

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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COMCAST CABLE COMMUNICATIONS, LLC,  
Petitioner,

v.

ENTROPIC COMMUNICATIONS, LLC.,  
Patent Owner.

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Case IPR2024-00432  
Patent 9,210,362

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**EXHIBIT 2006**  
**DECLARATION OF KENNETH K. WANG**

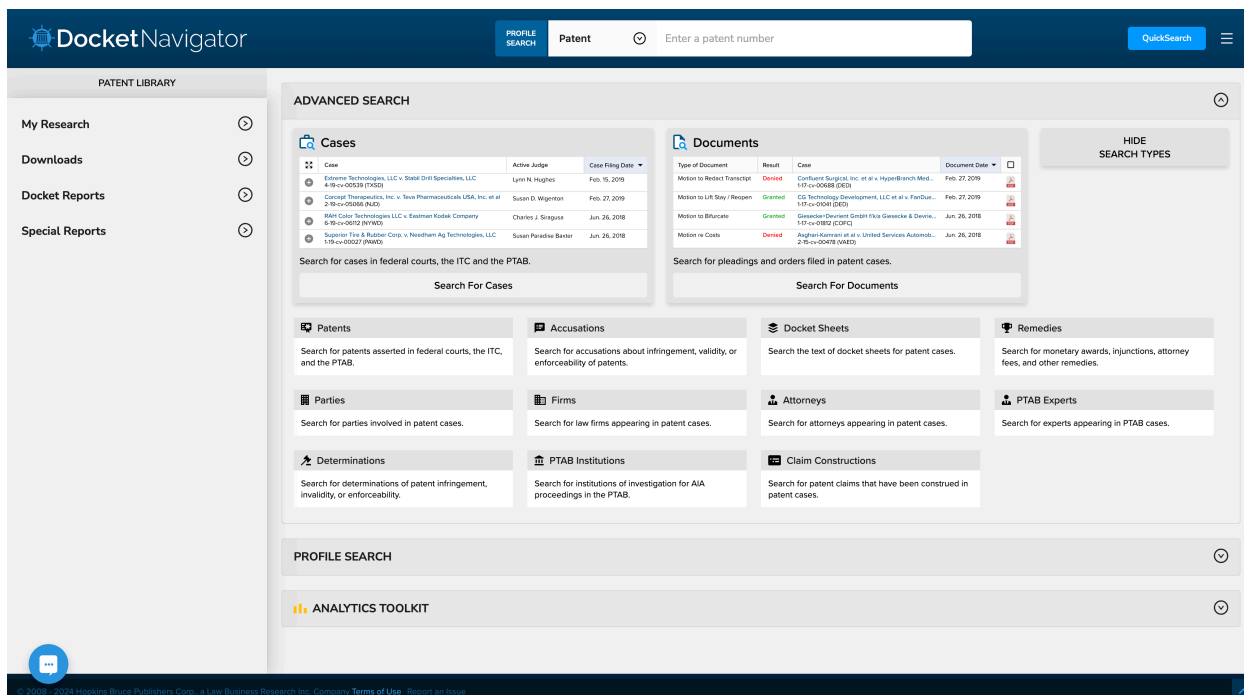
I, Kenneth K. Wang, declare the following:

1. I am an attorney at Lowenstein & Weatherwax LLP, and a member in good standing of the State Bar of California. I am also a registered practitioner in good standing before the United States Patent and Trademark Office, with Registration Number 82,675. Unless otherwise stated, I have personal knowledge of the following facts, and if called upon, I could and would testify competently to them.

