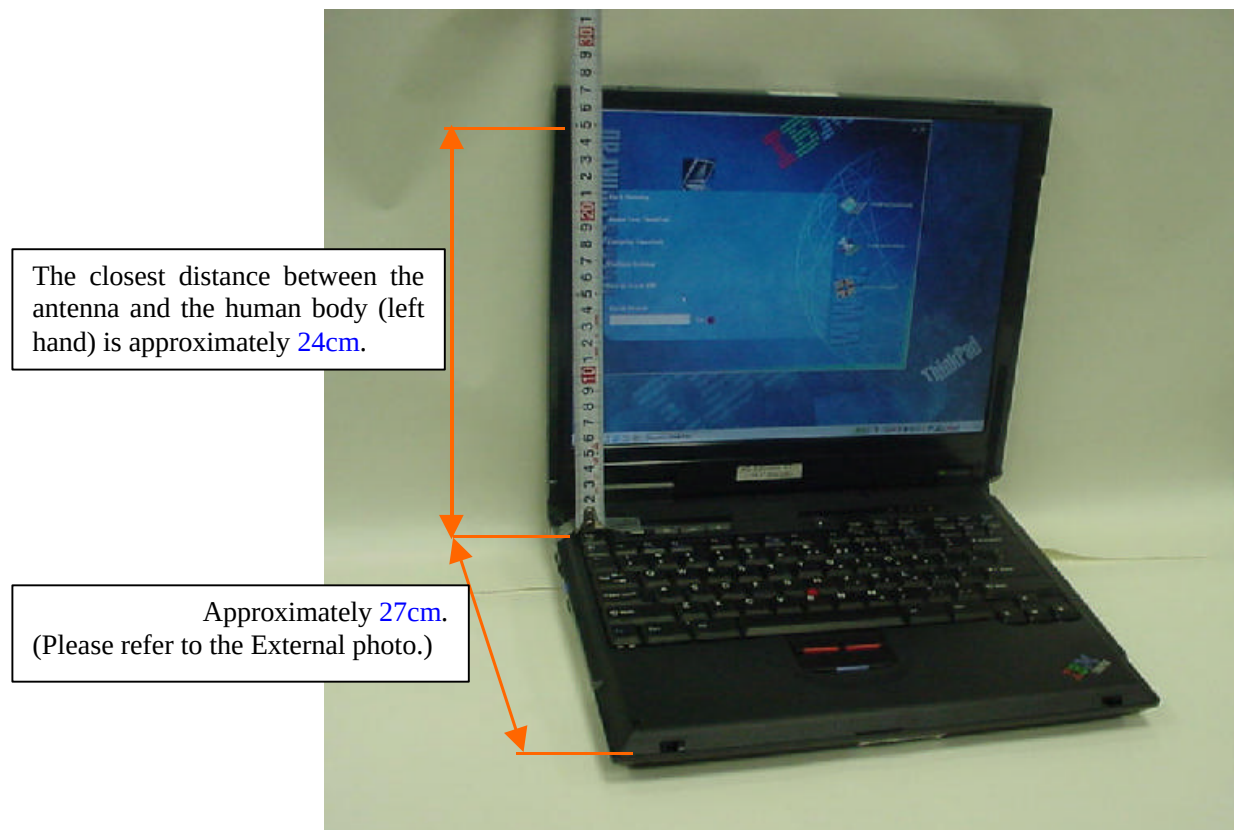


# RF Exposure

The applying equipment is a standard fullsize laptop computer which is categorized as a mobile device by FCC CFR 47 Section 2.1091.

Therefore the separation distance between the antenna and the human body is 20cm or more. As shown in the following photo, the applying equipment satisfies the requirement of antenna separation.



