UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,

Petitioner,

v.

DDC TECHNOLOGY, LLC,

Patent Owner.

IPR2023-00709

U.S. Patent 10,528,199

PATENT OWNER DDC TECHNOLOGY, LLC'S PRELIMINARY RESPONSE TO PETITION PURSUANT TO 37 C.F.R. § 42.107(a)

TABLE OF CONTENTS

TABLE OF AUTHORITIES ii

PATENT OWNER'S EXHIBIT LIST iv

I. THE PETITION SHOULD BE DISMISSED FOR FAILURE TO JOIN ALL REAL PARTIES IN INTEREST 2

A. OPS is an RPI 3

B. Google's omission of OPS as an RPI was intentional and for the purpose of concealing the true nature of the pending action in NDTX 15

II. GOOGLE'S PETITION IS UNTIMELY 17

III. GOOGLE'S PETITION DOES NOT ESTABLISH A REASONABLE LIKELIHOOD OF PREVAILING WITH RESPECT TO ANY CLAIM 22

IV. SECONDARY CONSIDERATIONS 30

V. CONCLUSION 38

CERTIFICATE OF COMPLIANCE 39

CERTIFICATE OF SERVICE 40

TABLE OF AUTHORITIES

Cases

Applications in Internet Time, LLC v. RPX Corp.,
897 F.3d 1336 (Fed. Cir. 2018) 13

DDC Tech., LLC v. Unofficial Cardboard, Inc.,
No. 1:21-cv-05596 (N.D. Ill. filed Oct. 21, 2021).....18

Lumentum Holdings, Inc. v. Capella Photonics, Inc.,
No. IPR2015-00739,
2016 WL 2736005 (P.T.A.B. Mar. 4, 2016).....2

One World Techs., Inc. v. Chervon (Hk) Ltd.,
No. IPR2020-00886,
2021 WL 5192914 (P.T.A.B. Nov. 3, 2021) 16

PayPal, Inc. v. PersonalWeb Techs., LLC,
No. IPR2019-01111,
2019 WL 6443937 (P.T.A.B. Nov. 22, 2019) 18

Satco Prods., Inc. v. Seoul Viosys Co.,
No. IPR2020-00704,
2021 WL 3730034 (P.T.A.B. Aug. 23, 2021) 26

SharkNinja Operating LLC v. iRobot Corp.,
No. IPR2020-00734,
2020 WL 5938681 (P.T.A.B. Oct. 6, 2020).....2, 16

Ventex Co. v. Columbia Sportswear N. Am., Inc.,
No. IPR2017-00651,
2019 WL 764130 (P.T.A.B. Jan. 24, 2019).....13

Volkswagen Grp. of Am., Inc. v. Arigna Tech. Ltd.,
No. IPR2021-01263,
2022 WL 211526 (P.T.A.B. Jan. 21, 2022).....13

Statutes

35 U.S.C. § 312 2

35 U.S.C. § 314 22

35 U.S.C. § 315 ..... 17, 18

PATENT OWNER'S EXHIBIT LIST

Exhibit Number	Description
2001	Google's Reply in Support of its Motion to Stay Pending Determination of *Inter Partes* Review of the Patents-in-Suit Case No. 3:23-cv-01160, N.D. Cal., filed April 27, 2023, ECF 160
2002	Email dated June 5, 2023 from Michael Kiklis to Matt Holohan regarding Discovery
2003	Complaint for Patent Infringement Case No. 3:22-cv-01263, N.D. Tex., filed June 10, 2022, ECF 1
2004	First Amended Complaint for Patent Infringement Case No. 3:22-cv-01263, N.D. Tex., filed January 30, 2023, lodged publicly February 2, 2023, ECF 123
2005	HIGHLY CONFIDENTIAL – ATTORNEYS' EYES ONLY [redacted] GOOG-DDC-0000040-GOOG-DDC-0000046
2006	HIGHLY CONFIDENTIAL – ATTORNEYS EYES ONLY [redacted] GOOG-DDC-0000029-GOOG-DDC-0000039
2007	HIGHLY CONFIDENTIAL – ATTORNEYS EYES ONLY [redacted] GOOG-DDC-0000024-GOOG-DDC-0000026
2008	HIGHLY CONFIDENTIAL – ATTORNEYS' EYES ONLY [redacted] OPS000010-OPS000024

Exhibit Number	**Description**
2009	Google Inbound Services Agreement, last modified April 13, 2023, captured on June 22, 2023, from https://support.google.com/legal/answer/10039636?sjid=14045947512057405231-NA
2010	Google ISA and Reference Version History, captured on June 22, 2023, from https://support.google.com/legal/answer/10071677?hl=en#zippy=%2Cinbound-services-agreement-isa-archive
2011	Working with Alphabet/Google, captured on June 22, 2023, from https://support.google.com/corporate-suppliers/answer/9844770?hl=en&ref_topic=9902269#a&b&c&d&e&f&g
2012	Google Supplier Purchase Order Terms and Conditions, April 2023, captured on June 22, 2023, from https://support.google.com/corporate-suppliers/answer/9844474?hl=en&ref_topic=9902369&sjid=14045947512057405231-NA&visit_id=638230555166029102-814262976&rd=1
2013	Defendant Google LLC's Motion to Transfer Venue to the Northern District of California Under 28 U.S.C. § 1404(a) and to Sever Its Case, Together with Supporting Brief Case No. 3:22-cv-01263, N.D. Tex., filed November 10, 2022, ECF 94
2014	Defendant Landsberg Orora's Motion to Dismiss and Supporting Brief Case No. 3:22-cv-01263, N.D. Tex., filed September 13, 2022, ECF 68
2015	HIGHLY CONFIDENTIAL – ATTORNEYS' EYES ONLY [redacted] OPS000009, OPS000046, and OPS000056-OPS000060

Exhibit Number	**Description**
2016	Memorandum Opinion and Order Case No. 3:22-cv-01263, N.D. Tex., filed March 14, 2023, ECF 139
2017	CONFIDENTIAL Haller Declaration
2018	Plaintiff DDC Technology, LLC's Response in Opposition to Defendant's Motion to Stay Lawsuit Pending Patent Office's *Inter Partes* Review Case No. 3:22-cv-01263, N.D. Tex., filed June 7, 2023, ECF 145
2019	CONFIDENTIAL – ATTORNEYS' EYES ONLY – PROTECTIVE ORDER MATERIAL [redacted] OPS000009, OPS000046, and OPS000056-OPS000060
2020	ATTORNEYS EYES ONLY [redacted]
2021	Capacitive vs. Resistive Touchscreens: What Are the Differences?, captured on July 12, 2023, from https://www.makeuseof.com/tag/differences-capacitive-resistive-touchscreens-si/
2022	Scheduling Order Case No. 3:22-cv-01263, N.D. Tex., filed December 20, 2022, ECF 106
2023	Buckley Declaration
2024	CONFIDENTIAL [redacted] DDC_010511-DDC_010515

