

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

TRINA SOLAR CO., LTD)	
)	
Plaintiff,)	C.A. No. 24-557 (JCG)
)	
v.)	
)	DEMAND FOR JURY TRIAL
RUNERGY USA INC. and RUNERGY)	
ALABAMA INC.)	
)	
Defendants.)	

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Trina Solar Co., Ltd. (“Trina Solar” or “Plaintiff”) hereby allege, for their Complaint against Defendants Runergy USA Inc. and Runergy Alabama Inc. (collectively, “Runergy” or “Defendants”), on personal knowledge as to Plaintiff’s own actions and on information and belief as to the actions of others, as follows:

INTRODUCTION

1. This is a patent infringement action brought under 35 U.S.C. § 271 arising from Runergy’s infringement of Trina Solar’s United States Patent Nos. 9,722,104 (“the ’104 patent”) and 10,230,009 (“the ’009 patent”) (collectively, the “Asserted Patents”) by the manufacture, use, offer to sell, sale of, and/or importation into the United States of the Accused Solar Cells (defined below), and products containing the Accused Solar Cells. Runergy’s solar cells, including its Tunnel Oxide Passivated Contact (“TOPCon”) solar cells, use Trina Solar’s patented technology without authorization. Plaintiff brings this action to remedy Runergy’s infringement of Trina Solar’s innovative, patented technology.

THE PARTIES

2. Plaintiff Trina Solar Co., Ltd. is a foreign company organized and existing under the laws of China, having a principal place of business at No. 2 Tianhe Road, Trina PV Industrial Park, Xinbei District, Jiangsu Province 213031, China.

3. On information and belief, Defendant Runergy USA Inc. is a corporation organized and existing under the laws of the state of Delaware, having a principal place of business at 6200 Stoneridge Mall Road, Suite 300, Pleasanton, California 94588.

4. On information and belief, Defendant Runergy Alabama Inc. is a corporation organized and existing under the laws of the state of Delaware, having a principal place of business at 4905 Moores Mill Road, Huntsville, Alabama 35811.

JURISDICTION AND VENUE

5. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq.* This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

6. This Court has general personal jurisdiction over the Defendants because each is, on information and belief, incorporated in the State of Delaware. Moreover, on information and belief, Defendants have conducted business in this District, purposely availing themselves of the benefits of doing business in the State of Delaware.

7. Venue is proper in this Court under 28 U.S.C. § 1400(b) because, on information and belief, Defendants reside in this District and have committed acts of infringement in this District.

TRINA'S INDUSTRY-LEADING TECHNOLOGY

8. Trina Solar is a global leader in the manufacture of photovoltaic products. Founded in 1997, Trina Solar has been a consistent innovator, facilitating the transformation of power

systems for a net-zero emission future. Through the third quarter of 2023, Trina Solar has delivered over 170 GW of capacity to over 160 global customers.

9. Trina Solar has broken 26 world records for solar cell efficiency and module power.

10. In keeping with its tradition of innovation and excellence, Trina Solar was one of the first to manufacture a commercially viable solar module with TOPCon technology.

11. In or around 2018, Trina Solar built a 400 MW solar facility that successfully utilized Trina Solar's n-type TOPCon technology. Building on that experience, Trina Solar has developed an entire line of high efficiency n-type solar panels with TOPCon technology for utility, commercial, and residential applications.

RUNERGY'S INFRINGING SOLAR PRODUCTS

12. On information and belief, Runergy makes, uses, sells, offers to sell, and/or imports infringing solar cells (the "Accused Solar Cells") including, but not limited to, solar cells used in Runergy solar panels such as DH108N8B, DH120N8, DH144N8, and DH156N8.¹ The web address for Runergy's N-Type Series modules previously indicated Runergy's use of TOPCon technology: <https://www.runergy.com/product/topcon-module/>. On information and belief, Runergy changed this web address in response to the filing of Trina's Original Complaint.

