

EXHIBIT 2028

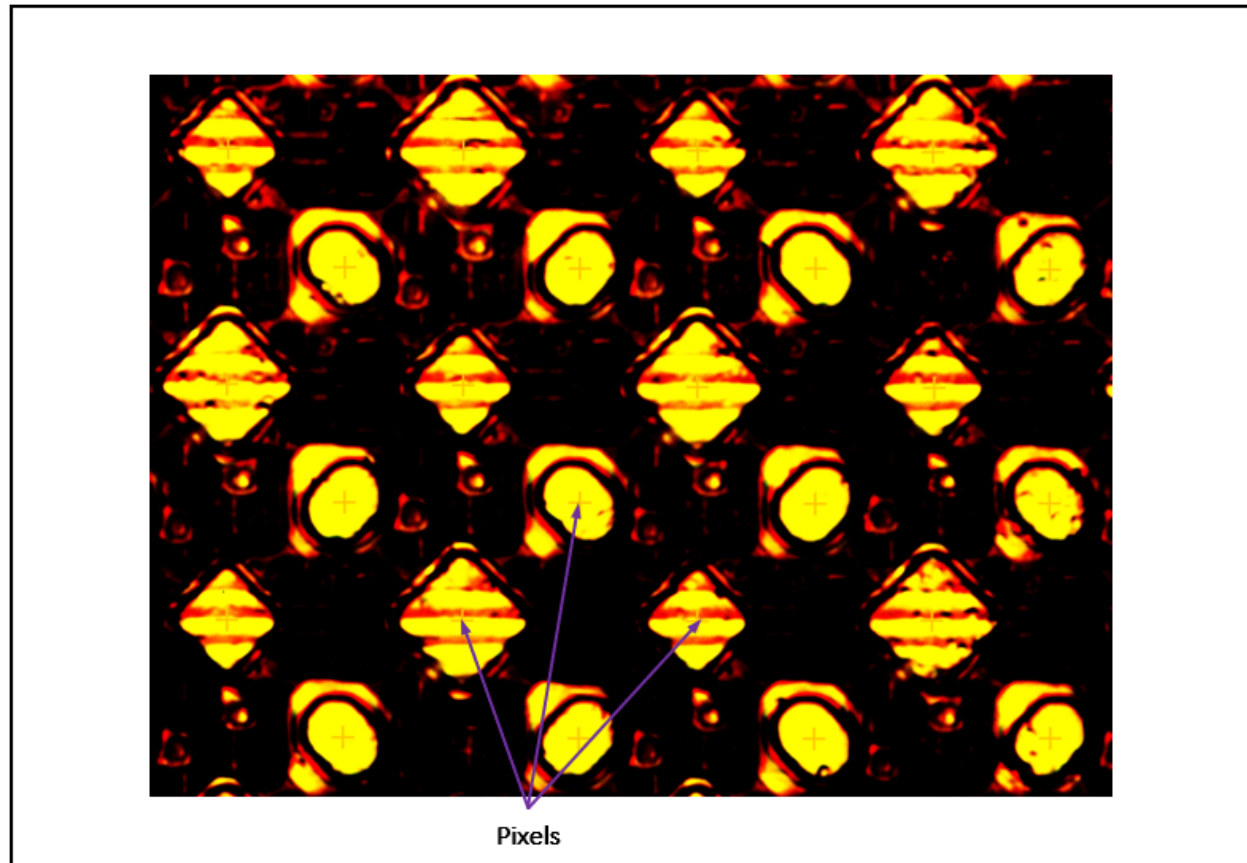
CLAIM CHART: AMOLED DISPLAY IN SAMSUNG GALAXY S22 ULTRA

U.S. Pat. No. 9,818,803

Samsung Galaxy S22 Ultra

1[preamble] A pixel arrangement structure of an organic light emitting diode (OLED) display, comprising:

The Samsung Galaxy S22 Ultra product contains an organic light-emitting diode (“OLED”) display. As shown in the annotated image below, the Samsung Galaxy S22 Ultra product contains a pixel arrangement structure of an OLED display.

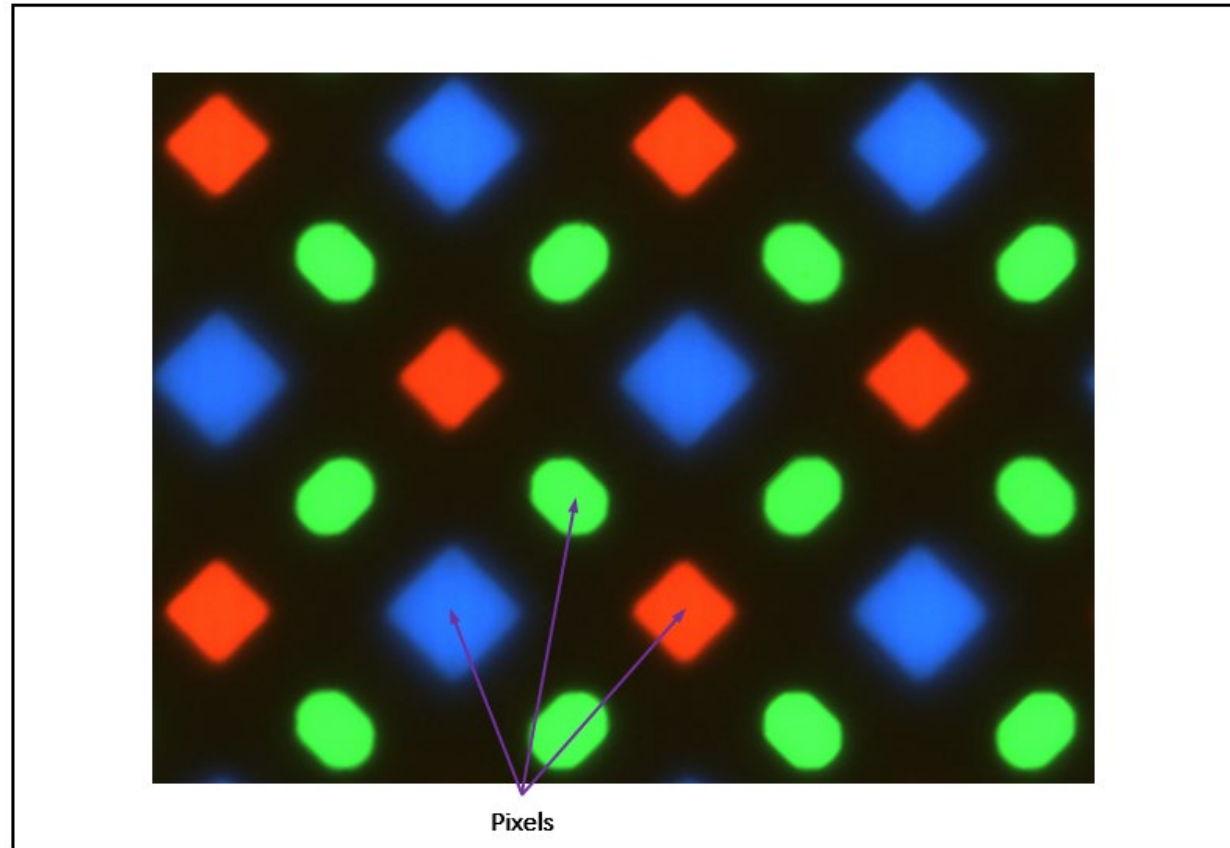


Annotated Exhibit 2029 at 4
(Galaxy S22 Ultra Teardown Photos)

