User's Manual

The attachment is the regulatory notices related to the FCC Part 15C and IC RSS-210 drawn from the user's manual of each host PC device (IBM ThinkPad R40, T40, or X30 Series).

The descriptions marked in yellow are the related portion to the FCC rule concerning the applying LMA transmitter module.

Part Number: 92P1842

Wireless Regulatory Notice for ThinkPad R40 Series

This notice is a supplementary document of the “ThinkPad® R40 Series Service and Troubleshooting Guide.” Please read this document before you use the ThinkPad R40 Series computer.

The ThinkPad R40 Series computer complies with the radio frequency and safety standards of any country or region in which it has been approved for wireless use. You are requested to install and use your ThinkPad computer in strict accordance with the instructions as described hereafter.

Avis relatif aux appareils sans fil pour les ThinkPad R40 Series

Le présent document complète le manuel “ThinkPad® R40 Series - Guide de maintenance et d’identification des incidents”.

L’ordinateur ThinkPad R40 Series est conforme aux normes de radiofréquence et de sécurité en vigueur dans les pays ou régions où son utilisation sans fil a été acceptée. L’ordinateur doit être installé et utilisé conformément aux instructions fournies ci-après. Avant d’utiliser votre ordinateur ThinkPad R40, veuillez lire ce document.

Hinweis zu drahtlosen Einheiten für den ThinkPad R40 Series

Dieser Hinweis ergänzt die Informationen im Handbuch “ThinkPad® R40 - Service und Fehlerbehebung”.

Der ThinkPad R40 erfüllt die Funkfrequenz- und Sicherheitsstandards der Länder und Regionen, in denen er für die Verwendung als drahtlose Einheit zugelassen ist. Der ThinkPad R40 muss exakt wie nachfolgend beschrieben installiert und verwendet werden. Lesen Sie unbedingt die entsprechenden Informationen in diesem Dokument, bevor Sie den ThinkPad R40 verwenden.

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USA — Federal Communications Commission (FCC)

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.

I. Permanent integrated Wireless Module

- IBM Dual-Band 11a/b Wi-Fi® Wireless Mini PCI Adapter

i) Installation of the integrated wireless module

The above Dual-Band Mini PCI Adapter is preinstalled by IBM, and is not removable by users. There is no mini-PCI option card supported for this module, and you are not allowed to install it by yourself.
If your card requires replacement via the proper step shown in "Chapter 3. Getting help and service from IBM" of the ThinkPad R40 Series Service and Troubleshooting Guide, IBM will request you to send your computer with the card(s) to IBM so that IBM will repair it.

ii) The FCC RF Safety Requirement

The radiated output power of Wireless LAN Mini-PCI Card and Bluetooth card are far below the FCC radio frequency exposure limits. Nevertheless, the ThinkPad R40 computer shall be used in such a manner that the potential for human contact during normal operation is minimized as follows:

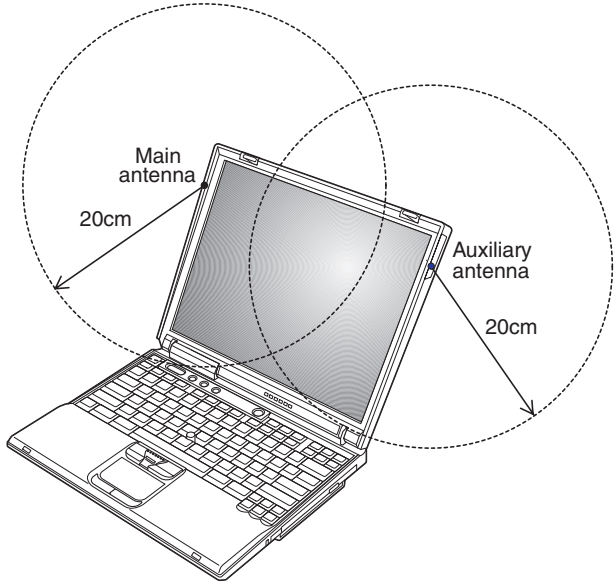
Use of Wireless options
If you find the FCC ID "**ANO20020300D3L**" on the label at the bottom side of your ThinkPad computer, your computer is approved as a multiple transmitters device that is permitted to use the integrated Wireless LAN Mini-PCI Card and Bluetooth card with one or more wireless option PC Cards in the PC Card slot simultaneously.
Please make sure of the following when you use a Bluetooth option or wireless option PC Card in your ThinkPad computer.

1. Visit the IBM site at **www.ibm.com/pc/qtechinfo/MIGR-44156.html** and confirm the updated list of RF option devices that have been approved to cooperate with the integrated wireless feature.
2. When you use any other RF option device that is not listed on the IBM site, all other wireless features including the integrated transmitter in your ThinkPad computer are required to be turned off.
3. Users are requested to follow the RF Safety instructions on wireless option devices that are included in the RF option device's user's manual.

CAUTION:
To comply with FCC RF exposure compliance requirements, a separation

distance of at least 20 cm (8 inches) must be maintained between the antenna for the integrated Wireless LAN Mini-PCI Card built in to the screen section and all persons.

FCC ID: ANO20020300D3L



Note: IBM Dual-Band 11a/b Wi-Fi® Wireless Mini PCI Adapter implements transmission diversity function. The function does not emit radio frequencies simultaneously from both antennas. One of the antennas is selected automatically or manually (by users) to have good quality of radiocommunication.

iii) Radio Frequency Interference Requirements:

- This device is restricted to indoor use due to its operation in the 5.15 to 5.25 GHz frequency range. FCC requires this product to be used indoors for the frequency range 5.15 to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.
- High power radar are allocated as primary users of the 5.25 to 5.35 GHz and 5.65 to 5.85 GHz bands. These radar stations can cause interference with and /or damage this device.
- An improper installation or unauthorized use may cause harmful interference to radio communications. Also any tampering of the internal antenna will void the FCC certification.
  Refer to the “Appendix E. Notices, Electronic emission notices” of the ThinkPad R40 Series Service and Troubleshooting Guide for more detail.

II. Modular Approved transmitter cards

Mini PCI cards

- IBM High Rate Wireless LAN Mini PCI Adapter III
- Intel® Pro/Wireless LAN 2100 3B Mini PCI Adapter
- Cisco Aironet Wireless 802.11b

Communication Daughter Card (CDC)

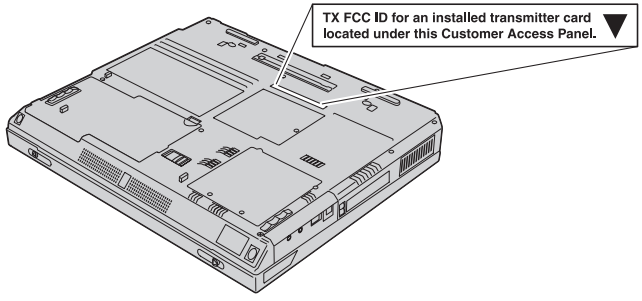
- IBM integrated Bluetooth with 56K Modem

Note: Some models do not support these cards.

