IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

STATON TECHIYA, LLC,	
Plaintiff,	
v.	Civil Action No.
HARMAN INTERNATIONAL INDUSTRIES, INCORPORATED	JURY TRIAL DEMANDED
Defendant.	

COMPLAINT FOR PATENT INFRINGEMENT

1. Staton Techiya, LLC brings this action for patent infringement under 35 U.S.C. § 271 against Defendant HARMAN International Industries, Incorporated and alleges as follows:

THE PARTIES

- 2. Plaintiff Staton Techiya, LLC ("Techiya" or "Plaintiff") is a Delaware limited liability company having a place of business at 9501 Jagged Creek Ct., Delray Beach, FL, 33446. It was founded in June 2017.
- 3. Defendant HARMAN International Industries, Incorporated ("HARMAN" or "Defendant") is a Delaware corporation having a principal place of business at 400 Atlantic Street, Stamford, CT 06901.

THE ASSERTED PATENTS

4. United States Patent No. 8,319,620 ("the '620 Patent"), entitled "Ambient Situation Awareness System and Method for Vehicles," issued on November 27, 2012, to inventors John Usher and John P. Keady. The '620 Patent issued from U.S. Patent App. Ser. No. 12/487,639, filed on June 18, 2009, and was previously published as U.S. Patent Pub. No. 2010/0033313 on February 11, 2010. A true and correct copy of the '620 Patent is attached as Exhibit A.

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- 5. United States Patent No. 11,589,329 ("the '329 Patent"), entitled "Information Processing Using a Population of Data Acquisition Devices," issued on February 21, 2023, to inventor Steven W. Goldstein. The '329 Patent issued from U.S. Patent App. Ser. No. 17/235,130, filed on April 20, 2021. A true and correct copy of the '329 Patent is attached as Exhibit B.
- 6. United States Patent No. 11,610,587 ("the '587 Patent"), entitled "Personalized Sound Management and Method," issued on March 21, 2023, to inventors Steven Goldstein and John P. Keady. The '587 Patent issued from U.S. Patent App. Ser. No. 17/736,180, filed on May 4, 2022, and was previously published as U.S. Patent Pub. No. 2022/0262361 on August 18, 2022. A true and correct copy of the '587 Patent is attached as Exhibit C. The '620 Patent, the '329 Patent, and the '587 Patent collectively are referred to herein as the "Asserted Patents."

JURISDICTION AND VENUE

- 7. This action arises under the Patent Act, 35 U.S.C. § 1 et seq.
- 8. Subject matter jurisdiction is proper in this Court under 28 U.S.C. §§ 1331 and 1338(a) because this is a civil action for patent infringement arising under the federal patent laws of the United States.
- 9. Defendant is subject to personal jurisdiction in this District by virtue of the fact that it is incorporated under the laws of the State of Delaware.
- 10. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1400(b) because Defendant resides within this District as it is incorporated within this District.

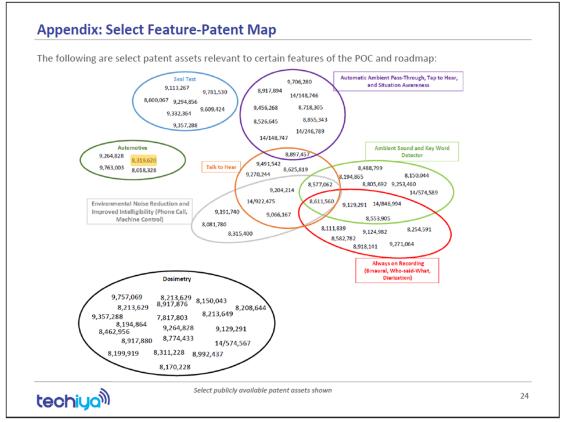
ALLEGATIONS OF PATENT INFRINGEMENT

- 11. Plaintiff incorporates the allegations of the foregoing paragraphs as if fully restated herein.
- 12. The result of comprehensive research and development, Plaintiff's patented technologies combine many disciplines of acoustic management technology, particularly in the

automotive field, to create solutions that provide exceptional functionality to users for increased safety and comfort.

