

Filed on behalf of Patent Owner

By: Todd R. Walters, Esq. (todd.walters@bipc.com)
Roger H. Lee, Esq. (roger.lee@bipc.com)
Mythili Markowski, Ph.D., Esq. (mythili.markowski@bipc.com)
Andrew R. Cheslock, Esq. (andrew.cheslock@bipc.com)
James T. Moore, Esq. (james.moore@bipc.com)
BUCHANAN INGERSOLL & ROONEY PC
1737 King Street, Suite 500
Alexandria, Virginia 22314
Main Telephone (703) 836-6620
Main Facsimile (703) 836-2021

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DENTAL IMAGING TECHNOLOGIES CORPORATION
Petitioner

v.

3SHAPE A/S
Patent Owner

Case No. IPR2024-00849
Patent 10,695,151

**PATENT OWNER'S OPPOSITION TO PETITIONER'S
MOTION FOR JOINDER**

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION	1
II. FACTUAL BACKGROUND.....	1
III. LEGAL STANDARD	2
IV. ARGUMENT.....	3
A. The <i>Gen. Plastic</i> Factors Weigh Against Joinder	3
1. Factor 1	3
2. Factor 2	4
3. Factor 3	8
4. Factor 4	9
5. Factor 5	9
6. Factor 6	12
B. Patent Owner Will Address Whether DITC’s Petition Warrants Institution in its Preliminary Response	13
V. CONCLUSION.....	14

APPENDIX A – LIST OF EXHIBITS

CERTIFICATE OF SERVICE

TABLE OF AUTHORITIES

Cases	Page(s)
<i>3Shape A/S v. Carestream Dental, LLC</i> , Civil Action No. 6:21-cv-01110-ADA	10
<i>Apple Inc. v. Uniloc 2017 LLC</i> , IPR2020-00854, Paper 9 (P.T.A.B. Oct. 28, 2020)	3, 13
<i>Dell, Inc. v. Network-1 Sec. Sols., Inc.</i> , IPR2013-00385, Paper 17 (P.T.A.B. Jul. 29, 2013)	2, 3
<i>Dental Imaging Technologies Corporation v. 3Shape A/S</i> , IPR2023-00400, Paper 2 (P.T.A.B. Dec. 21, 2022)	1, 10
<i>Facebook, Inc. v. Windy City Innovations, LLC</i> , 973 F.3d 1321 (Fed. Cir. 2020)	2, 13
<i>Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha</i> , IPR2016-01357, Paper 19 (P.T.A.B. Sept. 6, 2017)	1, 3, 13, 14
<i>Ironburg Inventions Ltd. v. Valve Corporation</i> , 64 F.4th 1274 (Fed. Cir. 2023)	6
<i>Sony Corp. of Am. v. Network-1 Sec. Sols., Inc.</i> , IPR2013-00386, Paper 16 (P.T.A.B. Jul. 29, 2013)	2
Statutes	
35 U.S.C. §314	2
35 U.S.C. §314(a)	3
35 U.S.C. §315(b)	10
35 U.S.C. §315(c)	2, 9, 10
Rules	
37 C.F.R. §42.20(c)	2
37 C.F.R. §42.122(b)	2

I. INTRODUCTION

On April 25, 2024, Petitioner Dental Imaging Technologies Corporation (“DITC”) filed a Petition for *Inter Partes* Review (Paper 2, “Second Petition”) against U.S. Patent No. 10,695,151 (“the ’151 Patent,” EX1001). On the same date, DITC filed a “Motion For Joinder To *Inter Partes* Review IPR2023-01315” seeking to join IPR2023-01315 (“the Medit IPR”). Paper 3 (“Motion”). The Board should deny DITC’s Motion because the *Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (P.T.A.B. Sept. 6, 2017) factors apply here and weigh in favor of denial of the Second Petition.

