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16  
17

18 UNITED STATES DISTRICT COURT  
19 FOR THE CENTRAL DISTRICT OF CALIFORNIA  
20

21 POLARIS POWERLED  
22 TECHNOLOGIES, LLC,

23 Plaintiff,

24 v.

25 VIZIO, INC.,

26 Defendant.  
27  
28

Case No. 8:18-cv-01571-JVS (DFMx)

**THIRD AMENDED 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 Third Amended Complaint for Patent  
3 Infringement relating to two U.S. patents as identified below (collectively, the  
4 “Patents-in-Suit”) and alleges as follows:

5  
6 **THE PARTIES**

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

10 2. Defendant VIZIO, Inc. (“VIZIO” or “Defendant”), is a corporation  
11 organized under the laws of California with its principal place of business at 39  
12 Tesla, Irvine, CA 92618.

13 **JURISDICTION AND VENUE**

14 3. Polaris PowerLED brings this civil action for patent infringement  
15 pursuant to the Patent Laws of the United States, 35 U.S.C. § 1, *et seq.* This Court  
16 has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and  
17 1338(a).

18 4. Upon information and belief, Defendant VIZIO transacts and conducts  
19 business in this District and State of California, and is subject to the personal  
20 jurisdiction of this Court. Upon information and belief, VIZIO has minimum  
21 contacts within the State of California and this District and has purposefully availed  
22 itself of the privileges of conducting business in the State of California and in this  
23 District. Polaris PowerLED’s causes of action arise directly from VIZIO’s business  
24 contacts and other activities in the State of California and in this District.

25 5. Upon information and belief, VIZIO has committed acts of  
26 infringement within this District and the State of California by, *inter alia*, using,  
27 selling, offering for sale, importing, advertising, and/or promoting products that  
28 infringe one or more claims of the Patents-in-Suit. More specifically, VIZIO,

1 directly and/or through intermediaries, uses, sells, ships, distributes, offers for sale,  
 2 advertises, and otherwise promotes its products in the United States, the State of  
 3 California, and this District. Upon information and belief, VIZIO solicits  
 4 customers in the State of California and this District, and has customers who are  
 5 residents of the State of California and this District and who use VIZIO's products  
 6 in the State of California and in this District.

7 6. Venue is proper in this district under 28 U.S.C. §§ 1391(b), (c) and  
 8 1400(b), including based on VIZIO's physical presence and headquarters being  
 9 located in this district.

### 10 **THE PATENTS-IN-SUIT**

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

17 8. Polaris PowerLED owns by the entire right, title, and interest in U.S.  
 18 Patent No. 8,223,117 entitled "Method and Apparatus to Control Display  
 19 Brightness with Ambient Light Correction" (the '117 Patent). The '117 Patent  
 20 issued on July 17, 2012 to inventor Bruce R. Ferguson from the U.S. Patent  
 21 Application No. 12/336,990, filed on Dec. 17, 2008. A true and correct copy of the  
 22 '117 Patent is attached as **Exhibit B** to this Complaint.

### 23 **COUNT I**

#### 24 (INFRINGEMENT OF U.S. PATENT NO. 7,239,087)

25 9. Polaris PowerLED incorporates by reference paragraphs 1-8 above.

26 10. Mr. Newton E. Ball invented a novel manner of arranging and  
 27 controlling light sources that was a significant advance in improving display quality  
 28

1 in electronics products such as televisions. Mr. Ball patented these innovations in  
2 the '087 patent.

3 11. VIZIO has directly infringed and continues to directly infringe the  
4 '087 patent by making, using, offering for sale, selling and/or importing into the  
5 United States televisions, including, for example, VIZIO's D-series, E-Series, M-  
6 Series, and P-Series TVs, and other consumer electronics display products. The  
7 Accused Instrumentalities include, without limitation, the VIZIO P-Series, M-  
8 Series, D-Series, and E-Series TVs. These series of televisions include, for  
9 example, the following exemplary models: P55RED-F1, PQ65-F1, P55-F1, P55-  
10 E1, P65-F1, P65-E1 and P75-F1 models, M50-E1, M55-E0, M55-F0, M65-E0, and  
11 M70-F3 models, E43-F1, E48-D0, E50-F2, E50-E1, E55-F1, E55-E2, E60-E3,  
12 E65-F1, E65-F0, E65-E1, E70-F3, E70-E3, E75-F2, E75-E1, E75-E3, and E80-E3  
13 models, D65-E0. The exemplary non-exhaustive list of devices stated in this  
14 paragraph are collectively referred to in this Count and in this Complaint as the  
15 "Accused Products." VIZIO's infringement includes infringement of at least claims  
16 1-7, and 9-11 of the '087 Patent.

