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# ThinkPad Regulatory Notice

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## About this manual

This manual contains regulatory information for the following ThinkPad® products.

- ThinkPad T400 and T500
- ThinkPad R400
- ThinkPad X200 and X200s
- ThinkPad W500

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## Read first — regulatory information

Read this document before using your computer. This computer complies with the radio frequency and safety standards of any country or region in which it has been approved for wireless use. Install and use your computer according to the following instructions.

If your computer contains a wireless WAN adapter, be sure to also read *ThinkPad Regulatory Notice for the Wireless WAN Adapter*, included with your computer.

The latest Regulatory Notice has been uploaded on the Web site. To refer to it, go to <http://www.lenovo.com/think/support>, click **Troubleshooting**, and then click **User's guides and manuals**.

Veillez lire le présent document avant d'utiliser votre ordinateur. Cet ordinateur est conforme aux normes de fréquence radio et de sécurité de tous les pays ou régions dans lesquels son utilisation sans fil a été homologuée. Installez et utilisez l'ordinateur en respectant les instructions qui suivent.

Si votre ordinateur contient une carte de réseau étendu (WAN) sans fil, veillez à lire également la consigne réglementaire *ThinkPad Regulatory Notice for the Wireless WAN Adapter*, fournie avec votre ordinateur.

La version la plus récente de la Notice relative à la réglementation a été chargée sur le site Web. Pour la consulter, accédez à <http://www.lenovo.com/think/support>, cliquez sur **Troubleshooting**, puis sur **User's guides and manuals**.

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## USA — Federal Communications Commission (FCC)

### I. Approved wireless devices

This section presents the FCC ID and model number of each wireless device.

#### i) User installable wireless LAN/WiMAX adapter

- FCC ID: PD9533ANXMMU (Model: 533ANXMMW)
- FCC ID: PD9LEN512ANMU (Model: 512AN\_MMW)
- FCC ID: PD9533ANMU (Model: 533AN\_MMW)
- FCC ID: PPD-AR5BHB63-L (Model: AR5BHB63-L)
- FCC ID: TX2-RTL8191SE-L (Model: RTL8191SE)
- FCC ID: PD9112BNHU (Model: 112BNHMMW)

#### Notes:

- The PCI Express Mini Card (Model: 533ANXMMW) incorporates two functions: LAN and WiMAX. These functions operate exclusively, and do not transmit radio frequencies simultaneously.
- PCI Express Mini Cards for a wireless LAN marketed in the USA and Canada do not support or function in the extended channels (12ch, 13ch).

#### ii) Preinstalled integrated *Bluetooth* device

- FCC ID: QDS-BRCM1033 (Model: BCM92046MD\_GEN)

### II. User installable wireless LAN/WiMAX adapter

#### i) Use of the wireless LAN/WiMAX adapter

If no integrated PCI Express Mini Card has been preinstalled in your computer, you can install one, provided by Lenovo® as an option. Plug the wireless option adapter into the PCI Express Mini Card slot. For the installation procedure, see “Installing and replacing the PCI Express Mini Card for wireless LAN/WiMAX connection” in *Access Help*.

**Attention:** The computer contains an authentication mechanism. If you install an unauthorized PCI Express Mini Card that is not approved for use in your computer, the computer will not start, but only displays an error message and emits audible beeps.

#### ii) FCC ID location

There is no FCC ID for the PCI Express Mini Card shown on the enclosure of your computer. Instead you will find an indicator pointing to the location of the FCC ID on the bottom of your computer. For the location of the FCC ID indicator, see “Location of the FCC ID and IC Certification number label” in *Access Help*. The FCC ID is affixed on the approved adapter installed in the PCI Express Mini Card slot. For the location of the slot, see “PCI Express Mini Card slot for wireless LAN/WiMAX” in *Access Help*.

### **iii) FCC RF Exposure compliance**

The radiated output power of the PCI Express Mini Card authorized to use for your computer is far below the FCC radio frequency exposure limits. Nevertheless, it shall be used in such a manner that the potential for human contact during normal operation is minimized as follows:

#### **CAUTION:**

**To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm (8 inches) must be maintained between the antennas connected to the PCI Express Mini Cards and all persons. If the distance may not be maintained while the computer is closed, you must select sleep (standby) as the power mode when closing the display.**

The transmission antennas for the PCI Express Mini Card are located in the LCD cover. See "Location of the UltraConnect™ wireless antennas" in *Access Help*.

### **iv) Radio Frequency interference requirements**

Each device has been tested and found to comply with the limits for a Class B digital device pursuant to FCC Part 15 Subpart B. Refer to "Electronic emission notices" on page 9.

