



REPORT No. : SZ17050118S01

RF EXPOSURE EVALUATION REPORT

APPLICANT : Y Soft Corporation, a.s.
PRODUCT NAME : USB Card Reader
MODEL NAME : MU03015
TRADE NAME : USB Card Reader v3 LF+
BRAND NAME : Y Soft SafeQ
FCC ID : XUY0YX0MU03015
STANDARD(S) : 47CFR 2.1093
IEEE Std C95.1,1999
ISSUE DATE : 2017-06-06

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.

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Change History		
Issue	Date	Reason for change
1.0	2017-06-06	First edition

**TEST REPORT DECLARATION**

Applicant	Y Soft Corporation, a.s.
Applicant Address	U Kněžské louky 2151/18, Praha 3, 130 00, Czech Republic
Manufacturer	Y Soft Corporation, a.s.
Manufacturer Address	Czech Technology Park, Technická 2948/13, 616 00 Brno, Czech Republic
Product Name	USB Card Reader
Model Name	MU03015
Brand Name	Y Soft SafeQ
HW Version	N/A
SW Version	N/A
Test Standards	47CFR 2.1093 IEEE Std C95.1,1999
Issue Date	2017-06-06
SAR Evaluation	Not Required

Tested by : 

Peng Fuwei (Test engineer)

Approved by : 

Peng Huarui (Supervisor)



1. TECHNICAL INFORMATION

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

1.1. Identification of Applicant

Company Name:	Y Soft Corporation, a.s.
Address:	U Kněžské louky 2151/18, Praha 3, 130 00, Czech Republic

1.2. Identification of Manufacturer

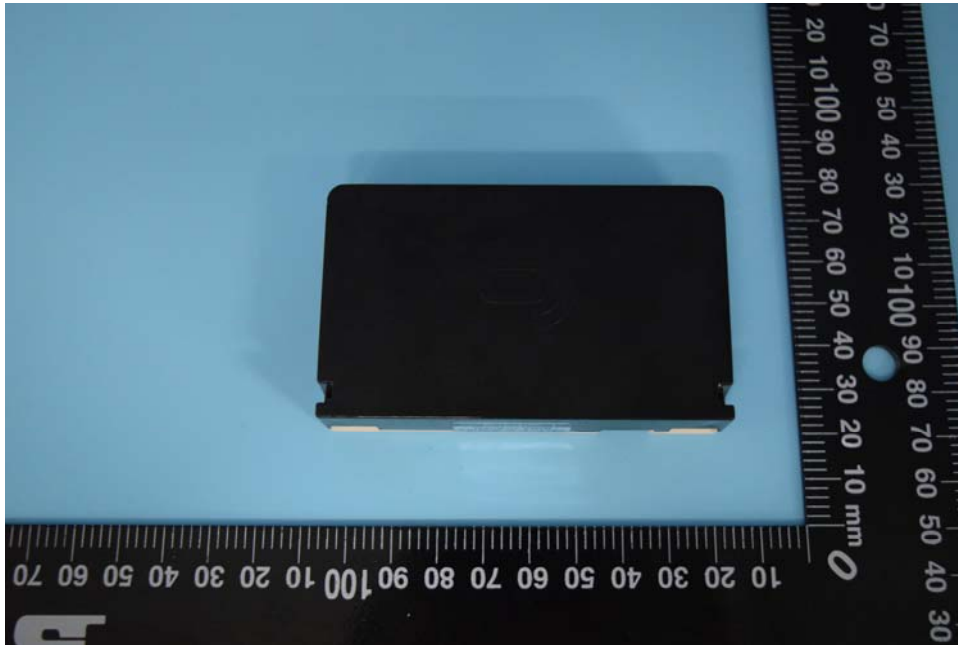
Company Name:	Y Soft Corporation, a.s.
Address:	Czech Technology Park, Technická 2948/13, 616 00 Brno, Czech Republic

1.3. Equipment Under Test (EUT)

Model Name:	MU03015
Trade Name:	USB Card Reader v3 LF+
Brand Name:	Y Soft SafeQ
Hardware Version:	N/A
Software Version:	N/A
Frequency Bands:	125KHz
Modulation Mode:	AM
Antenna Type:	PCB Antenna

1.3.1. Photographs of the EUT

1. EUT front view



2. EUT rear view





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
1#	N/A	N/A

1.4. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	47 CFR§2.1093	Radiofrequency Radiation Exposure Evaluation: portable devices
2	IEEE Std C95.1,1999	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Field,3kHz to 300GHz



2. DEVICE CATEGORY AND RF EXPOSURE LIMIT

Per user manual, this device is a USB Card Reader. Based on 47CFR 2.1093, this device belongs to portable device category with General Population/Uncontrolled exposure.

Portable Devices:

47CFR 2.1093(b)

For purposes of this section, a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.

GENERAL POPULATION / UNCONTROLLED EXPOSURE

47CFR 2.1093(d) (2)

Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section.

MPE in uncontrolled environments

IEEE Std C95.1, 1999

For human exposure in uncontrolled environments to electromagnetic energy at radio frequencies from 3 kHz to 300 GHz, the MPE, in terms of rms electric (E) and magnetic (H) field strengths, the equivalent plane-wave free-space power densities (S) and the induced currents (I) in the body that can be associated with exposure to such fields or contact with objects exposed to such fields are given in Table 2 as a function of frequency.

Table 2—Maximum permissible exposure for uncontrolled environments*

Part A: Electromagnetic Fields [†]					
Frequency range (MHz)	Electric field strength (E) (V/m)	Magnetic field strength (H) (A/m)	Power density (S) E-field, H-field (mW/cm ²)	Averaging time E ² , S or H ² (min)	
1	2	3	4	5	
0.003–0.1	614	163	(100, 1 000 000) [‡]	6	6
0.1–1.34	614	16.3 / <i>f</i>	(100, 10 000 / <i>f</i> ²) [‡]	6	6
1.34–3.0	823.8 / <i>f</i>	16.3 / <i>f</i>	(180 / <i>f</i> ² , 10 000 / <i>f</i> ²)	<i>f</i> ² / 0.3	6
3.0–30	823.8 / <i>f</i>	16.3 / <i>f</i>	(180 / <i>f</i> ² , 10 000 / <i>f</i> ²)	30	6
30–100	27.5	158.3 / <i>f</i> ^{1.668}	(0.2, 940 000 / <i>f</i> ^{3.336})	30	0.0636 <i>f</i> ^{1.337}
100–300	27.5	0.0729	0.2	30	30
300–3000	—	—	<i>f</i> / 1500	30	
3000–15 000	—	—	<i>f</i> / 1500	90 000 / <i>f</i>	
15 000–300 000			10	616 000 / <i>f</i> ^{1.2}	

NOTE—*f* is the frequency in MHz.

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Standalone transmission MPE evaluation

Frequency (MHz)	Electric Field Strength (dBμV/m)	Limit for MPE (dBμV/m)
125 kHz	59.62	614

Note:

This device Electric strength is 59.62 dBμV/m lower than Limit for MPE (614 dBμV/m), so it is not require for SAR test.



ANNEX A 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 *****