U.S. Pat. No. 9,818,803

Samsung Galaxy S22 Ultra

1[preamble] A pixel arrangement structure of an organic light emitting diode (OLED) display, comprising:
(cont'd)



Annotated Exhibit 2029 at 5
(Galaxy S22 Ultra Teardown Photos)

U.S. Pat. No. 9,818,803

Samsung Galaxy S22 Ultra

1[preamble] A pixel arrangement structure of an organic light emitting diode (OLED) display, comprising:
(cont'd)

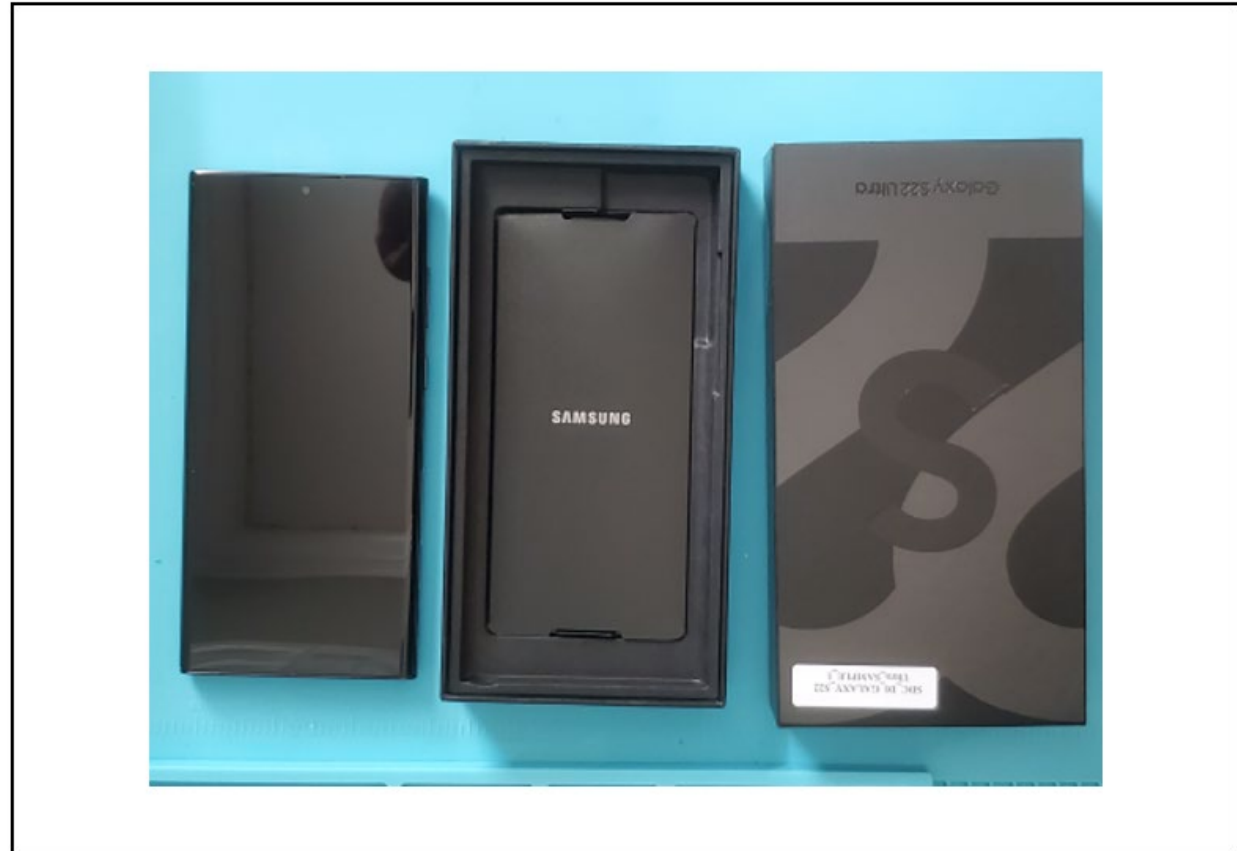


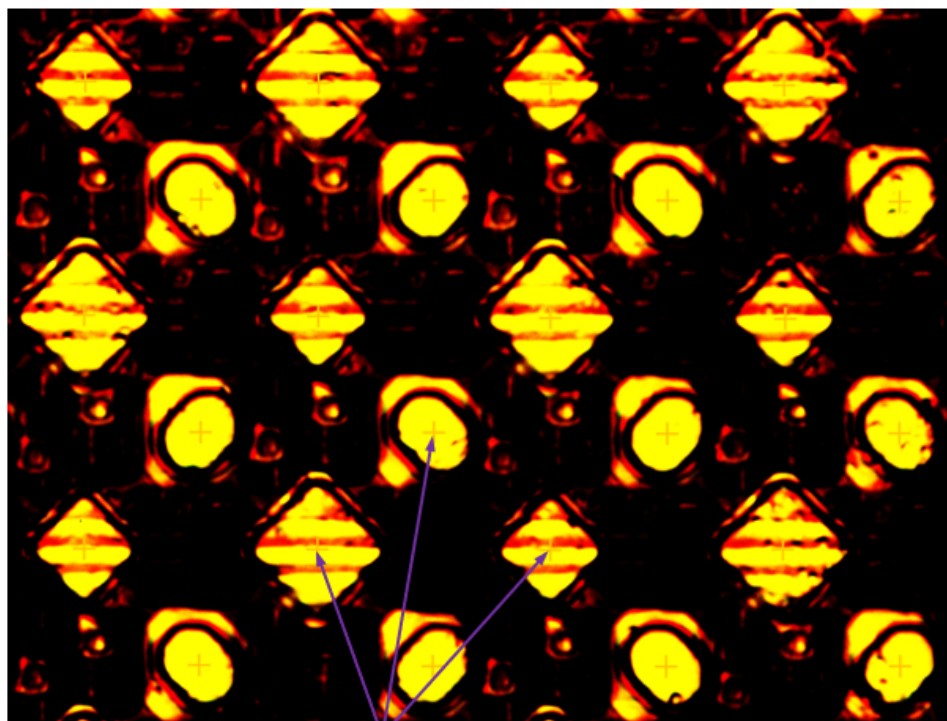
Exhibit 2028 at 2
(Galaxy S22 Ultra Teardown Photos)