II. FACTUAL BACKGROUND

On December 21, 2022, DITC filed its first Petition against the ’151 Patent. *Dental Imaging Technologies Corporation v. 3Shape A/S*, IPR2023-00400, Paper 2 (P.T.A.B. Dec. 21, 2022). DITC cited much of the same art applied herein. Although the Board’s Decision Denying Institution in IPR2023-00400 was subject to a Request for Director Review, that Request was expressly denied on October 5, 2023. Subsequently, on August 18, 2023, Medit filed its own, separate petition. The Medit Petition, citing some additional art, received a Decision instituting trial on March 28, 2024. By requesting joinder, DITC attempts an end-run around both the statutory bar date of this Second Petition, and the prior negative result of its earlier-filed Petition. Granting joinder would not be fair or further the purpose of the

statutory bar, and encourage multiple petitions by the same party on the same patent in the future.

III. LEGAL STANDARD

“To join a party to an instituted IPR, the plain language of §315(c) requires two different decisions.” *Facebook, Inc. v. Windy City Innovations, LLC*, 973 F.3d 1321, 1332 (Fed. Cir. 2020). The first decision is “whether the joinder [to] applicant’s petition for IPR ‘warrants’ institution under § 314.” The second is “whether to ‘join as a party’ the joinder applicant.” *Id.* “Joinder may be authorized when warranted, but the decision to grant joinder is discretionary.” *Sony Corp. of Am. v. Network-1 Sec. Sols., Inc.*, IPR2013-00386, Paper 16, 3 (P.T.A.B. Jul. 29, 2013). “The fact that the [Director or his delegate the] Board has the *discretion* to join a party does not mean that joinder is automatic, particularly given the need to complete proceedings in a just, speedy, and inexpensive manner.” *Dell, Inc. v. Network-1 Sec. Sols., Inc.*, IPR2013-00385, Paper 17, 6 (P.T.A.B. Jul. 29, 2013).

As the moving party, DITC has the burden of proof to establish that joinder is appropriate. 37 C.F.R. §§ 42.20(c), 42.122(b). When considering a motion for joinder, the Board examines factors including: (1) reasons why joinder is appropriate; (2) any new grounds of unpatentability asserted in the petition; (3) what impact (if any) joinder would have on the trial schedule for the existing review; and

(4) specifically how briefing and discovery may be simplified. *See Dell, Inc.*, IPR2013-00385, Paper 17, 3.

IV. ARGUMENT

The Board has clarified that discretionary factors must be considered before determining a joinder motion. *Apple Inc. v. Uniloc 2017 LLC*, IPR2020-00854, Paper 9, 5 (P.T.A.B. Oct. 28, 2020) (precedential) (“before determining whether to join ... even though the Petition is a ‘me-too petition,’ we first determine whether application of the *General Plastic* factors warrants the exercise of discretion to deny the Petition under §314(a).”). *See also Gen. Plastic*, IPR2016-01357, Paper 19, 15-19 (precedential).

A. The *Gen. Plastic* Factors Weigh Against Joinder

The *Gen. Plastic* factors weigh in favor of exercising discretion to deny the Second Petition and Motion.

1. Factor 1

As to Factor 1, DITC previously filed a Petition challenging Claims 1-3, 6, 7, and 9-17 of the ’151 Patent. EX1006, 1-2. In its Second Petition, DITC challenges Claims 1, 2, 4, 5, 9, 10, and 12-17. DITC does not dispute that it previously filed a Petition directed to most of the same claims of the same patent. Accordingly, Factor 1 weighs in favor of denying DITC’s motion.

2. Factor 2

As to Factor 2, the burden of proof falls on DITC to demonstrate whether at the time of filing its first Petition, DITC knew of the prior art asserted in the Second Petition or should have known of it. Here, DITC fails to prove its burden for numerous reasons.

First, DITC does not provide any evidence that it had conducted a reasonable search of the prior art and had failed to find the art asserted in the Second Petition. Aside from providing a copy of its Invalidity Contentions dated November 7, 2022, and a statement in its Motion that “[t]he references are also not cited on the face of the ’151 patent,” DITC presents (i) no evidence of the search parameters of the prior art queries it had run; (ii) no evidence of the results from such queries; (iii) no affidavits from individuals who would have performed and analyzed such queries; and (iv) no statements or evidence that anyone outside of counsel for DITC (*e.g.*, DITC employees, privies of DITC, real parties in interest of DITC, or outside

counsel for privies and real parties in interest of DITC) had not identified or considered the prior art references cited in the Second Petition.¹ Motion, 10.

