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Report No.: T180917N02-MF

Page: 1 / 7
Rev.: 01

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
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Issued Date: February 13, 2019

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
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Report No.: T180917N02-MF

Page: 2 / 7
Rev.: 01

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



Report No.: T180917N02-MF

Page: 3 / 7
Rev.: 01

TABLE OF CONTENTS

1. TEST RESULT CERTIFICATION	4
2. LIMIT	5
3. EUT SPECIFICATION.....	5
4. TEST RESULTS	6
5. MAXIMUM PERMISSIBLE EXPOSURE.....	7



Report No.: T180917N02-MF

Page: 4 / 7
Rev.: 01

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			
Model Discrepancy	N/A		
Frequency band (Operating)	<input type="checkbox"/> 802.11b/g/n HT20: 2412MHz ~ 2462MHz 802.11n HT40: 2422MHz ~ 2452MHz <input checked="" type="checkbox"/> Others 2402MHz ~ 2480MHz (BT3.0)		
Device category	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others		
Exposure classification	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm2) <input checked="" type="checkbox"/> 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:	1.237 dBm	(1.437 mW)
	8-DPSK:	-1.164 dBm	(0.847 mW)
Maximum Tune up Power	GFSK:	1.5 dBm	(1.413 mW)
	8-DPSK:	-1 dBm	(0.794 mW)
Evaluation applied	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> 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.

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:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$

$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

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

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²



Report No.: T180917N02-MF

Page: 7 / 7
Rev.: 01

5. MAXIMUM PERMISSIBLE EXPOSURE

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

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

Where $P = \text{Power in mW}$

$G = \text{Numeric antenna gain}$

$S = \text{Power density in mW / cm}^2$

GFSK:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	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 / cm ²	Limit (mW/cm2)	Result
Mid	2441	0.794	1.60	20	0.0003	1	Pass