Exhibit Number	**Description**
2025	Email from October 13, 2014 from Nartker to Buckley, Dalton, Zabarauskas, Rayford, Subject: New Cardboard Partnership Leads DDC_018503
2026	DODOcase Kickstarter Campaign identifying VR Viewers as "Patent Pending" DDC_018341-DDC_018356
2027	Defendant Google LLC's Supplemental Objections and Responses to Plaintiff DDC Technology, LLC's First Set of Interrogatories to Defendant Google LLC (No. 1) Case No. 3:22-cv-01263, N.D. Tex., served January 6, 2023
2028	Complaint for Patent Infringement against Unofficial Cardboard, Inc. Case No. 1:21-cv-05596, N.D. Ill., filed October 21, 2021, ECF 1
2029	HIGHLY CONFIDENTIAL – OUTSIDE ATTORNEYS' EYES ONLY [redacted] DDC_010418-DDC_010436
2030	HIGHLY CONFIDENTIAL – ATTORNEYS' EYES ONLY [redacted] GOOG-DDC-0000365
2031	Email on August 27, 2015 from Google (WWGC) to DODOcase (Dalton), Subject: WWGC | V2 Manufacturers Guide Available Now Including two documents from zip attachment titled "wwgc_manufacturers_kit_v2.0.zip": "WWGC Guidelines and Best Practices.pdf" version 2.0, dated August 17, 2015; and "WWGC Viewer Profile and Badge Guidelines.pdf" version 1.0, dated April 16, 2015

Exhibit Number	**Description**
2032	Google Form for "Google Cardboard Manufacturers" to "Apply[] to the WWGC program" captured on June 22, 2023, from https://support.google.com/cardboard/manufacturers/contact/general
2033	Google Terms of Service, effective January 5, 2022, captured on June 22, 2023, from https://www.gstatic.com/policies/terms/pdf/20220105/it7r24p9/google_terms_of_service_en_us.pdf (the static pdf version of the Terms of Service available at https://policies.google.com/terms?hl=en)
2034	Market share of mobile phone touch screens worldwide from 2013 to 2020, by technology, captured on July 12, 2023, from https://www.statista.com/statistics/616468/mobile-phone-touch-technology-share-worldwide/
2035	CONFIDENTIAL [redacted]
2036	Google Android Compatibility Definition Android 7.0, downloaded on July 21, 2023, from https://source.android.com/static/docs/compatibility/7.0/android-7.0-cdd.pdf

Patent Owner, DDC Technology, LLC ("DDC" or "Patent Owner"), submits this Preliminary Response to the Petition for *Inter Partes* Review of United States Patent No. 10,528,199 ("the '199 Patent") filed by Petitioner Google LLC ("Google" or "Petitioner"). The Board should deny the Petition in its entirety as an initial matter on procedural grounds because it is noncompliant with the applicable regulations concerning real parties in interest ("RPIs") and/or due to the one-year time bar based on prior litigation against RPIs/privies of Google.

Separately, the Petition should be denied on the merits because Google has failed to show a reasonable likelihood that any challenged claim is unpatentable. Google relies entirely on a proposed combination of inapposite technologies to arrive at the claimed invention of the '199 Patent through pure hindsight. Google's hindsight bias can be readily rejected based on Google's *actual* conduct at the time of invention. In 2014, Google, a sophisticated global enterprise, was a leader in smartphone-based VR (having just launched its Google Cardboard V1 Viewer), with ample financial resources, a highly trained workforce, and a clear motivation to develop VR headsets for the masses. Despite all of its resources, Google did *not* combine JP3176588 ("Kondo") and US2013/0082963 ("Chu") to invent an improved VR headset; rather, Google *copied* the inventions in the '199 Patent after admitting that they tried but failed to develop a capacitive touch VR headset, and

telling the inventor, Mr. Patrick Buckley, that *his* invention was "genius," "ingenious," and "really neat." All claims of the '199 Patent are valid.

I. THE PETITION SHOULD BE DISMISSED FOR FAILURE TO JOIN ALL REAL PARTIES IN INTEREST

"A petition filed under section 311 **may be considered only if** . . . the petition identifies all real parties in interest." 35 U.S.C. § 312(a)(2) (emphasis added). In *Lumentum Holdings, Inc. v. Capella Photonics, Inc.*, No. IPR2015-00739, 2016 WL 2736005, at *6 (P.T.A.B. Mar. 4, 2016) (precedential), the Board held that the PTAB's "jurisdiction to consider a petition does not require a 'correct' identification of all RPIs in a petition" and thus under certain circumstances a failure to name an RPI may be corrected. *SharkNinja Operating LLC v. iRobot Corp.*, No. IPR2020-00734, 2020 WL 5938681, at *7 (P.T.A.B. Oct. 6, 2020). However, in *SharkNinja* (which cited *Lumentum*), the Board pertinently allowed correction only upon a finding that "there is no allegation or evidence that JS Global is barred or estopped from this proceeding, or that Petitioner purposefully omitted JS Global to gain some advantage." *SharkNinja*, 2020 WL 5938681, at *8. Here, in contrast, the record demonstrates that Google intentionally omitted an RPI to create a tactical advantage for Google, namely, avoiding bringing the Board's attention to a co-pending district court action against an RPI that would have impacted the *Fintiv* analysis.

A. OPS is an RPI

DDC filed a patent infringement litigation in the Northern District of Texas ("NDTX") naming both Google and Landsberg Orora ("LO"), among others, as defendants on June 10, 2022. (Ex. 2003.) The complaint alleged that "Google directly infringed the Asserted Patents [including the '199 Patent] at least by making or having made, importing or having imported, using, offering to sell, and/or selling its Google Cardboard V2 Viewer." (*Id.*, ¶ 66.) The complaint alleged that "[LO] directly infringed the Asserted Patents by manufacturing the Google Cardboard V2 Viewers on behalf of Google." (*Id.*, ¶ 76.) In fact, contrary to Petitioner's counsel's suggestions at the June 13, 2023 telephonic hearing, Google did not make its own products; rather, Google outsourced manufacture of VR Viewers to others and created its Works With Google Cardboard ("WWGC") program to encourage numerous third parties to manufacture VR Viewers as part of a larger effort to enter into the VR space (keeping pace with competitors like Samsung, Apple, and Facebook) and to motivate others to use the Google software platform to develop VR applications. Accordingly, the direct infringement allegations against both Google and LO involved the same Google product. DDC sought joint and several liability against Google and LO.

LO was dismissed based on jurisdictional grounds, but discovery in the litigation revealed that an affiliate of LO was the proper party as it contracted with

Google. On January 30, 2023, DDC filed a First Amendment Complaint ("FAC") naming the proper corporate entity that contracted with Google and that manufactured the VR Viewers on behalf of Google, Orora Packaging Solutions ("OPS"), and was limited to only Google and OPS. (Ex. 2004.) The infringement allegations did not substantively change and DDC continued to assert joint and several liability against Google and OPS. (*Id.*, ¶¶ 67, 79, 136, 157, 167, 180, 192, 202, 220, 237, 247, 280, 325, Prayer for Relief.)

Again, the evidence of record in the district court proceedings establishes that Google did not make its own VR Viewers; rather, Google contracted with OPS (and others) to manufacture VR Viewers on its behalf. The OPS VR viewers, like the Google VR Viewers, are based on the design specifications created by Google and distributed as part of Google's WWGC program. (Ex. 2003, ¶¶ 41-84; Ex. 2004, ¶¶ 41-90.) Google confirmed that LO was a WWGC member, though contracts show that OPS was the actual contractor for the manufacture of the Google VR Viewers. (Ex. 2027 at 7.)

