

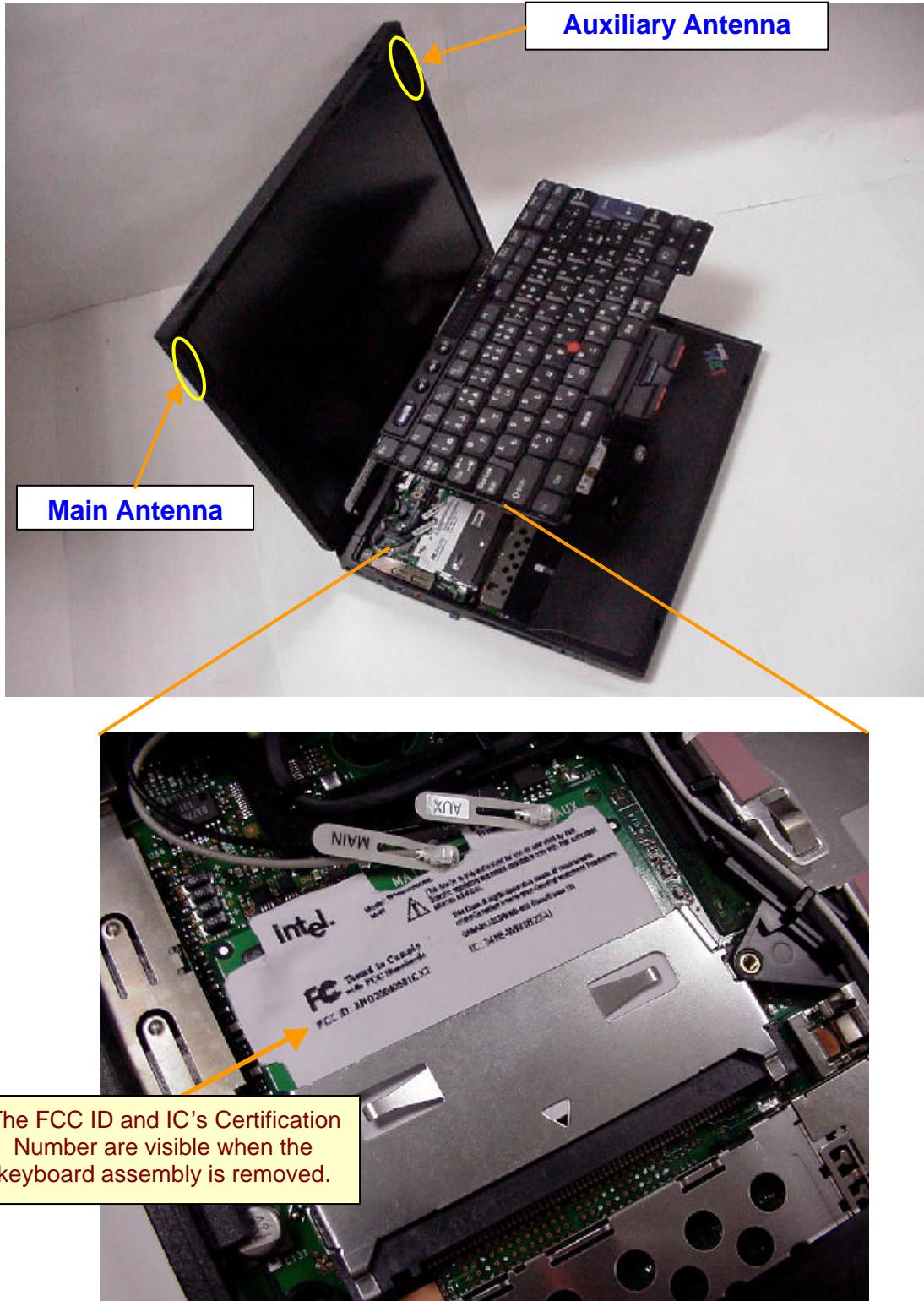
Host Unit Antenna Information

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1. Antenna Info of ThinkPad X30 Series

1.1 Host PC Information

The two inverted F-figure type antennas are built in the left and right top sides of LCD as shown in the Photo. 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.