17 12. Claim 1 of the '087 Patent, for example, reads as follows:

18 1. A multi-load time sharing driver comprising:  
19 a current source configured to provide a regulated current;  
20 a network of semiconductor switches coupled in series; and  
21 a plurality of light sources in a backlight system, each light source  
22 associated with a semiconductor switch, wherein the semiconductor  
23 switch selectively opens to allow the associated light source to conduct  
24 the regulated current.

25 13. VIZIO has directly infringed and continues to directly infringe one or  
26 more claims of the '087 patent, including at least claim 1 of the '087 Patent,  
27 literally and/or under the doctrine of equivalents, by or through making, using,  
28

1 offering for sale, selling within the United States, and/or importing the Accused  
2 Products.

3 14. The Accused Products have “a multi-load time sharing driver  
4 comprising: a current source configured to provide a regulated current.” The  
5 Accused Products include, for example, a boost controller chip that is coupled to a  
6 power supply via a LED connection port. The power supply, working with one or  
7 more wide input boost controller chips, provides a regulated current.

8 15. The Accused Products have “a network of semiconductor switches  
9 coupled in series.” For instance, the Accused Products include one or more LED  
10 TV backlight controllers connected to multiple LED strings. Moreover, the LED  
11 TV backlight controller in the Accused Products are coupled to one or more  
12 semiconductor switches that are connected in series to other semiconductor  
13 switches.

14 16. The Accused Products have “a plurality of light sources in a backlight  
15 system, each light source associated with a semiconductor switch, wherein the  
16 semiconductor switch selectively opens to allow the associated light source to  
17 conduct the regulated current.” The light sources in the Accused Products are  
18 connected, for example, to an LED TV backlight controller and power supply such  
19 that semiconductor switches can be selectively opened to allow the associated light  
20 source to conduct the regulated current. Each of the switches open to allow an  
21 associated light source to conduct regulated current, and when not open, the  
22 associated light source will not conduct the regulated current through the associated  
23 light sources. For example, each switch may be a transistor which is controlled via  
24 the gate terminal of the transistor. Each switch is coupled to a light source via the  
25 source or drain terminals of the transistor. The switch will open or close depending  
26 on the voltage at the gate of the associated switch, thereby controlling the  
27 associated light source for that switch.  
28

17. VIZIO's product literature and user manuals for VIZIO's E-, P-, D-, and M-Series TVs explain and instruct customers as follows:

#### Adjusting More Picture Settings

To adjust more picture settings:

1. From the PICTURE menu, use the **Arrow** buttons to highlight **More Picture**, and then press **OK**.
2. Use the **Arrow** buttons to highlight the setting you wish to adjust, then press the **Left/Right Arrow** buttons to change the setting:
  - **Color Temperature** - See *Adjusting the Color Temperature on this page*.
  - **Black Detail** - Adjusts the average brightness of the picture to compensate for large areas of brightness. Select **Off**, **Low**, **Medium**, or **High**.
  - **Active LED Zones** - Dynamically improves the contrast ratio of the picture by adjusting the backlight. The adjustment is controlled by the content on the screen. Select **On** or **Off**.
  - **Clear Action** - Reduces blur in scenes with fast action. Some sensitive viewers may notice flickering. Select **On** or **Off**.
  - **Reduce Noise** - Opens a sub-menu with two settings:
    - **Reduce Signal Noise** - Diminishes artifacts in the image caused by the digitizing of image motion content. Select **Off**, **Low**, **Medium**, or **High**.
    - **Reduce Block Noise** - Reduces pixelation and distortion for mpeg files. Select **Off**, **Low**, **Medium**, or **High**.
  - **Game Low Latency** - Select **On** to reduce video delay (lag) when gaming.

