

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BOE TECHNOLOGY GROUP CO., LTD., and
MOTOROLA (WUHAN) MOBILITY TECHNOLOGIES
COMMUNICATION CO., LTD.,
Petitioners

v.

ELEMENT CAPITAL COMMERCIAL COMPANY PTE. LTD.,
Patent Owner

IPR2023-01178
U.S. PATENT NO. 7,259,736

**PATENT OWNER'S SUR-REPLY TO PETITIONER'S PRE-INSTITUTION
REPLY**

TABLE OF EXHIBITS

Exhibit	Description
2001	Disclaimer in Patent under 37 CFR 1.321(a)
2002	Declaration of Dr. Aris Silzars
2003	Curriculum Vitae of Dr. Aris Silzars
2004	Certificate of Correction of U.S. Patent No. 7,259,736
2005	Ernst Lueder, "Liquid Crystal Displays: Addressing Schemes and Electro-Optical Effects," 161-245 (2001)
2006	Jiun-Haw Lee, et al., "Introduction to Flat Panel Displays," 233-254 (2008)
2007	Amal Ghosh, et al., "Short Course S-1: Fundamentals of OLEDs," 63-81 (2004)
2008	Achintya K. Bhowmik, et al., "Mobile Displays: Technology and Applications," 39-43 (2008)
2009	Ernst Lueder, "Fundamentals of Passive- and Active-Addressed Liquid-Crystal Displays," 13 (1998)
2010	Louis D. Silverstein, "Color in Electronic Displays," 75-77 (1999)
2011	BOE Technology Group Co., Ltd. v. Element Capital Commercial Company PTE. LTD, IPR2023-00605, Paper 4 (PTAB Feb. 22, 2023) (Petition for <i>Inter Partes</i> Review)
2012	BOE Technology Group Co., Ltd. v. Element Capital Commercial Company PTE. LTD, IPR2023-00605, Paper 9 (PTAB Oct. 12, 2023) (Decision Denying Institution of <i>Inter Partes</i> Review)

Petitioner's Pre-Institution Reply ("Reply") mischaracterizes the Board's Decision Denying Institution of *Inter Partes Review* ("Prior Decision") in IPR2023-00605, Patent Owner's reference to the Prior Decision, and Patent Owner's reference to Exhibits 2006-2008 in Patent Owner's Preliminary Response ("POPR"). Also, Petitioner's Reply inappropriately exceeds its authorized scope by introducing new evidence and arguments that attempt to generally respond to the POPR, while also mischaracterizing the POPR.

Petitioner's Reply (pg. 1) mischaracterizes Patent Owner's reference to the Prior Decision. At pages 21-23, the POPR argues that **Petitioner's proposed combination** of Kimura and Masuda in the instant Petition is similar to **Petitioner's proposed combination** of Inoue and Matsuda in the prior Petition because the Petitioner replicates the exact same obviousness analysis and rationale for the Kimura-Masuda combination as it did for the Inoue-Masuda combination, merely replacing "Inoue" with "Kimura." As such, Petitioner's instant Petition also fails to demonstrate a reasonable likelihood of success to combine Kimura and Masuda for similar reasons as concluded by the Board in its Prior Decision. *Id.*

It is the **Petitioner** who originally asserted that Inoue is similar to Kimura. Pet., 58 ("[A] display-related prior art reference similar to Kimura ... the driving

method disclosed in [Inoue].”). The Petitioner, in its Reply, now contradicts its prior assertion by newly arguing that Kimura is “different” from Inoue. Reply, 1. Petitioner’s new assertion ignores that both Kimura and Inoue describe configurations for balancing light emission luminance among light emitting elements of different colors in an *active matrix* EL display (unlike the common secondary reference, Masuda). *See, e.g.*, POPR, 18, 26, 52 (discussion of Kimura); EX-2012, 32 (“Inoue ... is directed to the problem of improving the uniformity of brightness of light emission of an active matrix EL display...”).

Also, Petitioner’s Reply (pgs. 1-3) mischaracterizes the Board’s Prior Decision. The Board did not “heavily” (or solely) rely on the fact that Inoue describes active light-detecting elements. For example, the Board agreed that Petitioner failed to establish either a motivation to combine or a reasonable likelihood of success in combining Inoue and Masuda for the additional reasons stated on pgs. 22-23, footnote 1, of the POPR. For example, the Board agreed that “Inoue’s brightness variation does not result from ‘inherent luminosity differences between the different primary colors’ (as does Masuda’s), but rather ‘is caused by variation of the threshold voltage of a transistor serving as a drive element,’ which Masuda’s checkerboard pattern would not have solved” (EX-2012, pgs. 32-33). *See*

POPR, footnote 1 on pgs. 22-23. These reasons, as well as the additional reasons set forth on pgs. 31-32 of the Prior Decision, equally apply to the Kimura combination, POPR, 30-34, and are unchallenged in both the Petition and the Reply.

