

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC,
Petitioner,

v.

ENTROPIC COMMUNICATIONS, LLC.,
Patent Owner.

Case IPR2025-00181
Patent 11,785,275

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 January 31, 2025.

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

The screenshot displays the DocketNavigator Patent Library interface. The top navigation bar includes the DocketNavigator logo, a 'Patent' search bar, and a 'Quick Search' button. The left sidebar contains links for 'My Research', 'Downloads', 'Docket Reports', and 'Special Reports'. The main content area is titled 'ADVANCED SEARCH' and features two primary tables: 'Cases' and 'Documents'. Below these tables are various search filters categorized into 'Patents', 'Accusations', 'Docket Sheets', 'Remedies', 'Parties', 'Firms', 'Attorneys', 'PTAB Experts', 'Determinations', 'PTAB Institutions', and 'Claim Constructions'. At the bottom of the interface, there are sections for 'PROFILE SEARCH' and 'ANALYTICS TOOLKIT'.

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 16th, 2019, to January 31st, 2025. The filing date range was chosen as the July 2019 update to the Trial Practice Guide (“TPG”) was published on July 16th, 2019. Further, the date was March 15, 2025, at the time of record retrieval.

The screenshot displays the Docket Navigator search interface. At the top, there is a navigation bar with a logo on the left and a hamburger menu on the right. Below the navigation bar, there are several tabs: "Filters for Cases" (active), "Advanced Filters", "MORE SEARCH TYPES", "CREATE ALERT", and "VIEW 7589 RESULTS".

The main search area is divided into two sections. The top section is titled "Go to a specific case" and contains a text input field labeled "Enter a case number".

The bottom section is titled "Find a list of Cases" and contains several filter panels:

- Parties**: A dropdown menu with a plus icon and a search input field labeled "begins with".
- Firms**: A dropdown menu with a plus icon and a search input field labeled "begin typing".
- Attorneys**: A dropdown menu with a plus icon and a search input field labeled "begin typing".
- Patents**: A dropdown menu with a plus icon and a search input field labeled "begin typing".
- Affiliates**: A dropdown menu with a plus icon and a search input field labeled "begin typing".
- Courts**: A dropdown menu with a plus icon and a search input field labeled "begin typing".
- Judges**: A dropdown menu with a plus icon and a search input field labeled "begin typing".
- Case Status**: A dropdown menu with a plus icon and a search input field labeled "begin typing".
- Case Outcome**: A dropdown menu with a plus icon and a search input field labeled "begin typing".
- Case Type**: A dropdown menu with a plus icon and a search input field labeled "begin typing".
- Case Filing Date**: A date range selector with a dropdown menu, a search input field, and a date range from "July 16, 2019" to "January 31, 2025".

5. The website indicated that approximately 7.5K 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. Due to certain limitations of DocketNavigator in parsing XLS requests of greater than 1000 cases, I downloaded multiple sets of results as XLS files, choosing non-overlapping date ranges (i.e. Request 1: July 16th, 2019 to December 31st, 2019, Request 2: January 1st, 2020 to July 1st, 2020, etc.) to download fewer than 1000 records per request to reconstitute the desired date range. I collated all the retrieved records into a spreadsheet (“cumulative records spreadsheet”).