More Picture <span>⏮ Back</span>	
Color Temperature	Normal
Black Detail	Off
Active LED Zones	On
Clear Action	Off
Reduce Noise	
Game Low Latency	Off
Pure Cinema	Auto
Color Space	Auto
Gamma	2.1

[https://cdn.vizio.com/manuals/kb/mxxexmanual.pdf?language=en\\_US](https://cdn.vizio.com/manuals/kb/mxxexmanual.pdf?language=en_US) (p. 14)

**Adjusting More Picture Settings**

To adjust more picture settings:

1. From the PICTURE menu, use the **Arrow** buttons to highlight **More Picture**, and then press **OK**.
2. Use the **Arrow** buttons to highlight the setting you wish to adjust, then press the **Left/Right Arrow** buttons to change the setting:
  - **Color Temperature** - See *Adjusting the Color Temperature*.
  - **Black Detail** - Adjusts the average brightness of the picture to compensate for large areas of brightness. Select **Off**, **Low**, **Medium**, or **High**.
  - **Xtreme Black Engine™** - Based on the content, dynamically adjusts and balances the brightness and the contrast ratio of the picture by locally adjusting backlight zones.
  - **Clear Action** - Reduces blur in scenes with fast action but limits the range for the Backlight setting.
  - **Reduce Noise**
    - **Reduce Signal Noise** - Diminishes artifacts in the image caused by the digitizing of image motion content. Select **Off**, **Low**, **Medium**, or **High**.
    - **Reduce Block Noise** - Reduces pixelation and distortion for mpeg files. Select **Off**, **Low**, **Medium**, or **High**.

More Picture	←Back
Color Temperature	Normal
Black Detail	Off
Xtreme Black Engine™	Low
Clear Action	Off
Reduce Noise	
Game Low Latency	Off
Film Mode	On
Color Space	Auto
Gamma	2.2

[http://cdn.vizio.com/manuals/kb/e65f1manual.pdf?language=en\\_US](http://cdn.vizio.com/manuals/kb/e65f1manual.pdf?language=en_US) (p. 15)

**Video**

Class Size	65.00"
Screen Size (Diag.)	64.50"
Display Processor	V8 Octa-Core Processor
Backlight Type	Full Array LED
Local Dimming Zones	Yes with Active LED Zones® x 12
Resolution	Ultra HD - 3840 x 2160
Effective Refresh Rate	120Hz
Clear Action™	180
Aspect Ratio	16:9
Dynamic Contrast Ratio	5M:1
Viewable Angle (H/V)	178°/178°
Number of Colors	1.07Billion
OSD Language	English, Spanish, French

<https://www.vizio.com/tvs/dseries/d65e0.html>

///



**Adjusting More Picture Settings**

To adjust more picture settings:

1. From the PICTURE menu, use the **Arrow** buttons to highlight **More Picture**, and then press **OK**.

2. Use the **Arrow** buttons to highlight the setting you wish to adjust, then press the **Left/Right Arrow** buttons to change the setting:

- **Color Temperature** -

See *Adjusting the Color Temperature*.

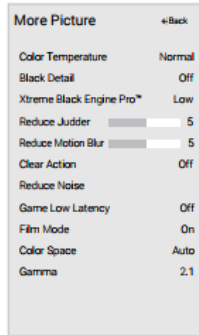
- **Black Detail** - Adjusts the average brightness of the picture to compensate for large areas of brightness. Select **Off**, **Low**, **Medium**, or **High**.

- **Xtreme Black Engine Pro™** - Based on the content, dynamically adjusts and balances the brightness and the contrast ratio of the picture by locally adjusting backlight zones.

- **Reduce Judder** - Increases frame rate to reduce judder for film and 30 hertz video. As the setting increases, judder is reduced.

- **Reduce Motion Blur** - Increases frame rate to reduce motion blur of 60 hertz video. As the setting increases, motion blur is reduced.

- **Clear Action** - Reduces blur in scenes with fast action but



limits the range for the Backlight setting.

- **Reduce Noise** - Opens a sub-menu with two settings:

- **Reduce Signal Noise** - Diminishes artifacts in the image caused by the digitizing of image motion content. Select **Off**, **Low**, **Medium**, or **High**.

- **Reduce Block Noise** - Reduces pixelation and distortion for mpeg files. Select **Off**, **Low**, **Medium**, or **High**.

- **Game Low Latency** - Select **On** to reduce video delay (lag) when gaming.

- **Film Mode** - Optimizes the picture for watching film. Select **Auto** or **Off**.

- **Color Space** - Select Color Space for the source. Video sources uses YCbCr, but PC uses RGB.

- **Gamma** - Set the shape of the Gamma curve. Use lower Gamma values for bright room conditions, and higher values when it's dark.

