

Wireless LAN Card Features

The Wireless LAN Card is a wireless network card that fits into a Mini-PCI TypeIII slot.

Wireless LAN Card Types

The Wireless LAN Card is a wireless network card that complies with the IEEE 802.11 standard on wireless LANs (Revision B). Revision B supports data rates up to 11 Mbit/s.

- Wi-Fi (Wireless Fidelity) certified by the Wi-Fi Alliance. This means that your Wireless hardware will communicate with other vendors' IEEE 802.11 compliant wireless LAN product. The 'Wi-Fi CERTIFIED' logo is a certification mark of the Wi-Fi Alliance.
- Fully compatible with any other wireless LAN system based on Direct Sequence Spread Spectrum (DSSS) radio technology that complies with the "IEEE 802.11 standard on wireless LANs (Revision B).

Wireless LAN Cards

The Wireless LAN Card supports the following wireless LAN features:

- Automatic Transmit Rate Select mechanism in the transmit range of 11, 5.5, 2 and 1 Mbit/s.
- Frequency Channel Selection
- Roaming over multiple channels.
- Card Power Management.
- Wired Equivalent Privacy (WEP) data encryption, based on 128bit encryption algorithm.

Card Specifications

Form Factor	-	Mini PCI TypeIII
Capability	-	IEEE 802.11 Standard for Wireless LANS Wi-Fi (Wireless Fidelity) certified by the Wi-Fi Alliance.
Network Operating System	-	Microsoft Windows® Networking
Media Access Protocol	-	CSMA/CA (Collision Avoidance) with Acknowledgment (ACK)
Data Rate	-	11/5.5/2/1 Mb/s (Revision B)

Radio Characteristics

Radio Characteristics of Wireless LAN Cards may vary according to:

- country/region where the product was purchased
- Type of product

Wireless communication is often subject to local radio regulations. Although Wireless LAN Wireless networking products have been designed for operation in the license-free 2.4GHz band, local radio regulations may impose a number of limitations to the use of wireless communication equipment.

NOTE: Refer to the flyer "Information to the User" for regulatory information that may apply in your country/region.

RF Frequency	-	Band2.4GHz (2400-2483.5 MHz)
Modulation Technique	-	DSSS-CCK, DSSS-DQPSK, DSSS-DBPSK

The range of the wireless signal is related to the Transmit Rate of the wireless communication. Communications at lower Transmit range may travel larger distances.

- The range of your wireless devices can be affected when the antennas are placed near metal surfaces and solid high-density materials.
- Range is also impacted due to “obstacles” in the signal path of the radio that may either absorb or reflect the radio signal.

Information sheet

Wireless Interoperability

The CISCO Aironet® 350 Series Mini-PCI (MPI350) 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 Wi-Fi Alliance.

CAUTION

Bluetooth™ and WirelessLAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth™ 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™ 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 CISCO Aironet® 350 Series Mini-PCI (MPI350) 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 être 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.

Approval Number : 248H-DPA3231W

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

EN 300 328-1 and-2 Technical requirements for radio equipment

EN 300 489-1 and-17 General EMC requirements for radio equipment.

België/ Belgique:	For outdoor usage only channel 10 (2457 MHz) and 11 (2462 MHz) is allowed. 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 grond 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 autorisée 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 Télécommunications (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 CISCO Aironet® 350 Series Mini-PCI (MPI350), 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 CISCO Aironet® 350 Series Mini-PCI (MPI350) will be installed with one of three types of antennas. All of antenna types, when installed are located at the upper edge of the LCD screen.

All antennas, the radiated output power of the CISCO Aironet® 350 Series Mini-PCI (MPI350) is far below the FCC radio frequency exposure limits. Nevertheless, the CISCO Aironet® 350 Series Mini-PCI (MPI350) 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. Relevant transmitters include FCC IDs: CJ6UPA3231WL, 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 2,483.5MHz 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.

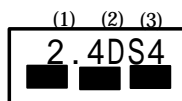
1 Please make sure before using this equipment that no Other Radio Stations are used in the neighborhood.

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 – Friday : 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 it belongs to the device class of radio equipment of low-power data communication system radio station stipulated in the Radio Law of Japan.

The Name of the radio equipment: AIR-MPI350

TELECOM ENGINEERING CENTER

Approval Number : 01NYDA1263, 01GZDA1137

The following restrictions apply:

Do not disassemble or modify the device.

Do not install the embedded wireless module into other device.

Trademark

CISCO Aironet is a registered trademark of Cisco Systems, Inc..

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

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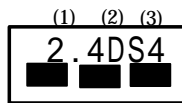
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