

Application Document for FCC Part 15, Subpart E (Intentional Radiator)

Model Number: AR5BMB-44


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FCC ID: ANO20040600BTL

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Outline of Submission

1. Objective

This is a Certification Compliance Report for FCC Part 15 subpart E (Intentional Radiator).

- FCC ID : **ANO20040600BTL**
- Model Number : AR5BMB-44
- Advertising Name : IBM 11a/b/g Wireless LAN Mini PCI Adapter II

2. Product Description

The applying modular transmitter device is an OEM mini-PCI wireless LAN card supplied by Atheros Communications, Inc. The modular device complies with the following transmission modes.

- **IEEE802.11a (5180MHz ~ 5320MHz band OFDM)** ← the applying Tx mode of this application
- IEEE802.11a (5745MHz ~ 5825MHz band OFDM)
- IEEE802.11b (2412MHz ~ 2462MHz band Direct Sequence Spread Spectrum)
- IEEE802.11g (2412MHz ~ 2462MHz band OFDM)

This application includes 5.2GHz band OFDM mode only. The other three modes are subjected to the FCC 15 subpart C (DTS device), and are to be certified with a separate application as **composite** device.

3. Installation of the applying transmitter

The applying LMA transmitter is a **user installable** wireless card. The supported host PC units to be certified in this application are IBM laptop PC ThinkPad **R50** Series, and **T40** Series.

An unique electrical connector (so called “**Electronic Handshake**” BIOS Lock) is employed for both applying device and host units to satisfy the FCC Part 15.203 or RSS-210 §5.5, and the FCC Part 15.407(d) or RSS 6.2.2 q1(i). This mechanism enables user to install the applying LMA transmitter to the specified hosts (IBM ThinkPad R50 and T40 Series).

The detail explanation of the unique coupling between the LMA transmitter and antenna systems is shown in the separate exhibit “Confidential_e-Handshake.pdf”, however IBM would like to hold it in confidence to maintain the secure "unique operability" with the applying device and IBM antenna systems.

The Electronic Handshake BIOS Lock function is also effective for the user's maintenance in replacing a broken card with a spare part.

4. Co-located Transmitters

The applying LMA transmitter collocates with the following Bluetooth modules and transmits RF frequency simultaneously.

- FCC ID: ANO20020100MTN (IBM Integrated Bluetooth III with 56 Modem)
- FCC ID: PI4BT-IBM-PCII (Bluetooth PC Card II)

As for the RF safety evaluation, refer to the separate exhibit “RF_Exposure.pdf”.