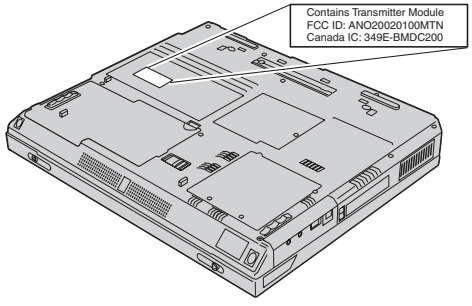
i) FCC ID of Wireless Modules

There is no FCC ID for Mini PCI cards shown on the enclosure of your ThinkPad computer. Instead you will find an indicator pointing the location of the FCC ID at the bottom side of your ThinkPad computer as shown in the figure i-1). As for the CDC, the FCC ID is affixed on your ThinkPad computer as shown in the figure i-2).

i-1) Mini-PCI cards (FCC ID: ANO20020200BRX, ANOU58H004, ANO20020201CLK)

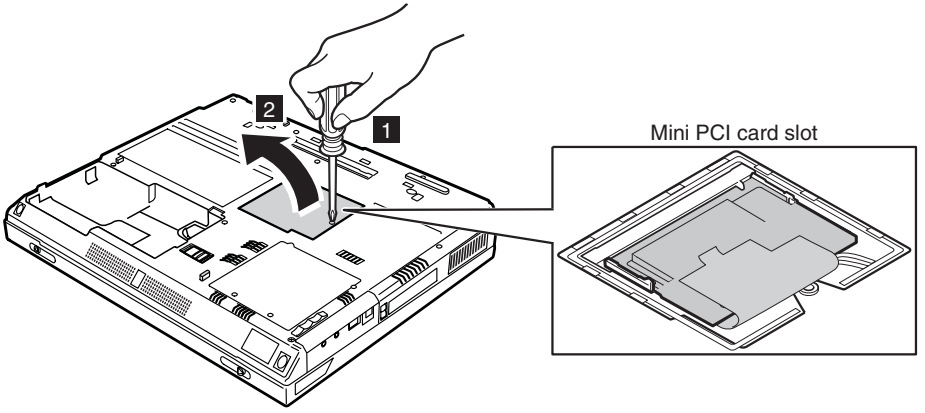


i-2) CDC (FCC ID: ANO20020100MTN)



ii) Installation of approved wireless modules

If no integrated wireless LAN Mini-PCI Card has been preinstalled in your ThinkPad computer, you can install one, provided by IBM as an option. Please plug the option wireless card into the Mini-PCI Card slot located bottom of the computer as shown below.



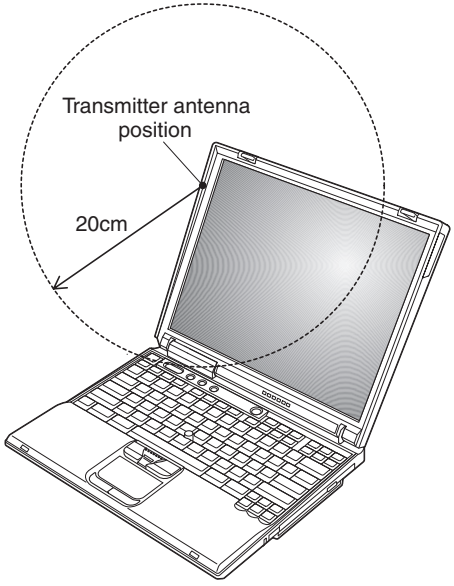
Attention for the BIOS Lock Protection:
If you install an unauthorized wireless LAN Mini-PCI Card that was not approved to use for the ThinkPad R40 Series computer, the computer does not start, but only displays an error message and emits beeps.

iii) The FCC RF Safety Requirement

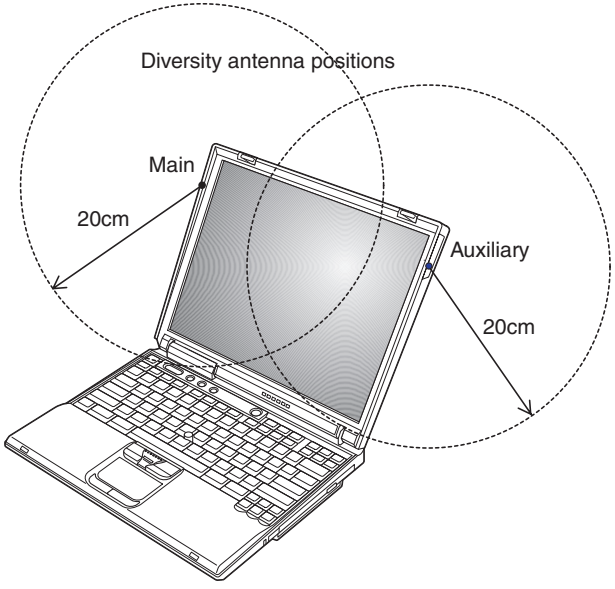
The radiated output power of Wireless LAN Mini-PCI Card and Bluetooth card are far below the FCC radio frequency exposure limits. Nevertheless, the ThinkPad R40 computer shall be used in such a manner that the potential for human contact during normal operation is minimized as follows:

CAUTION:
To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm (8 inches) must be maintained between the antenna for the integrated Wireless LAN Mini-PCI Card built in to the screen section and all persons.

IBM High Rate Wireless LAN Mini PCI Adapter III(FCC ID: ANO20020200BRX)
Intel® PRO/Wireless LAN 2100 3B Mini PCI Adapter (FCC ID: ANO20020201CLK)

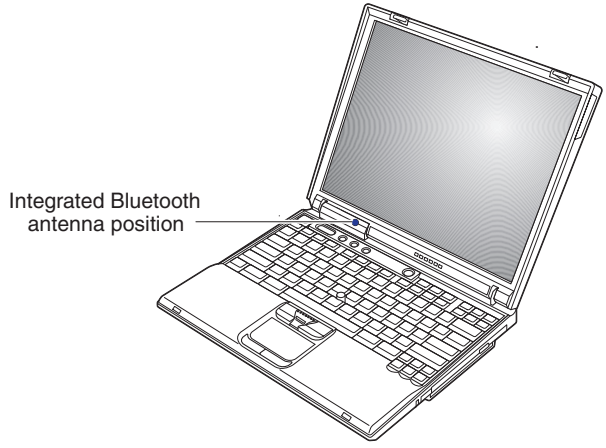


Cisco Aironet Wireless 802.11b (FCC ID: ANOU58H004)



Note: The transmission diversity function is implemented for the Card. The function does not emit radio frequencies simultaneously from both antennas. One of the antennas is selected automatically or manually (by users) to have good quality of radiocommunication.

IBM Integrated Bluetooth with 56K Modem (FCC ID: ANO20020100MTN)



The antenna of IBM Integrated Bluetooth with 56K Modem is located in the left hinge portion of keyboard. Transmitted energy from the Bluetooth device is very low compared to other RF devices. Therefore a 20 cm separation from the Bluetooth antenna is not required.

Use of Wireless options

Your ThinkPad computer is approved for use of one of the granted Wireless LAN Mini-PCI Cards together with the granted Bluetooth module in the CDC slot, and one or more wireless option PC Cards in the PC Card slot or USB port simultaneously. Please make sure of the following conditions on use of these wireless features.