- 13. HARMAN provides automotive acoustic management technology systems that, without authorization, implement Plaintiff's patented technologies.
- 14. No later than February 8, 2019, HARMAN and Plaintiff met to discuss Plaintiff's patented technology and ongoing research and development efforts in the automotive acoustic management technology field and other areas. Plaintiff met with Kevin Hague, the VP of Tech Strategy at HARMAN.
- 15. Because of their prior intellectual property discussions in related fields, Plaintiff and HARMAN had already consented to a mutual non-disclosure agreement. The mutual non-disclosure agreement protected disclosure of information even to parent entities of HARMAN.
- 16. Beginning in October of 2018 Plaintiff sent studies, marketing materials, and prototypes to HARMAN.
- 17. HARMAN reviewed the information received from Plaintiff. Todd Welti (Senior Principal Engineer of Acoustics at HARMAN) conducted various tests on the prototypes that Plaintiff sent to HARMAN. HARMAN subsequently requested additional information and more prototypes. In response, Plaintiff provided additional prototypes and shared proprietary whitepapers.
- 18. In February 2019, in a follow-up message to a meeting, Plaintiff sent an "Opportunity Overview" slide deck to HARMAN. The deck contained an enumeration of several different advantages offered by Plaintiff's technology and a description of patents relevant to some of the related fields. Some of the Asserted Patents were identified in the deck.

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Excerpted slide from deck sent to HARMAN in February 2019. The 'Patent was included in this deck (emphasized in yellow).

- 19. In March of 2019, Plaintiff met with HARMAN Chief Financial Officer Evelyn Heinbach. The agenda, proposed by Ms. Heinbach, included questions about Plaintiff's intellectual property and whether Plaintiff could provide demonstrations and technical background on its patented technology.
- 20. Later that year, on May 15, 2019, Plaintiff presented to HARMAN a comprehensive valuation model of Plaintiff's intellectual property arranged in a spreadsheet. The spreadsheet contained hundreds of patents and patent applications, categorized by feature and technology.
- 21. On May 4, 2020, Ms. Heinbach confirmed that "Samsung has done a detailed review of [Plaintiff's] patent portfolio." On information and belief, based on this "detailed review," HARMAN and its parent, Samsung, had knowledge and notice of Plaintiff's patents that had issued on or before May 4, 2020, including an understanding of the scope of the claims of those patents.

Despite this knowledge HARMAN has infringed, and continues to infringe, patents asserted in this Complaint that were issued prior to May 4, 2020.

- 22. On May 23, 2020 Ms. Heinbach informed Plaintiff that HARMAN would not be "looking to pursue further steps at this point."
- 23. On information and belief, despite HARMAN's robust knowledge of the Asserted Patents and Plaintiff's patented technology, HARMAN made the deliberate decision to sell products and services that they knew infringe these patents. HARMAN's continued infringement of the Asserted Patents with extensive knowledge about them constitutes willful infringement.
- 24. As set forth below, the Accused Product incorporates, without any license or permission from Plaintiff, technology protected by the Asserted Patents. Plaintiff respectfully seeks relief from this Court for Defendant's infringement.

REPRESENTATIVE ACCUSED PRODUCT

25. The representative accused product includes, but is not limited to, HARMAN HALOsonic (the "Accused Product").

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26. The HARMAN HALOsonic is an exemplary infringing product.



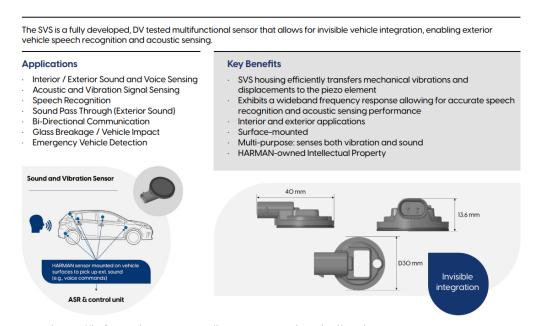
Source: https://car.harman.com/solutions/car-audio



HALOsonic is a set of tailormade sound solutions comprised of Electronic Sound Synthesis (ESS), Engine Order Cancellation (EOC), Sound2Target™ (S2T™) and Road Noise Cancellation (RNC).

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27. On information and belief, the HARMAN HALOsonic utilizes microphones on the outside of a vehicle to capture external sounds. For example, the HALOsonic utilizes sensors mounted on vehicle surfaces to pick up external sound.



