

2024-2296

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

EXAFER LTD.,
Plaintiff-Appellant

v.

MICROSOFT CORP.,
Defendant-Appellee

Appeal from the United States District Court for the Western District of Texas,
No. 1:20-cv-131, Judge Robert Pitman

**MOTION FOR LEAVE TO FILE BRIEF OF
UNIFIED PATENTS, LLC AS *AMICUS CURIAE* IN SUPPORT OF
MICROSOFT CORP.'S COMBINED PETITION FOR PANEL
REHEARING AND REHEARING EN BANC**

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Table of Contents

INTEREST OF <i>AMICUS CURIAE</i>	1
ARGUMENT	2
I. The Panel Decision Improperly Expands Potential Liability Under the Reasonable Royalty Framework	3
II. A Wide Variety of Industries Are Now at Risk of Expanded, Unpredictable Liability Due to the Panel Decision’s Implications.....	5
III. The New Causal Connection Rule Invites Cognitive Bias Distortions in Jury Decisions	8
CONCLUSION	11

Table of Authorities

Federal Cases

Enplas Display Device Corp. v. Seoul Semiconductor Co., 909 F.3d 398 (Fed. Cir. 2018).....4

Exafer Ltd v. Microsoft Corp., 169 F.4th 1089 (Fed. Cir. 2026).....4

Garretson v. Clark, 111 U.S. 120 (1884).....3

Power Integrations v. Fairchild Semiconductor, 904 F.3d 965 (Fed. Cir. 2018).....4

Rite-Hite Corp. v. Kelley Co., Inc., 56 F.3d 1538, 1549 (Fed. Cir. 1995) (en banc) 4

Unified Patents, LLC v. Uniloc USA, Inc., No. IPR2018-00199, Paper 33, at 10 (P.T.A.B. May 31, 2019).....2

Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292 (Fed. Cir. 2011).....4, 10

Statutes

35 U.S.C. § 2843, 10

Other Authorities

Bureau of Econ. Analysis, U.S. Dep’t of Commerce, Table: Gross Output by Industry (released Apr. 9, 2026).....8

Chang, Yun-chien, Chen, Kong-Pin, Lin, Chang-Ching, *Anchoring Effect in Real Litigation: An Empirical Study* (Jan. 27, 2016), University of Chicago Coase-Sandor Institute for Law & Economics Research Paper No. 744, SSRN: <https://ssrn.com/abstract=2726903>9

Daniel Kahneman, *Thinking Fast and Slow* at 119 (2011) (“Kahneman”).....8, 9

David Rudden, Nintendo Wii Release Details: Nov. 19, \$250 with a Game Included, Cnet (Sept. 14, 2006).....6

International Trade Commission, *Section 337 Statistics: Number of Section 337 Investigations Brought by NPEs*, https://www.usitc.gov/intellectual_property/337_statistics_number_section_337_investigations.htm (“ITC Tracking Stats”).....1

Jessica Hopkins, <i>Behind the Scenes of Video Game Consoles: Embedded Systems, Total Phase</i> (Feb. 19, 2026).....	6
Jonathan Stroud, <i>Patent Assertion Finance Is Big Business</i> , 15.3 <i>Landslide</i> 34 (Mar./Apr. 2023)	1
Jonathan Stroud, <i>Pulling Back the Curtain on Complex Funding of Patent Assertion Entities</i> , 12.2 <i>Landslide</i> 20 (Nov./Dec. 2019).....	2
Martha K. Gooding & William C. Rooklidge, <i>The Real Problem with Patent Infringement Damages</i> , 91 <i>J. PAT. & TRADEMARK OFF. SOC'Y</i> 484, 486-87 (2009)	10
Sean Keller & Jonathan Stroud, <i>Litigation Funding Disclosure and Patent Litigation</i> , 33 <i>Fed. Cir. B.J.</i> 77 (2024).....	2
Unified Patents, <i>Q1 2026 Patent Dispute Report</i> , https://www.unifiedpatents.com/insights/2026/4/14/patent-dispute-report-q1-2026	2
Wesley A. Demory, <i>Patent Claim Obviousness in Jury Trials: Where's the Analysis?</i> , 6 <i>J. BUS. & TECH. L.</i> 449, 449 (2011).....	9

INTEREST OF *AMICUS CURIAE*¹

Unified Patents, LLC is a membership organization dedicated to deterring non-practicing entities (“NPEs”), particularly patent assertion entities (“PAEs”), from extracting nuisance settlements from operating companies based on patents that are likely invalid.² Unified’s 3,000-plus members are Fortune 500 companies, start-ups, automakers, retailers, cable companies, banks, financial services companies, technology companies, open source software developers, manufacturers, and others dedicated to reducing the drain on the U.S. economy of now-routine, baseless litigations asserting infringement of patents of dubious validity.

