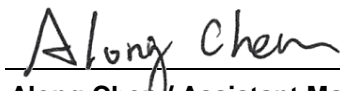


IC RF Exposure Report

IC : 3147A-BL654
Equipment : Bluetooth 5.0 BLE Data Module
Model No. : BL654
Brand Name : Laird
Applicant : Laird Technologies
Address : W66N220 Commerce Court, Cedarburg,
Wisconsin 53012, USA
Standard : RSS-102 Issue 5 March 2015
Received Date : Jan. 30, 2018
Tested Date : Feb. 06 ~ Apr. 24, 2018

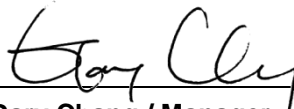
We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:



Along Chen / Assistant Manager

Approved by:



Gary Chang / Manager



Table of Contents

1	RF EXPOSURE EVALUATION FOR MOBILE DEVICE	4
1.1	RF FIELD STRENGTH LIMITS FOR DEVICE USED BY THE GENERAL PUBLIC	4
1.2	RF FIELD STRENGTH EVALUATION FORMULA	4
1.3	EVALUATION RESULTS	5
2	RF EXPOSURE EVALUATION FOR PORTABLE DEVICE	6
2.1	EXEMPTION LIMITS FOR ROUTINE EVALUATION BASED ON FREQUENCY AND SEPARATION DISTANCE	6
2.2	EVALUATION RESULTS	6
3	TEST LABORATORY INFORMATION	7

Release Record

Report No.	Version	Description	Issued Date
CA813002	Rev. 01	Initial issue	Jun. 25, 2018

1 RF EXPOSURE EVALUATION FOR MOBILE DEVICE

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows: at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz.

1.1 RF FIELD STRENGTH LIMITS FOR DEVICE USED BY THE GENERAL PUBLIC

Frequency Range (MHz)	Power Density (W/m ²)	Averaging Time (minutes)
300-6000	$0.02619 f^{0.6834}$	6
6000-15000	10	6

1.2 RF FIELD STRENGTH EVALUATION FORMULA

$$Pd = \frac{Pt}{4 * Pi * R^2}$$

Where

Pd= Power density in W/m²
Pt= EIRP in W
Pi= 3.1416
R= Measurement distance

1.3 EVALUATION RESULTS

Modulation Mode	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (W/m ²)	Limit (W/m ²)
LE-125 kbps	7.20	8	2	20	0.02	5.35
LE-125 kbps	7.41	8	2	20	0.02	5.35
LE-125 kbps	7.50	8	2	20	0.02	5.35
LE-500 kbps	7.19	8	2	20	0.02	5.35
LE-500 kbps	7.40	8	2	20	0.02	5.35
LE-500 kbps	7.49	8	2	20	0.02	5.35
LE-1Mbps	7.19	8	2	20	0.02	5.35
LE-1Mbps	7.40	8	2	20	0.02	5.35
LE-1Mbps	7.49	8	2	20	0.02	5.35
LE-2Mbps	7.19	8	2	20	0.02	5.35
LE-2Mbps	7.39	8	2	20	0.02	5.35
LE-2Mbps	7.49	8	2	20	0.02	5.35

2 RF EXPOSURE EVALUATION FOR PORTABLE DEVICE

SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in table of section 2.1

2.1 EXEMPTION LIMITS FOR ROUTINE EVALUATION BASED ON FREQUENCY AND SEPARATION DISTANCE

Exemption Limits (mW)					
Frequency (MHz)	At separation distance of <= 5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
1900	7	10	18	34	60
2450	4	7	15	30	52
3500	2	6	16	32	55

2.2 EVALUATION RESULTS

Modulation Mode	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Minimum Separation Distance (mm)
LE-125 kbps	7.20	8	2	10	11.875
LE-125 kbps	7.41	8	2	10	11.875
LE-125 kbps	7.50	8	2	10	11.875
LE-500 kbps	7.19	8	2	10	11.875
LE-500 kbps	7.40	8	2	10	11.875
LE-500 kbps	7.49	8	2	10	11.875
LE-1Mbps	7.19	8	2	10	11.875
LE-1Mbps	7.40	8	2	10	11.875
LE-1Mbps	7.49	8	2	10	11.875
LE-2Mbps	7.19	8	2	10	11.875
LE-2Mbps	7.39	8	2	10	11.875
LE-2Mbps	7.49	8	2	10	11.875

3 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

Linkou

Tel: 886-2-2601-1640

No. 30-2, Ding Fwu Tsuen, Lin
Kou District, New Taipei City,
Taiwan, R.O.C.

Kwei Shan

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd St.,
Kwei Shan District, Tao Yuan City
333, Taiwan, R.O.C.

Kwei Shan Site II

Tel: 886-3-271-8640

No. 14-1, Lane 19, Wen San 3rd
St., Kwei Shan District, Tao Yuan
City 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666

Fax: 886-3-318-0155

Email: ICC_Service@icertifi.com.tw

==END==