13. For example, at the TiayangNews Virtual Conference on or about December 13, 2023, Runergy's Technical Support Manager, Victor Rada, stated that Runergy expected to have over 38 GW of n-Type cell capacity by the end of 2023.² Runergy's Victor Rada has stated that "N-type technologies are better known in the market as Topcon and HeteroJunction but we particularly refer to them as N-type specifically and HeteroJunction for reasons that are obvious."³

¹ <https://runergyusa.com/download/>; <https://www.runergy.com/product/topcon-module/>

² https://www.youtube.com/watch?v=ED_8cYnIP5g

³ *Id.*

14. Runergy has publicly stated in its May 2023 prospectus that its “TOPCon mass production project investment progress is at the forefront of the industry’s N-type technology industrialization, which can gain a more favorable competitive position in the vast market demand The TOPCon production capacity of the company is at the forefront of the industry and can share the market dividends of emerging technologies.”⁴

15. On information and belief, including as stated by Runergy’s Victor Rada, the Accused Solar Cells have also been incorporated into products sold by Runergy under the Hyperion brand.⁵

16. According to its website, “[i]n 2023, Runergy expanded its operations to produce and sell its high-efficiency solar modules in the United States, founding Runergy USA Inc and building a solar panel assembly plant in Huntsville, Alabama.”⁶

17. On information and belief, Runergy is constructing a solar panel production facility in Alabama with plans to produce products incorporating the Accused Solar Cells in the United States.⁷

COUNT I

(Infringement of U.S. Patent No. 9,722,104)

18. On August 1, 2017, the United States Patent and Trademark Office duly issued U.S. Patent No. 9,722,104, entitled “Solar cell and method for manufacturing the same.” A true and correct copy of the ’104 patent is attached hereto as **Exhibit A**.

⁴ May 2024 Prosepectus at 8-1-2-24 (machine translation).

⁵ https://www.youtube.com/watch?v=ED_8cYnIP5g

⁶ <https://runergyusa.com/about/>.

⁷ *Id.*

19. The '104 patent has been in full force and effect since its issuance. Trina Solar owns by assignment the entire right, title, and interest in and to the '104 patent, including the right to seek damages for past, current, and future infringement thereof.

20. On information and belief, Runergy began selling and offering to sell products incorporating the Accused Solar Cells at least as early as about September 2023. On information and belief, the Accused Solar Cells, and products containing the Accused Solar Cells, are manufactured in at least China and Thailand for importation into the United States. On information and belief, Runergy uses, sells, and offers for sale the Accused Solar Cells, and products containing the Accused Solar Cells in the United States, including in this District.

21. Runergy has infringed and continues to infringe the '104 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling, exporting from, and/or importing into the United States Runergy's Accused Solar Cells, and products containing the Accused Solar Cells, without authority or license.

22. Runergy indirectly infringes the '104 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(b), by (among other things) and with specific intent or willful blindness, actively aiding and abetting infringement by others, such as Runergy's partners, customers and end-users, in this District and elsewhere in the United States. For example, Runergy's partners, customers and end-users directly infringe through their use of the inventions claimed in the '104 patent. Runergy induces this direct infringement through its affirmative acts of selling, distributing, and/or otherwise making available the Accused Solar Cells, and products containing the Accused Solar Cells. Runergy has known of the '104 patent, and that the Accused Solar Cells, and products containing the Accused Solar Cells, infringe the '104 patent, or has been willfully blind to such

infringement, since at least March 2024 or, alternatively, since at least service of Trina Solar's Original Complaint. Despite this knowledge of the '104 patent and that the Accused Solar Cells, and products containing the Accused Solar Cells, infringe the '104 patent, Runergy has continued to perform these affirmative acts with the intent, or willful blindness, that the induced acts directly infringe the '104 patent.

23. Runergy also indirectly infringes the '104 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as customers and end-users, in this District and elsewhere in the United States. Runergy's affirmative acts of selling and offering to sell, in this District and elsewhere in the United States, the Accused Solar Cells, and products containing the Accused Solar Cells, and causing the Accused Solar Cells, and products containing the Accused Solar Cells, to be manufactured, used, sold, and offered for sale, contribute to Runergy's customers' and end-users' use of the Accused Solar Cells, and products containing the Accused Solar Cells,, such that the '104 patent is directly infringed. The Accused Solar Cells are a material part of the invention of the '104 patent, are not staple articles or commodity of commerce, have no substantial non-infringing use, and are known by Runergy to be especially made or adapted for use in the infringement of the '104 patent. Runergy has known of the '104 patent, and that the Accused Solar Cells infringe the '104 patent, or has been willfully blind to such infringement, since at least March 2024 or, alternatively, since at least service of Trina Solar's Original Complaint. Despite this knowledge of the '104 patent and that the Accused Solar Cells infringe the '104 patent, Runergy has continued to perform these affirmative acts with knowledge of the '104 patent and with intent, or willful blindness, that they cause the direct infringement of the '104 patent.

