

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner

v.

ISCAN2D TECHNOLOGIES, LLC,
Patent Owner

Case IPR2026-00316
U.S. Patent No. 11,664,123

**PETITIONER'S SUR-REPLY OPPOSING
DISCRETIONARY DENIAL**

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

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PETITIONER'S EXHIBIT LIST

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1002	File History of U.S. Patent No. 11,664,123
1003	Declaration of Prashant Shenoy in Support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. 11,664,123
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)

Exhibit No.	Description
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 Symbolologies,” 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”)

Exhibit No.	Description
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”)
1032	U.S. Patent Application Publication No. 2008/0168361 to Forstall et al. (“Forstall”)
1033	<i>Curriculum Vitae</i> of Dr. Prashant Shenoy
1034	File History of U.S. Patent No. 12,230,394
1035	<i>Apple will spend more than \$500 billion in the U.S. over the next four years</i> , Apple Newsroom, Feb. 24, 2025
1036	<i>Apple and Corning partner to manufacture 100 percent of iPhone and Apple Watch cover glass in Kentucky</i> , Apple Newsroom, Aug. 6, 2025
1037	<i>Apple accelerates U.S. manufacturing, with Mac mini production coming later this year</i> , Apple Newsroom, Feb. 24, 2026
1038	<i>Apple announces expanded partnership with Amkor for advanced silicon packaging in the U.S.</i> , Apple Newsroom, Nov. 30, 2023
1039	<i>Apple adds new partners to its American Manufacturing Program</i> , Apple Newsroom, Mar. 26, 2026

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1040	<i>Apple expands U.S. supply chain with \$500 million commitment to American rare earth magnets, Apple Newsroom, July 15, 2025</i>
1041	<i>Apple Manufacturing Academy brings together hundreds of U.S. manufacturers to accelerate AI use in American supply chains, Apple Newsroom, May 5, 2026</i>
1042	<i>Apple increases U.S. commitment to \$600 billion, announces American Manufacturing Program, Apple Newsroom, August 6, 2025</i>
1043	Docket Navigator Report showing Success Rate of Motions to Stay Pending <i>Inter Partes</i> Review in the Northern District of California, generated August 7, 2026
1044	<i>iScan2D Techs., LLC v. Apple Inc.</i> , 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. 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

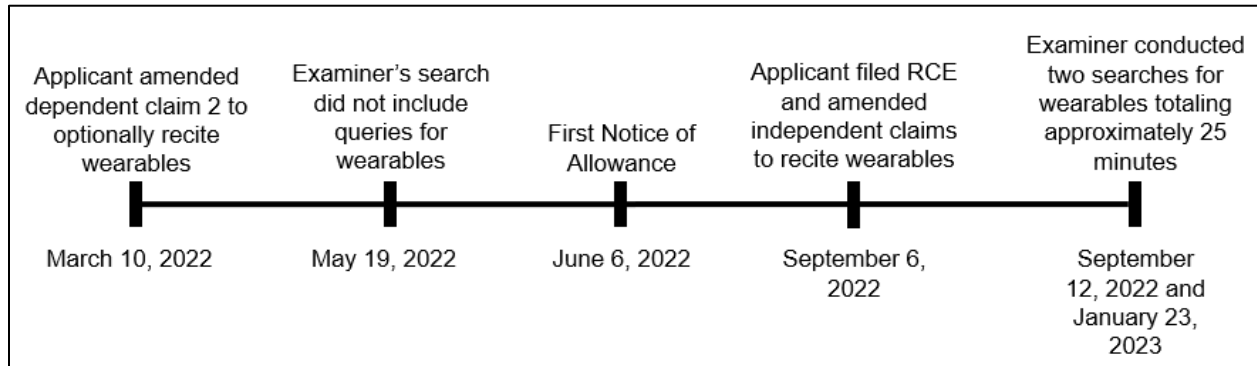
Examiner's search was *not* sufficient. The Examiner did not actually search for wearable devices until after the Notice of Allowance, when the Applicant amended the independent claims to recite a "wearable activity device." These post-allowance (and post-RCE) searches were cursory—lasting approximately 25 minutes total—and caused the Examiner to miss key teachings in the prior art. Such material error is appropriate for correction in an IPR.