U.S. Pat. No. 9,818,803

Samsung Galaxy S22 Ultra

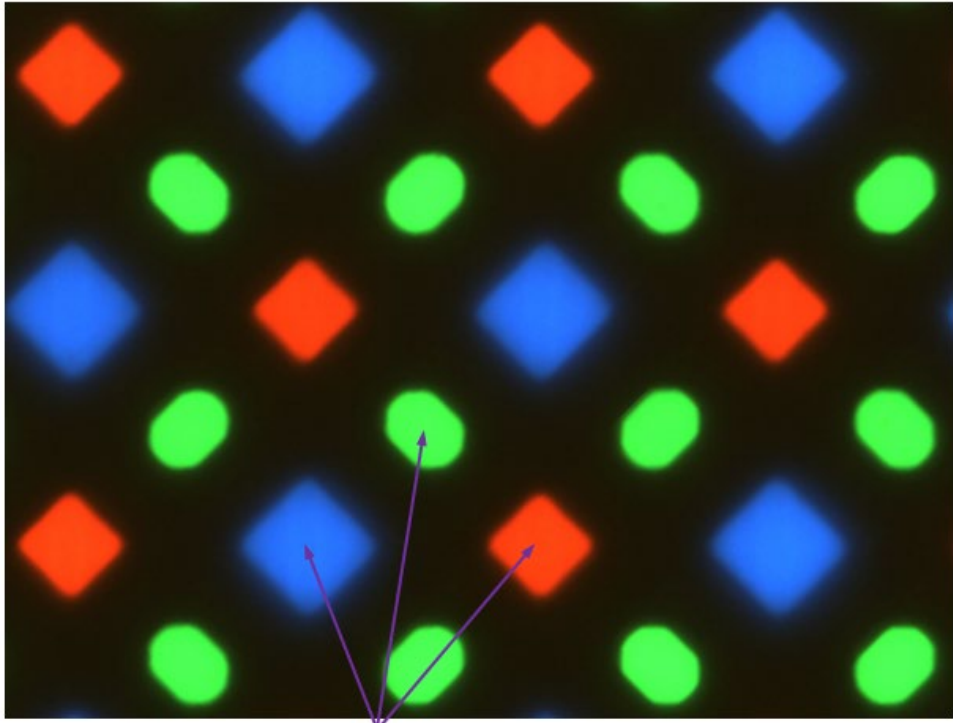
1[a] a plurality of pixels for displaying an image on the OLED display and comprising:

The Samsung Galaxy S22 Ultra product contains a plurality of pixels for displaying an image on the OLED display. As shown in the annotated image below, the Samsung Galaxy S22 Ultra product comprises an OLED display containing a plurality of pixels.



Pixels

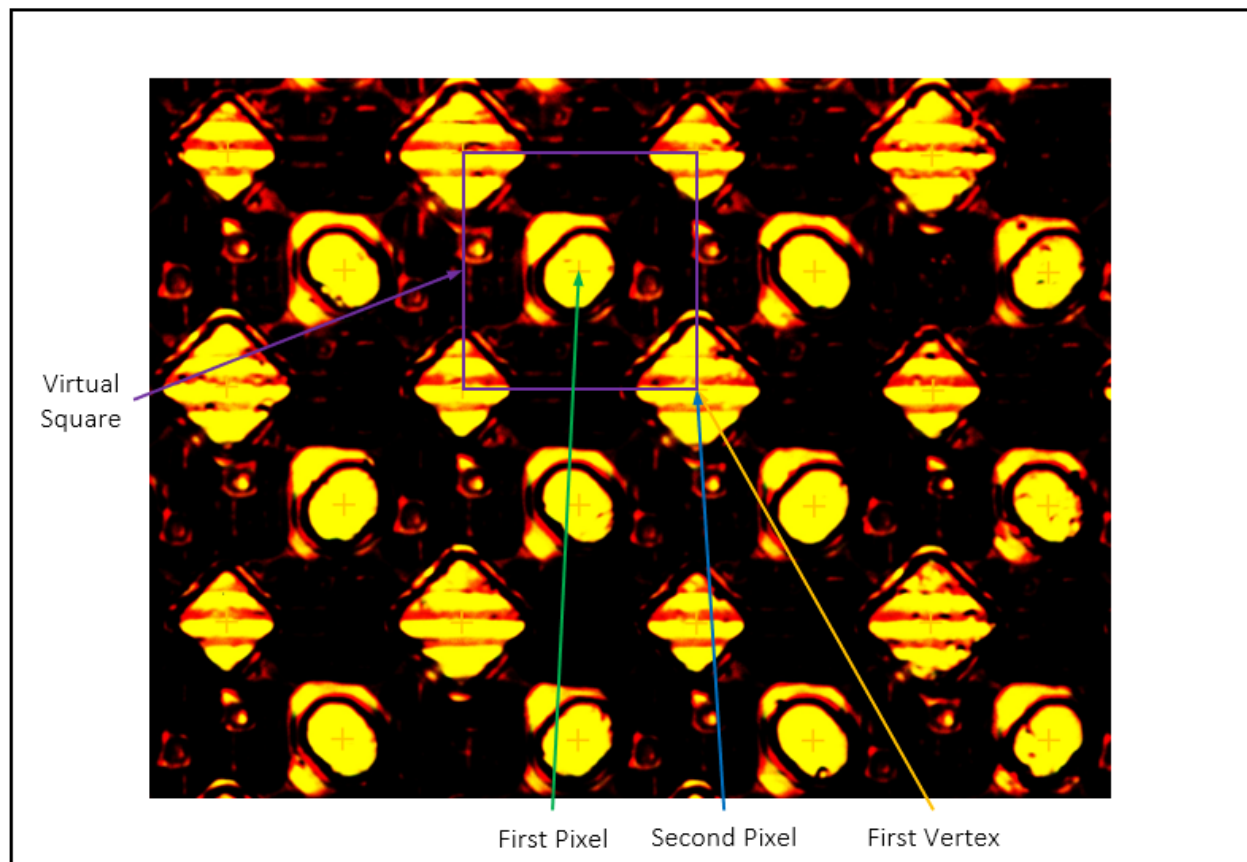
Annotated Exhibit 2029 at 4
(Galaxy S22 Ultra Teardown Photos)

