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Paper 33
Date: August 27, 2020

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

IBEX PT HOLDINGS CO., LTD.,
Patent Owner.

IPR2018-00011 (Patent No. 8,654,855 B2)
IPR2018-00092 (Patent No. 9,025,668 B2)
IPR2018-00093 (Patent No 8,774,279 B2)

Before LYNNE E. PETTIGREW, BARBARA A. PARVIS, and KIMBERLY McGRAW, *Administrative Patent Judges*.

McGRAW, *Administrative Patent Judge*.

DECISION
Denying Patent Owner's Request for Rehearing
37 C.F.R. § 42.71

I. INTRODUCTION

Ibex PT Holdings Co., Ltd. ("Patent Owner") filed a Request for Rehearing ("Request" or "Req. Reh'g", Paper 32[1]) of our Final Written Decision in each of IPR2018-00011 ("Decision" or "Dec.," Paper 31), IPR2018-00092, and IPR2018-00093, finding that the challenged claims were unpatentable over references including WD5.[2] For the reasons given below, we deny the Requests.

II. ANALYSIS

The party challenging a decision in a request for rehearing bears the burden of showing the decision should be modified. 37 C.F.R. § 42.71(d). A request for rehearing "must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed." *Id*.

In each of our Decisions, we determined Petitioner had shown by a preponderance of the evidence that WD5, a reference that was asserted against all challenged claims, qualifies as a printed publication under pre-AIA § 102(a) and that all challenged claims were unpatentable over the asserted art. *See* Dec. 25–31, 50. WD5 is a fifth version of a working draft of a "next generation" High Efficiency Video Coding ("HEVC") standard (H.265), developed by the standard setting organization JCT-VC (i.e., the Joint

[1] Unless otherwise indicated, citations are to papers filed in IPR2018-00011. Similar papers, however, were filed in each proceeding.

[2] Benjamin Bross et al., *WD5: Working Draft 5 of High-Efficiency Video Coding*, JCTVC-G1103 (version 3) (uploaded Dec. 30, 2011) ("WD5", Ex. 1029).

Collaborative Team on Video Coding[3]), intended to replace the then current standard (H.264), which had "become the primary format in use for essentially all video applications." *See* Ex. 1007, 1. We explained that WD5 was sent in an email dated December 30, 2011 to the "JCT-VC reflector," which is the email listserv used by the JCT-VC. Dec. 27. Every member of the JCT-VC, which includes the at least 284 members of the JCT-VC that attended the seventh JCT-VC meeting in Geneva in November 2011, as well other individuals that had opted in to the listserv, were subscribed to the JCT-VC reflector listserv. *See id.* at 28 (citing Ex. 1002 (Original Mr. Bross Declaration) ¶ 184; Ex. 1058 (Seventh JCT-VC Meeting Report-Geneva), 1,

[3] The JCT-VC is a standards organization created in 2010 under the auspices of (1) the International Organization for Standardization ("ISO") and (2) the International Telecommunication Union ("ITU"), which is the United Nations ("UN") specialized agency for information and communication technologies. *See* Ex. 1041, 2. Members of the JCT-VC include video coding personnel from its two parent organizations: (1) the Video Coding Experts Group ("VCEG"), also referred to as the ITU-T Study Group or the Study Group 16 of ITU-T, the Telecommunication Standardization Sector of the ITU and (2) the Moving Pictures Experts Group ("MPEG"), also referred to as ISO/IEC JTC 1/SC 29/WG11 or the Working Group 11 (WG 11) of SC 29, a subcommittee under Joint Technical Committee (JTC) 1 of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). *See* Ex. 1002 ¶ 173 & n.26, n.27 (citing Exs. 1045–1046, 1050); *see also* Ex. 1042, 1 (stating "ITU membership represents a cross-section of the global ICT [information and communication technologies] sector, from the world's largest manufacturers and telecoms carriers to small, innovative players working with new and emerging technologies, along with leading R&D institutions and academia"); Ex. 1043 (stating the "ITU-T has driven a contribution-led, consensus-based approach to standards development in which all countries and companies, no matter how large or small, are afforded equal rights to influence the development of ITU-T Recommendations").

302–305 (identifying the 284 participants of the seventh meeting of the JCT-VC and their associated companies or organizations)). We also found that the email disseminating WD5 was sent without any requirement or expectation of confidentiality. *See id.* at 29 (citing Ex. 1065 (email); Ex. 1041 (Terms of Reference of the JCT-VC), 2 (stating that "all input and output documents of the JCT will be public (including the drafts of the coding specification, reference software, and conformance test data")); Ex. 1002 ¶ 178).

We also found that members of the JCT-VC are persons interested and skilled in the art and that any interested member of the public could have subscribed to the JCT-VC reflector. *See id.* at 28–29 (citing Ex. 1002 ¶ 184; Ex. 1058, 2; Ex. 2008 (Bross Deposition Transcript), 83:23–84:3; Paper 30 (Transcript of Oral Hearing, "Tr.") 49:7–11). Based, *inter alia*, on our findings that WD5 was emailed to the JCT-VC reflector listserv without any restrictions on confidentiality, that the reflector included at least 284 JCT-VC members who attended the seventh JCT-VC meeting[4] as well as any member of the public who had requested and received access to the listserv, and that any member of the public could have joined the listserv, we determined WD5 qualified as a printed publication. *See id.* at 29–31.