1. Visit the IBM site at **www.ibm.com/pc/qtechinfo/MIGR-43693.html** and confirm the updated list of RF option devices that have been approved to cooperate with the integrated wireless feature.
2. When you use any other RF option device that is not listed on the IBM site, all other wireless features including the integrated transmitter in your ThinkPad computer are required to be turned off.
3. Users are requested to follow the RF Safety instructions on wireless option devices that are included in the RF option device's user's manual.

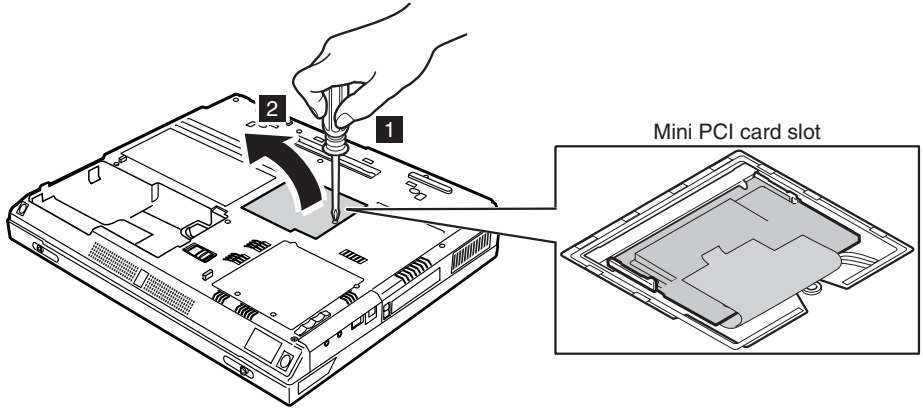
iv) Interference Statement

An improper installation or unauthorized use may cause harmful interference to radio communications. Also any tampering of the internal antenna will void the FCC certification and your warranty. Refer to the “Appendix D. Notices, Electronic emission notices” of the ThinkPad R40 Series Service and Troubleshooting Guide for more detail.

Canada — Industry Canada (IC)

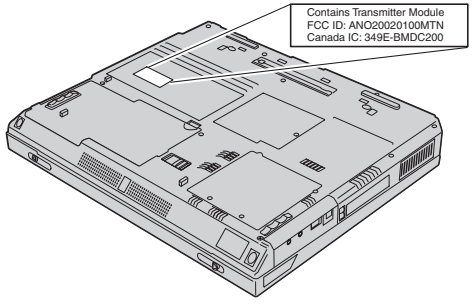
Certification number

The certification number of Industry Canada for each approved Mini-PCI wireless module is affixed on each adapter installed in the Mini-PCI Card slot as shown below.



However some IC certification numbers are indicated on the label at the bottom side of your ThinkPad computer, because users can not easily access to the certification labels of each transmitter module listed below.

- IBM integrated Bluetooth with 56K Modem, "**IC: 349E-BMDC200**"
- IBM Dual-Band 11a/b Wi-Fi® Wireless Mini PCI Adapter, "**IC: 349E-PH11107E**"



Attention for the BIOS Lock Protection:
You can install or remove each wireless feature by yourself. However, if you install an unauthorized wireless adapter that is not approved to use for the ThinkPad R40 Series computer, the computer does not start, but only displays an error message and emits beeps.

Low Power License-Exempt Radiocommunication Devices (RSS-210)

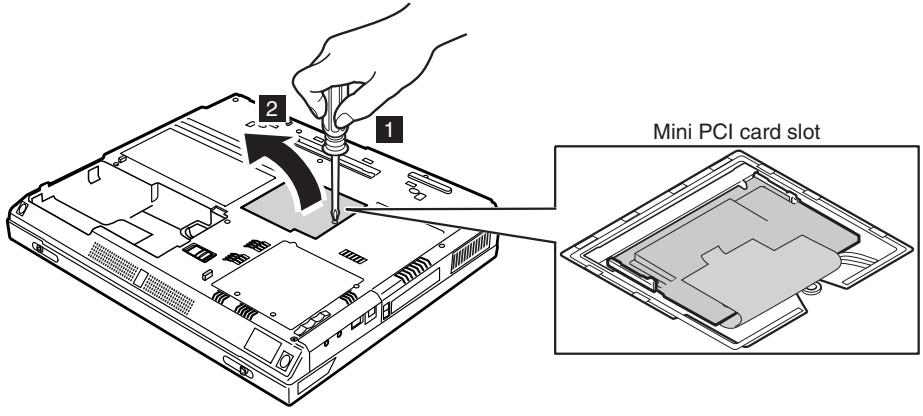
1. Common information: Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
2. Operation in 2.4GHz band: To prevent radio interference 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.
3. Operation in 5GHz band:
   - The device for the band 5150-5250 MHz is 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.

Exposure of Humans to RF Fields (RSS-102)

ThinkPad R40 Series 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 website "www.hc-sc.gc.ca/rpb".

Numéro d'homologation

En général, le numéro d'homologation délivré au Canada pour chaque unité Mini-PCI pour réseau local sans fil est apposé sur chaque adapteur installé dans l'emplacement de carte Mini-PCI, comme indiqué ci-dessous.



Cependant certains numéros d'homologation IC peuvent figurer suz l'étiquette colée sous votre ordinateur ThinkPad, car il n'est pas aisé d'accéder aux numéros d'homologation des adaptateurs suivants:

- Adaptateur intégré IBM Bluetooth avec Modem 56K, “IC: 349E-BMDC200”
- Adaptateur sans fil Mini PCI IBM Dual-Band 11a/b Wi-Fi®, “IC: 349E-PH11107E”

Avertissement concernant la protection contre le verrouillage du BIOS : Vous pouvez installer ou retirer chaque carte sans fil vous-même. Cependant, si vous avez installé une carte de ce type qui n’est pas homologuée pour l’ordinateur ThinkPad R40 Series, l’ordinateur ne démarrera pas. Un message d’erreur sera affiché et des bips sonores seront émis.

Remarque relative aux appareils de communication radio de faible puissance sans licence (RSS-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.

Fonctionnement dans la bande 2.4 GHz : Afin d’éviter toute perturbation des communications radio des appareils sous licence, cet appareil devra uniquement être utilisé en intérieur et à distance de toute fenêtre afin de garantir une protection maximale. Tout équipement (ou toute antenne émettrice associée) installé en extérieur devra faire l’objet d’une licence.

Fonctionnement dans la bande 5 GHz : 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 systémes 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.

Exposition des êtres humains aux champs radioélectriques (RF) (RSS-102)

Le ThinkPad R40 Series utilise des antennes intégrales à faible gain qui n’émettent pas un champ électromagnétique supérieur aux normes imposées par le Ministére de la santé canadien pour la population. Consultez le Safety Code 6 sur le site Web du Ministére de la santé canadien à l’adresse “www.hc-sc.gc.ca/rpb”.

Part Number: 92P1709

Regulatory Notice for ThinkPad® T40 Series

This notice is a supplementary document of the *ThinkPad T40 Series Service and Troubleshooting Guide*. Please read this document before you use the ThinkPad T40 Series computer.

The ThinkPad T40 Series computer complies with the radio frequency and safety standards of any country or region in which it has been approved for wireless use. You are requested to install and use your ThinkPad computer in strict accordance with the instructions as described hereafter.