[IBM ThinkPad X30 Series](#)

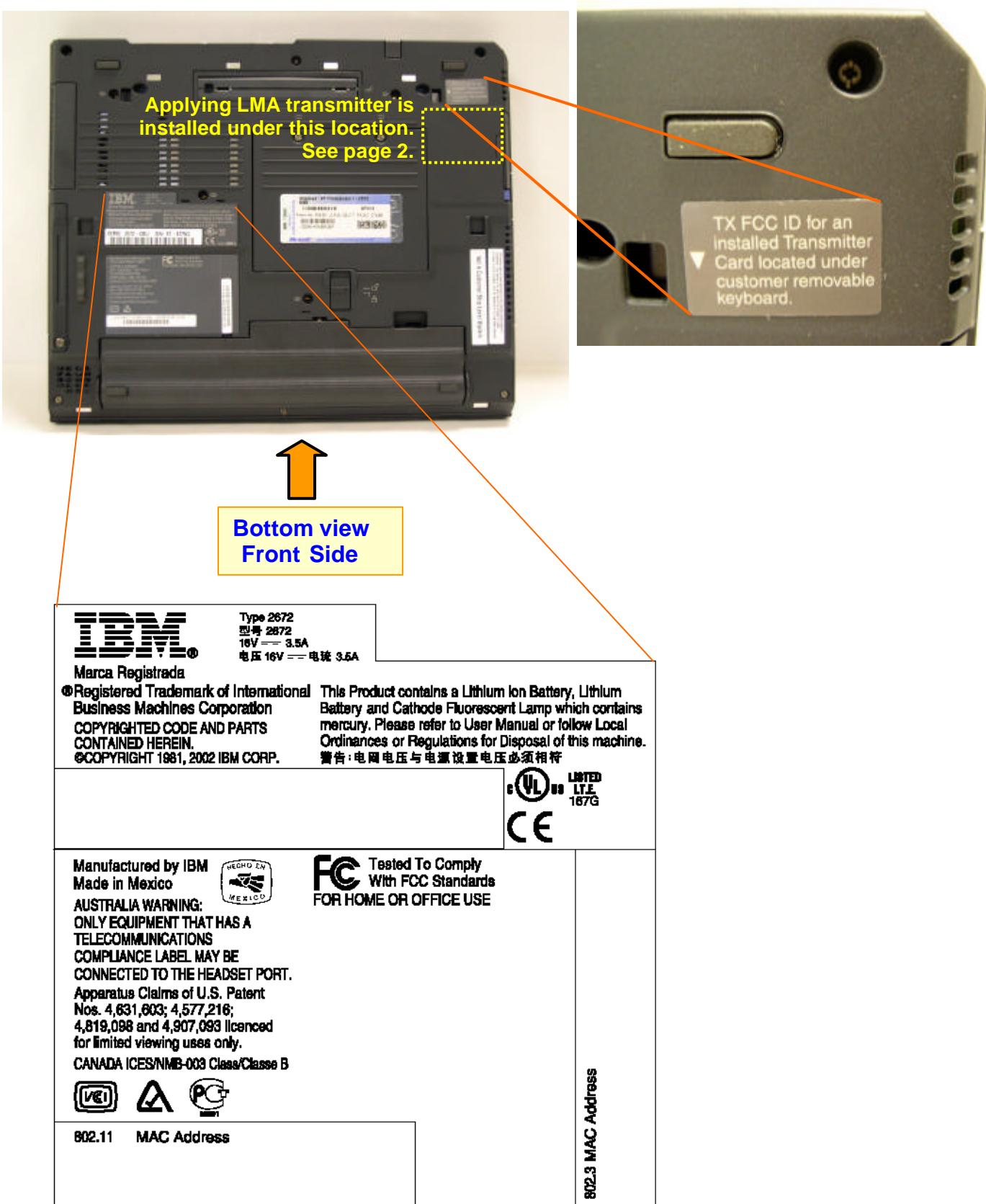


Side View



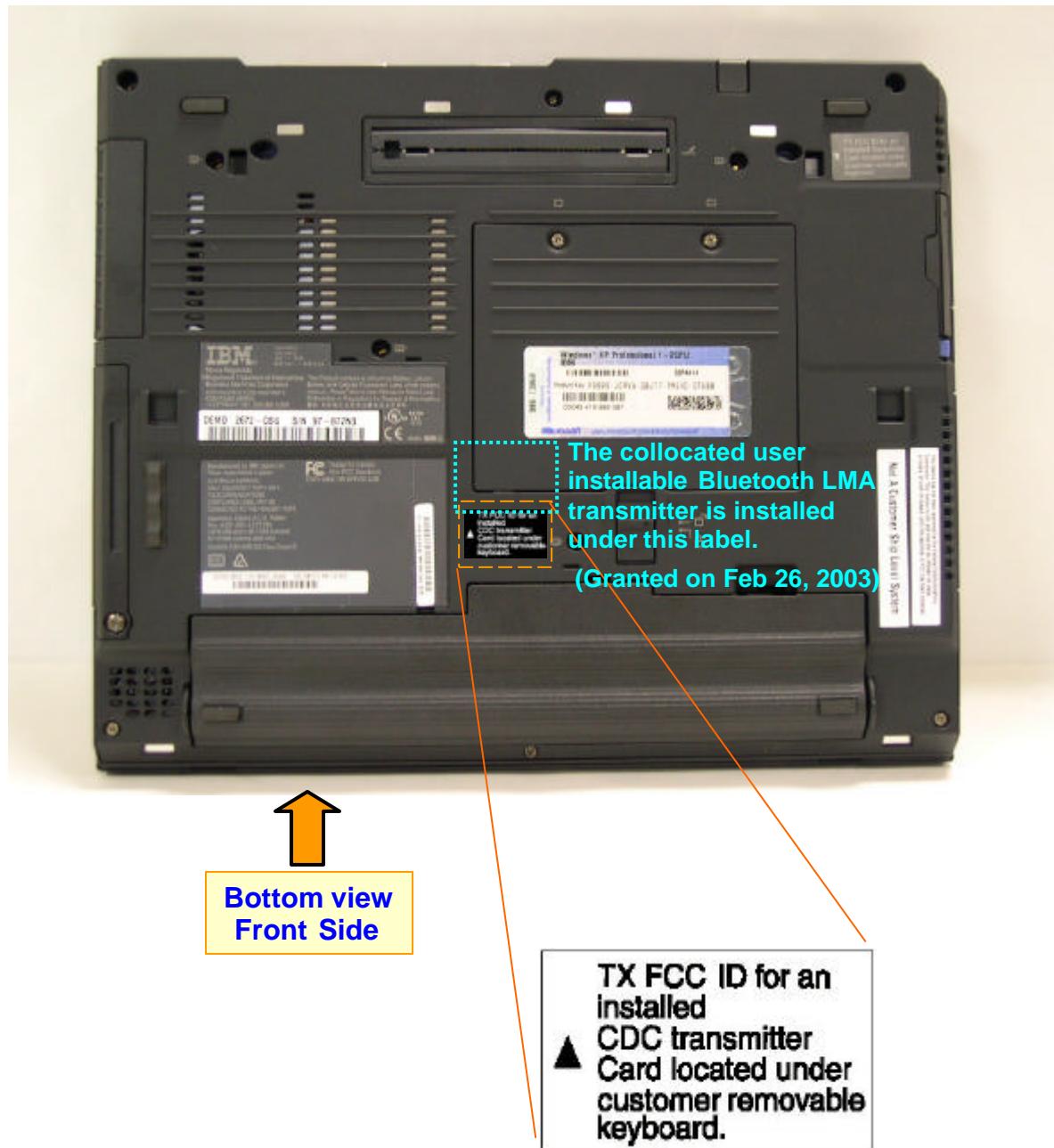
Rear View

1.2 Host PC Labeling



Label for a different model of the host PC (ThinkPad X30 Series)

The model (X30) supports the applying transmitter and a built-in type Bluetooth LMA module which was granted separately for the host as the FCC ID: ANO20020100MTN on Feb/26/2003 (Class II).



