UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner

v.

ISCAN2D TECHNOLOGIES, LLC,
Patent Owner

Case IPR2026-00317
U.S. Patent No. 12,230,394

PETITIONER'S SUR-REPLY OPPOSING DISCRETIONARY DENIAL

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1002	File History of U.S. Patent No. 12,230,394
1003	Declaration of Dr. Prashant Shenoy in Support of Petition for *Inter Partes* Review of U.S. Patent No. 12,230,394
1004	U.S. Patent Application Publication No. 2011/0072263 to Bishop et al. ("Bishop")
1005	U.S. Patent Application Publication No. 2008/0146892 to LeBoeuf et al. ("LeBoeuf")
1006	U.S. Patent Application Publication No. 2011/0081860 to Brown et al. ("Brown")
1007	International Patent Application Publication No. WO 2010/144626 to Weiss ("Weiss")
1008	U.S. Patent Application Publication No. 2012/0198531 to Ort et al. ("Ort")
1009	U.S. Patent Application Publication No. 2010/0012715 to Williams et al. ("Williams")
1010	U.S. Patent Application Publication No. 2008/0052243 to Narayanaswami et al. ("Narayanaswami")
1011	U.S. Patent No. 4,403,869 to Crutcher ("Crutcher")
1012	U.S. Patent No. 2,612,994 to Woodland et al. ("Woodland")
1013	Pavlidis et al., "Fundamentals of Bar Code Information Theory," IEEE (1990)

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1014	Gao et al., "Understanding 2D-BarCode Technology and Applications in M-Commerce – Design and Implementation of a 2D Barcode Processing Solution," (31st Annual International Computer Software and Applications Conference (2007))
1015	Pavlidis, "A New Paper/Computer Interface: Two-Dimensional Symbologies," IEEE (2000)
1016	U.S. Patent Application Publication No. 2012/0024956 to Chen ("Chen")
1017	Parikh et al., "Localization and Segmentation of a 2D High Capacity Color Barcode," 2008 IEEE Workshop on Applications of Computer Vision
1018	Bagherinia et al., "A Theory of Color Barcodes," UC Santa Cruz (2011)
1019	Grillo et al., "High Capacity Colored Two Dimensional Codes," Proceedings of the International Multiconference on Computer Science and Information Technology (2010)
1020	Claycomb et al., "Using a Two Dimensional Colorized Barcode Solution for Authentication in Pervasive Computing," ACS/IEEE International Conference on Pervasive Services (2006)
1021	U.S. Patent No. 8,823,494 to Kovitz et al. ("Kovitz")
1022	U.S. Patent Application Publication No. 2011/0295502 to Faenger ("Faenger")
1023	U.S. Patent Application Publication No. 2005/0139680 to Anttila et al. ("Anttila")
1024	U.S. Patent Application Publication No. 2008/0132798 to Hong et al. ("Hong")
1025	U.S. Patent Application Publication No. 2011/0066009 to Moon et al. ("Moon")

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1026	U.S. Patent Application Publication No. 2010/0121227 to Stirling et al. ("Stirling")
1027	U.S. Patent Application Publication No. 2012/0067944 to Ross ("Ross")
1028	U.S. Patent Application Publication No. 2008/0210754 to Lovett ("Lovett")
1029	U.S. Patent Application Publication No. 2005/0032515 to Mastio ("Mastio")
1030	U.S. Patent Application Publication No. 2010/0321609 to Qui et al. ("Qui")
1031	U.S. Patent Application Publication No. 2010/0156676 to Mooring et al. ("Mooring")
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1033	*Curriculum Vitae* of Dr. Prashant Shenoy
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1035	*Apple will spend more than $500 billion in the U.S. over the next four years*, Apple Newsroom, Feb. 24, 2025
1036	*Apple and Corning partner to manufacture 100 percent of iPhone and Apple Watch cover glass in Kentucky*, Apple Newsroom, Aug. 6, 2025
1037	*Apple accelerates U.S. manufacturing, with Mac mini production coming later this year*, Apple Newsroom, Feb. 24, 2026
1038	*Apple announces expanded partnership with Amkor for advanced silicon packaging in the U.S.*, Apple Newsroom, Nov. 30, 2023
1039	*Apple adds new partners to its American Manufacturing Program*, Apple Newsroom, Mar. 26, 2026

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1040	*Apple expands U.S. supply chain with $500 million commitment to American rare earth magnets*, Apple Newsroom, July 15, 2025
1041	*Apple Manufacturing Academy brings together hundreds of U.S. manufacturers to accelerate AI use in American supply chains*, Apple Newsroom, May 5, 2026
1042	*Apple increases U.S. commitment to $600 billion, announces American Manufacturing Program*, Apple Newsroom, August 6, 2025
1043	Docket Navigator Report showing Success Rate of Motions to Stay Pending *Inter Partes* Review in the Northern District of California, generated August 7, 2026
1044	*iScan2D Techs., LLC v. Apple Inc.,* Case No. 1:25-cv-1794 (W.D. Tex.), First Amended Complaint for Patent Infringement, filed Feb. 2, 2026

On September 9, 2026, shortly before Apple filed this authorized Sur-Reply, the Director referred this proceeding for review of the merits. Paper 11. While Apple believes the Director's Decision moots this briefing, for a complete record, Apple submits the arguments below in response to iScan2D's Reply.