Source: https://info.car.harman.com/harman-sound-and-vibration-sensor

28. On information and belief, the HALOsonic performs Electronic Sound Synthesis (ESS), Engine Order Cancellation, and Road Noise Cancellation (RNC). These features require detecting and analyzing environmental sound captured by the various microphones on the product.

COUNT I

Defendant's Infringement of the '620 Patent

- 29. Plaintiff incorporates the allegations of all of the foregoing paragraphs as if fully restated herein.
- 30. Plaintiff is the assignee and lawful owner of the '620 Patent, and Plaintiff holds all right, title and interest in and to the '620 Patent. The '620 Patent is valid and enforceable.
- 31. Defendant has directly infringed, and continues to directly and willfully infringe, the '620 Patent by making, using, selling, offering for sale, or importing into the United States products that

infringe the '620 Patent, such as the Accused Product. Further discovery may reveal additional infringing products and/or models.

- 32. For example, and without limitation, the Accused Product, and similar automotive acoustic management products, infringe at least claim 1 of the '620 Patent.
- 33. Defendant has had notice of its infringement of the '620 Patent at least since February 12, 2019, when Defendant received the aforementioned slide deck from Plaintiff.
- 34. The Accused Product is an exemplary product that practices at least claim 1 of the '620 Patent. On information and belief, many other products provided by HARMAN also infringe claim 1 of the '620 Patent.
- 35. The '620 Patent claims: 1. A vehicle situation awareness device for a vehicle comprising: a notification device in the vehicle configured to emit an audio signal; an internal microphone configured to measure an internal acoustic signal in the vehicle; an ambient microphone configured to measure an ambient acoustic signal external to the vehicle; and a processor configured to: determine an internal sound pressure level (SPL) in the vehicle based on the internal acoustic signal, identify at least one sonic signature from the ambient acoustic signal, and when the at least one sonic signature is identified, determine whether to send an emit signal to the notification device to emit the audio signal based on the internal SPL.
- 36. The Accused Product is an automotive acoustic management system. The system utilizes an array of accelerometers and microphones to generate a desired audio signal within the cabin of the vehicle. HARMAN External Microphones are placed on the exterior of the vehicle and used to capture ambient sound external to the vehicle to produce an ambient sound signal. Internal microphones are used to measure an internal acoustic signal within the cabin of the vehicle. On information and belief, a processor is configured to determine an internal sound pressure level based on the acoustic signal. On

information and belief, the processor also identifies at least one signature sound from the ambient acoustic signal and then determines whether to send an emit signal to the notification device.

The sound you want where you want it



Internal Electronic Sound Synthesis (iESS)

Enables sound contouring inside the car by creating speed, acceleration-, and throttle-dependent sounds through the standard speaker system

Advanced synthesis tools allow complete flexibility for "coloring the blank acoustic canvas" offered by todays electric and hybrid vehicle applications, in "all-electric" mode

Sound synthesis during engine-off conditions on Hybrid Electric Vehicles or Range-Extended Electric Vehicles improves perception of engine start-stop events

Improved powertrain feedback makes drivers feel connected to the car they drive



External Electronic Sound Synthesis (eESS)

Advanced external sound synthesis technologies allow OEMs to define a unique external sound, matching their brand DNA and easily recognizable by anyone on the road



Sound2Target ™

Combines Active Noise Cancellation and Electronic Sound Synthesis to simultaneously remove unwanted noise content and synthesize or augment desired sound content

Source: https://car.harman.com/solutions/car-audio/halosonic/electronic-sound-synthesis



S2T combines Active Noise Cancellation and Electronic Sound Synthesis to simultaneously remove unwanted noise content and synthesize or augment desired sound content. RNC is used to remove broadband content, as well as annoying tire cavity noise and low frequency sound. EOC and harmonic synthesis tools within ESS are then combined to remove unwanted orders and enhance desired order content to achieve the targeted powertrain noise character.

Once an optimized order content or quiet zone is achieved, advanced sound synthesis tools can be used to augment the overall vehicle noise. Features such as looping or triggered wave players, granular synthesis and Shepard tones allow to generate multiple sound layers, including a combination of directed and diffuse noise sources, and obtain the OEM's desired vehicle sound signature.

