

WHAT IS CLAIMED IS:

1. A curved electronic display comprising:
 - a cylindrically curved display panel including at least a cylindrically concave surface configured to emit image light; and
 - a fiber optic taper including a mounting surface and a display surface, the mounting surface affixed to the cylindrically concave surface of the cylindrically curved display panel, and the mounting surface configured to receive the image light from the cylindrically curved display panel, and the display surface having a curved shape that emits the image corrected for optical distortion in the image light received from the cylindrically curved display panel.

2. The curved electronic display of claim 1, wherein the optical distortion is field curvature.

3. The curved electronic display of claim 1, wherein the fiber optic taper includes a plurality of parallel optical fibers.

4. The curved electronic display of claim 1, wherein the fiber optic taper includes a plurality of converging optical fibers that converge toward a center of curvature of the display surface.

5. The curved electronic display of claim 1, wherein the shape of the display surface is a portion of a spherically concave shape.

6. The curved electronic display of claim 1, wherein the mounting surface of the fiber optic taper is cylindrically convex and coincides with the cylindrically concave shape of the curved display panel.

7. The curved electronic display of claim 1, further comprising:
a masking element coupled to the display surface, the masking surface obscuring a fiber optic structure of the fiber optic taper.

8. The curved electronic display of claim 1, further comprising:
a masking element coupled to the display surface, the masking surface obscuring a pixel structure of the cylindrically curved display panel.

9. The curved electronic display of claim 1, wherein the shape of the display surface is a portion of a rotationally symmetric asphere.

10. The curved electronic display of claim 1, wherein the shape of the display surface is a portion of a freeform shape.

11. A curved electronic display comprising:
a display panel including at least a surface configured to emit image light; and

a fiber optic taper including a mounting surface and a display surface, the mounting surface affixed to the display panel, and the mounting surface configured to receive the image light from the display panel, and the display surface having a curved shape that emits the image corrected for optical distortion in the image light received from the display panel.

12. The curved electronic display of claim 11, wherein the optical distortion is field curvature.

13. The curved electronic display of claim 11, wherein the fiber optic taper includes a plurality of parallel optical fibers.

14. The curved electronic display of claim 11, wherein the fiber optic taper includes a plurality of converging optical fibers that converge toward a center of curvature of the display surface.

15. The curved electronic display of claim 11, wherein the shape of the display surface is a portion of a spherically concave shape.

16. The curved electronic display of claim 11, wherein the mounting surface of the fiber optic taper is flat and coincides with the shape of the display panel.

17. The curved electronic display of claim 11, further comprising:
a masking element coupled to the display surface, the masking surface
obscuring a fiber optic structure of the fiber optic taper.

18. The curved electronic display of claim 11, further comprising:
a masking element coupled to the display surface, the masking surface
obscuring a pixel structure of the display panel.

19. The curved electronic display of claim 11, further comprising:
a masking element coupled to the display surface, the masking surface
obscuring a pixel structure of the cylindrically curved display panel.

20. The curved electronic display of claim 11, wherein the shape of the display
surface is a portion of a rotationally symmetric asphere.