

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioners,

v.

NANOCO TECHNOLOGIES LTD.,
Patent Owner.

Case No. IPR2021-00186
U.S. Patent No. 8,524,365

PATENT OWNER'S SUR-REPLY

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I. Petitioner incorrectly assumes that a renewed motion to stay will be granted 1

II. Petitioner’s new and belated stipulation does not meaningfully alter the *Fintiv* analysis4

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<i>Seven Networks, LLC v. Apple Inc.</i> , No. 2:19-cv-00115-JRG, Dkt. 313 (Sept. 22, 2020).....	3
<i>Sotera Wireless, Inc. v. Masimo Corp.</i> , IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020)	4, 5

TABLE OF EXHIBITS

Exhibit	Description
2001	Declaration of Michael C. Newman
2002	Declaration of Thomas H. Wintner
2003	Declaration of Matthew S. Galica
2004	Periodic table of the elements, Encyclopaedia Britannica, Inc., available at https://www.britannica.com/science/periodic-table (last visited Feb. 18, 2021)
2005	Samsung Global Newsroom. Quantum Dot Artisan: Dr. Eunjoo Jang, Samsung Fellow, November 30, 2017
2006	ACS Energy Lett. 2020, 5, 1316-1327. “Environmentally Friendly InP-Based Quantum Dots for Efficient Wide Color Gamut Displays”
2007	Wang, F., Dong, A. and Buhro, W.E., <i>Solution–liquid–solid synthesis, properties, and applications of one-dimensional colloidal semiconductor nanorods and nanowires</i> . Chemical Reviews, 116(18):10888-10933 (2016).
2008	Wang, F., et al., <i>Solution– liquid– solid growth of semiconductor nanowires</i> . Inorganic chemistry, 45(19):7511-7521 (2006).
2009	Madkour, L.H., <i>Synthesis Methods For 2D Nanostructured Materials, Nanoparticles (NPs), Nanotubes (NTs) and Nanowires (NWs)</i> . In <i>Nanoelectronic Materials</i> (pp. 393-456). Springer, Cham. (2019)
2010	Mushonga, P., et al., <i>Indium phosphide-based semiconductor nanocrystals and their applications</i> . Journal of Nanomaterials, 1-11 (2012).
2011	Luo, H., <i>Understanding and controlling defects in quantum confined semiconductor systems</i> , Doctoral dissertation, Kansas State University (2016).
2012	Sinatra, L., et al. <i>Methods of synthesizing monodisperse colloidal quantum dots</i> . Material Matters, 12:3-7 (2017)
2013	Pu, Y., et al., <i>Colloidal synthesis of semiconductor quantum dots toward large-scale production: a review</i> . Industrial & Engineering Chemistry Research, 57(6):1790-1802 (2018).
2014	Rao, C. N. R.; Gopalakrishnan, J., <i>Chapter 3: Preparative Strategies from New Directions in Solid State Chemistry</i> ; Cambridge University Press: Cambridge, UK (1986).

Exhibit	Description
2015	Glossary of Common Wafer Related Terms, BYU Electrical & Computer Engineering Integrated Microfabrication Lab, definition of degenerate semiconductor, available at https://cleanroom.byu.edu/ew_glossary (last visited Feb. 19, 2021)
2016	October 22, 2006 email between Eunjoo Jang and Nigel Pickett Re: Cd free quantum dots
2017	Weare, W.W., Reed, S.M., Warner, M.G. and Hutchison, J.E., <i>Improved synthesis of small (d core ≈ 1.5 nm) phosphine-stabilized gold nanoparticles</i> . Journal of the American Chemical Society, 122(51):12890-12891 (2000).
2018	Samsung's Motion to Stay Pending <i>Inter Partes</i> Review of the Asserted Patents in Case 2:20-cv-00038-JRG, filed on November 30, 2020
2019	Order denying Samsung's Motion to Stay Pending <i>Inter Partes</i> Review in Case 2:20-cv-00038-JRG, filed on January 8, 2021
2020	Standing Order Regarding the Novel Coronavirus (Covid-19) for the Eastern District of Texas Marshall Division, signed March 3, 2020
2021	Standing Order Regarding Pretrial Procedures In Civil Cases Assigned to Chief District Judge Rodney Gilstrap During the Present Covid-19 Pandemic, signed April 20, 2020
2022	Samsung's Preliminary Invalidity Contentions and Disclosures Pursuant To Patent Rules 3-3 and 3-4 (served November 9, 2020)
2023	Merriam-Webster Dictionary, online edition. Definition of "Halogen", available at https://www.merriam-webster.com/dictionary/halogen (last visited Feb. 23, 2021)
2024	Illustrated Glossary of Organic Chemistry, UCLA. Illustration of Halide, available at http://www.chem.ucla.edu/~harding/IGOC/H/halide.html (last visited Feb. 23, 2021)
2025	Mortvinova, N.E., Vinokurov, A.A., Lebedev, O.I., Kuznetsova, T.A., and Dorofeev, S.G., <i>Addition of Zn during the phosphine-based synthesis of indium phosphide quantum dots: doping and surface passivation</i> , Beilstein J Nanotechnol. 2015; 6: 1237-1246.
2026	Samsung's Proposed Claim Constructions (served December 11, 2020)

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