
**IEEE P802.11
Wireless LANs**

Comments to CEPT SE24 on Raising the RFID Power Level

Date: January 23, 1998
To: Ms Anne Leino, Chairman CEPT Project Team SE24
From: Vic Hayes, Chairman IEEE 802.11
Reference: The Draft ERC Report Concerning the Proposals for the Future Use of the 2400-2483.5 MHz Band, August 1997. (IEEE 802.11 - 98/48)

IEEE 802.11 is concerned about the proposal under consideration by SE24 to raise the power level for Radio Frequency Identification Devices (RFIDs) in the 2.4 GHz band (2400 to 2483.5 MHz). This proposal would increase the power level permitted for RFIDs to 500 mw and significantly increase the interference effect of RFIDs on Radio Local Area Networks (RLANs) unless limitations are imposed on the use of RFIDs at the higher power level.

IEEE 802 is a subcommittee of the Institute of Electrical and Electronics Engineers (IEEE) Computer Society responsible for developing standards for Local and Metropolitan Area Networks. IEEE 802.11 is the working group within the IEEE 802 subcommittee responsible for the development of standards for RLANs. We have recently completed an IEEE Standard (IEEE Std 802.11 - 1997) and are working with the Joint Technical Committee JTC1 of ISO/IEC to develop an International Standard 8802-11. The standard is for RLANs operating in the 2.4 GHz band. Within IEEE 802.11, we are now working on a significant improvement to the standard which will increase the signaling speed from 2 Mbit/s to 8 Mbit/s or more.

There are already a large number of RLANs in operation worldwide and current marketing projections show a significantly increased demand for RLANs with the advent of the IEEE 802.11 standard.

We are particularly concerned if the RFID power level is increased for devices which may operate indoors in the same buildings as RLANs. RLANs are primarily intended for indoor operation and the building loss between indoor and outdoor operation aids considerably in interference isolation. We also note that highly directional antennas with the proposed 500 mw EIRP limit would be very beneficial with regard to interference both to and from RLANs. Thus, a limitation to professional installation of links with some mandated level of directivity should be considered if higher EIRP power levels are used with RFIDs.

IEEE 802.11 urges SE24 to take great care in making any change in the power level rules which might upset the current interference balance between RLANs and RFIDs and to take into account both the present IEEE standard RLAN, as well as the coming higher performance RLAN standard.

Yours Sincerely,

Vic Hayes
Chairman, IEEE 802.11

copy to: Mr. Jim Carlo, Chair IEEE 802, LMSC (jcarlo@ti.com)