U.S. Pat. No. 9,818,803	Samsung Galaxy S22 Ultra
1[a] a plurality of pixels for displaying an image on the OLED display and comprising: (<i>cont'd</i>)	As shown in the annotated image below, the plurality of pixels emit light for displaying an image on the OLED display.  Pixels Annotated Exhibit 2029 at 5 (Galaxy S22 Ultra Teardown Photos)

U.S. Pat. No. 9,818,803	Samsung Galaxy S22 Ultra
1[b] a first pixel having a center coinciding with a center of a virtual square;	The Samsung Galaxy S22 Ultra product has a first pixel having a center coinciding with a center of a virtual square. As shown in the annotated image below, the Samsung Galaxy S22 Ultra product has a first pixel (green arrow) at the center of a virtual square (purple). The image shows a microscopic view of a camera sensor with a grid of yellow, diamond-shaped pixels on a dark background. A purple square is drawn around one of the pixels, with a purple line pointing to it from the label 'Virtual Square'. A green arrow points to the center of this pixel, with a label 'First Pixel' below it. Annotated Exhibit 2029 at 4 (Galaxy S22 Ultra Teardown Photos)

1[c] a second pixel separated from the first pixel and having a center at a first vertex of the virtual square;

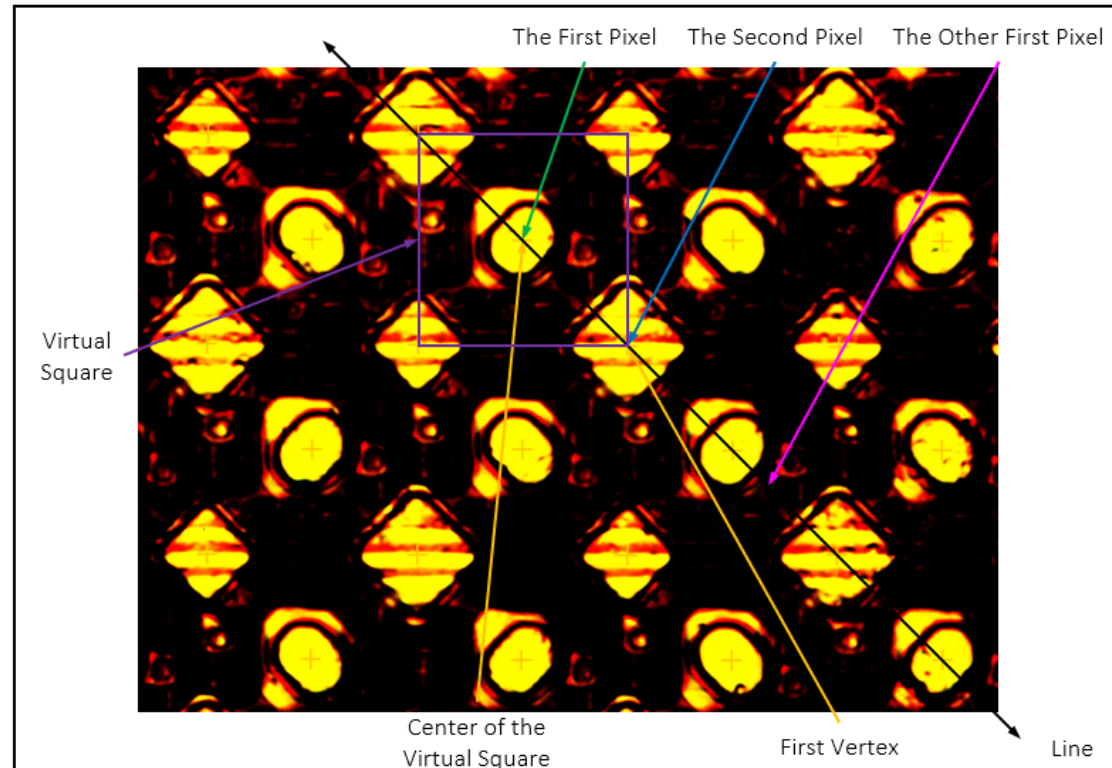
The Samsung Galaxy S22 Ultra product has a second pixel separated from the first pixel and having a center at a first vertex of the virtual square. As shown in the annotated image below, the Samsung Galaxy S22 Ultra product has a second pixel (blue arrow) that is separated from the first pixel (green arrow) and is centered at a first vertex of the virtual square (purple).



Annotated Exhibit 2029 at 4
(Galaxy S22 Ultra Teardown Photos)

1[d] another first pixel on a line defined by the center of the virtual square and the first vertex, the first pixel, the second pixel, and the other first pixel being consecutive pixels on the line from among the plurality of pixels; and

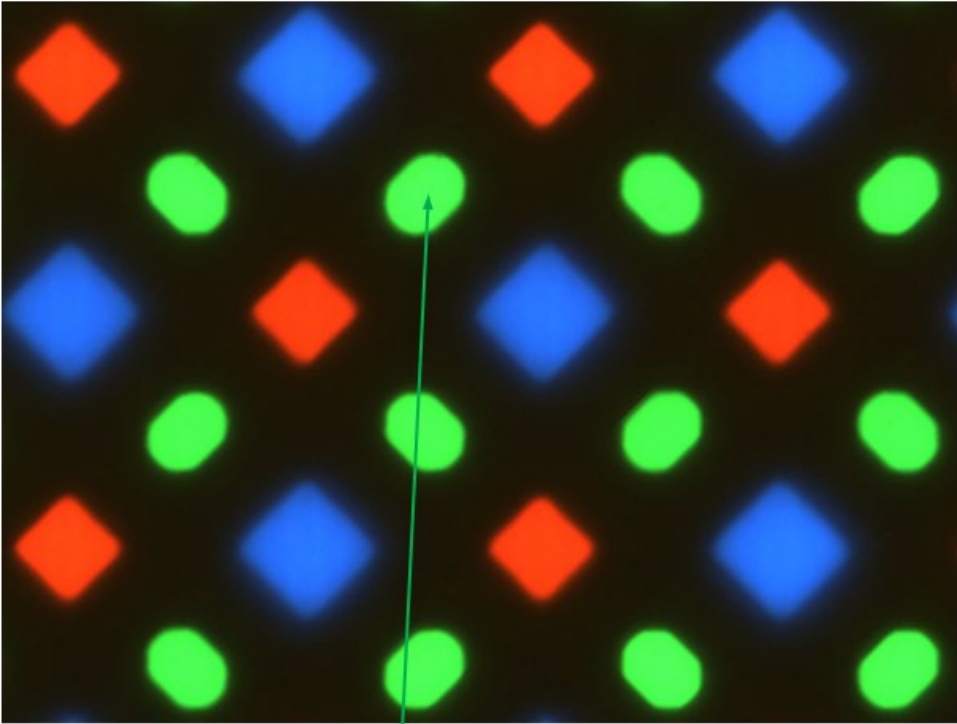
The Samsung Galaxy S22 Ultra product has another first pixel on a line defined by the center of the virtual square and the first vertex, the first pixel, the second pixel, and the other first pixel being consecutive pixels on the line from among the plurality of pixels. As shown in the annotated image below, the Samsung Galaxy S22 Ultra product has another first pixel (pink arrow) on a line (black) defined by the center of the virtual square (purple) and the first vertex, with the first pixel (green arrow), the second pixel (blue arrow), and the other first pixel (pink arrow) being consecutive pixels on the line (black).



