

IEEE 802.11
Wireless Access Method and Physical Layer Specifications

Title: **NOTICE OF PATENT APPLICABILITY**

Date: September 20, 1993

Author: **KAMILO FEHER, Ph.D.**
Director, Digital Communications Research Laboratory (DCRL)
Department of Electrical and Computer Engineering
University of California
Davis, CA 95616

In accordance with IEEE 802.11 committee practice and the "IEEE Standards-1993 Operations Manual", the patent holder, Dr. Kamilo Feher, is hereby giving notice that he holds, with his associates, patents which are believed to be applicable to certain aspects of proposals which are under consideration by this committee. Initial notice in regards to these patents was contained in K. Feher's first presentation to this committee on July 13, 1993 in Denver, CO, Ref. Doc. P802.11-93/97-K. Feher: "FQPSK: A modulation power efficient RF amplification proposal ..." [page 1, Item 8].

The applicable patents and patent disclosure files are believed to be as follows:

1. K. Feher: "Filter," U.S. Patent No. 4,339,724. Issued July 13, 1982. Canada No. 1130871, August 31, 1982.
2. S. Kato, K. Feher: "Correlated Signal Processor," U.S. Patent No. 4,567,602. Issued January 28, 1986. Canada No. 1211-517. Issued September 16, 1986.
3. K. Feher: "Modem/radio for nonlinearly amplified systems," patent disclosure files in preparation, Digcom, Inc. Confidential and proprietary, Digcom, Inc., 44685 Country Club Dr., El Macero, CA 95618, December 1992.

Additionally the following patent (Patent No. 4) could also be potentially applicable.

4. J. S. Seo, K. Feher: "Superposed Quadrature Modulated Baseband Signal Processor," U.S. Patent No. 4,644,565, issued February 17, 1987. Canadian Patent No. 1-265-851; issued February 13, 1990.

- [19] Y. Guo: "FQPSK-KF additional performance and bit rate improvement alternatives," Digital Communications Research Laboratory, Department of Electrical and Computer Engineering, University of California, Davis, CA 95616, September 1993.
- [20] H. Yan: "Performance Report/Comparison and Improvements of "20 dB" based PSD criteria for NLA-systems FQPSK and others," Digital Communications Research Laboratory, Department of Electrical and Computer Engineering, University of California, Davis, CA 95616, September 1993.
- [21] N. Dang: "Performance of a class of 'FQPSK-4*4' nonlinearly amplified radio systems," Digital Communications Research Laboratory, Department of Electrical and Computer Engineering, University of California, Davis, CA 95616, September 1993.
- [22] H. Mehdi: "Design and simulation of an FQPSK-KF increased spectral efficiency system for FH-spread spectrum based on 4*4 signaling," Digital Communications Research Laboratory, Department of Electrical and Computer Engineering, University of California, Davis, CA 95616, September 1993.
- [23] R. Atienza: "Baseband processor DSP design of FQPSK-1 and FQPSK-KF nonlinearly amplified (NLA) wireless systems," Digital Communications Research Laboratory, Department of Electrical and Computer Engineering, University of California, Davis, CA 95616, September 1993.
- [24] N. Chayat, M. Rothenberg: "Simulation results for several WLAN modulation methods," a submission by Lannair, Inc. Presented and distributed during the IEEE P.802.11 WLAN High Data Rate FH-PHY Ad-Hoc Group Meeting, Singapore Room, Apple Computer, Cupertino, CA, August 23, 1993. Document IEEE P.802.11-TBD/XX, August 23, 1993.
- [25] M. Soderstrand, W.Y. Chan: "DSP implementation of FQPSK-1 and FQPSK-KX baseband processors, correlators and filters," Digital Signal Processing and Communications Laboratory, Department of Electrical and Computer Engineering, University of California, Davis, CA 95616. Report MS/WYC, Davis, CA, September 13, 1993.