

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

Petitioners,

v.

HARBOR ISLAND DYNAMIC, LLC,

Patent Owner.

Patent No. 9,245,826

Filing Date: January 27, 2014

Issue Date: January 26, 2016

Inventors: Hadi Jebory, David J. Howard, and Scott B. Stetson  
Title: ANCHOR VIAS FOR IMPROVED BACKSIDE METAL  
ADHESION TO SEMICONDUCTOR SUBSTRATE

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**PATENT OWNER'S RESPONSIVE BRIEF  
AS TO APPLICANT ADMITTED PRIOR ART**

Case No. IPR2024-01405

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**TABLE OF AUTHORITIES**

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|-----------------------------------------------------------------------------------------------------|----------------|
| <b>Cases</b>                                                                                        |                |
| <i>Qualcomm, Inc. v. Apple Inc.</i> ,<br>134 F.4th 1355 (Fed. Cir. 2025) .....                      | 1, 2           |
| <i>Qualcomm, Inc. v. Apple Inc.</i> ,<br>24 F.4th 1367 (Fed. Cir. 2022) .....                       | 1, 2           |
| <i>Shockwave Med., Inc. v. Cardiovascular Sys., Inc.</i> ,<br>142 F.4th 1371 (Fed. Cir. 2025) ..... | 3              |
| <b>Statutes</b>                                                                                     |                |
| 35 U.S.C. § 311(b) .....                                                                            | 1              |

**EXHIBIT LIST**

| <b>Exhibit No.</b> | <b>Description of Document</b>                                                                                                                                                                            |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2001               | Docket Control Order, Dkt. 38, in <i>Harbor Island Dynamic, LLC v. Samsung Elecs. Co.</i> , Case No. 2:24-cv-00140-JRG-RSP (E.D. Tex. Aug. 5, 2024)                                                       |
| 2002               | Order Denying Samsung’s Motion to Stay Pending <i>Inter Partes</i> Review, Dkt. 62, in <i>Harbor Island Dynamic, LLC v. Samsung Elecs. Co.</i> , Case No. 2:24-cv-00140-JRG-RSP (E.D. Tex. Dec. 19, 2024) |
| 2003               | Defendants’ Invalidity Contentions, served on September 26, 2024, in <i>Harbor Island Dynamic, LLC v. Samsung Elecs. Co.</i> , Case No. 2:24-cv-00140-JRG-RSP (E.D. Tex.)                                 |
| 2004               | Declaration of John Berg                                                                                                                                                                                  |
| 2005               | CV of John Berg                                                                                                                                                                                           |
| 2006               | “Die Singulation Technologies for Advanced Packaging: A Critical Review” (Lei 2012)                                                                                                                       |
| 2007               | “3D vs 2D Modeling of the Effect of Die Size on Delamination in Encapsulated IC Packages” (Ho et al., 2013)                                                                                               |
| 2008               | “Optimizing Die Corner and Optical Groove Corner Crackstop Support Structures for Mitigating Dicing and CPI Risks” (Rabie et al., 2021)                                                                   |
| 2009               | Deposition of Scott E. Thompson, taken June 9, 2025                                                                                                                                                       |

Samsung’s Petition uses Applicant Admitted Prior Art (AAPA) as a basis for Ground 2B. Under the Federal Circuit’s recent *Qualcomm* decisions,<sup>1</sup> the Board should find that Ground (directed only to Claims 8 and 18) to violate 35 U.S.C. § 311(b) and decline to consider it.

35 U.S.C. § 311(b) states that a “petitioner in an inter partes review may request to cancel as unpatentable 1 or more claims of a patent . . . only on the basis of prior art consisting of patents or printed publications.” 35 U.S.C. § 311(b). The Federal Circuit has made clear that AAPA is neither a patent nor a printed publication. *E.g.*, *Qualcomm I*, 24 F.4th at 1373-75. Thus, it is error for the Board to consider a Ground that is based on AAPA. *Qualcomm II*, 134 F.4th at 1368.

Petitioner’s chart setting out its Grounds makes clear that Ground 2B is based on AAPA within the meaning of the statute.

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<sup>1</sup> *Qualcomm, Inc. v. Apple Inc.*, 24 F.4th 1367 (Fed. Cir. 2022) (“*Qualcomm I*”) and *Qualcomm, Inc. v. Apple Inc.*, 134 F.4th 1355 (Fed. Cir. 2025) (“*Qualcomm II*”).

**B. Challenges**

| Ground |    | Challenged Claims                        | Basis | Prior Art                                                                        |
|--------|----|------------------------------------------|-------|----------------------------------------------------------------------------------|
| 1      |    | 1, 2, 4, 5, 7, 9, 11, 12, 14, 15, 17, 19 | §102  | <i>Conn</i>                                                                      |
| 2      | 2A | 1, 2, 4-7, 9, 11, 12, 14-17, 19          | §103  | <i>Conn</i> in view of knowledge of a person of ordinary skill in the art (POSA) |
|        | 2B | 8, 18                                    | §103  | <i>Conn</i> in view of knowledge of POSA and Applicant Admitted Prior Art (AAPA) |

Pet., 23. Under Petitioner’s formulation above, Ground 2B’s basis is § 103 obvious over *Conn* in view of the knowledge of a POSA and AAPA. A Petitioner’s identification of AAPA as part of the “basis” for a ground is dispositive. *Qualcomm II*, 134 F.4th at 1368. The Board should therefore decline to consider Ground 2B.

Petitioner argues that its use of “basis” above is “fundamentally different” from that in *Qualcomm*. Paper No. 39, 3. According to Petitioner, because it moves “basis” to its own column in the chart, the Ground is no longer based on AAPA. *Id.* But the Petition uses the AAPA as a substantive basis for its theory.

For example, the Petition explains that “AAPA discloses the three-layer backside metal stack in claim 8.” Pet., 54. The Petition repeatedly describes the

element as “the AAPA’s three-layer stack,” further evidencing that the AAPA is the basis of the Ground. *Id.*, 54-55.

Petitioner attempts to shoehorn its Petition into the holding from *Shockwave Med., Inc. v. Cardiovascular Sys., Inc.*, 142 F.4th 1371 (Fed. Cir. 2025). Paper No. 39 at 4-5. There, the Federal Circuit noted that the Board’s use of “Reference/Basis” in its summary of the Institution Decision did not result in the Petition using AAPA as a basis. *Shockwave*, 142 F.4th at 1379. As noted above, in this case, it is Petitioner, not the Board, that used “basis” in its table.

Moreover, unlike in *Shockwave*, here Petitioner uses the AAPA as a basis and not to indicate the knowledge of a POSA. Petitioner signals as much by splitting Ground 2 into two divisions: Ground 2A (*Conn* with the knowledge of a POSA) and Ground 2B (*Conn* with the knowledge of a POSA **and** AAPA). Pet., 23. If Petitioner were solely relying on the knowledge of a POSA, even as evidenced by the AAPA, there would be no need to divide the Ground, nor would Petitioner repeatedly refer to the “AAPA’s three-layer stack.” *E.g.*, Pet. at 54-55.

Accordingly, the Board should decline to consider Ground 2B in rendering its Final Written Decision.

Respectfully submitted,

Dated: January 21, 2025

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**CERTIFICATE OF SERVICE**

A copy of Patent Owner's RESPONSIVE BRIEF AS TO APPLICANT  
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