



**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**

**Pro Single Deck Media player w/platter**

**Model: SC5000M PRIME**

**Data Applies To: N/A**

**Trade Name: DENON DJ**

*Issued to*

**inMusic Brands, Inc.  
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.)  
TEL: 886-6-580-2201  
FAX: 886-6-580-2202  
<http://www.ccsrf.com>  
E-Mail : [service@ccsrf.com](mailto:service@ccsrf.com)  
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## Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	June 13, 2018	Initial Issue	ALL	Gina Lin



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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:**

**Reviewed by:**

A handwritten signature in black ink, appearing to read 'Jeter Wu', is written over a horizontal line.

**Jeter Wu**  
Assistant Manager

A handwritten signature in black ink, appearing to read 'Eric Huang', is written over a horizontal line.

**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

<b>EUT</b>	Pro Single Deck Media player w/platter		
<b>Model</b>	SC5000M PRIME		
<b>Brand</b>	DENON DJ		
<b>RF Module</b>	SMSC	<b>Model:</b>	AP6335
<b>Frequency band (Operating)</b>	<input checked="" type="checkbox"/> 802.11b/g/n HT20: 2.412GHz ~ 2.462GHz 802.11n HT40: 2.422GHz ~ 2.452GHz 802.11a/n HT20: 5.180GHz ~ 5.240GHz / 5.745 ~ 5.825GHz 802.11n HT40: 5.190GHz ~ 5.230GHz / 5.755~ 5.795GHz 802.11ac VHT80: 5.210GHz / 5.775GHz <input checked="" type="checkbox"/> Others		
<b>Device category</b>	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others		
<b>Exposure classification</b>	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm <sup>2</sup> ) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm <sup>2</sup> )		
<b>Antenna Specification</b>	PCB Antenna / Gain: 4.600 dBi (Numeric gain: 2.88) worst		
<b>Maximum Average output power</b>	IEEE 802.11b Mode :	17.72 dBm	(59.156 mW)
	IEEE 802.11g Mode :	18.60 dBm	(72.444 mW)
	IEEE 802.11n HT20 Mode :	21.98 dBm	(157.761 mW)
	Bluetooth 4.0 Mode :	1.49 dBm	(1.409 mW)
<b>Maximum Tune up Power</b>	IEEE 802.11b Mode :	17.82 dBm	(60.534 mW)
	IEEE 802.11g Mode :	18.70 dBm	(74.131 mW)
	IEEE 802.11n HT20 Mode :	22.08 dBm	(161.436 mW)
	Bluetooth 4.0 Mode :	1.59 dBm	(1.442 mW)
<b>Evaluation applied</b>	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A		

## 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 / cm<sup>2</sup>

## 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 / cm<sup>2</sup>

IEEE 802.11b Mode :

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm <sup>2</sup>	Limit (mW/cm2)	Result
Mid	2437	60.534	2.88	20	0.0347	1	Pass

IEEE 802.11g Mode :

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm <sup>2</sup>	Limit (mW/cm2)	Result
High	2462	74.131	2.88	20	0.0425	1	Pass

IEEE 802.11n HT 20 Mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm <sup>2</sup>	Limit (mW/cm2)	Result
Low	2437	161.436	2.88	20	0.0925	1	Pass

Bluetooth 4.0 Mode :

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm <sup>2</sup>	Limit (mW/cm2)	Result
Mid	2442	1.442	2.88	20	0.0008	1	Pass