



RF Exposure Evaluation Report

For Maytronics Ltd.

Equipment Under Test:

Remote Control for WAVE pool cleaners

Model: WAVE RCU

FCC ID: WCH9995412

Issued by:

The Standards Institution of Israel

Industry Division

Electrical & Electronics Laboratory

EMC Branch



1. Applicant information

Applicant:	Maytronics Ltd.
Address:	Kibbutz Yizre'el , 19350, Israel
Sample for test selected by:	The customer
The date of tests:	March 2023

Equipment under test information

Description of Equipment Under Test (EUT):	Remote Control for WAVE pool cleaners.
Model:	WAVE RCU
Software version of radio unit:	01
Hardware version of radio unit:	01
Manufactured by:	Maytronics Ltd.

2. Test performance

Location:	SII EMC Section
Purpose of test:	To prove the safety of radiation harmfulness to the human body for our product
Test specifications:	FCC KDB 447498 D01 General RF Exposure Guidance v06

This Test Report contains 4 pages and may be used only in full.

This Test Report applies only to the specimen tested and may not be applied to other specimens of the same product.

3. Summary of test:

Using the general SAR test exclusion guidance in Section 4.2.4 of KDB 447498 D01 v06, we show the device meeting the SAR exemption.

Name: Eng. Yuri Rozenberg
Position: Head of EMC Branch.

Electronics and
Telematics Laboratory

04 April 2023

Name: Alexander Konkov.
Position: Test engineer.



4. Equipment under test description.

*The applicant provided description.

4.1 General description

Remote Control Unit for Robotic Pool Cleaner models WAVE300 XLR and WAVE200 XL.
Powered by 2 AAA batteries.

EUT technical characteristics

Type of equipment		
Stand-alone (Equipment with or without its own control provisions)		
Operational frequency	433.92 MHz	
Nominal Operating frequencies	433.050MHz – 434.790 MHz	
Modulation	FSK	
Measured EIRP	-18.13 dBm (0.0153 mW)	
Antenna connection		
without RF standard connector		
External antenna/s technical characteristics		
Type	Manufacturer	Model number
PCB printed antenna 172mm length		
Transmitter power source		
Nominal rated voltage	3VDC (battery)	



5. FCC and ISEDC Exemption Limits for Routine Evaluation

FCC SAR test exclusions per KDB 447498

KDB 447498 D01 General RF Exposure Guidance v06 Section: 4.3.1.

Standalone SAR test exclusion considerations states:

For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \cdot \sqrt{f(\text{GHz})} \right] \leq 3.0 \text{ for 1-g SAR, and } \leq 7.5 \text{ for 10-g extremity SAR, 30 where}$$

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as numeric thresholds.

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

SAR Test Exclusion Threshold

Freq. [GHz]	d [mm]	Max. power [mW]	Calculation result	FCC Limit @ 5 mm [mW]	SAR Exclusion applicable (Yes/No)
433.92	5	0.0153	0.064	3.0	Yes

Summary: SAR test exclusion threshold is < 3 for separation distance of 5 mm. Therefore, SAR test is not required.