Annotated Exhibit 2029 at 4
(Galaxy S22 Ultra Teardown Photos)

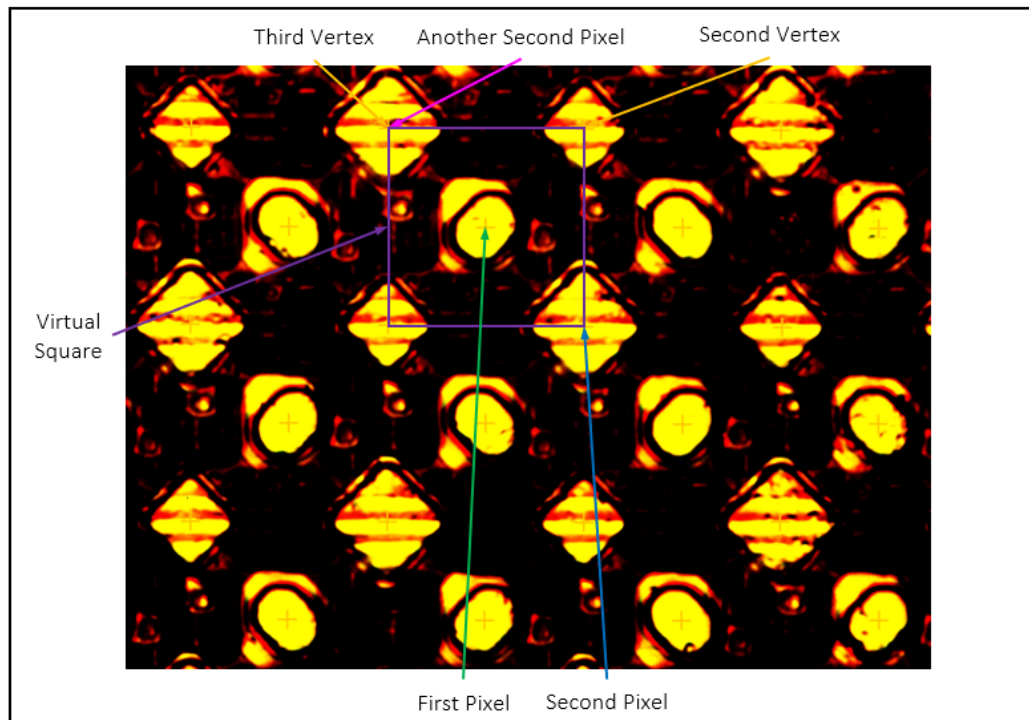
U.S. Pat. No. 9,818,803	Samsung Galaxy S22 Ultra
1[e] a third pixel separated from the first pixel and the second pixel, and having a center at a second vertex neighboring the first vertex of the virtual square,	The Samsung Galaxy S22 Ultra product has a third pixel separated from the first pixel and the second pixel, and having a center at a second vertex neighboring the first vertex of the virtual square. As shown in the annotated image below, the Samsung Galaxy S22 Ultra product has a third pixel (red arrow) that is separated from the first pixel (green arrow) and the second pixel (blue arrow) and is centered at a second vertex neighboring the first vertex of the virtual square (purple). Annotated Exhibit 2029 at 4 (Galaxy S22 Ultra Teardown Photos)

U.S. Pat. No. 9,818,803	Samsung Galaxy S22 Ultra
1[f] wherein the second pixel has a larger area than that of the third pixel, and	In the Samsung Galaxy S22 Ultra product, the second pixel has a larger area than that of the third pixel. As shown in the annotated image below, the second pixel's area (dotted blue line) is larger than the third pixel's area (dotted red line). Annotated Exhibit 2029 at 4 (Galaxy S22 Ultra Teardown Photos)

U.S. Pat. No. 9,818,803	Samsung Galaxy S22 Ultra
1[g] wherein the first pixel is configured to emit green light.	In the Samsung Galaxy S22 Ultra product, the first pixel is configured to emit green light. As shown in the annotated image below, the first pixel (green arrow) emits green light.  First Pixel Annotated Exhibit 2029 at 5 (Galaxy S22 Ultra Teardown Photos)

2. The pixel arrangement structure of claim 1, wherein the plurality of pixels further comprises another second pixel separated from the first pixel and having a center at a third vertex neighboring the second vertex of the virtual square, and wherein the second pixels are separated from each other by the first pixel.

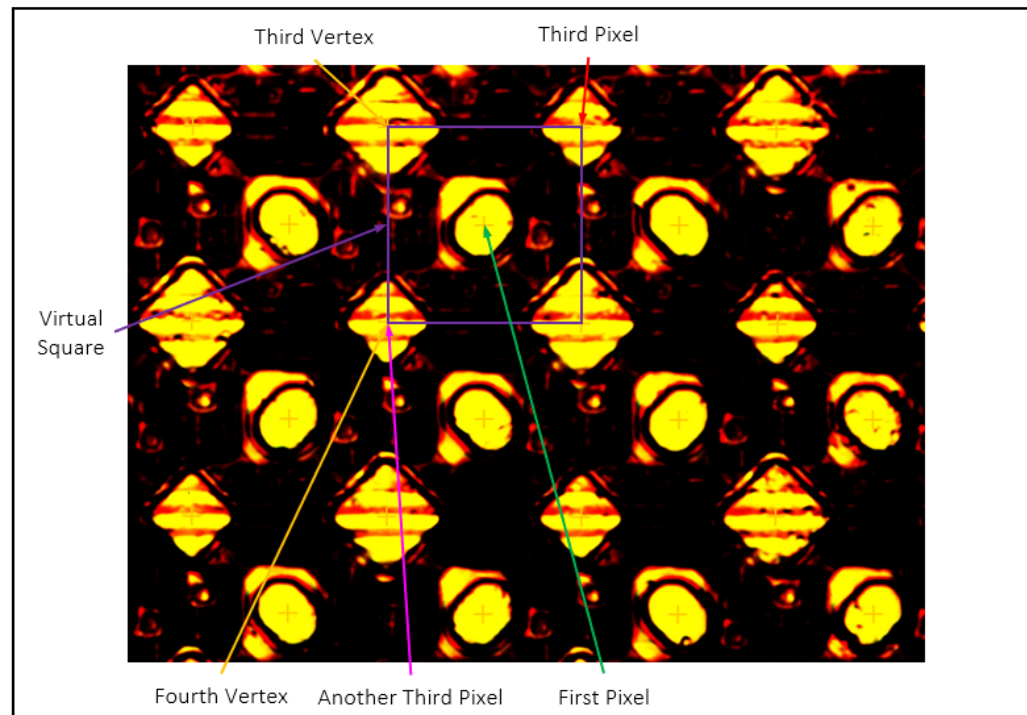
In the Samsung Galaxy S22 Ultra product, the plurality of pixels further comprises another second pixel separated from the first pixel and having a center at a third vertex neighboring the second vertex of the virtual square, and wherein the second pixels are separated from each other by the first pixel. As shown in the annotated image below, the Samsung Galaxy S22 Ultra product has another second pixel (pink arrow) separated from the first pixel (green arrow) and having a center at a third vertex neighboring the second vertex of the virtual square (purple), and wherein the second pixels (blue arrow and pink arrow) are separated from each other by the first pixel (green arrow).



