



Registration
No.788871

MPE REPORT

Report No.: SRTC2018-9004(F)-18011501(I)

Product Name: Wireless Vehicle Key

Product Model: 13522778

Applicant: VAST China Co., Ltd

Manufacturer: VAST China Co., Ltd

Specification: FCC Part §2.1091, §2.1093, §1.1307(b)

FCC ID: 2AOUX-13522778

The State Radio_monitoring_center Testing Center (SRTC)
15th Building, No.30, Shixing Street, Shijingshan District, Beijing, P.R.China
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1. GENERAL INFORMATION

1.1 Notes of the test report

The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written permission of The State Radio_monitoring_center Testing Center (SRTC).

The test results relate only to individual items of the samples which have been tested.

1.2 Information about the testing laboratory

Company:	The State Radio_monitoring_center Testing Center (SRTC)
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1.3 Applicant's details

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Country or Region:	China
Contacted person:	Wu Rengang
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1.4 Manufacturer's details

Company:	VAST China Co., Ltd
Address:	No. 89 East Guangzhou Road, Taicang China
City:	Taicang
Country or Region:	China
Contacted person:	Wu Rengang
Tel:	86-18626171648
Fax:	86-512-53202555
Email:	rengang.wu@vastchina.cn

1.5 Test environment

Date of Receipt of test sample at SRTC:	2018-01-15
Testing Start Date:	2018-01-16
Testing End Date:	2018-01-23

Environmental Data:	Temperature (°C)	Humidity (%)
Ambient	25	30
Maximum Extreme	55	---
Minimum Extreme	-10	---

Normal Supply Voltage (V d.c.):	3.0
Maximum Extreme Supply Voltage (V d.c.):	3.3
Minimum Extreme Supply Voltage (V d.c.):	2.2

2 DESCRIPTION OF THE DEVICE UNDER TEST

2.1 Final Equipment Build Status

Equipment Number	2
Operating Frequency	433.92MHz
Antenna Type	PCB Printed loop Antenna
Antenna Gain	-15dBi
Modulation Type	ASK/FSK
Power Supply	Battery
Software Revision	502
Hardware Revision	F005V01367
SN	Sample1: 1# Sample2: 2#

3 REFERENCE SPECIFICATION

Specification	Version	Title
2.1091	June 23, 2015	Radiofrequency radiation exposure evaluation: mobile devices.
2.1093	June 23, 2015	Radiofrequency radiation exposure evaluation: portable devices.
1.1307(b)	Apr. 22, 1986	Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.
KDB447498	D01	General RF Exposure Guidance

4 RESULT SUMMARY

No.	Test case	FCC reference
1	MPE	FCC Part §2.1091, FCC Part §2.1093, FCC Part §1.1307(b) KDB447498 D01

This Test Report Is Issued by: Mr. Peng Zhen 	Checked by: Mr. Li Bin 
Tested by: Mr. Jiang Shuo 	Issued date: 20180130

5 Test Results

5.1 Test Result

Test conditions	Modulation type	State	Value	
		Test environment	Normal operation	
		Centre frequency	433.92MHz	
			P _{conducted} (dBm)	P _{erp} (dBm)
NTNV	ASK	Measured Effective Radiated Power	1.84	-13.16
	FSK		-0.48	-15.48
LTLV	ASK		-1.25	-16.25
	FSK		-3.86	-18.86
LTHV	ASK		2.33	-12.67
	FSK		-0.31	-15.31
HTLV	ASK		-0.81	-15.81
	FSK		-2.45	-17.45
HTHV	ASK		2.57	-12.43
	FSK		0.07	-14.93

Note: $P_{erp} = P_{conducted} + \text{antenna gain}$

P_{erp} : measured effective radiated power.

$P_{conducted}$: maximum measured conducted power

5.2 SAR Test Exclusion Thresholds

According to the KDB447498 4.3.1(a)

For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g 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
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 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 according to 4.1 f) is applied to determine SAR test exclusion.

Summary of Transmitters

Mode/Band	Freq (MHz)	Max. power of channel, including tune-up tolerance, (dBm)	Max. power of channel, including tune-up tolerance, (mW)	Min. test separation distance, (mm)	The calculation results (1g)	SAR test exclusion Threshold (1g)	SAR Required
ASK	433.92	3	2	5	0.27	≤ 3.0	No

---End of Test Report---