In its each of its Requests for Rehearing, Patent Owner contends that we erred in finding that WD5 qualifies as a printed publication. *See* Req. Reh'g 1–10. In particular, Patent Owner contends (1) we overlooked the issue of whether "the number of individuals were members of the JCT-VC reflector represented a significant portion of those interested and skilled in the art (or if

[4] The meeting "was open to those qualified to participate either in ITU-T WP3/16 or ISO/IEC JTC 1/SC 29/WG." Ex. 1058, 6.

they were a small fraction)," (2) we misapprehended the credibility of Mr. Bross as a fact witness, (3) we misapprehended the supplemental evidence,[5] and (4) our findings of fact in the Final Decision are inconsistent with other panels' findings on the same evidence and issues of fact. *See id.*

For the following reasons, Patent Owner's Requests do not persuade us that our Decisions determining that WD5 qualifies as a printed publication should be modified.

A. *Must the Members of the JCT-VC Reflector Constitute a "Significant Portion of Those Interested and Skilled in the Art" in order for WD5 to Constitute a Printed Publication?*

Patent Owner argues each of the Decisions failed to "determine whether the 284 JCT-[VC] members were a significant portion or a small fraction of persons of ordinary skill in the art." Req. Reh'g 3 (citing Dec. 28–31). Patent Owner contends that because our determination that WD5 is a printed publication relies on evidence that WD5 was disseminated to at least 284 members of the JCT-VC reflector, we should have considered whether those "284 JCT-VC individuals represented a significant portion of those interested and skilled in the art." *See id.* at 1, 3.

Contrary to Patent Owner's argument, however, the law does not require that a reference must be disseminated to a significant portion of the relevant public in order to constitute a printed publication. Indeed, Patent Owner's arguments mirror the same arguments that were rejected by the Federal Circuit

[5] Petitioner sought, and was authorized, to file supplemental information (Exs. 1106–1118) related to the public availability of WD5. *See* Paper 9 (Motion to Submit Supplemental Information); Paper 15 (Order granting Petitioner's Motion to Submit Supplemental Information).

in a decision that issued after Patent Owner filed its rehearing request. *See Samsung Electronics Co., v. Infobridge Pte. Ltd.*, 929 F.3d 1363, 1374 (Fed. Cir. 2019); *see also Mass. Inst. of Tech. v. AB Fortia*, 774 F.2d 1104 (Fed. Cir. 1985) (distribution to six conference attendees made work publicly accessible).

In *Infobridge,* the Federal Circuit vacated two Board final written decisions[6] that had determined an earlier working draft of the HEVC standard (i.e., WD4), emailed in October 2011 to at least 254 subscribers of the JCT-VC reflector listserv, was not a printed publication. *See Infobridge*, 929 F.3d at 1365, 1373. The Board had determined the email to the JCT-VC reflector "was, at best, a limited distribution . . . to a select group, the members of the JCT-VC and perhaps others who may have opted into the reflector" and had "faulted Samsung for failing to show that the email recipients 'represented a significant portion of those interested and skilled in the art.'" *Id.* at 1374 (citing *Samsung Electronics Co., v. Infobridge Pte. Ltd.*, IPR2017-00099, Paper 32 at 26 (PTAB Apr. 23, 2018)).[7]

The Federal Circuit stated the "Board's decision to reject Samsung's evidence because it did not establish that enough interested and ordinarily skilled artisans actually obtained the WD4 reference was . . . erroneous." *Id.* The Federal Circuit explained that "the standard for public accessibility is whether a person of ordinary skill in the art *could*, after exercising reasonable diligence, access a reference" and that the Board "departed from this well-

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[6] *Samsung Elec. Co., Ltd. v. Infobridge Pte. Ltd.,* IPR2017-00099, Paper 32 (PTAB Apr. 23, 2018), and *Samsung Elec. Co., Ltd. v. Infobridge Pte. Ltd.,* IPR2017-00100, Paper 30 (PTAB Apr. 23, 2018).

[7] Cited by the Federal Circuit as "*Final Written Decision,* 2018 WL 19040480 at *9."

established principle by repeatedly faulting Samsung for not proving that the WD4 reference was 'generally' or 'widely' disseminated." *Id.* Rather than requiring Samsung to prove that persons of ordinary skill actually received the listserv email, the Federal Circuit stated the Board should have considered whether Samsung's evidence established that an ordinarily skilled artisan could have accessed the WD4 reference, after exercising reasonable diligence, based on the listserv email. *See id.* at 1374–75.

Thus, Patent Owner's argument, that the Board overlooked whether the at least 284 recipients of WD5 represented a significant portion of those interested and skilled in the art, is not persuasive for the same reasons stated by the Federal Circuit in *Infobridge*.

Moreover, the guidance set forth in *Infobridge* supports our determination that WD5 is a printed publication. *See* Dec. 20–31. The Federal Circuit states that, in determining whether an earlier working draft of the HEVC working standard (i.e., WD4) sent via email to the JCT-VC listserv is a printed publication, the Board should consider whether an ordinarily skilled artisan could have accessed the WD4 reference, after exercising reasonable diligence, based on the listserv. *Infobridge*, 929 F.3d at 1374–75. This may include examining whether a person of ordinary skill would have joined the listserv. *Id.* at 1375. It may also include considering the circumstances of the email itself, for example why the email was sent and whether it was covered by an expectation of confidentiality. *Id.* Application of these factors set forth in *Infobridge* to the evidence of record in the present proceedings, supports our determination that an ordinarily skilled artisan could have accessed the WD5

reference, after exercising reasonable diligence, based on the JCT-VC reflector listserv and that WD5 is a printed publication.