Réglementation concernant les ordinateurs ThinkPad T40 Series

Le présent document complètea LE Manuel *ThinkPad T40 Series - Guide de maintenance ate d'identification des incidents*.

L'ordinateur ThinkPad T40 Series est conforme aux normes de radiofréquence et de sécurité en vigueur dans les pays ou régions où son utilisation sans fil a été acceptée. L'ordinateur doit être installé et utilisé conformément aux instructions fournies ci-après. Avant d'utiliser votre ordinateur ThinkPad T40, veuillez lire ce document.

Hinweis zu Einheiten für den ThinkPad T40 Series

Dieser Hinweis ergänzt die Informationen im Handbuch *ThinkPad T40 - Service und Fehlerbehebung*.

Der ThinkPad T40 erfüllt die Funkfrequenz- und Sicherheitsstandards der Länder und Regionen, in denen er für die Verwendung als drahtlose Einheit zugelassen ist. Der ThinkPad T40 muss exakt wie nachfolgend beschrieben installiert und verwendet werden. Lesen Sie unbedingt die entsprechenden Informationen in diesem Dokument, bevor Sie den ThinkPad T40 verwenden.

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USA — Federal Communications Commission (FCC)

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.

I. Permanent integrated wireless module

- IBM Dual-Band 11a/b Wi-Fi Wireless Mini PCI Adapter

i) Installation of the integrated wireless module

IBM Dual-Band 11a/b Wi-Fi Wireless Mini PCI Adapter is preinstalled by IBM, and is not removable by users. If your card requires replacement via the proper step shown in "Chapter 3. Getting help and service from IBM" of the *ThinkPad T40 Series Service and Troubleshooting Guide*, IBM will request you to send your computer with the card(s) to IBM so that IBM will repair it.

ii) The FCC RF safety requirement

The radiated output power of Wireless LAN Mini-PCI Card and Bluetooth card is far below the FCC radio frequency exposure limits. Nevertheless, the ThinkPad T40 Series computer shall be used in such a manner that the potential for human contact during normal operation is minimized as follows.

Use of wireless options

If you find the FCC ID "**ANO20020302R1L**" on the label at the bottom side of your ThinkPad computer, your computer is approved as a multiple transmitters device that is permitted to use the integrated wireless LAN Mini-PCI Card and Bluetooth card with one or more wireless option PC Cards in the PC Card slot simultaneously.

Please make sure of the following when you use a Bluetooth option or wireless option PC Card in your ThinkPad computer.

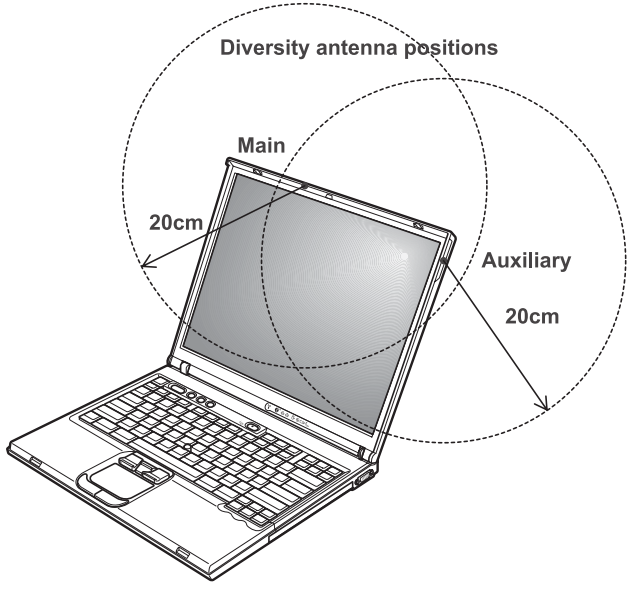
1. Visit the IBM site at **www.ibm.com/pc/qtechinfo/MIGR-44156.html** and confirm the updated list of RF option devices that have been approved to cooperate with the integrated wireless feature.

2. When you use any other RF option device that is not listed on the IBM site, all other wireless features including the integrated transmitter in your ThinkPad computer are required to be turned off.

3. Users are requested to follow the RF Safety instructions on wireless option devices that are included in the user's manual of each RF option device.

Caution: To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm (8 inches) must be maintained between the antenna for the integrated Wireless LAN Mini-PCI Card built in to the screen section and all persons.

FCC ID: ANO20020302R1L



Note: IBM Dual-Band 11a/b Wi-Fi Wireless Mini PCI Adapter implements transmission diversity function. The function does not emit radio frequencies simultaneously from both antennas. One of the antennas is selected automatically or manually (by users) to have good quality of radiocommunication.

iii) Radio Frequency interference requirements

- This device is restricted to indoor use due to its operation in the 5.15 to 5.25 GHz frequency range. FCC requires this product to be used indoors for the frequency range 5.15 to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.
- High power radar are allocated as primary users of the 5.25 to 5.35 GHz and 5.65 to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device.
- An improper installation or unauthorized use may cause harmful interference to radio communications. Also any tampering of the internal antenna will void the FCC certification and your warranty. Refer to the "Appendix D. Notices, Electronic emission notices" of the *ThinkPad T40 Series Service and Troubleshooting Guide* for more detail.

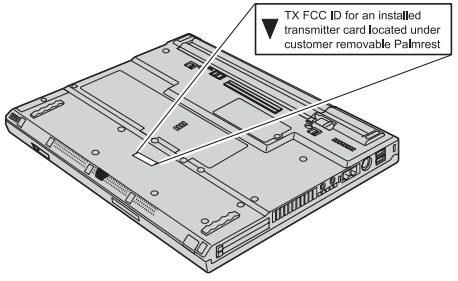
II. User installable wireless modules

- Mini-PCI Cards
  - Cisco Aironet Wireless 802.11b
  - Intel® PRO/Wireless LAN 2100 3B Mini PCI Adapter
- Communication Daughter Card (CDC)
  - IBM Integrated Bluetooth with 56K Modem

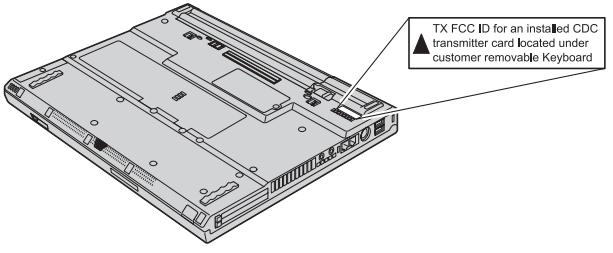
i) FCC ID of wireless modules

There is no FCC ID for Mini-PCI Cards shown on the enclosure of your ThinkPad computer. Instead you will find an indicator pointing the location of the FCC ID at the bottom side of your ThinkPad computer as shown below in the figure i-1). Also the location of the FCC ID's indicator for CDC is shown by the figure i-2). The FCC IDs are affixed on each approved module installed in the Mini-PCI Card slot or the CDC slot.

i-1) Mini-PCI Cards (FCC ID: ANOU58H004 or ANO20020201CLK)

