

RF Exposure Evaluation declaration

Product Name : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Model No. : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL

GPS, MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch, MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS, MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS, MINI Map GPS, MINI Map XL GPS, MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS, MINI Touch Color GPS, MINI Touch Color GPS Watch, MINI Depth Watch

FCC ID : 2AD4S-LEZYNE-GPS07

Applicant : Lezyne USA, Incorporated

Address : 645 Tank Farm Road Unit F San Luis Obispo California
93401 United States

Date of Receipt : Jul. 26, 2016

Date of Declaration : Oct. 03, 2016

Report No. : 1680004R-RFUSP01V00

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

Issued Date: Oct. 03, 2016

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Applicant	Lezyne USA, Incorporated
Address	錯誤! 找不到參照來源。
Manufacturer	Lezyne USA, Incorporated
Model No.	Micro Color GPS,Mini Track GPS,Micro Track GPS,Hecto Track GPS,Femto Track GPS,Mini Touch XL GPS,Micro Touch XL GPS,Hecto Touch XL GPS,Femto Touch XL GPS,Mini Touch GPS watch,Micro Touch GPS
	MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL

	GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch, HECTO GPS, HECTO GPS Watch, HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS, HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS, HECTO Map XL GPS, HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS, HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch, MICRO GPS, MICRO GPS WATCH, MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL, MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS, MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS, MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch, MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS, MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS, MINI Map GPS, MINI Map XL GPS, MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS, MINI Touch Color GPS, MINI Touch Color GPS Watch, MINI Depth Watch
FCC ID.	2AD4S-LEZYNE-CS01
EUT Rated Voltage	DC 3.7V (Power by Battery)
EUT Test Voltage	DC 3.7V (Power by Battery)
Trade Name	LEZYNE
Applicable Standard	FCC 47 CFR 1.1310
Test Result	Complied

Documented By : Jinn Chen
(Senior Adm. Specialist / Jinn Chen)

Tested By : Yulin Chen
(Engineer / Yulin Chen)

Approved By : 
(Director / Vincent Lin)

1. RF Exposure Evaluation

1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18°C and 78% RH.

1.3. Test Result of RF Exposure Evaluation

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Test Item : RF Exposure Evaluation

For BLE

Operation Frequency	2402 – 2480MHz
Maximum Conducted output power	4.35 dBm
Antenna gain	-2.4 dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)
2.722701308	0.000312

Power density is lower than the limit (1 mW/cm²).

For Ant+

Operation Frequency	2403 – 2480MHz
Maximum Conducted output power	3.88 dBm
Antenna gain	-2.4 dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)
2.443430553	0.00028

Power density is lower than the limit (1 mW/cm²).