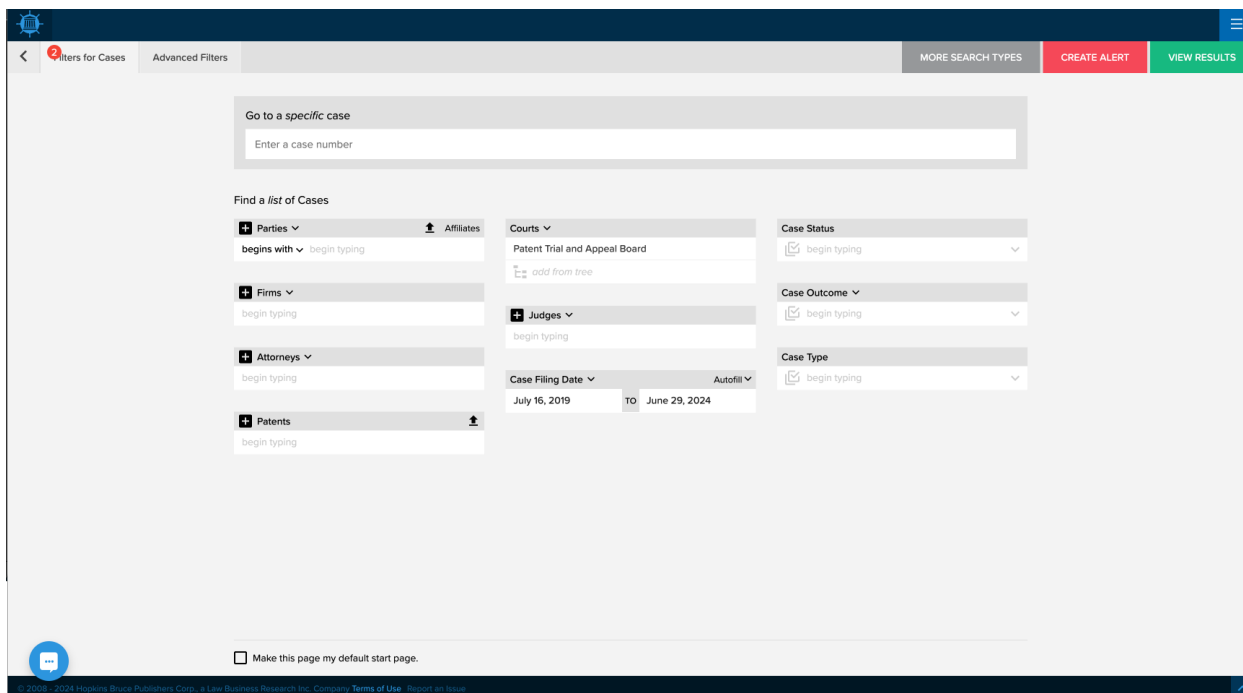
**Exhibit 2001 [All-Parallel-Petitions]**

2. I prepared Exhibit 2001 in the above referenced matter with the methodology explained below. Exhibit 2001 is a table of all parallel IPR petitions filed between July 16, 2019 and June 29, 2024.

3. With my web browser, I navigated to <https://search.docketnavigator.com/patent/search>. I provide below a screen shot of that web page.



4. I clicked on the button “Search For Cases,” shown above. I was directed to a specific case search page reproduced below. I then entered relevant filtering criteria into applicable search fields: the desired Court (Patent Trial and Appeal Board (“PTAB”)), and the Case Filing Date, to retrieve cases filed at the PTAB between July 16<sup>th</sup>, 2019, to June 29<sup>th</sup>, 2024. The filing date range was chosen as the July 2019 update to the Trial Practice Guide (“TPG”) was published on July 16<sup>th</sup>, 2019. Further, the date was June 29<sup>th</sup>, 2024, at the time of record retrieval.



5. The website indicated that approximately 6.7K records were retrieved after the above-mentioned filters were applied. Docket Navigator allows a user to download tabulated results by clicking “Export Tab to XLS” under the “Options” menu<sup>1</sup>. I downloaded multiple sets of 1000 results as XLS files. I collated all the retrieved records into a cumulative spreadsheet (“cumulative records spreadsheet”).