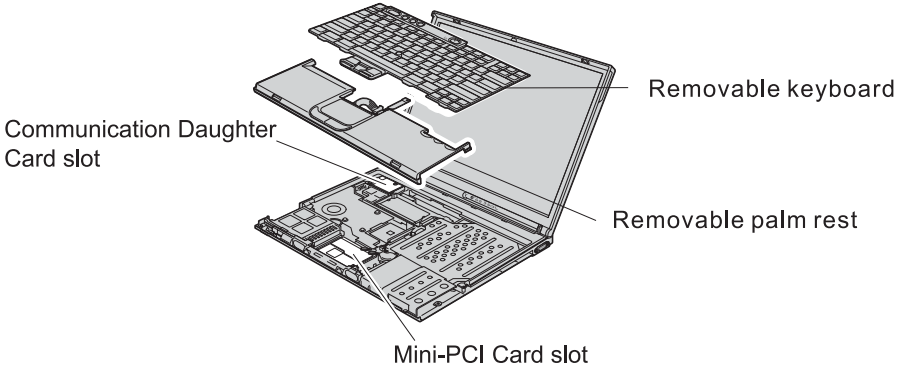


i-2) CDC (FCC ID: ANO20020100MTN)



ii) Installation of approved wireless modules

If no integrated wireless LAN Mini-PCI Card or RF CDC module is preinstalled in your ThinkPad computer, you can install one, provided by IBM as an option. Please plug the option wireless card into the Mini-PCI Card slot or CDC slot located under the keyboard of your ThinkPad computer as shown below.



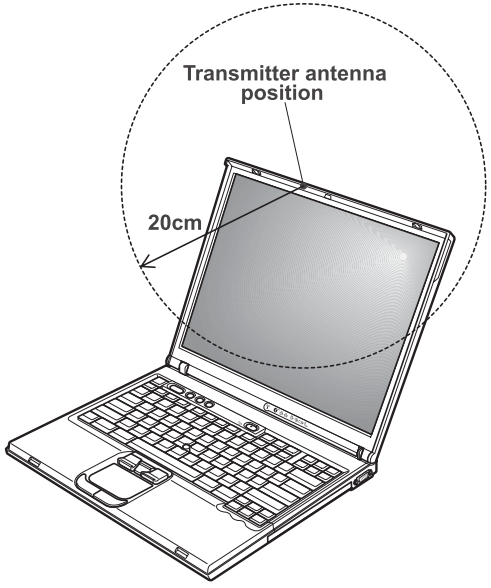
Attention for the BIOS lock protection:
If you install an unauthorized wireless LAN Mini-PCI Card or RF CDC module that is not approved to use for the ThinkPad T40 Series computer, the computer does not start, but only displays an error message and emits beeps.

iii) The FCC RF safety requirement

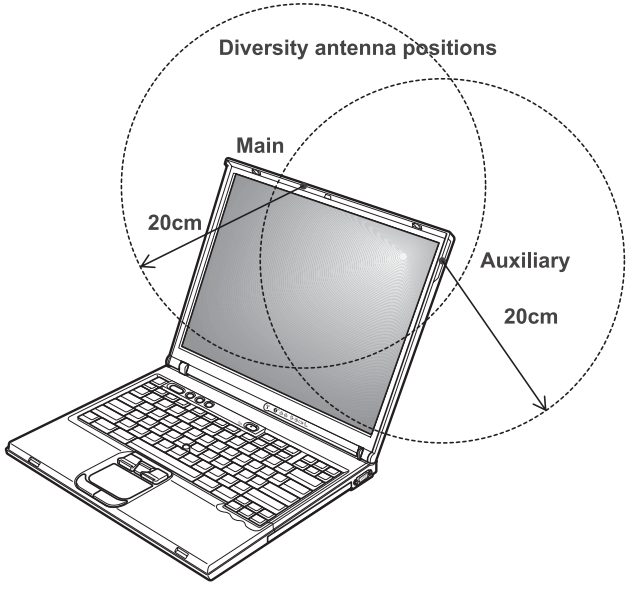
The radiated output power of the Wireless LAN Mini-PCI Cards or RF CDC module authorized to use for the ThinkPad T40 Series computer is far below the FCC radio frequency exposure limits. Nevertheless, the ThinkPad T40 Series computer shall be used in such a manner that the potential for human contact 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 antenna for the integrated Wireless LAN Mini-PCI Card built in to the screen section and all persons.

Intel PRO/Wireless LAN 2100 3B Mini PCI Adapter (FCC ID: ANO20020201CLK)

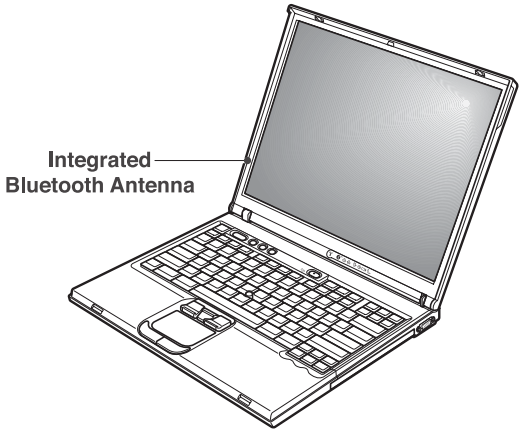


Cisco Aironet Wireless 802.11b (FCC ID: ANOU58H004)



Note: The transmission diversity function is implemented for the Card (FCC ID: ANOU58H004). The function does not emit radio frequencies simultaneously from both antennas. One of the antennas is selected automatically or manually (by users) to have good quality of radiocommunication.

IBM Integrated Bluetooth with 56K Modem (FCC ID: ANO20020100MTN)



Note: The antenna of IBM Integrated Bluetooth with 56K Modem is located on the left side of the computer lid. Transmitted energy from the Bluetooth device is very low compared to other RF devices. Therefore a 20 cm separation from the Bluetooth antenna is not required.

Use of wireless options

Your ThinkPad computer is approved for use of one of the granted Wireless LAN Mini-PCI Cards together with the granted Bluetooth module in the CDC slot, and one or more wireless option PC Cards in the PC Card slot or USB port simultaneously. Please make sure of the following conditions on use of these wireless features.

1. Visit the IBM site at **www.ibm.com/pc/qtechinfo/MIGR-43693.html** and confirm the updated list of RF option devices that have been approved to cooperate with the integrated wireless feature.
2. When you use any other RF option device that is not listed on the IBM site, all other wireless features including the integrated transmitter in your ThinkPad computer are required to be turned off.
3. Users are requested to follow the RF Safety instructions on wireless option devices that are included in the RF option device's user's manual.

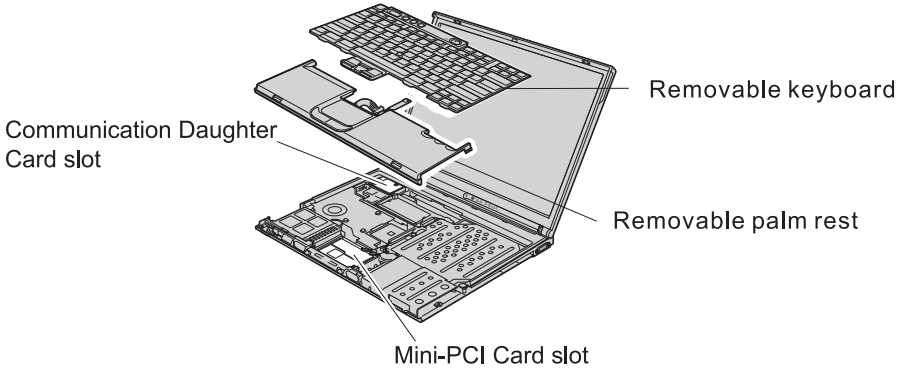
iv) Interference statement

An improper installation or unauthorized use may cause harmful interference to radio communications. Also any tampering of the internal antenna will void the FCC certification and your warranty. Refer to the "Appendix D. Notices, Electronic emission notices" of the *ThinkPad T40 Series Service and Troubleshooting Guide* for more detail.

