# IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA

BAYERISCHE MOTOREN WERKE AG, BMW OF NORTH AMERICA, LLC, Plaintiffs,

Defendant.

v.

Case No.

JURY TRIAL DEMANDED

ARIGNA TECHNOLOGY LIMITED,

**COMPLAINT** 

Plaintiffs Bayerische Motoren Werke AG and BMW of North America, LLC ("Plaintiffs"), by and through their undersigned counsel, file this Complaint and Jury Demand against Defendant Arigna Technology Limited ("Defendant"), and allege as follows:

# NATURE OF THE ACTION

1. This is an action for declaratory judgment of noninfringement and invalidity of a United States Patent pursuant to the Declaratory Judgment Act, 28 U.S.C. §§ 2201-2202, and the Patent Laws of the United States, 35 U.S.C. §§ 1 *et seq*.

2. Plaintiffs seek declaratory judgment that none of the claims of U.S. Patent No. 7,049,850 (the "'850 Patent") are infringed by an integrated circuit used in inverters incorporated into certain of Plaintiffs' vehicles. Plaintiffs further seek declaratory judgment that each of the claims of the '850 Patent is invalid under one or more subsections of the Patent Laws of the United States, 35 U.S.C. §§ 1 *et seq.* 

3. Plaintiffs seek this relief because Defendant has sued Plaintiffs alleging that they have infringed the '850 Patent by using, selling, and/or offering for sale vehicles that contain

inverters that incorporate allegedly infringing integrated circuits. Defendant's lawsuit has placed a cloud over Plaintiffs' continuing manufacture and sale of certain of its vehicles, and thereby creating an actual and justiciable controversy between Plaintiffs and Defendant.

## NATURE OF THE ACTION

4. Plaintiff Bayerische Motoren Werke AG is a company organized and existing under the laws of Germany, and maintains its principal place of business at Petuelring 130, 80809, Munich, Germany.

5. Plaintiff BMW of North America, LLC is a company organized and existing under the laws of the United States of America, and is a Delaware Limited Liability Company with its principle place of business in Woodcliff Lake, New Jersey. Plaintiff BMW of North America, LLC is a wholly-owned, but indirect, subsidiary of Plaintiff Bayerische Motoren Werke AG.

6. On information and belief, Defendant Arigna Technology Limited is a company organized and existing under the laws of Ireland, and having a principle place of business at The Hyde Building, Carrickmines, Suite 23, Dublin 18, Ireland.

### JURISDICTION AND VENUE

7. The Court has subject matter jurisdiction over this action pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202; 28 U.S.C. §§ 1331 and 1338; and the Patent Laws of the United States, 35 U.S.C. §§ 1 et seq.

8. The Court has personal jurisdiction over Defendant pursuant to 35 U.S.C. § 293, which provides that, in cases involving a "patentee not residing in the United States," this Court "shall have the same jurisdiction to take any action respecting the patent or rights thereunder that it would have if the patentee were personally within the jurisdiction of the court."

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9. Upon information and belief, Defendant is the owner of all rights, title, and interest of the '850 Patent at the United States Patent and Trademark Office. Upon information and belief, Defendant is an Irish resident and citizen, and as such, is a "patentee not residing in the United States" under 35 U.S.C. § 293. Upon information and belief, Defendant has not filed with the United States Patent and Trademark Office "a written designation stating the name and address of a person residing within the United States on whom may be served process or notice of proceedings affecting the patent or rights thereunder." 35 U.S.C. § 293. Thus, Defendant is subject to this Court's personal jurisdiction under 35 U.S.C. § 293.

10. Venue is proper in this judicial district under 28 U.S.C. § 1391(b)(3) because Defendant is subject to this Court's personal jurisdiction under 35 U.S.C. § 293. Venue is also proper under 28 U.S.C. § 1391(c)(3) because a defendant that does not reside in the United States may be sued in any judicial district.

### BACKGROUND

11. The '850 Patent bears the title "Semiconductor Device with a Voltage Detecting Device to Prevent Shoot-Through Phenomenon in First and Second Complementary Switching Devices," and states that it issued on July 8, 2008. The '850 Patent identifies Kazuhiro Shimizu as the sole inventor. A copy of the '850 Patent is attached as Exhibit A.

12. The '850 Patent lists "Mitsubishi Denki Kabushiki Kaisha" as the assignee. The United States Patent and Trademark Office Assignment Database contains a record of an assignment of the '850 Patent from Mitsubishi Denki Kabushiki Kaisha to Defendant executed February 13, 2020, and recorded March 6, 2020 at Reel/frame 052042/0651.

