IEEE C95.1
KDB 447498 D03
47 C.F.R. Part 1, Subpart I, Section 1.1310
47 C.F.R. Part 2, Subpart J, Section 2.1091

RF EXPOSURE REPORT

For

Fully Automatic Belt-Drive Wireless Streaming Turntable

Model: PRO200BT, iT96

Trade Name: ION

Issued to

ION Audio, LLC
200 Scenic View Drive, Cumberland, RI 02864, U.S.A.

Issued By

Compliance Certification Services Inc.

Tainan Laboratory

No.8,Jiucengling, Xinhua Dist., Tainan City 712, Taiwan (R.O.C.)

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Issued Date: February 13, 2019

Report No.: T180917N02-MF

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	November 02, 2018	Initial Issue	ALL	Sunny Chang
01	February 13, 2019	See the following note rev.01	Page 5	Sunny Chang

Note:

※ Rev.00 Issue Date: November 02, 2018
Original Report

※ Rev.01 Issue Date: February 13, 2019
Typo

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1. TEST RESULT CERTIFICATION

We hereby certify that:

The equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirement of the applicable standards. The test record, data evaluation and Equipment under Test (EUT) configurations represented herein are true and accurate accounts of the measurement of the sample's RF characteristics under the conditions specified in this report.

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
IEEE C95.1 2005 KDB 447498 D03 47 C.F.R. Part 1, Subpart I, Section 1.1310 47 C.F.R. Part 2, Subpart J, Section 2.1091	No non-compliance noted

Approved by:

Jeter Wu
Assistant Manager

Reviewed by:

Eric Huang
Section Manager

2. LIMIT

According to §15.247(i), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.

3. EUT SPECIFICATION

EUT	Fully Automatic Belt-Drive Wireless Streaming Turntable		
Model	PRO200BT, iT96		
Trade Name	ION		
Model Discrepancy	N/A		
Frequency band (Operating)	☐ 802.11b/g/n HT20: 2412MHz ~ 2462MHz 802.11n HT40: 2422MHz ~ 2452MHz ☒ Others 2402MHz ~ 2480MHz (BT3.0)		
Device category	☐ Portable (<20cm separation) ☒ Mobile (>20cm separation) ☐ Others		
Exposure classification	☐ Occupational/Controlled exposure (S = 5mW/cm2) ☒ General Population/Uncontrolled exposure (S=1mW/cm2)		
Antenna Specification	PIFA Antenna / Gain: 2.04 dBi	(Numeric gain: 1.60)	worst
Maximum Average output power	GFSK: 8-DPSK	1.237 dBm -1.164 dBm	(1.437 mW) (0.847 mW)
Maximum Tune up Power	GFSK: 8-DPSK:	1.5 dBm -1 dBm	(1.413 mW) (0.794 mW)
Evaluation applied	☒ MPE Evaluation* ☐ SAR Evaluation ☐ N/A		

Remark: To add model(iT96) all the same of the original model(PRO200BT), design, except for different models name and is just for the marketing purpose.

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4. TEST RESULTS

No non-compliance noted.

Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter
P = Power in Watts
G = Numeric antenna gain
d = Distance in meters
S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

P (mW) = P (W) / 1000 and

d (cm) = d(m) / 100

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$ ***Equation 1***

Where d = Distance in cm
P = Power in mW
G = Numeric antenna gain
S = Power density in mW / cm²

5. MAXIMUM PERMISSIBLE EXPOSURE

Substituting the MPE safe distance using d = 20 cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where *P = Power in mW*

G = Numeric antenna gain

S = Power density in mW / cm²

GFSK:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm²	Limit (mW/cm2)	Result
Mid	2441	1.413	1.60	20	0.0004	1	Pass

8-DPSK:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm²	Limit (mW/cm2)	Result
Mid	2441	0.794	1.60	20	0.0003	1	Pass