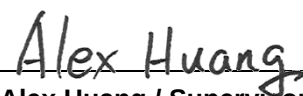


CE RF Exposure Report

Equipment : Bluetooth BT5.4 Dual Model Module
Model No. : Vela IF820
Brand Name : Laird Connectivity
Applicant : Laird Connectivity LLC
Address : W66N220 Commerce Court, Cedarburg, WI
53012 United States Of America
Standard : EN 62479:2010
EN 50663:2017
Received Date : Apr. 18, 2023
Tested Date : Aug. 08 ~ Sep. 05, 2023

We, International Certification Corporation, 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 shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:


Alex Huang / Supervisor

Approved by:

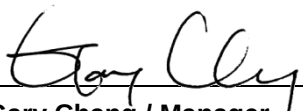

Gary Chang / Manager

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Release Record

Report No.	Version	Description	Issued Date
EA341801	Rev. 01	Initial issue	Sep. 19, 2023

1 General Description

1.1 Information

1.1.1 Product Details

The EUT is available in SA module (integrated antenna) and SC module (IPEX MHF4 connector) variants.

Model Name	Part No.	Module
Vela IF820	453-00171	SA Module, Vela IF820, Integrated Antenna
	453-00172	SC Module, Vela IF820, MHF4

1.1.2 Specification of the Equipment under Test (EUT)

RF General Information				
Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number	Data Rate
2400-2483.5	BR	2402-2480	0-78 [79]	1 Mbps
2400-2483.5	EDR	2402-2480	0-78 [79]	2 Mbps
2400-2483.5	EDR	2402-2480	0-78 [79]	3 Mbps
Note 1: Bluetooth BR uses a GFSK modulation.				
Note 2: Bluetooth EDR uses a combination of $\pi/4$ -DQPSK and 8DPSK modulation.				

RF General Information				
Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number	Data Rate
2400-2483.5	LE	2402-2480	40	1 Mbps
		2404-2478	37	2 Mbps
Note: Bluetooth LE (Low energy) uses GFSK modulation.				

1.1.3 Antenna Details

Ant. No.	Manufacturer	Model	Laird Part Number	Type	Connector	Gain	Cable loss (dB)
1	Laird	NanoBlue	EBL2400A1-10M H4L	PCB Dipole	IPEX MHF4	2dBi	N/A
2	Laird	FlexPIFA	001-0022	PCB Dipole	IPEX MHF4	2dBi	N/A
3	Mag.Layers	EDA-8709-2G4C1-B27-CY	0600-00057	Dipole	IPEX MHF4	2.32dBi	0.7
4	Laird	mFlexPIFA	EFA2400A3S-10 MH4L	PIFA	IPEX MHF4	2dBi	N/A
5	ACX	AD1608	AD1608-A2455A AT/LF	Chip Antenna	N/A	1dBi	N/A

1.1.4 EUT Operational Condition

Power Supply Type	3Vdc from host
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2 RF exposure evaluation

2.1 Limits

Equipment where the available antenna power and/or the average total radiated power is less than or equal to the 20mW (13dBm).

2.2 Deviation from Test Standard and Measurement Procedure

None

2.3 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Parameters	Uncertainty
Conducted power	±0.808 dB

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

2.4 Evaluation Results

SC module

Mode	Maximum Conducted Power (dBm)	Gain (dBi)	Maximum E.I.R.P. (dBm)	Limit (dBm)	PASS / FAIL
BT EDR	7.18	2	9.18	13	Pass
BT LE	7.17	2	9.17	13	Pass

SA module

Mode	Maximum Conducted Power (dBm)	Gain (dBi)	Maximum E.I.R.P. (dBm)	Limit (dBm)	PASS / FAIL
BT EDR	6.66	1	7.66	13	Pass
BT LE	8.25	1	9.25	13	Pass

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 Corporation (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

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District, New Taipei City, Taiwan
(R.O.C.)

Kwei Shan

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St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)
No.2-1, Lane 6, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)

Kwei Shan Site II

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)

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

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Fax: 886-3-318-0345

Email: ICC_Service@icertifi.com.tw

==END==