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<sup>1</sup> Docket Navigator allows for the maximum retrieval of 1000 records per XLS Export. Multiple XLS Exports were retrieved and collated to reassemble the entire 6.7K records set.

The screenshot displays the 'Cases Search' interface. On the left, there are navigation tabs: 'Table of Contents', 'Cases Search (6748)', and 'New Folder'. The 'Cases Search' tab is active. Below it, there are filters for 'Courts' (Patent Trial and Appeal Board), 'Case Filing Date' (Jul. 16th, 2019 - Jun. 29th, 2024), and 'Related Filters' (Case Termination Date, Case Status, Document Filing Date, Judges, Patents, Patent Types, Determinations, Remedies, Case Outcome, CAFC Case Outcome). A green 'EDIT FILTERS' button is visible. The main area shows a table of results with columns: Case Filing Date, Case Status, Case Name, Case Number, and Case Outcome. The table lists various patent cases, including FormFactor, Inc. v. Technoprobe SpA, Celco Partnership d/b/a Verizon Wireless et al v. Cobblestone Wireless, LLC, Google LLC v. Kove IO, Inc., Samsung Electronics Co., Ltd. v. ASUS Technology Licensing Inc., Samsung Electronics Co., Ltd. et al v. Ouraring Inc., Samsung Electronics Co., Ltd. et al v. Ouraring Inc., Samsung Electronics Co., Ltd. et al v. Ouraring Inc., Samsung Electronics Co., Ltd. et al v. Ouraring Inc., Apple Inc. v. Smith Interface Technologies, LLC, Apple Inc. v. Smith Interface Technologies, LLC, Apple Inc. v. Smith Interface Technologies, LLC, Apple Inc. v. Smith Interface Technologies, LLC, Samsung Display Co., Ltd. v. Pictiva Displays International Limited, Head Sport GmbH v. Vermont Safety Developments LLC, Aylo Freesites Ltd. f/k/a MG Freesites Ltd. v. WellcomeMat, LLC, Dr. Squatch LLC v. The Proctor & Gamble Company, Dr. Squatch LLC v. The Proctor & Gamble Company, Bombardier Recreational Products, Inc. v. MHL Custom, Inc., Bombardier Recreational Products, Inc. v. MHL Custom, Inc., Apple Inc. v. Smith Interface Technologies, LLC, and Apple Inc. v. Smith Interface Technologies, LLC. The bottom of the interface shows a footer with copyright information and a 'LOAD 1000' button.