Annotated Exhibit 2029 at 4
(Galaxy S22 Ultra Teardown Photos)

3. The pixel arrangement structure of claim 2, wherein the plurality of pixels further comprises another third pixel separated from the first pixel and having a center at a fourth vertex neighboring the third vertex of the virtual square, and wherein the third pixels are separated from each other by the first pixel.

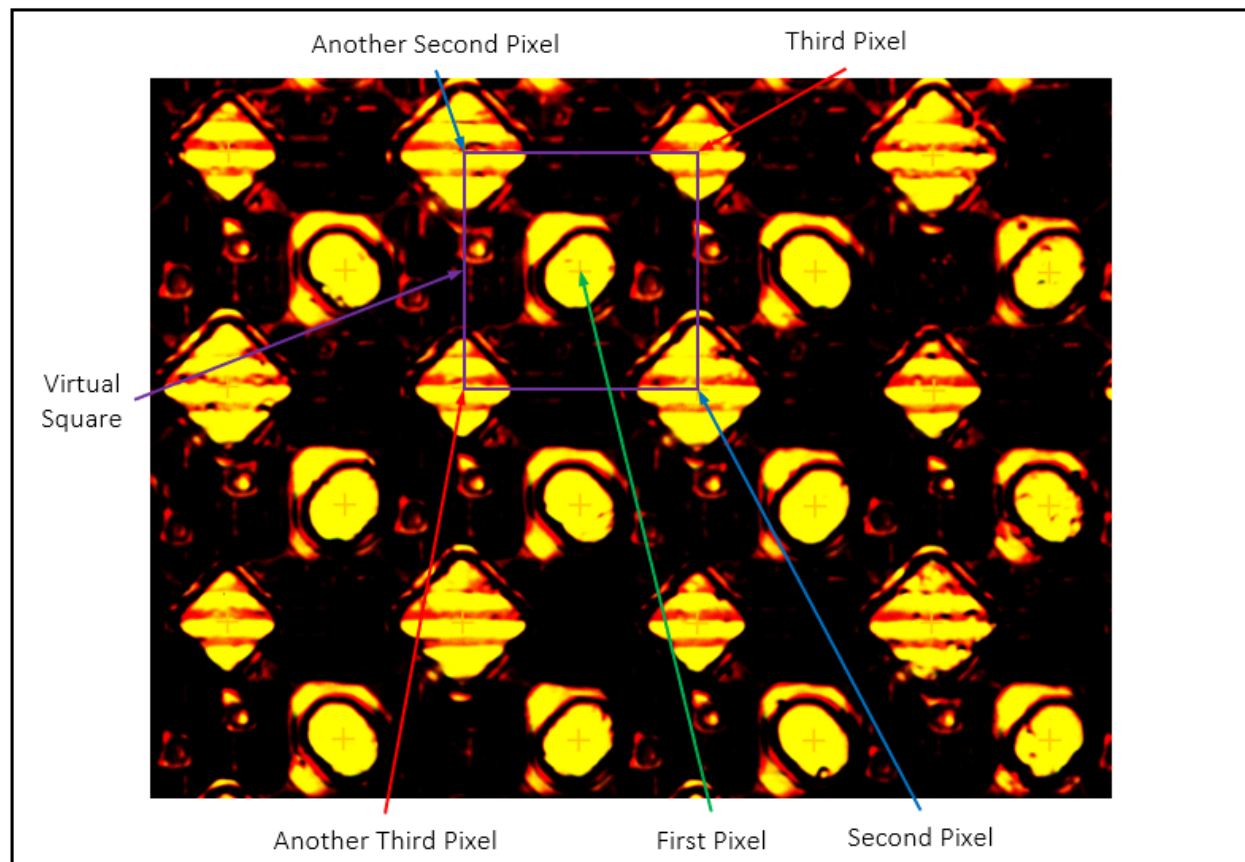
In the Samsung Galaxy S22 Ultra product, the plurality of pixels further comprises another third pixel separated from the first pixel and having a center at a fourth vertex neighboring the third vertex of the virtual square, and wherein the third pixels are separated from each other by the first pixel. As shown in the annotated image below, the Samsung Galaxy S22 Ultra product has another third pixel (pink arrow) separated from the first pixel (green arrow) and having a center at a fourth vertex neighboring the third vertex of the virtual square (purple), and wherein the third pixels (red arrow and pink arrow) are separated from each other by the first pixel (green arrow).



Annotated Exhibit 2029 at 4
(Galaxy S22 Ultra Teardown Photos)

4. The pixel arrangement structure of claim 3, wherein the second pixels and the third pixels enclose the first pixel in the virtual square.