Source: https://info.car.harman.com/l/606031/2021-08-31/4jwrp/606031/1646751889cKlrUR7S/Brochure HALOsonic.pdf

- 37. Defendant has indirectly infringed and continues to indirectly infringe the '620 Patent by actively inducing infringement of the '620 Patent by others, such as users of the Accused Product within this District.
- 38. Defendant's direct and indirect infringement of the '620 Patent has damaged and will continue to damage Plaintiff.

- 39. Plaintiff is entitled to recover damages adequate to compensate it for Defendant's direct and indirect infringement.
- 40. After receiving actual notice of the '620 Patent, Defendant proceeded to make, use, test, sell, and/or offer to sell in this District and elsewhere in the United States, and import into this District and elsewhere in the United States, the Accused Product.
- 41. On information and belief, Defendant engaged in such activities despite an objectively high likelihood that its actions constituted infringement and inducement of infringement of the '620 Patent. Defendant knew and should have known that its actions would cause direct and induced infringement of the '620 Patent, and on information and belief, Defendant has monitored the substantial prior art submissions made prior to issuance of the '620 patent.
 - 42. Defendant has willfully infringed and continues to willfully infringe the '620 Patent.

COUNT II

Defendant's Infringement of the '329 Patent

- 43. Plaintiff incorporates the allegations of all of the foregoing paragraphs as if fully restated herein.
- 44. Plaintiff is the assignee and lawful owner of the '329 Patent, and Plaintiff holds all right, title and interest in and to the '329 Patent. The '329 Patent is valid and enforceable.
- 45. Defendant has directly infringed, and continues to directly and willfully infringe, the '329 Patent by making, using, selling, offering for sale, or importing into the United States products that infringe the '329 Patent, such as the Accused Product. Further discovery may reveal additional infringing products and/or models.
- 46. For example, and without limitation, the Accused Product, and similar automotive acoustic management products, infringe at least claim 1 of the '329 Patent.

- 47. Defendant has had notice of its infringement of the '329 Patent at least since the date of filing of the complaint in this action.
- 48. The Accused Product is an exemplary product that practices at least claim 1 of the '329 Patent. On information and belief, many other products provided by HARMAN also infringe claim 1 of the '329 Patent.
- 49. The '329 Patent claims: 1. A system comprising: a device among a plurality of acoustic devices; wherein the device is configured as a controller, wherein the controller is configured to perform operations comprising: selecting a subset of acoustic devices from among the plurality of acoustic devices for acquiring sensor acoustic data, wherein the subset of acoustic devices are configured to interchange device information and data over a communication link; receiving a first set of sensor acoustic data from a first acoustic device of the selected subset of acoustic devices; receiving a second set of sensor acoustic data from a second acoustic device of the selected subset of acoustic devices; and analyzing at least one of the first set of sensor acoustic data or the second set of sensor acoustic data or a combination of both to identify if speech is present.
- 50. The Accused Product is an automotive acoustic management system. The system is implemented in the cockpit of a vehicle. The cockpit functions as a controller. HARMAN External Microphones are placed on the exterior of the vehicle and used to capture acoustic data external to the vehicle, for example engine noise, road noise, and speech. Upon information and belief, the captured acoustic data is transmitted to the cockpit over a communication link where it is analyzed to identify speech. Internal microphones can also be used to capture internal acoustic data within the cabin of the vehicle as one of the first or second set of sensor acoustic data for analysis.



aspirational consumer experiences at the speed of demand. At HARMAN, we are at the forefront of this bold new era with a host of cutting-edge solutions, like the External Microphone.

With its robust design and easy vehicle integration capabilities, this game-changing acoustic sensor is raising the bar for verbal interaction and situational awareness. External speech recognition, enhanced acoustic detection, increased awareness of approaching vehicles – it's all made possible with the HARMAN External Microphone.

Source: https://car.harman.com/solutions/car-audio/harman-embedded-audio-external-microphone



HARMAN Sound and Vibration Sensor

HARMAN Sound and Vibration Sensor (SVS) enables automotive OEMs to meet consumer aspirations of speech-controlled convenience and increased situational awareness. A fully developed, DV-tested multifunctional sensor with wideband performance and invisible vehicle integration, SVS enables external speech recognition and acoustic sensing for a multitude of applications.