| Case Filing Date | Case Status | Case Name                                                                   | Case Number   | Case Outcome |
|------------------|-------------|-----------------------------------------------------------------------------|---------------|--------------|
| Jun. 28, 2024    | Active      | FormFactor, Inc. v. Technoprobe SpA                                         | IPR2024-00933 |              |
| Jun. 28, 2024    | Active      | Celco Partnership d/b/a Verizon Wireless et al v. Cobblestone Wireless, LLC | IPR2024-00946 |              |
| Jun. 28, 2024    | Active      | Google LLC v. Kove IO, Inc.                                                 | IPR2024-01017 |              |
| Jun. 28, 2024    | Active      | Google LLC v. Kove IO, Inc.                                                 | IPR2024-01018 |              |
| Jun. 28, 2024    | Active      | Google LLC v. Kove IO, Inc.                                                 | IPR2024-01019 |              |
| Jun. 28, 2024    | Active      | Google LLC v. Kove IO, Inc.                                                 | IPR2024-01020 |              |
| Jun. 28, 2024    | Active      | Google LLC v. Kove IO, Inc.                                                 | IPR2024-01021 |              |
| Jun. 28, 2024    | Active      | Google LLC v. Kove IO, Inc.                                                 | IPR2024-01022 |              |
| Jun. 28, 2024    | Active      | Samsung Electronics Co., Ltd. v. ASUS Technology Licensing Inc.             | IPR2024-01036 |              |
| Jun. 28, 2024    | Active      | Samsung Electronics Co., Ltd. et al v. Ouraring Inc.                        | IPR2024-01077 |              |
| Jun. 28, 2024    | Active      | Samsung Electronics Co., Ltd. et al v. Ouraring Inc.                        | IPR2024-01078 |              |
| Jun. 28, 2024    | Active      | Samsung Electronics Co., Ltd. et al v. Ouraring Inc.                        | IPR2024-01079 |              |
| Jun. 28, 2024    | Active      | Samsung Electronics Co., Ltd. et al v. Ouraring Inc.                        | IPR2024-01080 |              |
| Jun. 28, 2024    | Active      | Apple Inc. v. Smith Interface Technologies, LLC                             | IPR2024-01083 |              |
| Jun. 28, 2024    | Active      | Apple Inc. v. Smith Interface Technologies, LLC                             | IPR2024-01084 |              |
| Jun. 28, 2024    | Active      | Apple Inc. v. Smith Interface Technologies, LLC                             | IPR2024-01085 |              |
| Jun. 28, 2024    | Active      | Apple Inc. v. Smith Interface Technologies, LLC                             | IPR2024-01086 |              |
| Jun. 28, 2024    | Active      | Samsung Display Co., Ltd. v. Pictiva Displays International Limited         | IPR2024-01093 |              |
| Jun. 28, 2024    | Active      | Head Sport GmbH v. Vermont Safety Developments LLC                          | IPR2024-01099 |              |
| Jun. 28, 2024    | Active      | Aylo Freesites Ltd. f/k/a MG Freesites Ltd. v. WellcomeMat, LLC             | IPR2024-01101 |              |
| Jun. 28, 2024    | Active      | Dr. Squatch LLC v. The Proctor & Gamble Company                             | IPR2024-01104 |              |
| Jun. 28, 2024    | Active      | Dr. Squatch LLC v. The Proctor & Gamble Company                             | IPR2024-01105 |              |
| Jun. 28, 2024    | Active      | Bombardier Recreational Products, Inc. v. MHL Custom, Inc.                  | IPR2024-01107 |              |
| Jun. 28, 2024    | Active      | Bombardier Recreational Products, Inc. v. MHL Custom, Inc.                  | IPR2024-01108 |              |
| Jun. 28, 2024    | Active      | Apple Inc. v. Smith Interface Technologies, LLC                             | IPR2024-01114 |              |
| Jun. 28, 2024    | Active      | Apple Inc. v. Smith Interface Technologies, LLC                             | IPR2024-01115 |              |

6. Under the “View” menu, a user can configure Docket Navigator to export tabular records with selected pre-populated fields. The cumulative records spreadsheet included retrieved results with the following fields populated: Case Filing Date, Case Status, Case Outcome, Case Number, Case Name, Parties, and Patents.

7. Using sorting features in Microsoft Excel, I generated a separate listing of parallel petitions from the cumulative records spreadsheet. A sorting function returned “TRUE” for patents that were challenged in more than one case, and “FALSE” for all patents that were only challenged in a single proceeding. Removing all “FALSE” results provided a preliminary results spreadsheet. The preliminary results spreadsheet was then further sorted to group like petitioners

alphabetically, and then by date (Newest to Oldest)<sup>2</sup>. Cases challenging the same patent but where different lead petitioners challenged the patent-at-issue were removed. Likewise, cases with filing dates longer than 90 days from one another (3 months) were discarded as well.

8. The resulting listing of cases therefore represented PTAB proceedings which were filed against the same patent more than once, by the same party, and within 90 days of one another. The parallel petitions list was then collated to display the following fields: Case Name, Case Number, Patent Number, Case Filing Date, First Named Petitioner<sup>3</sup>, and IPRs per set of Petitions<sup>4</sup>. Exhibit 2001 is a PDF copy of the resulting parallel petitions list.