3. When you have finished adjusting More Picture Settings, press the **Exit** button on the remote.

[https://cdn.vizio.com/user-manual/PDF/2018/TV/P-Series\\_UM\\_ENG.pdf](https://cdn.vizio.com/user-manual/PDF/2018/TV/P-Series_UM_ENG.pdf) (p. 15)



18. VIZIO sells and promotes its products through third parties, such as retail stores in the United States. These third parties include, but are not limited to, retailers such as Best Buy, Costco, Fry's Electronics, Amazon and Target.

<https://www.bestbuy.com/site/vizio/vizio-flat-panel-tvs/pcmcat300100050010.c?id=pcmcat300100050010&sp=->

**FRYS.COM** keyword, model#, or frys.com# GO

WEEKLY DEALS Sign Up for PromoCode Emails

Cool Stuff We Sell Things We Do for You myFrys Welcome Guest! Cart

Frys • TV & Video • Televisions • 9560812

**Clearance**

**VIZIO 65" Class (64.5" Actual Diagonal Size) E-Series SmartCast™ Ultra HD Home Theater Display™ TV**

Frys#: 9560812 Model: E65-E1

★☆☆☆☆ 1.0 (1)

Price Match Promise ?

**\$599.00**

– 1 + Add To Cart

click image to see larger view

Log In or Enter your ZIP Code to view availability

ZIP Code SUBMIT

Compare Save

Protect Your Investment Learn about Fry's Protection Plans

2 Year \$99.99 3 Year \$129.99 4 Year \$184.99 No-plan selected

Save to Wish List

See More Options

**VIZIO - 75" Class - LED - E-Series - 2160p - Smart - 4K UHD TV with HDR**

Model: E75-F2 SKU: 6254841

★★★★★ 4.6 (27)

Compare Save

**\$1,179.99**

Save \$220 Was \$1,399.99

Add to Cart Help

**VIZIO - 65" Class - LED - P-Series - 2160p - Smart - 4K UHD TV with HDR**

Model: P65-F1 SKU: 6213228

★★★★★ 4.4 (701)

\$110 delivery as soon as Fri, Mar 15

Need it installed? Delivery + Installation as soon as Fri, Mar 15 in 67337.

Want it today? Pick it up at San Francisco (13th and Harrison St.).

