

Curiouser Products, Inc.

RF Exposure Exhibit

SCOPE OF WORK

EMC TESTING – MIRROR's Connected Weights,
Model: Dumbbells: 10 lb., 15 lb., 20 lb., 25 lb., 30 lb., 35 lb.

REPORT NUMBER

104781122MPK-015

ISSUE DATE

November 18, 2021

REVISED DATE

N/A

PAGES

13

DOCUMENT CONTROL NUMBER

Non-Specific Radio Report Shell Rev. December 2017 MPK
© 2017 INTERTEK



**RF Exposure Exhibit
(Portable Devices)**

Report Number: 104781122MPK-015

Project Number: G104781122

Original Issue Date: November 18, 2021

**Product Designation: MIRROR's Connected Weights
Model Tested: MCWD10, MCWD15, MCWD20, MCWD25,
MCWD30, MCWD35**

**FCC ID: 2AOSD-MCW3
IC: 23685-MCW3**

to

**47CFR 2.1093
RSS-102 Issue 5**

for

Curiouser Products, Inc.

Tested by:

Intertek
1365 Adams Court
Menlo Park, CA 94025 USA

Client:

Curiouser Products, Inc.
1261 Broadway, Suite 208
New York, NY 10001 USA

Report prepared by:



Kenneth Roqe/ EMC Project Engineer

Report reviewed by:



Krishna Vemuri / EMC Manager

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Report No. 104781122MPK-015	
Equipment Under Test:	MIRROR's Connected Weights
Model Number:	MCWD10, MCWD15, MCWD20, MCWD25, MCWD30, MCWD35
Applicant:	Curiouser Products, Inc.
Contact:	Brad Augustine
Address:	Curiouser Products, Inc. 1261 Broadway, Suite 208 New York, NY 10001
Country:	USA
Tel. Number:	1 (917) 547-7277
Email:	brad@mirror.co
Applicable Regulation:	47CFR 2.1093 RSS-102 Issue 5

TABLE OF CONTENTS

<i>Curiouser Products, Inc.</i>	1
<i>1.0 RF Exposure Summary</i>	5
<i>2.0 RF Exposure Limits</i>	5
<i>3.0 Test Results (Portable Configuration)</i>	6
<i>4.0 Document History</i>	9
<i>Annex A – Duty Cycle Oscilloscope Measurements</i>	10

1.0 RF Exposure Summary

Test	Reference FCC	Reference Industry Canada	Result
Radio frequency Radiation Exposure Evaluation	47 CFR§2.1093	RSS-102 Issue 5	Complies

2.0 RF Exposure Limits

2.1 FCC Limits

According to FCC KDB 447498 D01 v07 Appendix B, at frequency 2450 MHz and separation distance of ≤ 5 mm SAR Exemption limit is ≤ 3 mW.

2.2 Industry Canada Limits

According to RSS-102 sec. 2.5.1, at frequency 2450 MHz and separation distance of ≤ 5 mm SAR Exemption limit is ≤ 4 mW.

3.0 Test Results (Portable Configuration)

3.1 Classification

For purposes of this section, a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.

3.2 EIRP Calculations

MIRROR's Connected Weights, Model: MCWD10, MCWD15, MCWD20, MCWD25, MCWD30, and MCWD35 consists of one 2.4GHz radio.

3.3 Maximum RF Power

MIRROR's Connected Weights, Model: MCWD10, MCWD15, MCWD20, MCWD25, MCWD30, MCWD35:

Frequency Range (MHz)	Peak RF Output	Antenna Gain ¹	Numerical Gain	Note
2402 – 2480	0.99dBm or 1.256mW	2.67 dBi	1.85	Conducted power measurements were taken from 104781122MPK-009

¹As declared by the manufacturer.