1.3 Antenna Specifications

1.3.1 Transmission Antenna assembly overview

IBM ThinkPad X30 Series

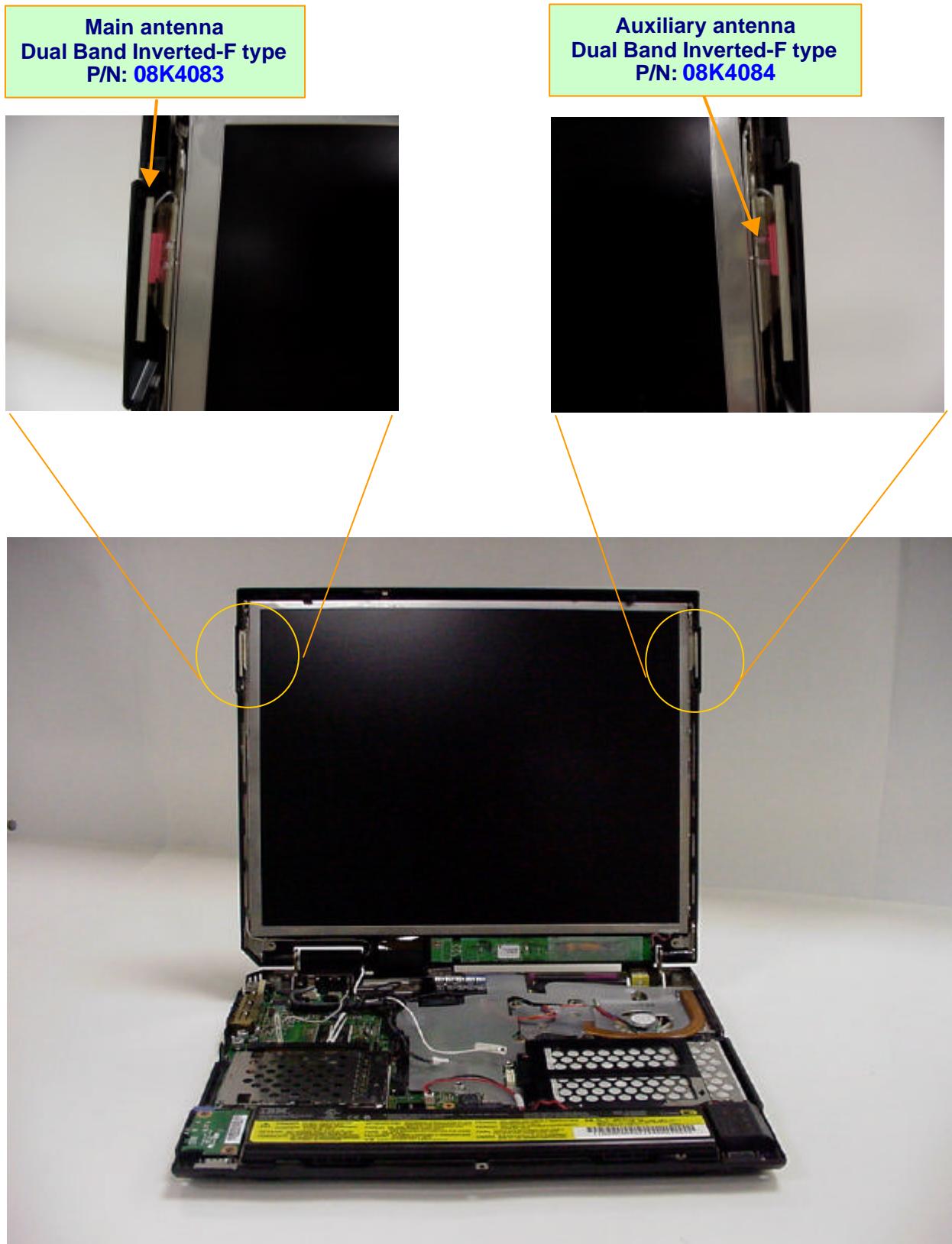
Designator	Manufacture	Antenna type	Cable type and length	Gain (dBi) Note 1)
08K4083 Main antenna	Nissei Electric Ltd. (Japan)	Dual Band Inverted F type Antenna	coax 394mm	2.4GHz band 0.62 dBi (peak)
08K4084 Auxiliary antenna	Nissei Electric Ltd. (Japan)	Dual Band Inverted F type Antenna	coax 534mm	2.4GHz band 1.28 dBi (peak)

Note 1):

