#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG DISPLAY CO., LTD., Petitioner,

 $\mathbf{v}_{\bullet}$ 

JOLED INC., Patent Owner.

Case No. IPR2021-00677 Patent No. 10,198,992

DECLARATION OF MILTIADIS HATALIS, PH.D. IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 10,198,992



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	3.	Claim 4: "The EL display apparatus according to claim 1, wherein the second gate driver circuit is configured to turn the third switch transistor from the ON state for reverse biasing the anode terminal of the EL device to the OFF state, and, after a second lapse of time, the first gate driver circuit is configured to turn the first switch transistor from the OFF state to the ON state."			
	4.	Claim 7: An electronic device, comprising: the EL display apparatus according to claim 1			
	5.	Claim 10			
	6.	Claim 11			
	7.	Claim 15: "An electronic device, comprising: the EL display apparatus according to claim 10."			
В.	Ground II: Claims 3, 5, 6, 8, 9, and 12–14 are obvious over Kuribayashi in view of Sekiya and further in view of Takahara 140				
	1.	Claim 3: "The EL display apparatus according to claim 1, further comprising: a precharge circuit or a discharge circuit which forcibly charges or discharges the one of the plurality of source signal lines."			
	2.	Claim 5: "The EL display apparatus according to claim 1, wherein the first gate driver circuit is configured to select a plurality of the first gate signal lines simultaneously."			
	3.	Claim 6			
	4.	Claim 8			
	5.	Claim 9: "The method according to claim 8, further comprising: controlling the first switch transistor to be in an OFF state via the first gate driver circuit, when the second gate driver circuit controls the third switch transistor to be in the ON state for reverse biasing the anode terminal of the EL device."			
	6.	Claim 12: "The EL display apparatus according to claim 10, further comprising: a precharge circuit or a discharge circuit			



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		which forcibly charges or discharges the one of the plurality	of
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Case No. IPR2021-00677 U.S. Patent No. 10,198,992 Declaration of Miltiadis Hatalis, Ph.D.

#### I. INTRODUCTION

- 1. I, Miltiadis Hatalis, Ph.D., have been retained by counsel for Samsung Display Co. ("Samsung Display" or "Petitioner") as an expert witness in support of Samsung Display's petition for *Inter Partes* Review ("IPR") and cancellation of claims 1–15 of U.S. Patent No. 10,198,992 (Ex. 1001, the "'992 patent"), which I am informed has been assigned to JOLED, Inc. ("JOLED" or "Patent Owner").
- 2. My opinions are based on my years of education, research and experience, as well as my investigation and study of relevant materials. The materials that I studied for this declaration include all exhibits of the petition.
- 3. I may rely upon these materials, my knowledge and experience, and/or additional materials to rebut arguments raised by the patent owner. Further, I may also consider additional documents and information in forming any necessary opinions, including documents that may not yet have been provided to me.
- 4. My analysis of the materials produced in this investigation is ongoing and I will continue to review any new material as it is provided. This declaration represents only those opinions I have formed to date. I reserve the right to revise, supplement, and/or amend my opinions stated herein based on new information and on my continuing analysis of the materials already provided.



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