3.4 RF Exposure Calculation

3.4.1 RF Exposure Calculation for 2.4 GHz Radio, MIRROR's Connected Weights, Model: MCWD10, MCWD15, MCWD20, MCWD25, MCWD30, MCWD35:

Duty Cycle Calculation:

Duty Cycle = Active Transmission Time / Repeating Burst Period

Repeating Burst Period = 30.1mSec

Active Transmission Time = Pulse Width 1 + Pulse Width 2 + Pulse Width 3 + Pulse Width 4 + Pulse Width 5 + Pulse Width 6

Active Transmission Time = 339μS + 155μS + 364μS + 163μS + 356μS + 163μSec

Active Transmission Time = 1.54mS

Duty Cycle = 1.54mS / 30.1mS

Duty Cycle = 0.051163 = **5.1163%**

See Annex A for oscilloscope measurements.

3.4.2 RF Exposure Calculation FCC

Calculations for this report are based on highest power measured.

Power input to antenna	Source-based Duty Cycle	Numerical Gain	Corrected input power into antenna	EIRP	Frequency
1.256mW	5.1163% (0.051163)	1.85	0.0643 mW	0.12mW	2402 – 2480

Corrected Input Power = Power Input*Duty Cycle

EIRP = Corrected Input Power*Numerical Gain

RF Exposure calculation for FCC KDB 447498 D01 v07

According to FCC KDB 447498 D01 v07 Appendix B, at frequency 2450 MHz and separation distance of ≤ 5 mm SAR Exemption limit is ≤ 3 mW

Max Peak Conducted Power measured = 0.0643 mW

Results: SAR evaluation is not required since the higher of the maximum conducted or equivalent isotopically radiated power (EIRP) source-based, time averaged output power is below the exemption limit.

3.4.3 RF Exposure Calculation ISED

Calculations for this report are based on highest power measured.

Power input to antenna	Source-based Duty Cycle	Numerical Gain	Corrected input power into antenna	EIRP	Frequency
1.256mW	5.1163% (0.051163)	1.85	0.0643 mW	0.12mW	2402 – 2480

Corrected Input Power = Power Input*Duty Cycle

EIRP = Corrected Input Power*Numerical Gain

According to RSS-102 sec. 2.5.1, at frequency 2450 MHz and separation distance of ≤ 5 mm SAR Exemption limit is ≤ 4 mW.

Max EIRP measured = 0.12 mW

Results: SAR evaluation is not required since the higher of the maximum conducted or equivalent isotopically radiated power (EIRP) source-based, time averaged output power is below the exemption limit.

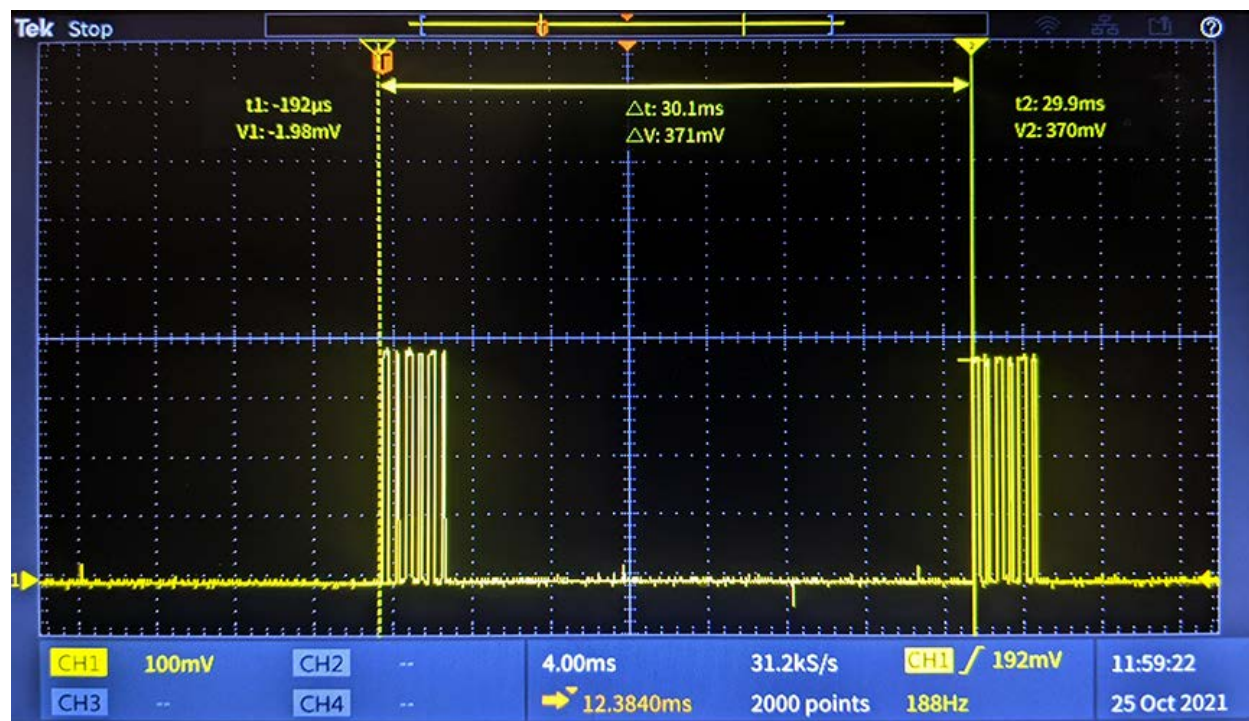
Note: Antenna gains below 0 are considered as 0dBi.

