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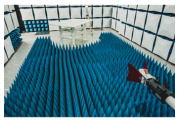

RF EXPOSURE EVALUATION
Maximal Permissible Exposure [MPE]

Applicant Name:
ClearTrac Technologies, LLC
730 Quail Hollow Drive
Elizabethton, CO 37643
United States

Date of Testing:
7/31/2020 to 8/20/2020
Test Site/Location:
PCTEST Lab. Columbia, MD, USA
Test Report Serial No.:
1M2009170149-01.2AVN9

FCC ID:	**2AVN910633**
APPLICANT:	**ClearTrac Technologies, LLC**

Application Type:	Certification
Model:	Base-001
Operating Frequency:	131.3kHz
EUT Type:	Wireless Base Charger
FCC Classification:	Part 15 Low Power Transmitter Below 1705 kHz (DCD)
FCC Rule Part:	FCC Part 1 (§1.1310) and Part 2 (§2.1091)
Test Procedure(s):	KDB 680106 D01 v03

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in FCC KDB 680106 D01 v03. Test results reported herein relate only to the item(s) tested.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Randy Ortanez
President

ACCREDITED
CERT #2041.01

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1.0 RF EXPOSURE EVALUATION – MAXIMUM PERMISSIBLE EXPOSURE (MPE)

1.1 Introduction

This document is prepared to show compliance with the RF Exposure requirements as required in §1.1310 of the FCC Rules and Regulations and RSS-102 of Industry Canada.

The limit for Maximum Permissible Exposure (MPE), specified in FCC §1.1310, is listed in Table 1-1. According to FCC §1.1310 and RSS-102: the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified in §1.1307(b).

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (Minutes)
(A) Limits For Occupational / Control Exposures (f = frequency)				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*($900/f^2$)	6
30-300	61.4	0.163	1.0	6
300-1500	…	…	f/300	6
1500-100,000	…	…	5.0	6
(B) Limits For General Population / Uncontrolled Exposure (f = frequency)				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500	…	…	f/1500	30
1500-100,000	…	…	1.0	30

Table 1-1. Limits for Maximum Permissible Exposure (MPE)

1.2 EUT Description

The **ClearTrac Technologies, LLC Wireless Base Charger FCC ID: 2AVN910633** is a wireless charging system that can charge up to four CarePath Device handles at the same time. Wireless power transfer is initiated when the dummy load is placed on the charger system. The manufacturer supplied four modified CarePath Device handles with dummy loads that apply continuous maximum load to the Base Station Charger.

1.3 Test Equipment

Test equipment calibration is traceable to the National Institute of Standards and Technology (NIST).

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Narda	EHP-200AC	Electric & Magnetic Field Probe	9/27/2019	Annual	9/27/2020	170WX70211

Table 1-2. Test Equipment List

1.4 Test Setup

Maximum E-field and H-field measurements were made on each of five sides of the EUT that could come in contact with a user. The five sides are defined as follows: Front (A), Right side (B), Left side (C), Rear (D), and Top (E). Refer to the test setup photograph exhibit.

Test Configuration

All E-field and H-field measurements are performed at the following test distances:

Probe	Condition	Test Distance (cm)
E-field	Tabletop	15, 20
H-field	Tabletop	15, 20

Table 1-3. Test Distances

1.5 Test Summary

Test Date(s): 7/31 – 8/20/2020

Test Engineer: John Reidell

FCC Section	Description	Result
2.1091	E-field / H-Field Measurements	PASS

Table 1-4. Summary of Test Results

1.6 Test Results

The procedure used to determine the RF power density for the mobile condition was based upon E-field and H-field measurements recorded using a calibrated probe. All measurements were recorded with the EUT (the charging system) transferring power to 4 Rx dummy loads that support the WPC charging protocols. The pad itself was running off of a 120VAC power supply.

Care was exercised to ensure that the charging system was transferring power to the dummy loads throughout the duration of the field strength measurements.

During testing, the charging system with WPC dummy load was placed on a non-conductive (composite plastic) table top. The probe was positioned at the location where there is maximum field strength on each side of the EUT. The maximum E-field and H-field is reported below.

E Measurements (V/m)	Distance from probe (cm)	
	15	20
A (Front)	0.347	0.258
B (Right)	0.212	0.196
C (Left)	0.173	0.164
D (Rear)	0.164	0.164
E (Top)	0.285	0.157

Table 1-5. E-field Measurements for Decremental Test Distances

H Measurements (A/m)	Distance from probe (cm)	
	15	20
A (Front)	0.101	0.094
B (Right)	0.094	0.094
C (Left)	0.094	0.094
D (Rear)	0.100	0.094
E (Top)	0.240	0.114

Table 1-6. H-field Measurements for Decremental Test Distances Summary Table

2.0 CONCLUSION

The device meets the mobile RF exposure limit at a 20cm separation distance as specified in §2.1091 of the FCC Rules and Regulations and Health Canada Safety Code 6. An appropriate RF exposure compliance statement will be placed in the user's manual.