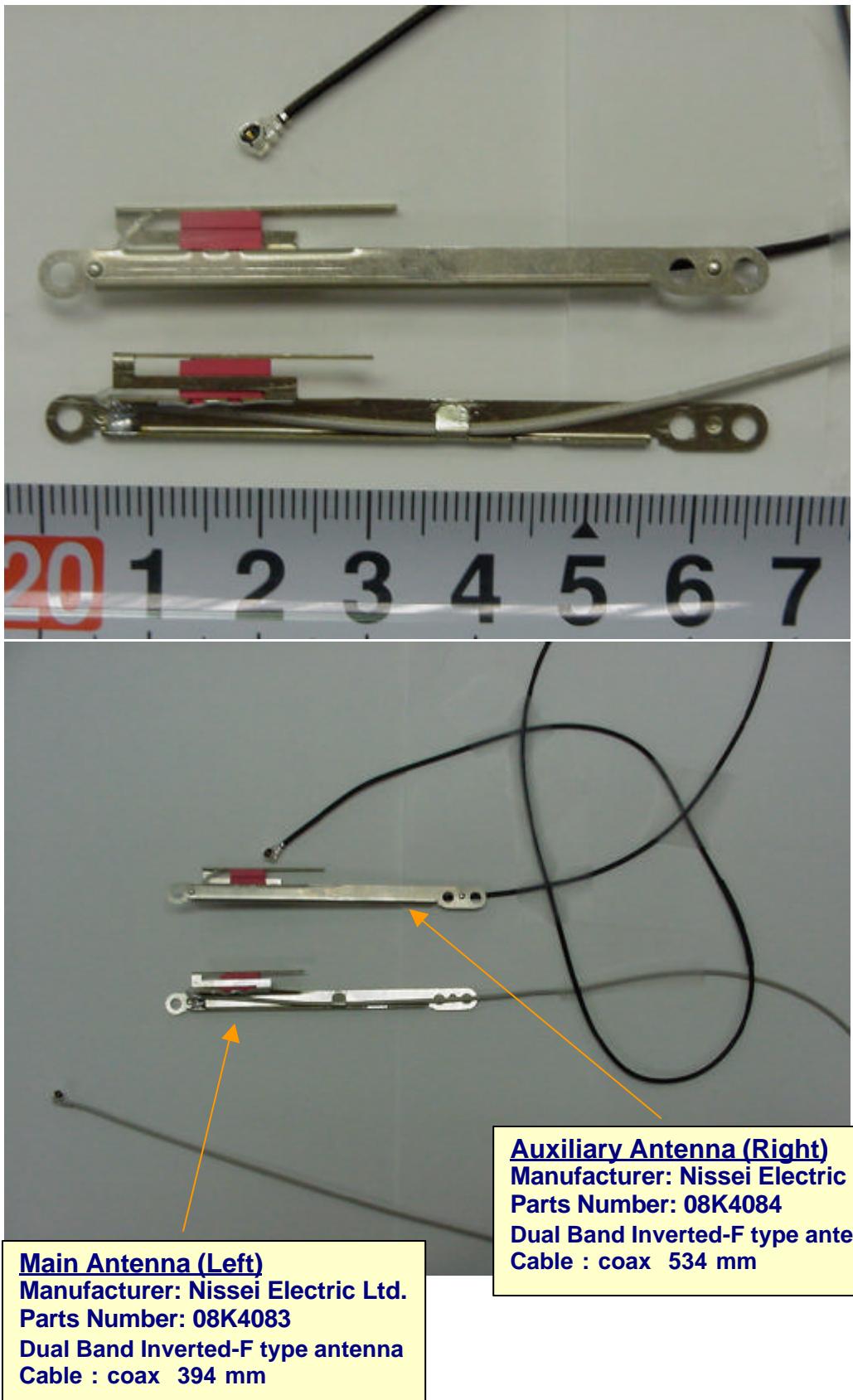
1a. Includes all cable losses.

1b. Antenna type should be Omni Directional and have gain of 2.0 dBi or less for IEEE802.11b & g (2.4GHz band) regarding the IBM internal specification.