Compare Save

**\$999.99**

Save \$200 Was \$1,199.99

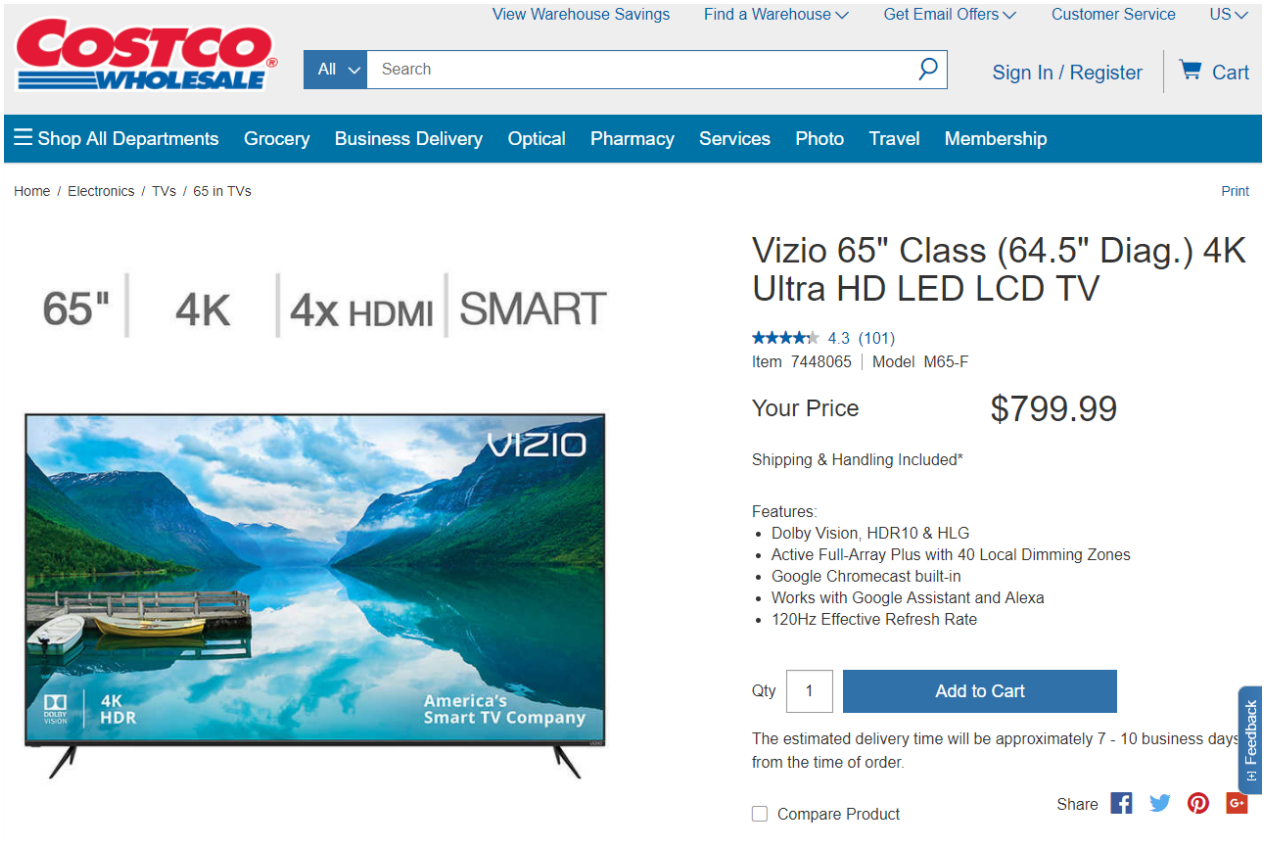
Add to Cart

Open-Box: from \$809.99

[currentprice%20skuidsaasurrentprice%20skuidsaas](#)

[https://www.frys.com/product/9560812?site=sr:SEARCH:MAIN\\_RSLT\\_PG](https://www.frys.com/product/9560812?site=sr:SEARCH:MAIN_RSLT_PG)

[https://www.costco.com/Vizio-65%22-Class-\(64.5%22-Diag.\)-4K-Ultra-HD-LED-](https://www.costco.com/Vizio-65%22-Class-(64.5%22-Diag.)-4K-Ultra-HD-LED-)



The screenshot displays the Costco website's product page for a Vizio 65-inch Class (64.5-inch Diag.) 4K Ultra HD LED LCD TV. The page features the Costco logo at the top left, with navigation links for 'View Warehouse Savings', 'Find a Warehouse', 'Get Email Offers', 'Customer Service', and 'US'. A search bar is located next to the logo. Below the navigation bar, there is a horizontal menu with links to 'Shop All Departments', 'Grocery', 'Business Delivery', 'Optical', 'Pharmacy', 'Services', 'Photo', 'Travel', and 'Membership'. The main content area shows the product title 'Vizio 65" Class (64.5" Diag.) 4K Ultra HD LED LCD TV' with a 4.3-star rating (101 reviews). The price is listed as \$799.99. A 'Add to Cart' button is visible, along with a 'Compare Product' checkbox. The page also includes a 'Feedback' button and social media sharing icons. The product image shows a Vizio TV displaying a scenic landscape with mountains and a lake.

65" | 4K | 4x HDMI | SMART

**VIZIO**

4K HDR

America's Smart TV Company

**Vizio 65" Class (64.5" Diag.) 4K Ultra HD LED LCD TV**

★★★★★ 4.3 (101)  
Item 7448065 | Model M65-F

Your Price **\$799.99**

Shipping & Handling Included\*

Features:

- Dolby Vision, HDR10 & HLG
- Active Full-Array Plus with 40 Local Dimming Zones
- Google Chromecast built-in
- Works with Google Assistant and Alexa
- 120Hz Effective Refresh Rate

Qty 1 **Add to Cart**

The estimated delivery time will be approximately 7 - 10 business days from the time of order.

