

# RF Exposure Evaluation Report

Product Name : Body Fever Scanner

Model No. : AD-FS048

FCC ID : 2AQTD-FS048

Applicant : ADE Technology Inc.

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

Date of Receipt : May. 11, 2020

Date of Declaration : Jul. 08, 2020

Report No. : 2050187R-E3082100013

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.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Issued Date: Jul. 08, 2020

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Product Name	Body Fever Scanner	
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-FS048	
FCC ID.	2AQTD-FS048	
Trade Name	ADE	
Applicable Standard	KDB 447498 D01 v06	<input checked="" type="checkbox"/> Minimum test separation distance $\geq$ 20 cm <input type="checkbox"/> For low power devices
Test Result	Complied	

Documented By :



( Senior Adm. Specialist / Joanne Lin )

Tested By :



( Senior Engineer / Wen Lee )

Approved By :



( Director / Vincent Lin )

## Revision History

Report No.	Version	Description	Issued Date
2050187R-E3082100013	V1.0	Initial issue of report.	2020-07-08

## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	Body Fever Scanner
Trade Name	ADE
Model No.	AD-FS048
FCC ID.	2AQTD-FS048
Frequency Range	802.11b/g: 2412-2462MHz
Channel Number	802.11b/g: 11
Type of Modulation	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g: OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	Chip Antenna
Channel Control	Auto
Antenna Gain	Refer to the table "Antenna List"

#### Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	AEL	A2450M000000S007	Chip Antenna	2.3496dBi for 2.4GHz

## 2. RF Exposure Evaluation

### 2.1. Standard Applicable

According to KDB 447498 D01 (7.1), A minimum test separation distance  $\geq 20$  cm is required between the antenna and radiating structures of the device and nearby persons to apply mobile device exposure limits.

### 2.2. 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 <sup>2</sup> )	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/cm<sup>2</sup>

$P_{out}$  = 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

### 2.3. Test Result of RF Exposure Evaluation

Product : Body Fever Scanner  
Test Item : RF Exposure Evaluation

#### WLAN 2.4G Peak Gain: 2.3496dBi

Band	Frequency (MHz)	Conducted maximum Peak Power (dBm)	Worst Case Duty Cycle (%)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Pass/Fail
2.4G	2437	20.64	97.47	118.886	0.0406	1	Pass

Note: The Maximum conducted output power is refer to report No.: 2050187R-E3032110112 from the DEKRA.