24. Claim 1 of the '104 patent is reproduced below with the addition of labels [a], [b], [c], [d], [e], [f], [g], [h], [i], [j], and [k] corresponding to limitations of the claim.

1. A solar cell, comprising:

- [a] a semiconductor substrate;
- [b] a tunnel layer on a first surface of the semiconductor substrate;
- [c] a first conductive type semiconductor region on the tunnel layer and containing impurities of a first conductive type;
- [d] a second conductive type semiconductor region on a second surface opposite to the first surface of the semiconductor substrate and containing impurities of a second conductive type opposite to the first conductive type;
- [e] a first passivation film on the first conductive type semiconductor region;
- [f] a first electrode formed on the first passivation film and connected to the first conductive type semiconductor region through an opening formed in the first passivation film;
- [g] a second passivation film on the second conductive type semiconductor region;
- [h] a second electrode formed on the second passivation film and connected to the second conductive type semiconductor region through an opening formed in the second passivation film; and
- [i] an isolation portion for preventing a contact between the first conductive type semiconductor region and the second conductive type semiconductor region,
- [j] wherein the isolation portion excludes the tunnel layer and the first conductive type semiconductor region, and is in an edge portion of the first surface of the semiconductor substrate, and
- [k] wherein the first passivation film covers the first surface of the semiconductor substrate and the isolation portion together.

25. On information and belief, the Accused Solar Cells embody each and every limitation of at least claim 1 of the '104 patent, literally or under the doctrine of equivalents.

26. Attached hereto as Exhibit C is a claim chart showing how the Accused Solar Cells embody each and every limitation of at least claim 1 of the '104 patent. The examples provided therein are preliminary and not intended to construe the scope of the claimed invention or limit

Plaintiff's right to modify these non-limiting examples or allege that other aspects of the Accused Solar Cells infringe the identified claims, or any other claims, of the '104 patent.

27. Plaintiff has been damaged as a result of Runergy's acts of infringement in an amount subject to proof at trial.

28. On information and belief, Runergy has had knowledge of Trina Solar's patents, including the '104 patent, since at least March 2024 and no later than service of Trina Solar's Original Complaint.

29. On or around March 2024, representatives from Trina Solar visited the Shanghai office of Runergy's parent company, Jiangsu Runergy New Energy Technology Co., Ltd. ("Runergy China"), to discuss, among other things, Trina Solar's TOPCon patent portfolio.

30. The March 2024 meeting included at least three Runergy representatives: Dr. Chen RuLong, Vice President of Runergy Photovoltaic Research Institute, Ms. Wang Yi, Runergy Head of Global Module Marketing Center, and Dr. Tao LongZhong, Runergy's founder and Chairman.

31. At the March 2024 meeting, Runergy's representatives were provided with a list of Trina Solar's patents that included the '104 patent. On information and belief, Runergy China knew or should have known based on this list of Trina Solar's patents, that its Accused Solar Cells infringe the '104 patent.

32. On information and belief, Runergy China would have informed Runergy of Trina Solar's patents, including the '104 patent, and that the Accused Solar Cells infringe the '104 patent. Alternatively, Runergy willfully blinded itself to the existence of the '104 patent and Runergy's infringement of the '104 patent by not seeking information about patents alleged to be infringed by the Accused Solar Cells that Runergy intended to make, use, or import into the United States.

33. Runergy's infringement of the '104 patent from and after at least March 2024 is willful, warranting enhanced damages under 35 U.S.C. § 284 and making this an exceptional case that warrants an award of attorneys' fees to Plaintiff pursuant to 35 U.S.C. § 285. Alternatively, Runergy's continued infringement after service of Trina Solar's Original Complaint is willful.

