TEST REPORT

Product Name	**:**	**2pk RGBIC LED Light Bars, DUO ADVANCED LIGHT BARS**
Model Number	**:**	**WA-MLT03-999T**
FCC ID	**:**	**2A935MLT03**

Prepared for	:	Arcus Industrial Limited.
Address	:	Room 2502,Zhongnongxin Building,No. 181.East Zhongshan Road, Haishu District, Ningbo, China
Prepared by	:	EMTEK (DONGGUAN) CO., LTD.
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Report Number	:	EDG2301160080E00402R
Date(s) of Tests	:	January 16, 2023 to March 6, 2023
Date of issue	:	March 6, 2023

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1. TEST RESULT CERTIFICATION

Applicant	:	Arcus Industrial Limited.
Address	:	Room 2502,Zhongnongxin Building,No. 181.East Zhongshan Road, Haishu District, Ningbo, China
Manufacturer	:	Ningbo Jinchen Electronics Co.,Ltd
Address	:	5 floor 4Building no.555 huishi Road guangshen village,jishigang haishu ningbo Zhejiang province
EUT	:	2pk RGBIC LED Light Bars, DUO ADVANCED LIGHT BARS All products are the same, only the product names are different.
Model Name	:	WA-MLT03-999T
Trademark	:	N/A

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
§ 15.247(i), § 2.1093	**PASS**

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093.
The test results of this report relate only to the tested sample identified in this report

Date of Test : January 16, 2023 to March 6, 2023

Prepared by : Warren Deng

Warren Deng /Editor

Reviewer : Tim Dong

Tim Dong/ Supervisor

Approve & Authorized Signer :

Sam Lv / Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2301160080E00402R	/	Original Report

2. EUT Specification

Characteristics	Description
Product:	2pk RGBIC LED Light Bars, DUO ADVANCED LIGHT BARS All products are the same, only the product names are different.
Model Number:	WA-MLT03-999T
Sample:	2#
Device Type:	Bluetooth V5.2
Data Rate:	1Mbps, 2Mbps
Modulation:	GFSK
Operating Frequency Range(s) :	2402-2480MHz
Number of Channels:	40 Channels
Transmit Power Max:	4.66 dBm(0.002924W)
Antenna Gain:	2.99 dBi
Power supply:	DC 5V from USB
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement:

RF EXPOSURE EVALUATION

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
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

Friis transmission formula: Pd= (Pout*G)\ (4*pi*R^2)

Where

Pd= Power density in mW/cm^2

Pout=output power to antenna in mW

G= Numeric gain of the antenna relative to isotropic antenna

Pi=3.1416

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

Pd the limit of MPE, $1mW/cm^2$. If we know the maximum gain of the nd total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

4. Measurement Result

Antenna gain:
2.4G: 2.99 dBi

1M: Antenna A

Channel	Channel Freq. (MHz)	Measured power (dBm)	Tune-up power (dBm)	Max tune-up power (dBm)	Max tune up power tolerance (mW)	Antenna Gain Numeric	Power Density at R=20cm (mW/cm2)	Power density Limits (mW/cm2)
0	2402	4.66	4±1	5	3.16	1.991	0.001252	1
19	2440	3.53	3±1	4	2.51	1.991	0.000995	1
39	2480	3.14	3±1	4	2.51	1.991	0.000995	1

2M: Antenna A

Channel	Channel Freq. (MHz)	Measured power (dBm)	Tune-up power (dBm)	Max tune-up power (dBm)	Max tune up power tolerance (mW)	Antenna Gain Numeric	Power Density at R=20cm (mW/cm2)	Power density Limits (mW/cm2)
0	2402	4.64	4±1	5	3.16	1.991	0.001252	1
19	2440	3.54	3±1	4	2.51	1.991	0.000995	1
39	2480	3.15	3±1	4	2.51	1.991	0.000995	1

According to KDB 447498, no stand-alone required for BLE antenna, and no simultaneous SAR measurement is required.

*** End of Report ***