Canada — Industry Canada (IC)

Certification number

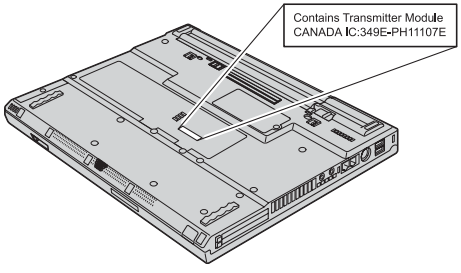
The certification number of Industry Canada for each approved Mini-PCI wireless card or RF Communication Daughter Card (CDC) is affixed on each module installed in the Mini-PCI Card slot or the CDC slot as shown below.



However, the following RF module is fixed to the computer with a special screw, then users cannot confirm the certification label of the transmitter affixed on back side. Therefore an additional information for the IC certification number is indicated on the label at the bottom side of your ThinkPad computer.

—IBM Dual-Band 11a/b Wi-Fi Wireless Mini PCI Adapter, “IC: 349E-PH11107E”

The additional IC’s certification indication



Attention for the BIOS lock protection

You can install or remove each wireless feature by yourself except for the IBM Dual-Band 11a/b Wi-Fi Wireless Mini PCI Adapter. If you install an unauthorized wireless adapter that is not approved for use with the ThinkPad T40 Series computer, the computer does not start, but only displays an error message and emits beeps.

Low power license-exempt radiocommunication devices (RSS-210)

a. Common information

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.

b. Operation in 2.4 GHz band

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.

c. Operation in 5 GHz band

- The device for the band 5150–5250 MHz is 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.

Exposure of humans to RF fields (RSS-102)

ThinkPad T40 Series 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 www.hc-sc.gc.ca/rpb

Numéro d'homologation signifie

Le terme «IC» avant le numéro d'homologation signifie seulement que les normes d'Industrie Canada ont étérespectées.

Le numéro d'homologation IC: 349E-xxxxx qui figure sur l'étiquette apposée sous l'ordinateur concerne le module Bluetooth intégré. Le numéro d'homologation pour la carte mini-PCI pour réseau local sans fil est collé sur la carte installée dans l'emplacement correspondant, comme indiqué dans la figure précédente.

Attention: Vous pouvez installer ou retirer la carte mini-PCI pour réseau local sans fil vous-même. Si vous avez installé une carte de ce type qui n'est pas homologuée pour l'ordinateur ThinkPad T40 Series, l'ordinateur ne démarrera pas ; un message d'erreur sera affiché et des bips sonores seront émis.

Permis d'émission à faible puissance - Cas des appareils de communications radio (CNR-210)

Le fonctionnement de ce type d'appareil est soumis aux deux conditions suivantes: (1) Cet appareil peut perturber les communications radio, et (2) cet appareil doit supporter toute perturbation, y compris les perturbations qui pourraient provoquer un dysfonctionnement.

Pour empêcher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit être utilisé à l'intérieur et devrait être placé loin des fenêtres afin de fournir un écran de blindage maximal. Si le matériel (ou son antenne d'émission) est installé à l'extérieur, il doit faire l'objet d'une licence.

Part Number: 92P1335

Regulatory Notice for ThinkPad® X30 Series

This notice is a supplementary document of the *ThinkPad X30 Series Service and Troubleshooting Guide*. Please read this document before you use the ThinkPad X30 Series computer.

The ThinkPad X30 Series computer complies with the radio frequency and safety standards of any country or region in which it has been approved for wireless use. You are requested to install and use your ThinkPad computer in strict accordance with the instructions as described hereafter.

Réglementation concernant les ordinateurs ThinkPad X30 Series

Le présent document complète le manuel *ThinkPad X30 Series- Guide de maintenance et d'identification des incidents*. Avant d'utiliser votre ordinateur ThinkPad X30, veuillez lire ce document.

L'ordinateur ThinkPad X30 series est conforme aux normes de radiofréquence et de sécurité en vigueur dans les pays ou régions où son utilisation sans fil a été acceptée. L'ordinateur doit être installé et utilisé conformément aux instructions fournies ci-après.

Hinweis zu Einheiten für den ThinkPad X30

Dieser Hinweis ergänzt die Informationen im Handbuch *ThinkPad X30 - Service und Fehlerbehebung*. Lesen Sie unbedingt die entsprechenden Informationen in diesem Dokument, bevor Sie den ThinkPad X30 verwenden.

Der ThinkPad X30 erfüllt die Funkfrequenz- und Sicherheitsstandards der Länder und Regionen, in denen er für die Verwendung als drahtlose Einheit zugelassen ist. Der ThinkPad X30 muss exakt wie nachfolgend beschrieben installiert und verwendet werden.

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USA — Federal Communications Commission (FCC)

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.

I. Permanent integrated wireless module

- IBM Dual-Band 11a/b Wi-Fi Wireless Mini PCI Adapter

i) Installation of the integrated wireless module

IBM Dual-Band 11a/b Wi-Fi Wireless Mini PCI Adapter is preinstalled by IBM, and is not removable by users. If your card requires replacement via the proper step shown in "Chapter 3. Getting help and service from IBM" of the *ThinkPad X30 Series Service and Troubleshooting Guide*, IBM will request you to send your computer with the card(s) to IBM so that IBM will repair it.

ii) The FCC RF safety requirement

The radiated output power of wireless LAN Mini-PCI Card and Bluetooth card is far below the FCC radio frequency exposure limits. Nevertheless, the ThinkPad X30 Series computer shall be used in such a manner that the potential for human contact during normal operation is minimized as follows:

Use of wireless options

If you find the FCC ID "**ANO20020304T2L**" on the label at the bottom side of your ThinkPad computer, your computer is approved as a multiple transmitters device that is permitted to use the integrated wireless LAN Mini-PCI Card and the Bluetooth card with one or more wireless option PC Cards in the PC Card slot simultaneously.

Please make sure of the following when you use the Bluetooth option or the wireless option PC Card in your ThinkPad computer.

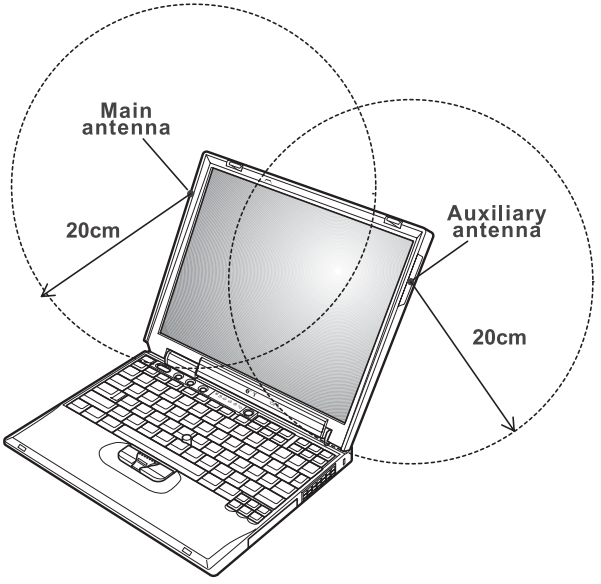
1. Visit the IBM site at **www.ibm.com/pc/qtechinfo/MIGR-44156.html** and confirm the updated list of RF option devices that have been approved to cooperate with the integrated wireless feature.

