



FCC ID.: Y40- FORCE
Report No.: T190401N03-MF

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**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

Standalone Cliplauncher W/7inch Touchdisplay

Model: FORCE, Force, ADA2, AdA2

Data Applies To: N/A

Trade Name: 

Issued to

**inMusic Brands, Inc.
200 Scenic View Drive, Cumberland, RI 02864, U.S.A.**

Issued By

**Compliance Certification Services Inc.
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City 24891, Taiwan. (R.O.C.)**

Issued Date: August 07, 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.
除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部分複製。

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REVISION HISTORY

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	May 23, 2019	Initial Issue	ALL	Angel Cheng
01	July 23, 2019	See the following note rev.01	ALL	Angel Cheng
02	August 07, 2019	See the following note rev.02	ALL	Angel Cheng

Note:

- ※ Rev.00 Issue Date: May 23, 2019
Original Report
- ※ Rev.01 Issue Date: July 23, 2019
Update EUT Specification.
- ※ Rev.02 Issue Date: August 07, 2019
Modify EUT name.



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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
Statements of Conformity	
Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.	

Approved by:



Kevin Tsai
Deputy Manager
Compliance Certification Services Inc.

Reporter:




Angel Cheng
Report coordinator
Compliance Certification Services Inc.

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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	Standalone Cliplauncher W/7inch Touchdisplay		
Model	FORCE, Force, ADA2, AdA2		
Brand			
RF Module	SMSC	Model:	AP6255
Frequency band (Operating)	<input checked="" type="checkbox"/> IEEE 802.11b/g, 802.11n HT20: 2412MHz~2462MHz <input checked="" type="checkbox"/> Bluetooth 4.0: 2402MHz~2480MHz		
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/cm ²) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1.65mW/cm ²)		
Antenna Specification	PCB Antenna / Gain: 4.6 dBi (Numeric gain: 2.88) worst		
Maximum Output power	IEEE 802.11b Mode :	15.41 dBm	(34.754 mW)
	IEEE 802.11g Mode :	19.76 dBm	(94.624 mW)
	IEEE 802.11n HT20 Mode :	20.06 dBm	(101.391 mW)
	Bluetooth 4.0 Mode :	5.63 dBm	(3.656 mW)
Maximum Average output power	IEEE 802.11b Mode :	12.38 dBm	(17.298 mW)
	IEEE 802.11g Mode :	11.26 dBm	(13.366 mW)
	IEEE 802.11n HT20 Mode :	11.42 dBm	(13.868 mW)
	Bluetooth 4.0 Mode :	5.20 dBm	(3.311 mW)
Maximum Tune up Power	IEEE 802.11b Mode :	13.000 dBm	(19.953 mW)
	IEEE 802.11g Mode :	13.000 dBm	(19.953 mW)
	IEEE 802.11n HT20 Mode :	13.000 dBm	(19.953 mW)
	Bluetooth 4.0 Mode :	6.000 dBm	(3.981 mW)
Evaluation applied	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A		
Reported Date	May 23, 2019		

4. TEST RESULTS

No non-compliance noted.

Calculation

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

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

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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

IEEE 802.11b Mode :

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)	Result
High	2462	19.953	2.88	20	0.0114	1	Pass

IEEE 802.11g Mode :

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)	Result
Mid	2437	19.953	2.88	20	0.0114	1	Pass

IEEE 802.11n HT 20 Mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)	Result
High	2462	19.953	2.88	20	0.0114	1	Pass

Bluetooth 4.0 Mode :

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)	Result
High	2480	3.981	2.88	20	0.0023	1	Pass