

**UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
AUSTIN DIVISION**

EIREOG INNOVATIONS LTD.,

Plaintiff,

v.

HP INC.,

Defendant.

Case No. 1:24-cv-00644

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. § 1 *et seq.*, in which Plaintiff Eireog Innovations Limited (“Plaintiff” or “Eireog”) makes the following allegations against Defendant HP Inc. (“Defendant” or “HP”):

**INTRODUCTION**

1. This complaint arises from HP’s unlawful infringement of the following United States patents owned by Plaintiff, which relate to improvements in processing devices and systems: United States Patent Nos. 9,436,626 (“the ’626 Patent”), 9,442,870 (“the ’870 Patent”), and 9,335,805 (“the ’805 Patent”) (collectively, the “Asserted Patents”).

**PARTIES**

2. Plaintiff Eireog Innovations Limited is a private company limited by shares organized and existing under the laws of Ireland, with its principal place of business at The Hyde Building, Suite 23, The Park, Carrickmines, Dublin 18, Ireland. Eireog is the sole owner by assignment of all rights, title, and interest in the Asserted Patents, including the right to recover damages for past, present, and future infringement.

3. On information and belief, Defendant HP Inc. is a corporation organized under the laws of Delaware, with its principal place of business at 1501 Page Mill Road, Palo Alto, California 94304. HP is registered to do business in the State of Texas and may be served through its registered agent CT Corporation System, 1999 Bryan St., Suite 900, Dallas, Texas 75201.

**JURISDICTION AND VENUE**

4. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. This Court has personal jurisdiction over HP in this action because HP has committed acts within this District giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over HP would not offend traditional notions of fair play and substantial justice. HP, directly and through subsidiaries or intermediaries, has committed and continues to commit acts of infringement in this District by, among other things, making, using, importing, offering to sell, and/or selling products that infringe the Asserted Patents.

6. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b). HP is registered to do business in Texas, and upon information and belief, HP has transacted business in this District and has committed acts of direct infringement in this District by, among other things, making, using, offering to sell, selling, and importing products that infringe the Asserted Patents. HP has regular and established places of business in this District, including at 3800 Quick Hill Rd. #100, Austin, Texas 78728.

**COUNT I**

**INFRINGEMENT OF U.S. PATENT NO. 9,436,626**

7. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

8. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 9,436,626, titled “Processor interrupt interface with interrupt partitioning and virtualization enhancements.” The ’626 Patent was duly and legally issued by the United States Patent and Trademark Office on September 6, 2016. The ’626 Patent is valid and enforceable. A true and correct copy of the ’626 Patent is attached hereto as Exhibit 1.

9. HP makes, uses, offers for sale, sells, and/or imports certain products, including without limitation HP’s products using Intel-based CPUs (Haswell-based architecture and newer) (including but not limited to Laptops (Envy, Envy x360 2-in-1, Essential, Omen, Omen Transcend, Pavilion, Pavilion x360, Pavilion x360 2-in-1, Pavilion Plus, Spectre x360 2-in-1, EliteBook, Victus by HP, Dragonfly Pro Chromebook), Chromebook Laptops (Chromebook, Chromebook x360, Chromebook Plus, Chromebook Plus x360), Desktops (Envy, Victus, Pavilion, Omen, Slim), All-in-One Desktops (Essential, Pavilion, Envy, Envy Move), Business Desktops (Pro Mini 400, Pro SFF 400, Elite Mini 600, Elite SFF 600, Elite Tower 600, EliteOne 800 All-in-One, Elite Mini 800, Elite SFF 800, Elite Tower 800, Chromebox), Workstations (Z2, Z2 Mini, Z2 SFF, Z4, Z6, Z8, HP Rack), Mobile Workstations (ZBook Power, ZBook Firefly 14/16, ZBook Studio, ZBook Fury 16) and AMD Zen-based CPUs (including but not limited to Laptops (Essential, Pavilion, Pavilion Plus, Pavilion Aero, Envy x360 2-in-1, Victus by HP, Omen), Business Laptops (ProBook 445, ProBook 455, EliteBook 645, EliteBook 655, EliteBook 835 EliteBook 845,

EliteBook 865, Pro x360 435), Desktops (Essential All-in-One, Pavilion, ProOne 440 All-in-One), Workstations (Z6 G5 A), Mobile Workstations (ZBook Firefly 14, ZBook Power)) (the “Accused Products”), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the ’626 Patent. Identification of the accused products will be provided in Plaintiff’s infringement contentions pursuant to the Court’s scheduling order.

