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24 Polaris PowerLED Technologies, LLC

25 UNITED STATES DISTRICT COURT
26 FOR THE CENTRAL DISTRICT OF CALIFORNIA

27 POLARIS POWERLED
28 TECHNOLOGIES, LLC,

Plaintiff,

v.

TOP VICTORY ELECTRONICS
(TAIWAN) CO. LTD., TPV
INTERNATIONAL (USA), INC.,
TREND SMART AMERICA, LTD.,
TOP VICTORY INVESTMENTS LTD.,
and TPV TECHNOLOGY LTD.
Defendants.

Case No. 8:19-cv-01580

**COMPLAINT FOR PATENT
INFRINGEMENT**

DEMAND FOR JURY TRIAL

1 Plaintiff Polaris PowerLED Technologies, LLC (“Polaris PowerLED”), by
2 and through its undersigned counsel, files this Complaint for Patent Infringement
3 relating to two U.S. patents as identified below (collectively, the “Patents-in-Suit”)
4 and alleges as follows:

5 **THE PARTIES**

6 1. Plaintiff Polaris PowerLED Technologies, LLC (“Polaris PowerLED”
7 or “Plaintiff”) is a Delaware limited liability company, with its address at 32932
8 Pacific Coast Highway #14-498, Dana Point, California.

9 2. Upon information and belief, Defendant Top Victory Electronics
10 (Taiwan) Co. Ltd. (“TPV Electronics”) is a corporation existing under the laws of
11 Taiwan, with its principal place of business at 10F, No. 230, Liancheng Road, New
12 Taipei City, Taiwan.

13 3. Upon information and belief, Defendant Top Victory Investments, Ltd.
14 (“TPV Investments”) is a corporation existing under the laws of Hong Kong, with
15 its principal place of business at Rm 1023, 10th Fl, Suite 1023 Harbour City, 5
16 Canton Road, Tsim Sha Tsui Hong Kong.

17 4. Upon information and belief, Defendant Trend Smart America, Ltd.
18 (“Trend Smart”) is a California corporation with its principal place of business at 2
19 S. Pointe Dr., Lake Forest, California.

20 5. Upon information and belief, Defendant TPV International (USA), Inc.
21 (“TPV USA”) is a Texas corporation registered to do business in California, with
22 its principal place of business at 3737 Executive Center Dr. #261, Austin, Texas.

23 6. Upon information and belief, Defendant TPV Technology Ltd. (“TPV
24 Technology”) is a corporation existing under the laws of Bermuda, with its
25 principal place of business at Units 1208-16, 12/F, C-Bons International Center,
26 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong. TPV Technology together
27 with Trend Smart, TPV Electronics, TPV USA, and TPV Investments are referred
28 to “TPV” or “Defendants”).

JURISDICTION AND VENUE

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7. Polaris PowerLED brings this civil action for patent infringement pursuant to the Patent Laws of the United States, 35 U.S.C. § 1, *et seq.* This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

8. Upon information and belief, Defendants transact and conduct business in this District and State of California, and are subject to the personal jurisdiction of this Court. Upon information and belief, Defendants have minimum contacts within the State of California and this District and have purposefully availed themselves of the privileges of conducting business in the State of California and in this District. Polaris PowerLED’s causes of action arise directly from TPV’s business contacts and other activities in the State of California and in this District.

9. Upon information and belief, TPV has committed acts of infringement within this District and the State of California by, *inter alia*, making, using, selling, offering for sale, importing, advertising, and/or promoting products that infringe one or more claims of the Patents-in-Suit. More specifically, TPV, directly and/or through intermediaries, makes, uses, sells, ships, imports, distributes, offers for sale, advertises, and otherwise promotes its products in the United States, the State of California, and this District. Upon information and belief, TPV solicits customers in the State of California and this District, and has one or more customers who are residents of the State of California and this District and who use or resell TPV’s products in the State of California and in this District.

10. Venue is proper in this district under 28 U.S.C. §§ 1391(b), (c) and 1400(b), including based on Trend Smart’s physical presence and headquarters being located in this district.

1 **THE PATENTS-IN-SUIT**

2 11. Polaris PowerLED owns the entire right, title, and interest in U.S.
3 Patent No. 7,239,087 entitled “Method and Apparatus to Drive LED Arrays Using
4 Time Sharing Technique” (the ’087 Patent). The ’087 Patent issued on July 3, 2007
5 to inventor Newton E. Ball from the U.S. Patent Application No. 11/011,752, filed
6 on Dec. 14, 2004. A true and correct copy of the ’087 Patent is attached as
7 **Exhibit A** to this Complaint.

