

# **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	TCL Technoly Electronics(Huizhou) Co., Ltd		
Address	Section 37, Zhongkai High-tech D Province, China, 516006.	evelopment Zone, Huizhou City, Guang Dong		
Product	Bluetooth Module			
Brand Name	N/A			
Model	EXM1020D			
Additional Model & Model Difference	N/A			
Date of tests	Mar. 27, 2018 ~ Apr. 25, 2018			
KDB 447498 D0	- 	COMPLY with the test requirement		
	sted by Andy Zhu gineer / EMC Department	Approved by Glyn He Supervisor/ EMC Department		
Andy Date: Jun. 04, 2018				
http://www.bureauveritas.com replication of this report to or report sets forth our finding representative of the quality expressly noted. Our report Measurement uncertainty is of material error or omission ca and shall specifically address	<u>Ahome/about-us/our-business/cps/about-us/terms-</u> for any other person or entity, or use of our nam s solely with respect to the test samples identi or characteristics of the lot from which a test samplicudes all of the tests requested by you and the only provided upon request for accredited tests. Yu used by our negligence or if you require measurer	ervice as posted at the date of issuance of this report at <u>conditions/and</u> is intended for your exclusive use. Any copying or e or trademark, is permitted only with our prior written permission. This field herein. The results set forth in this report are not indicative or ple was taken or any similar or identical product unless specifically and the results thereof based upon the information that you provided to us. Ou have 60 days from date of issuance of this report to notify us of any ment uncertainty; provided, however, that such notice shall be in writing such issue within the prescribed time shall constitute you unqualified		

Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch No. 34, Chenwulu Section, Guantai Rd., Houjie Town, Dongguan City, Guangdong 523942, China

Tel: +86 769 8593 5656 Fax: +86 769 8593 1080 Email: <u>customerservice.dg@cn.bureauveritas.com</u>



## TABLE OF CONTENTS

RELE	ASE CONTROL RECORD	3
1.	CERTIFICATION	4
	RF EXPOSURE LIMIT	
3.	MPE CALCULATION FORMULA	.5
	CLASSIFICATION	
	ANTENNA GAIN	
6.	CALCULATION RESULT OF MAXIMUM CONDUCTED POWER	.6



## **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM180327N029	Original release	Jun. 04, 2018



## **1. CERTIFICATION**

FCC ID:	ZVAOH000021	
PRODUCT:	Bluetooth Module	
BRAND NAME:	N/A	
MODEL NO.:	EXM1020D	
ADDITIONAL NO.:	N/A	
APPLICANT:	T: TCL Technoly Electronics(Huizhou) Co., Ltd	
STANDARDS:	FCC Part 2 (Section 2.1091)	
	KDB 447498 D01	
	IEEE C95.1	

Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch No. 34, Chenwulu Section, Guantai Rd., Houjie Town, Dongguan City, Guangdong 523942, China

Tel: +86 769 8593 5656 Fax: +86 769 8593 1080 Email: <u>customerservice.dg@cn.bureauveritas.com</u>



## 2. RF EXPOSURE LIMIT

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD MAGNETIC FIELD STRENGTH (V/m) STRENGTH (A/m)		POWER DENSITY (mW/cm <sup>2</sup> )	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:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type	
Chain 0	3.3	Integral PCB Antenna	

### 6. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER

The tuned conducted Average Power (declared by client)

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

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)	
LE-GFSK	2480	-0.48	

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm²)
2402-2480	1	3.3	20	0.000535	1.0

--- END ----

Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch No. 34, Chenwulu Section, Guantai Rd., Houjie Town, Dongguan City, Guangdong 523942, China Tel: +86 769 8593 5656 Fax: +86 769 8593 1080 Email: <u>customerservice.dg@cn.bureauveritas.com</u>