## UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SHARP CORPORATION, SHARP ELECTRONICS CORPORATION, and SHARP ELECTRONICS MANUFACTURING COMPANY OF AMERICA, INC., Petitioners

V.

SURPASS TECH INNOVATION LLC, Patent Owner

> Case IPR2015-00021 Patent No. 7,202,843 B2

REBUTTAL DECLARATION OF MICHAEL J. MARENTIC IN SUPPORT OF PETITIONERS' REPLY TO PATENT OWNER'S RESPONSE

SHARP EXHIBIT 1010
Sharp Corp., et al. v. Surpass Tech Innovation LLC
IPR2015-00021



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## I, Michael J. Marentic, declare as follows:

The following is my written Declaration submitted in rebuttal to the Patent Owner's, Surpass Tech Innovation LLC ("Patent Owner"), Response (Paper 20, "Response") and the Declarations of William K. Bohannon in support thereof (Exs. 2005-2006). My Declaration includes my rebuttal opinions regarding Claims 4, 8 and 9 of U.S. Patent No. 7,202,843 ("the '843 Patent," Ex. 1001), and is submitted on behalf of Petitioners Sharp Corporation, Sharp Electronics Corporation, and Sharp Electronics Manufacturing Company of America, Inc. (collectively, "Petitioners").

## I. SUMMARY OF MY DECLARATION AND OPINIONS

- 1. I understand that the Patent Trial and Appeal Board ("the Board") has initiated *inter partes* review of Claims 4, 8 and 9 of the '843 Patent. Specifically, I understand that the Board has found that Petitioners have shown that there is a reasonable likelihood that Claims 4, 8 and 9 are invalid as anticipated by U.S. Patent Application No. 2004/0196229 to Ham ("Ham," Ex. 1005). (Paper 10, Decision at 14-15).
- 2. I have reviewed the Petition (Paper 1) and the Board's Decision (Paper 10) and concur that Claims 4, 8 and 9 are anticipated by Ham.



3. I understand that the Patent Owner and its expert, Mr. Bohannon, argue that Claims 4, 8 and 9 are not anticipated by Ham. As set forth herein, it is my opinion that Surpass and Mr. Bohannon are wrong.

## II. BACKGROUND INFORMATION

- A. Summary of My Professional Background and Qualifications
- 4. Exhibit 1011 is my *curriculum vitae* which sets forth my professional background and qualifications. A list of publications that I have authored or coauthored is included.
- 5. I have many years of experience in the flat panel display industry. I first became involved in the flat panel display industry in 1973, when I began working at the University of Illinois Coordinated Science Laboratories where the AC Plasma Display Panel ("PDP") was invented. During my studies at the University, I was employed as an intern working in the area of plasma display construction and gas discharge physics characterization. I received a B.S. degree in Engineering Physics from the University of Illinois.
- 6. Upon entering graduate school, I continued my work on the characterization of gas discharge in PDP pixels. I received an M.S. degree in Electrical Engineering from the University of Illinois, and wrote my master's thesis on measuring the electron density in an AC PDP.



- 7. One of my engineering positions was with Interstate Electronics
  Corporation (IEC) as a design electrical engineer. IEC designed PDP drive
  electronics, mechanically packaged the display modules, and incorporated them
  into terminals for harsh, military environments. During this time, I was awarded
  several patents relating to PDP technologies. I also investigated LCDs and thin
  film electroluminescent displays for incorporation into military applications.
- 8. I later formed Plasma Displays, Inc., a single proprietorship consulting corporation. I worked for several clients, one being Bell Laboratories and AT&T at their joint Reading, Pennsylvania facility. This facility was where the original picture phone was developed, the first commercial light emitting diodes ("LEDs") were manufactured, and AT&T's PDPs were developed and manufactured. I worked on PDP drive electronic design, driver-to-panel interconnect, driver circuit characterization, and yield improvement.
- 9. I was a founder and Vice President of Plasmaco, a company that acquired IBM's PDP production line in New York. Plasmaco manufactured several types of PDPs, including VGA panels for early notebook computers.
- 10. At Science Applications International Corporation, I worked on efficient backlights for LCDs, some for direct viewing in sunlight. Commercially available LCDs were disassembled and repackaged with these backlights. The finished displays were used in cockpit avionics, medical, banking, and FAA towers.



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