RF Exposure Evaluation

#### 3.1. Standard Applicable

According to KDB 447498 D01 (7.1), A minimum test separation distance  $\geq 20$  cm is required between the antenna and radiating structures of the device and nearby persons to apply mobile device exposure limits.

#### 3.2. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

##### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula:  $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 3.1416

R = distance between observation point and center of the radiator in cm

Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is  $\leq 1.0$

### 3.3. Test Result of RF Exposure Evaluation

Product : Wireless image transmission module  
Test Item : RF Exposure Evaluation

Band	Frequency (MHz)	Conducted maximum Peak Power (dBm)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2.4GHz	2440	28.77	4	0.3765	1
5GHz	5740	29.65	5	0.5804	1

Note: The conducted output power is refer to report No.: 2250839R-RFUSWL2V01-A, 2250839R-RFUSWL5V01-A from the DEKRA.

Results	PASS
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