4.0 Document History

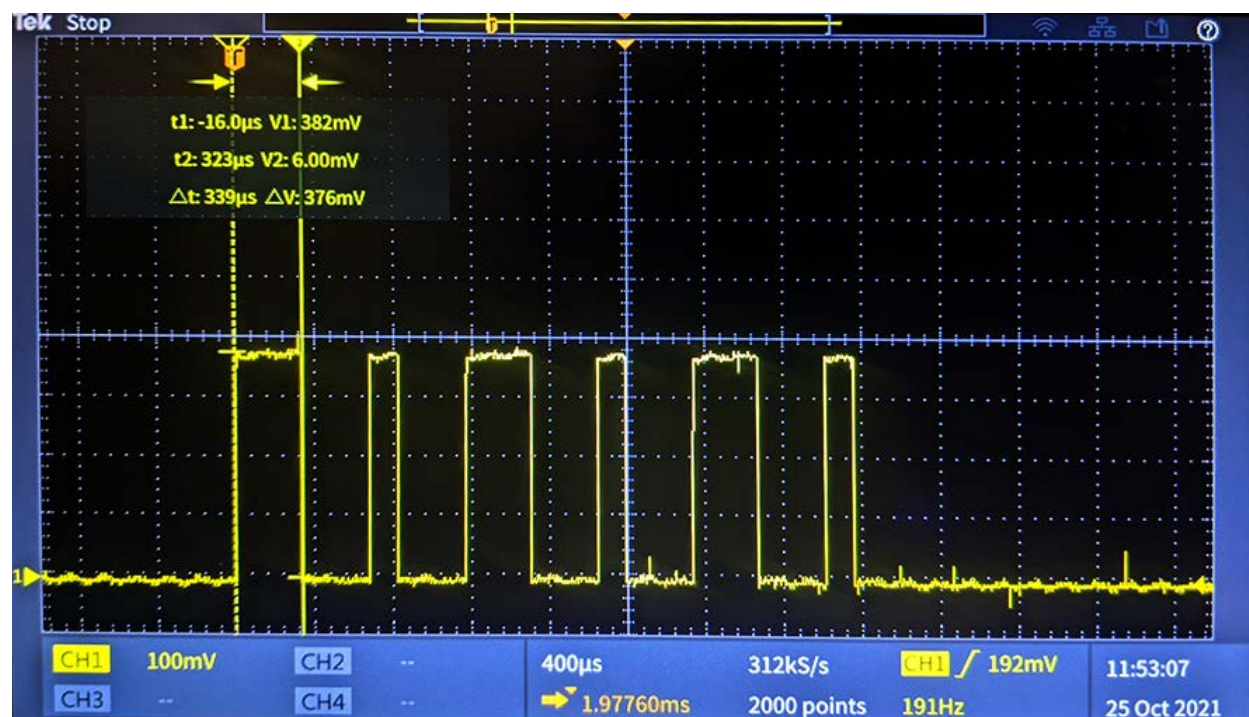
Revision/ Job Number	Writer Initials	Reviewers Initials	Date	Change
1.0 / G104781122	KR	KV	November 18, 2021	Original document