Unified and its counsel study the ever-evolving business models, financial backings, and practices of PAEs. *See, e.g.*, Jonathan Stroud, *Patent Assertion Finance Is Big Business*, 15.3 *Landslide* 34 (Mar./Apr. 2023); Sean Keller & Jonathan Stroud, *Litigation Funding Disclosure and Patent Litigation*, 33 *Fed. Cir. B.J.* 77

¹ This brief accompanies a motion for leave. *See* Fed. R. App. P. 29(b)(2). No parties’ counsel authored this brief in whole or in part; neither party nor party counsel contributed money that was intended to fund preparing or submitting the brief; no person other than the *amicus curiae* or its counsel contributed money that was intended to fund preparing or submitting the brief. *See* Fed. R. App. P. 29(a)(4).

² The ITC classifies universities, start-ups, and other potentially productive NPEs as “category-1” NPEs and classifies PAEs—companies whose “business model primarily focuses on purchasing and asserting patents”—as “category-2” NPEs. *See* International Trade Commission, *Section 337 Statistics: Number of Section 337 Investigations Brought by NPEs*, https://www.usitc.gov/intellectual_property/337_statistics_number_section_337_investigations.htm (“ITC Tracking Stats”).

(2024); Jonathan Stroud, *Pulling Back the Curtain on Complex Funding of Patent Assertion Entities*, 12.2 *Landslide* 20 (Nov./Dec. 2019).

Unified conducts research monitoring ownership data, secondary-market patent sales, demand letters, post-issuance proceedings, and patent litigation to track PAE activity. *See, e.g.*, Unified Patents, *Litigation Annual Report*, <https://portal.unifiedpatents.com/litigation/annual-report>.

Unified also files post-issuance administrative challenges against PAE patents it believes are unpatentable or invalid. Thus, Unified seeks to deter the assertion of poor-quality patents. Unified acts and litigates independently from its members. *See, e.g.*, *Unified Patents, LLC v. Uniloc USA, Inc.*, No. IPR2018-00199, Paper 33, at 10 (P.T.A.B. May 31, 2019) (Unified members not real parties in interest to petitions filed by Unified); *id.* (collecting PTAB decisions). Since 2020, Unified Patents has had the highest success rate among top-volume *ex parte* reexam requestors with at least 20 decisions against utility patents, with success defined as at least one claim being canceled. Unified Patents, *Q1 2026 Patent Dispute Report*, <https://www.unifiedpatents.com/insights/2026/4/14/patent-dispute-report-q1-2026>.

ARGUMENT

The panel decision departs from longstanding precedent on the methodology for computing reasonable royalties by suggesting that the royalty base may be anything bearing a “causal connection” to the patent claims. Existing law demands

apportionment between patented and unpatented features and cabins, with rare exception, the reasonable royalty base to the smallest salable patent-practicing unit. This decision markedly expands on exceptions to the entire market value rule.

Unwarranted expansion of the royalty base harms a wide variety of industries, including computer product industries, video game producers and computer producers, the automobile industry, consumer goods producers generally, and software-as-a-service providers. Rehearing is warranted to give due consideration to these important, potentially massive effects on the innovation economy.

Allowing patentees untethered expansion of the royalty base increases cognitive biases for the jury. In this case, the jury, inexperienced in patent law and presented with a large damages sum that was allegedly the result of expert analysis, would be unlikely to ignore the overinflated sum. This is especially important in the patent damages context, where juries are already biased to punish, rather than compensate, after a finding of infringement

I. The Panel Decision Improperly Expands Potential Liability Under the Reasonable Royalty Framework

Under 35 U.S.C. § 284, damages for patent infringement shall be “no less than a reasonable royalty” unless lost profits are awarded. The reasonable royalty has long been understood to incorporate apportionment, separating “damages between the patented feature and the unpatented features.” *Garretson v. Clark*, 111 U.S. 120, 121 (1884). Under the apportionment standard, “[t]he royalty base for reasonable

royalty damages cannot include activities that do not constitute patent infringement.” See, e.g., *Enplas Display Device Corp. v. Seoul Semiconductor Co.*, 909 F.3d 398, 411 (Fed. Cir. 2018).

With rare exception, the royalty base typically must be the smallest salable patent-practicing unit (“SSPPU”). E.g., *Power Integrations v. Fairchild Semiconductor*, 904 F.3d 965, 977 (Fed. Cir. 2018). The base may be larger than the SSPPU only if it satisfies the entire market value-rule (“the patented feature is the basis for customer demand” of the entire product). *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1549 (Fed. Cir. 1995) (en banc) (internal quotations removed); see also *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1320 (Fed. Cir. 2011) (noting “danger of admitting consideration of the entire value” in inappropriate circumstances).

