Application Document for

FCC Part 15, Subpart E (UNII Devices)

Document Number: FCC 19-0226-0

Product Name: ThinkPad G40 Series
(Machine type: 2387, 2388, 2389)

FCC ID: ANO20020306A1L

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EMC R&D Staff Engineer

Shigeru Motoki

Signature: *Shigeru Motoki*

IBM Japan, Ltd.
EMC Engineering
LAB-S59
1623-14, Shimotsuruma,
Yamato-shi Kanagawa-ken 242-8502, Japan
Phone: +81-46-215-2239
Fax: +81-46-273-7420
E-Mail: motokis@jp.ibm.com

EMC Engineering Manager / NVLAP signatory

Akihisa Sakurai

Signature:

IBM Japan, Ltd.
EMC Engineering
LAB-S59
1623-14, Shimotsuruma,
Yamato-shi Kanagawa-ken 242-8502, Japan
Phone: +81-46-215-2613
Fax: +81-46-273-7420
E-Mail: akihisa@jp.ibm.com
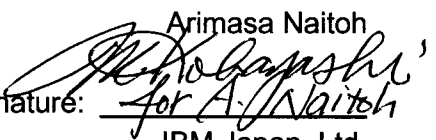
Mobile System Development Manager

Tatsuroh Ishikawa

Signature:

IBM Japan, Ltd.
Portable Product
LAB-R15
1623-14, Shimotsuruma,
Yamato-shi Kanagawa-ken 242-8502, Japan
Phone: +81-46-215-2750

Portable Systems Director

Arimasa Naitoh

Signature: *for A. Naitoh*

IBM Japan, Ltd.
Portable Systems
LAB-R11
1623-14, Shimotsuruma,
Yamato-shi Kanagawa-ken 242-8502, Japan
Phone: +81-46-215-6110

Yellow Sheet: No. **EM767**

Outline of Submission

1.   Objective

This is a Certification Compliance Report for FCC Part 15 subpart E, UNII device.
- The applying equipment :   ThinkPad G40 Series
- FCC ID   :   **ANO20020306A1L**

The device is **composite equipment** with the same FCC ID of Part 15 subpart C, DTS device.

2.   Installation of the applying transmitter

The built-in wireless LAN module is **preinstalled by IBM.** According the FCC Part 15.407(d), a **tamperproof structure** is employed so that the applying wireless module is not able to be removed nor plugged in by users.(See page 4 of this Exhibit.)

Since users can not access to the card, IBM or a responsible party will replace a broken card with a spare part. Refer to "Circuitry Description" document, and page 6 of User's Manual.

3.   Product Description

The applying equipment is a standard size laptop computer integrating IEEE 802.11a & b combo Wireless LAN function inside. The wireless module consists of an OEM card (Philips Components, **Model No: PH11107-X**, 802.11 Combo Mini-PCI WLAN Card) and built-in antennas (Inverted F-figure Dual bands antennas).

The specifications of the applying wireless LAN card and the built-in antennas are as follows.

Specification of Wireless-LAN feature

IBM product name of wireless Card	IBM Dual-Band 11a/b Wi-Fi® Wireless Mini PCI Adapter
Carrier Frequencies	5180MHz ~ 5320MHz
Antenna gain	Maximum peak 2.03 dBi
Conducted transmission power	Maximum 17 dBm
Antenna type	Main antenna: P/N: R0222-099 Dual-band Inverted F-figure type antenna
	Auxiliary antenna: P/N: R0222-100 Dual-band Inverted F-figure type Antenna
Antenna cable type and length	Main antenna: coax 570 mm Auxiliary antenna: coax 610 mm

4. Collocation with other transmitter

The applying LMA transmitter collocates with one Bluetooth transmitter as follows.
- Bluetooth PC Card II (FCC ID: PI4BT-IBM-PCII)

As for the RF safety evaluation of the collocation, please refer to the "RF_Exposure" exhibit.

5. Mounting structure of Wireless LAN card and Antenna

The two inverted F-figure type antennas are built in the top LCD bezel.
Those diversity antennas are not used simultaneously. One of the antennas is selected automatically or manually to have a good quality of radio communication. The selected antenna performs transmission or receiving in half duplex alternatively.

The keyboard bezel is fixed with a special screw so that the wireless module is not removed.