When you use a wireless LAN/WiMAX adapter in the 802.11 a/n transmission mode:

- Each device is restricted to indoor use due to its operation in the 5150 to 5250 MHz frequency range. FCC requires these products to be used indoors for the frequency range 5150 to 5250 MHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.
- High power radar are allocated as primary users of the 5250 to 5350 MHz and 5650 to 5850 MHz bands. These radar stations can cause interference with and/or damage this device.

## **III. Preinstalled integrated *Bluetooth* device**

### **i) Use of the *Bluetooth* device**

The *Bluetooth* device is preinstalled by Lenovo, and is not removable by you. If the device requires replacement during warranty it must be serviced by a Lenovo authorized servicer.

### **ii) FCC ID location**

If your computer uses a *Bluetooth* device, the FCC ID for the *Bluetooth* device is affixed on the label at the bottom of your computer.

### **iii) FCC RF safety requirement**

The radiated output power of the *Bluetooth* device is far below the FCC radio frequency exposure limits. Therefore, a 20 cm of separation between the *Bluetooth* antenna and human body is not required.

The *Bluetooth* device is located in the LCD cover. See “About your computer” in *Access Help*.

### **iv) Radio Frequency interference requirements**

Each device has been tested and found to comply with the limits for both a Class B digital device regarding FCC Part 15 Subpart B and an intentional radiator regarding FCC Part 15 Subpart C; then it underwent the certification processes for both rules. Thus the FCC ID for each *Bluetooth* device listed in “I. Approved wireless devices” on page 2 includes both certifications of Part 15 Subpart B and C.

## **IV. Simultaneous use of RF transmitters**

Your computer is approved for simultaneous use of one of the approved wireless LAN/WiMAX adapters, one of the approved wireless WAN adapters, and one of the approved *Bluetooth* devices. For a list of those transmitters, refer to “I. Approved wireless devices” on page 2 and *ThinkPad Regulatory Notice for the Wireless WAN Adapter*.

Make sure of the following conditions when you use any other external wireless option device:

1. When you use any other RF option device, you are requested to confirm that the device conforms to the RF Safety requirement and is approved to use for your computer.
2. You must follow the RF Safety instructions of wireless option devices that are included in the user manual of the RF option device.
3. If wireless options are prohibited to use in conjunction with another transmitters, you must turn off all other wireless features in your computer.

## IC Certification number

### I. Approved wireless devices

This section presents the IC Certification and model number of each wireless device.

#### i) User installable wireless LAN adapter

- IC: 1000M-L512ANMU (Model: 512AN\_MMW)
- IC: 1000M-533ANMU (Model: 533AN\_MMW)
- IC: 4104A-ARBHB63L (Model: AR5BHB63-L)
- IC: 6317A-RTL8191SE (Model: RTL8191SE)
- IC: 1000M-112BNHU (Model: 112BNHMW)

**Note:** PCI Express Mini Cards for a wireless LAN marketed in the USA and Canada do not support or function in the extended channels (12ch, 13ch).

#### ii) Preinstalled integrated *Bluetooth* device

- IC: 4324A-BRCM1033 (Model: BCM92046MD\_GEN)

### II. User installable wireless LAN adapter

There is no certification number of Industry Canada for the PCI Express Mini Card shown on the enclosure of your computer. Instead you will find an indicator pointing to the location of the IC Certification number on the bottom of your computer. For the location of the IC Certification number indicator, see “Location of the FCC ID and IC Certification number label” in *Access Help*. The IC certification number is affixed on the approved adapter installed in the PCI Express Mini Card slot. For the location of the slot, see “PCI Express Mini Card slot for wireless LAN/WiMAX” in *Access Help*.

**Attention:** The computer contains an authentication mechanism. You can install or remove each wireless adapter by yourself. If you install an unauthorized wireless adapter that is not approved for use in the computer, the computer will not start, but only displays an error message and emits audible beeps.

### III. Preinstalled integrated *Bluetooth* device

If your computer uses a *Bluetooth* device, the IC Certification number for the *Bluetooth* device is affixed on the label at the bottom of your computer. The *Bluetooth* device is preinstalled by Lenovo, and is not removable by you. If the device requires replacement during warranty it must be serviced by a Lenovo authorized servicer.

#### **IV. WiMAX features**

The use of the WiMAX features is not permitted in Canada. Do not use the features. To do so would be a violation of Industry Canada regulations.

#### **V. Low power license-exempt radiocommunication devices (RSS-210)**

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 the device.