☐ Compare Product

Share [f](#) [t](#) [p](#) [g](#)

<LCD-TV.product.100416579.html>

1 - 40 of 48 products

Refine by | Price | Top Brands | Store Availability | Sort by | Best Sellers

**Shipping & Pickup**

- ☒ Show all
- ☐ 2-day shipping
- ☐ Ship to Home
- ☐ Free Pickup + Discount
- ☐ FREE Pickup
- ☐ FREE Pickup Today

**Television Type**

- ☐ 4K Ultra HD TVs
- ☐ LED TVs
- ☐ Smart TVs

See More Television Types

**Screen Size**

- ☐ 20" & Smaller
- ☐ 21" - 29"
- ☐ 30" - 39"
- ☐ 40" - 49"
- ☐ 50" - 59"

TV & Video / TVs by Brand / Vizio TVs

70" & larger 60" - 69" 50" - 59" 40" - 49" 30" - 39" 29" & smaller Price Refurbished Smart

70" TVs & Larger 60" - 69" TVs 50" - 59" TVs 40" - 49" TVs 30" - 39" TVs 29" TVs & Smaller Shop by Price Refurbished TVs Smart TVs

NEW NEW BEST SELLER

VIZIO 50" Class 4K Ultra HD (2160P) HDR Smart LED TV ...

★★★★☆ 1136

**\$298.00** List \$428.00

Free shipping

Free pickup

VIZIO 65" Class 4K Ultra HD (2160P) HDR Smart LED TV ...

★★★★☆ 1136

**\$598.00** List \$698.00

Free shipping

Free pickup today

VIZIO 55" Class 4K Ultra HD (2160P) HDR Smart LED TV ...

★★★★☆ 1136

**\$379.00** List \$478.00

Free shipping

Pickup discount eligible

VIZIO 75" Class P-Series 4K (2160P) Ultra HD HDR Sma ...

★★★★☆ 194

**\$1,798.00** List \$2,298.00

Free shipping

Free pickup

[https://www.walmart.com/browse/electronics/all-tvs/3944\\_1060825\\_447913?cat\\_id=3944\\_1060825\\_447913&facet=brand%3AVIZIO&page=1&sort=best\\_seller#searchProductResult](https://www.walmart.com/browse/electronics/all-tvs/3944_1060825_447913?cat_id=3944_1060825_447913&facet=brand%3AVIZIO&page=1&sort=best_seller#searchProductResult)

Categories Deals Trending Search Sign In

You're shopping (open until 10pm): Rosslyn

Registries & Lists Weekly Ad REDcard restock Gift Cards Find Stores Orders 0 More

**vizio**  
20 items

**Get it fast**

Pick up today at Rosslyn

- ☐ Free Order Pickup

Deliver to 20006

- ☐ Free 2-Day Shipping

Show all options

**Filter results**

Sort by Price-high to low

Type

- ☐ smart TVs
- ☐ LED TVs
- ☐ 4K UHD TVs
- ☐ Sound Bars

Price

- ☐ \$50 - \$100
- ☐ \$100 - \$150

**VIZIO PQ-Series 65" Class (64.5" Diag.) 4K HDR Smart TV - PQ65-F1**

VIZIO

★★★★☆ 111

**\$1,599.99**

Not in stores

Add to cart

**VIZIO E-class 75" UHD Smartcast TV - Black (E75-F2)**

VIZIO

★★★★☆ 210

**\$1,179.99**

Not in stores

Add to cart

**VIZIO M-Series 65" Class (64.5" Diag.) 4K HDR Smart TV - Black (M65-F0)**

VIZIO

★★★★☆ 250

**\$849.99**

limited stock

Not in stores

Add to cart

<https://www.target.com/c/vizio/-/N-5alw3?sortBy=PriceHigh&Nao=0>

19. VIZIO's infringement is further detailed in **Exhibit C** attached hereto.

PowerLED has suffered monetary damages and is entitled to no less than a reasonable royalty for VIZIO's use of the claimed inventions of the '087 Patent, together with interest and costs as determined by the Court. Polaris PowerLED will continue to suffer damages in the future unless VIZIO's infringing activities are enjoined by this Court.

**COUNT II**

22. Polaris PowerLED incorporates by reference paragraphs 1-21 above.

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.

1 E65-E1, E70-F3, E70-E3, E75-F2, E75-E1, E75-E3, and E80-E3, D24hn-G9, D40f-  
2 G9, D55x-G1, D24h-G9, D50x-G0, D65x-G4, D70-F3, D65-F1, D60-F3, D55-F2,  
3 D50-F1, D50f-F1, D48f-F0, D43-F1, D43f-F1, D40f-F1, D39f-F1, D34f-F1, D32h-  
4 F0, D24f-F1D32hn-E4, D32hn-E4, D55un-E1, D65-E0. The non-exhaustive list of  
5 exemplary devices listed in this paragraph are collectively referred to in this Count  
6 as the “Accused Products.”

