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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ALIGN TECHNOLOGY, INC.

Petitioner

v.

3SHAPE A/S

Patent Owner

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Case IPR2022-00145

U.S. Patent No. RE48,221

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**PETITIONER'S UPDATED EXHIBIT LIST**

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Petitioner submits this Updated Exhibit List to accompany submission of Exhibit 1048, Plaintiff and Counterclaim Defendant Align Technology, Inc.’s Stipulation Regarding IPR2022-00144 and IPR2022-00145, filed December 16, 2021 in *Align Technology, Inc. v. 3Shape A/S et al.*, 6:20-cv-00979 (W.D. Tex.).

**PETITIONER’S UPDATED EXHIBIT LIST**

<b>Exhibit</b>	<b>Description</b>
<b>1001</b>	U.S. Patent No. RE48,221 to Öjelund <i>et al.</i> (“RE’221”)
<b>1002</b>	File History of U.S. Patent No. RE48,221 (“Prosecution History”)
<b>1003</b>	Declaration of Dr. Chandrajit Bajaj (“Bajaj Decl.”) in support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. RE48,221
<b>1004</b>	<i>Curriculum Vitae</i> of Dr. Chandrajit Bajaj
<b>1005</b>	U.S. Patent Publication No. 2009/0298017 to Boerjes <i>et al.</i>
<b>1006</b>	U.S. Patent Publication No. 2005/0212756 to Marvit <i>et al.</i>
<b>1007</b>	U.S. Patent Publication No. 2009/0087050 to Gandyra
<b>1008</b>	U.S. Patent Publication No. 2005/0020910 to Quadling <i>et al.</i>
<b>1009</b>	Öjelund Provisional, U.S. Provisional Application No. 61/420,138 (filed December 6, 2010)
<b>1010</b>	Giammanco <i>et al.</i> , “Using 3D Laser Scanning Technology to Create Digital Models of Hailstones,” American Meteorological Society, July 2017.
<b>1011</b>	Ireland <i>et al.</i> , “3D surface imaging in dentistry – what we are looking at,” British Dental Journal, Vol. 205, No. 7, October 11, 2008.
<b>1012</b>	U.S. Patent No. 6,485,413 to Boppart <i>et al.</i>

<b>Exhibit</b>	<b>Description</b>
<b>1013</b>	Orhan H. Karatas and Ebubekir Toy, "Three-dimensional imaging techniques: A literature review," <i>European Journal of Dentistry</i> , Vol. 8, No. 1, March 2014.
<b>1014</b>	B. H. Broadbent, "A New X-Ray Technique and Its Application to Orthodontia," <i>The Angle Orthodontist</i> , Vol. I, No. 2, February 4, 1931.
<b>1015</b>	Nathan S. Birnbaum and Heidi B. Aaronson, "Dental impressions using 3D digital scanners: virtual becomes reality," <i>Compend. Contin. Educ. Dent.</i> , Vol. 29, No. 8, October 2008; pp. 494, 496, 498-505
<b>1016</b>	U.S. Patent No. 5,131,844 to Marinaccio <i>et al.</i>
<b>1017</b>	U.S. Patent No. 6,592,371 to Durbin <i>et al.</i>
<b>1018</b>	Hajeer <i>et al.</i> , "Current Products and Practices Applications of 3D imaging in orthodontics: Part II," <i>Journal of Orthodontics</i> , Vol. 31, No. 2, June 2004; pp. 154-162
<b>1019</b>	U.S. Patent No. 5,722,412 to Pflugrath <i>et al.</i>
<b>1020</b>	U.S. Patent No. 6,645,148 to Nguygen-Dinh <i>et al.</i>
<b>1021</b>	U.S. Patent No. 5,181,181 to Glynn
<b>1022</b>	U.S. Patent Publication No. 2006/0092133 to Touma <i>et al.</i>
<b>1023</b>	Bornik <i>et al.</i> , "A Hybrid User Interface for Manipulation of Volumetric Medical Data," 3DUI '06: IEEE Symposium on 3D User Interfaces, March 2006; pp. 29-36
<b>1024</b>	U.S. Patent No. 6,227,850 to Chishti <i>et al.</i>
<b>1025</b>	U.S. Patent Publication No. 2010/0009308 to Wen <i>et al.</i>
<b>1026</b>	U.S. Patent Publication No. 2013/0110469 to Kopelman
<b>1027</b>	U.S. Patent Publication No. 2012/0062557 to Dillon <i>et al.</i>
<b>1028</b>	U.S. Patent Publication No. 2007/0031774 to Cinader, Jr. <i>et al.</i>

