

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG DISPLAY CO., LTD.,
Petitioner,

v.

PICTIVA DISPLAYS INTERNATIONAL LTD.,
Patent Owner.

Case No. IPR2024-01187

Patent No. 9,257,492

PETITIONER'S PRELIMINARY REPLY

TABLE OF EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 9,257,492
1002	File History for U.S. Patent No. 9,257,492
1003	Declaration of Alex Kattamis, Ph.D.
1004	World Intellectual Property Organization Published Application No. 2011/036089 A1 (Ingle)
1005	Certified English Translation of World Intellectual Property Organization Published Application No. 2011/036089 A1 (Ingle)
1006	Japanese Patent Application Publication No. JP 2003-317610 (Hasei)
1007	Certified English Translation of Japanese Patent Application No. JP 2003-317610 (Hasei)
1008	U.S. Patent No. 5,691,877 (Hanamura)
1009	LEFT BLANK
1010	U.S. Patent No. 7,817,117
1011	LEFT BLANK
1012	LEFT BLANK
1013	U.S. Patent Publication No. 2009/0178271 (Egitto)
1014	James L. Sanford and Frank R. Libsch, <i>TFT AMOLED Pixel Circuits and Driving Methods</i> , 4.2 SID 03 Digest 10-12 (2003)
1015	Reiji Hattori et al., <i>Current-Writing Active-Matrix Circuit for Organic Light-Emitting Diode Display Using aSi:H Thin-Film-Transistors</i> , IEICE Trans. Electron., Vol.e83-C, No. 5 (May 2000)
1016	U.S. Patent No. 3,997,411 (Muenz)
1017	James W. Nilsson and Susan A. Riedel, <i>Electric Circuits</i> , Addison-Wesley Publishing Co. (5th ed. 1996)
1018	Alan B. Grebene, <i>Bipolar And MOS Analog Integrated Circuit Design</i> , John Wiley & Sons (1983)
1019	IEEE 100, <i>The Authoritative Dictionary of IEEE Standards Terms</i> (7th ed. Dec. 2000)
1020	Jiun-Haw Lee et al., <i>Introduction To Flat Panel Displays</i> , John Wiley & Sons (2008)

Exhibit No.	Description
1021	Robert A. Street, <i>Technology and Applications of Amorphous Silicon in Materials Science</i> , Vol. 37 (2000)
1022	Gary S. May and Costas J. Spanos, <i>Fundamentals of Semiconductor Manufacturing and Process Control</i> (2006)
1023	Bruce E. Kahn, <i>Printing Methods for Printed Electronics</i> , Soc’y For Imagin Sci. & Tech.: NIP24 and Digital Fabrication 15-20 (2008), https://doi.org/10.2352/ISSN.2169-4451.2008.24.1.art00005_1
1024	Ana C. Arias et al., <i>Materials and Applications for Large Area Electronics: Solution-Based Approaches</i> , 110 Chemical Reviews 3-24 (2010)
1025	Docket Control Order, <i>Pictiva Displays International Ltd. v. Samsung Elec. Co., Ltd.</i> , No. 2:23-cv-00495, Dkt. #40 (E.D. Tex. Apr. 17, 2024)
1026	<i>Pictiva Displays Int’l Ltd. v. Samsung Elecs. Co.</i> , No. 2:23-cv-0495 (E.D. Tex.), <i>Sotera</i> Stipulation

I. The Board Should Not Deny Institution Under *Fintiv*.

If the Board institutes this IPR, Defendants in *Pictiva Displays Int'l Ltd. v. Samsung Elecs. Co.*, No. 2:23-cv-0495 (E.D. Tex.), stipulate not to pursue invalidity defenses based on grounds that were raised or reasonably could have been raised in this IPR. Ex. 1026. “Under the mandatory *Fintiv* guidance ... this stipulation is dispositive.” *BMW v. Northstar*, IPR2023-01017, Paper 12 at 10 (Dec. 8, 2023).

II. The Board Should Not Deny Institution Under 35 U.S.C. § 325(d).

On *Advanced Bionics* prong 1, Pictiva asserts that two references similar to Ingle were before the examiner. However, neither was relied upon and one was in German. Ex.1002, 289, 332. Moreover, Hasei, which Petitioner combines with Ingle, was not before the examiner. Pictiva’s argument that Hasei “does not change” the 325(d) inquiry because “Ingle already discloses ‘using a conventional process’ to create an OLED, and Hasei is merely providing one of the ways,” POPR at 32, is misplaced. Indeed, Pictiva is simultaneously arguing that “Ingle does *not* disclose the actual production of ... an OLED,” POPR, 8 (emphasis added), and, in any event, an examiner should not be expected to know every conventional process for forming an OLED when considering Ingle’s disclosure. In particular, when considering Ingle, the examiner would not know of Hasei’s droplet discharge method, which even Pictiva asserts is a “purportedly novel approach described ... as an improvement over the ‘conventional method.’” POPR, 11, 18.

