# Information sheet

## Wireless Interoperability

The Intel(R) PRO/Wireless LAN 2100 3B Mini PCI Adapter products are designed to be interoperable with any wireless LAN product that is based on Direct Sequence Spread Spectrum (DSSS) radio technology, and is compliant to:

- The IEEE 802.11 Standard on Wireless LANs (Revision B), as defined and approved by the Institute of Electrical and Electronics Engineers.
- The Wireless Fidelity (Wi-Fi) certification as defined by the WECA Wireless Ethernet Compatibility Alliance.

## CAUTION

Bluetooth<sup>™</sup> and WirelessLAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth<sup>™</sup> and WirelessLAN devices simultaneously, you may occasionally experience a less than optimal network performance or even lose your network connection.

If you should experience any such problem, immediately turn off either one of your Bluetooth  ${}^{\rm TM}$  or WirelessLAN.

Please contact Toshiba PC product support on web site

 $http://www.toshiba\-europe.com/computers/tnt/bluetooth.htm \ in \ Europe \ or$ 

http://www.pc.support.global.toshiba.com in the United States for more information.

## Wireless LAN and your Health

Wireless LAN products, like other radio devices, emit radio frequency electromagnetic energy. The level of energy emitted by Wireless LAN devices however is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Because Wireless LAN products operate within the guidelines found in radio frequency safety standards and recommendations, TOSHIBA believes Wireless LAN is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of Wireless LAN may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

- Using the Wireless LAN equipment on board of airplanes, or
- In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies on the use of wireless devices in a specific organization or environment (e.g. airports), you are encouraged to ask for authorization to use the Wireless LAN device prior to turning on the equipment.

### **Regulatory Information**

The Intel(R) PRO/Wireless LAN 2100 3B Mini PCI Adapter must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. This device complies with the following radio frequency and safety standards.

## Canada – Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device." L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes : (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit étre prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

IC:248H-DPA3272W

This device has been designed to operate with an antenna having a maximum gain of 4.8dB. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication.

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Pour empecher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit etre utilize a l'interieur et devrait etre place loin des fenetres afin de Fournier un ecram de blindage maximal. Si le matriel (ou son antenne d'emission) est installe a l'exterieur, il doit faire l'objet d'une licence.

### Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC with essential test suites as per standards:

- EN 60950 Safety of Information Technology equipment
- ETS 300 328 Technical requirements for radio equipment

<b>ETS 300</b>	826 General EMC requirements for radio equipment.
België/	For outdoor usage only channel 10 (2457 MHz) and 11 (2462 MHz) is allowed.
Belgique:	For private usage outside buildings across public grounds over less than 300m no special registration with IBPT/BIPT is
	required. Registration to IBPT/BIPT is required for private usage outside buildings across public grounds over more than
	300m. An IBPT/BIPT license is required for public usage outside building.
	For registration and license please contact IBPT/BIPT.
	Gebruik buiten gebouw alleen op kanalen 10 (2457 MHz) en 11 (2462 MHz). Voor privé gebruik buiten gebouw over
	publieke groud over afstand kleiner dan 300m geen registratie bij BIPT/IBPT nodig; voor gebruik over afstand groter dan
	300m is wel registratie bij BIPT/IBPT nodig. Voor publiek gebruik buiten gebouwen is licentie van BIPT/IBPT verplicht.
	Voor registratie of licentie kunt u contact opnemen met BIPT.
	L'utilisation en extérieur est autorisé sur le canal 10 (2457 MHz) et 11 (2462 MHz).
	Dans le cas d'une utilisation privée, à l'extérieur d'un bâtiment, au dessus d'un espace public, aucun enregistrement n'est
	nécessaire pour une distance de moins de 300m. Pour une distance supérieure à 300m un enregistrement auprès de
	l'IBPT est requise. Pour une utilisation publique à l'extérieur de bâtiments, une licence de l'IBPT est requise. Pour les
	enregistrements et licences, veuillez contacter l'IBPT.
Deutschland:	License required for outdoor installations. Check with reseller for procedure to follow
	Anmeldung im Outdoor-Bereich notwendig, aber nicht genehmigungspflichtig.Bitte mit Händler die Vorgehensweise
	abstimmen.
France:	Restricted frequency band: only channels 10 and 11 (2457 MHz and 2462 MHz respectively) may be used in France.
	License required for every installation, indoor and outdoor installations. Please contact ART for procedure to follow.
	Bande de fréquence restreinte : seuls les canaux 10 à 11 (2457 et 2462 MHz respectivement) doivent être utilisés en
	France.
	Toute utilisation, qu'elle soit intérieure ou extérieure, est soumise à autorisation. Vous pouvez contacter l'Autorité de
	Régulation des Télécommuniations (http://www.art-telecom.fr) pour la procédure à suivre.
Italia:	License required for indoor use. Use with outdoor installations not allowed
	E'necessaria la concessione ministeriale anche per l'uso interno.
	Verificare con i rivenditori la procedura da seguire. L'uso per installazione in esterni non e' permessa.
Nederland	License required for outdoor installations. Check with reseller for procedure to follow
	Licentie verplicht voor gebruik met buitenantennes. Neem contact op met verkoper voor juiste procedure