For example, with regard to considering whether a person of ordinary skill would have joined the listserv, we found that persons of ordinary skill in the art did join the listserv. *See* Dec. 28–30 (citing Ex. 1002 ¶¶184–185; Ex. 1058, 1–2, 302–305; Ex. 2008, 83:23–84:3; Tr. 49:7–11); *see also id.* at 29 (stating "WD5 was disseminated at least to members of the JCT-VC, who are persons interested and ordinarily skilled in the relevant art, and that any member of the public could have requested and received access to the JCT-VC reflector"); Ex. 2008, 40:17–41:3 (Mr. Bross testifying that the JCT-VC's efforts to develop a new standard were well known and that "almost every company that matters in . . . industry and academia and institutes were participating in the JCT-VC"); Ex. 1116, 27 (article discussing how "more than 1000 technologies were published at the 7th JCT-VC confidence" and that "such a large number of contributions demonstrate successful HEVC standardization activities"). We credited Mr. Bross's testimony that people from both companies and academia asked to join, and did join, the listserv. *See* Dec. at 28–29 (citing Ex. 2008, 83:23–84:3 (Mr. Bross stating "I have personal knowledge and recollection that people subscribed to that list from academia, from companies have been approved as subscription request by the moderator")). We also credited Mr. Bross's testimony that the number of people subscribed to the JCT-VC listserv was greater than the 284 JCT-VC members who had attended the seventh JCT-VC meeting. *See id.* at 28 (citing Ex. 1002 ¶¶ 184–185; Ex. 1058, 1, 302–305).

That a person of ordinary skill and interested in the art would have joined the listserv is further supported by the testimony and supporting evidence that one skilled in the art would have been interested in following the JCT-VC's well-known efforts to develop a new generation high efficiency video coding standard to replace the standard that had been used in "essentially all video applications" with an updated new standard. *See, e.g.*, Ex. 1002 ¶¶ 172– 185 (discussing the JCT-VC); Ex. 1106 (Bross Supplemental Declaration) ¶¶ 3–13 (discussing, *inter alia*, the prominence of the JCT-VC in the video coding industry and citing Ex. 1007 (IEEE editorial)); *see also* Ex. 1007, 3, 7 (discussing the importance of the video compression standard to the development of products and services); *id.* at 3 (stating "each international video coding standard" has "enabled an expanding array of product offerings and design improvements"), *id*. at 7 (stating "at this point of development it is still unclear which specific elements the final HEVC standard will contain, the selection of the papers in the Special Section was made such that together they would cover most of the promising tools and technologies that seem likely to be included in the standard"); *see also* Dec. 20–21 (stating the JCT–VC was created by two parent organizations, the VCEG (Video Coding Experts Group), which is a group under the auspices ITU-T, a United Nations specialized agency) and the MPEG (Moving Picture Experts Group), which is a group under the auspices of the International Organization for Standardization (citing Ex. 1002 ¶ 173 & n. 26; Exs. 1040–1044, 1047–1049).

We are persuaded by Petitioner's evidence, including Mr. Bross's testimony, that the JCT-VC's efforts to develop a new standard were well known and that "almost every company that matters in . . . industry and

academia and institutes were participating in the JCT-VC." Reply 14–15 (quoting Ex. 2008, 40:17–41:3); *see also id.* at Reply 12 (citing, *inter alia*, Ex. 1002 ¶ 173 n.26–27; Ex. 1106 ¶¶ 12–13; Ex. 1007, 3; Ex. 1058, 1, 302–305); *see also* Ex. 1106 ¶ 8 (stating those experienced and interested in video coding technologies knew the "document best representing the current status and details of the JEVC standardization process was the working draft"); *id.* ¶ 9 (stating those "experienced and interested in video coding technologies understood and appreciated that the 'working drafts' of the HEVC Standard were the documents that would have provided a comprehensive understanding of the JCT-VC efforts in video coding at that time"); *id.* ¶ 10 (stating persons skilled in the art were tracking the JCT-VC's development of a video coding standard "to ensure that products and services they were developing were consistent with the HEVC Standard under development") *id.* ¶ 12 (discussing prominence of the JCT-VC in the video coding industry); *id.* ¶ 13 (stating "representatives in the video coding industry, university professors, and research institutions that were either developing, researching, and reviewing products and technologies related to video coding were aware of the developments of the HEVC Standard").

