

Host Unit Antenna Information

for

ThinkPad R40 Series

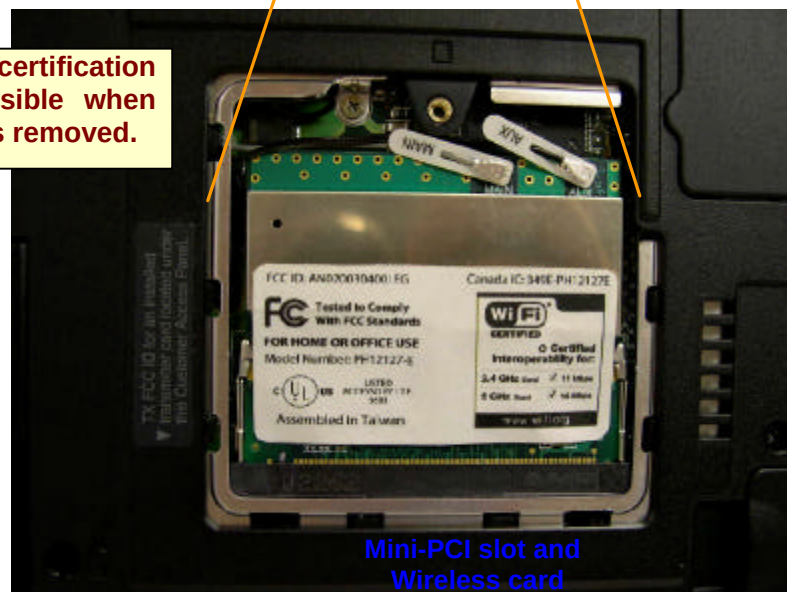
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1. Host PC Information

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.



FCC ID and IC certification number are visible when the slot cover is removed.