13. The '850 Patent issued with twenty-six claims. Claims 1, 7, 13, 20 are all independent claims.

### **DEFENDANT'S LAWSUIT AGAINST PLAINTIFFS**

14. BMW AG manufactures and sells vehicles in Germany. BMW NA distributes and markets automotive vehicles in the United States. Certain vehicles of Plaintiffs' automotive vehicles include a third-party AUIR2085S integrated circuit that are sold and used as part of an inverter incorporated into an automotive vehicle. Plaintiffs do not design or manufacture the AUIR2085S integrated circuit; on information and belief, the AUIR2085S is manufactured by Infineon Technologies Americas Corp. and/or its foreign affiliates ("Infineon").

15. On May 20 2021, Defendant filed a complaint for patent infringement against Bayerische Motoren Werke AG and BMW of North America, LLC in the United States District Court for the Eastern District of Texas (Civil Action No. 2:21-cv-00172-JRG) alleging infringement of the '850 Patent. A copy of the complaint is attached as Exhibit B.

16. Defendant alleges in its complaint that it "is the owner of all rights, title, and interest in and to" the '850 Patent. See Exhibit B at  $\P$  1.

17. Defendant's allegations of infringement of the '850 Patent are based on the alleged sale or offer for sale of automotive vehicles that incorporate an AUIR2085S integrated circuit. See Exhibit B at ¶ 34.

18. Defendant generally alleges that Plaintiffs "designs, manufactures, assembles, imports, offers for sale, and/or sells automotive vehicles and components thereof that incorporate the AUIR2085S that infringes at least independent claim 7 of the '850 Patent." *See, e.g.*, Exhibit B at ¶ 34.

19. In connection with the -172 lawsuit, Defendant served infringement contentions on Plaintiffs on September 15, 2021 accusing Plaintiffs of infringing claims 7, 8, and 10 of the '850 patent.

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20. Defendant's infringement contentions allege that "makes, uses, sells, offers for sale, and/or imports vehicles and components thereof that contain the Infineon AUIR2085S, including the BMW i3." Defendant alleges that the BMW i3 infringes claims 7, 8, and 10 of the '850 Patent because it includes the AUIR2085S integrated circuit. Exhibit C.

21. On January 19, 2022, Defendant served Plaintiffs with supplement infringement contentions accusing three additional vehicles—the BMW X5 (PHEV), BMW i8, and Mini Cooper SE—of infringing the '850 Patent based on their use of an inverter containing the AUIR2085S. Collectively, the BMW i3, BMW X5 (PHEV), BMW i8, and Mini Cooper SE are referred to as the "allegedly infringing vehicles."

22. Plaintiffs have discontinued sales of the BMW i3, the allegedly infringing version of the BMW X5 (PHEV), and the BMW i8, Plaintiffs have manufactured and/or sold those vehicles within the statute of limitations for patent infringement, and continue to manufacture, offer for sale, and sell their Mini Cooper SE automotive vehicles, and therefore, have a reasonable apprehension that Defendant may file an action against Plaintiffs and allege that Plaintiffs have infringed or are infringing the '850 Patent by making, using, offering for sale, and/or selling the aforementioned. Indeed, Defendants have sued Plaintiffs in the United States District Court for the Eastern District of Texas (Civil Action No. 2:21-cv-00172-JRG). However, the Federal Circuit's recent, binding precedent in *In re: Volkswagen Group of America, Inc.* and *In re: Hyundai Motor America.* (Opinion in Case Nos. 22-108 and 22-109), indicates that venue was and is improper in the Eastern District of Texas. *See* Exhibit D.

23. Plaintiffs' allegedly infringing vehicles do not infringe and have not infringed, either directly or indirectly, any claim of the '850 Patent. In view of Defendant's allegations that Plaintiffs' vehicles infringe the '850 Patent, and its patent infringement claims against

automotive vehicles allegedly containing the AUIR2085S integrated circuit—including the allegedly infringing vehicles—a substantial controversy exists between the parties which is of sufficient immediacy and reality to warrant declaratory relief.

## FIRST CAUSE OF ACTION

### (Declaratory Judgment of Non-Infringement)

24. Plaintiffs reallege and incorporate paragraphs 1 to 23 as if fully set forth herein.

25. An actual controversy exists with respect to the '850 Patent due at least to Defendant's assertion that Plaintiffs infringe claims 7, 8, and 10 of the '850 Patent through their sale of the allegedly infringing vehicles that allegedly contain an inverter that incorporates an AUIR2085S integrated circuits. Defendant's wrongful assertion of the '850 Patent against Plaintiffs has caused and will continue to cause Plaintiffs irreparable injury and damage.

26. On information and belief, Defendant's infringement allegations are premised on a datasheet of the AUIR2085S integrated circuit which Defendant alleges show the circuit structure of the circuitry of the AUIR2085S. *See, e.g.*, Exhibit C at 2. Defendants infringement contentions claim charts against Plaintiffs are attached as Exhibit C.

27. On information and belief, Defendant has not performed any teardown or circuit inspection of an actual inverter in one of Plaintiffs' accused infringing vehicles.