In addition to LO/OPS being a member partner in the WWGC program, Google had an extensive relationship with OPS. Because of this relationship, Google and OPS were sued in the same action in the NDTX with specific allegations of joint and several liability for infringement of the '199 Patent. (Ex. 2003, ¶¶ 355, 372, 446, Prayer for Relief; Ex. 2004, ¶¶ 220, 237, 247, Prayer for Relief.) In particular, DDC

alleged that Google and OPS were jointly and severally liable for infringement of the ’199 Patent because OPS manufactured the accused products on behalf of Google. Google and OPS produced minimal documents in discovery, but these documents included: (1) a [redacted] (Ex. 2005)[1]; (2) a [redacted] (Ex. 2006); (3) a [redacted] (Ex. 2007); and (4) a [redacted] (Ex. 2008).[2]

The Google [redacted] with OPS includes the following provision:

[redacted]

[redacted]

[1] Google first provided permission for DDC to include certain documents containing Google confidential information (filed herewith under seal) on July 23, 2023. OPS first provided permission for DDC to include documents (filed herewith under seal) that OPS produced in the NDTX proceeding on July 24, 2023.

[2] The named counterparty on these documents is “Orora North America,” which is a former name of OPS.

[redacted]

(Ex. 2005 at 5 (emphases added).) Google publishes a standard form Inbound Services Agreement created by Google and required to be signed by contractors that perform services for Google. (Ex. 2009; Ex. 2010.) The current version includes the following provision:

> **9. Defense and Indemnity.**
>
> 9.1 Obligations. **Contractor will defend and indemnify Google**, its affiliates, and their respective directors, officers, and employees against all settlement amounts approved by Contractor and any liabilities, damages, losses, costs, fees (including legal fees), and expenses in connection with any third-party claim or legal proceeding (including action by a government authority) to the extent arising from:

***

(E) **<u>any allegation that use of the Services or Deliverables infringes or misappropriates any third party's rights, including Intellectual Property Rights</u>**.

***

9.3 <u>Control of Defense</u>. Google will tender sole control of the indemnified portion of the legal proceeding to Contractor, but

(A) Google has the right to approve controlling counsel, such approval not to be unreasonably withheld (and which approval may be withheld or withdrawn if there is a conflict of interest);

(B) Google may appoint its own non-controlling counsel; and

(C) any settlement requiring Google to admit liability, pay money, or take (or refrain from taking) any action, will require Google's prior written consent.

(Ex. 2009 at 5-6 (emphases added).)

The [redacted] further states: [redacted] (Ex. 2006 at 5.) And the [redacted] provides:

[redacted]

(Ex. 2008 at 11.) Google also publishes a standard Google Supplier Purchase Order Terms & Conditions created by Google, and with which all suppliers must comply in order to conduct business with Google. (Ex. 2011; Ex. 2012.) While Google has published several revised versions of the Terms & Conditions, each version contains identical or substantially similar "defense and indemnity" obligations of suppliers, including indemnification for intellectual property infringement:

> 9. **Defense and Indemnity**.
>
> 9.1 Obligations. Contractor will defend and indemnify Google, its affiliates, and their respective directors, officers, and employees against all settlement amounts approved by Contractor and any liabilities, damages, losses, costs, fees (including legal fees), and expenses in

> connection with any third-party claim or legal proceeding (including action by a government authority) to the extent arising from:
>
> ***
>
> (E) any allegation that use of the Services or Deliverables infringes or misappropriates any third party's rights, including Intellectual Property Rights.
>
> ***
>
> 9.3 Control of Defense. Google will tender sole control of the indemnified portion of the legal proceeding to Contractor, but
>
> (A) Google has the right to approve controlling counsel, such approval not to be unreasonably withheld (and which approval may be withheld or withdrawn if there is a conflict of interest);
>
> (B) Google may appoint its own non-controlling counsel; and
>
> (C) any settlement requiring Google to admit liability, pay money, or take (or refrain from taking) any action, will require Google's prior written consent.

(Ex. 2012 at 5-6.)

Google's indemnification obligations with its suppliers – including OPS – are clear. While proceeding in the NDTX litigation, Google sought severance and transfer to the Northern District of California ("NDCA") arguing, *inter alia*, "[LO]

does not manufacture the Google V2 Cardboard viewer or any products for that matter." (Ex. 2013 at 26 (citing Ex. 2014 (Dkt. 68) at 1-2).) This was an inaccurate statement, however, as OPS later produced a [redacted] and [redacted]. (Ex. 2015.) The NDTX district court nonetheless had accepted Google's earlier mischaracterization and granted severance of Google from OPS, transferring the case as to Google to the NDCA. (Ex. 2016.) Specifically, the court acknowledged that "DDC sue[d] OPS for direct infringement for [] allegedly manufacturing the Google Cardboard V2 Viewer on Google's behalf" (*id.* at 4), and held that "OPS was properly joined under 35 U.S.C. § 299(a) because DDC asserts claims jointly and severally against Google and OPS regarding the Google Cardboard V2 Viewers" (*id.* at 18). However, the court then found that "OPS is ultimately not 'so involved in the controversy' such that judicial efficiency overcomes the strong interests in transfer" (*id.* at 20), "DDC's claims against OPS are peripheral to the central action against Google" (*id.*), and "OPS's role as a manufacturer is peripheral" (*id.* at 21). Following transfer, the NDCA action was stayed, over DDC's objection, pending resolution of Google's IPR Petition.

The [redacted]

[redacted]. This is not surprising, as the products accused of infringement—and thus the products that gave rise to Google's Petition—are *OPS products*. [redacted]. Despite its severance and transfer to the NDCA, Google sent four attorneys and client representatives to attend a court-ordered mediation between DDC and OPS on March 22, 2023 in Dallas, Texas. (Ex. 2017, ¶¶ 4-5.) While it attended with four participants, Google refused to mediate with DDC; rather, Google's engagement was limited to [redacted]. (*Id.,* ¶ 6.) Thus, despite OPS and DDC reaching agreement on terms for resolution ([redacted]) (*see, e.g.*, Ex. 2018 at 4), and despite DDC's [redacted] and execution of the agreement transmitted to OPS on June 5, 2023 (*id.*; Ex. 2020), [redacted]. (Ex. 2018 at 4; Ex. 2017, ¶ 9.)

Specifically, in its effort to defend Google, [redacted]. (Ex. 2017, ¶ 9.)

In sum, OPS is an RPI, in fact the most interested party, given (1) [redacted], an obligation that Google itself insists remains in full force and effect ([redacted] (*see* Ex. 2007)); (2) the centrality of OPS's products in both the parallel litigations and this IPR; and (3) Google's extensive participation in and interference with the putatively separate OPS litigation. Worse, OPS is preventing resolution *not* due to any contention that [redacted].

In short, Google and OPS have a significant commercial relationship involving OPS's manufacture ***for Google*** of the products accused of infringement in DDC's claims against both Google and OPS – products that followed the design specifications created by Google, included in the WWGC materials for any VR Viewer maker to use, and which Google claimed to be "open source" despite

DODOcase's patent protections over the technology. [redacted] regarding the accused products, [redacted], are more than sufficient to establish that OPS is an RPI and should have been named in Google's Petition. For example, in *Ventex Co. v. Columbia Sportswear N. Am., Inc.*, No. IPR2017-00651, 2019 WL 764130, at *3 (P.T.A.B. Jan. 24, 2019), the Board found an RPI relationship based on an extensive commercial relationship involving "material that is the subject of infringement allegations" regarding the challenged patent and a finding that the unnamed party is "a clear beneficiary" of the Petitioner's IPR efforts. That is plainly the case here.