Moreover, Mr. Bross's testimony that "almost every company that matters in . . . industry and academia and institutes were participating in the JCT-VC" (Ex. 2008, 40:17–41:3) is further supported by reports from the JCT-VC quarterly meetings, beginning April 2010, showing the meetings were attended by hundreds of employee members and their affiliated world-wide organizations, including numerous companies, institutes, and universities. *See* Ex. 1053, 2, 56–57 (first meeting report-188 attendees); Ex. 1054, 1–2, 70–72

(second meeting report-221 attendees); Ex. 1055, 1–2, (third meeting report-244 attendees); Ex. 1052, 1–2, 171–173 (fourth meeting report-248 attendees); Ex. 1056, 2, 208–211 (fifth meeting report-226 attendees); Ex. 1057, 1–2, 8, 254–257 (sixth meeting report-254 attendees); Ex. 1058, 2 (seventh meeting report-284 attendees). For example, representatives from the following companies attended the seventh JCT-VC meeting: AMD, Apple, Broadcom, Canon, Cisco Systems Norway, Dolby Laboratories, Ericsson AB, Fujitsu, Harmonic, Huawei, Intel, InterDigital Communications, JCV Kenwood, Kodak, LG Electronics, MediaTek, Microsoft Corporation, Mitsubishi Electric, Motorola, NEC, Nokia, Panasonic, Polycom, Qualcomm, Samsung, Sharp, Seimans AG, Sharp, SK Telecom, Skype, Sony Electronics Inc., STMicroelectronics, Technical, Texas Instruments, Vidyo, and ZTE. *See* Ex. 1058, 302–305. Representatives from numerous other universities and institutions also attended. *See id.*

Petitioner has also provided persuasive evidence to show that interested artisans who were not members of the JCT-VC would have known about and been interested in following the JCT-VC's efforts to develop a new generation HEVC coding standard. *See, e.g.*, Ex. 1106 ¶¶ 10–13. For example, Mr. Bross testified that "given the prominence of the JCT-VC in the video coding industry . . . persons experienced and skilled, and interested, in video coding technologies were tracking the developments of the last video coding standard" to "ensure that products and services they were developing were consistent with the HEVC Standard under development." Ex. 1106 ¶ 10; *see also* Ex. 1002 ¶ 178 (stating "persons interested in tracking the developments of the latest video coding standard would regularly visit the JCT-VC site to ensure

that products and services they were developing were consistent with the HEVC Standard under development"). We also credit Mr. Bross's testimony that video coding personnel who were not actively contributing to the JCT-VC had inquired about when the next update to the working draft of the HEVC Standard would be circulated on the JCT-VC listserv. *See* Ex. 1106 ¶ 11 (describing conversations with video coding personnel regarding impact of new HEVC standard on company products).

Mr. Bross's testimony is also supported by Dr. Vetro, who was involved with MPEG, a parent body of the JCT-VC, and who testified that during the 2011 timeframe, "entities such as companies, universities and research institutions of the MPEG members, would distribute documents so that individuals affiliated with such entities could keep up with the latest developments in the video standardization process(es), e.g., to ensure that products and services they were working on were compliant with the video coding standard(s)." Ex. 1035 (Declaration of Dr. Anthony Vetro) ¶¶ 7–8, 23; *see also* Ex. 1002 ¶ 182 (stating that JCT-VC documents would be mirrored, or uploaded, onto both the JCT-VC and MPEG document management sites).

The evidence of record that any member of the public could have subscribed to the JCT-VC listserv also supports our finding that WD5 is a printed publication. *See* Dec. 28. We are persuaded by Mr. Bross's testimony that any person could subscribe to the JCT-VC reflector by requesting a subscription at the JCT-VC reflector management site and that, in practice, anyone with a valid email address requesting a subscription typically was approved. Ex. 1002 ¶ 184; *see also* Ex. 1058, 2 (providing a link for subscription to the listserv); Ex. 1058, 8 (stating membership of the reflector is

not limited to qualified JCT-VC participants); Ex. 2008, 83:23–84:3 (Mr. Bross stating "I have personal knowledge and recollection that people subscribed to that list from academia, from companies have been approved as subscription request by the moderator").

Mr. Bross's testimony that those interested and skilled the art, who were not members of the JCT-VC, could have joined the JCT-VC reflector listserv is further supported by each of the JCT-VC meeting reports, beginning with the first meeting report, that provide instructions on how to subscribe to the reflector. *See* Ex. 1053, 2 (first meeting report stating "[f]or subscription to this list, see http://mailman.rwth-aachen.de/mailman/listinfo/jct-vc"); *see also* Ex. 1054, 1–2 (second meeting report); Ex. 1055, 2 (third meeting report); Ex. 1052, 2 (fourth meeting report); Ex. 1056, 2 (fifth meeting report); Ex. 1057, 2 (sixth meeting report); Ex. 1058, 2 (seventh meeting report). Additionally, the sixth and seventh meeting reports clarified that membership of the reflector is not limited to members of the JCT-VC. *See, e.g.*, Ex. 1057, 8 (stating "membership of the reflector is not limited to qualified JCT-VC participants"); Ex. 1058, 8 (same).

That those skilled in the art would have been aware of how to subscribe to the JCT-VC reflector listserv is also supported by a December 2010 editorial titled "Special Section on the Joint Call for Proposals on High Efficiency Video Coding (HEVC) Standardization" and other articles in a journal titled "IEEE Transactions on Circuits and Systems for Video Technology." *See* Ex. 1007 (Table of Contents and editorial-Vol. 20, No. 12 IEEE journal-Dec. 2010); *see also* Ex. 1106 ¶ 12 (citing Ex. 1007; Ex. 1002 ¶¶ 43, 48). We credit Mr. Bross's testimony, and Patent Owner does not dispute, that this journal

was one of the most influential technical journals in the video coding field in the 2011–2012 time frame. *See* Ex. 1106 ¶ 12.