8 12. Polaris PowerLED owns by the entire right, title, and interest in U.S.
9 Patent No. 8,223,117 entitled “Method and Apparatus to Control Display
10 Brightness with Ambient Light Correction” (the ’117 Patent). The ’117 Patent
11 issued on July 17, 2012 to inventor Bruce R. Ferguson from the U.S. Patent
12 Application No. 12/336,990, filed on Dec. 17, 2008. A true and correct copy of the
13 ’117 Patent is attached as **Exhibit B** to this Complaint.

14 **BACKGROUND**

15 13. Vizio, Inc. (“Vizio”) is a California corporation which designs,
16 manufactures, and sells televisions, sound bars, speakers, and other television
17 accessories. Vizio offers its products through retailers and online.

18 14. Upon information and belief, TPV manufactures, sells for importation,
19 offers for sale for importation, imports into the United States, and/or distributes
20 certain consumer electronics with display and processing capabilities on behalf of
21 or for sale to Vizio, namely televisions sold under the Vizio brand (the “Vizio
22 Televisions”).

23 15. Upon information and belief, Trend Smart is a wholly owned
24 subsidiary of TPV Technology which imports into the United States for further sale
25 the Vizio Televisions manufactured by TPV for Vizio.

26 16. Upon information and belief, TPV USA is a wholly owned subsidiary
27 of TPV Technology which distributes the Vizio Televisions in and throughout the
28 United States, including in California.

1 more of Vizio’s D-series, E-Series, M-Series, and P-Series TVs. The exemplary
2 non-exhaustive list of devices stated in this paragraph are collectively referred to in
3 this Count and in this Complaint as the “Accused Products.” TPV’s infringement
4 includes infringement of at least claim 1 of the ‘087 Patent.

5 23. Claim 1 of the ‘087 Patent, for example, reads as follows:

6 1. A multi-load time sharing driver comprising:

7 a current source configured to provide a regulated current;

8 a network of semiconductor switches coupled in series; and

9 a plurality of light sources in a backlight system, each light source

10 associated with a semiconductor switch, wherein the semiconductor

11 switch selectively opens to allow the associated light source to conduct

12 the regulated current.

13 24. Upon information and belief, TPV has directly infringed and continues
14 to directly infringe one or more claims of the ‘087 patent, including at least claim 1
15 of the ‘087 Patent, literally and/or under the doctrine of equivalents, by or through
16 making, using, distributing, offering for sale, selling within the United States,
17 and/or importing the Accused Products.

18 25. The Accused Products have “a multi-load time sharing driver
19 comprising: a current source configured to provide a regulated current.” The
20 Accused Products include, for example, a boost controller chip that is coupled to a
21 power supply via a LED connection port. The power supply, working with one or
22 more wide input boost controller chips, provides a regulated current.

23 26. The Accused Products have “a network of semiconductor switches
24 coupled in series.” For instance, the Accused Products include a semiconductor
25 switch associated with a switched mode power supply coupled in series with each
26 of a plurality of FETs, or similar semiconductor switches, each of which is, in turn,
27 coupled to an LED string. Additionally, in the Accused Products, there are
28 semiconductor switches, such as an operational amplifiers, in the LED driver each

1 coupled in series with a FET, or similar, semiconductor switch. Moreover, the
2 LED TV backlight controller in the Accused Products are coupled to one or more
3 semiconductor switches that are connected in series to other semiconductor
4 switches. This network of semiconductor switches is further in series with the
5 regulated current source and the LED strings.

6 27. The Accused Products have “a plurality of light sources in a backlight
7 system, each light source associated with a semiconductor switch, wherein the
8 semiconductor switch selectively opens to allow the associated light source to
9 conduct the regulated current.” The light sources in the Accused Products are
10 connected, for example, to an LED TV backlight controller and power supply such
11 that semiconductor switches can be selectively opened to allow the associated light
12 source to conduct the regulated current. Each of the switches open to allow an
13 associated light source to conduct regulated current, and when not open, the
14 associated light source will not conduct the regulated current through the associated
15 light sources. For example, each switch may be a transistor which is controlled via
16 the gate terminal of the transistor. Each switch is coupled to a light source via the
17 source or drain terminals of the transistor. The switch will open or close depending
18 on the voltage at the gate of the associated switch, thereby controlling the
19 associated light source for that switch.