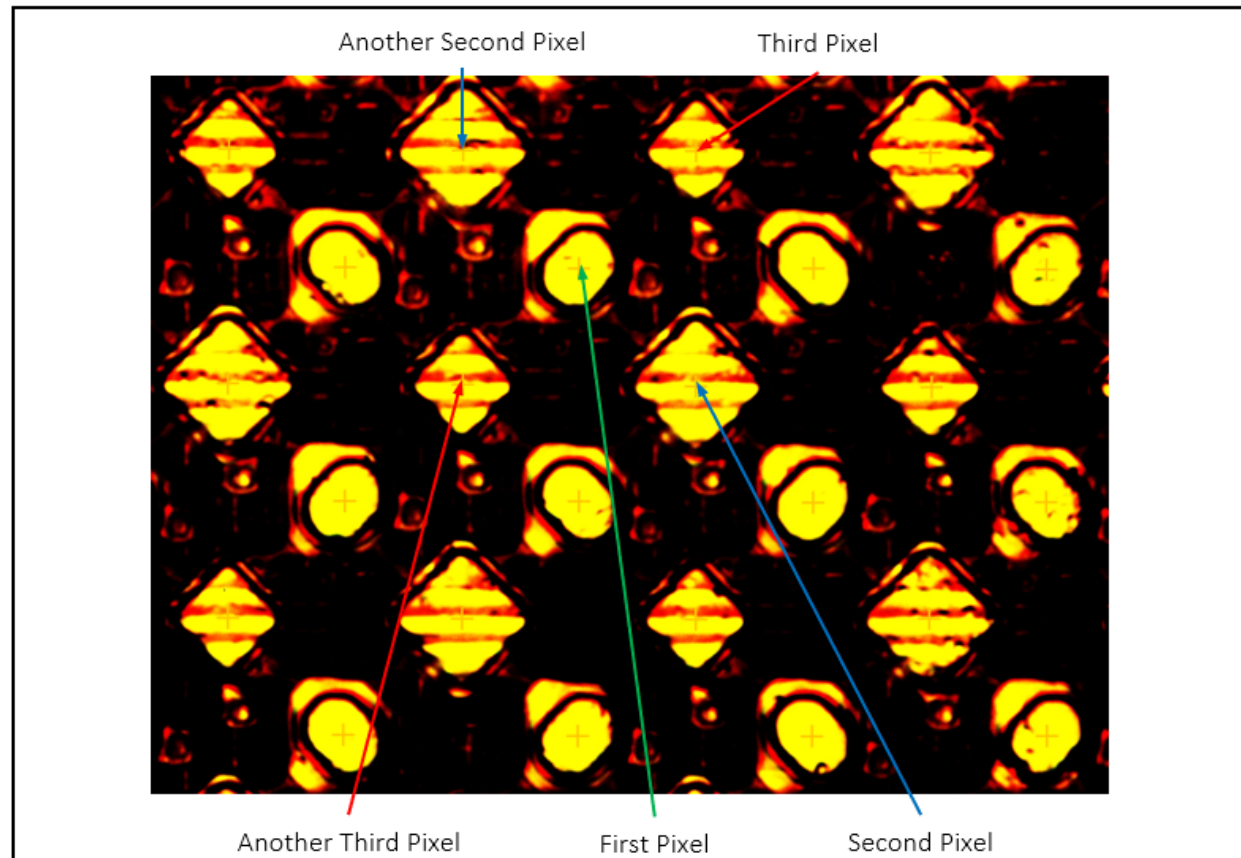
In the Samsung Galaxy S22 Ultra product, the second pixels and the third pixels enclose the first pixel in the virtual square. As shown in the annotated image below, the second pixels (blue arrows) and the third pixels (red arrows) enclose the first pixel (green arrow) in the virtual square (purple).



Annotated Exhibit 2029 at 4
(Galaxy S22 Ultra Teardown Photos)

5[a] The pixel arrangement structure of claim 4, wherein the first pixel, the second pixels, and the third pixels have polygonal shapes, and

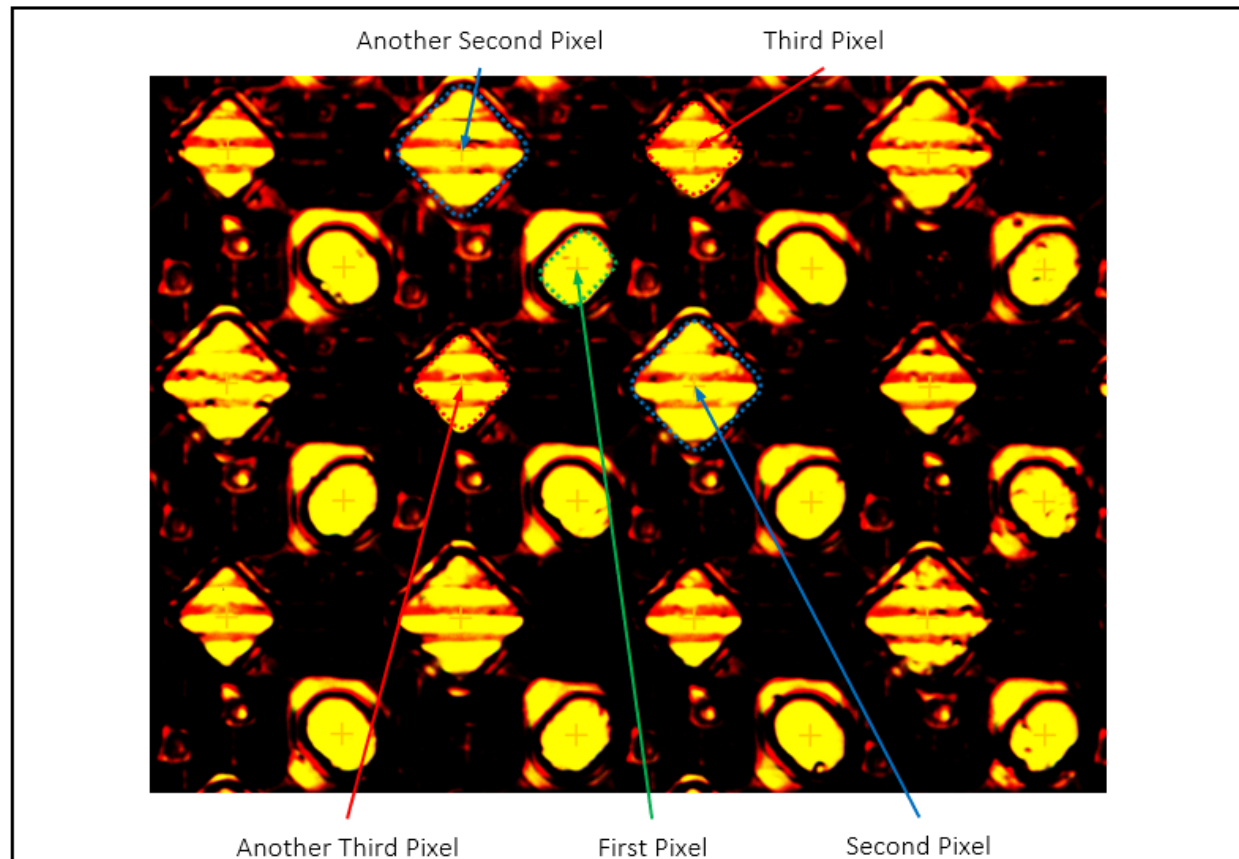
In the Samsung Galaxy S22 Ultra product, the first pixel, the second pixels, and the third pixels have polygonal shapes. As shown in the annotated image below, the first pixel (green arrow), the second pixels (blue arrows), and the third pixels (red arrows) each have planar shapes (two-dimensional) with straight sides, and thus have polygonal shapes.