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<sup>2</sup> The petitioner in each case was determined by retrieving parties listed in the “Parties” column, then subsequent sorting and selecting of only petitioner names in agreement with the first listed petitioner based on the retrieved “Case Name” column. Where appropriate, petitioner names were consolidated to resolve, for example, inconsistent punctuation or naming.

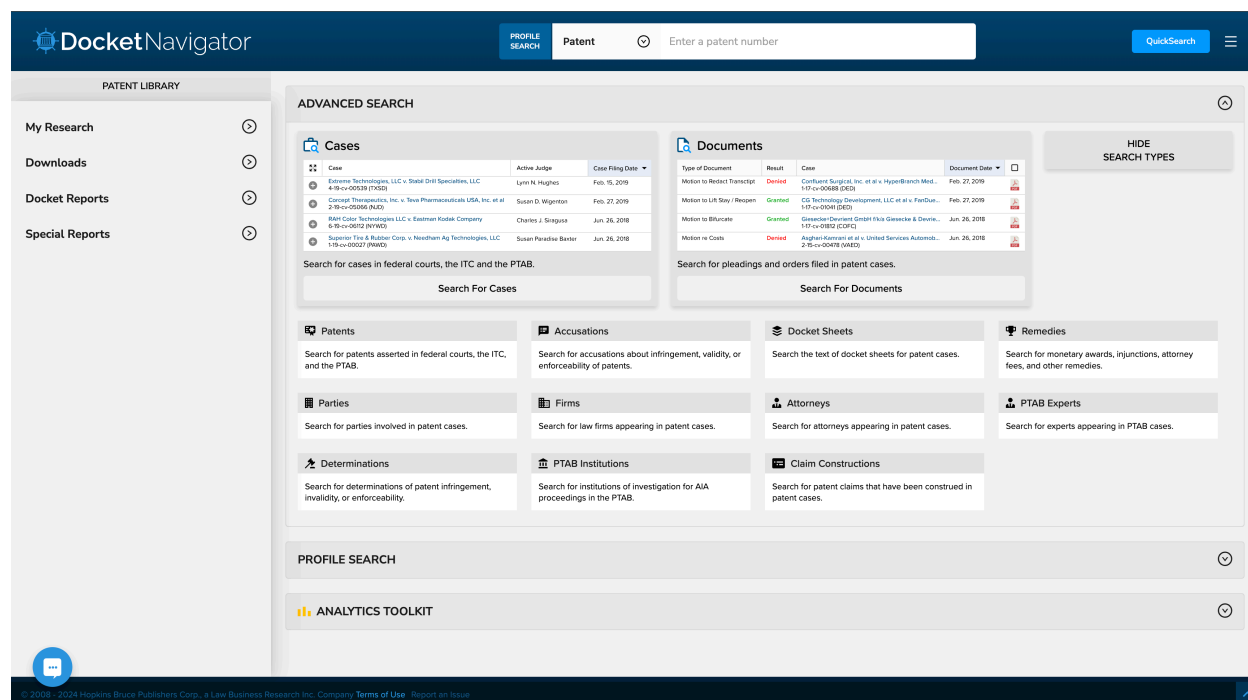
<sup>3</sup> Determined by separating out and selecting only the petitioner’s name from the “Parties” column.

<sup>4</sup> Determined after counting all repetitions of a patent number per petitioner.

## Exhibit 2002 [All-Comcast-Petitions]

9. I prepared Exhibit 2002 in the above referenced matter with the methodology explained below. Exhibit 2002 is a table of all IPR petitions filed by Comcast, either directly as a party or through its real parties in interest, between 2016 and 2024.

10. With my web browser, I navigated to <https://search.docketnavigator.com/patent/search>. I provide below a screen shot of that web page.



