

TEST REPORT

Product Name : HydraShock 2.0
IMW1502, IMW1502-XXXXXXXXXX
Model Number : (XXXXXXXXXX stands for color code. X=A-Z,
or blank)
FCC ID : SP9-00011HS2

Prepared for : Kysho Multimedia Ltd.
Address : Flat F, 5/F Valiant Industrial Centre, 2-12 Au Pui Wan
Street, Fo Tan, Shatin, N.T. Hong Kong

Prepared by : EMTEK (DONGGUAN) CO., LTD.
Address : -1&2/F., Building 2, Zone A, Zhongda Marine Biotechnology
Research and Development Base, No.9, Xincheng Avenue,
Songshanhu High-technology Industrial Development Zone,
Dongguan, Guangdong, China

TEL: +86-0769-22807078
FAX: +86-0769-22807079

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Date(s) of Tests : Aug 08, 2024 to Aug 27, 2024
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1. TEST RESULT CERTIFICATION

Applicant : Kyscho Multimedia Ltd.
Address : Flat F, 5/F Valiant Industrial Centre, 2-12 Au Pui Wan Street, Fo Tan, Shatin, N.T.
Hong Kong
Manufacturer : Kyscho Multimedia Ltd.
Address : Flat F, 5/F Valiant Industrial Centre, 2-12 Au Pui Wan Street, Fo Tan, Shatin, N.T.
Hong Kong
Factory : Huizhou Shenke Xinfei Technology Co. Ltd.
Address : Building C, Tangxia Chanjing industrial Park, Huiyang District, Huizhou City
EUT : HydraShock 2.0
Model Name : IMW1502, IMW1502-XXXXXXXXXX
(XXXXXXXXXX stands for color code. X=A-Z, or blank)
Trademark : ALTEC LANSING

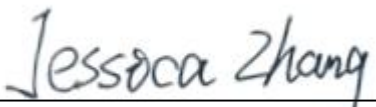
Measurement Procedure Used:

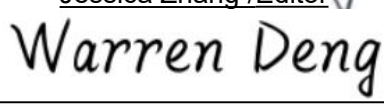
APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 1.1310: §1.1307(b)	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC 1.1310: §1.1307(b).

The test results of this report relate only to the tested sample identified in this report

Date of Test : Aug 08, 2024 to Aug 27, 2024

Prepared by : 
Jessica Zhang /Editor

Reviewer : 
Warren Deng/ Supervisor

Approve & Authorized Signer : 
Sam Lv / Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2408080051E00205R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	HydraShock 2.0
Model Number:	IMW1502, IMW1502-XXXXXXXXXX (XXXXXXXXXX stands for color code. X=A-Z, or blank) (Note: These models are the same, except for the model names and color;IMW1502 was selected for full test.)
Sample:	1#
Data Rate:	1Mbps for GFSK modulation 2Mbps for $\pi/4$ -DQPSK modulation 3Mbps for 8DPSK modulation 1Mbps for GFSK modulation 2Mbps for GFSK modulation
Modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK
Operating Frequency Range(s) :	2402-2480MHz
Number of Channels:	BT: 79 channels BLE:40 channels
Transmit Power Max:	BT: -0.32 dBm(0.000929 W) BLE:-1.22 dBm(0.000755 W)
Antenna Gain:	-0.58 dBi
Power supply:	DC 18V from adapter Adapter:Model:MLF-E021802500CU INPUT:100-240V~50/60Hz 1.5A max OUTPUT:18V= 2.5A DC 14.8V from battery Battery:2000mAh 14.8V 29.6Wh
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement

RF EXPOSURE EVALUATION

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 ²)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

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

Where

P_d = Power density in mW/cm²

P_{out} =output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

π =3.1416

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

P_d the limit of MPE, 1mW/cm². If we know the maximum gain of the nd total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

4. Measurement Result

Antenna gain: -0.58 dBi

Channel Freq. (MHz)	modulation	conducted power	Tune-up pow er (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain			
		(dBm)		(dBm)	(mW)	(dBi)	Numeric	(mW/cm2)	(mW/cm2)
2402	GFSK	-2.71	-2±1	-1	0.794	-0.58	0.87	0.0001	1
2441		-1.38	-1±1	0	1.000	-0.58	0.87	0.0002	1
2480		-1.41	-1±1	0	1.000	-0.58	0.87	0.0002	1
2402	π/4-DQPSK	-1.92	-1±1	0	1.000	-0.58	0.87	0.0002	1
2441		-0.75	0±1	1	1.259	-0.58	0.87	0.0002	1
2480		-0.68	0±1	1	1.259	-0.58	0.87	0.0002	1
2402	8-DPSK	-1.62	-1±1	0	1.000	-0.58	0.87	0.0002	1
2441		-0.32	0±1	1	1.259	-0.58	0.87	0.0002	1
2480		-0.4	0±1	1	1.259	-0.58	0.87	0.0002	1
2402	GFSK (1M)	-2.61	-2±1	-1	0.794	-0.58	0.87	0.0001	1
2440		-1.29	-1±1	0	1.000	-0.58	0.87	0.0002	1
2480		-1.35	-1±1	0	1.000	-0.58	0.87	0.0002	1
2402	GFSK (2M)	-2.54	-2±1	-1	0.794	-0.58	0.87	0.0001	1
2440		-1.25	-1±1	0	1.000	-0.58	0.87	0.0002	1
2480		-1.22	-1±1	0	1.000	-0.58	0.87	0.0002	1

*** End of Report ***