The transmitter devices have been designed to operate with the antennas integrated in the computer, and having a maximum gain of within 3 dBi.

The maximum antenna gain permitted for devices in the 5250-5350 MHz, 5470-5725 MHz, and 5725-5825 MHz bands complies with the e.i.r.p. limit in section A9.2 of RSS-210.

When you use a wireless LAN adapter in the 802.11 a/n transmission mode:

- The devices for the band 5150–5250 MHz are only for indoor usage to reduce potential for harmful interference to co-channel Mobile Satellite systems.
- High power radars are allocated as primary users (meaning they have priority) of 5250–5350 MHz and 5650–5850 MHz and these radars could cause interference and/or damage to LELAN (Licence-Exempt Local Area Network) devices.

#### **VI. Exposure of humans to RF fields (RSS-102)**

The computers employ low gain integral antennas that do not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's Web site at <http://www.hc-sc.gc.ca/>

The radiated energy from the antennas connected to the wireless adapters conforms to the IC limit of the RF exposure requirement regarding IC RSS-102, Issue 2 clause 4.2.

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## Numéro d'homologation IC

### I. Périphériques sans fil homologués

Cette section présente le numéro d'homologation IC et le numéro de modèle de chaque périphérique sans fil.

#### i) Module sans fil installable par l'utilisateur

- IC: 1000M-L512ANMU (Model: 512AN\_MMW)
- IC: 1000M-533ANMU (Model: 533AN\_MMW)
- IC: 4104A-ARBHB63L (Model: AR5BHB63-L)
- IC: 6317A-RTL8191SE (Model: RTL8191SE)
- IC: 1000M-112BNHU (Model: 112BNHMW)

#### ii) Émetteur *Bluetooth* intégré préinstallé

- IC: 4324A-BRCM1033 (Model: BCM92046MD\_GEN)

### II. Module sans fil installable par l'utilisateur

Le boîtier de votre ordinateur ne comporte pas de numéro d'homologation IC (Industry Canada) pour la carte mini-PCI Express; mais sous votre ordinateur, vous trouverez un indicateur pointant vers l'emplacement du numéro d'homologation IC. Pour connaître l'emplacement du numéro d'homologation IC, consultez la section correspondante dans *Access Help*. Le numéro d'homologation IC est apposé sur le module installé dans le logement pour carte mini-PCI Express. Pour savoir où se trouve cet emplacement, consultez la section "Logement pour cartes mini-PCI Express pour réseau local/WiMAX" dans *Access Help*.

**Attention:** L'ordinateur contient un mécanisme d'authentification. Vous pouvez installer ou désinstaller tout dispositif sans fil. Si vous installez une carte sans fil qui n'est pas homologuée dans votre ordinateur, l'ordinateur ne démarrera pas mais affichera un message d'erreur et générera des bips sonores.

### III. Émetteur *Bluetooth* intégré préinstallé

Si votre ordinateur utilise un émetteur *Bluetooth*, le numéro d'homologation IC de cet émetteur *Bluetooth* figure sur une étiquette collée sous l'ordinateur. L'émetteur *Bluetooth* est préinstallé par Lenovo et ne peut pas être retiré par l'utilisateur. S'il doit être remplacé pendant la période de garantie, l'opération doit être effectuée par un prestataire de services agréé par Lenovo.

### IV. Fonctions WiMAX

L'utilisation de fonctions WiMAX n'est pas autorisée au Canada. Veuillez ne pas utiliser cette fonction car ce serait une infraction aux lois d'Industrie Canada.

## **V. Remarque relative aux appareils de communication radio de faible puissance sans licence (CNR-210)**

Le fonctionnement de ce type d'appareil est soumis aux deux conditions suivantes:

1. Cet appareil ne doit pas perturber les communications radio, et
2. cet appareil doit supporter toute perturbation, y compris les perturbations qui pourraient provoquer son dysfonctionnement.

Les périphériques d'émission sont conçus pour fonctionner avec des antennes intégrées à l'ordinateur et ayant un gain maximal de moins de 3 dBi.

Le gain d'antenne maximal pour les périphériques dans les bandes de fréquence 5250-5350 MHz, 5470-5725 MHz, et 5725-5825 MHz est conforme à la limite p.i.r.e énoncée dans la section A9.2 de la CNR-210.

Lorsque vous utilisez la carte pour réseau local sans fil en mode de transmission 802.11 a/n:

- Tout appareil destiné à la bande 5150-5250 MHz devra être exclusivement utilisé en intérieur afin de réduire les risques de perturbations électromagnétiques gênantes sur les systèmes de satellite mobile dans un même canal.
- Les radars à forte puissance sont désignés comme les utilisateurs principaux (c'est-à-dire qu'ils sont prioritaires) des bandes 5250-5350 MHz et 5650-5850 MHz. Ils peuvent provoquer des perturbations électromagnétiques sur les appareils de type LELAN (réseau de communication local sans licence) ou les endommager.