The Board applies "a 'flexible approach' to the real party in interest inquiry, which turns on 'equitable and practical considerations' bearing on whether an unnamed entity has 'a preexisting, established relationship with the petitioner.'" *Volkswagen Grp. of Am., Inc. v. Arigna Tech. Ltd.*, No. IPR2021-01263, 2022 WL 211526, at *2-3 (P.T.A.B. Jan. 21, 2022) (quoting *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1351 (Fed. Cir. 2018)). The factors to be considered in the RPI inquiry (the "*AIT Remand* factors") are:

> (1) the petitioner's business model, (2) the petitioner's explanation of its own interest in the IPR, (3) whether the petitioner takes the unnamed party's interests into account when determining whether to file the IPR petition, (4) the unnamed party's relationship with petitioner, (5) the

> unnamed party's interest in and benefit from the IPR, (6) whether the petitioner can be said to be representing that interest, (7) whether the unnamed party actually desired review of the challenged patent, (8) the relevance of any overlap in board members between the petitioner and the unnamed party, and (9) evidence of communications between the petitioner and the unnamed party.

Id. at *3. The *AIT Remand* factors favor a finding that OPS is an RPI. Regarding factors (1) and (4), Google's business model with respect to the products accused of infringement is to publish a WWGC standard and contract with manufacturers such as OPS to actually manufacture the accused products, and Google and OPS have an extensive relationship with respect to these products as detailed above. Regarding factors (2) and (5)-(6), Google's own interest in the IPR overlaps with that of OPS, as a finding of unpatentability as to the '199 Patent would benefit both Google and OPS with respect to the products accused of infringement in the district court proceedings. Regarding factors (3), (7), and (9), while DDC is not presently privy to any direct communications between Google and OPS (other than agreements, invoices, and purchase orders), Google and OPS are tightly collaborating with respect to the '199 Patent (based on an apparent formal joint defense/collaboration agreement that was not produced in the NDTX litigation), and [redacted].

As [redacted], and co-litigant of Google with respect to the very same OPS/Google VR Viewers that gave rise to Google's Petition, OPS is an RPI and Google was obligated under the statute authorizing IPR proceedings to identify OPS in Google's Petition. Google failed to do so, and its omission of OPS was not harmless and/or unintentional—it was a strategic move to withhold the nature and status of the OPS NDTX case and thereby avoid creating *Fintiv* issues for Google's Petition, as explained below.

B. Google's omission of OPS as an RPI was intentional and for the purpose of concealing the true nature of the pending action in NDTX

As set forth above, Google concealed its relationship with OPS by representing that LO did not manufacture products for Google (Ex. 2013 at 25-26), despite documentary evidence establishing that LO/OPS had done just that. Google further concealed its relationship with OPS in filing the instant Petition in an effort to prevent the Board from conducting a proper analysis of the *Fintiv* factors based on OPS's much more advanced proceeding with a trial date in May of 2024.

In its Petition, Google preemptively undertook an assessment of the *Fintiv* factors. (Petition ("Pet.") at 23-25.) In that analysis, Google asserts that "[t]he co-pending litigation was just transferred from NDTX to NDCA" and "[a]s such, there is currently no schedule, including no trial date." (*Id.* at 23.) But this is, at best, an incomplete and misleading characterization of the co-pending litigation, implying

that there is no "NDTX" case at all. In fact, the NDTX action against OPS was pending and had a scheduling order entered on December 20, 2022 (negotiated by Google and entered while Google was still a party in that case), including a trial date set for May of 2024. (Ex. 2022.) This omission allowed Google to present a *Fintiv* analysis that ignored the NDTX action altogether, reducing the likelihood of dismissal of its Petition. (Pet. at 23-25.)[3]

Had Google presented a complete picture of the parallel litigation proceedings, the *Fintiv* analysis would have been highly relevant in this proceeding, especially given Google's continued involvement in the NDTX litigation. By concealing OPS as an RPI, Google was able to create an inaccurate impression of the status of parallel litigation by totally omitting the OPS case from the *Fintiv* analysis. This purposeful omission to "gain some advantage" alone warrants dismissal. *SharkNinja*, 2020 WL 5938681, at *8; *see also One World Techs., Inc. v. Chervon (Hk) Ltd.*, No. IPR2020-00886, 2021 WL 5192914, at *25 (P.T.A.B. Nov. 3, 2021) ("In determining whether to permit a petitioner to amend its mandatory

[3] Tellingly, Google threatened that it was prepared to file PTAB petitions in the Summer of 2022, shortly after the NDTX lawsuit was filed. (Ex. 2017, ¶ 8.) Google did not file its Petition until March 2023, after it had been severed and transferred to the NDCA and it could conceal the ongoing NDTX litigation.

notices to add an RPI while maintaining the original filing date, we consider whether there have been (1) attempts to circumvent the § 315(b) bar or estoppel rules, (2) bad faith by the petitioner, (3) prejudice to the patent owner caused by the delay, or (4) gamesmanship by the petitioner.") (internal quotations omitted).

Further, while the OPS case is pending settlement (though unreasonable delays from OPS and Google have prohibited finalization), such potential pending resolution/termination of the case is irrelevant to Google's conduct *at the time it filed its Petition*. The OPS case was active and under a scheduling order when Google filed its Petition, and thus Google strategically omitted OPS as an RPI to escape the impact of the OPS scheduling order on the *Fintiv* analysis. A "no harm, no foul" approach that would excuse Google's conduct simply because the OPS case *later* settled would simply incentivize petitioners to strategically omit the proper parties in the hopes that inconvenient parallel litigations would settle in the meantime.

Because the NDTX litigation was filed more than one year ago, Google's Petition is time-barred due to its intentional failure to name OPS as an RPI for the sole purpose of gaining a strategic advantage. 35 U.S.C. § 315(b). Google's Petition should be dismissed.

II. GOOGLE'S PETITION IS UNTIMELY

If the Board declines to dismiss the Petition based on intentional failure to name OPS as an RPI, the Petition is nonetheless untimely because "[a]n *inter partes*

review **<u>may not be instituted</u>** if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent." 35 U.S.C. § 315(b) (emphasis added). As set forth below, DDC brought a prior litigation suit against Unofficial Cardboard, Inc. ("UC"), which was an RPI and/or privy to Google.

"The determination of whether a time-barred party is in privity with a petitioner is a highly fact-dependent question." *PayPal, Inc. v. PersonalWeb Techs., LLC*, No. IPR2019-01111, 2019 WL 6443937, at *5 (P.T.A.B. Nov. 22, 2019) (internal quotations omitted). "[I]t is important to determine whether the petitioner and the prior litigant's relationship—as it relates to the lawsuit—is sufficiently close that it can be fairly said that the petitioner had a full and fair opportunity to litigate the validity of the patent in that lawsuit." *Id.* (internal quotations omitted). As set forth below, Google's relationship with each of the prior litigants was sufficiently close that Google had a full and fair opportunity to litigate the validity of the '199 Patent in each of those prior lawsuits.