The editorial describes the importance of the HEVC standard to product offerings and design improvements and that the HEVC standard (H.264) had "become the primary format for use in essentially all video applications." Ex. 1007, 3. The editorial also describes the JCT-VC's efforts to develop the next generation HEVC standard, discusses the JCT-VC's first meeting, held in April 2010, states the JCT-VC meeting report and other JCT-VC documents are "publicly available for further study," and provides a website where the public could access those documents. *See* Ex. 1007, 6; *see also id.* at 6 n.8 (identifying the first meeting report of the JCT-VC). Thus, one skilled in the art interested in video coding technology would have had reason to review the JCT-VC meeting report as suggested in the editorial and would have had reason to follow the instructions contained therein on how to join the JCT-VC reflector listserv.

Other articles and patent documents submitted by Petitioner as supplemental evidence further support Petitioner's argument that those skilled in the art would have been aware of and interested in following the JCT-VC and its efforts to develop a new HEVC standard. *See* Paper 9 (Motion to Submit Supplemental Information), 3 (citing Exs. 1106–1118 to show public availability of WD5); *see also* Paper 21 (Petitioner's Reply to Patent Owner Response), 19–22 (discussing Exs. 1106–1118); *see also* Ex. 1116, 27 (article discussing how "more than 1000 technologies were published at the 7th JCT-VC conference" and that "such a large number of contributions demonstrate successful HEVC standardization activities"); Ex. 1117, 1, 9 (Report

discussing the "state of the standardization discussions regarding HEVC" and stating that it "is expected that a new standard that can be widely applied to various applications will ultimately be issued").

The circumstances of the email itself further support a finding that WD5 qualifies as a printed publication. The email was sent without any expectation of confidentiality. *See* Dec. 28 (citing Ex. 1065). Rather, the purpose of the email was, *inter alia*, to inform subscribers to the JCT-VC reflector that a "new version" of the fifth working draft (i.e. WD5) was uploaded and available for viewing and to seek "comments and improvements related to the WD [working draft.]" *See* Ex. 1065, 1–2 (stating "Please feel free to contact the editors if you have any comments and improvements related to the WD"). It would be reasonable for the recipients of the email, including those sent to attend the JCT-VC meeting by their employers, to forward the email to others in their corporations to keep them advised as to proposed changes to the HEVC coding standard to ensure that company products and services were consistent with the proposed draft and to seek comments on the proposed draft standard. *See* Ex. 1065, 1–2; *see also* Ex. 1002 ¶ 178 (Mr. Bross testifying that "persons interested in tracking the developments of the latest video coding standard would regularly visit the JCT-VC site to ensure that products and services they were developing were consistent with the HEVC Standard under development").

Indeed, the primary purpose of the JCT-VC was to develop a new generation HEVC standard that would apply to products worldwide. *See* Ex. 1002 ¶ 173; *see also* Ex. 1045, 1 ("International Standards make things work. They give world-class specifications for products, services and systems,

to ensure quality, safety and efficiency. They are instrumental in facilitating international trade. . . . ISO International Standards impact everyone, everywhere."). This purpose made it crucial that documents, including drafts of the new standard, be made public. *See* Ex. 1041, 2 (stating that in "order to facilitate cross-organi[z]ational communication, all input and output documents of the JCT will be public (including the drafts of the coding specification")).

Accordingly, Petitioner shows persuasively that interested members of the relevant public, including ordinary artisans within world-wide companies, universities, and research institutions, both members and non-members of JCT-VC (including MPEG parent members), would have been interested in joining and would have been able to join the listserv, and would have been able to access the international HEVC standards document WD5, either by joining the listserv directly or by receiving a forwarded version of the email. *See also Kyocera Wireless Corp. v. International Trade Comm'n*, 545 F.3d 1340, 1350–51 (Fed. Cir. 2008) (determining that standard documents, drafted within technical subcommittees of a standards drafting organization which did not impose restrictions on members, were sufficiently accessible to the public interested in the art to be considered publicly available).

B. *Credibility of Declarant*

Next, Patent Owner contends we misapprehended the credibility of Mr. Bross as a fact witness when we credited Mr. Bross's testimony that "in 2011–2012 every JCT-VC member was subscribed to the JCT-VC reflector," that "any person could subscribe to the JCT-VC reflector by requesting a subscription at the JCT-VC reflector management site," and that "in practice,

anyone with a valid email address requesting subscription was typically approved." *See* Req. Reh'g 4–6 (citing Dec. 28; Ex. 1002 ¶¶ 182, 184; Ex. 1058, 2; Ex. 2008, 83:23–84:3). In particular, Patent Owner contends (1) Mr. Bross offered no basis for his testimony regarding the JCT-VC reflector and (2) there is no evidence of record "sufficient to support a finding that [Mr. Bross] has personal knowledge of the matter" as required by Fed. R. Evid. 602.[8] *See* Req. Reh'g 5 (citing PO Resp. 39; Ex. 2008, 82:2–84:12).

Specifically, Patent Owner states Mr. Bross was never an administrator of the JCT-VC reflector listserv and criticizes Mr. Bross for not recalling the name of any moderator of the listserv. *See id.* at 5–6 (citing PO Resp. 38–44; Ex. 2008, 80:11–84:12). Patent Owner also states Mr. Bross never testified that he personally knew of anyone outside of the JCT-VC that had requested access and was subsequently added to the reflector, and thus "typically was approved." *Id.* at 7 (citing Ex. 1002 ¶ 184). Patent Owner also asserts Mr. Bross "struggled to testify regarding his memory and recollections without referring to his declarations." Req. Reh'g 6 (citing PO Resp. 39, 43–44).