Mini-PCI slot and Wireless card

**IBM ThinkPad R40 Series
supports three size of LCD.**

LCD 15 inch Model



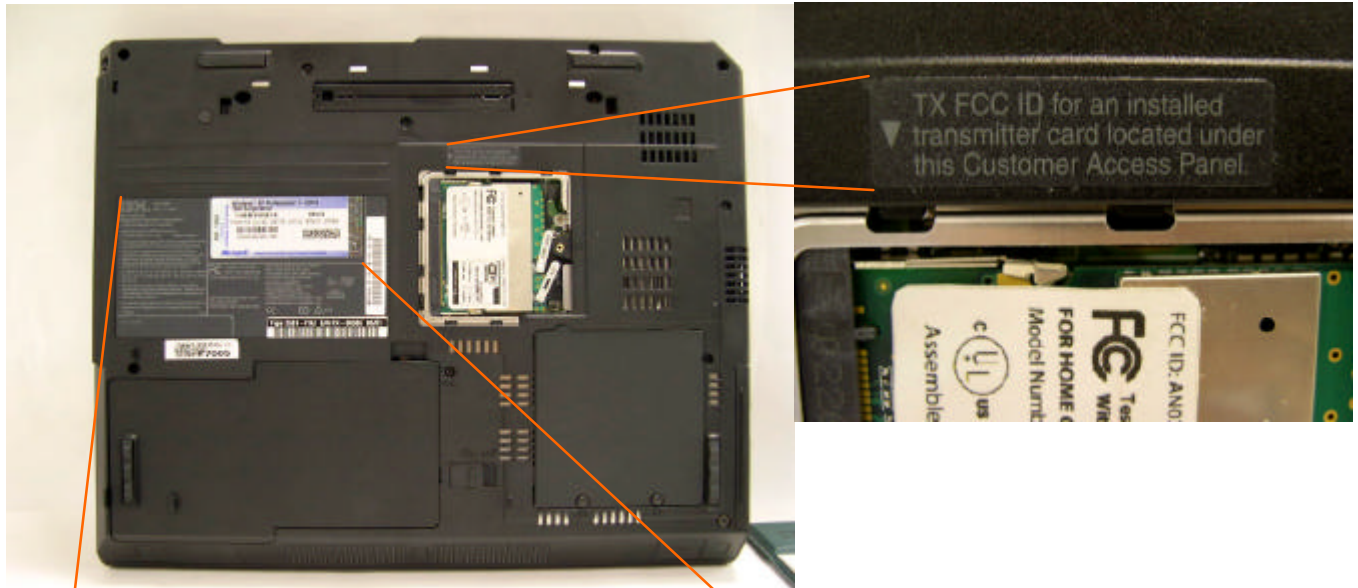
LCD 14 inch Model



LCD 13 inch Model



2. Host PC Labeling

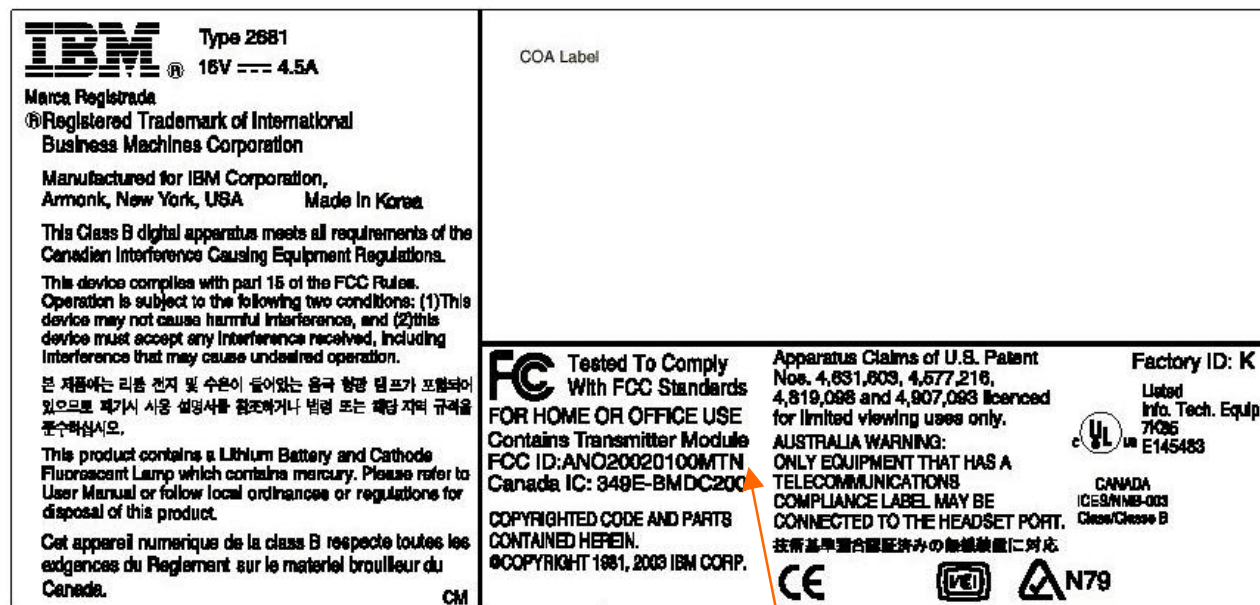


Bottom view, Front side

IBM Type 2681 16V --- 4.5A Marca Registrada ®Registered Trademark of International Business Machines Corporation Manufactured for IBM Corporation, Armonk, New York, USA Made In Korea This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. 본 제품은 리튬 전지 및 수은이 들어있는 음극 형광 램프가 포함되어 있으므로 폐기시 사용 설명서를 참조하거나 법령 또는 해당 지역 규제를 준수하십시오. This product contains a Lithium Battery and Cathode Fluorescent Lamp which contains mercury. Please refer to User Manual or follow local ordinances or regulations for disposal of this product. Cet appareil numérique de la class B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada. CM	FC Tested To Comply With FCC Standards FOR HOME OR OFFICE USE Apparatus Claims of U.S. Patent Nos. 4,831,603, 4,577,216, 4,819,088 and 4,807,093 licensed for limited viewing uses only. AUSTRALIA WARNING: ONLY EQUIPMENT THAT HAS A TELECOMMUNICATIONS COMPLIANCE LABEL MAY BE CONNECTED TO THE HEADSET PORT. 技術基準適合認定済みの無線装置に対応 CE Factory ID: K Listed Info. Tech. Equip. 7K26 E145483 CANADA ICES/NMB-003 Class/Classe B N79
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Label for a different model of the applying equipment (ThinkPad R40 Series)

