

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ericsson Inc. (“Ericsson”),

Petitioner,

v.

Uniloc 2017 LLC (“Uniloc”),

Patent Owner

U.S. Patent No. 6,868,079

**DECLARATION OF DR. VIJAY K. MADISETTI, PH.D.,
UNDER 37 C.F.R. § 1.68 IN SUPPORT OF PETITION
FOR *INTER PARTES* REVIEW**

TABLE OF CONTENTS

I.	INTRODUCTION	3
II.	QUALIFICATIONS	4
III.	LEVEL OF ORDINARY SKILL IN THE ART	11
IV.	RELEVANT LEGAL STANDARDS	13
A.	Anticipation.....	13
B.	Obviousness	15
C.	Claim Interpretation in <i>Inter Partes</i> Review	17
V.	OVERVIEW OF THE '079 PATENT.....	18
VI.	CLAIM CONSTRUCTION.....	22
VII.	IDENTIFICATION OF HOW THE CLAIMS ARE UNPATENTABLE	23
A.	Ground #1: Claims 1, 5, 7, and 17 are unpatentable as obvious over Merakos in view of Kay and Alamouti	23
1.	Summary of Merakos	23
2.	Summary of Kay.....	27
3.	Summary of Alamouti	32
4.	Reasons to Combine Merakos with Kay	33
5.	Reasons to Combine Merakos and Kay with Alamouti	50
6.	Claim 1	55
7.	Claim 5	73
8.	Claim 7	83
9.	Claim 17	87
B.	Ground #2: Claims 3 and 4 are unpatentable as obvious over the combination of Merakos in view of Kay, Alamouti, and Dent	92
1.	Summary of Dent.....	93
2.	Reasons to Combine Merakos, Kay, and Alamouti with Dent.....	94
3.	Claim 3	98
4.	Claim 4	101
C.	Ground #3: Claim 2 is unpatentable as obvious over the combination of Merakos in view of Kay, Alamouti, and Ling	103
1.	Summary of Ling.....	103
2.	Reasons to Combine Merakos, Kay, and Alamouti with Ling.....	104
3.	Claim 2	107
VIII.	DECLARATION	112

I. INTRODUCTION

1. My name is Vijay K. Madiseti, and I have been retained by counsel for Ericsson Inc. (“Petitioner,” “Ericsson”) as a technical expert in connection with the proceeding identified above. I submit this declaration in support of Ericsson’s Petition for *Inter Partes* Review of U.S. Patent No. 6,868,079 (“the ’079 Patent”).

2. I am being compensated for my time in this matter at an hourly rate. I am also being reimbursed for reasonable and customary expenses associated with my work and testimony in this matter. My compensation is not contingent on the outcome of this matter or the specifics of my testimony. I have no personal or financial stake or interest in the outcome of the present proceeding.

3. In the preparation of this declaration, I have studied:

- (1) The ’079 Patent, Ex. 1001;
- (2) The Prosecution History of the ’079 Patent, Ex. 1002, (“’079 Prosecution History”);
- (3) U.S. Patent No. 5,521,925 to Merakos *et al.* (“Merakos”), Ex. 1003;
- (4) U.S. Patent No. 5,299,198 to Kay *et al.* (“Kay”), Ex. 1004;
- (5) U.S. Patent No. 5,933,421 to Alamouti *et al.* (“Alamouti”), Ex. 1006;
- (6) U.S. Patent No. 5,430,760 Dent (“Dent”), Ex. 1005; and
- (7) U.S. Patent No. 6,172,970 Ling *et al.* (“Ling”), Ex. 1009.

4. In forming the opinions expressed below, I have considered:

- (1) The documents listed above, any additional documents discussed below; and
- (2) My own knowledge and experience based upon my work in the field of communication networks.

II. QUALIFICATIONS

5. I am an expert in the field of wireless communications. I have studied, taught, practiced, and researched this field for over thirty years. The following is a summary of my educational background, work experience, and other relevant qualifications. A true and accurate copy of my *curriculum vitae* can be found in exhibit Ex. 1008.

6. I obtained my Ph.D. in Electrical Engineering and Computer Science at the University of California, Berkeley, in 1989. I received the Demetri Angelakos Outstanding Graduate Student Award from the University of California, Berkeley and the IEEE/ACM Ira M. Kay Memorial Paper Prize in 1989.

7. I joined Georgia Tech in the fall of 1989 and am now a Professor in Electrical and Computer Engineering. I have been active in the areas of wireless communications, digital signal processing, integrated circuit design (analog & digital), software engineering, system-level design methodologies and tools, and software systems. I have been the principal investigator (“PI”) or co-PI in several active research programs in these areas, including DARPA’s Rapid Prototyping of

Application Specific Signal Processors, the State of Georgia's Yamacraw Initiative, the United States Army's Federated Sensors Laboratory Program, and the United States Air Force Electronics Parts Obsolescence Initiative. I have received an IBM Faculty Award and the NSF's Research Initiation Award. I have been awarded the 2006 Frederick Emmons Terman Medal by the American Society of Engineering Education for contributions to Electrical Engineering, including authoring a widely-used textbook in the design of VLSI digital signal processors.

8. I have developed and taught undergraduate and graduate courses in hardware and software design for signal processing and wireless communication circuits at Georgia Tech for the past twenty years. I have graduated more than 20 Ph.D. students that now work as professors or in technical positions around the world.

9. I have been an active consultant to industry and various research laboratories (including Massachusetts Institute of Technology ("MIT") Lincoln Labs and Johns Hopkins University Applied Physics Laboratory). I have founded three companies in the areas of embedded software, military chipsets involving imaging technology, and wireless communications. I have supervised the Ph.D. dissertations of over twenty engineers in the areas of computer engineering, signal processing, communications, rapid prototyping, and system-level design methodology, five of which have resulted in thesis prizes or paper awards.

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