20 28. As a result of TPV’s infringement of the ’087 Patent, Polaris
21 PowerLED has suffered monetary damages and is entitled to no less than a
22 reasonable royalty for TPV’s use of the claimed inventions of the ’087 Patent,
23 together with interest and costs as determined by the Court. Polaris PowerLED will
24 continue to suffer damages in the future unless TPV’s infringing activities are
25 enjoined by this Court.

26 29. Polaris PowerLED will be irreparably harmed unless a permanent
27 injunction is issued, enjoining TPV and their agents, employees, representatives,
28 affiliates, and others acting in concert with TPV from infringing the ’087 Patent.

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COUNT II

(INFRINGEMENT OF U.S. PATENT NO. 8,223,117)

30. Polaris PowerLED incorporates by reference paragraphs 1-29 above.

31. Mr. Bruce Ferguson invented a novel manner of adjusting the brightness of a display screen in response to ambient light, conserving power, reducing eye strain, and significantly improving the experience of the user. His inventions were a significant advance in the field of display technology, power conservation and power control for electronics products, including televisions and other devices. Mr. Ferguson patented these innovations in the '117 Patent.

32. Upon information and belief, TPV makes, uses, offers for sale, distributes, sells, and/or imports into the United States products that directly infringe, or that employ systems, components, and/or processes that directly infringe, the '117 patent, namely the Vizio Televisions, including, for example, one or more of the Vizio D-Series, E-Series, M-Series, and P-Series Televisions. The non-exhaustive list of exemplary devices listed in this paragraph are collectively referred to in this Count as the "Accused Products."

33. In Claim 1 of the '117 Patent, for example, reads as follows:

1. A brightness control circuit with selective ambient light correction comprising:

a first input configured to receive a user signal indicative of a user selectable brightness setting;

a light sensor configured to sense ambient light and to output a sensing signal indicative of the ambient light level;

a multiplier configured to selectively generate a combined signal based on both the user signal and the sensing signal; and

a dark level bias configured to adjust the combined signal to generate a brightness control signal that is used to control a brightness level of a visible display such that the brightness control signal is maintained above a predetermined level when the ambient light level decreases to approximately zero.

1 34. Upon information and belief, TPV has directly and continues to
2 directly infringe one or more claims of the '117 patent, including at least claim 1 of
3 the '117 Patent, literally and/or under the doctrine of equivalents, by or through
4 making, using, offering for sale, selling within the United States, and/or importing
5 the Accused Products.

6 35. The Accused Products have “a brightness control circuit with selective
7 ambient light correction comprising: a first input configured to receive a user signal
8 indicative of a user selectable brightness setting,” including auto brightness control,
9 backlight and brightness circuitry, and associated user signals.

10 36. The Accused Products have “a light sensor configured to sense
11 ambient light and to output a sensing signal indicative of the ambient light level” as
12 shown below. The front portion of the Accused Products include an ambient light
13 sensor. The ambient light sensor is connected to the main board in the Accused
14 Products, for example.

15 37. The Accused Products have “a multiplier configured to selectively
16 generate a combined signal based on both the user signal and the sensing signal.”
17 The Accused Products include a multiplier implemented at least in part in software
18 to generate a combined signal based on the user signal, which includes the
19 brightness setting input by a user, and a sensing signal, including signaling from a
20 light sensor.

21 38. The Accused Products have “a dark level bias configured to adjust the
22 combined signal to generate a brightness control signal that is used to control a
23 brightness level of a visible display such that the brightness control signal is
24 maintained above a predetermined level when the ambient light level decreases to
25 approximately zero.” The source code and/or hardware included in the Accused
26 Products with associated components that adjusts a signal that controls the
27 brightness of the Accused Products maintaining the brightness level of the display
28 above a predetermined level when the ambient brightness is approximately zero.

1 (G) A judgment granting Polaris PowerLED such further relief as
2 the Court may deem just and proper.

3 **JURY TRIAL DEMAND**

4 Polaris PowerLED hereby demands trial by jury on all issues so triable
5 pursuant to Fed. R. Civ. P. 38.

6

7 DATED: August 16, 2019

FEINBERG DAY KRAMER ALBERTI
LIM TONKOVICH & BELLOLI LLP

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By: /s/ Robert F. Kramer
Robert F. Kramer

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Attorneys for Plaintiff
POLARIS POWERLED TECHNOLOGIES,
LLC

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