28. On information and belief, Defendant has not performed any teardown or circuit inspection of an AUIR2085S integrated circuit.

29. On information and belief, the AUIR2085S integrated circuit does not include "a high main power potential," as required by claim 7 of the '850 Patent.

30. On information and belief, the AUIR2085S integrated circuit does not include "a high potential part including a control part configured to control conduction/non-conduction of a

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high side switching device which is one of said first and second switching devices;," as required by claim 7 of the '850 Patent.

31. On information and belief, the AUIR2085S integrated circuit does not include "a reverse level shift part configured to level-shift a signal from said high potential part to supply the level-shifted signal to a low side logic circuit operating on the basis of said low main power potential," as required by claim 7 of the '850 Patent.

32. On information and belief, the AUIR2085S integrated circuit does not include "a voltage detecting device provided in said high potential part and configured to detect a potential at an output line of said reverse level shift part and to supply a logic value based on said potential for said control part, thereby causing said control part to control conduction/non-conduction of said high side switching device," as required by claim 7 of the '850 Patent.

33. Because Plaintiffs' vehicles allegedly containing the AUIR2085S integrated circuit do not meet each and every limitation of claims 7, 8, and 10 of the '850 patent, Plaintiffs' vehicles do not infringe directly or indirectly any claim of the '850 Patent, either literally or under the doctrine of equivalents.

34. Plaintiffs use, sale, or offer for sale of vehicles allegedly containing theAUIR2085S integrated circuit does not infringe, directly or indirectly, any claim of the '850Patent, either literally or under the doctrine of equivalents.

35. In view of the foregoing, Plaintiffs seek and are entitled to declaratory judgment that the use, sale, and offer for sale of Plaintiffs; vehicles allegedly incorporated the AUIR2085S integrated circuit do not infringe any claim of the '850 Patent. A judicial determination of the respective rights of the parties with respect to noninfringement of the claims of the '850 Patent is

necessary and appropriate under 28 U.S.C. § 2201 to resolve the parties' dispute regarding alleged infringement of the '850 Patent.

## **SECOND CAUSE OF ACTION**

## (Declaratory Judgment of Invalidity)

36. Plaintiffs reallege and incorporate paragraphs 1 to 35 as if fully set forth herein.

37. An actual controversy exists with respect to the '850 Patent due at least to

Defendant's assertion that Plaintiffs infringe claims 7, 8, and 10 of the '850 Patent through their sale of vehicles containing the AUIR2085S integrated circuit. Defendant's wrongful assertion of the '850 Patent against the AUIR2085S integrated circuit used in certain inverters in the allegedly infringing vehicles has caused and will continue to cause Plaintiffs irreparable injury and damage.

38. Each claim of the '850 Patent is invalid for failure to satisfy one or more conditions for patentability set forth in 35 U.S.C. § 101 et seq., including but not limited to Sections 102 and 103.

39. For example, each claim of the '850 Patent is invalid under 35 U.S.C. §§ 102 and/or 103 based on at least the following references (each of which is prior art to the '850 Patent), or combinations thereof:

- IR2085S;
- U.S. Patent No. 6,037,720; and

• U.S. Patent Publication No. 2003/0012040.

40. For example, at least because the IR2085S anticipates the '850 patent under Defendant's apparent claim interpretation.

41. On information and belief, the IR2085S datasheet was publicly available as of at least March 25, 2003. Ex. E. On information and belief, the '850 Patent states that the priority date is April 24, 2003 through the filing of Japanese application JP2003-119641. Ex. A at (30). On information and belief, the IR2085S datasheet is prior art to the '850 Patent.

42. In view of the foregoing, Plaintiffs seek and are entitled to declaratory judgment that the claims of the '850 Patent are invalid and unenforceable. A judicial determination of the respective rights of the parties with respect to the invalidity of the claims of the '850 Patent is necessary and appropriate under 28 U.S.C. § 2201 to resolve the parties dispute regarding the '850 Patent.

### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs demand judgment as follows:

A. Declaratory judgment that Plaintiffs' use of third-party product AUIR2085S does not infringe, directly, or indirectly, the '850 Patent;

B. Declaratory judgment that the claims of the '850 Patent are invalid;

C. Preliminary and permanent injunctive relief restraining Defendant and its agents, servants, employees, successors and assigns, and all others in concert and privity with them from wrongfully asserting the '850 Patent against Plaintiffs' products;

D. A declaration that this action is an exceptional case under 35 U.S.C. § 285;

E. An award to Plaintiffs of their attorneys' fees and costs incurred in this Action;

and

F. A grant of such other and further relief as this Court deems just and proper.

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## **DEMAND FOR JURY TRIAL**

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiffs demand a trial

by jury on all issues so triable.

Dated: March 15, 2022

Respectfully submitted,

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# ATTORNEY FOR DEFENDANTS BMW OF NORTH AMERICA, LLC AND BAYERISCHE MOTOREN WERKE AG