DDC asserted the '199 Patent against UC in *DDC Tech., LLC v. Unofficial Cardboard, Inc.*, No. 1:21-cv-05596 (N.D. Ill.), filed on **<u>October 21, 2021</u>**. (Ex. 2028.) UC was a member of the WWGC program. (Ex. 2027 at 7.)

Google's counsel stated at the June 13, 2023 telephonic hearing herein, in response to the inquiry as to whether the UC products were different from the "Google products": "That's my understanding, your Honor, yes." (Ex. 1013 at 23, ll. 9-15.) However, the VR Viewers manufactured and sold by UC are materially identical to "Google" VR Viewers because, just like the OPS VR Viewers manufactured for Google, they are based on the design specifications created by Google and distributed as part of Google's WWGC program (and improperly claimed by Google to be "open source"). (Ex. 2003, ¶¶ 41-65; Ex. 2004, ¶¶ 41-65.) Again, Google did not make its own viewers – rather, it provided specifications that included exact manufacturing instructions and CAD design files such that anyone with the proper equipment could precisely replicate the Google design for cardboard VR Viewers, created a program for others to market and sell VR Viewers, and collaborated with member partners in that program to supply VR Viewers to others. Google made third-party development of VR Viewers "turn key;" an approach that allowed Google (without any manufacturing cost) to compete with others in the VR space, not only with respect to *hardware* but, also, in motivating more development of *software* on a Google platform, increasing its reach and strengthening the entire Google ecosystem.

As part of the resolution of the UC litigation by settlement agreement resulting in dismissal, [redacted]

[redacted] (Ex. 2029, ¶ 7.1.)

During discovery in the NDTX litigation, Google produced documents regarding [redacted]. (Ex. 2030.) Those documents confirm that [redacted]. (*Id.*) DODOcase (the prior owner of the Challenged Patents) was [redacted]. (*Id.*) Due to its sales abilities, DODOcase received business "leads" from Google to provide VR Viewers. (Ex. 2023, ¶ 17.) When a supplier works with Google (directly or indirectly), Google requires them to "apply" to the WWGC Program. (*See* Ex. 2031 at 7, 19 (citing g.co/joinwwgc and http://g.co/joinwwgc).) The supplier application process includes agreement by the supplier to comply with the Terms of Service published by Google on its supplier application website. (Ex. 2032.) The current version of Google's standard Terms of Service include an indemnification obligation. (*See* Ex. 2033.)

It is likely that UC entered into one or more agreements (or agreed to certain Terms of Service or Terms & Conditions) given [redacted] as a partner in the WWGC program. Furthermore, [redacted]

[redacted]. (Ex. 2035 at 2.) [redacted].

The foregoing establishes that UC is an RPI and/or privy of Petitioner Google, warranting dismissal of Google's Petition.

In short, there are multiple procedural and jurisdictional grounds on which to deny Google's Petition as noncompliant and untimely – Google's failure to identify OPS, its [redacted] regarding Google's infringement of the '199 Patent; and Google's one-year time bar based on its RPI/privy relationship with a former *defendant* in litigation regarding the '199 Patent.

In addition to these procedural grounds, Google's Petition also fails on the merits, as discussed below.[4]

---

[4] Google's Petition does not challenge all claims that DDC asserted against Google in litigation. (*Compare* Pet. at 1 (identifying Claims 1, 2, 4-6, 17-26, 30, 34, 35 and 37-39 as the claims at issue) *with* Ex. 2004, ¶¶ 204, 209 and 215 (accusing Google of infringing Claims 1-2, 4-6, 16-27, 30, 33-35 and 37-40 of the '199 Patent).) Thus, if the Board grants Google's Petition, it will not fully resolve the parallel district court case.

III. GOOGLE'S PETITION DOES NOT ESTABLISH A REASONABLE LIKELIHOOD OF PREVAILING WITH RESPECT TO ANY CLAIM

Institution of *inter partes* review requires a Petitioner to establish "a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). Google cannot meet this threshold.

Google does not raise any anticipation arguments under 35 U.S.C. § 102, instead relying entirely on obviousness under 35 U.S.C. § 103. (Pet. at 8.) Further, for all challenged claims Google relies on the combination of Kondo and Chu. As a preliminary matter, Kondo and Chu are merely cumulative references to a reference already considered by the Examiner during prosecution, US2013/0141360 ("Compton"), which was a head-mounted augmented reality device that used capacitive/conductive inputs.

Additionally, Google's Petition fails because a person of ordinary skill in the art would not have combined these references to accomplish the invention disclosed and claimed in the '199 Patent.

As a preliminary matter, Google's singular argument for a POSITA to combine Kondo and Chu is as follows:

> Prior to 2014 and still through today, there were multiple types of touchscreens that were integrated into mobile electronic devices; these include infrared, pressure, resistive, and capacitive. As of 2012, the

> filing date of Chu (EX1004), the most common types of touchscreens used by handheld devices, like smartphones, were resistive and capacitive touchscreens.

(Pet. at 10-11.) Google's argument is flawed for two very specific reasons:

First, while Google insists that one would be motivated to combine Kondo and Chu to create a VR Viewer that would "accommodate as many current and legacy devices as possible," Google mischaracterizes the types of devices that were suitable for VR Viewer usage in 2014 at the time of invention. *Resistive* touchscreens comprised little, *if any* market share at the time of invention of the '199 Patent in 2014. And what few resistive touchscreens were available on the market were used on low-cost mobile devices that would not have had the graphic processing power that was necessary for a mobile device to be used with a VR headset, further evincing the complete lack of motivation to combine. (Ex. 2023, ¶ 18.) Indeed, Google's own Android specification from 2016-2017 sets forth specific hardware requirements for a smartphone to be VR ready, all of which were completely incompatible with resistive touchscreens at the time. (Ex. 2036 at 74-75; Ex. 2023, ¶ 19.)

Second, Google itself was motivated to solve the need in the VR technology space yet, despite its vast resources, Google claims it attempted to make a capacitive button, failed, and then launched its first VR Viewer model with a *magnet* – in other words, Google itself did not combine Kondo and Chu.

Without a reasonable motivation to combine, Google's § 103 arguments fail as a threshold matter.

It is also important to understand the difference between *capacitive* touchscreens and *resistive* touchscreens, a distinction that Google minimizes and inaccurately describes. Resistive touchscreens are typically used in industrial electronics and rely on physical pressure being applied to a screen. (Ex. 2021 at 2.) Capacitive touchscreens are used in consumer electronics and use an electrical charge or current to generate electrical signals in the device. (*Id.* at 7-10.) While Google seeks to limit capacitive screens to devices that "use the electrical properties of the body to create a change of charge" and "require a finger or conductive path to a body" (Pet. at 12), the '199 Patent explicitly recognizes that such electrical signals can be created "in the absence of human contact." (Ex. 1001, 8:24-28.) Unsurprisingly, Google cites a passage from Chu to support this incomplete description of capacitive touchscreens, confirming that Chu did not realize the benefits of the '199 Patent. (Pet. at 12-13 (citing Ex. 1004, ¶ 0005); *see also id.* at 34 (citing Ex. 1004, Figs. 3, 4) (showing Chu's disclosure of a human finger providing electrical charge).)

