Application Document for

FCC Part 15, Subpart E (UNII Devices)

Document Number: FCC 19-0212-0

Product Name: ThinkPad X30 Series
(Machine type: 2672, 2673)

FCC ID: ANO20020304T2L

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Outline of Submission

1.   Objective

This is a Certification Compliance Report for FCC Part 15 subpart E, U-NII device.
- The applying equipment :   ThinkPad X30 Series
- FCC ID   :   **ANO20020304T2L**

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.

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 compact 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 × 2).

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 1.42 dBi (in the above band)
Conducted transmission power	Maximum 17 dBm
Antenna type	Inverted F-figure type dual band antenna Main antenna : P/N: 08K4083 Auxiliary antenna : P/N: 08K4084
Antenna cable type And length	Main antenna : coax 394 mm Auxiliary antenna : coax 534 mm

4. Mounting structure of Wireless LAN card and Antenna

The two inverted F-figure type antennas are built in the left and right side of LCD. 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.

Auxiliary Antenna

Main Antenna

without Bracket

Antenna Cables

Mini-PCI Wireless adapter

Bracket

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