



RF Exposure Evaluation Report

APPLICANT : Toshiba Corporation
EQUIPMENT : Notebook PC and Tablet
BRAND NAME : TOSHIBA
MODEL NAME : Satellite U820, Satellite U825, Satellite U920t,
Satellite U925t and dynabook R822
FCC ID : CJ6UPSUL1PC2
FILING TYPE : Certification
STANDARD : FCC 47 CFR 2.1091

We, SPORTON INTERNATIONAL INC., would like to declare that the device has been evaluated in accordance with FCC 47 CFR 2.1091, 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

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FCC ID : CJ6UPSUL1PC2

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA272716-03	Rev. 01	Initial issue of report	Aug. 27, 2012



1. RF Exposure Introduction

Requirements

Three different categories of transmitters are defined by the FCC in 47 CFR 2.1091. 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 transmitter'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, such as a wireless modem operating in a laptop computer, 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

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

2.2 Applicant

Company Name	Toshiba Corporation
Address	Digital Products & Services Company 2-9, Suehiro-cho, Ome-shi Tokyo 198-8710 Japan

2.3 Manufacturer

Company Name	Toshiba Information Equipment (Hangzhou) Co., Ltd.
Address	M12-19-1 Hangzhou Export Processing Zone of Zhengjiang Hangzhou Zhejiang 310018

3. General Information

3.1 Description of Device Under Test (DUT)

Product Feature & Specification	
DUT Type	Notebook PC and Tablet
Brand Name	TOSHIBA
Model Name	Satellite U820, Satellite U825, Satellite U920t, Satellite U925t and dynabook R822
FCC ID	CJ6UPSUL1PC2
Tx Frequency	13.56 MHz
Rx Frequency	13.56 MHz
Antenna Type	PIFA Antenna
Type of Modulation	ASK
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.



4. RF Exposure Evaluation

4.1 Radio Frequency Radiation Exposure Evaluation

For this device, the calculation is as follows:

The EIRP is transferred from the electric field 60.57 dBuV/m at 10m, measured in RF test report, and the result of exposure evaluation is compliance.

Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Calculated RF Exposure (mW/cm ²)	Limit (mW/cm ²)
13.56	-24.20	0.00380	0.00	0.98

The power density limit line is form the table 1 of 1.1310 for population/uncontrolled Exposure.