COUNT II

(Infringement of U.S. Patent No. 10,230,009)

34. On March 12, 2019, the United States Patent and Trademark Office duly issued U.S. Patent No. 10,230,009, entitled "Solar cell and method for manufacturing the same." A true and correct copy of the '009 patent is attached hereto as **Exhibit B**.

35. The '009 patent has been in full force and effect since its issuance. Trina Solar owns by assignment the entire right, title, and interest in and to the '009 patent, including the right to seek damages for past, current, and future infringement thereof.

36. On information and belief, Runergy began selling and offering to sell the Accused Solar Cells, and products containing the Accused Solar Cells, at least as early as about September 2023. On information and belief, the Accused Solar Cells, and products containing the Accused Solar Cells, are manufactured in China for importation into the United States. On information and belief, Runergy uses, sells, and offers for sale the Accused Solar Cells, and products containing the Accused Solar Cells, in the United States, including in this District.

37. Runergy has infringed and continues to infringe the '009 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling, exporting from, and/or exporting into the United States Runergy's Accused Solar Cells, and products containing the Accused Solar Cells, without authority or license.

38. Runergy indirectly infringes the '009 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(b), by (among other things) and with specific intent or willful blindness, actively aiding and abetting infringement by others, such as Runergy's partners, customers and end-users, in this District and elsewhere in the United States. For example, Runergy's partners, customers and end-users directly infringe through their use of the inventions claimed in the '009 patent. Runergy induces this direct infringement through its affirmative acts of selling, distributing, and/or otherwise making available the Accused Solar Cells, and products containing the Accused Solar Cells, and providing instructions, documentation, and other information to customers and end-users informing them to use the Accused Solar Cells, and products containing the Accused Solar Cells, in an infringing manner, including on-site technical support and services, online technical support, training, marketing, product manuals, and advertisements, and providing software and mobile applications enabling customers and end-users to control and operate the Accused Solar Cells, and products containing the Accused Solar Cells. As a result of Runergy's inducement, Runergy's partners, customers and end-users use the Accused Solar Cells, and products containing the Accused Solar Cells, in the way that Runergy intends and that directly infringes the '009 patent. Runergy has known of the '009 patent, and that the Accused Solar Cells infringe the '009 patent, or has been willfully blind to such infringement, since at least March 2024 or, alternatively, since at least service of Trina Solar's Original Complaint. Despite this knowledge of the '009 patent and that the Accused Solar Cells infringe the '009 patent, Runergy has continued to perform these affirmative acts with the intent, or willful blindness, that the induced acts directly infringe the '009 patent.

39. Runergy also indirectly infringes the '009 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such

as customers and end-users, in this District and elsewhere in the United States. Runergy's affirmative acts of selling and offering to sell, in this District and elsewhere in the United States, the Accused Solar Cells and causing the Accused Solar Cells to be manufactured, used, sold, and offered for sale, contribute to Runergy's customers' and end-users' use of the Accused Solar Cells, such that the '009 patent is directly infringed. The Accused Solar Cells are a material part of the invention of the '009 patent, not a staple article or commodity of commerce, have no substantial non-infringing use, and are known by Runergy to be especially made or adapted for use in the infringement of the '009 patent. Runergy has known of the '009 patent, and that the Accused Solar Cells infringe the '009 patent, or has been willfully blind to such infringement, since at least March 2024 or, alternatively, since at least service of Trina Solar's Original Complaint. Despite this knowledge of the '009 patent and that the Accused Solar Cells infringe the '009 patent, Runergy has continued to perform these affirmative acts with knowledge of the '009 patent and with intent, or willful blindness, that they cause the direct infringement of the '009 patent.

40. Claim 1 of the '009 patent is reproduced below with the addition of labels [a], [b], [c], [d], [e], [f], [g], [h], [i], [j], and [k] corresponding to limitations of the claim.

