

EMF TEST REPORT

Test Report No. : OT-212-RWD-129
Reception No. : 2102000650
Applicant : SynCrown Inc.
Address : #701 Daeryung Techno Town 8th, 96 Gamasan-ro, GeumCheon, Seoul, KOREA
Manufacturer : SynCrown Inc.
Address : #701 Daeryung Techno Town 8th, 96 Gamasan-ro, GeumCheon, Seoul, KOREA
Type of Equipment : Mobile Sticker Printer
FCC ID. : 2AEPCCPG1
Model Name : PG1
Multiple Model Name : PG1BL, PG1WH, PG1NV, PG1YE, PG1DG, PG1RE, PG1MT, PG1PK, PG1GY, PG1BK
Serial number : N/A
Total page of Report : 8 pages (including this page)
Date of Incoming : June 04, 2020
Date of issue : February 26, 2021

SUMMARY

The equipment complies with the regulation; **FCC PART 15 SUBPART C Section 15.247**

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

Tested by Youngyong Kim/ Assistant Manager ONETECH Corp.	Reviewed by Ha-Ram Lee / Manager ONETECH Corp.	Approved by Ki-Hong, Nam / General Manager ONETECH Corp.
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Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-212-RWD-129	February 26, 2021	Initial Issue	All

1. VERIFICATION OF COMPLIANCE

Applicant : SynCrown Inc.
Address : #701 Daeryung Techno Town 8th, 96 Gamasan-ro, GeumCheon, Seoul, KOREA
Contact Person : Choon Se Lee / Chief Technology Officer
Telephone No. : +82-2-6331-1000
FCC ID : 2AEPCPG1
Model Name : PG1
Brand Name/Trade Name : Pagee / Thermal Mobile Printer
Serial Number : N/A
Date : February 26, 2021

EQUIPMENT CLASS	DTS – DIGITAL TRNSMISSION SYSTEM DSS – PART 15 SPREAD SPECTRUM TRANSMITTER
E.U.T. DESCRIPTION	Mobile Sticker Printer
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	ANSI C63.10: 2013
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT	
AUTHORIZATION REQUESTED	Certification
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC PART 15 SUBPART C Section 15.247
Modifications on the Equipment to Achieve Compliance	None
Final Test was Conducted On	3 m, Semi Anechoic Chamber

- The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

2. GENERAL INFORMATION

2.1 Product Description

The SynCrown Inc., Model PG1 (referred to as the EUT in this report) is an Mobile Sticker Printer. The product specification described herein was obtained from product data sheet or user's manual.

Device Type	Mobile Sticker Printer				
Operating Frequency	Bluetooth	2 402 MHz ~ 2 480 MHz			
	Bluetooth LE (1 Mbps)				
RF Output Power	Bluetooth	1 Mbps	4.53 dBm		
		2 Mbps	6.52 dBm		
		3 Mbps	7.05 dBm		
	Bluetooth LE (1 Mbps)	5.17 dBm			
Number of Channel	Bluetooth	79 Channels			
	Bluetooth LE (1 Mbps)	40 Channels			
Modulation Type	Bluetooth	GFSK for 1 Mbps, $\pi/4$ -DQPSK for 2 Mbps, 8-DPSK for 3 Mbps			
	Bluetooth LE (1 Mbps)	GFSK			
Antenna Type	Bluetooth	PCB Antenna			
	Bluetooth LE (1 Mbps)				
Antenna Gain	Bluetooth	3.03 dBi			
	Bluetooth LE (1 Mbps)				
List of each Osc. or crystal Freq.(Freq. \geq 1 MHz)	40 MHz				
Rated Supply Voltage	DC 7.4 V				

Note: Bluetooth and BLE do not operate simultaneously.

2.2 Alternative type(s)/model(s); also covered by this test report.

- The following lists consist of the added model and their differences.

Model Name	Differences	Tested
PG1	Basic Model	<input checked="" type="checkbox"/>
PG1BL		<input type="checkbox"/>
PG1WH		<input type="checkbox"/>
PG1NV		<input type="checkbox"/>
PG1YE		<input type="checkbox"/>
PG1DG	This model is identical to the basic model except for product color	<input type="checkbox"/>
PG1RE		<input type="checkbox"/>
PG1MT		<input type="checkbox"/>
PG1PK		<input type="checkbox"/>
PG1GY		<input type="checkbox"/>
PG1BK		<input type="checkbox"/>

Note: 1. Applicant consigns only basic model to test. Therefore, this test report just guarantees the units, which have been tested.

2. The Applicant/manufacturer is responsible for the compliance of all variants.

3. EUT MODIFICATIONS

- None

4. MAXIMUM PERMISSIBLE EXPOSURE

4.1 RF Exposure Calculation

According to the FCC rule §1.1310, the limit for General Population/Uncontrolled exposure is 1 mW/cm² for the device operating 1 500 ~ 100 000 MHz.

4.2 EUT Description

Kind of EUT	Mobile Sticker Printer				
Operating Frequency Band	<input checked="" type="checkbox"/> Bluetooth: 2 402 MHz ~ 2 480 MHz <input checked="" type="checkbox"/> Bluetooth LE: 2 402 MHz ~ 2 480 MHz				
MAX. RF OUTPUT POWER	Bluetooth	1 Mbps	4.53 dBm		
		2 Mbps	6.52 dBm		
		3 Mbps	7.05 dBm		
	Bluetooth LE	5.17 dBm			
Antenna Gain	3.03 dBi				
Exposure	<input type="checkbox"/> MPE				
Evaluation Applied	<input type="checkbox"/> SAR <input checked="" type="checkbox"/> SAR Test Exclusion Evaluation				

4.3 Calculated MPE Safe Distance

According to the procedure, KDB 447498 D01, the standalone SAR test exclusion threshold is

$$[(\text{Max. Power of channel, including tune-up tolerance, mW}) / (\text{Min. test separation distance, mm})] \times [\sqrt{f(\text{GHz})}] < 3$$

$$= (5.69/5) \times \sqrt{2.480} = 1.79$$

Conclusion: The SAR test exclusion threshold is less than 3, so the device meets the RF Exposure Requirement and excluded SAR Test.

Mode	Frequency (MHz)	Target Power W/tolerance (dBm)	Max tune up power (dBm)	Max tune up power (mW)	Separation distance (mm)	RF exposure
BDR (1 Mbps)	2 480	4.53 ± 0.5	5.03	3.18	5	1.00
EDR (2 Mbps)	2 402	6.52 ± 0.5	7.02	5.04	5	1.56
EDR (3 Mbps)	2 480	7.05 ± 0.5	7.55	5.69	5	1.79
BLE	2 480	5.17 ± 0.5	5.67	3.69	5	1.16