

RF EXPOSURE REPORT



Applicant: Coretronic Reality Inc.
15F., No 225, Sec.3, Beixin Rd., Xindian Dist. New Taipei City,
Taiwan 231

Manufacturer: Coretronic Reality Inc.
No. 5, Wenhua Rd., Fengshan Vil., Hukou Township, Hsinchu
County 303035, Taiwan (R.O.C.)

Product Name: COREXOM

Brand Name: Coretronic Reality Inc.

Model No.: R6490WGQ

Family Model No.: R6490Q / R5430WGQ / R5430Q

Model Difference: Refer to section 1.2

FCC ID 2BPQQ-R6490WGQ

Date of EUT Received: Jun. 17, 2025

Issue Date: Nov. 24, 2025

Approved By

John Yeh

We hereby certify that:

The above equipment was evaluated by SGS Taiwan Ltd. The evaluation in this report is in compliance with FCC Rule Part §1.1307 & KDB 447498 D04 v01.

The results of this report relate to the specific sample identified in this report.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Revision History

Report Number	Revision	Description	Issue Date	Revised By	Remark
TESA2506000502ES	00	Original	Oct. 20, 2025	Cindy Chou	
TESA2506000502ES	01	Update applicant's address	Nov. 24, 2025	Cindy Chou	*

Note:

- 1、The remark "*" indicates modification of the report upon requests from certification body.
- 2、Variant information of model numbers is provided by the applicant, test results of this report are applicable to the sample EUT(s) received.
And are assessed as electrically identical in RF characteristics, therefore, no further assessment required for the variant(s).

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1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

1.1 Product Description

Product Name:	COREXOM
Brand Name:	Coretronic Reality Inc.
Model No.:	R6490WGQ
Family Model No.:	R6490Q / R5430WGQ / R5430Q
Model Difference:	Refer to section 1.2

1.2 Model Difference

Model	Difference
R6490WGQ	With BT+Wi-Fi/GPS, Memory : uMCP 8GB LPDDR4X + 128GB UFS
R6490Q	Without BT+Wi-Fi/GPS, Memory : uMCP 8GB LPDDR4X + 128GB UFS
R5430WGQ	With BT+Wi-Fi/GPS, Memory : uMCP 4GB LPDDR4X + 64GB UFS
R5430Q	Without BT+Wi-Fi/GPS, Memory : uMCP 4GB LPDDR4X + 64GB UFS

1.3 Evaluation site

Laboratory		Site Address	FCC Designation number/ Registration Number	ISED Company Number	CAB Identifier
SGS Taiwan Ltd. Central RF Lab. (TAF code 3702)	☒	No. 134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, 24803, Taiwan.	TW0027/ 891563	4620A	TW3702
	☐	No. 2, Keji 1st Rd., Guishan Township, Taoyuan County, 333 Taiwan.	TW0028/ 200037	4620E	
	☐	1F, No. 8, Alley 15, Lane 120, Sec. 1, Nei Hu Road, Neihu District, Taipei City, 222 Taiwan.	TW0029/ 150169	23862	

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1.4 Antenna Information:

Antenna Type	Supplier	Antenna Part No.	Freq. (GHz)	Peak Antenna Gain (dBi)
Dipole	ALFA	ARS-NT5B7	2.4	4.00
			5	5.00
			6	7.00

Note: Antenna information is provided by the applicant.

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2 DETERMINATION OF MPE EXEMPTION

2.1 FCC

2.1.1 Single RF Source

As per §1.1307(b)(3)(i),

- (A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);
- (B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

d = the separation distance (cm);

Note: when 10-g extremity SAR applies, SAR test exemption may be considered by applying a factor of 2.5 to the SAR-based exemption thresholds.

