REPORT No. : SZ18090177S02

RFEXPOSURE EVALUATIONREPORT

APPLICANT	:	HARXON CORPORATION
PRODUCT NAME	:	Wireless data transceiver
MODEL NAME	:	HX-DU26XXD-900 series: From HX-DU2601D-900 to HX-DU2650D-900
BRAND NAME	:	HARXON
FCC ID	:	2ACRAHX-DU2601D-900
STANDARD(S)	:	47CFR 2.1091 KDB 447498
ISSUE DATE	:	2018-10-19

Reviewed by: Gan Yueming

Gan yueming (Reviewer)

Approved by: Peng Hua

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MORLAB

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DIRECTORY

Version No.	Date	Description
1.0	2018-10-19	Original

Tested By	
Test engineer:	Su Jinhai

1. Technical Information

Note: Provide by manufacturer.

1.1 Applicant and Manufacturer Information

Applicant:	HARXON CORPORATION
Applicant Address:	6/F, Block B, D3 Building, TCL International E City, No. 1001 Zhongshanyuan Road, Nanshan District, Shenzhen,518055,PRC
Manufacturer:	HARXON CORPORATION
Manufacturer Address:	6/F, Block B, D3 Building, TCL International E City, No. 1001 Zhongshanyuan Road, Nanshan District, Shenzhen,518055,PRC

1.2 Equipment Under Test (EUT) Description

Product Name:	Wireless data transceiver
Hardware Version:	V1R1
Software Version:	A022.00.02
Modulation Technology:	FHSS
Modulation Type:	GFSK
Operating Frequency Range:	902.60MHz – 927.80MHz
Channel Number:	63
Antenna Type:	Whip Antenna
Antenna Gain:	2.0dBi

Note

1:This test report is updated from report SZ18090177S01, based on the similarity between before,only the product name, the model name and the appearance are changed. The changes do not affect the test results.

2:According to the certificate holder, they declared that the models:HX-DU26XXD-900 series (From HX-DU2601D-900 to HX-DU2650D-900) only the appearance are different, the PCB layout, interior structure and electrical circuits are the same.

3:For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

1.3 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#	V1R1	A022.00.02

1.4 Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	47 CFR§2.1091	Radio Frequency Radiation Exposure Evaluation: mobile devices
2	KDB 447498 D01v06	General RF Exposure Guidance

2. Device Category and RF Exposure Limit

Per user manual,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.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

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

f = frequency in MHz* = Plane-wave equivalent power density

3. Measurement of RF Output Power

<Conducted Power>

Band	Frequency (MHz)	Peak Power (dBm)
900	902.6	29.329
	915	29.568
	927.8	29.925
Tune-up Limit (dBm)		30.000

4. RF Exposure Evaluation

<Standalone transmission MPE evaluation>

Band	Frequency (MHz)	Maximum Tune-up Limit (dBm)	Antenna Gain (dBi)	EIRP (mW)	Power density (mW/cm²)	Limit for MPE (mW/cm²)
900	927.8	30.0	2.0	1584.89	0.315	0.619

Note:

MPE calculation method

$$\text{Power Density} = EIRP/4\pi R^2$$

Where: EIRP = P+G

P = Output Power (dBm)

G = Antenna Gain (dBi)

R = Separation Distance (20cm)

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