APPENDIX A

848 N. Rainbow Blvd. #2628 • LAS VEGAS, NV 89107-1103
PHONE 702.736.8660 • FAX 702.541.9509 • EMAIL TOM@GAFFORD.COM

THOMAS A. GAFFORD
Gafford Technology

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SUMMARY OF QUALIFICATIONS

• Extensive knowledge of analog and digital electronic circuitry, digital computer technology, computer peripherals and computer system design, control systems, operating systems, and transaction processing software.

• Skilled articulation of technical material for both non-technical and technical audiences, with special attention to claim construction issues.

• In-depth analysis of electronic and computer apparatus and functionality.

EDUCATION

University of Washington   Seattle, Washington
Earned Bachelor of Science in Electrical Engineering, 1972
Key areas of concentration included digital and analog circuit analysis and electromagnetics.

Stanford University   Palo Alto, California
Enrolled in Master of Science in Electrical Engineering, 1972-73.
Coursework included logic, circuit and computer design, computer architecture, LISP and ALGOL programming, software algorithm design, and system programming.

PROFESSIONAL EXPERIENCE

1986-   **Gafford Technology**   Las Vegas, Nevada
Now   *Founder and Owner*
        Firm undertakes R&D projects, provides computer system-related services, and offers analysis and presentation services that clearly and concisely explain computer and electronic technology to assist clients in litigation efforts.

        Specific services include consulting in computer system design, software selection, and network configuration; providing expert factual analysis, claim interpretation assistance, prior art investigation and testimony in patent and hardware / software systems litigation; conducting R&D projects in peripheral switch design and application of hardware design language tools to peripheral interconnection design. Firm has manufactured and sold peripheral switching equipment.

1983-   **Softix**, **Incorporated**   Campbell, California
1986   *Co-Founder and Head of Engineering*
        Firm designed and produced reliable and easily maintained systems to control and sell entertainment tickets by ticket agencies and large arena complexes in the United States, Canada,

Australia, and Hong Kong. The firm was sold in 1987.

Responsibilities included co-managing software development efforts; developing architecture, design, sales, contracting, production, and field support of large-scale software and hardware systems; analyzing, debugging, and writing software application and driver programs for feature enhancements and system integration.

Also responsible for selection, evaluation, integration, installation, customer staff training, and repair support of all hardware components of dual minicomputer systems; for research into graphic printing systems suitable for ticket sales; for development of peripheral switch equipment for evolving system requirements; for the manufacture and sale of peripheral switching equipment.

1976- 1983	**G Systems** *Founder and Owner*	Santa Clara, California

Firm managed hardware and software design and development of computer transaction processing systems for a variety of applications and customers, as well as consulting in other hardware design projects.

Projects included design of hardware and software interfaces for disk controller; co-design of mainframe computer and design of mainframe computer elements; design of replacement printer which substituted all traditionally hard-wired functions with software functionality in communication and mechanism controls; design of peripheral switches incorporated into system product; writing of communications software and device drivers. Assisted legal team in patent litigation as technical expert in disk control systems.

1973- 1976	**Stanford University Artificial Intelligence Laboratory** *Engineer*	Palo Alto, California

Position was responsible for computer engineering projects including support of robotics research.

Duties included design, construction, and debugging motor controls and sensor electronics for a robotic arm and its computer interfaces; maintenance and enhancement of large assembly-language software system used for logic design and PC board layout; maintenance of hardware for mainframe timesharing system for lab staff, including ARPANET connection and Xerographic printing equipment.

1971- 1972	**University of Washington** **Psychology Department** *Engineer*	Seattle, Washington

Designed and built computer equipment and systems in support of psychological research projects.

1967- 1970	**United States Air Force** **McChord Air Force Base** *Sergeant and Instructor*	Tacoma, Washington

Maintenance technician for air defense computer system; electronics instructor in on-the-job training programs; specialist in analysis and repair of problems in areas beyond standard training and documentation.

PATENTS

United States Patent #5,621,899   August 15, 1997
Method for Operating a Repeater for Distributed Arbitration Digital Data Buses

United States Patent #5,684,966   November 4, 1997
Switch for Distributed Arbitration Digital Data Buses

United States Patent #5,758,109   May 26, 1998
Repeater/Switch for Distributed Arbitration Digital Data Buses

United States Patent #6,154,799   November 11, 2000
Repeater/Switch for Distributed Arbitration Digital Data Buses

ADDITIONAL PROFESSIONAL ACTIVITIES
Institute of Electrical and Electronic Engineers Life Member

CASE EXPERIENCE

Cases are grouped into four areas. All cases listed required extensive research and technical analysis. Where expert testimony at trial also occurred, it is noted. The party who is my client is underlined. Cases marked '*trial*' at the right margin included deposition unless specifically noted, cases marked 'arbitration testimony' do not.

CIRCUIT DESIGN
Experience in this area involves low-level analysis of electronic circuits, usually without regard for any larger system in which the circuits might be used.

Date	*Case*	
01/94 to 07/94	**Wang v. Mitsubishi**	*deposition, trial*
	Patent litigation relating to memory modules.	
11/95 to 03/96	**Waffer v. Fritz Forwarding**	*arbitration hearing*
	Litigation involving value of computer monitors based on service history and construction quality.	
11/96 to 12/97	**United Technology Automotive v. National Semiconductor**	
	Patent litigation relating to power control integrated circuits.	
05/97 to 09/98	**Oneac v. Raychem**	*deposition*
	Patent litigation relating to circuits for telephone line surge suppression.	
06/97 to 06/97	**Harris Semiconductor v. Hyundai**	
	Patent litigation involving static ram IC circuitry.	
12/98 to 03/00	**Xerox v. Hewlett-Packard**	*deposition*
	Patent litigation relating to electrical circuitry of thermal inkjet printheads.	
02/01 to 09/02	**ICS v. Realtek, ICS v. Cypress, Cypress v. ICS**	*deposition, tutorial, Markman*
	Patent litigation involving clock generator IC circuits.	
05/01 to 07/01	**Altera v. Xilinx, Xilinx v. Altera**	
	Patent litigation involving FPGA circuitry.	
05/11 to 04/12	**Cascades v. Hynix**	
	Patent litigation involving DRAM circuitry.	
01/14 to 04/14	**Zenith et al. v. Viewsonic and Craig et al.**	

Patent infringement litigation regarding ATSC compliant TV receivers

03/14 to 07/14   **Cresta Technology Corporation v. <u>Maxlinear Inc.</u>**
Patent litigation invoving RF tuner design

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