Here, the panel decision contravenes these principles, expanding the potential base for reasonable royalty damages in several ways. *First*, it suggests that a royalty base is appropriate if the base shares a “causal connection” with the patented technology. *Exafer Ltd v. Microsoft Corp.*, 169 F.4th 1089, 1092-93 (Fed. Cir. 2026). This creates a new exception that is much broader than the entire market value rule. *Id.* at 1092-93. *Second*, the panel implies that, for a patent on an improvement to the functioning of computer hardware, the royalty base can be software operating on that hardware so long as there is a “causal connection” between the patented hardware feature and the software which can include second-order benefits. *Id.* at 1093-

94. But the purpose of nearly every computer hardware improvement is to benefit the software it runs thus allowing nearly every computer hardware patent to now include the corresponding software it runs in the royalty base in addition to the hardware itself.

II. A Wide Variety of Industries Are Now at Risk of Expanded, Unpredictable Liability Due to the Panel Decision’s Implications

The new “causal connection” rule will be especially impactful for computer and electronic hardware producers, due to the complex multicomponent nature of devices. These exemplify the more general pattern of patents on components giving rise to liability for entire multicomponent systems. The entire-market-value rule is designed to limit such indeterminate liability, but the panel decision’s “causal connection” language offers a ready path to circumvent that limitation.

Consider, as an example, a home video game console. Such consoles have multiple key hardware components: the video game console (much like a CPU), a controller which is used to operate the console, a screen which the video game is displayed on. These systems are used to play games, which are a software component.³ Should a feature in, for example, a controller be patented, the following reasonable royalty computation illustrates the effect of the panel decision.

³ See Jessica Hopkins, *Behind the Scenes of Video Game Consoles: Embedded Systems*, Total Phase (Feb. 19, 2026),

Under the existing framework, only the controller itself, rather than the entire gaming console system (e.g., console, monitor, games), would be the SSPPU unless it can be shown, under the entire market-value rule, that the controller's patented feature is the basis of consumer demand for the other components. By contrast, under the new causal connection rule, it merely needs to be shown that the patented feature bears a “causal connection” (which can include second-order benefits) to another component. For example, a patent holder might argue that there is a causal connection between the controller and the console (e.g., a more efficient controller allows the console to allow more simultaneous players) and thus the full system should be considered the royalty basis. This results in a dramatically increased base as controllers are typically on the order of \$40 while consoles can cost hundreds of dollars.⁴

A similar case can be made for the software components (e.g., video games) of these systems in addition to the hardware (e.g., controllers and consoles). For example, under the current law, games would also be excluded from the SSPPU. However, if there is an arguable causal connection between the video games and the controller (e.g., a patented feature of the controller enables a better gaming

<https://www.totalphase.com/blog/2019/06/behind-the-scenes-of-video-game-consoles-embedded-systems/>.

⁴ See, e.g., David Rudden, *Nintendo Wii Release Details: Nov. 19, \$250 with a Game Included*, Cnet (Sept. 14, 2006), <https://www.cnet.com/tech/mobile/nintendo-wii-release-details-nov-19-250-with-a-game-included/>.

experience), then game sales, in addition to controller sales, will be considered. Accordingly, both multicomponent hardware and multicomponent hardware and software systems are affected.

Many other industries will be similarly affected. For example, in the automotive industry, automobiles include a wide variety of hardware components, from sensors to entertainment systems to engines. Under the new framework, an entire automobile may be included in the royalty base for one of these smaller components without satisfying the entire market value rule if there is a causal connection (e.g., a component that allows the car to travel faster or farther). Additionally, many automobiles now integrate various types of software, such as voice-command control of features. While ordinarily a patent holder would be limited to the units responsible for voice commands, under the causal connection rule the entire vehicle could be included in the royalty base because the voice commands improve, e.g., the vehicle's safety.

As another example, consider the appliance industry. Under current law, for a product like a refrigerator that integrates artificial intelligence to create a grocery list, the SSPPU of a patent covering the AI functionality would be the modules that provide that functionality. However, under the new causal connection rule, the entire refrigerator product (with its complex set of components dedicated to providing and controlling refrigeration) would be included in the royalty base.

These industries alone account for over one trillion dollars a year—the danger for wildly untethered royalty bases is real and pernicious, as explained in the next section. Bureau of Econ. Analysis, U.S. Dep’t of Commerce, Table: Gross Output by Industry (released Apr. 9, 2026), https://apps.bea.gov/iTable/index_industry.cfm (last visited May 19, 2026).

III. The New Causal Connection Rule Invites Cognitive Bias Distortions in Jury Decisions

As discussed above, the causal connection rule will allow patent holders to request much larger royalty rates. This risks improperly compensating a patent holder for non-infringing components of a product. And this risk is increased by cognitive biases in jury decisions. At trial, the first number that a juror hears often becomes an anchor. Exposing the jury to an outrageously high demand as the starting number results in a cognitive bias, known as the *anchoring effect*, that prejudices the defendant by causing the jury to fixate on the high starting number, no matter how “obviously uninformative” the original basis for that number is:

an *anchoring effect* . . . occurs when people consider a particular value for an unknown quantity before estimating that quantity. What happens is one of the most reliable and robust results of experimental psychology: the estimates stay close to the number that people considered—hence the image of an anchor.