### **USA-Federal Communications Commission (FCC)**

This device complies with Part 15 of FCC Rules. Operation of the devices in a Wireless LAN System is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference that may cause undesired operation.

TOSHIBA is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this Intel(R) PRO/Wireless LAN 2100 3B Mini PCI Adapter, or the substitution or attachment of connecting cables and equipment other than specified by TOSHIBA.

The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

### Caution: Exposure to Radio Frequency Radiation.

The Intel(R) PRO/Wireless LAN 2100 3B Mini PCI Adapter, will be installed with one of two types of antennas. The both of antenna types, when installed are located at the upper edge of the LCD screen. For both antennas, the radiated output power of the Intel(R) PRO/Wireless LAN 2100 3B Mini PCI Adapter, is far below the FCC radio frequency exposure limits. Nevertheless, the Intel(R) PRO/Wireless LAN 2100 3B Mini PCI Adapter, shall be used in such a manner that the potential for human contact during normal operation is minimized. In normal operating configuration, the LCD in the upright position, the distance between the antenna and the user should not be less than 20cm.

Refer to the Regulatory Statements as identified in the documentation that comes with those products for additional information.

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/rpb.

Relevant transmitters include FCC IDs: CJ6UPA3272WL, CJ6UPA3232BT.

### Taiwan

- Article 14 Unless approved, for any model accredited low power radio frequency electric machinery, any company, trader or user shall not change the frequency, increase the power or change the features and functions of the original design.
- Article 17 Any use of low power radio frequency electric machinery shall not affect the aviation safety and interfere with legal communications. In event that any interference is found, the use of such electric machinery shall be stopped immediately, and reusing of such products can be resumed until no interference occurs after improvement.

The legal communications mentioned in the above item refer to radio communications operated in accordance with telecommunication laws and regulations.

Low power radio frequency electric machinery shall resist against interference from legal communications or from industrial, scientific and medical radio emission electric machinery.

### Using this equipment in Japan

In Japan, the frequency bandwidth of  $2,400 \sim 2,483.5$  MHz for second generation low-power data communication systems such as this equipment overlaps that of mobile object identification systems (premises radio station and specified low-power radio station).

#### 1. Sticker

Please put the following sticker on devices incorporating this product.

In the frequency bandwidth of this equipment, industrial device, scientific device, medical device like microwave oven, licensed premises radio station and non-licensed specified low-power radio station for mobile object identification system (RF-ID) that is used in product line of factories,(Other Radio Stations) are used.

- 1 Please make sure before using this equipment that no Other Radio Stations are used in the neighborhood.
- 2 In case that RF interference occurs to Other Radio Stations from this equipment, please change promptly the frequency for use, place to use, or stop emitting Radio.
- 3 Please contact TOSHIBA Direct PC if you have a problem, such as interference from this equipment to Other Radio Stations

#### 2. Indication

The indication shown below appears on this equipment.



(1) 2.4 : this equipment uses a frequency of 2.4GHz.

(2) DS : This equipment uses DS-SS modulation.

- (3) 4 : The interference range of this equipment is less than 40m.
- (4) This equipment uses a frequency bandwidth from 2,400MHz to 2,483.5MHz. It is possible to avoid the band of mobile object identification systems.

#### 3. TOSHIBA Direct PC

Monday - Fri	day $: 10:00 - 17:00$	)
Toll Free Tel	:0120-13-1100	
Direct Dial	:03-3457-5916	
Fax	:03-5444-9450	

### **Device Authorization**

This device obtains the Technical Regulation Conformity Certification and the Technical Conditions Compliance Approval, and it belongs to the device class of radio equipment of low-power data communication system radio station stipulated in the Radio Law and the Telecommunications Business Law of Japan.

The Name of the radio equipment:PA3272U-1MPCTELECOM ENGINEERING CENTERApproval Number:?????, ????

The following restrictions apply:

- Do not disassemble or modify the device.
- Do not install the embedded wireless module into other device.

#### Trademark

Bluetooth is a trademark owned by its proprietor and used by TOSHIBA under license.