1.3.2 Antenna Locations



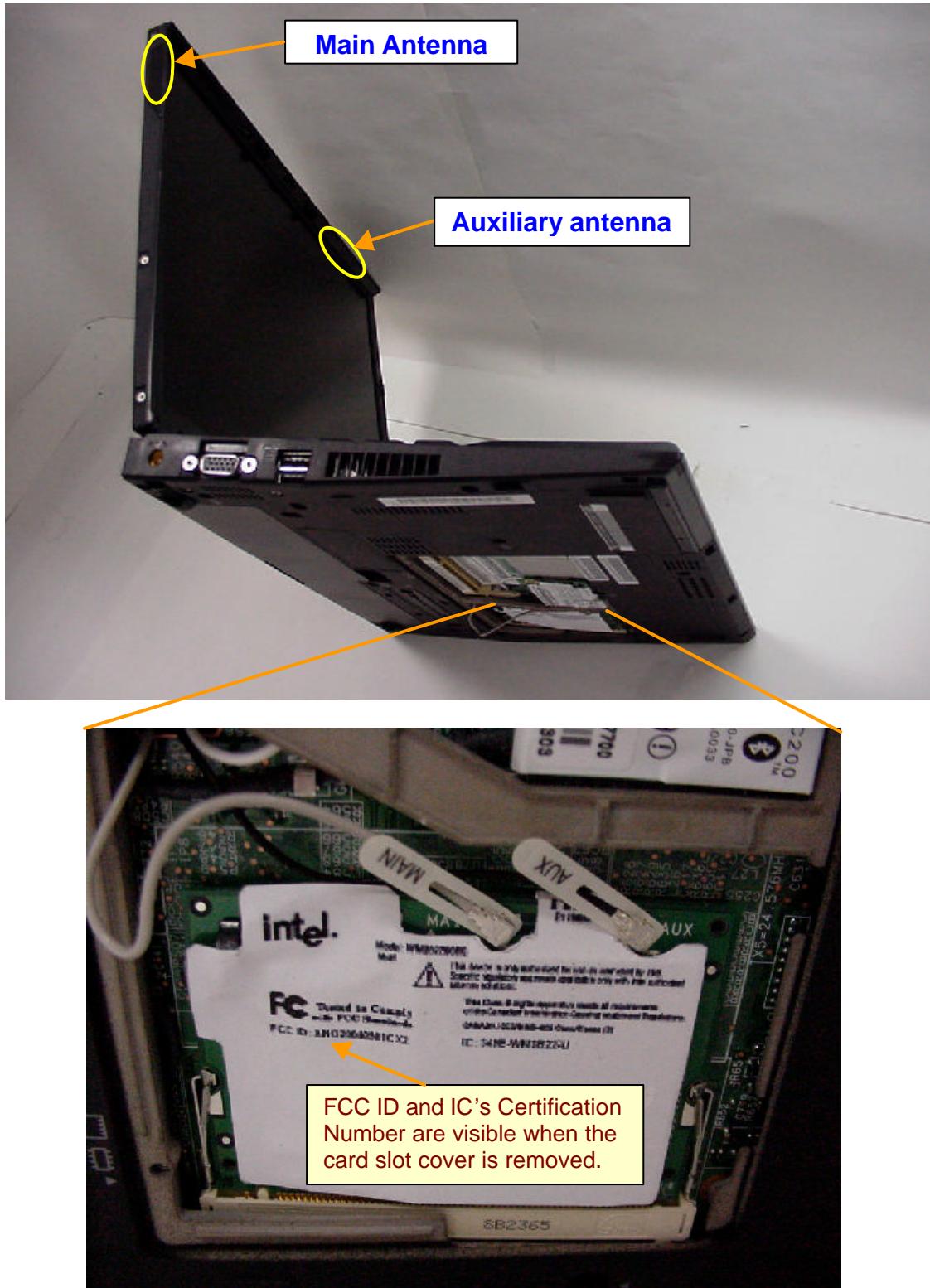
1.3.3 Exterior Photos of Antennas



2. Antenna Info of ThinkPad X40 Series

2.1 Host PC Information

The main and auxiliary meander antennas are built in the left and right top sides of LCD as shown in the Photo. Those diversity antennas are not used for transmission 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.



[IBM ThinkPad X40 Series](#)