Annotated Exhibit 2029 at 4
(Galaxy S22 Ultra Teardown Photos)

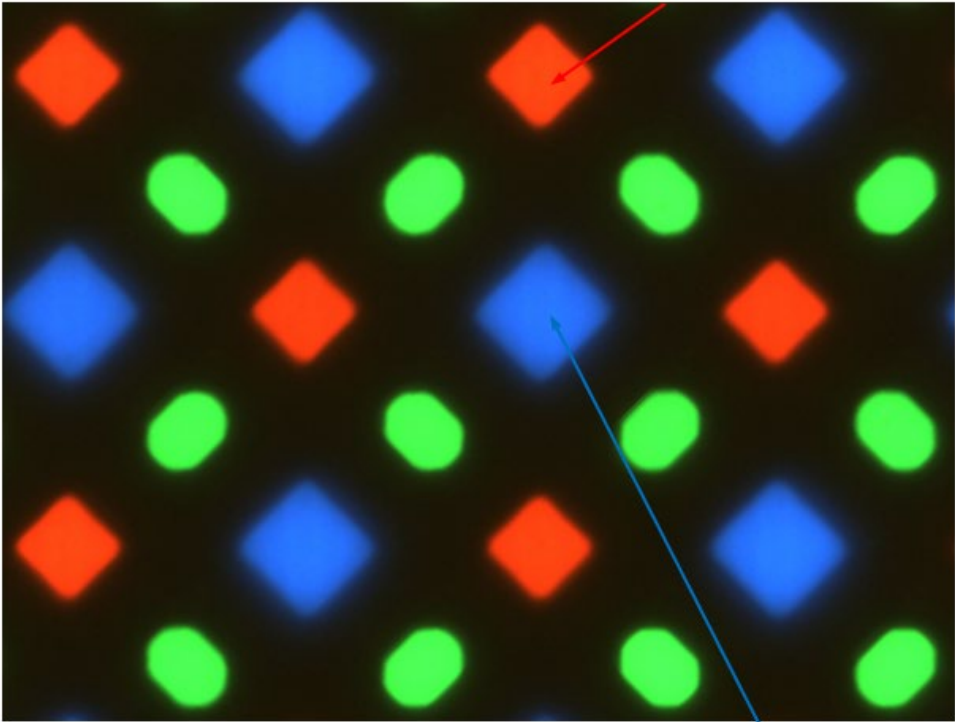
5[b] each of the second pixels and each of the third pixels has a larger area than the first pixel.

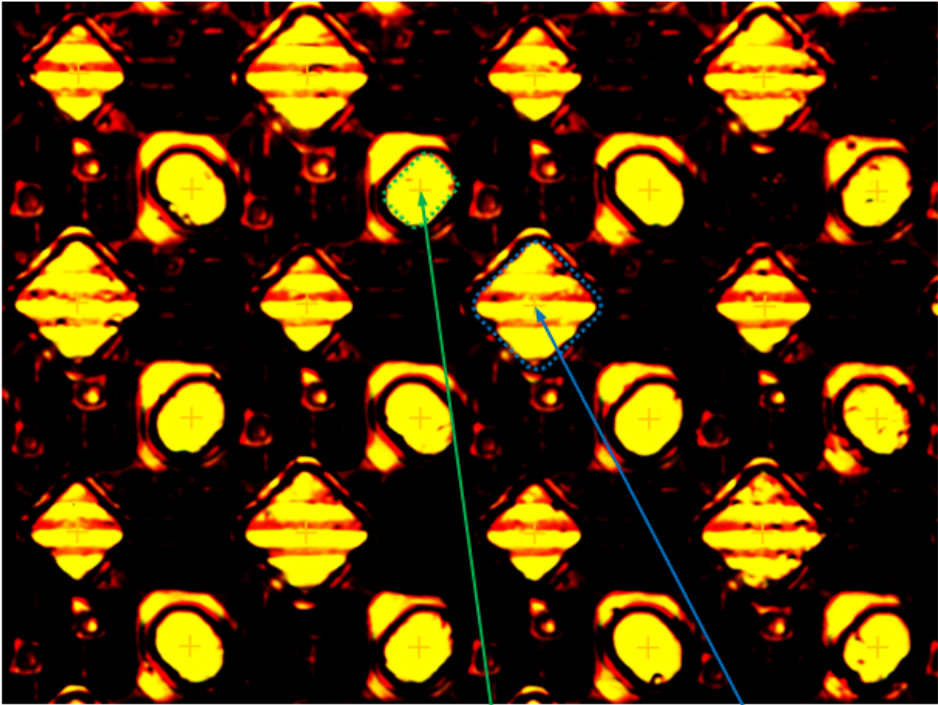
In the Samsung Galaxy S22 Ultra product, each of the second pixels and each of the third pixels has a larger area than the first pixel. As shown in the annotated image below, each of the second pixels' areas (dotted blue lines) and each of the third pixels' areas (dotted red lines) are larger than the first pixel's area (dotted green line).



Annotated Exhibit 2029 at 4
(Galaxy S22 Ultra Teardown Photos)

U.S. Pat. No. 9,818,803	Samsung Galaxy S22 Ultra
19. The pixel arrangement structure of claim 1, wherein the first pixel, the second pixel, and the third pixel are configured to emit different color lights.	In the Samsung Galaxy S22 Ultra product, the first pixel, the second pixel, and the third pixel are configured to emit different color lights. As shown in the annotated image below, the first pixel is configured to emit green light, the second pixel is configured to emit blue light, and the third pixel is configured to emit red light. Annotated Exhibit 2029 at 5 (Galaxy S22 Ultra Teardown Photos)

U.S. Pat. No. 9,818,803	Samsung Galaxy S22 Ultra
20. The pixel arrangement structure of claim 19, wherein the second pixel and the third pixel are configured to emit blue light and red light, respectively.	In the Samsung Galaxy S22 Ultra product, the second pixel and the third pixel are configured to emit blue light and red light, respectively. As shown in the annotated image below, the second pixel is configured to emit blue light, and the third pixel is configured to emit red light.  Annotated Exhibit 2029 at 5 (Galaxy S22 Ultra Teardown Photos)

U.S. Pat. No. 9,818,803	Samsung Galaxy S22 Ultra
21. The pixel arrangement structure of claim 1, wherein the second pixel has a larger area than that of the first pixel.	In the Samsung Galaxy S22 Ultra product, the second pixel has a larger area than that of the first pixel. As shown in the annotated image below, the second pixel's area (dotted blue line) is larger than the first pixel's area (dotted green line).  First Pixel Second Pixel Annotated Exhibit 2029 at 4 (Galaxy S22 Ultra Teardown Photos)