Regulatory Compliance

RF exposure

Compact Flash Card

The Socket Bluetooth Card is designed to be compliant with the rules and regulations in locations where they are sold and will be labeled as required. This product is type approved — users are not required to obtain license or authorization before using.

Radio Frequency Interference Requirements

This device complies with part 15 of the FCC rules and Industry Canada RSS 210. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment is also ETS EN300 328-2, ETS EN301 489-1 and ETS EN301 489-17 compliant. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his or her own expense.

This equipment generates and radiates radio-frequency energy. To comply with FCC RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied: (1) Users are not permitted to make changes or modify the system in any way, and (2) connecting external antennas to the card is prohibited. This device and its antenna must not be co-located or operated with any other antenna or transmitter.

To comply with Industry Canada RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied: "The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website www.hc-sc.gc.ca/ehp/ehd/catalogue/rpb.htm"

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user may try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna of the radio or television.
- Increase the distance separating the equipment and the receiver.
- Connect the equipment to an outlet on a different branch circuit than that of the receiver.
- Consult the dealer or an experienced radio/TV technician for help.

The user may find the following booklet helpful: *How to Identify and Resolve Radio-TV Interference Problems.* This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402.

Canada Certification

The marking of "IC:xxxxxx-yyyyyy" on the Bluetooth card means: "xxxxxx-yyyyyy" is the certification number, and the term "IC' before the equipment certification number only signifies that Industry Canada technical specifications were met.

Radio Frequency Interference Requirements – Canada

This Class B digital apparatus meets the requirements of the Canadian
Interference-Causing Equipment Regulations.
Cet appareil numérique de la Classe B respecte toutes les exigencies du Reglement sur le Matériel Brouilleur du Canada.

NOTE: To comply with FCC and Industry Canada exposure requirements, this device is approved for operations in a user's hand when there is a distance of 20 cm or more between the device antenna and the user's body.

CE Marking & European Union Compliance

Products intended for sale within the European Union are marked with a CEMark which indicates compliance to applicable Directives and European Normes (EN), as follows. Amendments to these Directives or ENs are included: Normes (EN), as follows:

Applicable Directives:

- Radio and Telecommunications Terminal Equipment Directive 1999/5/EC
- Low Voltage Directive 73/23/EEC

Applicable Standards:

- EN 55 022 – Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment.
- EN 50 082-1 – Electromagnetic Compatibility – General Immunity Standard, Part 1: Residential, Commercial, Light Industry.
- IEC 801.2 – Electromagnetic Compatibility for Industrial Process Measurement and Control Equipment, Part 2: Electrostatic Discharge Requirements.
- IEC 801.3 – Electromagnetic Compatibility for Industrial Process Measurement and Control Equipment, Part 3: Radiated Electromagnetc Field Requirements.
- IEC 801.4 - Electromagnetic Compatibility for Industrial Process Measurement and Control Equipment, Part 4: Electrical Fast Transients Requirements.
- EN 60 950 + Amd 1 + Amd 2 – Safety of Information Technology Equipment Including Business Equipment.

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Declaration of compliance

Exposure of Humans to RF Fields Requirements

Applicant : **Alps Electric Co., Ltd.**
Type of Equipment : **Socket Bluetooth CF Card**
Model No. : **Socket Bluetooth Card**
FCC ID : **CWTBTC-1**

Regulations Applied : **CFR 47 FCC 15.247(b)(5)**
References Documents : **CFR 47 FCC 1.1307(b), 1.1310, 2.1093 and OET65 Supplement C**

RF Exposure Calculations :

The following minimum separation distance between the EUT's antenna and the human body was calculated in accordance with FCC OET65 Appendix B Table(B) "Limit for General Population / Uncontrolled Exposure".
The maximum permissible exposure level is defined with 1mW/cm^2.
The minimum separation distance where the exposure level reaches the permitted level can be calculated as bellow:

$$S = P * G / 4\pi R^2 \qquad \because R = \sqrt{P * G / 4\pi S}$$

Where:
R = minimum separation distance in cm
P = 1.14 mW (Max. conducted output power at antenna terminal)
G = 1.26(numeric gain) = 1.00 dBi(Max. antenna Gain)
S = 1.0 mW/cm^2 for 2.4 GHz (Max. permissible exposure level)
Then minimum separation distance is 0.338 cm.

Summary:
The EUT complies with the RF exposure requirement of the above regulation.

M. Takahashi

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