

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BOE Technology Group Co., Ltd,
Petitioner,

v.

Optronic Sciences LLC
Patent Owner

IPR2024-01131
Patent No. 7,226,801

PATENT OWNERS' PRELIMINARY SUR-REPLY

Patent Owner's Exhibit List

Exhibit	Description
2001	Docket Control Order from <i>Optronic Sciences LLC v. BOE Tech. Group Co., Ltd.</i> , No. 2:23-cv-00549-JRG, Dkt. 33 (E.D. Tex. Aug. 5, 2024).
2002	Infringement Contentions from <i>Optronic Sciences LLC v. BOE Tech. Group Co., Ltd.</i> , No. 2:23-cv-00549-JRG, Dkt. 33 (E.D. Tex. Aug. 5, 2024).
2003	BOE Technology Group Co., LTD's Invalidity Contentions from <i>Optronic Sciences LLC v. BOE Tech. Group Co., Ltd.</i> , No. 2:23-cv-00549-JRG, (E.D. Tex. Oct. 25, 2024).

The Board's Dec. 9, 2024 email authorized this sur-reply.

I. Claim Construction of “Predetermined Material Layer”

The challenged independent claims require either a step of “forming a predetermined material layer on the first substrate” or the presence of “a predetermined material layer formed on the first substrate.” EX1001, cls. 1, 9. This layer then appears in the subsequent claim limitations, which require, for example, “an organic material pattern layer having a saw tooth opening *on the predetermined material layer* to expose *the surface of the predetermined material layer* underneath, wherein *the surface of the predetermined material layer* and the sidewall of the organic material pattern layer form a predetermined angle.” Ex. 1001, cl. 1.

The Petition points to up to six unrelated layers to satisfy the “predetermined material layer” requirement, and makes no attempt to show that these layers individually or collectively meet the limitations for the claimed predetermined material layer. *See* POPR, 22, 23, 25-26. None of the layers individually meets the limitations, and Petitioner has not shown—even in its Reply—why an arbitrary selection of unrelated layers constitutes a predetermined material layer as claimed. *See id.*

Instead of addressing the substance of Patent Owner's argument, Petitioner attacks a straw man, accusing Patent Owner of construing this limitation as requiring

a “single layer.” Reply at 1. Not so. Because “a” is presumed to mean “one or more,” it is presumptively permissible to have multiple predetermined material layers as claimed; but that is not relevant to the Petition’s theory. The patent specification also expressly teaches, and the patent claims, an embodiment where a predetermined material layer as claimed is formed by the combination of a silicon nitride passivation layer and a metal electrode layer. Ex. 1001 at 2:46-55 and cls. 4, 5, 12, 13. But the Petition included no theory or explanation why the three to six separate layers in its theory form a predetermined material layer. Pet. at 23-24. The Petition does not even point to consecutively formed layers; semiconductor layer 130 and gate electrode layer 150 are not part of the predetermined material layer but are formed within it. *See* POPR at 22-23.

Instead, Petitioner now implicitly seeks a construction that “a predetermined material layer” should include one layer formed on the substrate and one or more unrelated and non-adjacent layers attached to the organic material pattern layer. Reply at 2. This attempt to redefine the claim terms should be rejected.

II. Claim Construction of “formed on”

Similarly, Petitioner now asserts that “formed on” should include “formed indirectly on.” Reply at 2. Even if this untimely claim construction argument is permitted, Petitioner is incorrect. Petitioner’s only authority, *AFG Indus., Inc. v. Cardinal IG Co.*, 239 F.3d 1239, 1245 (Fed. Cir. 2001), is inapposite. There, the

patent specification and un rebutted extrinsic evidence showed that in the field of window coatings, the use of very thin, optically insignificant “interlayers” between the optically significant metallic layers was important, perhaps even necessary, “only in the *process* of fabricating the coatings,” but the presence or absence of interlayers was not material to the claim scope, because “once the claimed *product* is formed, the presence of the interlayers may be insignificant.” *Id.* at 1246-47 (emphasis in original). Thus, even though the patent claimed a “5-layered coating composed of” five metallic layers, “the claim language and the specification permit the presence of [unclaimed] interlayers between [claimed] layers.” *Id.* at 1251; *see id.* at 1243. Only for that reason did the court conclude “formed on” did not mean “formed directly on.” *Id.* at 1251. None of those circumstances are present here.

III. Fintiv

Petitioner’s new *Fintiv* arguments fail. Factor 1. Patent Owner presented evidence showing a stay is unlikely; Petitioner’s non-response confirms that this factor weighs against institution. Factor 2. Petitioner’s speculation that final written decision *may* occur before jury trial ignores the objective fact that jury selection is set *over a month* before the final written decision deadline. Other factors. The Reply raises no new arguments, and institution should be denied for the same reasons set out in the POPR. POPR at 37-40.

Respectfully submitted,

Dated: December 19, 2024

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CERTIFICATION REGARDING WORD COUNT

Pursuant to 37 C.F.R. §42.24(d), Patent Owner certifies that there are 677 words in the paper excluding the portions exempted under 37 C.F.R. §42.24(a)(1).

Dated: December 19, 2024

/ Christian W. Conkle /
Christian W. Conkle

CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e)(1))

The undersigned hereby certifies that the above document was served on December 19, 2024, by filing this document through P-TACTS as well as delivering a copy via electronic mail upon the following attorneys of record for Petitioners:

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