

SDIO Card Type-B for Bluetooth™

SD-BT2

User's Manual

Draft Rev. 1.0c (February 27, 2003)

TOSHIBA CORPORATION

Revision History

Revision	Date	Comments
<i>Draft 1.0</i>	2002-06-24	Draft
<i>Draft 1.0a</i>	2002-07-02	Change notification statements.
<i>Draft 1.0c</i>	2003-02-27	Change notification statements. Add some description statements.

(*) The Bluetooth trademarks are owned by Bluetooth SIG, Inc., U.S.A

Feature

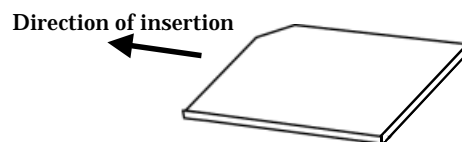
Bluetooth™ SD card is an ultra small and thin card which has built-in antenna, Bluetooth™ function and SD/IO interface compliant with SDIO Card Specification.

Bluetooth™ is a low-cost and low-power wireless communication standard for short range communication which uses 2.4GHz ISM band and GFSK modulation method. Bluetooth™ specification is standardized by Bluetooth SIG and it is industry-widely supported.

SDIO Card Specification is a standard for small size IO devices. SDIO Card Specification is standardized by SD Association and it is also industry-widely supported.

Bluetooth™ SD card can be used with any kind of devices which have SDIO card slot and software for Bluetooth SD card, e.g. PDAs, portable PCs and desktop PCs.

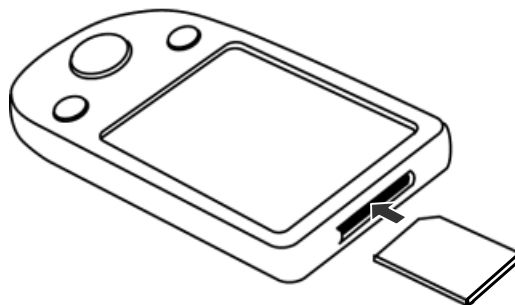
Appearance



Installation

When inserting this card into SD card slot, check the form of the connector and insert it surely.

- Connect the Bluetooth™ SD Card to a PDA.

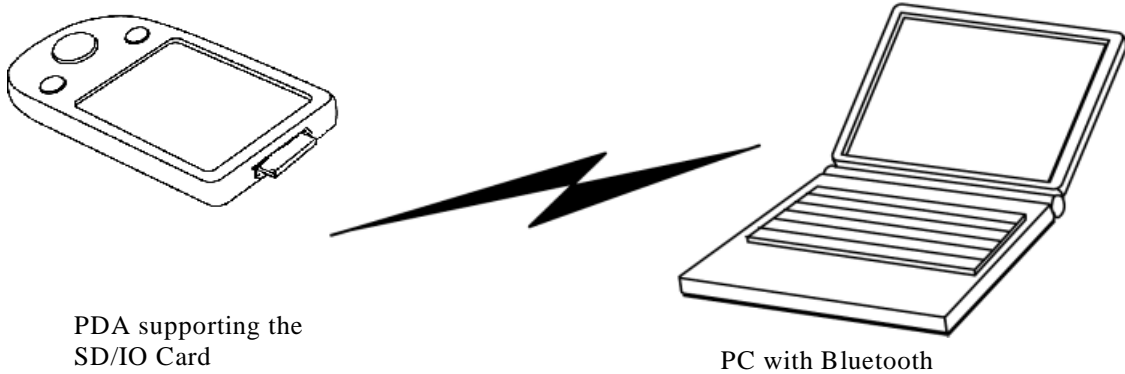


PDA supporting the SD/IO Card

This drawing is an example.
As for the position where the Bluetooth™ SD card is connected, refer to the User's Manual of PDA.

What you can do with the Bluetooth™ SD Card

< Data communication between a PDA and a PC >



Please refer to the user's manuals of PDA, PC and application software, with which Bluetooth™ SD card is used, for the details of usage and operation.

Specifications

Model name	SDIO Card Type-B for Bluetooth™
Model No.	SD-BT2
Bluetooth™ specification	Bluetooth™ Ver.1.1 *1
Specification of electric	Operating voltage : 3.1 to 3.6V Power Consumption : 100mA(MAX.) 50mA(AVG. in transmitting/receiving)
RF specification	In conformity with Bluetooth radio specification Transmission electric power class : Power class 3 [maximum output : 1mW (0dBm)] Sensitivity of receiving : -70dBm
Host-Card Interface	SDIO Card Specification V1.0 SDIO Card Type-B Specification for Bluetooth™
Dimension	40mm-long x 24mm-wide x 2.1mm-thick A part of protrusion is 2.8mm-thick.
Bluetooth™ Protocols/Profiles implemented in the Card	RF, Baseband, LMP, L2CAP*2, SDP*2, RFCOMM*2, GAP*2, SPP(Serial Port Profile) *2, SDAP(Service Discovery Application Profile) *2

*1 : Bluetooth Special Interest Group, Document number 1.C.47/1.1, February 22nd, 2001

*2 : It is supported when the card is in "SDIO Card for Bluetooth Type-B" mode.

