

RF Exposure Evaluation Report

Report Reference No......: **MTEB22111522-H**

FCC ID.....: **2A57D-GG-AT50EW**

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Date of issue.....: **December 12,2022**

Representative Laboratory Name .: **Shenzhen Most Technology Service Co., Ltd.**

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Applicant's name.....: **ZHUHAI NINESTAR INFORMATION TECHNOLOGY CO.,LTD**

Address: NO.3883,Zhuhai Avenue ,Xiangzhou District,Zhuhai,
Guangdong,P.R. China.

Test specification/ Standard: **47 CFR Part 1.1307**
47 CFR Part 1.1310
KDB447498D01 General RF Exposure Guidance v06

TRF Originator.....: Shenzhen Most Technology Service Co., Ltd.

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Test item description: Portable Lable Printer

Trade Mark: G&G

Manufacturer: ZHUHAI NINESTAR INFORMATION TECHNOLOGY CO.,LTD

Model/Type reference.....: GG-AT 50EW

Listed Models: GG-D1100MW, GG-D110ACW, RM-GG-950, GG-D15

Modulation Type: GFSK, π/4DQPSK

Operation Frequency.....: 2402MHz to 2480MHz

Hardware Version.....: BR2551e

Software Version: BR8051A01B_00_210311_r6055

Rating: DC 5V by USB Port
DC 7.4V by Battery

Result.....: PASS

TEST REPORT

Equipment under Test : Portable Lable Printer

Model /Type : GG-AT 50EW

Listed Models : GG-D1100MW, GG-D110ACW, RM-GG-950, GG-D15

Remark : Only the model name is different

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Test Result:	PASS
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The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2022-12-12	Initial Issue	Alisa Luo

2. SAR Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

2.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

2.1.3 EUT RF Exposure

Antenna Gain: 1.32dbi

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 2.4 in linear scale. Output Power Into Antenna & RF Exposure Evaluation Distance:

BLE

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402 MHz)	-3.628	-3.628 ± 1	-2.628
Middle(2440MHz)	-3.789	-3.789 ± 1	-2.789
Highest(2480MHz)	-4.063	-4.063 ± 1	-3.063

BLE

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold	SAR Test Exclusion
		(dBm)	(mW)			
Middle(2402MHz)	-3.628	-2.628	0.55	0.1694	3.0	Yes

EDR

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402 MHz)	-3.707	-3.707 ± 1	-2.707
Middle(2441MHz)	-3.910	-3.910 ± 1	-2.910
Highest(2480MHz)	-4.418	-4.418 ± 1	-3.418

π/4DQPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402 MHz)	-4.778	-4.778 ± 1	-3.778
Middle(2441MHz)	-4.985	-4.985 ± 1	-3.985
Highest(2480MHz)	-5.292	-5.292 ± 1	-4.292

EDR

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold	SAR Test Exclusion
		(dBm)	(mW)			
Middle(2402MHz)	-3.707	-2.707	0.54	0.166	3.0	Yes

.....THE END OF REPORT.....