11. I clicked on the button “Search For Cases,” shown above. I was directed to a specific case search page reproduced below. I then entered the relevant filtering criteria into applicable search fields: the desired Court (Patent

Trial and Appeal Board (“PTAB”)), and the Parties (“Comcast”)<sup>5</sup>.

The screenshot displays the Docket Navigator search interface. At the top, there is a navigation bar with a back arrow, a red notification icon, and tabs for "Filters for Cases" and "Advanced Filters". On the right of the navigation bar are buttons for "MORE SEARCH TYPES", "CREATE ALERT", and "VIEW RESULTS". Below the navigation bar, there is a search section with a "Go to a specific case" input field labeled "Enter a case number". Underneath, a "Find a list of Cases" section contains several filter categories: "Parties" (with a sub-filter "begins with Comcast" and a checked "Affiliates" checkbox), "Courts" (set to "Patent Trial and Appeal Board"), "Case Status" (set to "begin typing"), "Firms" (set to "begin typing"), "Judges" (set to "begin typing"), "Case Outcome" (set to "begin typing"), "Attorneys" (set to "begin typing"), "Case Filing Date" (set to "On or after" and "On or before" with an "Autofill" dropdown), "Case Type" (set to "begin typing"), and "Patents" (set to "begin typing"). At the bottom left, there is a "Make this page my default start page." checkbox. The footer contains copyright information: "© 2006 - 2024 Hedberg Brink Pashersky Corp., a Law Business Research Inc. Company. Terms of Use. Report an Issue."

12. The website indicated that approximately 254 records were retrieved after the above-mentioned filters were applied. Docket Navigator allows a user to download tabulated results by clicking “Export Tab to XLS” under the “Options” menu. I downloaded the records as an XLS file.

13. Under the “View” menu, a user can configure Docket Navigator can export tabular records with selected pre-populated fields. The downloaded records included cases with the following fields populated: Case Filing Date, Case Status, Case Outcome, Case Number, Case Name, Parties, and Patents.

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<sup>5</sup> The “Affiliates” checkbox was checked.

14. The resulting downloaded records were subsequently filtered to where “Comcast” or variants thereof were named as a Party or Real-Party-in-Interest (RPI). Cases where Comcast later joined, or was not named in the initial petition, as well as cases that did not list Comcast or any variant thereof in the “Parties” column, were disregarded. Cases involving party “Freewheel Media” however, were not discarded as Freewheel Media listed Comcast as its real party interest in those petitions. Freewheel Media also otherwise presents itself to the public as a “Comcast company.” *See* Ex. 2005 [FreeWheel-Media-About-Page]. For each entry, petitioner’s law firm and lead counsel were added as separate columns. Moreover, columns indicating whether trial was instituted, whether the Board discussed Parallel Petitioning explicitly, parallel petition status, and Comcast’s status as petitioner or only an RPI were added. Where the column contained information not immediately retrievable by Docket Navigator, I reviewed each case docket to ascertain that information.

15. A table with columns indicating: the Petition Set #, Case Name, Case Filing Date, Case Number, Case Status, Patent at Issue, Institution (Y/N), Parallel Petition Discussion, Law Firm(s) for Petitioner, Lead Counsel, Parallel Petition Status, and Petitioner/RPI Status was generated. Exhibit 2002 is a PDF copy of the resulting Comcast petitions list.

### **Other Tables.**

16. I also created two tables based on Exhibits 2001 and 2002, as well as other information, which I explain below.

17. I created the table below with the following methodology. The top ten recurring petitioners ranking was obtained using the Pivot Table Feature of Microsoft Excel, which, among other functions, provides a numerical value for how many instances does a specific value occur in a column. The Pivot Table Feature was applied to the table of Exhibit 2001 to obtain the most recurring parallel petitioners. Another pivot table was used to assess the number of total parallel petitions per petitioning party in the table of Exhibit 2001. The total number of petitions by each of the top ten parallel petitioners was obtained by using a pivot table in the table of all PTAB petitions discussed in paragraph 5 above. The “% Of Petitions That are Parallel Petitions” was obtained by dividing the total number of parallel petitions by the total number of petitions filed.