<b>Exhibit</b>	<b>Description</b>
<b>1029</b>	U.S. Patent No. 9,329,675 to Öjelund <i>et al.</i>
<b>1030</b>	<i>Inter Partes</i> Review Certificate, U.S. Patent No. 9,329,675 K1 to Öjelund <i>et al.</i>
<b>1031</b>	Final Written Decision for <i>Inter Partes</i> Review of U.S. Patent No. 9,329,675 in IPR2018-00197, May 29, 2019.
<b>1032</b>	U.S. Patent No. 4,342,227 to Petersen <i>et al.</i>
<b>1033</b>	U.S. Patent No. 5,563,343 to Shaw <i>et al.</i>
<b>1034</b>	Steele et al., “Bodies in motion: Monitoring daily activity and exercise with motion sensors in people with chronic pulmonary disease,” <i>J. Rehabil. Res. Dev.</i> , Vol. 40, No. 5, Suppl. 2, October 2003.
<b>1035</b>	Hale et al., “Measuring free-living physical activity in adults with and without neurologic dysfunction with a triaxial accelerometer,” <i>Arch. Phys. Med. Rehabil.</i> , Vol. 89, No. 9, September 2008.
<b>1036</b>	Greg Welch and Eric Foxlin, “Motion Tracking: No Silver Bullet, but a Respectable Arsenal,” <i>IEEE Computer Graphics and Applications</i> , Vol. 22, No. 6, December 10, 2002.
<b>1037</b>	Steven Nasiri, “A Critical Review of MEMS Gyroscopes Technology and Commercialization Status,” InvenSense, 2005.
<b>1038</b>	Hannes Kaufmann, “Applications of Mixed Reality,” Thesis, Vienna University of Technology, May 27, 2009.
<b>1039</b>	Welch et al., “High-Performance Wide-Area Optical Tracking: The HiBall Tracking System,” <i>Presence: Teleoperators and Virtual Environments</i> , Vol. 10, No. 1, February 2001.
<b>1040</b>	Nintendo, “Introducing Wii MotionPlus, Nintendo’s upcoming accessory for the revolutionary Wii Remote,” <i>The Wayback Machine</i> , July 14, 2008.

<b>Exhibit</b>	<b>Description</b>
<b>1041</b>	Daniel Turner, “Hack: The Nintendo Wii,” MIT Technology Review, July 1, 2007.
<b>1042</b>	U.S. Patent Publication No. 2008/0070684 to Haigh-Hutchinson
<b>1043</b>	Brad A. Myers, <i>CRC Handbook of Computer Science and Engineering</i> , 2d. Ed., Allen B. Tucker, January 27, 2003, “Graphical User Interface Programming”
<b>1044</b>	Foley et al., <i>Introduction to Computer Graphics</i> , Addison-Wesley, 1994, “Chapter 2.2: Basic Interaction Handling”, “Chapter 6: Viewing in 3D”, and “Chapter 8: Input Devices, Interaction Techniques, and Interaction Tasks”
<b>1045</b>	Donald Hearn and M. Pauline Baker, <i>Computer Graphics</i> , 2d. Ed., Prentice Hall, 1994, “Chapter 2: Overview of Graphics Systems”, “Chapter 8: Graphical User Interfaces and Interactive Input Methods”, and “Chapter 9: Three-Dimensional Concepts”
<b>1046</b>	File History of U.S. Patent No. 9,329,675 (“675 Prosecution History”)
<b>1047</b>	<i>3Shape A/S v. Align Technology, Inc.</i> , IPR2021-01383, Petition for <i>Inter Partes</i> Review of U.S. Patent No. 10,728,519, August 20, 2021.
<b>1048</b>	Plaintiff and Counterclaim Defendant Align Technology, Inc.’s Stipulation Regarding IPR2022-00144 and IPR2022-00145, Case No. 6:20-cv-00979 (W.D. Tex.), December 16, 2021.

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