



# Variant RF Exposure Evaluation Report

**APPLICANT** : Universal Scientific Industrial Co., Ltd.  
**EQUIPMENT** : UNA\_900  
**BRAND NAME** : Universal Global Scientific Industrial Co., Ltd.  
**MODEL NAME /  
MARKETING NAME** : UNA\_900  
**FCC ID** : IXM-UNA900  
**FILING TYPE** : Certification  
**STANDARD** : OET Bulletin 65 Supplement C (Edition 01-01)

This is a variant report which is only valid together with the original test report. We, SPORTON INTERNATIONAL INC., would like to declare that the device has been evaluated in accordance with FCC OET Bulletin 65 Supplement C (Edition 01-01), and pass the limit. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:

Jones Tsai / Manager

## **SPORTON INTERNATIONAL INC.**

**No. 52, Hwa Ya 1<sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.**

**SPORTON INTERNATIONAL INC.**

TEL : 886-3-327-3456

FAX : 886-3-328-4978

FCC ID : IXM-UNA900

Page Number : 1 of 7

Report Issued Date : Oct. 05, 2012

Report Version : Rev. 01



## **Table of Contents**

|                                                  |          |
|--------------------------------------------------|----------|
| <b>REVISION HISTORY .....</b>                    | <b>3</b> |
| <b>1. RF EXPOSURE INTRODUCTION .....</b>         | <b>4</b> |
| <b>2. ADMINISTRATION DATA .....</b>              | <b>6</b> |
| 2.1 Testing Laboratory .....                     | 6        |
| 2.2 Applicant .....                              | 6        |
| 2.3 Manufacturer .....                           | 6        |
| <b>3. GENERAL INFORMATION .....</b>              | <b>7</b> |
| 3.1 Description of Device Under Test (DUT) ..... | 7        |

**Appendix A. Product Equality Declaration**

**Appendix B. Original Report**



## Revision History

| REPORT NO.  | VERSION | DESCRIPTION                                                                                                                                                                                                                                                                                          | ISSUED DATE   |
|-------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| FA231721-02 | Rev. 01 | This is a variant report which can be referred to Product Equality Declaration as Appendix A. Since the device variant part does not influence the test results, therefore, all the test cases were performed in original report which can be referred to Sporton Report No. FA231721 as appendix B. | Oct. 05, 2012 |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |
|             |         |                                                                                                                                                                                                                                                                                                      |               |



## **1. RF Exposure Introduction**

### **Requirements**

Three different categories of transmitters are defined by the FCC in OET Bulletin 65. These categories are fixed installation, mobile and portable and are defined as follows:

#### **▪ Fixed installation:**

Fixed location means that the device, including its antenna, is physically secured at a permanent location and is not able to be easily moved to another location. Additionally, distance to humans from the antenna is maintained to at least 2 meters.

#### **▪ Mobile Devices:**

A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to be generally used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitters's radiating structures and the body of the user or nearby persons. Transmitters designed to be used by consumers or workers that can be easily re-located are considered mobile devices if they meet the 20 centimeter separation requirement. The FCC rules for evaluating mobile devices for RF compliance are found in 47 CFR 2.1091.

#### **▪ Portable Devices:**

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. Portable device requirements are found in Section 2.1093 of the FCC's Rules (47 CFR 2.1093)



The FCC also categorizes the use of the device as based upon the user's awareness and ability to exercise control over his or her exposure. The two categories defined are Occupational/Controlled Exposure and General Population/Uncontrolled Exposure. These two categories are defined as follows:

▪ **Occupational/controlled Exposure:**

In general, occupational/controlled exposure limits are applicable to situation in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure. Awareness of the potential for RF exposure in a workplace or similar environment can be provided through specific training as part of a RF safety program. If appropriate, warning signs and labels can also be used to establish such awareness by providing prominent information on the risk of potential exposure and instructions on methods to minimize such exposure risks.

▪ **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.



## **2. Administration Data**

### **2.1 Testing Laboratory**

|                           |                                                                                                                                                                     |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Site</b>          | SPORTON INTERNATIONAL INC.                                                                                                                                          |
| <b>Test Site Location</b> | No. 52, Hwa Ya 1 <sup>st</sup> Rd., Hwa Ya Technology Park,<br>Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.<br><br>TEL: +886-3-327-3456<br>FAX: +886-3-328-4978 |

### **2.2 Applicant**

|                     |                                                                 |
|---------------------|-----------------------------------------------------------------|
| <b>Company Name</b> | Universal Scientific Industrial Co., Ltd.                       |
| <b>Address</b>      | 141, Lane 351, Taiping Road, Sec. 1, Tsao Tuen, Nan-Tou, Taiwan |

### **2.3 Manufacturer**

|                     |                                                                 |
|---------------------|-----------------------------------------------------------------|
| <b>Company Name</b> | Universal Scientific Industrial Co., Ltd.                       |
| <b>Address</b>      | 141, Lane 351, Taiping Road, Sec. 1, Tsao Tuen, Nan-Tou, Taiwan |

### **3. General Information**

#### **3.1 Description of Device Under Test (DUT)**

| Product Feature & Specification |                                                             |
|---------------------------------|-------------------------------------------------------------|
| DUT Type                        | UNA_900                                                     |
| Brand Name                      | Universal Global Scientific Industrial Co., Ltd.            |
| Model Name / Marketing Name     | UNA_900                                                     |
| FCC ID                          | IXM-UNA900                                                  |
| Tx Frequency                    | GSM850 : 824 MHz ~ 849 MHz<br>GSM1900 : 1850 MHz ~ 1910 MHz |
| Rx Frequency                    | GSM850 : 869 MHz ~ 894 MHz<br>GSM1900 : 1930 MHz ~ 1990 MHz |
| HW Version                      | V2.3                                                        |
| SW Version                      | V3.1a                                                       |
| Type of Modulation              | GSM: GMSK<br>GPRS: GMSK<br>EDGE: GMSK / 8PSK                |
| DUT Stage                       | Identical Prototype                                         |

**Remark:** The above DUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



## ***Appendix A. Product Equality Declaration***

The plots are shown as follows.



## ***Appendix B. Original Report***

Please refer to Sporton report number FA231721 as below.