We disagree with Patent Owner's arguments that we misapprehended Mr. Bross's credibility and that the evidence of record is not "sufficient to support a finding that [Mr. Bross] has personal knowledge of the matter." Req. Reh'g 4–6.

"Evidence to prove personal knowledge may consist of the witness's

[8] Although Patent Owner did object to the admissibility of Mr. Bross's supplemental declaration (Ex. 1106) under Fed. R. Evid. 602 (*see* Paper 16, 1–3), Patent Owner did not seek to exclude Mr. Bross's supplemental declaration under 37 C.F.R. § 42.64(c), which provides that a "motion to exclude evidence must be filed to preserve any objection" to the admissibility of the evidence.

own testimony." Fed. R. Evid. 602. We credit Mr. Bross's testimony that he has "personal knowledge and recollection that people subscribed to that list from academia, from companies have been approved by the moderator." Dec. 28–29 (citing Ex. 2008, 83:53–84:3; Ex. 1002 ¶ 184; Ex. 1058, 2). Mr. Bross testified that, as co-chair and lead author of the Working Drafts of the JCT-VC, he was familiar with the procedures for making JCT-VC documents publicly available, including through the JCT-VC reflector listserv (*see* Ex. 1002 ¶ 177) and that based on his knowledge and recollection, all communications between members related to the development of the HEVC standard were to be conducted via the JCT-VC reflector (jct-vc@lists.rwth-aachen.de) (*see* Ex. 1002 ¶ 184). *See also* Ex. 1058, 2 (stating the JCT-VC "reflector [is] to be used for discussions by the JCT-VC and all its AHGs [Ad Hoc Groups]"); *id.* at 228–229.

We also credit Mr. Bross's testimony that he recalls receiving inquiries from video coding personnel regarding when the next update to the working draft of the HEVC Standard would be circulated on the JCT-VC listserv and that at least some of the inquiries in the 2011–2012 time frame came from persons who were not actively contributing to the JCT-VC but who monitored the development of the HEVC Standard for potential impact on their respective companies' future products. *See* Ex. 1106 ¶ 11.

We also disagree with Patent Owner's argument that we should have discounted Mr. Bross's testimony because he was not an administrator of the JCT-VC listserv and because he did not recall the name of any moderator of the listserv. Req. Reh'g 5–6 (citing PO Resp. 38–44; Ex. 2008, 80:11–84:12). Mr. Bross provided persuasive testimony as to how one skilled in the art could

have joined the listserv, including identifying the website for subscribing to the listserv (i.e., https://mailman.rwth-aachen.de/mailman/listinfo/jct-vc). *See* Ex. 1002 ¶ 184. This testimony is further supported by the meeting reports that identify the same website for subscribing to the reflector and that also state individuals, other than members of the JCT-VC, may subscribe to the reflector. *See* Ex. 1058, 2 (stating "[f]or subscription to this list, see http://mailman.rwth-aachen.de/mailman/listinfo/jct-vc"), 8 (stating "membership of the reflector is not limited to qualified JCT-VC participants"); *see also* Ex. 1053, 2 (first meeting report); Ex. 1054, 1–2 (second meeting report); Ex. 1055, 2 (third meeting report); Ex. 1052, 2 (fourth meeting report); Ex. 1056, 2 (fifth meeting report); Ex. 1057, 2, 8 (sixth meeting report).

Patent Owner also contends that because Mr. Bross never testified that he personally knew of anyone outside the JCT-VC that had requested access and was subsequently admitted to the reflector, his testimony that anyone could have joined the listserv is unsupported. *See* Req. Reh'g 6 (citing Ex. 1002 ¶ 184; PO Res. 38–44). We disagree with this contention as Mr. Bross testified in his deposition that he has "personal knowledge that people subscribed to that list from academia, from companies have been approved as subscription request by the moderator." Ex. 2008, 83:21–3. Mr. Bross was not questioned about this statement during his deposition. *See generally id.*

Based on the totality of the evidence, we find Mr. Bross's testimony to be credible and supported by the evidence of record. Patent Owner has not shown that the Board misapprehended or overlooked the relevant evidence when assessing the credibility of Mr. Bross.

C. *Supplemental Evidence*

In its Request for Rehearing, Patent Owner contends the Board misapprehended the supplemental evidence. *See* Req. Reh'g 9–10.

First, Patent Owner argues that because the JCT-VC is a closed group, the Board's finding that anyone could join the JCT-VC group "is irrelevant." *See* Req. Reh'g 9 (citing Dec. 28). Specifically, Patent Owner states:

> The FWD appears to rely on how anyone can join the JCT-VC group. FWD, 28. However, the group is still closed, and how a closed group is formed is irrelevant. *See Medtronic, Inc. v. Barry*, 891 F.3d 1368, 1382 (Fed. Cir. 2018) ("As a threshold matter, the Board did not address the **potentially-critical difference** between the SDSG meeting in Arizona and the programs in Colorado Springs and St. Louis, which were not limited to members of the SDSG but instead were attended by at least 75 other surgeons, collectively.") (emphasis added).