Contrary to the Petitioner's contentions (Reply, 3-5), Exhibits 2006-2008 are all cited by Patent Owner as merely background material to show the general relationship between visual interference and resolution, and background material of the configurations of passive and active matrix displays. Citations to these exhibits are also accompanied by citations to timely references such as EX-2005 (EX-2002, ¶¶ 13-14, 16-17, 75), EX-1009 (EX-2002, ¶ 41), EX-2009 (EX-2002, ¶ 75), EX-1011 (EX-2002, ¶ 74), and EX-2010 (EX-2002, ¶ 81).

The Reply was limited to discussing the **relevance of the Prior Decision** for the matters it is relied on and Patent Owner's **reliance on EX 2006-2008**. However, Petitioner's Reply (pgs. 1-5) exceeds its authorized scope by introducing new evidence and arguments that attempt to generally respond to the POPR.

As one example, the Reply (pgs. 3-4) improperly attempts to newly introduce evidence and arguments concerning Kwon (EX-1013) and Table 2 of Sarma (EX-1014). Nevertheless, the new arguments are conclusory.

For example, the **plasma display** technology of Kwon is entirely different

from the **active matrix** technology of Kimura, and the Petitioner provides no evidence whatsoever to suggest that the problem of Kwon or Masuda **exists in the active matrix technology of Kimura**, and the solutions thereof would apply to Kimura. POPR, 15-19; 31 (footnote 2); *see also* EX- 1014 (discussing plasma display panels); EX-2012, 32. Table 2 of Sarma does not even mention **active matrix organic light-emitting diode** (“AMOLED”) displays such as described in Kimura, or even **organic**¹ electroluminescent (“organic EL”) displays.

Further, the use of the terms “Medium” and “High” in describing resolution of certain flat panel displays in Table 2 of Sarma is for showing a **comparison relative to CRT displays** (EX-1014, 87), and not as a qualitative descriptor for resolution of such displays in a general context outside of the table. For example, while Table 2 of Sarma indicates “Med/High” screen resolution for “Plasma DC/AC,” Sarma differently describes plasma displays as having **limited resolution** due to plasma displays being limited on “how small the pixel can be” due to “the significant volume of gas that must be present to create sufficient brightness” and due to “the

¹ Sarma particularly describes **inorganic** EL displays because, unlike **organic** EL displays which apply low voltage/fields to control current, inorganic EL displays depend on a high electric field. EX-1014, 4 (“When a voltage is applied across the basic EL structure, a high electric field appears across the phosphor.”)

omni-directional nature of the light generated which leads to cross-talk between pixels.” EX-1014, 169.

Table 2 of Sarma also describes certain flat panel display technologies many years before the critical date of the '736 Patent and filing date of Kimura in 2002, and does not describe what would be generally known as “high resolution” around such dates (in 2002) or the particular resolutions of plasma displays and OLEDs around the time of such dates (in 2002). EX-1014, 171. That is, Sarma is an out-of-date reference, published in **1996 (six years)** before such dates). Moreover, Table 2 of Sarma was adapted from a reference [17] of Sharma, published in **1992 (ten years)** before such dates). EX-1014, 1, 87, 24.

Nevertheless, even assuming *arguendo* that the issue identified in Masuda is somehow relevant to active matrix displays, it is already addressed and resolved by Kimura's particular active matrix display configuration that accomplishes uniform luminosity control via per-pixel driving circuitry. POPR, 26.

In Petitioner's improper attempt to respond generally to the POPR, Petitioner's Reply mischaracterizes the arguments in the POPR and fails to overcome let alone address all the various reasons that the Petition should be denied.

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Patent Owner's Sur-Reply

Respectfully submitted,

/Fadi Kiblawi/

Fadi Kiblawi, Reg. No. 61,973

Tyler P. Del Rosario, Reg. No. 72,943

Sughrue Mion, PLLC

Telephone: (202) 293-7060

Facsimile: (202) 293-7860

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Patent Owner's Sur-Reply

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the attached Patent Owner's Sur-Reply to Petitioner's Pre-Institution Reply is being served by electronic mail on the following counsel of record:

Jeremy J. Monaldo
Joseph Colaianni
Linhong Zhang
Fish & Richardson P.C.
60 South Sixth Street
Suite 3200
Minneapolis, MN 55402
IPR54108-0002IP1@fr.com
PTABInbound@fr.com

/Soo Jin Hur/
Soo Jin Hur

Date: January 3, 2024