



## Shenzhen Huaxia Testing Technology Co., Ltd

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua District, Shenzhen, China

Telephone: +86-755-26648640

Fax: +86-755-26648637

Website: [www.cqa-cert.com](http://www.cqa-cert.com)

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# RF Exposure Evaluation Report

**Report No. :** CQASZ20190900900E-02  
**Applicant:** ManguTechnologyCo.LT  
**Address of Applicant:** 1 east chang 'an street 100010 Dongcheng District, China  
**Equipment Under Test (EUT):**  
**EUT Name:** Ez more  
**Model No.:** Ti10  
**Brand Name:** Ez more  
**FCC ID:** 2AURF-TI1020191  
**Standards:** 47 CFR Part 1.1307  
47 CFR Part 1.1310  
KDB447498D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2019-09-09  
**Date of Test:** 2019-09-11 to 2019-09-23  
**Date of Issue:** 2019-09-23  
**Test Result :** **PASS\***

\*In the configuration tested, the EUT complied with the standards specified above

**Tested By:**

*Tom Chen.*

(Tom chen)

**Reviewed By:**

*Sheek, Luo*

(Sheek Luo)

**Approved By:**

*Jack Ai*  
( Jack Ai)



## 1 Version

### Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20190900900E-02	Rev.01	Initial report	2019-09-23

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### 3 General Information

#### 3.1 Client Information

Applicant:	ManguTechnologyCo.LT
Address of Applicant:	1 east chang 'an street 100010 Dongcheng District, China
Manufacturer:	ManguTechnologyCo.LT
Address of Manufacturer:	1 east chang 'an street 100010 Dongcheng District, China

#### 3.2 General Description of EUT

Product Name:	Ez more
Test Model No.:	Ti10
Trade Mark:	Ez more
Hardware Version:	nRF51_2.0.1
Software Version:	R10V_19.0.1
Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	V4.2
Modulation Type:	GFSK
Transfer Rate:	1Mbps
Number of Channel:	40
Product Type:	<input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Test Software of EUT:	nRFgo Studio (manufacturer declare )
Antenna Type:	PCB antenna
Antenna Gain:	3.3dBi
EUT Power Supply:	lithium battery:DC3.7V, Charge by DC5V

## 4 SAR Evaluation

### 4.1 RF Exposure Compliance Requirement

#### 4.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

##### 4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### 4.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$\left[ \frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

#### 4.1.3 EUT RF Exposure

##### Measurement Data

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	-0.02	0±1	1	1.259
Middle(2440MHz)	0.52	0±1	1	1.259
Highest(2480MHz)	0.76	0±1	1	1.259

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune- up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	-0.02	0±1	1	1.259	0.390	3.0
Middle (2440MHz)	0.52	0±1	1	1.259	0.393	
Highest (2480MHz)	0.76	0±1	1	1.259	0.397	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20190900900E-01