

REPORT No. : SZ16020033S02

# **RF EXPOSURE EVALUATION REPORT**

APPLICANT	:	F-Secure Corporation
PRODUCT NAME	and a	Router
MODEL NAME	:04	FSEC-SE161
TRADE NAME	:	F-Secure
BRAND NAME	:	F-Secure
FCC ID	:	2AGD5-FSECSE161
STANDARD(S)	,	47CFR 2.1091 KDB 447498 D01 General RF Exposure Guidance v06
ISSUE DATE	:00	2016-11-21



except in full without prior written permission of the ecific tests carried out which is available on request for NOTE: This document is issued by MORLAB, the test company. The test results apply only to the particular sa validation and information confirmed at our website.

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ANNEX GENERAL INFORMATION ......

		Change History
Issue	Date	Reason for change
1.0	2016-11-21	First edition
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# **TEST REPORT DECLARATION**

Applicant	F-Secure Corporation	
Applicant Address	Tammasaarenkatu 7, P.O. Box 24, 00181 Helsinki, Finland	
Manufacturer	SHENZHEN SKYWORTH DIGITAL TECHNOLOGY CO., LTD.	
Manufacturer Address	Unit A 13/F Skyworth Bldg, Gaoxin Ave.1 S.,Nanshan District,Shenzhen,China.	
Product Name	Router	
Model Name	FSEC-SE161	
Brand Name F-Secure		
HW Version	5800-2ARF10	
SW Version 1.7.2.10		
Test Standards47CFR 2.1091; KDB 447498 D01 General RF Exposure Guidance v		
Issue Date 2016-11-21		
SAR Evaluation	Not Required	

Tested by	Chen sheng kui	
,	Chen Shengkui	
Reviewed	Liu Jun	
	Liu Jun	
Approved	by : feg A	
	Peng Huarui	
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# **1. TECHNICAL INFORMATION**

Note: the following data is based on the information by the applicant.

# **1.1. Identification of Applicant**

Company Name:	F-Secure Corporation
Address:	Tammasaarenkatu 7, P.O. Box 24, 00181 Helsinki, Finland
1.2. Identification o	f Manufacturer

# 1.2. Identification of Manufacturer

Company Name:	SHENZHEN SKYWORTH DIGITAL TECHNOLOGY CO., LTD.
Address:	Unit A 13/F Skyworth Bldg

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- 1.3.1. Photographs of the EUT
- 1. EUT front view

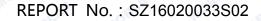


2. EUT rear view



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### 1.3.2. Identification of all used EUT

The EUT identity consists of numerical and letter characters, the letter character indicates the test sample, and the following two numerical characters indicate the software version of the test sample.

EUT Identity	Hardware Version	Software Version	RIL
1#	5800-2ARF10	1.7.2.10	-11

## **1.4. Applied Reference Documents**

Leading reference documents for testing:

	No.	Identity	Document Title
	1 OPLAS	47 CFR§2.1091	Radiofrequency Radiation Exposure Evaluation: mobile devices
, [	2	KDB 447498 D01v06	General RF Exposure Guidance

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# 2. DEVICE CATEGORY AND RF EXPOSURE LIMIT

Per user manual, this device is a Router Based on 47CFR 2.1091, this device belongs to mobile device category with General Population/Uncontrolled exposure.

#### Mobile Devices:

#### 47CFR 2.1091(b)

For purposes of this section, a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. In this context, the term "fixed location" means that the device is physically secured at one location and is not able to be easily moved to another location. Transmitting devices designed to be used by consumers or workers that can be easily re-located, such as wireless devices associated with a personal computer, are considered to be mobile devices if they meet the 20 centimeter separation requirement.

#### **GENERAL POPULATION / UNCONTROLLED EXPOSURE**

The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity. Warning labels placed on low-power consumer devices such as cellular telephones are not considered sufficient to allow the device to be considered under the occupational/controlled category, and the general population/uncontrolled exposure limits apply to these devices.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(E	B) Limits for General	Population/Uncontro	lled Exposure	
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

#### TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

f = frequency in MHz

\* = Plane-wave equivalent power density

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# 3. RF EXPOSURE EVALUATION

2.4GHz 2437 7.77 <sup>22.48</sup>	imit for MPE IW/cm <sup>2</sup>	ensity	e-averaging EIRP (mW) (	Tim	Conducted Power (dBm)	Antenna Gain (dBi)	Frequency (MHz)	Bands
					22.48	7.77	2437	2.4GHz

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# **ANNEX GENERAL INFORMATION**

#### 1. Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Department:	Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Responsible Test Lab Manager:	Mr. Su Feng
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

#### 2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

\*\*\*\*\* END OF REPORT \*\*\*\*\*

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