1. A solar cell, comprising:

- [a] a silicon semiconductor substrate having a first conductive type;
- [b] an oxide layer on a first surface of the silicon semiconductor substrate;
- [c] a polysilicon layer on the oxide layer and having the first conductive type;
- [d] an emitter region at a second surface of the silicon semiconductor substrate opposite to the first surface and having a second conductive type opposite to the first conductive type;
- [e] a first passivation film on the polysilicon layer;
- [f] a first electrode connected to the polysilicon layer through an opening formed in the first passivation film;

- [g] a second passivation film on the emitter region;
- [h] a second electrode connected to the emitter region through an opening formed in the second passivation film; and
- [i] an isolation portion for preventing a contact between the polysilicon layer and the emitter region,
- [j] wherein the isolation portion excludes the oxide layer and the polysilicon layer, and is in an edge portion of the first surface of the silicon semiconductor substrate, and
- [k] the first passivation film covers the first surface of the silicon semiconductor substrate and the isolation portion together.

41. On information and belief, the Accused Solar Cells embody each and every limitation of at least claim 1 of the '009 patent, literally or under the doctrine of equivalents.

42. Attached hereto as Exhibit D is a claim chart showing how the Accused Solar Cells embody each and every limitation of at least claim 1 of the '009 patent. The examples provided therein are preliminary and not intended to construe the scope of the claimed invention or limit Plaintiff's right to modify these non-limiting examples or allege that other aspects of the Accused Solar Cells infringe the identified claims, or any other claims, of the '009 patent.

43. Plaintiff has been damaged as a result of Runergy's acts of infringement in an amount subject to proof at trial.

44. On information and belief, Runergy has had knowledge of Trina Solar's patents, including the '009 patent, since at least March 2024 and no later than service of Trina Solar's Original Complaint.

45. On or around March 2024, representatives from Trina Solar visited the Shanghai office of Runergy's parent company, Jiangsu Runergy New Energy Technology Co., Ltd. ("Runergy China"), to discuss, among other things, Trina Solar's TOPCon patent portfolio.

46. The March 2024 meeting included at least three Runergy representatives: Dr. Chen RuLong, Vice President of Runergy Photovoltaic Research Institute, Ms. Wang Yi, Runergy Head of Global Module Marketing Center, and Dr. Tao LongZhong, Runergy's founder and Chairman.

47. At the March 2024 meeting, Runergy's representatives were provided with a list of Trina Solar's patents that included the '009 patent. On information and belief, Runergy China knew or should have known based on this list of Trina Solar's patents, that its Accused Solar Cells infringe the '009 patent.

48. On information and belief, Runergy China would have informed Runergy of Trina Solar's patents, including the '009 patent, and that the Accused Solar Cells infringe the '009 patent. Alternatively, Runergy willfully blinded itself to the existence of the '009 patent and Runergy's infringement of the '009 patent by not seeking information about patents alleged to be infringed by the Accused Solar Cells that Runergy intended to make, use, or import into the United States.

49. Runergy's infringement of the '009 patent from and after at least March 2024 is willful, warranting enhanced damages under 35 U.S.C. § 284 and making this an exceptional case that warrants an award of attorneys' fees to Plaintiff pursuant to 35 U.S.C. § 285. Alternatively, Runergy's continued infringement after service of Trina Solar's Original Complaint is willful.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for a judgment in its favor and against Runergy and respectfully requests the following relief:

- A. A judgment that Runergy infringes the '104 patent;
- B. A judgment that Runergy infringes the '009 patent;
- C. Damages for infringement of the '104 patent in an amount to be determined at trial;
- D. Damages for infringement of the '009 patent in an amount to be determined at trial;

E. An order permanently enjoining Runergy from further infringement of the '104 patent or a compulsory royalty in an amount to be determined at trial;

F. An order permanently enjoining Runergy from further infringement of the '009 patent or a compulsory royalty in an amount to be determined at trial;

G. For other monetary relief, including costs and expenses and pre- and post-judgment interest;

H. A determination that Runergy's infringement of the '104 and '009 patents has been and is willful from at least March 2024, and an award of enhanced damages, up to and including trebling of the damages awarded to Plaintiff;

I. A determination that this is an exceptional case under 35 U.S.C. § 285 and an award of attorneys' fees and costs to Plaintiff;

J. An order awarding Plaintiff any such other relief as the Court may deem just and proper under the circumstances.

JURY DEMAND

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiff hereby demands a jury trial as to all issues so triable.

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