Annex A – Duty Cycle Oscilloscope Measurements

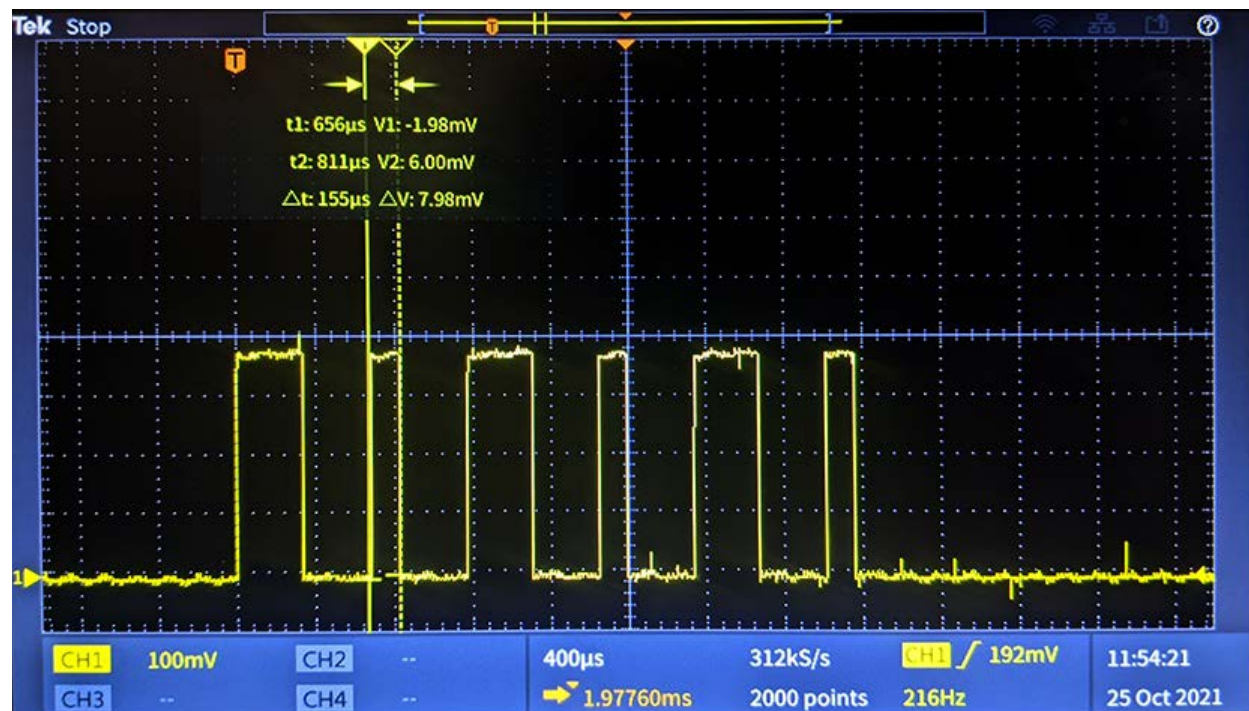
Repeating Burst Period = 30.1mSec



