Claims

What is Claimed is:

1. A display, comprising:

display driver circuitry;

data lines coupled to the display driver circuitry;

gate lines coupled to the display driver circuitry;

an array of pixels having rows and columns, wherein the gate lines of rows in a first area of the display are coupled to fewer of the pixels in the array of pixels than the gate lines of rows in a second area of the display; and

supplemental gate line loading structures that are coupled to at least some of the gate lines in the first area, wherein the supplemental gate line loading structures provide loading on the gate lines in the first area.

2. The display defined in claim 1 wherein the supplemental gate line loading structures are configured so that display brightness variations between the first and second areas of the display are less than 2%.

3. The display defined in claim 2 wherein the supplemental gate line loading structures comprise dummy pixels that do not emit light.

4. The display defined in claim 3 wherein the dummy pixels do not contain emissive material for light-emitting diodes.

5. The display defined in claim 2 wherein the supplemental gate line loading structures comprise capacitors.

6. The display defined in claim 2 wherein a first of the rows in the first area is coupled to a supplemental gate line loading structure in a second of the rows of the first area.

7. The display defined in claim 6 wherein the pixels of the first of the

rows are associated with a given one of the gate lines and wherein the given one of the gate lines has a gate line extension that extends from the first of the rows to the second of the rows.

8. The display defined in claim 2 wherein the supplemental gate line loading structures impose progressively decreasing amounts of loading on the gate lines of the first area at progressively increasing distances between the second area and the gate lines of the first area.

9. An organic light-emitting diode display, comprising:

a substrate with a notch;

organic light-emitting diode pixels on the substrate;

display driver circuitry;

data lines coupled to the display driver circuitry and the organic light-emitting diode pixels;

gate lines coupled to the display driver circuitry and the organic light-emitting diode pixels, wherein the organic light-emitting diode pixels are arranged in columns and rows, wherein the rows in a first area of the display that includes the notch are coupled to fewer of the pixels than the rows in a second area of the display; and

supplemental gate line loading structures that are coupled to at least a portion of the gate lines in the first area to increase gate line loading on those gate lines and thereby reduce differences in gate line loading between the gate lines in the first and second areas.

10. The organic light-emitting diode display defined in claim 9 wherein the supplemental gate line loading structures include capacitors coupled to the gate lines in the portion of the gate lines.

11. The organic light-emitting diode display defined in claim 10 wherein each gate line in the portion of the gate lines is coupled to a plurality of the capacitors.

12. The organic light-emitting diode display defined in claim 11 wherein

each of the capacitors has an upper electrode and a lower electrode.

13. The organic light-emitting diode display defined in claim 11 wherein each of the capacitors has a first conductive layer, a second conductive layer, and a third conductive layer, wherein the first and third conductive layers are shorted together and form a first capacitor electrode and wherein the second conductive layer is interposed between the first and third conductive layers and forms a second capacitor electrode.

14. The organic light-emitting diode display defined in claim 9 wherein the supplemental gate line loading structures apply different amounts of capacitance to different gate lines in the first area.

15. The organic light-emitting diode display defined in claim 14 wherein the gate driver circuitry includes a gate driver coupled to one of the gate lines in each row and wherein at least one of the gate drivers in the first area has a different strength than at least one of the gate drivers in the second area.

16. The organic light-emitting diode display defined in claim 15 wherein the display driver circuitry is configured to provide gate line signals on the gate lines of the rows in the first and second areas that have different slew rates.

17. An organic light-emitting diode display, comprising:

a substrate with a notch, wherein the substrate has a width;

organic-light-emitting diode pixels on the substrate;

display driver circuitry;

data lines coupled to the display driver circuitry and coupled to the pixels; and

gate lines coupled to the display driver circuitry and coupled to the pixels, wherein the pixels have columns and rows, wherein the gate lines of the rows in a first area of the display are coupled to fewer of the pixels than the gate lines of the rows in the second area, wherein the gate lines of the rows in both the first area and the second area span the width of the substrate, wherein each of the gate lines of the rows in the first area have a

portion that does not coupled to any pixels, and wherein a location of each portion is positioned with respect to the notch.

18. The organic light-emitting diode display defined in claim 17 further comprising supplemental gate line loading structures that are coupled to a first set of gate lines in the first area to increase gate line loading on the first set of gate lines and thereby reduce differences in gate line loading between the first set of gate lines and a second set of gate lines in the second area.

19. The organic light-emitting diode display defined in claim 18 wherein the supplemental gate line loading structures include dummy pixels.

20. The organic light-emitting diode display defined in claim 18 wherein the supplemental gate line loading structures include at least one capacitor coupled to each gate line in the first set of gate lines.