- (C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least $\lambda/2\pi$, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

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Table 1 to § 1.1307(b)(3)(i)(C) –

Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)			Minimum Distance			Threshold ERP (W)
fL		fH	$\lambda_L / 2\pi$		$\lambda_H / 2\pi$	
0.3	-	1.34	159m	-	35.6m	1920 R ²
1.34	-	30	35.6m	-	1.6m	3450 R ² /f ²
30	-	300	1.6m	-	159mm	3.83 R ²
300	-	1500	159mm	-	31.8mm	0.0128 R ² f
1500	-	100000	31.8mm	-	0.5mm	19.2R ²

R= minimum separation distance in meter

f = frequency in MHz

2.1.2 Multiple RF Sources

In the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation.

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

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2.1.3 Single RF Source Evaluation Results

Chain 0	Frequency (MHz)	Max. tune-up power (dBm)	Peak gain (dBi)	ERP (dBm)	ERP (W)	Permissible Minimum separation distance ($\lambda/2\pi$) (m)	R = actual Minimum separation distance(m)	ERP _{th} (W)	ERP/ERP _{th}	Simultaneous transmission modes					
										1	2	3	4	5	6
BT	2402	2	4	3.85	0.002	0.0199	0.200	0.768	0.003						
BLE	2402	6	4	7.85	0.006	0.0199	0.200	0.768	0.008	V		V			
WLAN 2.4G(1Tx)	2412	20.5	4	22.35	0.172	0.0198	0.200	0.768	0.224						
WLAN 5G(1Tx)	5180	18.5	5	21.35	0.136	0.0092	0.200	0.768	0.178						
WLAN 6G(1Tx)	5955	7	7	11.85	0.015	0.0080	0.200	0.768	0.020						
WLAN 2.4G(2Tx)	2412	18.5	4	20.35	0.108	0.0198	0.200	0.768	0.141		V				
WLAN 5G(2Tx)	5180	18.5	5	21.35	0.136	0.0092	0.200	0.768	0.178	V					
WLAN 6G(2Tx)	5955	7	7	11.85	0.015	0.0080	0.200	0.768	0.020			V			

Chain 1	Frequency (MHz)	Max. tune-up power (dBm)	Peak gain (dBi)	ERP (dBm)	ERP (W)	Permissible Minimum separation distance ($\lambda/2\pi$) (m)	R = actual Minimum separation distance(m)	ERP _{th} (W)	ERP/ERP _{th}	Simultaneous transmission modes					
										1	2	3	4	5	6
WLAN 2.4G(1Tx)	2412	20.5	4	22.35	0.172	0.0198	0.200	0.768	0.224						
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WLAN 6G(1Tx)	5955	7	7	11.85	0.015	0.0080	0.200	0.768	0.020						
WLAN 2.4G(2Tx)	2412	18.5	4	20.35	0.108	0.0198	0.200	0.768	0.141		V				
WLAN 5G(2Tx)	5180	18.5	5	21.35	0.136	0.0092	0.200	0.768	0.178	V					
WLAN 6G(2Tx)	5955	7	7	11.85	0.015	0.0080	0.200	0.768	0.020			V			

Conclusion: Source-base time average power is below Exemption Criteria and/or Routine Evaluation MPE thresholds, therefore the device is compliant FCC RF exposure requirement.

Note: For conservativeness, the lowest uplink frequency of each band is used to determine the minimum separation distance of that band. All the single RF source results (P or ERP) are less than their corresponding threshold (P_{th} or ERP_{th}), so they are exempt from RF exposure testing.

2.2 Multiple RF Sources Evaluation Results

Simultaneous transmission modes	Σ ERP/ERP _{th}	Criteria
1	0.363	1
2	0.282	1
3	0.048	1

Note:

1. $\Sigma(\text{ERP/ERP}_{th})$: This is a summation of [(ERP of RF source / exemption threshold ERP for RF source)].

Considering the collocated transmitters, the aggregated (ERP/ERP_{th}) is smaller than 1, and MPE of collocated transmitters is compliant

~ End of Report ~

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