7 25. In Claim 1 of the ’117 Patent, for example, reads as follows:

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

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

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

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

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

19 26. VIZIO has directly infringed and continues to directly infringe one or  
20 more claims of the ’117 patent, including at least claims 1, 2, 4-7, 9, 13-16, and 18  
21 of the ’117 Patent, literally and/or under the doctrine of equivalents, by or through  
22 making, using, offering for sale, selling within the United States, and/or importing  
23 the Accused Products.

24 27. The Accused Products have “a brightness control circuit with selective  
25 ambient light correction comprising: a first input configured to receive a user signal  
26 indicative of a user selectable brightness setting,” including auto brightness control,  
27 backlight and brightness circuitry, and associated user signals.  
28

1           28. The Accused Products have “a light sensor configured to sense  
2 ambient light and to output a sensing signal indicative of the ambient light level” as  
3 shown below. The front portion of the Accused Products include an ambient light  
4 sensor. The ambient light sensor is connected to the main board in the exemplary  
5 VIZIO D-Series TV, for example.

6           29. The Accused Products have “a multiplier configured to selectively  
7 generate a combined signal based on both the user signal and the sensing signal.”  
8 The Accused Products include a multiplier implemented at least in part in software  
9 to generate a combined signal based on the user signal, which includes the  
10 brightness setting input by a user, and a sensing signal, including signaling from a  
11 light sensor.

12           30. The Accused Products have “a dark level bias configured to adjust the  
13 combined signal to generate a brightness control signal that is used to control a  
14 brightness level of a visible display such that the brightness control signal is  
15 maintained above a predetermined level when the ambient light level decreases to  
16 approximately zero.” The source code and/or hardware included in the Accused  
17 Products with associated components that adjusts a signal that controls the  
18 brightness of the Accused Products maintaining the brightness level of the display  
19 above a predetermined level when the ambient brightness is approximately zero.

20           31. VIZIO’s product literature and user manuals for VIZIO’s D-, E-, M-,  
21 and P-Series products explain and instruct customers as follows:

22  
23           4. To manually change each of the picture settings, use the **Up/**  
24           **Down Arrow** buttons on the remote to highlight that picture  
25           setting, then use the **Left/Right Arrow** buttons to adjust the  
26           setting:

- 27           • **Auto Brightness Control** - The auto brightness control detects  
28           the light levels in the room and automatically adjusts the  
            backlight for the best picture. Select **Off, Low, Medium, or**  
            **High.**



1 [http://cdn.vizio.com/documents/pseries2018/RS12212\\_P55-F1\\_P65-F1\\_P75-](http://cdn.vizio.com/documents/pseries2018/RS12212_P55-F1_P65-F1_P75-)  
2 [F1\\_UM\\_2018\\_ENG\\_draft\\_02222018.pdf?language=en\\_US](http://cdn.vizio.com/documents/pseries2018/RS12212_P55-F1_P65-F1_P75-F1_UM_2018_ENG_draft_02222018.pdf?language=en_US) (P65-F1 User Manual,  
3 p.14); [https://cdn.vizio.com/user-manual/PDF/2018/TV/D-](https://cdn.vizio.com/user-manual/PDF/2018/TV/D-Series_UHD_UM_ENG.pdf)  
4 [Series\\_UHD\\_UM\\_ENG.pdf](https://cdn.vizio.com/user-manual/PDF/2018/TV/D-Series_UHD_UM_ENG.pdf) (D65-F1 User Manual, p.14);  
5 [https://cdn.vizio.com/manuals/kb/mxxexmanual.pdf?language=en\\_US](https://cdn.vizio.com/manuals/kb/mxxexmanual.pdf?language=en_US) (M50-E1  
6 User Manual, p.13);  
7 [http://cdn.vizio.com/manuals/kb/e65f1manual.pdf?language=en\\_US](http://cdn.vizio.com/manuals/kb/e65f1manual.pdf?language=en_US) (E65-F1 User  
8 Manual, p.14)  
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32. VIZIO sells and promotes its products through third parties, such as retail stores in the United States. These third parties include, but are not limited to, Shop VIZIO TVs by Size

