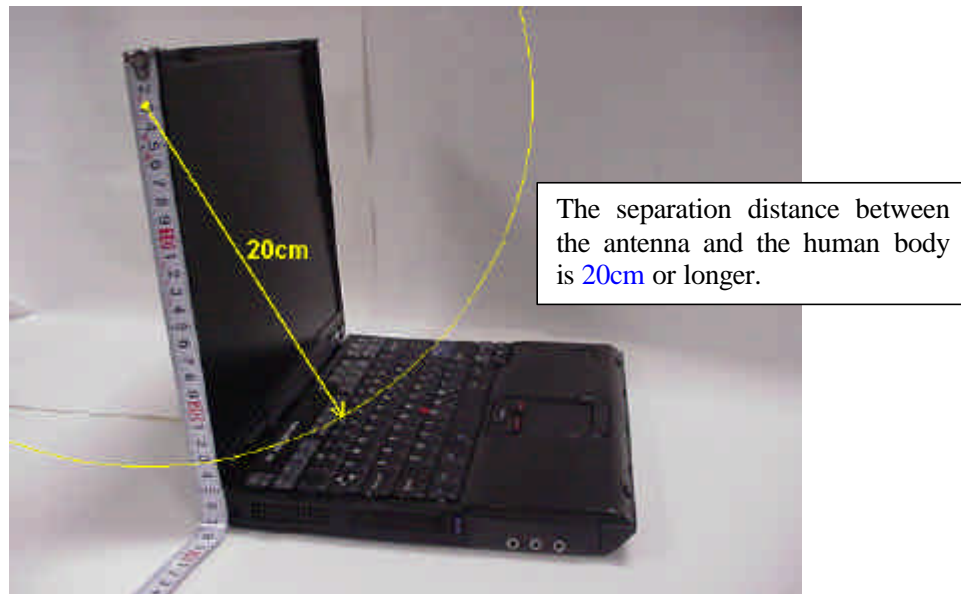


RF Exposure Evaluation

for IBM ThinkPad T30 Series

As shown in the following photos, the transmission antenna position of IBM ThinkPad T30 Series is located at the top of its display (LCD) bezel. And the separation distance between the antenna and the human body is 20cm or more. Therefore the equipment can be categorized as a mobile device by FCC CFR 47 Section 2.1091.



The highest conducted peak output power of the applying equipment (FCC ID : MCLU58H004) is 93.3mW(19.7dBm) and the maximum antenna gain is 0.53dBi.

Therefore the peak radiated output power(EIRP) is calculated as follows.

$$\text{EIRP} = P + G = 19.7 \text{ dBm} + 0.53 \text{ dBi} = 20.23 \text{ dBm} (105.44 \text{ mW})$$

Then, the maximum power density at 20cm distance is calculated as :

$$S = \text{EIRP}/(4 \times R^2 \times \pi) = 0.021 \text{ mW/cm}^2$$

When an operator will use the transmitter during 30 minutes continuously in normal operation, the time-averaging exposure is : $S \times 30 = 0.63$

So the source-based time-averaging duty factor is considered as 100% duty.

Therefore the applying equipment meets the MPE requirements for general Population/Uncontrolled exposure.