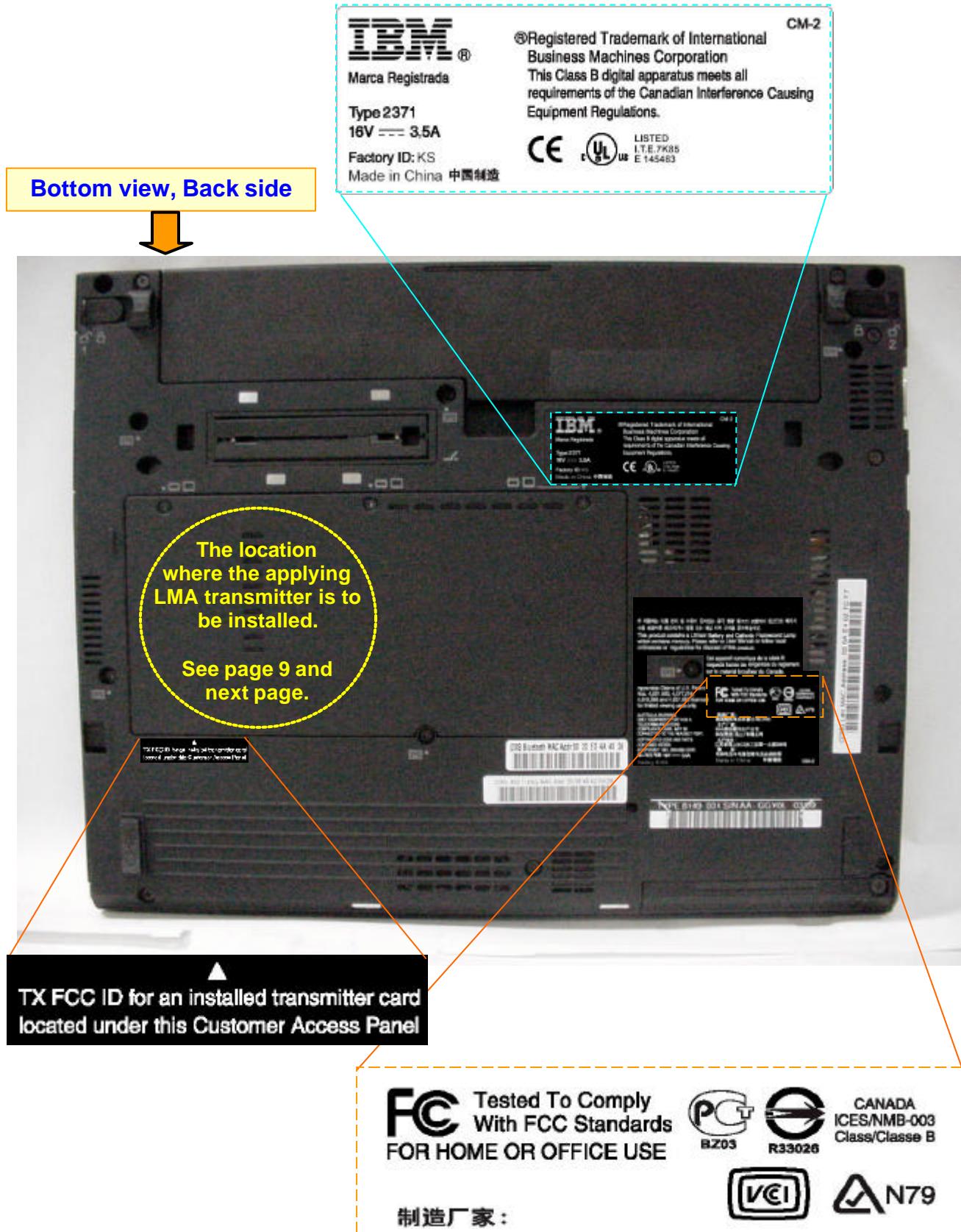


Side View



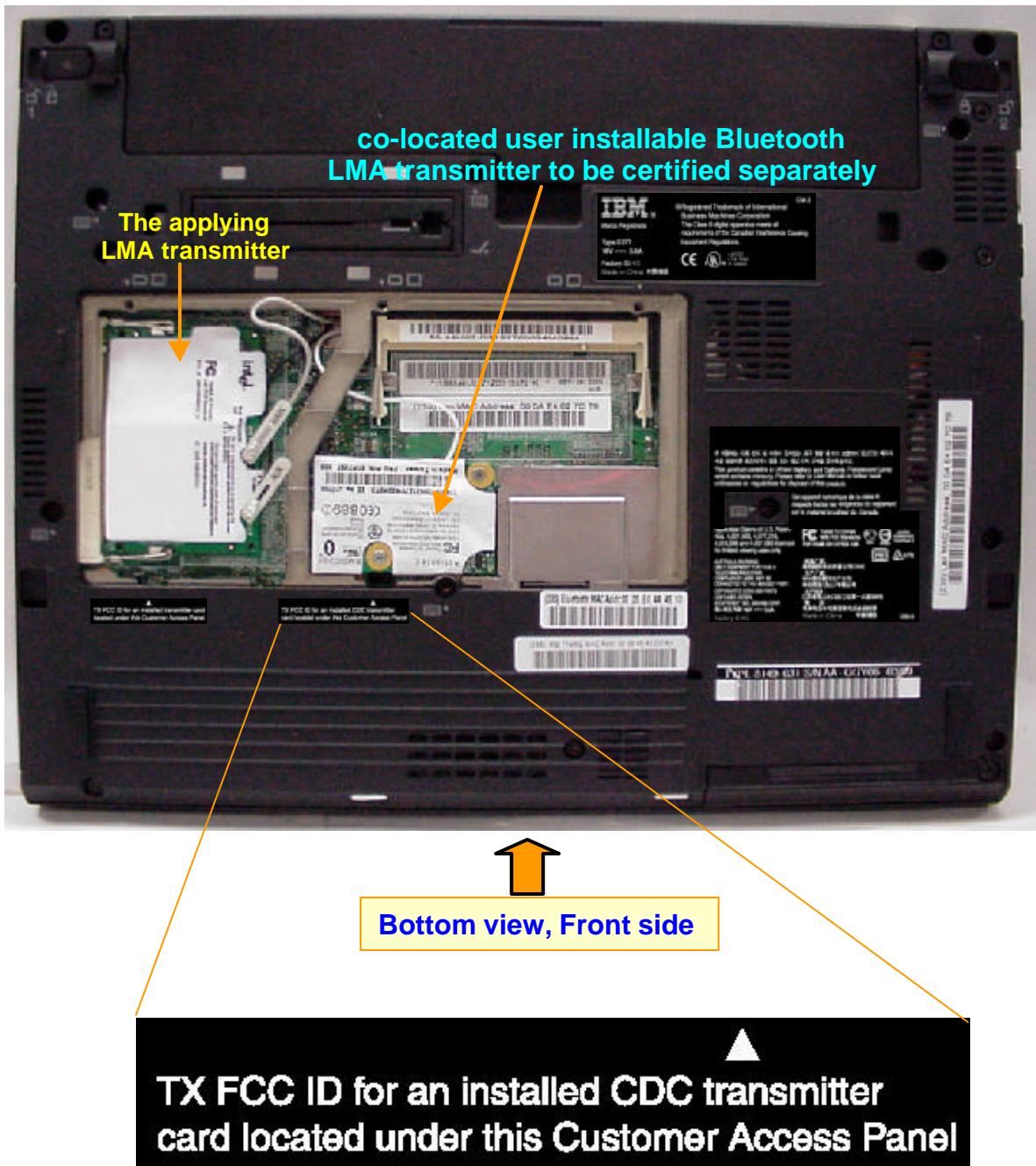
Rear View

2.2 Host PC Labeling



Label for a different model of the host PC (ThinkPad X40 Series)

The model (X40) supports the applying transmitter and a built-in type Bluetooth LMA module which was granted separately for the host as the FCC ID: ANO20020100MTN on Dec/17/2003 (Class II).



2.3 Antenna Specifications

2.3.1 Transmission Antenna assembly overview

Transmission Antenna assembly overview

Designator	Manufacture	Antenna type	Cable type and length	Gain (dBi) Note 1)
13N5743 Main Antenna	Nissei Electric Co., Ltd. (Japan)	Dual Band Meander Antenna	Coax 488mm	2.4GHz band 0.39 dBi (peak)
13N5742 Auxiliary Antenna	Nissei Electric Co., Ltd. (Japan)	Dual Band Meander Antenna	Coax 449mm	2.4GHz band 1.67 dBi (peak)

Notes:

- 1a. *Includes all cable losses.*
- 1b. *Antenna type should be Omni Directional and have gain of 2.0 dBi or less for IEEE802.11b or 11g (2.4GHz band), regarding the IBM internal specification.*

2.3.2 Antenna Locations



2.3.3 Exterior Photos of Antennas

Main Antenna

Manufacturer: Nissei Electric Co., Ltd.
Parts Number: 13N5743
Type: Dual Band Meander
Cable: Coax, 488 mm



Auxiliary Antenna

Manufacturer: Nissei Electric Co., Ltd.
Parts Number: 13N5742
Type: Dual Band Meander
Cable: Coax, 449 mm