Up to 32"      39"-50"      55"-65"      70" or Larger

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**VIZIO - 75" Class - LED - P-Series - 2160p - Smart - 4K UHD TV with HDR**  
Model: P75-F1   SKU: 6259874  
★★★★☆ 4.5 (52)  
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**\$1,799.99** (Save \$200 Was \$1,999.99)  
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Model: E75-F2   SKU: 6254841  
★★★★☆ 4.6 (27)  
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**\$1,799.99** (Save \$220 Was \$1,399.99)  
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**VIZIO - 65" Class - LED - P-Series - 2160p - Smart - 4K UHD TV with HDR**  
Model: P65-F1   SKU: 6213228  
★★★★☆ 4.4 (701)  
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<https://www.bestbuy.com/site/vizio/vizio-flat-panel->

[https://www.frys.com/product/9560812?site=sr:SEARCH:MAIN\\_RSLT\\_PG](https://www.frys.com/product/9560812?site=sr:SEARCH:MAIN_RSLT_PG)

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Frys#: 9560812 Model: E65-E1

★ ★ ★ ★ ★ 1.0 (1)

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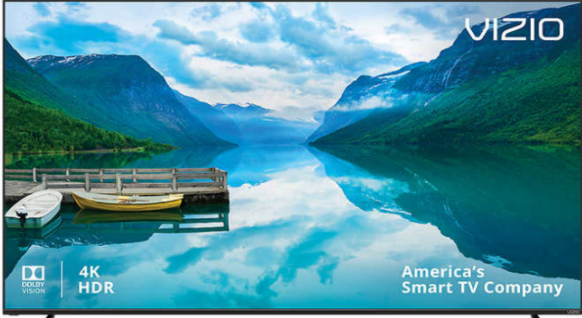
[https://www.frys.com/product/9560812?site=sr:SEARCH:MAIN\\_RSLT\\_PG](https://www.frys.com/product/9560812?site=sr:SEARCH:MAIN_RSLT_PG)

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★★★★★ 4.3 (101)

Item 7448065 | Model M65-F

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[LCD-TV.product.100416579.html](http://LCD-TV.product.100416579.html)

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<b>\$298.00</b> List \$428.00	<b>\$598.00</b> List \$698.00	<b>\$379.00</b> List \$478.00	<b>\$1,798.00</b> List \$2,298.00
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VIZIO	VIZIO	VIZIO
★★★★★ 111	★★★★★ 210	★★★★★ 250
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1 <https://www.target.com/c/vizio/-/N-5a1w3?sortBy=PriceHigh&Nao=0>

2 33. VIZIO's infringement is further detailed in **Exhibit D** attached hereto.

3 34. As a result of VIZIO's infringement of the '117 Patent, Polaris  
4 PowerLED has suffered monetary damages and is entitled to no less than a  
5 reasonable royalty for VIZIO's use of the claimed inventions of the '117 Patent,  
6 together with interest and costs as determined by the Court. Polaris PowerLED will  
7 continue to suffer damages in the future unless VIZIO's infringing activities are  
8 enjoined by this Court.

9 35. Polaris PowerLED will be irreparably harmed unless a permanent  
10 injunction is issued enjoining VIZIO and their agents, employees, representatives,  
11 affiliates, and others acting in concert with VIZIO from infringing the '117 Patent.

12 **PRAYER FOR RELIEF**

13 36. WHEREFORE, Polaris PowerLED requests the following relief from  
14 this Court:

15 (A) A judgment that defendant is liable for direct infringement of one  
16 or more claims of the '087 and '117 Patents;

17 (B) Compensatory damages in an amount according to proof, and in  
18 any event no less than a reasonable royalty, including all pre-judgment and post-  
19 judgment interest at the maximum rate allowed by law;

20 (C) Pre-judgment interest;

21 (D) Post-judgment interest;

22 (E) An order and judgment permanently enjoining VIZIO and its  
23 officers, directors, agents, servants, employees, affiliates, attorneys, and all others  
24 acting in privity or in concert with them, and their parents, subsidiaries, divisions,  
25 successors and assigns from further acts of infringement of the patents-in-suit; and

26 (F) A judgment granting Polaris PowerLED such further relief as  
27 the Court may deem just and proper.  
28

**JURY TRIAL DEMAND**

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

DATED: September 4, 2019

FEINBERG DAY KRAMER ALBERTI  
LIM TONKOVICH & BELLOLI LLP

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

Attorneys for Plaintiff  
POLARIS POWERLED TECHNOLOGIES,  
LLC