Pictiva’s argument on *Advanced Bionics* prong 2 likewise fails. It suffices to “show[] material error by pointing to specific teachings of the relevant prior art that the Examiner (apparently) incorrectly found [were] missing in the art applied during prosecution.” *DexCom, Inc. v. Abbott Diabetes Care Inc.*, IPR2023-01409, Paper 10 at 15 (Apr. 15, 2024). The Petition makes precisely such a showing. *See Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 10 (Feb. 13, 2020) (precedential) (If “the record of the Office’s previous consideration of the art is not well developed or silent, then a petitioner may show the Office erred by overlooking something persuasive.”). If Hasei’s droplet discharge method was before the examiner as Pictiva asserts in its prong 1 argument (even though Hasei was not of record), then Ingle in view of Hasei renders obvious the challenged claims, and the Examiner erred by not considering this disclosure.

III. Pictiva’s Construction of *Forming a First Trench* Should be Rejected

Pictiva’s argument that *forming a first trench* must occur after the first and second electrically conductive layers are formed, POPR, 6-7, which was not raised in the related litigation, should be rejected. It is well established that a method claim “is not limited to the performance of the steps in the order recited, unless the claim explicitly or implicitly requires a specific order,” *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1345 (Fed. Cir. 2008). Nor is “separate and consecutive performance” of the claimed steps required. *Moba BV v. Diamond Automation Inc.*,

325 F.3d 1306, 1314 (Fed. Cir. 2003). Notably, the '492 patent clearly and explicitly indicates when a specific order is required. '492 patent, cl. 3 (“before the dielectric is applied, a second trench and at least one third trench are formed”), cl. 10 (“before the optically functional layer is applied”), cl. 12 (“after the structured application of the dielectric and before the removal of the second electrically conductive layer”) (emphasis added). It does not do so in claim 1, though, reciting only “forming” electrically conductive layers and “forming a first trench” in those layers, without an explicit order of steps. *Id.*, cl. 1.

Nor does claim 1 implicitly require a particular order. To determine if claims implicitly require a specific order, courts “look to the claim language to determine if, as a matter of logic or grammar, they must be performed in the order written,” and, “[i]f not, ... next look to the rest of the specification to determine whether it ‘directly or implicitly requires such a narrow construction.’” *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1370-7 (Fed. Cir. 2003).

First, neither logic nor grammar require separate and consecutive performance of the claimed steps. While it is not possible to form a trench *before* depositing the first and second electrically conductive layers, POSITAs would understand that a trench may be formed *concurrently* with the layers marking its boundaries, as Dr. Kattamis explained with respect to Hanamura. *See* Ex. 1003, ¶¶ 233-34. For example, by depositing material with a predetermined spacing, a trench will form

between the two material deposits. *See id.* Nor does anything in claim 1 grammatically require that the first and second electrically conductive layers exist before the trench begins forming. As explained above, the applicant knew how to write claims requiring a specific order of steps. '492 patent, cls. 3, 10, 12.

Second, the '492 patent's specification does not require separate and consecutive performance of the claimed steps. Indeed, it contemplates simultaneous performance of various claimed steps. *Compare* '492 patent, cl. 10[e] ("dielectric, which is applied ... in the first contact region"), and 10[g] ("applying the dielectric ... such that the dielectric demarcates a component region"), *with* Fig. 12 (dielectric 28 simultaneously applied to the first contact region 16 and such that it demarcates a component region 50). Pictiva's reliance on Figures 1-5 and associated text to try to import such a limitation is misplaced. The Federal Circuit "has expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (collecting cases). For example, the Federal Circuit has held that in such situations "it was improper to read a specific order of steps into method claims because the specification 'nowhere included any disclaimer of any other order of steps, or any prosecution history indicating a surrender of any other order of steps.'" *Liebel-Flarsheim*, 358 F.3d at 906 (cleaned up) (quoting *Altiris*, 318 F.3d at 1371).

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Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, I hereby certify that the foregoing Petitioner's Preliminary Reply was served by electronic mail on the following counsel of record for patent owner:

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