The host device (ThinkPad R40 Series) supports the applying transmitter and a built-in type Bluetooth LMA which is to be certified separately with FCC ID: ANO20020100MTN.



**FCC ID of a separate application
granted on Jan/21/2003
(not user installable)**

3. Antenna Specifications

3.1 Transmission Antenna assembly overview

IBM ThinkPad R40 Series

Designator	Manufacture	Antenna type	Cable type and length	Gain (dBi) Note 1)
3301BZ9078A 15 inch LCD model Main antenna	Hitachi Cable Ltd. (Japan)	Dual Band Inverted F type Antenna	coax 530mm	2.4GHz band 0.46 dBi (peak)
				5.8GHz band -0.49 dBi (peak)
3301BZ9079A 15 inch LCD model Auxiliary antenna	Hitachi Cable Ltd. (Japan)	Dual Band Inverted F type Antenna	coax 640mm	2.4GHz band -1.06 dBi (peak)
				5.8GHz band -0.12 dBi (peak)
3301BZ9076A 13/14 inch LCD model Main antenna	Hitachi Cable Ltd. (Japan)	Dual Band Inverted F type Antenna	coax 530mm	2.4GHz band -0.37 dBi (peak)
				5.8GHz band 0.85 dBi (peak)
3301BZ9077A 13/14 inch LCD model Auxiliary antenna	Hitachi Cable Ltd. (Japan)	Dual Band Inverted F type Antenna	coax 640mm	2.4GHz band 0.83 dBi (peak)
				5.8GHz band -0.94 dBi (peak)

Note 1):

1a. Includes all cable losses.

1b. Antenna type should be Omni Directional and have gain of 3.0 dBi or less for IEEE802.11a(5GHz band) and have gain of 2.0 dBi or less for IEEE802.11b & g(2.4GHz band), regarding the IBM internal specification.

