

RF Exposure Evaluation declaration

Product Name : Heat Finder

Model No. : AD-HF048WP, AD-HF048WPSR

FCC ID : 2AQTD-HF048WP

Applicant : ADE Technology Inc.

Address : 15F., No.69, Sec.2, Guangfu Rd., Sanchong Dist.,
New Taipei City 24158, Taiwan

Date of Receipt : Sep. 18, 2018

Date of Declaration : Jan. 24, 2019

Report No. : 1890214R-SAUSP03V00

Report Version : V1.0

The test results relate only to the samples tested.

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

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Issued Date: Jan. 24, 2019

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Product Name	Heat Finder
Applicant	ADE Technology Inc.
Address	15F., No.69, Sec.2, Guangfu Rd., Sanchong Dist., New Taipei City 24158, Taiwan
Manufacturer	ADE Technology Inc.
Model No.	AD-HF048WP, AD-HF048WPSR
FCC ID.	2AQTD-HF048WP
Trade Name	HEAT FINDER
Applicable Standard	FCC 47 CFR 1.1310
Test Result	Complied

Documented By : Jinn Chen
(Senior Adm. Specialist / Jinn Chen)

Tested By : wenlee
(Senior Engineer / Wen Lee)

Approved By : 
(Director / Vincent Lin)


1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Heat Finder
Trade Name	HEAT FINDER
Model No.	AD-HF048WP, AD-HF048WPSR
FCC ID.	2AQTD-HF048WP
Frequency	802.11b/g:2412MHz~2462MHz
Channel separation	802.11b/g: 5 MHz
Number of Channels	802.11b/g: 11
Data Rate	802.11b: 1-11Mbps, 802.11g: 6-54Mbps
Type of Modulation	DSSS/OFDM/BPSK/QPSK/16QAM/64QAM/256QAM
Antenna Type	Chip Antenna
Channel Control	Auto
Antenna Gain	Refer to the table “Antenna List”

Note:

The EUT is including series models for different is listed as below:

HEAT FINDER	Type	Difference	Extended Model Number	Functional Description
	Outdoor Type	This model is designed to be waterproof and dustproof and to enhance heat dissipation.	AD-HF048WP	Thermal image perception
			AD-HF048WPSR	Thermal image perception People Counting Security Monitor

1.2. Antenna List :

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	AEL	A2450M000000S007	Chip Antenna	2.349 dBi for 2.4 GHz

Note: Only the higher gain antenna was tested and recorded in this report.

2. RF Exposure Evaluation

2.1. 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

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

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

2.2. Test Result of RF Exposure Evaluation

Product : Heat Finder
Test Item : RF Exposure Evaluation

WLAN 2.4G Peak Gain: 2.349dBi

Band	Frequency	Conducted Worst Case Peak Power (dBm)	Worst Case Duty Cycle (%)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)	Pass/Fail
802.11g	2437	18.91	96.02	81.029	0.0277	1	Pass

Note: The conducted output power is refer to report No.: 1890214R-RFUSP02V00 from the DEKRA.