Second, DITC's statement that "counsel for DITC in any of the actions involving 3Shape had not identified or considered three of the five prior art references on which the Medit IPR was instituted, despite extensive prior art searching" lacks believability. *Id.* DITC confirmed knowledge of "Babayoff" and "Lehman I." *Id.*, 12. "Babayoff" (EX1013) was a prior art reference relied upon by the DITC in its first Petition. DITC alleges that it did not have knowledge of "Korten" (EX1009), "Lehmann II" (EX1011), and "Pye" (EX1012). *Id.*

However, Korten is the U.S. Patent that issued from U.S. Appl. No. 14/785,432, which published as U.S. Publ. No. 2016/0067018 (EX2012) and is listed by its publication number on Page 2 of the '151 Patent. As shown in the comparison exhibit, the "Korten" U.S. Publication No. is listed on Page 2 under References Cited. EX2002. Thus, DITC should have reasonably been aware of the disclosure of Korten.

¹ DITC has not provided any affidavits to date regarding who had identified or considered prior art references in DITC's first and second Petitions, not even from DITC's outside counsel.

Pye is the U.S. Patent that issued from U.S. Appl. No. 10/678,543, which published as U.S. Publ. No. 2005/0074718 (EX2013). The publication was asserted as “Graham” by DITC in its first Petition. EX1012 lists inventor “Graham Pye” on its face page and issued on February 20, 2008. As shown in the comparison exhibit, the previously asserted “Graham” publication and the currently asserted “Pye” patent share the same inventor (circled in green) and the same application number (circled in red). EX2003. Thus, DITC had indeed considered the Graham/Pye disclosure as of the filing date of its first Petition and should have reasonably been aware of the Pye granted patent.

Third, a simple search of the USPTO’s public patent publication database demonstrates that any prior art search that DITC had performed was one that fell below the standard of a “skilled searcher.” *Ironburg Inventions Ltd. v. Valve Corporation*, 64 F.4th 1274, 1298 (Fed. Cir. 2023). Here, the title of the ’151 Patent is “Detecting Tooth Shade.” A simple date-restricted Boolean search of dental and shade terms in the titles of patent publications with the USPTO’s “Patent Public Search” website results in 119 patent publications (5 design and 114 utility documents). Patent Owner herein provides the results of such a search using the following query: ((dental OR tooth).ti. AND shade.ti.) AND @pd>“19940521”. EX2001, and Attachment B of EX2001. Among those 114 listed utility patent documents are U.S. Patent No. 6,206,691 (“Lehmann I,” EX1010), U.S. Publ. No.

2011/0188086 (“Lehmann II,” EX1011), and U.S. Patent No. 7,341,450 (“Pye,” EX1012). Unlike DITC, Patent Owner can demonstrate that Lehmann I, Lehmann II, and Pye could have easily been found under the “skilled searcher” standard when DITC filed its first Petition.

Notably, two of DITC’s previously asserted references were also found within the search described above: U.S. Publ. No. 2005/0074718 (“Graham”; titled, “Tooth Shade Scan System and Method”) and U.S. Publ. No. 2010/0201986 (“Inglese,” titled “Equipment and Method for Measuring Dental Shade”, EX2014). Further, a related patent family member of Lehmann II (U.S. Publ. No. 2003/0190578, with a specification nearly identical to Lehmann II, EX2015) appears on the face page of the U.S. patent that issued from the previously asserted Inglese published application. As shown in the comparison exhibit, U.S. Publ. No. 2003/0190578 is circled in red under References Cited in the U.S. patent that issued from the same application (green circles) that published as the previously asserted “Inglese” published application. EX2004.

