

LETTER OF ASSURANCE FOR ESSENTIAL PATENTS

Please return or FAX to: Secretary, IEEE-SA Standards Board Patent Committee  
Institute of Electrical and Electronics Engineers, Inc.  
445 Hoes Lane  
Piscataway, NJ 08855 USA  
FAX (+1 732-562-1571)

No license is implied by submission of this Letter of Assurance

A. PATENT HOLDER/ORGANIZATION:

Legal Name of Organization: Agere Systems Inc.

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B. PATENT HOLDER'S CONTACT FOR LICENSE APPLICATION:

Name & Department: Viren M Pathare, Manager - Licensing, Intellectual Property  
Address: 1100 American Parkway NE, Room 12C-347, Allentown, PA 18109  
Telephone: (610)712-6906 Fax: (610)712-3467 E-mail: pathare@agere.com

C. IEEE STANDARD or PROPOSED IEEE STANDARD:

Number: IEEE 802.11e  
Title: MAC enhancements for QoS

D. PATENT HOLDER'S POSITION REGARDING LICENSING ESSENTIAL PATENT RIGHTS:

If the Patent Holder owns or controls granted patent(s) and/or pending applications that it believes may be infringed by compliance with the Proposed IEEE Standard, please specify the patent number, published application, and/or relevant claims. (A patent search is not required.)

Patent Number(s) (if known): See Appendix A attached

Relevant Claims (optional):

The Patent Holder states that its position with respect to licensing such patent(s) is as follows (check one box only):

- 1. The Patent Holder is prepared to grant a free license to an unrestricted number of applicants on a worldwide, non-discriminatory basis to comply with the [Proposed] IEEE Standard.
- 2. The Patent Holder is prepared to grant a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to comply with the [Proposed] IEEE Standard.
- 3. The Patent Holder is unwilling to grant licenses according to the provisions of either 1 or 2 above.
- 4. I am not aware of any patent(s) and/or patent claim(s) that my company may hold that would be relevant to the subject matter of the [Proposed] Standard.

E. SIGNATURE:

Print name of authorized person: Stephen R. Pomraning

Title of authorized person: Director - Licensing, Intellectual Property

Signature of authorized person: Stephen R. Pomraning Date: 9-4-03

Note: This assurance applies from the date of the standard's approval to the date of the standard's withdrawal and is irrevocable during that period.

## Appendix A

### To Whom It May Concern:

At this time, Agere Systems Inc. owns the following issued United States patents and pending applications that include one or more claims that may be required to practice the draft standard for IEEE 802.11e (MAC enhancements for QoS). Agere owns a large portfolio of patents, including a large number of patents in the wireless Local Area Network space, and there may be other patents and patent applications in our patent portfolio that are required to meet the 802.11e standard in addition to the ones listed below.

U.S. Issued Patents	U.S. Pending Patent Applications
5,422,887	10/092,295
5,329,531	10/368,018
	09/859334

Agere Systems will make available on a non-exclusive basis, under reasonable terms and conditions that are non-discriminatory, licenses to patents and patent applications owned by Agere to the extent required to practice the IEEE 802.11e standard, subject to receipt by Agere of reciprocal licenses from the licensee.

If you have any questions regarding this matter, please contact Viren Pathare by e-mail ([pathare@agere.com](mailto:pathare@agere.com)) or telephone (610-712-6906).