DOWNLOAD DATASHEET

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Source: https://car.harman.com/solutions/car-audio

- 51. Defendant has indirectly infringed and continues to indirectly infringe the '329 Patent by actively inducing infringement of the '329 Patent by others, such as users of the Accused Product within this District.
- 52. Defendant's direct and indirect infringement of the '329 Patent has damaged and will continue to damage Plaintiff.
- 53. Plaintiff is entitled to recover damages adequate to compensate it for Defendant's direct and indirect infringement.
- 54. After receiving actual notice of the '329 Patent, Defendant proceeded to make, use, test, sell, and/or offer to sell in this District and elsewhere in the United States, and import into this District and elsewhere in the United States, the Accused Product.

- 55. On information and belief, Defendant engaged in such activities despite an objectively high likelihood that its actions constituted infringement and inducement of infringement of the '329 Patent. Defendant knew and should have known that its actions would cause direct and induced infringement of the '329 Patent, and on information and belief, Defendant has monitored the substantial prior art submissions made prior to issuance of the '329 patent.
 - 56. Defendant has willfully infringed and continues to willfully infringe the '329 Patent.

COUNT III

Defendant's Infringement of the '587 Patent

- 57. Plaintiff incorporates the allegations of all of the foregoing paragraphs as if fully restated herein.
- 58. Plaintiff is the assignee and lawful owner of the '587 Patent, and Plaintiff holds all right, title and interest in and to the '587 Patent. The '587 Patent is valid and enforceable.
- 59. Defendant has directly infringed, and continues to directly and willfully infringe, the '587 Patent by making, using, selling, offering for sale, or importing into the United States products that infringe the '587 Patent, such as the Accused Product. Further discovery may reveal additional infringing products and/or models.
- 60. For example, and without limitation, the Accused Product, and similar automotive acoustic management products, infringe at least claim 1 of the '587 Patent.
- 61. Defendant has had notice of its infringement of the '587 Patent at least since the date of filing of the complaint in this action.
- 62. The Accused Product is an exemplary product that practices at least claim 1 of the '587 Patent. On information and belief, many other products provided by HARMAN also infringe claim 1 of the '587 Patent.

- 63. The '587 Patent claims: 1. A system comprising: a user interface; and an audio device comprising: a microphone configured to measure ambient sound and generate a microphone signal; a speaker configured to emit an audio signal; a memory configured to store instructions; an audio buffer configured to store at least a portion of the microphone signal; a data buffer; a processor operatively coupled to the memory, the processor operatively coupled to the audio buffer, the processor operatively coupled to the data buffer, wherein the processor is configured to execute the instructions to perform operations comprising: receiving the microphone signal; sending a portion of the microphone signal to the audio buffer; analyzing the audio buffer for detecting a sonic signature; notifying a user when the sonic signature is detected; sending a modified microphone signal to the data buffer replacing or adding to previous data stored in the data buffer; and sending a portion of the data stored in the data buffer, spanning a time period, to the speaker in response to a user request, wherein the user request is one of the sonic signature that is a voice command or a manual input from the user interface.
- 64. The Accused Product is an automotive acoustic management system. The system is implemented in the cockpit of a vehicle. The cockpit functions as a user interface, a processor, memory to store instructions, and an audio buffer. HARMAN External Microphones are placed on the exterior of the vehicle and used to capture ambient acoustic sound external to the vehicle, for example engine noise, road noise, and speech. Internal microphones can also be used to capture internal ambient acoustic sound within the cabin of the vehicle as microphones configured to measure ambient sound and generate a microphone signal. Upon information and belief, the captured ambient acoustic sound is communicated to the cockpit of the vehicle. Within the cockpit processor, a portion of the microphone signal is placed in an audio buffer and analyzed for the presence of a sonic signature, such as a voice command from "[e]xternal speech recognition" or

"verbal interaction." Then, data stored in the audio buffer can be sent to the car speakers upon a user request.



Source: https://car.harman.com/solutions/car-audio/harman-embedded-audio-external-microphone



HARMAN Sound and Vibration Sensor

HARMAN Sound and Vibration Sensor (SVS) enables automotive OEMs to meet consumer aspirations of speech-controlled convenience and increased situational awareness. A fully developed, DV-tested multifunctional sensor with wideband performance and invisible vehicle integration, SVS enables external speech recognition and acoustic sensing for a multitude of applications.