II. THE EXAMINER MATERIALLY ERRED IN ALLOWING THE '123 PATENT

The Examiner did not search for "wearable" devices until after her first Notice of Allowance, when the Applicant filed an RCE to amend the independent claims to recite a "wearable activity device." The Examiner then conducted two cursory post-allowance searches. The first lasted nine minutes and the second lasted 14 minutes. *See* Pet. Opp., 4-5; EX1002, 179-186 (amendment), 203-205 (first search), 232-235 (second search). These abbreviated searches caused the Examiner to miss relevant wearable device teachings in the prior art, such as those disclosed by LeBoeuf and Weiss.

iScan2D argues that the Examiner considered wearables before the first Notice of Allowance because the Applicant had previously amended dependent claim 2 to recite wearable devices. But the Examiner's subsequent search did not include queries directed to wearables. EX1002, 146-155 (claim 2 amendment), 170-173 (search). The Examiner did not actually search for wearables until after

the Applicant's post-allowance RCE and amendment. A timeline of events is provided below for convenience:



The Examiner's May 19, 2022 search was not directed to wearables. It was instead primarily directed to stationary exercise equipment. *See* EX1002, 170-173 (including search terms for “treadmill,” “rowing,” “rower,” “elliptical,” “stationary,” “bike,” etc.). This is because the *independent* claims still recited an “exercise device,” while claim 2 merely recited a disjunctive list for that device—that “the exercise [device] is *at least one of* a cardio exercise machine, a wearable activity device, a wearable health monitoring device, and a strength exercise machine.” EX1002, 148. Wearables were thus not a requirement of any claim— independent claim 1 was directed to exercise devices and claim 2 could be satisfied through a “cardio exercise machine” or a “strength exercise machine.” The Examiner's search was consistent with this claim scope.

iScan2D argues that the Examiner's May 19, 2022 search shows that the Examiner considered wearables, but by iScan2D's own admission, this search at

most included queries for *mobile* devices, such as “smart\$1 phone,” “mobile,” “tablet,” and “pda.” PO Reply, 3.¹ The independent claims at the time recited a “mobile device”—these searches were directed to that element, not to *wearable* devices. Moreover, these mobile device-targeted terms were included in queries that simultaneously targeted stationary exercise equipment, such as treadmills and rowing machines. EX1002, 170-173 (e.g., queries L142, L144, L147-L150). iScan2D does not and cannot point to any query directed to “wearable” devices prior to the Examiner’s June 6 Notice of Allowance.

iScan2D argues that the Examiner allowed the claims after making “a substantive determination about the claimed combination.” PO Reply, 4-5. That substantive determination was made in error.² Not only did the Examiner fail to sufficiently search for references teaching wearable fitness/health devices, such as

¹ iScan2D also mentions that the Examiner searched using the string: “(accelerometer AND biometric AND mobile AND device).clm.” DD Reply, 3. This string does not include “wearable” and, as evidenced by the “.clm” limiter, searched only claims, not descriptions.

² Despite iScan2D’s accusations, DD Reply, 3-4, Apple does not argue that the Examiner “failed to investigate” wearables at all. It argues that the Examiner’s investigation was insufficient and resulted in material error.

LeBoeuf and Weiss, she also overlooked Brown's teachings related to barcode-pairing as well as their express teachings, suggestions, and motivations (TSMs) for implementing their barcode-pairing techniques with wearable fitness/health devices. *See* Pet. Opp, 2-5. The Petition demonstrates that such collective teachings render the claims obvious. The '123 Patent should never have been allowed.

The Director should therefore consider the merits of the Petition because the Examiner erred in allowing the '123 patent. The Director should also consider the merits because the other discretionary considerations provided in Apple's Opposition strongly favor review.

Respectfully submitted,

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Date: September 9, 2026

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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
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