Likewise, several patent family members of Lehmann II (U.S. Patent Nos. 6,305,933; 6,358,047; 6,561,800, and 6,575,751, with specifications nearly identical to Lehmann II, EXs2006-2009) appear under the References Cited section of the Pye granted patent that issued from the previously asserted Pye published application. EX2005, Lehmann II patent family members are circled in red. Interestingly, DITC

fails to mention that Lehmann II is also a family member of U.S. Patent No. 5,766,006 (EX2016), which appears in Defendants' First Supplemental Invalidity Contentions of November 7, 2022. EX1018, 12 (Page 15 of 101). In fact, the disclosures of Pye, Babayoff, Lehmann I, and Lehmann II are all provided as the asserted references themselves or in related family members in Defendants' First Supplemental Invalidity Contentions. *Id.*, 11 (Page 14 of 101), 13 (Page 16 of 101), 12 (Page 12 of 101).

Thus, DITC should have known of all the prior art references asserted in its Second Petition at the time of filing its first Petition. Any argument to the contrary strains credibility. Accordingly, Factor 2 weighs in favor of denying DITC's motion.

3. Factor 3

As to Factor 3, there is no dispute that DITC had received the Patent Owner's Preliminary Response to its first Petition and received the Board's decision on whether to institute review in the first Petition when DITC filed its Second Petition. DITC suggests that "the POPR and ID filed in connection with IPR2023-00400 do not provide Petitioner with any benefit here." Motion, 12. However, there is overlap in prior art disclosures between DITC's first and second Petitions. That is, both Petitions assert the disclosures of Babayoff and Graham/Pye. And, having received Patent Owner's Preliminary Response and the Institution Decision in IPR2023-00400, DITC does in fact benefit from both the Patent Owner's and the Board's

characterizations of the Babayoff and Graham/Pye disclosures. Accordingly, Factor 3 weighs in favor of denying DITC's motion.

4. Factor 4

As to Factor 4, the length of time that has elapsed between DITC's first purported learning of the prior art asserted in the Medit Petition and the filing of the Second Petition is disputed here. As discussed above, DITC has not provided any statement or evidence that anyone outside of counsel for DITC (*e.g.*, DITC employees, privies of DITC, real parties in interest of DITC, or outside counsel for privies and real parties in interest of DITC) had not identified or considered the prior art references cited in the Second Petition. Absent this evidence, there is no reason to believe that "DITC ... promptly filed the present Petition and accompanying Motion for Joinder upon institution of the Medit IPR." *Id.* Absent this evidence, there is an equal likelihood that DITC waited for the institution of the Medit IPR trial to take a "second bite" at the '151 Patent and to take advantage of Joinder practice under 35 U.S.C. §315(c). Accordingly, Factor 4 weighs in favor of denying DITC's motion.

5. Factor 5

As to Factor 5, whether DITC provided adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent is disputed here.

DITC neglects to inform the Board that DITC identified Carestream Dental LLC as a real party-in-interest in its previously filed Petition against the '151 Patent and that Carestream Dental LLC was served a complaint on January 7, 2022. IPR2023-00400, Paper 2, 71; EX2010, Summons indicating Service of the Complaint in *3Shape A/S v. Carestream Dental, LLC*, Civil Action No. 6:21-cv-01110-ADA. DITC is well aware of 35 U.S.C. §315(b) which bars *Inter Partes* review “if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, ... is served with a complaint alleging infringement of the patent.” So, it is not surprising that DITC had filed its previous Petition on and was accorded a filing date of December 21, 2022 (IPR2023-00400, Paper 2, 77), just 17 days before the statutory deadline for filing such an IPR, *i.e.*, January 7, 2023.

DITC has now filed a “copycat Petition” (IPR2024-00849, Paper 2, 1) and seeks to join IPR2023-01315, which was accorded a filing date of August 18, 2023. IPR2023-01315, Paper 1. If DITC is allowed to join IPR2023-01315, DITC will effectively enjoy 7 more months for filing an IPR Petition against the '151 Patent than it would normally have been afforded under 35 U.S.C. §315(b). Essentially, DITC seeks to take advantage of a “second bite” at the '151 Patent through the institution of the Medit IPR under 35 U.S.C. §315(c) because it would otherwise be time-barred.