Kondo, too, failed to appreciate the advantage of potentially removing the human body from the electrical circuit. In Figure 10 of Kondo, two fingers are shown connected to electrical ground symbols, showing that Kondo relied on the user's

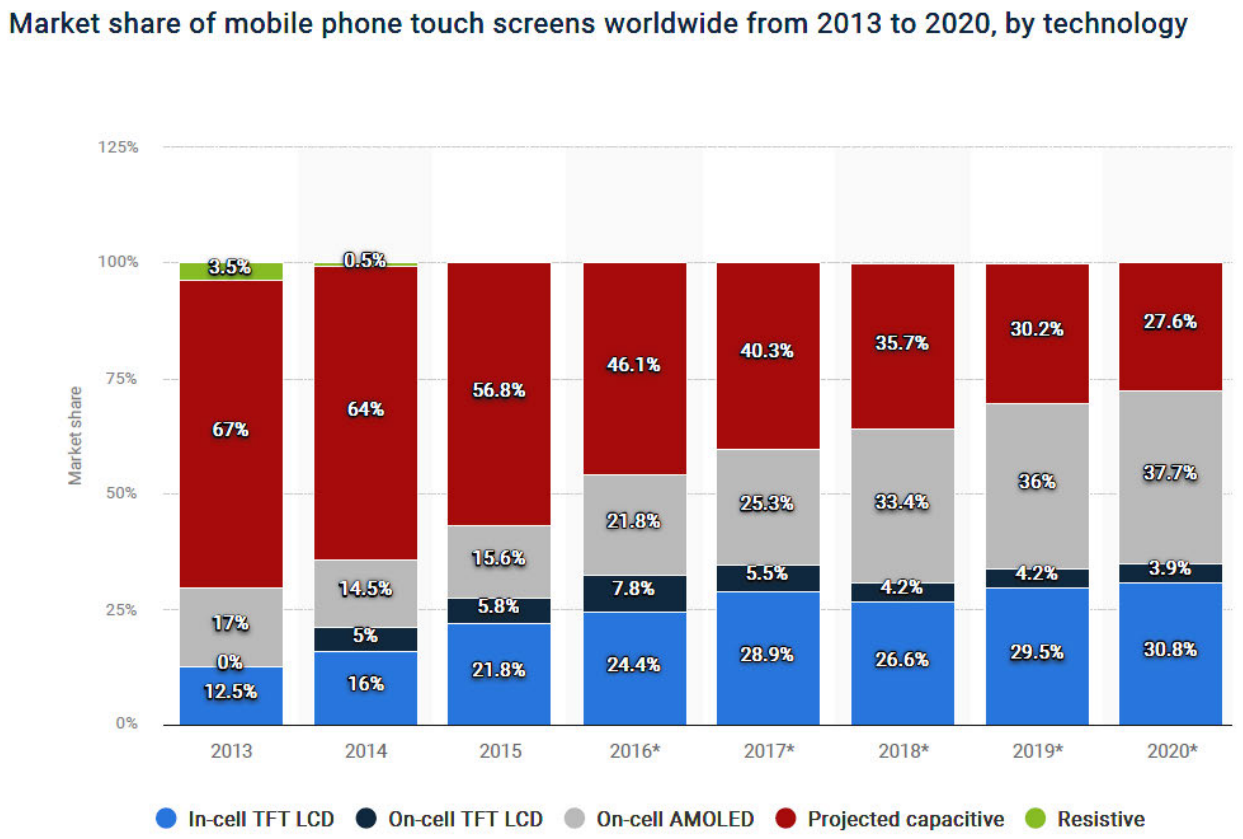
fingers being a part of the electrical circuit required to activate the touchscreen. (Ex. 1003, Fig. 10.)

In asserting that a person of ordinary skill in the art would have been motivated to combine Kondo and Chu, Google acknowledges that "[a] mechanical input mechanism, like Chu's, can work with both [resistive and capacitive] screens, whereas an electrical input mechanism, like Kondo's, can only work with capacitive screens." (Pet. at 38.) Google then asserts that "[o]ne goal of device designers is always to increase the usability and consumer appeal for their product where possible, allowing many types of smartphones and touchscreens to be used." (*Id.*) Finally, Google states that "a VR designer looking at Kondo would readily realize and be motivated to increase the usability and consumer appeal for their device by making it work with both capacitive and resistive screens." (*Id.*)

All of Google's arguments concerning the motivation to combine flow from this premise, namely, that it would have been trivial to take a device that "*can only work with capacitive screens*" (*id.* (emphasis added)) and simply add a resistive screen instead. But Google cites no documentary evidence of a POSITA ever actually doing this, and offers no explanation as to how a POSITA would have overcome the physical limitations of Kondo's capacitive-only screen and adapt it to employ Chu's resistive screen during the relevant time period.

Importantly, Google's purported "diagram show[ing] how a POS[IT]A could easily combine Chu's first embodiment . . . with Kondo's Fig. 5" (Pet. at 41) is described entirely in the *present tense*, indicating the *current* state of the art which has the benefit of the '199 Patent. Google offers no explanation as to how a POSITA in 2014 would have accomplished this. Google's evidence is thus "based on an improper hindsight perspective, after the invention and its advantages have been disclosed." *Satco Prods., Inc. v. Seoul Viosys Co.*, No. IPR2020-00704, 2021 WL 3730034, at *16 (P.T.A.B. Aug. 23, 2021).

Google's proposed combination is not only unsupported, but it is also contrary to the actual state of the art at the priority date. Google asserts that "[a]s of 2012 . . . the most common types of touchscreens used by handheld devices, like smartphones, were resistive and capacitive touchscreens." (Pet. at 11-12.) Google implies that resistive and capacitive touchscreens occupied comparable space in the smartphone market, when in fact in 2013 only 3.5% of mobile phones used resistive touchscreens and by 2015 none did. (Ex. 2034.)



(*Id.*) In other words, while capacitive and resistive touchscreens were generally known, the smartphone market was almost entirely dominated by capacitive touchscreens to the exclusion of resistive touchscreens. Adding a resistive touchscreen to a smartphone was not simply a matter of switching out one comparable technology for another; it was directly contrary to the accepted approach of the entire market segment. Given this landscape, a POSITA in 2014 would have had no reason to consider resistive touchscreens at all, let alone seek a way to incorporate a resistive touchscreen into a capacitive-only device such as Chu.

Indeed, by 2018 it was recognized that consumer electronic devices "like tablets, laptops, and smartphones" typically used capacitive touchscreens, while resistive touchscreens were reserved for "manufacturing, ATMs and kiosks, and medical devices." (Ex. 2021 at 9-10.) Again, this clear separation in the technological field would have driven a POSITA away from resistive touchscreens altogether in seeking to improve or adapt Kondo.