## **VI. Exposition des êtres humains aux champs radioélectriques (RF) (CNR-102)**

L'ordinateur utilise des antennes intégrales à faible gain qui n'émettent pas un champ électromagnétique supérieur aux normes imposées par le Ministère de la santé canadien pour la population. Consultez le Safety Code 6 sur le site Web du Ministère de la santé canadien à l'adresse <http://www.hc-sc.gc.ca/>

L'énergie émise par les antennes reliées aux adaptateurs sans fil respecte la limite d'exposition aux radiofréquences telle que définie par Industrie Canada dans la clause 4.2 du document CNR-102.



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## Electronic emission notices

### Federal Communications Commission (FCC) Declaration of Conformity

- Model: AR5BHB63-L
- Model: RTL8191SE

**Note:** The wireless LAN/WiMAX adapters (Models: 533ANXMMW, 512AN\_MMW, 533AN\_MMW, and 112BNHMMW) and the *Bluetooth* devices (Models: BCM92046MD\_GEN) underwent certification process for the FCC Part 15 Subpart B compliance under each respective FCC ID number.


This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. 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 is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an authorized dealer or service representative for help.

Lenovo is not responsible for any radio or television interference caused by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party:  
Lenovo (United States) Incorporated  
1009 Think Place-Building One  
Morrisville, NC 27560  
Telephone: 1-919-294-5900

 Tested To Comply  
With FCC Standards  
FOR HOME OR OFFICE USE

## Industry Canada Class B Emission Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003.

## Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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## Telecommunication notices

### *Federal Communications Commission (FCC) and Telephone Company Requirements (Part 68 of the FCC Rules)*

1. The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent, and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual.

In order to program this information into your computer, you should be sure to follow the installation instructions for your fax software package.

2. This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.
3. The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. The

REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3).

4. If the built-in modem causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify you in advance. But, if advance notice isn't practical, you will be notified as soon as possible. You will be advised of your right to file a complaint with the FCC.
5. Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper operation of your equipment. If they do, you will be given advance notice so as to give you an opportunity to maintain uninterrupted service.
6. No customer repairs are possible to the modem. If you experience trouble with this built-in modem, contact your Lenovo Authorized Seller, or the Customer Support Center. For the most current phone numbers, go to <http://www.lenovo.com/think/support> and click Support phone list. The telephone company may ask you to disconnect this equipment from the network until the problem has been corrected, or until you are sure the equipment is not malfunctioning.
7. The modem may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs. Contact your state public utility commission or corporation commission for information.
8. When ordering network interface (NI) service from the Local Exchange Carrier, specify service arrangement USOC RJ11C.
9. A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.
10. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this Data/Fax Modem does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

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## Industry Canada requirements

*Notice:* This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of communication. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

**Caution:** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The Ringer Equivalence Number (REN) for the terminal equipment RD02-D450 or RD02-D330 is 0.1. The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five.

**Avis:** Le présent matériel est conforme aux spécifications techniques d'Industrie Canada applicables au matériel terminal. Cette conformité est confirmée par le numéro d'enregistrement. Le sigle IC, placé devant le numéro d'enregistrement, signifie que l'enregistrement s'est effectué conformément à une déclaration de conformité et indique que les spécifications techniques d'Industrie Canada ont été respectées. Il n'implique pas qu'Industrie Canada a approuvé le matériel.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. Dans certains cas, les fils intérieurs de l'entreprise utilisés pour un service individuel à ligne unique peuvent être prolongés au moyen d'un dispositif homologué de raccordement (cordon prolongateur téléphonique

interne). L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêchent pas la dégradation du service dans certaines situations. Actuellement, les entreprises de télécommunication ne permettent pas que l'on raccorde leur matériel à des jacks d'abonné, sauf dans les cas précis prévus par les tarifs particuliers de ces entreprises.

Les réparations de matériel homologué doivent être effectuées par un centre d'entretien canadien autorisé désigné par le fournisseur. La compagnie de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

***Avertissement:*** L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

L'indice d'équivalence de la sonnerie (IES) du présent matériel RD02-D450 ou RD02-D330 est de 0.1. L'IES assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface téléphonique. La terminaison d'une interface peut consister en une combinaison quelconque de dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5.

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Part Number: 45N3557\_01

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