Using this products

- **Using this products**

*****WARNING**

Do not perform disassembly, modifications or repairs.

There is a danger of fires, electrical shock, damage to the unit, and injury.
Do not remove the label and do not paste the other labels.

Dismantling this product will invalidate the warranty and any other service plan.

Do not use this unit in an area where people wearing pacemakers may be nearby (such as in a crowded train).

Electrical signals may cause abnormalities in pacemaker operation.

Those with a pacemaker should operate this system from a minimum distance of 22cm or more.

Electrical signals may cause abnormalities in pacemaker operation.

Do not use this unit near medical electronic equipment. Likewise, do not attach medical electronic equipment to this system.

Electrical signals may cause abnormalities in the operation of medical electronic equipment.

Do not use this unit near automatic doors, fire detection devices, or other automatic control devices.

Electrical signals may affect these devices, leading to accidents caused by malfunctions.

Do not use this unit in an aircraft or in a place where this unit may electromagnetically affect other devices.

An electromagnetically wave may affect these devices and cause accidents by malfunctions.

If this unit give any electromagnetic interference to other device during use of this unit, turn off the system that this unit is mounted. If the system is not turned off, eject this unit from the system.

Electrical signals may affect these devices, leading to accidents caused by malfunctions.

Do not put this unit into your mouth to avoid swallowing it.

***** CAUTION**

<p>Do not use unit in the bath, or any other area where there is a chance of submersion or high humidity.</p> <p>There is a risk of electrical shock.</p>	<p>Do not use in bath</p>
<p>Do not insert staples or paper clips into the unit.</p> <p>There is a danger of an electrical short, smoke, or fire.</p>	<p>Warning</p>
<p>Do not use unit in a location exposed to rain or mist.</p> <p>Rain or mist on the unit may cause fires or electrical shock.</p>	<p>Warning</p>
<p>If the unit is connected to a personal digital assistant, do not touch the SD card during or immediately following operation.</p> <p>There is a danger of burns resulting from high heat levels. Those with delicate skin should use caution.</p>	<p>Warning</p>
<p>Do not place cups, flower vases or other containers holding liquid near unit.</p> <p>There is a danger of electrical shock if liquids enter the unit. If liquids should enter the unit, turn the power off immediately, remove the plug from the electrical outlet, and bring the unit to the place of purchase or a nearby service center for inspection.</p>	<p>Warning</p>

Notes on Operation

- **Regarding the operating and storage environment for this unit**

<p>Do not place the unit in direct sunlight, a closed car, near a heating device, or any other location where high temperature is a possibility.</p> <p>This may cause damage to the unit, malfunction, or internal memory loss.</p>	Warning
<p>Do not place the unit in a place susceptible to extremely low temperatures.</p> <p>This may cause damage to the unit, malfunction, or internal memory loss.</p>	Warning
<p>Do not subject unit to rapid temperature changes.</p> <p>Dew formation may cause damage to the unit, malfunction, or internal memory loss.</p>	Warning
<p>Do not place unit in an extremely dusty location.</p> <p>This may cause damage to the unit, malfunction, or internal memory loss.</p>	Warning
<p>Do not use the unit in the following locations.</p> <p>Near a microwave oven, or areas with a risk of electrical shock or static electricity.</p> <p>Depending on the environment, electricity may not reach unit.</p>	Warning
<p>Do not place the unit in a place with risk of strong vibration.</p> <p>This may cause damage to the unit, malfunction, or internal memory loss.</p>	Warning
<p>When cleaning the unit, do not use benzene or paint thinner.</p> <p>This may cause damage or discoloration to the case.</p>	Warning

Restrictions for Use

- **Restrictions for Use**

- **This product was not designed to be used with systems directly responsible for sustaining human life (*1). Avoid using this product with such systems.**

*1: Systems directly responsible for sustaining human life include the following:

(Life support systems, systems for use in surgery, related medical equipment)

- **When this product is to be used in installations responsible for human safety or the maintenance of public installations (*2), special transport, maintenance, operation, and wiring (*3) becomes necessary. Please contact our service center.**

*2: Installations responsible for human safety and public installations include the following.

(Main control systems for nuclear power plants, safety installations in nuclear power plants, other systems responsible for maintaining public safety)

(Mass transport systems, vehicle operation systems, or aerial control systems)

*3: Special wiring refers to safety systems (fool proofing, failsafe system installation, redundant installation)

installed in close consultation with a representative from our company.

- **FCC information**

FCC notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution

CAUTION: End user can not modify this transmitter device. Any unauthorized modification made on the device could avoid the user's authority to operate this device.