United States Patent and Trademark Office Before the Patent Trial and Appeal Board

# Sharp Corporation et al., Petitioner v. Surpass Tech Innovation LLC, Patent Owner

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

Petitioner's
Demonstrative Exhibits



## **Overview**

The '843 Patent

The Prior Art Ham Reference

Patent Owner's 1st Argument: Ham's Data Modulator

Patent Owner's 2<sup>nd</sup> Argument: The Construction Of "Generating"

Patent Owner's 3<sup>rd</sup> Argument: "Overdriving"







### The '843 Patent: The Problem

"A liquid crystal display (LCD) has advantages . . . . However, an Lodoes have some disadvantages. Because of the limitations of physics characteristics, the liquid crystal molecules need to be twisted and rearranged when changing input data, which can cause the images to delayed. For satisfying the rapid switching requirements of multimed equipment, improving the response speed of liquid crystal is desired.

Ex. 1001, '843 Patent, Col. 1:14-26; see also Paper 1, Petition a



## The First Solution: Multiple <u>Data</u> Impulse

"In contrast to the prior art, the present invention discloses a driving of and relating driving method to generate two pieces of pixel data in each period for every pixel on an LCD panel and then to generate two data in according to the two pieces of pixel data and to apply them to each pixel within a frame period in order to change the transmission rate of a pixel electrode. Thus, . . . liquid crystal molecules of the pixels can twist to repredetermined gray level within a frame period, and blurring will not determined gray level within a frame period, and blurring will not determined gray level within a frame period, and blurring will not determined gray level within a frame period, and blurring will not determined gray level within a frame period, and blurring will not determined gray level within a frame period, and blurring will not determined gray level within a frame period, and blurring will not determined gray level within a frame period.

Ex. 1001, '843 Patent, C



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