I. INTRODUCTION

Apple's Opposition demonstrates that the key discretionary considerations—including (1) material error, (2) the *Fintiv* factors, (3) Apple's U.S. manufacturing presence, (4) settled expectations, and (5) the *Advanced Bionics* framework—all strongly favor review. Regarding material error, Apple identified two independent ways in which the Examiner erred: (1) the Examiner overlooked, in the prior art she considered, express teachings, suggestions, and motivations (TSMs) that would have motivated a POSA to apply and combine the prior art as the Petition does, and (2) the Examiner conducted an inadequate search for wearable devices. Each material error independently supports institution.

iScan2D responds with a single, narrow argument against the second material error, arguing only that the Examiner's search was sufficient. DD Reply, 1-2. iScan2D does not address the first material error or any of the other discretionary considerations that strongly favor institution. Therefore, even if the Director finds the Examiner's search for wearables to be sufficient, he should still consider the Petition's merits. Regardless, iScan2D's own arguments show that the

Examiner's search was *not* sufficient. The Examiner erred by focusing her search on wearable implementations of barcode-based pairing systems, including references similar to Brown, rather than on complementary wearable-device teachings that a POSA would combine with Brown. As a result, the Examiner failed to identify or appreciate relevant prior-art teachings, including those disclosed by Weiss and LeBoeuf. Such material error is appropriate for correction in an IPR.

II. THE EXAMINER MATERIALLY ERRED IN ALLOWING THE '394 PATENT

The Opposition demonstrates that the Examiner conducted a flawed search that focused primarily on identifying additional Brown-like barcode-pairing references, instead of references disclosing wireless-enabled wearable devices that were ripe for combination with Brown based on Brown's express teachings, suggestions, and motivations (TSMs). Pet. Opp., 4-5. As a result, the Examiner failed to identify or appreciate references such as Weiss and LeBoeuf, which do not teach barcode scanning but supply the wearable-device and biometric-information teachings that Brown lacks.

iScan2D's Reply reinforces this point. iScan2D argues that the Examiner's search query L207 combined barcode display and wireless pairing because it contained search terms such as "code," "bar$1code," "qr," and pair$3." PO Reply, 1; EX1002, 170. But that is precisely the problem. The Examiner focused on

finding additional barcode-based pairing references even though she already recognized that Brown teaches the core barcode-pairing aspects of the claims. *See* Pet. Opp., 4-5. Once Brown was identified, the Examiner should have searched for complementary references supplying the remaining claim elements, instead of for more references like Brown. L207 does not represent such a search.

iScan2D also relies on queries L224 through L226. PO Reply, 1-2. But those searches were limited to the claims (using the ".clm" limiter) and were collectively conducted in less than one minute at the very end of the session. EX1002, 176 (queries L224-L226 conducted at 7:33 PM). Even when combined with the earlier classification search (in L227), these abbreviated, claim-limited searches do not demonstrate that the Examiner meaningfully searched for complementary wearable teachings, such as those disclosed by LeBoeuf and Weiss. See PO Reply, 2 (discussing query L195). *See* PO Reply, 2 (discussing query L195).

iScan2D's accusation that Apple "does not fairly present the record" is untrue. *See* PO Reply, 2. Apple does not argue that the Examiner did not search for wearables at all—it explains that the Examiner's search was inadequate because it focused on finding references teaching wearable implementations of Brown's barcode-based pairing functionality. Similarly, Apple does not argue that the Examiner *only* relied on AI-based searches—it argues that those searches reflected the Examiner's flawed search strategy. Although the Examiner employed both

manual and AI-based searches, her primary strategy was clear: both search types were largely focused on finding other Brown-like barcode-based pairing references. EX1002, 170-176. Thus, the manual searches suffer from the same defect as the AI searches. The Examiner's use of manual queries in addition to AI-based queries does not cure the shortcomings in her search strategy.

And, as explained in the Opposition, the Examiner's errors were not limited to her specific search queries. The Examiner also overlooked Brown's express TSMs for implementing its barcode-pairing techniques with wearable fitness/health devices. *See* Pet. Opp, 2-5. As a result, the Examiner missed both the prior art teachings complementing Brown as well as Brown's express reasons as to why a POSA would have combined those prior art teachings with Brown. The Petition demonstrates that such collective teachings render the claims obvious. The '394 Patent should never have been allowed.

The Director should therefore consider the merits of the Petition because the Examiner erred in allowing the '394 patent. The Director should also consider the merits because the other discretionary considerations provided in the Opposition strongly favor review.

Respectfully submitted,

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CERTIFICATE OF SERVICE (37 C.F.R. §§ 42.6(e)), 42.105(a))

I certify that the above-captioned **PETITIONER'S SUR-REPLY OPPOSING DISCRETIONARY DENIAL** was served in its entirety upon the Patent Owner on September 9, 2026, via electronic mail:

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