While the Trial Practice Guide states that “the Board may exercise its discretion to permit joinder” of “an otherwise time-barred petitioner,” it “will do so only where fairness requires it and to avoid undue prejudice to a party.” Patent Trial and Appeal Board Consolidated Trial Practice Guide November 2019, 76. Further, “[t]he Board does not generally expect fairness and prejudice concerns to be implicated by, for example, the mistakes or omissions of a petitioner.” *Id.*, 77. Here, DITC has presented no evidence that suggests that fairness requires joinder or that DITC will experience undue prejudice. Rather the evidence suggests the opposite: DITC did not perform a diligent search of the prior art under the “skilled searcher” standard. Thus, DITC’s prior art searching mistakes and omissions regarding the Korten, Lehmann II, and Graham/Pye disclosures do not merit joinder. Further, DITC cannot suffer from a lack of “fairness,” when it has benefited from previewing (i) the Patent Owner’s claim construction arguments in the related District Court case (EX1003); (ii) the Patent Owner’s characterizations of Babayoff and Graham/Pye in IPR2023-00400 (EX1016); and (iii) the Boards’ characterizations of Babayoff and Graham/Pye in IPR2023-00400 (EX1011) between January 7, 2022 and the present.

Indeed, the Trial Practice Guide states that “[t]he Board expects to exercise its discretion to permit such joinder only in extremely limited circumstances.” *Id.* DITC has not presented such a limited circumstance, *e.g.*, where “certain actions

taken by patent owner in a co-pending litigation such as certain late additions of newly asserted claims.” *Id.*

Failing to provide an adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent or demonstrate that the present facts correlated to an extremely limited circumstance permitting joinder, Factor 5 weighs in favor of denying DITC’s motion.

6. Factor 6

As to Factor 6, DITC taxes the finite resources of the Board. While DITC filed a motion for joinder within one month of the date that the Medit IPR trial was instituted, DITC failed to follow the next instruction recited in the Trial Practice Guide. That is, DITC did not “arrange a conference call with the panel, [Medit], and patent owner of the first proceeding within five business days of filing the motion” to assist the panel with timely managing the proceedings. *Id.*, 76. Rather, DITC waited until May 22, 2024—almost 3 weeks after DITC was supposed to arrange such a call—to blithely state in an email that “[t]o the extent the Board wishes to schedule a conference, we are available.” EX2011. To date, no such call has been arranged.

Had DITC scheduled such a call, Patent Owner would have explained that it has additional arguments to present addressing Medit’s Petition (and DITC’s “copycat” Second Petition) and the Institution Decision issued by the Board in

IPR2023-01315. Patent Owner’s additional arguments would require the Board to consider those in IPR2024-00849 and, likely reach a decision inconsistent with the Institution Decision of IPR2023-01315. Thus, DITC wastes the finite resources of the Board with its Motion and Second Petition. Accordingly, Factor 6 weighs in favor of denying DITC’s motion.

In summary, all 6 *Gen. Plastic* factors weigh in favor of denying DITC’s motion. As such, the present case is indistinguishable from *Apple Inc. v. Uniloc 2017 LLC*, IPR2020-00854, Paper 9 (P.T.A.B. Oct. 28, 2020). Here, as in *Apple*, “Petitioner’s understudy argument is not persuasive ... where the copied petition is Petitioner’s second challenge to the patent, and should [Medit] settle, Petitioner would stand in to continue a proceeding that would otherwise be terminated.” *Id.*, 4. It would be as if DITC had brought the second challenge to the patent in the first instance and “[t]his is the kind of serial attack that *General Plastic* was intended to address.” *Id.* Further, as in *Apple*, DITC’s inability to provide adequate facts and/or explanations weighs in favor of denying institution of the proceeding. *Id.*, 11.

B. Patent Owner Will Address Whether DITC’s Petition Warrants Institution in its Preliminary Response

Patent Owner is preparing its Patent Owner Preliminary Response which will address whether DITC’s Second Petition warrants institution. A Petition that does not warrant institution cannot join another proceeding. *Facebook*, 973 F.3d at 1332 (“The statute makes clear that the joinder decision is made after a determination that

a petition warrants institution, thereby affecting the manner in which an IPR will proceed.”).

V. CONCLUSION

Allowing joinder will needlessly disrupt and delay the proceedings in the Medit IPR. Moreover, the *Gen. Plastic* factors favor denial of DITC’s Second Petition and Motion. Accordingly, the Board should deny the DITC’s Motion.