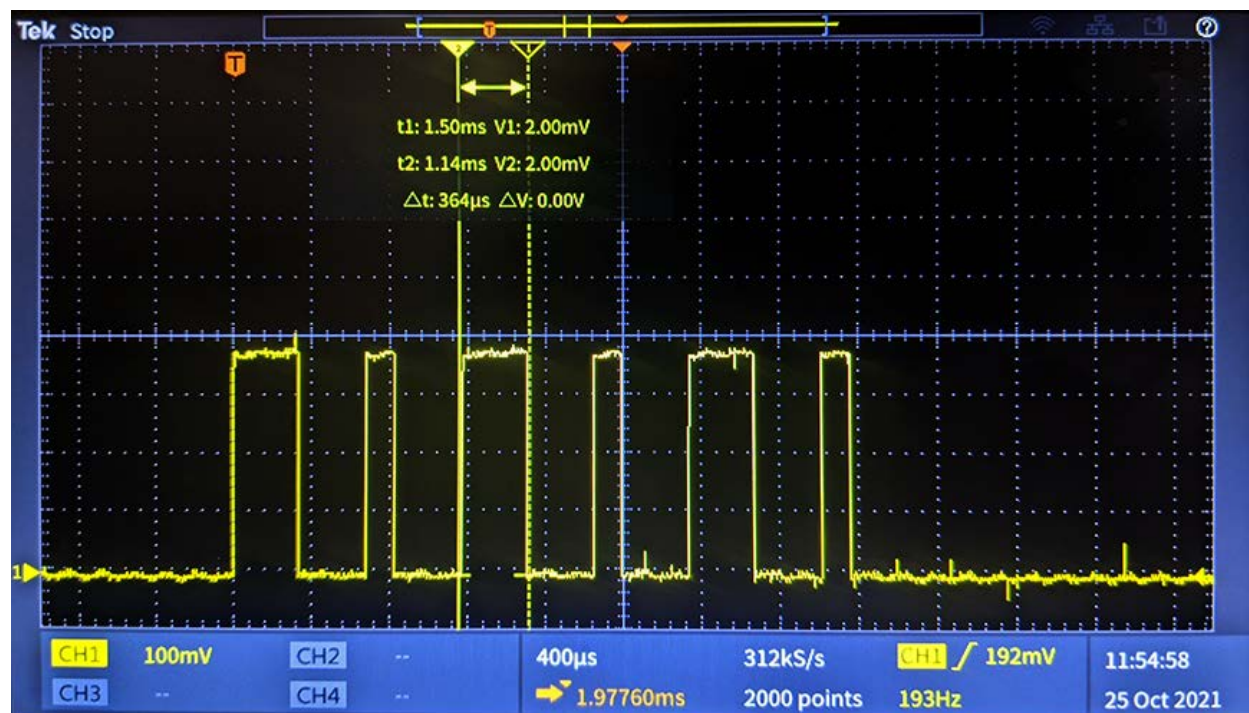
Pulse Width 1 = 339µSec



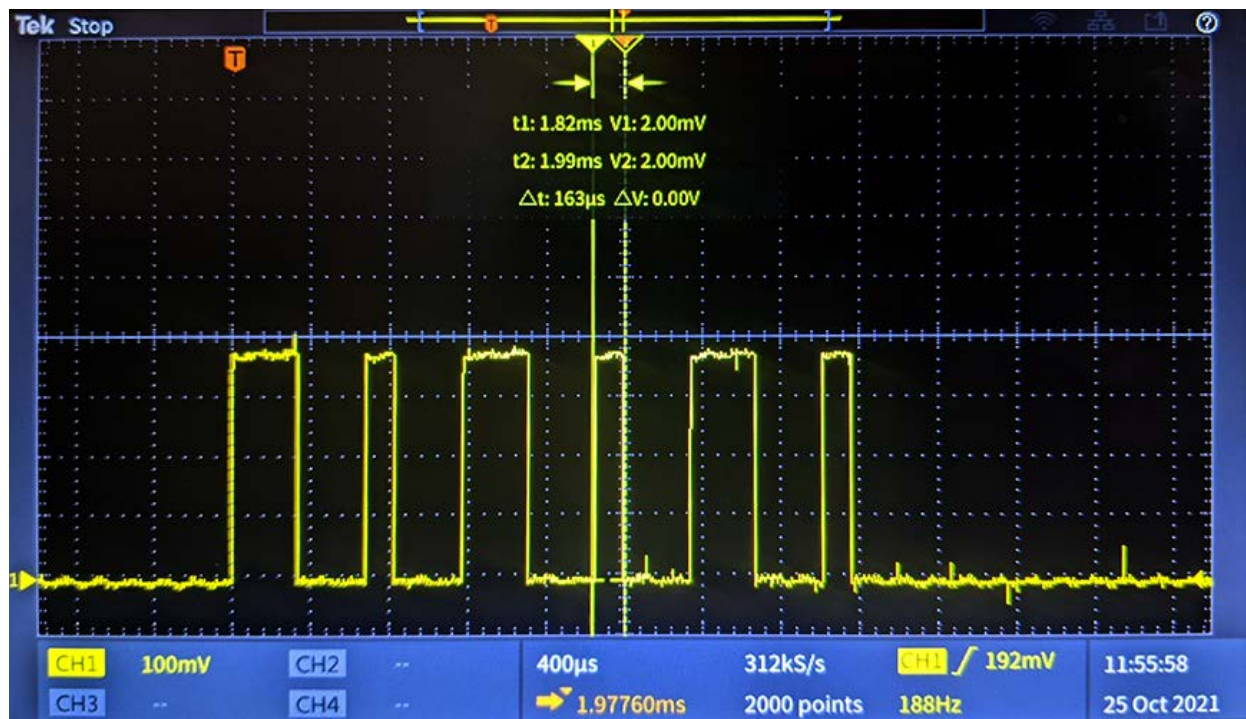
Pulse Width 2 = 155 μ Sec



