CLAIMS:

1. An optical system, comprising:

a light-transmitting substrate having at least two external major surfaces and edges;

an optical element for coupling light waves into the substrate, by total internal reflection,

at least one partially reflecting surface located in the substrate, for coupling light waves out of the substrate, and

at least one transparent layer, optically attached to at least one of the major surfaces of the substrate, defining an interface plane,

characterized in that the at least one transparent layer has a refractive index lower than a refractive index of the light transmitting substrate so as to define a critical angle such that light waves coupled inside the substrate at angles greater than the critical angle are trapped within the substrate by total internal reflection from the interface plane between the major surface of the substrate and the transparent layer.

2. The optical system according to claim **1**, further comprising a second transparent layer having a refractive index substantially lower than the refractive index of the transparent substrate, wherein the second transparent layer is optically attached to the other of the major surfaces of the substrate.

3. The optical system according to claim **1**, wherein the transparent layer is constituted by an optical adhesive.

4. The optical system according to claim **1**, wherein the transparent layer is composed of a solid dielectric material.

5. The optical system according to claim **4**, wherein the solid dielectric material belongs to a family of Aerogel materials.

6. The optical system according to claim **4**, wherein the solid dielectric material is a porous solid dielectric material fabricated by glancing angle deposition.

7. The optical system according to claim **4**, wherein the transparent layer is directly deposited on a major surface of the substrate.

8. The optical system according to claim **4**, wherein the transparent layer is optically cemented to a major surface of the substrate.

9. The optical system according to claim **1**, further comprising a coating applied to the interface plane.

10. The optical system according to claim **9**, wherein the coating is an anti-reflection coating.

11. The optical system according to claim **9**, wherein the coating is an angular sensitive reflective coating.

12. The optical system according to claim **9**, wherein a coating is applied to a major surface of the substrate.

13. The optical system according to claim **12**, wherein a coating is applied utilizing a cold-coating technique.

14. The optical system according to claim **9**, wherein a coating is applied to an external surface of the transparent layer.

15. The optical system according to claim **1**, wherein the substrate and the transparent layer are assembled inside an eyeglasses frame.

16. The optical system according to claim **1**, wherein the partially reflecting surface for coupling light waves out of the substrate is a flat surface.

17. The optical system according to claim **16**, wherein the partially reflecting surface for coupling light waves out of the substrate is coated with a partially reflecting dielectric coating.

18. The optical system according to claim **16**, wherein the partially reflecting surface for coupling light waves out of the substrate is non-parallel to the major surfaces of the substrate.

19. The optical system according to claim **1**, wherein the optical element for coupling light waves into the substrate by internal reflection is a diffractive element.

20. The optical system according to claim **1**, wherein the partially reflecting surface for coupling light waves out of the substrate is a diffractive element.

21. The optical system according to claim **1**, wherein the partially reflecting surface for coupling light waves out of the substrate, is a curved surface.

22. The optical system according to claim **1**, wherein the substrate and the transparent layer are assembled inside a smart device.

23. The optical system according to claim **22**, wherein the smart device is a smartphone.

24. The optical system according to claim **22**, wherein the smart device is a smartwatch.

25. The optical system according to claim **22**, wherein the optical element is a touchscreen.