

RF Safety

BlueTooth Module

The PP05L chassis contains the WM3A2100 802.11b wireless LAN card and a BlueTooth module. The BlueTooth module, manufactured by Universal Scientific Industrial Co Ltd, has already been authorized by the FCC as a modular device under FCC ID *IXMUB22111S* (refer to the following page). The grant places the following restrictions on the use of the BlueTooth module:

The antenna used for this Modular device must be installed to provide a separation distance of at least 2.5 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Dell does not consider the BlueTooth device to be co-located with the WM3A2100 802.11b wireless LAN card for the following reasons:

1. The minimum separation distance between the antennas for the 802.11b device and the BlueTooth antenna is 8 $\frac{7}{8}$ " (22.5cm), as detailed by Dell. This distance far exceeds the 2.5cm separation distance required by the grant.
2. The eirp from the BlueTooth module is less than 1mW (0.8mW EIRP). The WM3A2100 has an output power of 60mW. As the output power from the WM3A2100 is almost two orders of magnitude higher than that from the BlueTooth module, the rf safety for the system will be dominated by the evaluation of the contribution from the WM3A2100.
3. The attached SAR report evaluates the rf exposure threat of the complete system with both devices operating simultaneously and for both types of antenna used with the 802.11b device.

The existing approval for the BlueTooth module should, therefore, be adequate to authorize its use in the host chassis with the WM3A2100.

WM3A2100 Wireless LAN

The reports from April Labs contains a SAR evaluation of the system with the Hitachi antenna and with the Neweb antenna. Based on the results of these reports, the system meets the rf safety requirements detailed in the FCCs rules for a portable device.



January 28, 2003

To whom it may concern,

For regulatory model PP05L, the distances between the 802.11 antennas and the Bluetooth antenna are as follows.

From the BT module to the Right 802.11 antenna is 9 5/8".

From the BT module to the Left 802.11 antenna is 8 7/8".

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Limoges", written over a light gray rectangular background.

Jason Limoges
Regulatory Engineer
Dell Computer Corporation