The peak conducted output power of the applying equipment is 15.6 dBm and the antenna gain is 1.4dBi. Therefore the peak radiated (EIRP) output power is calculated as follows.

$$\text{EIRP} = P + G = 15.6 \text{ dBm} + 1.4 \text{ dBi} = 17.0 \text{ dBm} (50.1 \text{ mW})$$

With this result, the maximum power density in 24cm distance is calculated as :

$$S = \text{EIRP} / (4 \times R^2 \times \pi) = 0.00693 \text{ mW/cm}^2$$

When an operator will use the applying equipment during 30 minutes continuously in normal operation, the time-averaging exposure is :  $0.00693 \times 30 = 0.21$

So the source-based time-averaging duty factor is considered as 100% duty.

Therefore the applying equipment meets the MPE requirements for general Population/Uncontrolled exposure.

## RF Exposure Info of User's Manual :

The attachment in the next page is the RF exposure user's information described in the page 67 and 68 of the user's manual.

- 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 (WiFi) certification as defined by the WECA (Wireless Ethernet Compatibility Alliance).

## **Usage environment and your Health**

Internal High rate wireless LAN PC cards emit radio frequency electromagnetic energy like other radio devices. However, the level of energy emitted by Internal High rate wireless LAN PC cards is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Because Internal High rate wireless LAN PC cards operate within the guidelines found in radio frequency safety standards and recommendations, IBM believes Internal High rate wireless LAN PC cards are 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 situation or environment, the use of Internal High rate wireless LAN PC cards may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

- Using the Internal High rate wireless LAN PC cards 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 (e.g. airport), you are encouraged to ask for authorization to use IBM Internal High rate wireless LAN PC card prior to turning on the ThinkPad A22.

## **Wireless Regulatory Information**

The ThinkPad A22 must be installed and used in strict accordance with the instructions as described hereafter. This product complies with the following radio frequency and safety standards.

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

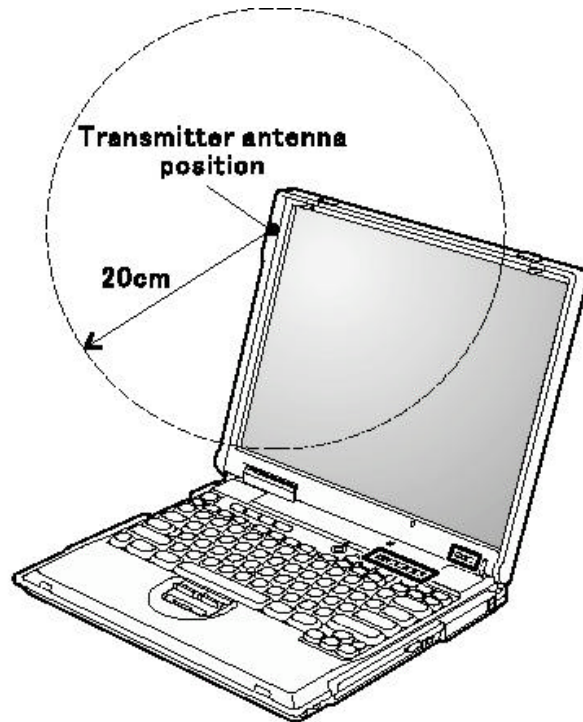
This product complies with FCC Part 15. The operation of High Rate Wireless LAN module integrated in the product is subject to the following two conditions:

- The module may not cause harmful interference.
- The module accept any interference that may cause undesired operation.

## Exposure to Radio Frequency Radiation

The radiated output power of the IBM Internal High Rate Wireless LAN PC Card is far below the FCC radio frequency exposure limits. Nevertheless, the ThinkPad A22 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 of this device and all persons.



- FCC certification of this device prohibits the use of any other Radio Frequency wireless device in conjunction with your ThinkPad A22 notebook wireless LAN. Do not use any wireless PCMCIA card in your ThinkPad notebook while operating the IBM Internal High Rate Wireless LAN PC Card.

## 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 “Electronic emission notices” on page 60 for more detail.

## Canada – Industry Canada (IC)

### 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.