



A Test Lab Techno Corp.

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SAR Test Exclusion Evaluation



Test Report No.	: 1505FS12
Applicant	: Lezyne USA, Incorporated
Manufacturer	: LEZYNE USA, INC.
Product Type	: SUPER GPS, POWER GPS
Trade Name	: LEZYNE
Model Number	: Super GPS, Power GPS
Dates of Received	: Mar. 20, 2015
Dates of Test	: May 18, 2015
Dates of Issued	: May 21, 2015
Test Specification	: 47 CFR § 2.1093 IEEE Std. 1528-2003 IEEE Std. 1528a-2005 KDB 447498 D01 General RF Exposure Guidance v05r02 KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r03 KDB 865664 D02 RF Exposure Reporting v01r01
Location of Test Lab.	: Chang-an Lab.

1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
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Approved By

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Contents

1.	<i>Description of Equipment under Test (EUT)</i>	3
2.	<i>SAR Test Exclusion</i>	4
2.1	<i>Conducted Power</i>	5
2.2	<i>Evaluation Results</i>	5



1. Description of Equipment under Test (EUT)

Applicant	Lezyne USA, Incorporated
Applicant Address	645 Tank Farm Road Unit F San Luis Obispo California 93401 United States
Manufacturer	LEZYNE USA, INC.
Manufacturer Address	645 Tank Farm Road Unit F San Luis Obispo CA US 93401 USA
Product Type	SUPER GPS,POWER GPS
Trade Name	LEZYNE
Model Number	Super GPS, Power GPS
Model Different Description	Power GPS without ANT+ function.
FCC ID	2AD4S-GPS-V106
Frequency Range	2402 - 2480 MHz
Transmit Power (conducted power)	0.00338 W / 5.29 dBm
Antenna Specification	-2.41 dBi
Antenna Designation	Internal Antenna
Temperature Range	-10 ~ +70°C

The above equipment was tested by A Test Lab Techno Corp. For compliance with the requirements set forth in 47 CFR § 2.1093. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.



2. SAR Test Exclusion

As RF exposure evaluation of portable device, SAR test is not required when the evaluation results . According to KDB 447498 4.3.1, unless excluded by specific FCC test procedures, portable devices shall include SAR data for equipment approval. SAR test necessity will be based on the exclusion result.

The test exclusion refers KDB 447498 as below:

≤50mm:

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

>50mm and <200mm:

- a) $[\text{Power allowed at numeric threshold for 50 mm in step 1}) + (\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz})/150)] \text{ mW}$, at 100 MHz to 1500 MHz
- b) $[\text{Power allowed at numeric threshold for 50 mm in step 1}) + (\text{test separation distance} - 50 \text{ mm}) \cdot 10] \text{ mW}$ at > 1500 MHz and ≤ 6 GHz

2.1 Conducted Power

Band	Frequency (MHz)	Average Power (dBm)
Bluetooth LE	2402.0	4.32
	2440.0	4.85
	2480.0	5.29

2.2 Evaluation Results

The evaluation of SAR test reduction according to KDB447498

SAR test is not required when the results showed “SAR is not required”.

Extremity SAR:

≤ 50 mm								
Band	Channel	Power (dBm)	Frequency (GHz)	distance (mm)	Power (mW)	Result	Limit	exclusion considerations
								SAR _{1g}
Bluetooth LE	19	6	2.44	5	4	1.2	3	SAR is not required

Note : every requests of distance from the test surface are the same so only need to present one result exclusion.