3.2 Antenna Photos

R40: LCD 15 inch Model, Antenna locations

Main antenna
Inverted-F type
P/N: 3301BZ9078A

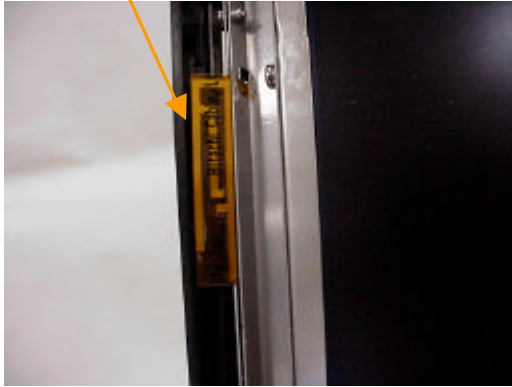


Auxiliary antenna
Inverted-F type
P/N: 3301BZ9079A

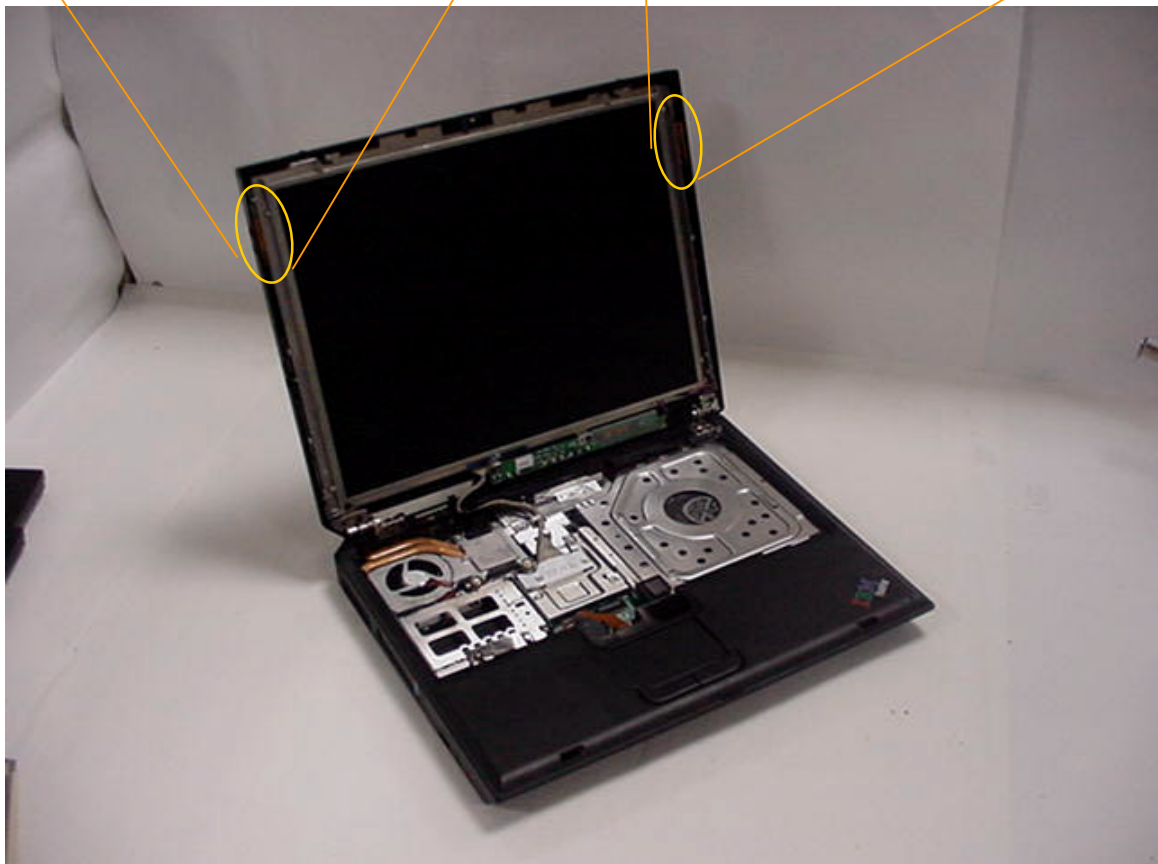


R40: LCD 13/14 inch Model, Antenna locations

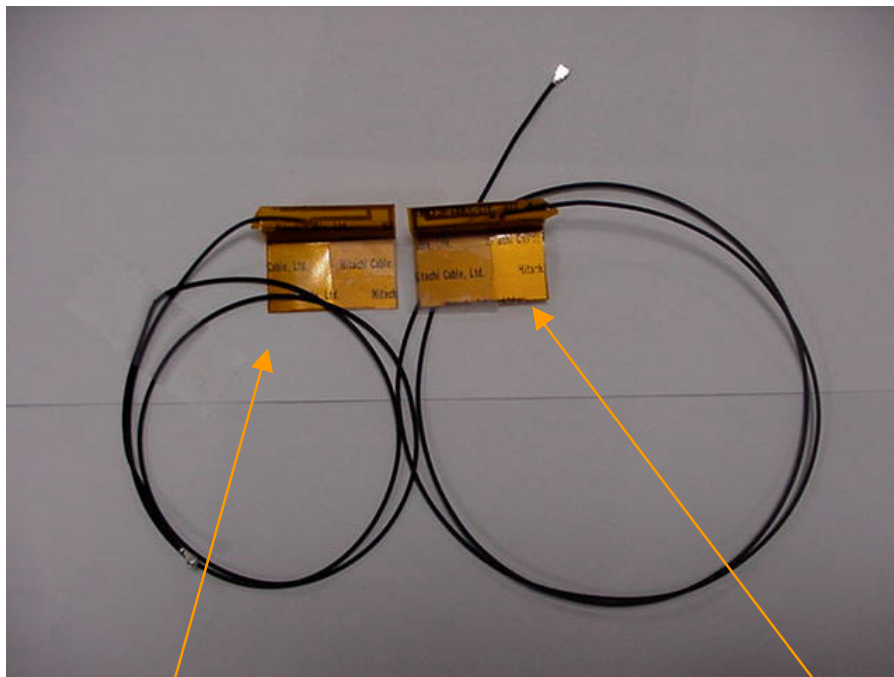
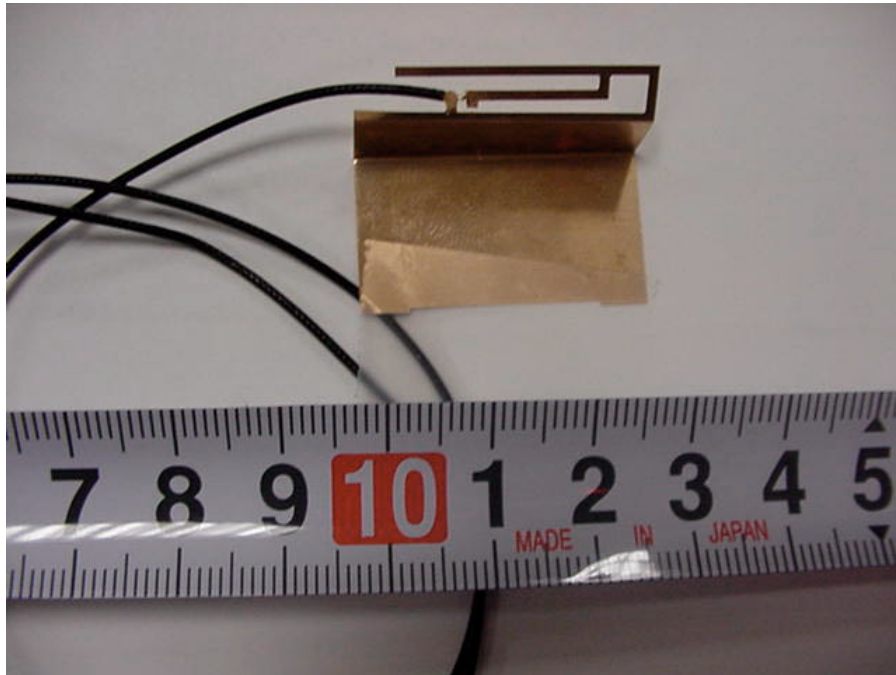
**Main antenna
Inverted-F type
P/N: 3301BZ9076A**