Daniel Kahneman, *Thinking Fast and Slow* at 119 (2011) (“Kahneman”).

Multiple studies confirm that the anchoring effect occurs in the context of litigation damages. *See, e.g.*, Chang, Yun-chien, Chen, Kong-Pin, Lin, Chang-Ching,

Anchoring Effect in Real Litigation: An Empirical Study (Jan. 27, 2016), University of Chicago Coase-Sandor Institute for Law & Economics Research Paper No. 744, SSRN: <https://ssrn.com/abstract=2726903>. Interestingly, experienced judges tend to be unaffected by anchoring attempts, as experience is “a powerful debiaser.” *Id.* at 5.

Even vigorous cross-examination cannot reverse the prejudice resulting from hearing an unreasonably high royalty demand. Because the first number the jury hears is very often from the patentee’s damages expert, that value, whatever it is, anchors the jury. All subsequent testimony—including on cross—can only serve to be adjustments, which “are typically insufficient.” Kahneman at 427. Jurors are people, and “people make estimates by starting from an initial value that is adjusted to yield the final answer.” *Id.* Because of anchoring, “different starting points yield different estimates, which are biased toward the initial values.” *Id.*

The effect of this anchoring bias is particularly apparent in patent cases, where there is an enormous gap between what judges and juries award. Wesley A. Demory, *Patent Claim Obviousness in Jury Trials: Where’s the Analysis?*, 6 J. BUS. & TECH. L. 449, 449 (2011),⁵ (observing that the disparity between jurors and judges in patent cases “skyrocketed” from nearly equal in the 1980s to “a staggering \$10.7 million

⁵<https://digitalcommons.law.umaryland.edu/cgi/viewcontent.cgi?article=1168&context=jbtl>

for jury trials and \$700,000 for bench trials in the 2000s”). Further, studies have shown jurors approach the patent damages “calculus with a desire, or at least a perceived need, to punish the accused infringer” and employ a “wide array of ‘gross up’ strategies and rationales” to inflate the award from compensatory to punitive. Martha K. Gooding & William C. Rooklidge, *The Real Problem with Patent Infringement Damages*, 91 J. PAT. & TRADEMARK OFF. SOC'Y 484, 486-87 (2009).⁶

This court has implicitly recognized the prejudicial nature of anchoring. In *Uniloc*, the Court emphasized that admitting large numbers like Microsoft’s \$19 billion revenue to support a claim of \$565 million in damages “cannot help but skew the damages horizon for the jury.” *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1320-21 (Fed. Cir. 2011). This presents a disconcerting issue: compensation of the patent holder for non-infringing features of a multicomponent product. Patent holders are incentivized to select the largest royalty base available, hoping that jurors will anchor to these astronomically high values and struggle to comprehend the patented invention’s value relative to the entire product. This is not in the spirit of § 284, which seeks to compensate patent holders only “for the infringement.” *See* 35 U.S.C. § 284. En banc review is required to consider the cognitive biases that will flourish in the absence of careful apportionment requirements for the royalty base.

⁶<https://heinonline.org/HOL/P?h=hein.journals/jpatos91&i=516>

CONCLUSION

For these reasons, the Court should reconsider this case.

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION, TYPEFACE REQUIREMENTS, AND TYPE STYLE REQUIREMENTS

1. This brief complies with the type-volume limitation of Fed. Cir. R. 35(g)(3). It contains **2287** words, excluding the parts of the brief exempted by Fed. R. App. P. 32(f) and Fed. Cir. R. 32(b)(2).

2. This amicus brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because it has been prepared in a proportionally spaced typeface using Microsoft Word in Times New Roman 14-point font. As permitted by Fed. R. App. P. 32(g), the undersigned has relied upon the word count feature of this word processing system in preparing this certificate.

/s/ Kelly R. Hughes

Kelly R. Hughes

CERTIFICATE OF SERVICE

I hereby certify that, on May 20, 2026, I caused to be electronically filed the foregoing **BRIEF OF UNIFIED PATENTS, LLC AS AMICUS CURIAE IN SUPPORT OF MICROSOFT CORP.'S COMBINED PETITION FOR PANEL REHEARING AND REHEARING EN BANC** using the Court's CM/ECF filing system.

I certify that all counsel of record in the case are registered CM/ECF users, and that service will be accomplished by the appellate CM/ECF system. *See* Fed. R. App. P. 25(d); Fed. Cir. R. 25(e).

/s/ Kelly R. Hughes

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