



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

Page: 1 / 7  
Rev.: 02

**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.  
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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.



Report No.: T190401N03-MF

Page: 3 / 7  
Rev.: 02

## TABLE OF CONTENTS

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

Report No.: T190401N03-MF

## 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.

Report No.: T190401N03-MF

## 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>	Standalone Cliplauncher W/7inch Touchdisplay		
<b>Model</b>	FORCE, Force, ADA2, AdA2		
<b>Brand</b>			
<b>RF Module</b>	SMSC	<b>Model:</b>	AP6255
<b>Frequency band (Operating)</b>	<input checked="" type="checkbox"/> IEEE 802.11b/g, 802.11n HT20: 2412MHz~2462MHz <input checked="" type="checkbox"/> Bluetooth 4.0: 2402MHz~2480MHz		
<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=1.65mW/cm <sup>2</sup> )		
<b>Antenna Specification</b>	PCB Antenna / Gain: 4.6 dBi (Numeric gain: 2.88) worst		
<b>Maximum Output power</b>	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)
<b>Maximum Average output power</b>	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)
<b>Maximum Tune up Power</b>	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)
<b>Evaluation applied</b>	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A		
<b>Reported Date</b>	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 / cm<sup>2</sup>

Report No.: T190401N03-MF

## 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
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 <sup>2</sup>	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 <sup>2</sup>	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 <sup>2</sup>	Limit (mW/cm2)	Result
High	2480	3.981	2.88	20	0.0023	1	Pass