2. When you use any other RF option device that is not listed on the IBM site, all other wireless features including the integrated transmitter in your ThinkPad computer are required to be turned off.

3. Users are requested to follow the RF Safety instructions on wireless option devices that are included in the RF option device's user's manual.

Caution: To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm (8 inches) must be maintained between the antenna for the integrated Wireless LAN Mini-PCI Card built in to the screen section and all persons.

FCC ID: ANO20020304T2L



Note: IBM Dual-Band 11a/b Wi-Fi Wireless Mini PCI Adapter implements transmission diversity function. The function does not emit radio frequencies simultaneously from both antennas. One of the antennas is selected automatically or manually (by users) to have good quality of radiocommunication.

iii) Radio Frequency interference requirements

- This device is restricted to indoor use due to its operation in the 5.15 to 5.25 GHz frequency range. FCC requires this product to be used indoors for the frequency range 5.15 to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.
- High power radar are allocated as primary users of the 5.25 to 5.35 GHz and 5.65 to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device.

- An improper installation or unauthorized use may cause harmful interference to radio communications. Also any tampering of the internal antenna will void the FCC certification and your warranty. Refer to the"Appendix D. Notices, Electronic emission notices" of the *ThinkPad X30 Series Service and Troubleshooting Guide* for more detail.

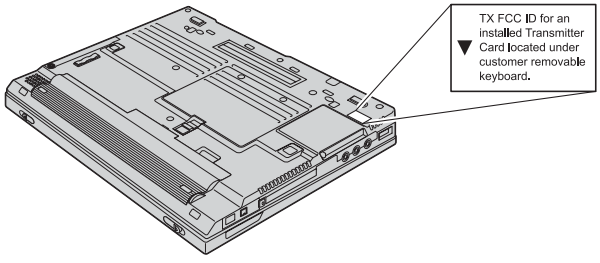
II. User installable wireless modules

- Mini-PCI Cards
  - Cisco Aironet Wireless 802.11b
  - Intel® PRO/Wireless LAN 2100 3B Mini PCI Adapter
- Communication Daughter Card (CDC)
  - IBM Integrated Bluetooth with 56K Modem

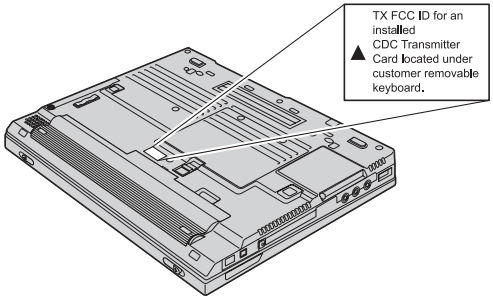
i) FCC ID of wireless modules

There is no FCC ID for Mini-PCI Cards shown on the enclosure of your ThinkPad computer. Instead you will find an indicator pointing the location of the FCC ID at the bottom side of your ThinkPad computer as shown below in the figure i-1). Also the location of the FCC ID's indicator for CDC is shown by the figure i-2). The FCC IDs are affixed on each approved module installed in the Mini-PCI Card slot or the CDC slot.

i-1) Mini-PCI Cards (FCC ID: ANOU58H004 or ANO20020201CLK)

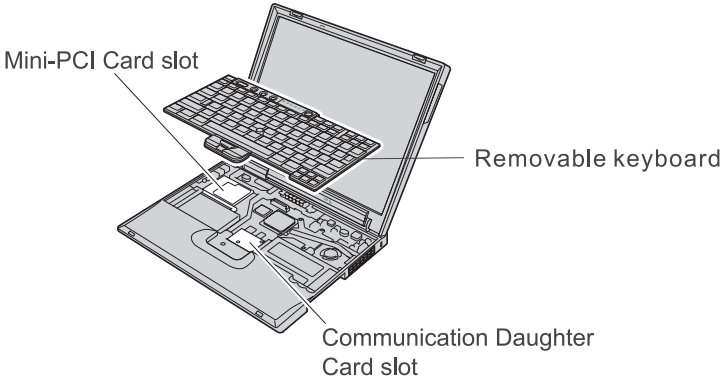


i-2) CDC (FCC ID: ANO20020100MTN)



ii) Installation of approved wireless modules

If no integrated wireless LAN Mini-PCI Card or RF CDC module has been preinstalled in your ThinkPad computer, you can install one, provided by IBM as an option. Please plug the option wireless card into the Mini-PCI Card slot or CDC slot located under the keyboard of your ThinkPad computer as shown below.



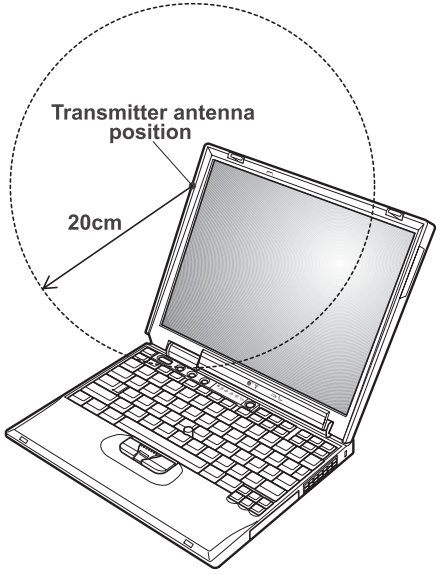
Attention for the BIOS lock protection:
If you install an unauthorized wireless LAN Mini-PCI Card or RF CDC module that is not approved to use for the ThinkPad X30 Series computer, the computer does not start, but only displays an error message and emits beeps.

iii) The FCC RF safety requirement

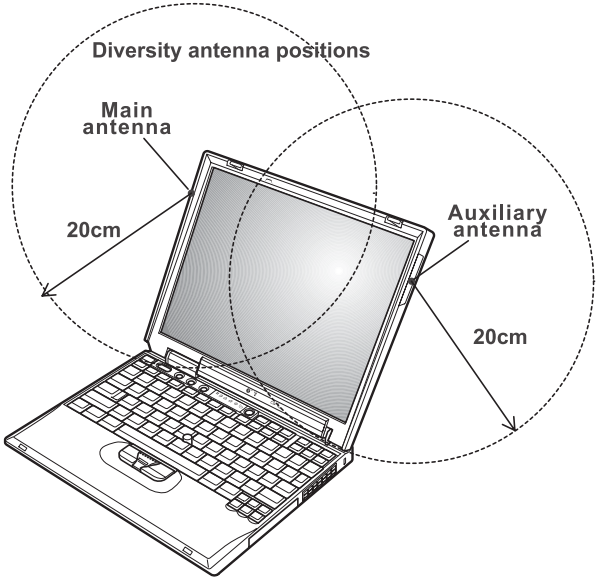
The radiated output power of the Wireless LAN Mini-PCI Cards or RF CDC module authorized to use for the ThinkPad X30 Series computer is far below the FCC radio frequency exposure limits. Nevertheless, the ThinkPad X30 Series computer shall be used in such a manner that the potential for human contact 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 antenna for the integrated Wireless LAN Mini PCI Card built in to the screen section and all persons.

