



RF Exposure Evaluation Declaration

FCC ID: 2ATW7-PSA27W

APPLICANT: STONKAM CO., LTD

Application Type: Certification

Product: Radar Detection System

Model No.: PSA27W

Trademark: STONKAM

FCC Classification: Digital Transmission System (DTS)

Test Date: December 25, 2020

Reviewed By:


(Kevin Guo)

Approved By:


(Robin Wu)



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2011RSU081-U2	Rev. 01	Initial Report	12-25-2020	Valid

CONTENTS

Description	Page
1. General Information	4
1.1. Applicant	4
1.2. Manufacturer	4
1.3. Testing Facility	4
2. PRODUCT INFORMATION.....	5
2.1. Feature of Equipment under Test	5
2.2. Product Specification Subjective to this Report.....	5
3. RF Exposure Evaluation	6
3.1. Limits	6
3.2. Test Result of RF Exposure Evaluation	7
Appendix A - EUT Photograph	8

1. General Information

1.1. Applicant

STONKAM CO., LTD

5/F, #3 Building, Huangzhou Industrial Park, Chebei Rd., Tianhe Dist., 510665
Guangzhou, China

1.2. Manufacturer

STONKAM CO., LTD

5/F, #3 Building, Huangzhou Industrial Park, Chebei Rd., Tianhe Dist., 510665
Guangzhou, China

1.3. Testing Facility

☒	Test Site – MRT Suzhou Laboratory
	Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian’edang Rd., Wuzhong Economic Development Zone, Suzhou, China
	Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China
	Laboratory Accreditations
	A2LA: 3628.01 FCC: CN1166 VCCI: R-20025, G-20034, C-20020, T-20020
	CNAS: L10551 ISED: CN0001
☐	Test Site – MRT Shenzhen Laboratory
	Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China
	Laboratory Accreditations
	A2LA: 3628.02 FCC: CN1284
☐	Test Site – MRT Taiwan Laboratory
	Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
	Laboratory Accreditations
	TAF: L3261-190725 FCC: 291082, TW3261
☐	CNAS: L10551 ISED: CN0105
	ISED: TW3261

2. PRODUCT INFORMATION

2.1. Feature of Equipment under Test

Product Name	Radar Detection System
Model No.	PSA27W
Brand Name:	STONKAM
Wi-Fi Specification:	802.11b/g/n
EUT Identification No.:	20201127accessory#03

2.2. Product Specification Subjective to this Report

Frequency Range	802.11b/g/n-HT20: 2412 ~ 2462 MHz
Channel Number	802.11b/g/n-HT20: 11
Type of Modulation	802.11b: DSSS 802.11g/n: OFDM
Data Rate	802.11b: 1/2/5.5/11Mbps 802.11g: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 72.2Mbps
Antenna Type:	FPC Antenna
Antenna Gain:	3dBi

Note 1: For other features of this EUT, test report will be issued separately.

Note 2: All product information is provided by the manufacturer.

3. RF Exposure Evaluation

3.1. Limits

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 (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

P_d is the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

3.2. Test Result of RF Exposure Evaluation

Product	Radar Detection System
Test Item	RF Exposure Evaluation

Antenna Gain: Refer to clause 2.2.

Test Mode	Frequency Band (MHz)	Conducted Average Power (dBm)	Antenna Gain (dBi)	Maximum EIRP (dBm)
802.11b/g/n	2412 ~ 2462	20.10	3	23.10

Test Mode	Frequency Band (MHz)	Maximum EIRP (dBm)	Safety Distance (cm)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)
802.11b/g/n	2412 ~ 2462	23.10	20	0.0406	1

CONCLUSION:

The max Power Density at R (20 cm) = 0.0406mW/cm² < 1mW/cm².

So the safety distance is 20cm for device installed without any other radio equipment.

_____ The End _____

Appendix A - EUT Photograph

Refer to "2011RSU081-UE" file.