**Auxiliary antenna
Inverted-F type
P/N: 3301BZ9077A**



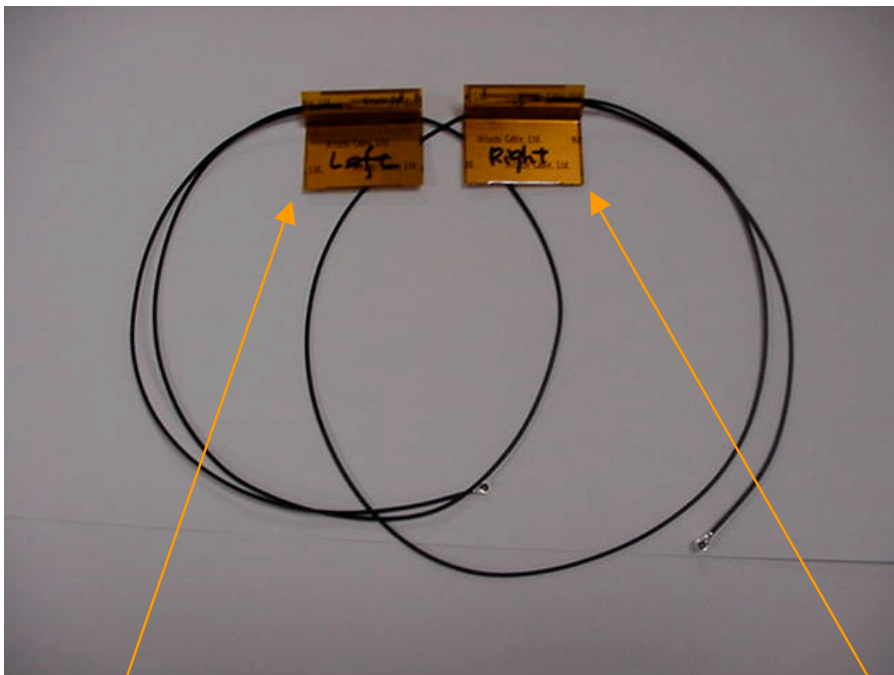
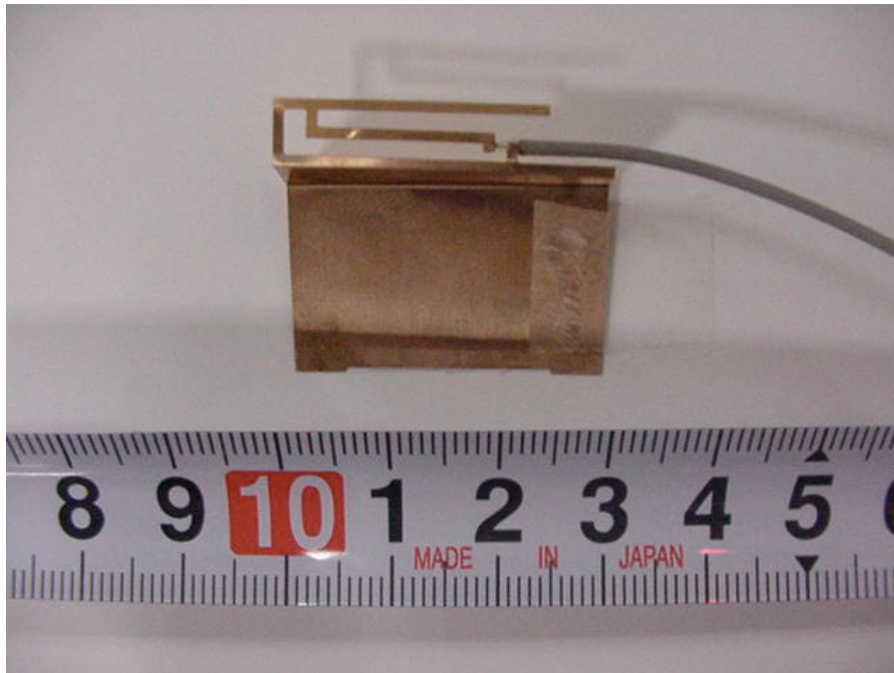
R40: LCD 13/14 inch Model, Antenna Exterior Photos



Main Antenna (Left)
Manufacturer: Hitachi Cable Ltd.
Parts number: 3301BZ9076A
Inverted-F type antenna
Cable : coax 530 mm

Auxiliary Antenna (Right)
Manufacturer: Hitachi Cable Ltd.
Parts number: 3301BZ9077A
Inverted-F type antenna
Cable : coax 640 mm

R40: LCD 13/14 inch Model, Antenna Exterior Photos



Main Antenna (Left)
Manufacturer: Hitachi Cable Ltd.
Parts number: 3301BZ9078A
Inverted-F type antenna
Cable : coax 530 mm

Auxiliary Antenna (Right)
Manufacturer: Hitachi Cable Ltd.
Parts number: 3301BZ9079A
Inverted-F type antenna
Cable : coax 640 mm