The screenshot shows the 'Cases Search' interface. On the left, there are filters for 'Courts' (Patent Trial and Appeal Board), 'Case Filing Date' (Jul. 16th, 2019 - Jan. 31st, 2025), 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 table has columns: Case Filing Date, Case Status, Case Name, Case Number, and Case Outcome. The table lists 20 cases, all with a filing date of Jan. 31, 2025, and a status of 'Active'. The cases include Meta Platforms, Inc. f/k/a Facebook, Inc. v. Sterling Computers Corporation, Lifevac LLC v. DCSTAR, Inc., Google LLC v. VirtaMove, Corp., Zepp Health Corporation v. University of Connecticut, Samsung Electronics Co., Ltd. et al v. Mobile Data Technologies LLC, Samsung Electronics Co., Ltd. et al v. Mobile Data Technologies LLC, Samsung Electronics Co., Ltd. v. Anonymous Media Research Holdings, LLC, Amazon.com, Inc. v. VirtaMove, Corp., Carvana, LLC v. International Business Machines Corporation, Amazon.com, Inc. et al v. SoundClear Technologies LLC, Amazon.com, Inc. v. VirtaMove, Corp., Advanced Micro Devices, Inc. et al v. Concurrent Ventures, LLC et al, Samsung Electronics America, Inc. f/k/a Samsung Telecommunications America LLC et al v. Four Batons Wireless, LLC, Samsung Electronics America, Inc. f/k/a Samsung Telecommunications America LLC et al v. Four Batons Wireless, LLC, Apotex Inc. v. Alkermes Pharma Ireland Limited, Analog Devices, Inc. v. Number 14 BV, Analog Devices, Inc. v. Number 14 BV, VideoAmp, Inc. v. The Nielsen Company (US), LLC, and VideoAmp, Inc. v. The Nielsen Company (US), LLC.

Case Filing Date	Case Status	Case Name	Case Number	Case Outcome
Jan. 31, 2025	Active	Meta Platforms, Inc. f/k/a Facebook, Inc. v. Sterling Computers Corporation	IPR2025-00430	
Jan. 31, 2025	Active	Lifevac LLC v. DCSTAR, Inc.	IPR2025-00454	
Jan. 31, 2025	Active	Google LLC v. VirtaMove, Corp.	IPR2025-00487	
Jan. 31, 2025	Active	Google LLC v. VirtaMove, Corp.	IPR2025-00488	
Jan. 31, 2025	Active	Google LLC v. VirtaMove, Corp.	IPR2025-00489	
Jan. 31, 2025	Active	Google LLC v. VirtaMove, Corp.	IPR2025-00490	
Jan. 31, 2025	Active	Zepp Health Corporation v. University of Connecticut	IPR2025-00523	
Jan. 31, 2025	Active	Samsung Electronics Co., Ltd. et al v. Mobile Data Technologies LLC	IPR2025-00535	
Jan. 31, 2025	Active	Samsung Electronics Co., Ltd. et al v. Mobile Data Technologies LLC	IPR2025-00536	
Jan. 31, 2025	Active	Samsung Electronics Co., Ltd. v. Anonymous Media Research Holdings, LLC	IPR2025-00558	
Jan. 31, 2025	Active	Amazon.com, Inc. v. VirtaMove, Corp.	IPR2025-00563	
Jan. 31, 2025	Active	Carvana, LLC v. International Business Machines Corporation	IPR2025-00564	
Jan. 31, 2025	Active	Amazon.com, Inc. et al v. SoundClear Technologies LLC	IPR2025-00565	
Jan. 31, 2025	Active	Amazon.com, Inc. v. VirtaMove, Corp.	IPR2025-00566	
Jan. 30, 2025	Active	Advanced Micro Devices, Inc. et al v. Concurrent Ventures, LLC et al	IPR2025-00479	
Jan. 30, 2025	Active	Samsung Electronics America, Inc. f/k/a Samsung Telecommunications America LLC et al v. Four Batons Wireless, LLC	IPR2025-00493	
Jan. 30, 2025	Active	Samsung Electronics America, Inc. f/k/a Samsung Telecommunications America LLC et al v. Four Batons Wireless, LLC	IPR2025-00494	
Jan. 30, 2025	Active	Apotex Inc. v. Alkermes Pharma Ireland Limited	IPR2025-00514	
Jan. 30, 2025	Active	Analog Devices, Inc. v. Number 14 BV	IPR2025-00550	
Jan. 30, 2025	Active	Analog Devices, Inc. v. Number 14 BV	IPR2025-00551	
Jan. 30, 2025	Active	VideoAmp, Inc. v. The Nielsen Company (US), LLC	IPR2025-00555	
Jan. 30, 2025	Active	VideoAmp, Inc. v. The Nielsen Company (US), LLC	IPR2025-00556	