To the extent Google seeks to rely on the testimony of its expert, Mr. Kurtis P. Keller, for how a POSITA would have approached touchscreen technology in 2014, such reliance is misplaced as Mr. Keller evinces no particular expertise regarding touchscreens. While Mr. Keller states that he was retained "as an independent expert in the fields of head-mounted displays and touchscreen technology" (Ex. 1002, ¶ 1), Mr. Keller's description of his own qualifications does not mention touchscreens at all. (*Id.*, ¶¶ 8-14.) And Mr. Keller's CV indicates that his primary field of study has been optics. (*See generally* Ex. 1002, App. A.) Notably, Google modified Mr. Keller's standard CV (which he maintains available online), conveniently omitting or placing lower Mr. Keller's stated qualifications that are unrelated in any way to the technology at issue here, while placing higher in the CV "qualifications" that would seem to relate to the technology here. Simply, Mr. Keller's expertise (based on his non-litigation CV) is in the field of "optics," and he has no discernible experience in conductive/capacitive technology – he is not

a POSITA, let alone an expert. Accordingly, to the extent Google seeks to rely on Mr. Keller for statements that flatly contradict the actual state of the art at the time of the invention of the ’199 Patent, Mr. Keller’s analysis (and Google’s reliance thereon) should be disregarded.

Finally, a POSITA would not have been motivated to combine Chu and Kondo because they are non-analogous art and/or teach away from the challenged claims of the ’199 Patent. Chu is directed to a button for a *waterproof case*, not a head-mounted VR device. (Ex. 1004, ¶ [0002].) A POSITA would not have looked to Chu when looking to improve a VR headset when there was a plethora of art for VR headsets using smartphones.

Further, as discussed above, Kondo required the user to provide the impedance imparting component, contrary to the challenged claims of the ’199 Patent. Indeed, Kondo’s passing suggestion that some other capacitive reservoir could replace the human only confirms that Kondo is inapposite to the ’199 Patent, as the described alternate capacitive reservoir would have been a bulky add-on, teaching away from those DDC patent claims that require neither the human nor an additional bulky reservoir to impart additional capacitance. (Ex. 1003, ¶ 0052, Fig. 11.) Kondo also always required that the phone be in contact with the capacitive input mechanism, a fundamentally different design than the claims that Google challenges.

Because Google has failed to demonstrate a reasonable likelihood that any claim of the ’199 Patent is unpatentable, the Board should deny institution if the Board determines that the Petition is not otherwise barred.

IV. SECONDARY CONSIDERATIONS

Google’s contention of invalidity under § 103 is readily rebutted based on secondary considerations of non-obviousness and Google’s own failure to combine the alleged prior art references of Kondo and Chu. While the patented inventions solved a long-felt need and obtained tremendous commercial success (as evidenced by the sale of millions of accused products), the most compelling evidence of non-obviousness comes from: (a) Google’s own admission of failure to develop the invented technologies – including its failure to combine Kondo and Chu *at the time of invention*; and (b) Google’s recognition *at the time of invention* that the inventions in the ’199 Patent were “genius,” “ingenious,” and “really neat.” (Ex. 2024.)

On June 25, 2014, Google launched a VR viewer known as Google Cardboard V1 (“GCV1 Viewer”) at its 2014 I/O Conference. (Ex. 2023, ¶ 20; Ex. 2004, ¶ 24.) Google’s GCV1 Viewer was a rudimentary VR viewer that attempted to improve upon older VR viewers for smartphones that had either no means for a user to interact with a touchscreen or simply allowed a user to insert their fingers into the VR viewer to interact directly with the touchscreen. (Ex. 2023, ¶ 21.) Google’s purported improvement involved a *magnetic switch* to interact with the magnetometer/compass

of a smartphone to *simulate* a touch event (an inferior design that worked unreliably on a small number of mobile devices). (*Id.*, ¶ 22.) During its demonstration of the GCV1 Viewer at the 2014 I/O Conference, Google described its *magnet* interaction technique and the state of the art in VR viewer development at that time. (*Id.*, ¶ 23.) Thus, Google recognized, before Spring of 2014, that there was a need for a VR viewer with an improved input mechanism. (*Id.*, ¶ 24.) Rather than develop a VR viewer with a conductive/capacitive *button* input (as disclosed in the '199 Patent), Google opted for a *magnet* input. (*Id.*, ¶ 25.)

Despite many different available VR viewer types, no VR viewer existed with a capacitive/conductive touch mechanism to interact with the touchscreen of a smartphone (and possessing its corresponding advantages). (*Id.*, ¶ 26.) Google highlighted DODOcase at that conference as the first company to sell a VR viewer based on the GCV1 Viewer design (only four or five hours after Google posted its GCV1 Viewer designs on its website for manufacturers to use). (*Id.*, ¶ 27; Ex. 2004, ¶ 25.) During manufacture and assembly of the first commercially available GCV1 Viewer, Mr. Buckley immediately recognized flaws in Google's design and set out to improve on the GCV1 Viewer by adding a capacitive/conductive touch button. (Ex. 2023, ¶ 28.)

On July 10, 2014, Mr. Buckley emailed members of the Google Cardboard team (Andrew Nartker and Clay Bavor) stating: "I think we have a clever/elegant

way to make a conductive tap button which has a couple of advantages." (Ex. 2024 at 3-4.) Mr. Nartker responded on July 11: "Conductive button: Agree this could have benefits. ***We experimented briefly with this but didn't fully refine***. Alex [Kauffmann], one of our lead engineers, has offered to visit DodoCase next week to share our tips here. Are you free next Weds [July 16, 2014] afternoon/end of day?" (*Id.* at 3 (emphasis added).) Thus, Google acknowledged that there was a need for better input mechanism than the magnet of the GCV1 viewer, admitted that Google's highly skilled engineers attempted to develop such a button, and confirmed that Google's highly skilled engineers failed. Thus, *at the time of invention*, Google's own conduct shows a long-felt but unresolved need for the very technology disclosed in the '199 Patent, and failure of others, including itself.

On July 16, 2014, Mr. Buckley filed his First Provisional patent application *before* meeting with Google representatives to discuss his inventions (while under then-existing non-disclosure agreements between Google and DODOcase regarding other projects). (Ex. 2023, ¶ 2.) After filing his First Provisional, Mr. Buckley set out to manufacture and assemble a VR viewer with the inventive improvement. (*Id.*, ¶ 29.) On July 25, 2014, Mr. Buckley sent a follow-up email to Google (*with attached video clips*) stating in pertinent part: "I am most excited by what I think is a breakthrough on a very simple conductive touch button for the cardboard viewer. Check out the attached video clips." (*Id.*, ¶ 3; Ex. 2024 at 1-2; Ex. 2004, ¶ 31.) Those

video clips showed a working prototype, based on the embodiments disclosed in the First Provisional application that would later issue as the ’075 Patent and further lead to the ’199 Patent. (Ex. 2023, ¶ 30; Ex. 2004, ¶ 31.)

On the next day, July 26, Mr. Nartker (co-founder and Project Manager Lead for Google Cardboard) responded: “**That button looks really neat!** Thanks for sharing.” (Ex. 2023, ¶ 4; Ex. 2024 at 1; Ex. 2004, ¶ 32 (emphasis added).) On July 27, Mr. Kauffmann (“lead engineer” who “led all aspects of the design of Google’s Cardboard viewer”) responded: “**That’s an ingenious button! Does it work consistently on a variety of phones?** I’d love to play with it.” (Ex 2033, ¶ 5; Ex. 2024 at 1; Ex. 2004, ¶ 33 (emphasis added).) And Mr. Bavor (computer scientist and Google’s Vice President of Virtual Reality/Augmented Reality) reiterated: “**That button is genius.**” (Ex 2033, ¶ 6; Ex. 2024 at 1; Ex. 2004, ¶ 34 (emphasis added).) Thus, after having tried and failed to make its own conductive/capacitive button for a VR viewer, Google’s lead engineer, VR project manager, and VR Vice President, each lauded the successes of Mr. Buckley’s invention.