| Top 10 Parallel Petitioners (July 2019-June 2024)  <br>Rate of Parallel Petitions per Overall Petition Filings |                |                                   |                             |                                               |
|----------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------|-----------------------------|-----------------------------------------------|
| Rank<br>(Total<br>Parallel<br>Petitions)                                                                       | Petitioner     | Total Parallel<br>Petitions Filed | Total<br>Petitions<br>Filed | % Of Petitions That<br>are Parallel Petitions |
| 4                                                                                                              | Comcast*       | 75                                | 81                          | 93%                                           |
| 5                                                                                                              | Intel          | 49                                | 106                         | 46%                                           |
| 8                                                                                                              | Micron         | 18                                | 48                          | 38%                                           |
| 7                                                                                                              | Roku           | 25                                | 68                          | 37%                                           |
| 3                                                                                                              | Google         | 96                                | 273                         | 35%                                           |
| 6                                                                                                              | Microsoft      | 30                                | 95                          | 32%                                           |
| 1                                                                                                              | Samsung        | 144                               | 528                         | 27%                                           |
| 2                                                                                                              | Apple          | 102                               | 388                         | 26%                                           |
| 9                                                                                                              | Amazon         | 18                                | 72                          | 25%                                           |
| 10                                                                                                             | Meta Platforms | 16                                | 73                          | 22%                                           |

18. I also created the table below with the following methodology. A Pivot Table applied to the table of Exhibit 2001 provided the top ten parallel petitioners. For each of the top ten parallel petitioners, the number of parallel petitions challenging each patent (the number of petitions in each “set” of petitions) was then manually counted.<sup>6</sup> This data was entered into the column “Total Sets of Parallel Petitions.” Of those, the number of sets with three or more petitions were also manually counted and noted in the column titled “Sets of 3 or

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<sup>6</sup> For example, all petitions against U.S. Patent 9,210,362 would be counted as a single set, and that set would comprise 3 separate petitions (IPR2024-00432, -00433, -00434).

More Petitions.” The percentage was obtained by dividing the value in column “Sets of 3 or More Petitions” by the value in column “Total Sets of Parallel Petitions.”

| Top 10 Parallel Petitioners (July 2019-June 2024)<br>Percentage Of Sets with 3+ Petitions |                             |                                   |                                        |                                          |
|-------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------|----------------------------------------|------------------------------------------|
| Rank<br>(Total<br>Parallel<br>Petitions)                                                  | Petitioner                  | Sets of 3 or<br>More<br>Petitions | Total Sets<br>of Parallel<br>Petitions | % Of Sets<br>With 3 or<br>More Petitions |
| 4                                                                                         | Comcast*                    | 16                                | 22                                     | 73%                                      |
| 5                                                                                         | Intel                       | 5                                 | 21                                     | 24%                                      |
| 6                                                                                         | Microsoft                   | 2                                 | 12                                     | 17%                                      |
| 1                                                                                         | Samsung                     | 10                                | 66                                     | 15%                                      |
| 3                                                                                         | Google                      | 5                                 | 44                                     | 11%                                      |
| 7                                                                                         | Roku                        | 1                                 | 11                                     | 9%                                       |
| 2                                                                                         | Apple                       | 3                                 | 46                                     | 7%                                       |
| 8                                                                                         | Micron<br>Technology<br>Inc | 0                                 | 8                                      | 0%                                       |
| 9                                                                                         | Amazon                      | 0                                 | 9                                      | 0%                                       |
| 10                                                                                        | Meta<br>Platforms           | 0                                 | 8                                      | 0%                                       |

19. I certify that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true, and that these statements were made with knowledge that willful false statements and the like are made punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Respectfully submitted,

/ Kenneth K. Wang /

Date: July 11, 2024