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. To do so, I used a counting function to return the numerical value of how many times a particular patent was challenged at the PTAB, and filtered for all entries where the patent was challenged at least twice (i.e. challenged in more than one PTAB case). For patents that were challenged only one PTAB case, a “SINGLE FILING” flag

was assigned using a macro, and a FLAG column was added to the spreadsheet to assist in sorting. A “MULTIPLE CHALLENGE” flag was assigned for patents challenged in two or more proceedings. Removing all “SINGLE FILING” flags provided a preliminary results spreadsheet. The preliminary results spreadsheet was then further sorted by patent number (lowest to highest) in order to group like patents and quickly identify like petitioners as between the same challenged patent in separate PTAB cases¹. Cases challenging the same patent but where different lead petitioners challenged the patent-at-issue were removed manually. Likewise, cases with filing dates longer than 90 days from one another (3 months) were discarded.

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

¹ 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, spelling, formatting errors, or naming inconsistencies between listed petitioners.

display the following fields: Case Name, Case Number, Patent Number, Case Filing Date, First Named Petitioner², and IPRs per set of Petitions³. Exhibit 2001 is a PDF copy of the resulting parallel petitions list.

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 January 2025.

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

² Determined by separating out and selecting only the petitioner's name from the "Parties" column.

³ Determined after counting all repetitions of a patent number per petitioner.

The screenshot displays the DocketNavigator Patent Library interface. The top navigation bar includes the DocketNavigator logo, a 'Patent' search bar, and a 'QuickSearch' button. The left sidebar contains links for 'My Research', 'Downloads', 'Docket Reports', and 'Special Reports'. The main content area is titled 'ADVANCED SEARCH' and features two primary sections: 'Cases' and 'Documents'. The 'Cases' section includes a table with columns for Case, Active Judge, and Case Filing Date. The 'Documents' section includes a table with columns for Type of Document, Result, Case, and Document Date. Below these tables are search filters for 'Patents', 'Accusations', 'Docket Sheets', 'Remedies', 'Parties', 'Firms', 'Attorneys', 'PTAB Experts', 'Determinations', 'PTAB Institutions', and 'Claim Constructions'. At the bottom, there are sections for 'PROFILE SEARCH' and 'ANALYTICS TOOLKIT'.

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”)), the latest filing date (January 31, 2025), and the Parties (“Comcast”)⁴.

⁴ The “Affiliates” checkbox was checked.

12. The website indicated that approximately 264 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.

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 given column. The Pivot Table Feature was applied to the table of Exhibit 2001 to obtain recurring parallel petitioners, which was then sorted to retrieve the top filers of parallel petitions. 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 - January 2025) Rate Of Parallel Petitions Per Overall Petition Filings				
Rank (Total Parallel Petitions)	Petitioner	Total Parallel Petitions Filed	Total Petitions Filed	% Of Petitions That Are Parallel Petitions
4	Comcast*	81	87	93%
5	Intel	49	115	43%
9	Micron	24	64	38%
3	Google	105	320	33%
7	Roku, Inc	25	77	32%
8	Amazon	28	96	29%
6	Microsoft	30	105	29%
1	Samsung	170	605	28%
2	Apple	112	415	27%
10	Meta Platforms, Inc	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 a list of 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.⁵ 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 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.”

⁵ 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).

Top 10 Parallel Petitioners (July 2019-January 2025) Percentage Of Sets With 3+ Petitions				
Rank (Total Parallel Petitions)	Petitioner	Sets of 3 Or More Petitions	Total Sets of Parallel Petitions	% of Sets With 3 Or More Petitions
4	Comcast*	18	24	75%
5	Intel	5	21	24%
6	Microsoft	2	12	17%
1	Samsung	10	76	13%
3	Google	6	45	13%
7	Roku, Inc	1	11	9%
2	Apple	3	51	6%
9	Micron	0	12	0%
10	Meta Platforms, Inc.	0	8	0%
8	Amazon	0	12	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 Wang /

Date: March 18, 2025