10. The Accused Products satisfy all claim limitations of one or more claims of the ’626 Patent. A claim chart comparing exemplary independent claim 1 of the ’626 Patent to representative Accused Products is attached as Exhibits 2 and 3.

11. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, HP has injured Plaintiff and is liable for infringement of the ’626 Patent pursuant to 35 U.S.C. § 271(a).

12. HP also knowingly and intentionally induces infringement of one or more claims of the ’626 Patent in violation of 35 U.S.C. § 271(b). At least as of the filing and service of this complaint, HP has knowledge of the ’626 Patent and the infringing nature of the Accused Products through, for example, the ’626 Patent claim charts served therewith. Despite this knowledge of the ’626 Patent, HP continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website and materials cited in Exhibits 2 and 3) to use the Accused Products in ways that directly infringe the ’626 Patent. For example, HP advertises the benefits of Intel Core and AMD Ryzen processors and their impact on HP’s products, such as the accused Spectre, OMEN, and ProBook laptops. *See* Ex. 4 (<https://www.hp.com/us-en/shop/cv/hp-intel>); Ex. 5 (<https://www.hp.com/us-en/shop/pdp/hp-probook-455-156-inch-g10-notebook-pc-wolf-pro-security-edition-p-8l096ua-aba-1>). Further, HP provides customers with instructions and user manuals detailing how to setup, configure, and

utilize the Accused Products to utilize the infringing functionality. *See, e.g.,* Ex. 6 ([https://kaas.hpcloud.hp.com/pdf-public/pdf\\_6682044\\_en-US-1.pdf](https://kaas.hpcloud.hp.com/pdf-public/pdf_6682044_en-US-1.pdf)); Ex. 7 ([https://kaas.hpcloud.hp.com/pdf-public/pdf\\_4980169\\_en-US-1.pdf](https://kaas.hpcloud.hp.com/pdf-public/pdf_4980169_en-US-1.pdf)). HP provides these instructions, user manuals, and other materials knowing and intending (or with willful blindness to the fact) that its customers and end users will commit these infringing acts. HP also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '626 Patent, thereby specifically intending for and inducing its customers to infringe the '626 Patent through the customers' normal and customary use of the Accused Products.

13. HP has also infringed, and continues to infringe, one or more claims of the '626 Patent by selling, offering for sale, or importing into the United States, the Accused Products, knowing that the Accused Products constitute a material part of the inventions claimed in the '626 Patent, are especially made or adapted to infringe the '626 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use. At least as of the filing and service of this complaint, HP has knowledge of the '626 Patent and the infringing nature of the Accused Products through, for example, the '626 Patent claim chart served therewith. HP has been, and currently is, contributorily infringing the '626 Patent in violation of 35 U.S.C. §§ 271(c) and/or (f). For example, the accused processor interrupt management features constitute a material part of the inventions claimed in the '626 Patent, are especially made or adapted to infringe the '626 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use, as demonstrated by the evidence in Exhibits 2 and 3.

14. On information and belief, Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. § 287 during the relevant time period because Plaintiff, any predecessor assignees to the '626 Patent, and any licensees did not make, offer for sale, or sell products that

practice(d) the '626 Patent during the relevant time period or were not required to mark during the relevant time period.

15. As a result of HP's direct infringement of the '626 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for HP's infringement, but in no event less than a reasonable royalty for the use made of the invention by HP, together with interest and costs as fixed by the Court.