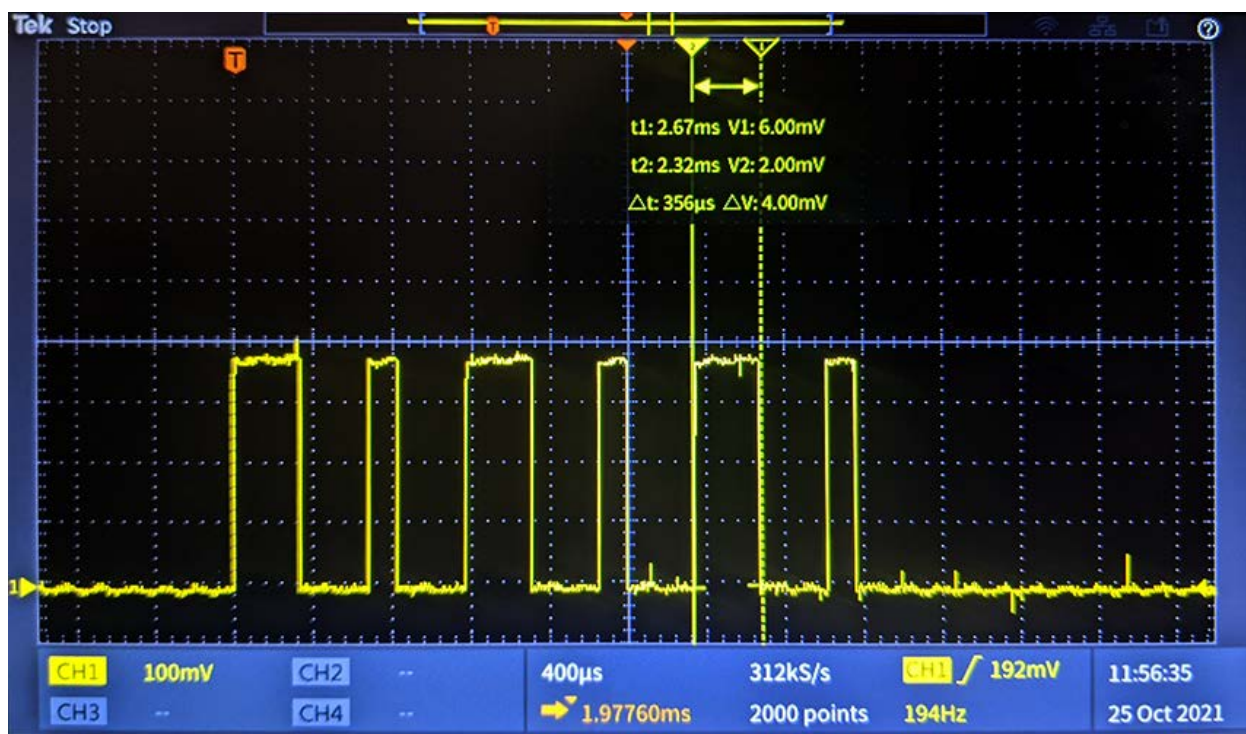
Pulse Width 3 = 364 μ Sec



Pulse Width 4 = 163 μ Sec



Pulse Width 5 = 356 μ Sec



Pulse Width 6 = 163 μ Sec