Intel PRO/Wireless LAN 2100 3B Mini PCI Adapter (FCC ID: ANO20020201CLK)

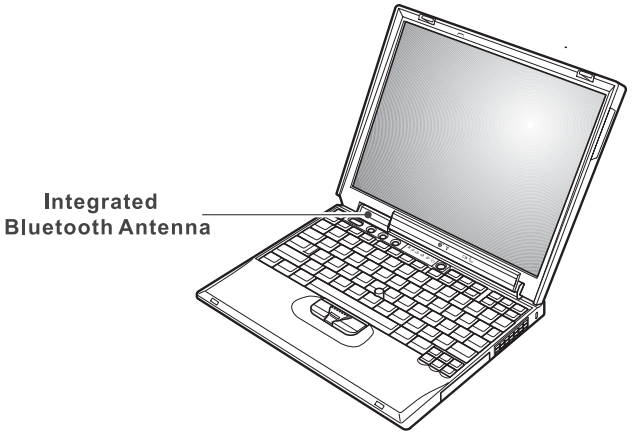


Cisco Aironet Wireless 802.11b (FCC ID: ANOU58H004)



Note: The transmission diversity function is implemented for the Card (FCC ID: ANOU58H004). The function does not emit radio frequencies simultaneously from both antennas. One of the antennas is selected automatically or manually (by users) to have good quality of radiocommunication.

IBM Integrated Bluetooth with 56K Modem (FCC ID: ANO20020100MTN)



Note: The antenna of IBM Integrated Bluetooth with 56K Modem is located in the left hinge portion of keyboard. Transmitted energy from the Bluetooth device is very low compared to other RF devices. Therefore a 20 cm separation from the Bluetooth antenna is not required.

Use of wireless options

Your ThinkPad computer is approved for use of one of the granted Wireless LAN Mini-PCI Cards together with the granted Bluetooth module in the CDC slot, and one or more wireless option PC Cards in the PC Card slot or USB port simultaneously. Please make sure of the following conditions on use of these wireless features.

1. Visit the IBM site at **www.ibm.com/pc/qtechinfo/MIGR-43693.html** and confirm the updated list of RF option devices that have been approved to cooperate with the integrated wireless feature.
2. When you use any other RF option device that is not listed on the IBM site, all other wireless features including the integrated transmitter in your ThinkPad computer are required to be turned off.
3. Users are requested to follow the RF Safety instructions on wireless option devices that are included in the RF option device's user's manual.

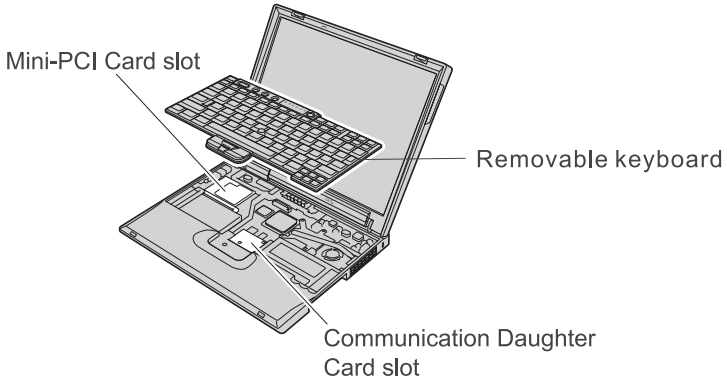
iv) Interference statement

An improper installation or unauthorized use may cause harmful interference to radio communications. Also any tampering of the internal antenna will void the FCC certification and your warranty. Refer to the "Appendix D. Notices, Electronic emission notices" of the *ThinkPad X30 Series Service and Troubleshooting Guide* for more detail.

Canada — Industry Canada (IC)

Certification number

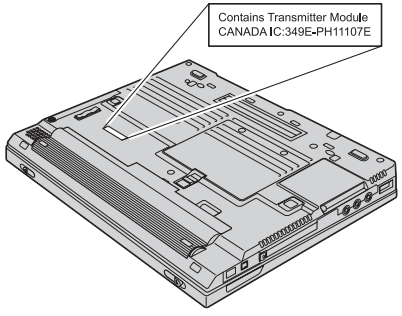
The certification number of Industry Canada for each approved Mini-PCI wireless Card or RF Communication Daughter Card (CDC) is affixed on each module installed in the Mini-PCI Card slot or the CDC slot as shown below.



However, the following RF module is fixed to the computer with a special screw, then users cannot confirm the certification label of the transmitter affixed on back side. Therefore an additional information for the IC certification number is indicated on the label at the bottom side of your ThinkPad computer.

—IBM Dual-Band 11a/b Wi-Fi Wireless Mini PCI Adapter, “IC: 349E-PH11107E”

The additional IC’s certification indication



Attention for the BIOS lock protection

You can install or remove each wireless feature by yourself except for the IBM Dual-Band 11a/b Wi-Fi Wireless Mini PCI Adapter. If you install an unauthorized wireless adapter that is not approved for use with the ThinkPad X30 Series computer, the computer does not start, but only displays an error message and emits beeps.

Low power license-exempt radiocommunication devices (RSS-210)

a. Common information

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.

b. Operation in 2.4 GHz band

- 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.

c. Operation in 5 GHz band

- The device for the band 5150–5250 MHz is 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.

Exposure of humans to RF fields (RSS-102)

ThinkPad X30 Series 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 www.hc-sc.gc.ca/rpb

Numéro d'homologation signifie

Le terme «IC» avant le numéro d'homologation signifie seulement que les normes d'Industrie Canada ont étérespectées.

Le numéro d'homologation IC: 349E-TK1TP10B qui figure sur l'étiquette apposée sous l'ordinateur concerne le module Bluetooth intégré. Le numéro d'homologation pour la carte mini-PCI pour réseau local sans fil est collé sur la carte installée dans l'emplacement correspondant, comme indiqué dans la figure précédente.

Attention: Vous pouvez installer ou retirer la carte mini-PCI pour réseau local sans fil vous-même. Si vous avez installé une carte de ce type qui n'est pas homologuée pour l'ordinateur ThinkPad X30 Series, l'ordinateur ne démarrera pas ; un message d'erreur sera affiché et des bips sonores seront émis.

Permis d'émission à faible puissance - Cas des appareils de communications radio (CNR-210)

Le fonctionnement de ce type d'appareil est soumis aux deux conditions suivantes: (1) Cet appareil peut perturber les communications radio, et (2) cet appareil doit supporter toute perturbation, y compris les perturbations qui pourraient provoquer un dysfonctionnement.

Pour empêcher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit être utilisé à l'intérieur et devrait être placé loin des fenêtres afin de fournir un écran de blindage maximal. Si le matériel (ou son antenne d'émission) est installé à l'extérieur, il doit faire l'objet d'une licence.