RF EXPOSURE REPORT

Applicant	TCL Technoly Electronics(Huizhou) Co., Ltd.
Address	Section 37, Zhongkai High-tech Development Zone, Huizhou City, Guang Dong Province, China, 516006.

Manufacturer or Supplier	TCL Technoly Electronics(Huizhou) Co., Ltd.
Address	Section 37, Zhongkai High-tech Development Zone, Huizhou City, Guang Dong Province, China, 516006.
Product	Bluetooth Module
Brand Name	N/A
Test Model	TBM-A2823
Additional Model & Model Difference	N/A
Date of tests	May 31, 2018 ~ Jul. 18, 2018

☒ **FCC Part 2 (Section 2.1091)**
☒ **KDB 447498 D01**
☒ **IEEE C95.1**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Andy Zhu Project Engineer / EMC Department	Approved by Glyn He Supervisor / EMC Department
	 Date: Jul. 31, 2018

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM180531N039-1	Original release	Jul. 31, 2018

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1. CERTIFICATION

PRODUCT:	Bluetooth Module
BRAND NAME:	N/A
TEST MODEL	TBM-A2823
ADDITIONAL MODEL:	N/A
FCC ID:	ZVA12
TEST SAMPLE:	ENGINEERING SAMPLE
APPLICANT:	TCL Technoly Electronics(Huizhou) Co., Ltd.
TESTED DATE:	Jul. 18, 2018
STANDARDS:	FCC Part 2 (Section 2.1091) KDB 447498 D01 IEEE C95.1

2. RF EXPOSURE LIMIT

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)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

3. MPE CALCULATION FORMULA

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Frequency Band	Transmitter Circuit	Peak Gain (dBi)	Antenna Type
2402-2480	Chain 0	2.0	PCB Antenna

6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
GFSK	2402-2480	3	+-1	2	4
8DPSK	2402-2480	2	+-1	1	3
BT-LE(GFSK)	2402-2480	1	+-1	0	2

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
GFSK	2441	3.37
8DPSK	2441	2.46
BT-LE (GFSK)	2440	1.55

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
2402-2480	4	2	20	0.000792	1.0

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