Date: May 28, 2024

Respectfully submitted,

/Todd R. Walters/

Todd R. Walters, Esq. (Reg. No. 34,040)

BUCHANAN INGERSOLL & ROONEY PC

1737 King Street, Suite 500

Alexandria, Virginia 22314

Direct Telephone (703) 838-6556

todd.walters@bipc.com

Counsel for Patent Owner

APPENDIX A - LIST OF EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 10,695,151
1003	Claim Construction Order, <i>3Shape A/S v. Medit Corporation</i> , Case No. 6:22-cv-00443, Dkt. No. 76 (W.D. Tex. May 2, 2023)
1006	Petition for <i>Inter Partes</i> Review of U.S. Patent No. 10,695,151, <i>Dental Imaging Technologies Corporation v. 3Shape A/S</i> , IPR2023-00400, Paper 2 (PTAB Dec. 21, 2022)
1009	U.S. Patent No. 10,028,810 (“Korten”)
1010	U.S. Patent No. 6,206,691 (“Lehmann I”)
1011	U.S. Publication No. 2011/0188086 (“Lehmann II”)
1012	U.S. Patent No. 7,341,450 (“Pye”)
1013	U.S. Patent No. 7,698,068 (“Babayoff”)
1016	Patent Owner’s Preliminary Response, <i>Dental Imaging Techs. Corp. v. 3Shape A/S</i> , IPR2023-00400 (PTAB April 17, 2023)
1018	DITC’s First Supplemental Invalidity Contentions (11/07/2022)
2001	Declaration of Michael Chernoff with Attachments A-B
2002	Annotated cover page from U.S. Patent No. 10,028,810 and page 2 from U.S. Patent No. 10,695,151
2003	Annotated cover pages from U.S. Patent No. 7,341,450 and U.S. Publication No. 2005/0074718
2004	Annotated cover pages from U.S. Publication No. 2010/0201986 and U.S. Patent No. 8,400,635
2005	Annotated page 2 from U.S. Patent No. 7,341,450
2006	U.S. Patent No. 6,305,933, issued on October 23, 2001 to M. Lehmann

2007	U.S. Patent No. 6,358,047, issued on March 19, 2002 to M. Lehmann
2008	U.S. Patent No. 6,561,800, issued on May 13, 2003 to M. Lehmann
2009	U.S. Patent No. 6,575,751, issued on June 10, 2003 to M. Lehmann and C. Vock
2010	Summons served on January 10, 2022 in <i>3Shape A/S v. Carestream Dental, LLC</i> , Civ. Action No. 6:21-cv-01110-ADA
2011	Email from John McKee (counsel for Petitioner, DITC) to the Board on May 22, 2024
2012	U.S. Patent Application Publication No. 2016/0067018, published on March 10, 2016
2013	U.S. Patent Application Publication No. 2005/0074718, published on April 7, 2005
2014	U.S. Patent Application Publication No. 2010/0201986, published on August 12, 2010
2015	U.S. Patent Application Publication No. 2003/0190578, issued on October 9, 2003
2016	U.S. Patent No. 5,766,006, issued on June 16, 1998 to M. Lehmann Murljadic

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing **PATENT OWNER'S OPPOSITION TO PETITIONER'S MOTION FOR JOINDER** is being served on counsel for Petitioner by electronic mail this 28th day of May, 2024 as follows:

John T. McKee (johnmckee@quinnemanuel.com)
James M. Glass (jimglass@quinnemanuel.com)
Richard W. Erwine (richarderwine@quinnemanuel.com)
QUINN EMANUEL URQUHART & SULLIVAN, LLP
51 Madison Ave, 22nd Floor
New York, New York 10010

Date: May 28, 2024

/Todd R. Walters/

Todd R. Walters, Esq. (Reg. No. 34,040)
BUCHANAN INGERSOLL & ROONEY PC
1737 King Street, Suite 500
Alexandria, Virginia 22314
Direct Telephone (703) 838-6556
todd.walters@bipc.com
Counsel for Patent Owner