16. As a result of HP's indirect infringement of the '626 Patent, Plaintiff is entitled to monetary damages (present and future) in an amount adequate to compensate for HP's infringement, but in no event less than a reasonable royalty for the use made of the invention by HP, together with interest and costs as fixed by the Court, accruing as of the time HP obtained knowledge of the '626 Patent.

## **COUNT II**

### **INFRINGEMENT OF U.S. PATENT NO. 9,442,870**

17. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

18. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 9,442,870, titled "Interrupt priority management using partition-based priority blocking processor registers." The '870 Patent was duly and legally issued by the United States Patent and Trademark Office on September 13, 2016. The '870 Patent is valid and enforceable. A true and correct copy of the '870 Patent is attached hereto as Exhibit 8.

19. HP makes, uses, offers for sale, sells, and/or imports certain products, including without limitation HP's products using Intel-based CPUs (Haswell-based architecture and newer)

(including but not limited to Laptops (Envy, Envy x360 2-in-1, Essential, Omen, Omen Transcend, Pavilion, Pavilion x360, Pavilion x360 2-in-1, Pavilion Plus, Spectre x360 2-in-1, EliteBook, Victus by HP, Dragonfly Pro Chromebook), Chromebook Laptops (Chromebook, Chromebook x360, Chromebook Plus, Chromebook Plus x360), Desktops (Envy, Victus, Pavilion, Omen, Slim), All-in-One Desktops (Essential, Pavilion, Envy, Envy Move), Business Desktops (Pro Mini 400, Pro SFF 400, Elite Mini 600, Elite SFF 600, Elite Tower 600, EliteOne 800 All-in-One, Elite Mini 800, Elite SFF 800, Elite Tower 800, Chromebox), Workstations (Z2, Z2 Mini, Z2 SFF, Z4, Z6, Z8, HP Rack), Mobile Workstations (ZBook Power, ZBook Firefly 14/16, ZBook Studio, ZBook Fury 16) and AMD Zen-based CPUs (including but not limited to Laptops (Essential, Pavilion, Pavilion Plus, Pavilion Aero, Envy x360 2-in-1, Victus by HP, Omen), Business Laptops (ProBook 445, ProBook 455, EliteBook 645, EliteBook 655, EliteBook 835 EliteBook 845, EliteBook 865, Pro x360 435), Desktops (Essential All-in-One, Pavilion, ProOne 440 All-in-One), Workstations (Z6 G5 A), Mobile Workstations (ZBook Firefly 14, ZBook Power)) (the “Accused Products”), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the ’870 Patent. Identification of the accused products will be provided in Plaintiff’s infringement contentions pursuant to the Court’s scheduling order.

20. The Accused Products satisfy all claim limitations of one or more claims of the ’870 Patent. A claim chart comparing exemplary independent claim 1 of the ’870 Patent to representative Accused Products is attached as Exhibits 9 and 10.

21. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, HP has injured Plaintiff and is liable for infringement of the ’870 Patent pursuant to 35 U.S.C. § 271(a).

22. HP also knowingly and intentionally induces infringement of one or more claims of the '870 Patent in violation of 35 U.S.C. § 271(b). At least as of the filing and service of this complaint, HP has knowledge of the '870 Patent and the infringing nature of the Accused Products through, for example, the '870 Patent claim charts served therewith. Despite this knowledge of the '870 Patent, HP continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website and materials cited in Exhibits 9 and 10) to use the Accused Products in ways that directly infringe the '870 Patent. For example, HP advertises the benefits of Intel Core and AMD Ryzen processors and their impact on HP's products, such as the accused Spectre, OMEN, and ProBook laptops. *See* Ex. 4 (<https://www.hp.com/us-en/shop/cv/hp-intel>); Ex. 5 (<https://www.hp.com/us-en/shop/pdp/hp-probook-455-156-inch-g10-notebook-pc-wolf-pro-security-edition-p-81096ua-aba-1>). Further, HP provides customers with instructions and user manuals detailing how to setup, configure, and utilize the Accused Products to utilize the infringing functionality. *See, e.g.*, Ex. 6 ([https://kaas.hpcloud.hp.com/pdf-public/pdf\\_6682044\\_en-US-1.pdf](https://kaas.hpcloud.hp.com/pdf-public/pdf_6682044_en-US-1.pdf)); Ex. 7 ([https://kaas.hpcloud.hp.com/pdf-public/pdf\\_4980169\\_en-US-1.pdf](https://kaas.hpcloud.hp.com/pdf-public/pdf_4980169_en-US-1.pdf)). HP provides these instructions, user manuals, and other materials knowing and intending (or with willful blindness to the fact) that its customers and end users will commit these infringing acts. HP also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '870 Patent, thereby specifically intending for and inducing its customers to infringe the '870 Patent through the customers' normal and customary use of the Accused Products.