Id. [9]

We disagree with Patent Owner that "how a closed group is formed is irrelevant" to the printed publication analysis in the present proceeding. Patent Owner does not persuasively explain its argument that "how a closed group is formed is irrelevant" to the printed publication analysis at issue here. *See id.* As quoted above, Patent Owner relies on a statement in *Medtronic* that there is a "potentially critical difference" **"**between the SDSG meeting in Arizona and the programs in Colorado Springs and St. Louis, which were not limited to

[9] Although Patent Owner presents this argument under the heading "D. Misapprehension of the Supplemental Evidence," Patent Owner does not specifically identify what supplemental evidence the Board allegedly misapprehended when it found that any member of the public could have subscribed to the JCT-VC listserv. *See* Req. Reh'g 9.

members of the SDSG but instead were attended by at least 75 other surgeons, collectively." *See* Req. Reh'g 9 (citing *Medtronic,* 891 F.3d at 1382). However, unlike the membership of the SDSG group in *Medtronic,* which was described as "relatively exclusive" (*see* 891 F.3d at 1382), here, membership in the JCT-VC itself was not relatively exclusive. As explained above, "almost every company that matters in . . . industry and academia and institutes were participating in the JCT-VC." Ex. 2008, 40:17–41:3.

In addition, subscription to the JCT-VC listserv was not limited to JCT-VC members, but rather, was open to any interested member of the public. *See* Dec. 28–29 (citing Ex. 1002 ¶ 184; Ex. 1058, 2; Ex. 2008, 82:23–84:3); *see also* Ex. 1058, 8 (stating "membership of the reflector is not limited to qualified JCT-VC participants"). Thus, we disagree with Patent Owner's contention that participation in the JCT-VC group is akin to attendance at the "relatively exclusive" SDSG meeting of *Medtronic*.

Moreover, *Medtronic* states that even if the reference was only distributed to SDSG members at the SDSG meeting, "this factor alone is not dispositive of the inquiry" of whether the distributed reference qualifies as a printed publication. *See Medtronic*, 891 F.3d at 1382. Other factors to consider, besides the "relatively exclusive nature of the SDSG membership," may include "the purpose of the meetings" and "whether the SDSG members were expected to maintain the confidentiality of received materials or would be permitted to share or even publicize the insights gained and the materials collected at the meetings." *Id.* at 1383.

Here, as explained above, the purpose of the JCT-VC was to promulgate a new generation HEVC standard to replace the standard that was used in

essentially all video applications. *See* Ex. 1007, 3; Ex. 1041, 1. The purpose of the JCT-VC listserv was to, *inter alia*, disseminate the most recent drafts of the proposed HEVC standard to the listserv, without any confidentiality restrictions or limitations on dissemination, in order to get input on the drafts. Because of the significant impact that a new coding standard may have on company products, it is expected company personnel would share the working drafts with others at their company in order to provide information about, and solicit feedback on, the working drafts of the standard. *See, e.g.*, Ex. 1106 ¶ 11 (Mr. Bross describing conversations with video coding personnel regarding impact of new HEVC standard on their companies' products); *see also* Ex. 1002 ¶ 175 (Mr. Bross testifying that he proposed technical contributions to the HEVC Standard on behalf of his employer).

Thus, even if the JCT-VC reflector were a "closed group," distribution of the latest working draft of the HEVC standard (i.e., WD5) to this group, who were under no expectation of confidentiality and who would be expected to further disseminate and share the working draft with others in order to provide information about, and solicit feedback on, the working draft, renders WD5 a printed publication. *See Graham v. John Deere Co.,* 383 U.S. 1, 6 (1966) (stating "Congress may not authorize the issuance of patents whose effects are to remove existent knowledge from the public domain, or to restrict free access to materials already available"); *Oil States Energy Services, LLC. v. Greene's Energy Group, LLC*, 138 S. Ct. 1365, 1374 (stating the statutory requirements of Title 35 prevent the "issuance of patents whose effects are to remove existent knowledge from the public domain"); *In re Wyer*, 655 F.2d 221, 226 (CCPA 1981) (stating the "printed publication provision was

designed to prevent withdrawal by an inventor, as the subject matter of a patent, of that which was already in the possession of the public").

Second, Patent Owner criticizes the Board's finding that there was no expectation of confidentiality, stating, *inter alia*, (1) "there is no evidence to support disclosure outside the JCT-VC group" and (2) "the Board never determined that WD5 was actually publicly accessible (meaningfully indexed) and thus could be downloaded by any POSA outside the JCT-VC group." *Id.* at 10 (citing Dec. 29–30 (which cited Ex. 1002 ¶ 178; Ex. 1041, 2; Ex. 1112; Ex. 1113)).

This argument is not persuasive because a finding that there was no expectation of confidentiality does not require evidence that any non-confidential information was actually disclosed to another. For the reasons set forth in the Decision, and further described above, the email to the JCT-VC reflector listserv disseminating WD5 was not subject to any expectation of confidentiality. *See* Dec. 29–30. Moreover, based on the evidence of record, it is reasonable to assume that recipients of a non-confidential email, which provided a link to the latest version of a draft working standard and sought comments on that draft, would have shared the email with others within their organization in order to inform others about the current draft of a standard that could impact company products and to seek feedback on that draft standard.

Finally, Patent Owner argues that it "is unclear" how the Board's citation to a patent and its file history that cited WD5 on an information disclosure statement "demonstrates there is an alleged expectation of no confidentiality." *See* Req. Reh'g 10 (citing Ex. 1112 (Patent No. 8,693,793 B2 ("the '793 patent") and Ex. 1113 ('793 patent file history)). This argument is

not persuasive because the listing of WD5 on an Information Disclosure Statement ("IDS") indicates an intent to make public the IDS and the list of references recited therein.