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Source: https://car.harman.com/solutions/car-audio

- 65. Defendant has indirectly infringed and continues to indirectly infringe the '587 Patent by actively inducing infringement of the '587 Patent by others, such as users of the Accused Product within this District.
- 66. Defendant's direct and indirect infringement of the '587 Patent has damaged and will continue to damage Plaintiff.
- 67. Plaintiff is entitled to recover damages adequate to compensate it for Defendant's direct and indirect infringement.

- 68. After receiving actual notice of the '587 Patent, Defendant proceeded to make, use, test, sell, and/or offer to sell in this District and elsewhere in the United States, and import into this District and elsewhere in the United States, the Accused Product.
- 69. On information and belief, Defendant engaged in such activities despite an objectively high likelihood that its actions constituted infringement and inducement of infringement of the '587 Patent. Defendant knew and should have known that its actions would cause direct and induced infringement of the '587 Patent, and on information and belief, Defendant has monitored the substantial prior art submissions made prior to issuance of the '587 patent.
 - 70. Defendant has willfully infringed and continues to willfully infringe the '587 Patent.

DEMAND FOR JURY TRIAL

71. Pursuant to Fed. R. Civ. P. 38, Plaintiff hereby respectfully requests trial by jury on all claims and issues so triable.

REQUEST FOR RELIEF

- 72. WHEREFORE, Plaintiff respectfully requests the following relief:
 - a) The entry of judgment, in favor of Plaintiff and against Defendant, that the Asserted Patents are valid and enforceable;
 - b) The entry of judgment, in favor of Plaintiff and against Defendant, that Defendant has infringed, directly and indirectly, either literally or under the Doctrine of Equivalents, one or more claims of the '620 Patent;
 - c) The entry of judgment, in favor of Plaintiff and against Defendant, that the Defendant's infringement of the '620 Patent has been willful, and that the Defendant's continued infringement of the '620 Patent is willful;

- d) The entry of judgment, in favor of Plaintiff and against Defendant, that Defendant has infringed, directly and indirectly, either literally or under the Doctrine of Equivalents, one or more claims of the '329 Patent;
- e) The entry of judgment, in favor of Plaintiff and against Defendant, that the Defendant's infringement of the '329 Patent has been willful, and that the Defendant's continued infringement of the '329 Patent is willful;
- f) The entry of judgment, in favor of Plaintiff and against Defendant, that Defendant has infringed, directly and indirectly, either literally or under the Doctrine of Equivalents, one or more claims of the '587 Patent;
- g) The entry of judgment, in favor of Plaintiff and against Defendant, that the Defendant's infringement of the '587 Patent has been willful, and that the Defendant's continued infringement of the '587 Patent is willful;
- h) The entry of judgment, in favor of Plaintiff and against Defendant, awarding Plaintiff all appropriate damages under 35 U.S.C. § 284 for Defendant's past infringement, and any continuing or future infringement of the Asserted Patents, including pre- and post-judgment interest, costs, and disbursements as justified under 35 U.S.C. § 284 and, if necessary, an accounting, and further:
 - That Plaintiff be awarded enhanced damages by reason of the Defendant's willful infringement of the '620 Patent;
 - ii. That Plaintiff be awarded enhanced damages by reason of the Defendant's willful infringement of the '329 Patent;
 - iii. That Plaintiff be awarded enhanced damages by reason of the Defendant's willful infringement of the '587 Patent;

- iv. That this case be declared exceptional within the meaning of 35 U.S.C.§ 285 and that Plaintiff be awarded its reasonable attorneys' fees against the Defendant incurred in prosecuting this action; and
- v. That Plaintiff be awarded its costs and expenses incurred in prosecuting this action.
- i) The entry of a permanent injunction, enjoining Defendant, its subsidiaries, and any person or entity acting in concert with Defendant from making, using, selling, offering to sell, or importing any products that infringe the Asserted Patents, and any other injunctive relief the Court deems just and equitable; and
- j) The entry of judgment, in favor of Plaintiff and against Defendant, that awarding Plaintiff such further relief at law or in equity as the Court deems just and proper.

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Dated: July 25, 2023

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