In the following months, DODOcase worked to refine its V1.2 Viewer as a commercially salable product on the open market, including through the manufacture of several different prototypes that tested various capacitive/conductive materials (including nickel/copper polyester fabric). (Ex. 2023, ¶ 31.)

On or around September 17, 2014, DODOcase launched its V1.2 Viewer, which included a capacitive/conductive touch button rather than Google's magnet switch. (*Id.*, ¶ 7; Ex. 2004, ¶ 35.) The V1.2 Viewer was available for sale at www.dodocase.com, and readily accessible to Google and its Cardboard team members who were in regular communication with Mr. Buckley (through his dodocase.com email address) regarding DODOcase's product development. (Ex. 2023, ¶ 32.) In October of 2014, Regan Arts published a book titled Beginner's Guide to Virtual Reality, which was packaged with the V1.2 Viewer, resulting in 50,000 units shipped to customers across the United States. (*Id.*, ¶ 33; Ex. 2004, ¶ 36.) Based on Mr. Buckley's present recollection, those V1.2 Viewers were identified as "Patent Pending." (Ex. 2023, ¶¶ 9, 33; Ex. 2026 at DDC_018348.) DODOcase (through Mr. Buckley) made numerous public disclosures regarding the V1.2 Viewer through videos posted to YouTube, speeches, and news articles. (Ex. 2023, ¶ 34.) DODOcase became recognized globally in the industry. (*Id.*, ¶ 35.)

Google was well aware of DODOcase's activities as evidenced by an October 13, 2014 email from Mr. Nartker to Mr. Buckley stating: "Congrats on the Fry's placement! We just received a v1.2 unit [DODOcase V1.2 Viewer] as well; really neat." (Ex. 2025; Ex. 2023, ¶ 8.) [redacted]

[redacted]. (Ex. 2006.) Thus, Google did not combine Kondo and Chu, despite both patents having been available since 2013, but instead opted to copy Mr. Buckley and the disclosures of the ’199 Patent. Google’s suggestion that a POSITA would be motivated to combine Kondo and Chu – when Google itself never considered combining those two references (even though Google was actively trying to develop a conductive/capacitive button for a VR viewer) – is clear hindsight bias inconsistent with the actual efforts of those in the industry attempting to resolve the long-felt need.

[redacted]. (Ex. 2019.)

On August 27, 2015, Google sent an email to DODOcase (and presumably all of its other cardboard VR “Partners”) stating: “We are excited to share with you that the V2 Manufacturer’s Guide is now available! We strongly encourage any future production on your side to implement the new V2 guide. I have attached the V2 Manufacturer’s Guide to this email for your convenience.” (Ex. 2031 at 1.) Thus, at

least as early as August 2015, Google was ***strongly encouraging*** manufacturers to abandon the GCV1 Viewer in favor of the new GCV2 Viewer (which possessed DODOcase's ultimately patented features) (Ex. 2004, ¶¶ 55-65), knowing at the time that patent protection was being pursued by DODOcase for that technology. Google's direct communications with DODOcase regarding DODOcase's own viewer ceased.

While DODOcase experienced initial success with its V1.2 Viewer in 2014 and 2015, it was forced to abandon the production and sale of its V1.2 Viewer that embodied the inventions claimed in the Asserted Patents in 2016 due to severe price pressures resulting from a saturated market of unauthorized sellers. (Ex. 2023, ¶ 36; Ex. 2004, ¶¶ 5-7.) Essentially, Google "salted the earth" by creating an oversaturated market with ever-decreasing profit margins such that DODOcase could not commercialize its own inventive technology profitably. This strategy was beneficial to Google because, *inter alia*, it resulted in significant advertising/press opportunities based on third party labor ***and*** created an incentive for consumers to use various Google-operated platforms (*e.g.*, Google Play, Android OS, Google phones, etc.). In other words, Google received the benefit of millions of valuable – and often free – "billboards." Moreover, at the time of the invention, Google was in a race with numerous competitors, including the Oculus by Facebook/Meta. Google was particularly motivated to develop something in the VR Viewer space to try and

capture as much of the VR industry market share as possible *and* cement itself as the VR platform of choice for VR application developers. Through Google's ability to claim the production of "millions" of Google-compatible VR Viewers, it was able to garner the attention of software developers and encourage them to commit to developing VR using Google's software tools. If VR was going to be the next big software platform, Google could not afford to wait and let its competitors dominate a new market. Much the same way that Google used the Android operating system to help establish its search application on smartphones when there was a transition from desktop computing to mobile devices, Google saw the potential for mobile computing devices to transition into the VR space.

At the time of invention in 2014, Google was actively seeking to resolve the long-felt need for a better user input mechanism for a VR viewer. Google tried, Google failed. Google did not combine Kondo and Chu as it tells the Board any person of ordinary skill in the art would have done. Instead, Google made a VR viewer with an inferior *magnet* input. When Mr. Buckley developed a conductive/capacitive *button* input that solved the shortcomings of Google's approach and shared that design with Google, Google set out to copy the invention for its own use. Google's entire argument for combination of Kondo and Chu is counterfactual and based on pure hindsight. Google's argument should be readily

rejected by the Board and the IPR Petition denied with a finding that Google has failed to show a reasonable likelihood that the ’199 Patent claims are unpatentable.

V. CONCLUSION

For the foregoing reasons, DDC respectfully requests that the Board dismiss Google’s Petition.

Respectfully submitted,

Dated: August 23, 2023

/MATTHEW C. HOLOHAN/

Matthew C. Holohan, Lead Counsel
Reg. No. 73,288
Sheridan Ross P.C.
1560 Broadway, Suite 1200
Denver, CO 80202-5141
(303) 863-9700
mholohan@sheridanross.com

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that **PATENT OWNER DDC TECHNOLOGY, LLC'S PRELIMINARY RESPONSE TO PETITION** complies with the type-volume limitation of 37 C.F.R. § 42.24(b) because it contains 8,370 words, as determined by the word-processing program used to prepare the brief, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a)(1).

Dated: August 23, 2023

/MATTHEW C. HOLOHAN/

Matthew C. Holohan, Lead Counsel
Reg. No. 73,288
Sheridan Ross P.C.
1560 Broadway, Suite 1200
Denver, CO 80202
(303) 863-9700
(303) 863-0223 (fax)
mholohan@sheridanross.com

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e) and 42.105(a) and (b), I certify that on August 23, 2023, a true and accurate copy of this paper, **PATENT OWNER DDC TECHNOLOGY, LLC'S PRELIMINARY RESPONSE TO PETITION PURSUANT TO 37 C.F.R. § 42.107(a)**, was served on the following counsel for Petitioner via e-mail, pursuant to Petitioner's consent to e-mail service:

Michael L. Kiklis
Kiklis and Clark, PLLC
1800 Diagonal Rd., Suite 600
Alexandria, VA 22314
E-mail: michael@kiklisclark.com

Dated: August 23, 2023

/LORI R. BROWN/

Lori R. Brown
Paralegal
Sheridan Ross P.C.
1560 Broadway, Suite 1200
Denver, CO 80202
(303) 863-9700
(303) 863-0223 (fax)
lbrown@sheridanross.com