Moreover, Jie Zhao and Sachin G. Deshpande are listed as inventors on the '793 patent. *See* Ex. 1112, code (75). They, however, are not listed as attendees of the seventh JCT-VC meeting and are therefore not among the identified 284 subscribers to the JCT-VC reflector listserv. *See* Ex. 1054, 6, 302–305 (identifying 284 individuals as attendees of the seventh meeting). Thus, for this additional reason, Exhibits 1112 and 1113, which was submitted as supplemental evidence, corroborates Petitioner's assertions that interested members of the public, other than the 284 specifically identified subscribers to the listserv, were aware of WD5 prior to the critical date. *See* Paper 9 (Petitioner's Motion to Submit Supplemental Information), 1, 3–7 (seeking authorization to submit Exhibits 1106–1118 as supplemental information relating to the public availability of WD5); Paper 15 (Order Granting Petitioner's Motion to Submit Supplemental Information).

Accordingly, for the foregoing reasons, we disagree with Patent Owner's arguments that the Board misapprehended the supplemental evidence when we found that any member of the public could have subscribed to the JCT-VC listserv or that subscribers to the JCT-VC listserv were under no obligation, or expectation, of confidentiality.

D. *Panel Findings are not Inconsistent*

Patent Owner also contends our findings are inconsistent with the Board's findings in *Samsung Electronics Co. v. Infobridge Pte. Ltd.,* IPR2017-00099 and IPR2017-00100 (collectively the "Infobridge IPR proceedings")

that, according to Patent Owner, determined a reference (i.e., WD4) sent via email to the JCT-VC reflector was not a printed publication based "on the same evidence and issues of fact." Req. Reh'g 7–9 (citing Ex. 2002 (*Samsung Electronics Co., v. Infobridge Pte. Ltd.*, IPR2017-00099, Paper 32 at 16, 24–26 (PTAB Apr. 23, 2018)). Patent Owner contends the panels of the Infobridge IPR proceedings "found Mr. Bross's testimony was factually insufficient to find the email to the reflector constituted dissemination" and that there "was no evidence to determine whether the 254 individuals were a significant portion or a small fraction of POSA's." Req. Reh'g 9 (citing Ex. 2002, 26). Patent Owner requests that, due to the inconsistencies, the Board revisit the arguments offered by the parties and conclude WD5 is not a printed publication. *See id.* at 1–2.

We are not persuaded by this argument. As discussed above in Section II.A, the Board's determination in the Infobridge IPR proceedings that WD4 was not a printed publication was vacated by the Federal Circuit because the determination was based on, *inter alia,* the application of an erroneous legal standard. *See Infobridge*, 929 F.3d at 1374. As explained in *Infobridge*, it was error to require a showing "that enough interested and ordinarily skilled artisans actually obtained the WD4 reference." *Id*.

Moreover, the record here involves different evidence and different arguments than the Infobridge IPR proceedings, including a supplemental declaration by Mr. Bross discussing, *inter alia*, efforts by those skilled in the art to follow the efforts of the JCT-VC to ensure that their products and services were consistent with the HEVC Standard under development. *See generally* Ex. 1106; *see also* Tr. 9:7–15 (counsel for Petitioner stating that

although certain evidence may have been in the record of the Infobridge IPR proceedings, the focus and level of discussion about the evidence differed); Tr. 50:16–51:14 (counsel for Patent Owner discussing some of the similarities and differences between the present proceeding and the Infobridge IPR proceedings); *see also* Paper 9 (Petitioner's Motion to Submit Supplemental Information), 1, 3–7 (seeking authorization to submit Exhibits 1106–1118 as supplemental information relating to the public availability of WD5); Paper 15 (Order Granting Petitioner's Motion to Submit Supplemental Information). It is not inconsistent for different panels to reach different conclusions about the weight to be afforded to testimony, or the printed publication status of different asserted prior art references, when the panels consider different evidence and argument.

Therefore, for the above reasons, we are not persuaded that any alleged inconsistencies between the present proceeding and the Infobridge IPR proceedings require "the Board to revisit" arguments and "conclude that [Petitioner] has not proven that claims 1–5 are unpatentable because WD5 is not a 'printed publication.'" *See* Req. Reh'g at 2.

III. CONCLUSION

After considering Patent Owner's arguments for rehearing, we determine Patent Owner has not carried its burden of showing that we misapprehended or overlooked any matter.

Final Outcome of Final Written Decision after Rehearing IPR2018-00011 (Patent No. 8,654,855 B2):

Claims	35 U.S.C §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–5	103(a)	WD5, Lin	1–5	
Overall Outcome			1–5	

Final Outcome of Final Written Decision after Rehearing IPR2018-00092 (Patent No. 9,025,668 B2):

Claims	35 U.S.C §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–3	103(a)	WD5, Lin	1–3	
Overall Outcome			1–3	

Final Outcome of Final Written Decision after Rehearing IPR2018-00093 (Patent No 8,774,279 B2):

Claims	35 U.S.C §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–5	103(a)	WD5, Lin	1–5	
Overall Outcome			1–5	

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Patent Owner's Requests for Rehearing are *denied*.

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