23. HP has also infringed, and continues to infringe, one or more claims of the '870 Patent by selling, offering for sale, or importing into the United States, the Accused Products, knowing that the Accused Products constitute a material part of the inventions claimed in the '870



Patent, are especially made or adapted to infringe the '870 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use. At least as of the filing and service of this complaint, HP has knowledge of the '870 Patent and the infringing nature of the Accused Products through, for example, the '870 Patent claim chart served therewith. HP has been, and currently is, contributorily infringing the '870 Patent in violation of 35 U.S.C. §§ 271(c) and/or (f). For example, the accused processor interrupt management features constitute a material part of the inventions claimed in the '870 Patent, are especially made or adapted to infringe the '870 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use, as demonstrated by the evidence in Exhibits 9 and 10.

24. On information and belief, Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. § 287 during the relevant time period because Plaintiff, any predecessor assignees to the '870 Patent, and any licensees did not make, offer for sale, or sell products that practice(d) the '870 Patent during the relevant time period or were not required to mark during the relevant time period.

25. As a result of HP's direct infringement of the '870 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for HP's infringement, but in no event less than a reasonable royalty for the use made of the invention by HP, together with interest and costs as fixed by the Court.

26. As a result of HP's indirect infringement of the '870 Patent, Plaintiff is entitled to monetary damages (present and future) in an amount adequate to compensate for HP's infringement, but in no event less than a reasonable royalty for the use made of the invention by HP, together with interest and costs as fixed by the Court, accruing as of the time HP obtained knowledge of the '870 Patent.

**COUNT III**

**INFRINGEMENT OF U.S. PATENT NO. 9,335,805**

27. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

28. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 9,335,805, titled “Method and apparatus for managing power in a multi-core processor.” The ’805 Patent was duly and legally issued by the United States Patent and Trademark Office on May 10, 2016. The ’805 Patent is valid and enforceable. A true and correct copy of the ’805 Patent is attached hereto as Exhibit 11.

29. HP makes, uses, offers for sale, sells, and/or imports certain products, including without limitation HP’s products using Intel-based Core CPUs (Alder Lake-based architecture and newer) (including but not limited to Laptops (Envy, Envy x360 2-in-1, Essential, Omen, Omen Transcend, Pavilion, Pavilion x360, Pavilion x360 2-in-1, Pavilion Plus, Spectre x360 2-in-1, EliteBook, Victus by HP, Dragonfly Pro Chromebook), Chromebook Laptops (Chromebook, Chromebook x360, Chromebook Plus, Chromebook Plus x360), Desktops (Envy, Victus, Pavilion, Omen, Slim), All-in-One Desktops (Essential, Pavilion, Envy, Envy Move), Business Desktops (Pro Mini 400, Pro SFF 400, Elite Mini 600, Elite SFF 600, Elite Tower 600, EliteOne 800 All-in-One, Elite Mini 800, Elite SFF 800, Elite Tower 800, Chromebox), Workstations (Z2, Z2 Mini, Z2 SFF), Mobile Workstations (ZBook Power, ZBook Firefly 14/16, ZBook Studio, ZBook Fury 16) (the “Accused Products”), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the ’805 Patent. Identification of the accused products will be provided in Plaintiff’s infringement contentions pursuant to the Court’s scheduling order.

30. The Accused Products satisfy all claim limitations of one or more claims of the '805 Patent. A claim chart comparing exemplary independent claim 6 of the '805 Patent to representative Accused Products is attached as Exhibits 12.

31. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, HP has injured Plaintiff and is liable for infringement of the '805 Patent pursuant to 35 U.S.C. § 271(a).

32. HP also knowingly and intentionally induces infringement of one or more claims of the '805 Patent in violation of 35 U.S.C. § 271(b). At least as of the filing and service of this complaint, HP has knowledge of the '805 Patent and the infringing nature of the Accused Products through, for example, the '805 Patent claim chart served therewith. Despite this knowledge of the '805 Patent, HP continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website and materials cited in Exhibit 12) to use the Accused Products in ways that directly infringe the '805 Patent. For example, HP advertises the benefits of Intel Core processors and their impact on HP's products, such as the accused Spectre and OMEN laptops. *See* Ex. 4 (<https://www.hp.com/us-en/shop/cv/hp-intel>). Further, HP provides customers with instructions and user manuals detailing how to setup, configure, and utilize the Accused Products to utilize the infringing functionality. *See, e.g.*, Ex. 13 ([https://kaas.hpcloud.hp.com/pdf-public/pdf\\_3941897\\_en-US-1.pdf](https://kaas.hpcloud.hp.com/pdf-public/pdf_3941897_en-US-1.pdf)). HP provides these instructions, user manuals, and other materials knowing and intending (or with willful blindness to the fact) that its customers and end users will commit these infringing acts. HP also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '805 Patent, thereby specifically intending for and inducing its customers to

infringe the '805 Patent through the customers' normal and customary use of the Accused Products.

33. HP has also infringed, and continues to infringe, one or more claims of the '805 Patent by selling, offering for sale, or importing into the United States, the Accused Products, knowing that the Accused Products constitute a material part of the inventions claimed in the '805 Patent, are especially made or adapted to infringe the '805 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use. At least as of the filing and service of this complaint, HP has knowledge of the '805 Patent and the infringing nature of the Accused Products through, for example, the '805 Patent claim chart served therewith. HP has been, and currently is, contributorily infringing the '805 Patent in violation of 35 U.S.C. §§ 271(c) and/or (f). For example, the accused power management features constitute a material part of the inventions claimed in the '805 Patent, are especially made or adapted to infringe the '805 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use, as demonstrated by the evidence in Exhibit 12.

34. On information and belief, Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. § 287 during the relevant time period because Plaintiff, any predecessor assignees to the '805 Patent, and any licensees did not make, offer for sale, or sell products that practice(d) the '805 Patent during the relevant time period or were not required to mark during the relevant time period.

35. As a result of HP's direct infringement of the '805 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for HP's infringement, but in no event less than a reasonable royalty for the use made of the invention by HP, together with interest and costs as fixed by the Court.

36. As a result of HP's indirect infringement of the '805 Patent, Plaintiff is entitled to monetary damages (present and future) in an amount adequate to compensate for HP's infringement, but in no event less than a reasonable royalty for the use made of the invention by HP, together with interest and costs as fixed by the Court, accruing as of the time HP obtained knowledge of the '805 Patent.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff respectfully requests that this Court enter:

- a. A judgment in favor of Plaintiff that HP has infringed, either literally and/or under the doctrine of equivalents, the '626, '870, and '805 Patents;
- b. A judgment and order requiring HP to pay Plaintiff its damages (past, present, and future), costs, expenses, and pre-judgment and post-judgment interest for HP's infringement of the '626, '870, and '805 Patents;
- c. A judgment and order requiring HP to pay Plaintiff compulsory ongoing licensing fees, as determined by the Court in equity.
- d. A judgment and order requiring HP to provide an accounting and to pay supplemental damages to Plaintiff, including without limitation, pre-judgment and post-judgment interest and compensation for infringing products released after the filing of this case that are not colorably different from the accused products;
- e. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees against HP; and
- f. Any and all other relief as the Court may deem appropriate and just under the circumstances.

**DEMAND FOR JURY TRIAL**

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Dated: June 11, 2024

Respectfully submitted,

By: /s/ Brett E. Cooper

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