What is claimed is:

1. A touch screen display comprising:

a display monitor for providing a visual image; and

an ultrasonic device able to emit an ultrasonic energy wave, and able to detect reflected ultrasonic energy;

wherein the display monitor is comprised of layers and the ultrasonic device is comprised of at least one layer, and the ultrasonic device is attached to one of the layers of the display monitor.

2. The touch screen display of claim 1, wherein the display monitor includes light emitting diodes for providing the visual image.

3. The touch screen display of claim 1, wherein the display monitor includes a liquid crystal display for providing the visual image.

4. The touch screen display of claim 1, wherein the ultrasonic device includes a piezoelectric transmitter for emitting the ultrasonic energy wave.

5. The touch screen display of claim 1, wherein the ultrasonic device includes a piezoelectric hydrophone array for detecting reflected ultrasonic energy.

6. The touch screen display of claim 1, wherein the ultrasonic device includes a thin-film transistor receiver for detecting reflected ultrasonic energy.

7. (Cancelled)

8. The touch screen display of claim 1, wherein the ultrasonic device includes a plurality of receivers for detecting reflected ultrasonic energy.

9. The touch screen display of claim 8, wherein each ultrasonic energy receiver is located

among elements of the display monitor comprising a pixel.

10. A touch screen display comprising:

a display monitor for providing a visual image; and

an ultrasonic device able to emit an ultrasonic energy wave, and able to detect reflected ultrasonic energy;

wherein each ultrasonic energy receiver is located among elements of the display monitor comprising a pixel.

11. The touch screen display of claim 10, wherein the display monitor includes light emitting diodes for providing the visual image.

12. The touch screen display of claim 10, wherein the display monitor includes a liquid crystal display for providing the visual image.

13. The touch screen display of claim 10, wherein the ultrasonic device includes a piezoelectric transmitter for emitting the ultrasonic energy wave.

14. The touch screen display of claim 10, wherein the ultrasonic device includes a piezoelectric hydrophone array for detecting reflected ultrasonic energy.

15. The touch screen display of claim 10, wherein the ultrasonic device includes a thin-film transistor receiver for detecting reflected ultrasonic energy.

16. The touch screen display of claim 10, wherein the display monitor is comprised of layers and the ultrasonic device is comprised of at least one layer, and the ultrasonic device is attached to one of the layers of the display monitor.

17. The touch screen display of claim 10, wherein the ultrasonic device includes a plurality of receivers for detecting reflected ultrasonic energy.

CLAIMS

1. A touch screen display comprising:

a display monitor for providing a visual image; and

an ultrasonic device able to emit an ultrasonic energy wave, and able to detect reflected ultrasonic energy;

wherein the display monitor is comprised of layers, at least one of which is an internal layer, and the ultrasonic device includes a transducer comprised of at least one layer, and the ultrasonic transducer is attached to one of the internal layers of the display monitor; and

wherein the ultrasonic device is located among elements of the display monitor comprising a pixel, such that the pixel comprises a plurality of light emitting cells and the ultrasonic device.

2. The touch screen display of claim **1**, wherein the display monitor includes organic light emitting diodes for providing the visual image.

3. The touch screen display of claim **1**, wherein the display monitor includes a liquid crystal display for providing the visual image.

4. The touch screen display of claim **1**, wherein the ultrasonic transducer includes a piezoelectric transmitter for emitting the ultrasonic energy wave.

5. The touch screen display of claim **1**, wherein the ultrasonic transducer includes a piezoelectric hydrophone array for detecting reflected ultrasonic energy.

6. The touch screen display of claim **1**, wherein the ultrasonic transducer includes a thin-film transistor receiver for detecting reflected ultrasonic energy.

7. The touch screen display of claim **1**, wherein the ultrasonic device includes a plurality of receivers for detecting reflected ultrasonic energy.

8. The touch screen display of claim **7**, wherein each ultrasonic energy receiver is located among elements of the display monitor comprising a pixel.

9. A touch screen display comprising:

a display monitor for providing a visual image; and

an ultrasonic device having a transducer able to emit an ultrasonic energy wave, and able to detect reflected ultrasonic energy;

wherein the ultrasonic transducer is located among elements of the display monitor comprising a pixel, such that the pixel comprises a plurality of light emitting cells and the ultrasonic device.

10. The touch screen display of claim **9**, wherein the display monitor includes organic light emitting diodes for providing the visual image.

11. The touch screen display of claim **9**, wherein the display monitor includes a liquid crystal display for providing the visual image.

12. The touch screen display of claim **9**, wherein the ultrasonic transducer includes a piezoelectric transmitter for emitting the ultrasonic energy wave.

13. The touch screen display of claim **9**, wherein the ultrasonic device includes a piezoelectric hydrophone array for detecting reflected ultrasonic energy.

14. The touch screen display of claim **9**, wherein the ultrasonic transducer includes a thin-film transistor receiver for detecting reflected ultrasonic energy.

15. The touch screen display of claim **9**, wherein the display monitor is comprised of layers and the ultrasonic transducer is comprised of at least one layer, and the ultrasonic transducer is attached to one of the layers of the display monitor.

16. The touch screen display of claim **9**, wherein the ultrasonic device includes a plurality of receivers for detecting reflected ultrasonic energy.

17. The touch screen display of claim **1**, wherein the ultrasonic transducer is attached to a liquid crystal layer of the display monitor.

18. The touch screen display of claim **1**, wherein the ultrasonic transducer is attached to a color filter layer of the display monitor.

19. The touch screen display of claim **1**, wherein the ultrasonic transducer is attached to a TFT substrate glass layer of the display monitor.

20. A method of determining information about a pointing object on a touch screen display comprising:

providing a display monitor for providing a visual image;

providing an ultrasonic device able to emit an ultrasonic energy wave, and able to detect reflected ultrasonic energy;

wherein the display monitor is comprised of layers, at least one of which is an internal layer, and the ultrasonic device includes a transducer comprised of at least one layer, and the ultrasonic transducer is attached to one of the internal layers of the display monitor; and

wherein the ultrasonic device is located among elements of the display monitor comprising a pixel, such that the pixel comprises a plurality of light emitting cells and the ultrasonic device;

providing a visual image using the display monitor;

emitting an ultrasonic energy wave using the ultrasonic device;

detecting reflected ultrasonic energy using the ultrasonic device; and

determining information from the reflected ultrasonic energy.

21. The method of claim **20**, wherein the display monitor includes organic light emitting diodes for providing the visual image.

22. The method of claim **20**, wherein the display monitor includes a liquid crystal display for providing the visual image.

23. The method of claim **20**, wherein the ultrasonic transducer includes a piezoelectric transmitter for emitting the ultrasonic energy wave.

24. The method of claim **20**, wherein the ultrasonic transducer includes a piezoelectric hydrophone array for detecting reflected ultrasonic energy.

25. The method of claim **20**, wherein the ultrasonic transducer includes a thin-film transistor receiver for detecting reflected ultrasonic energy.

26. The method of claim **20**, wherein the ultrasonic device includes a plurality of receivers for detecting reflected ultrasonic energy.

27. A touch screen display comprising:

a means for providing a visual image; and

a means for emitting an ultrasonic energy wave, and detecting reflected ultrasonic energy;

wherein the means for providing a visual image is comprised of layers, at least one of which is an internal layer, and the means for emitting and detecting includes an ultrasonic transducer comprised of at least one layer, and the ultrasonic transducer is attached to one of the internal layers of the means for providing a visual image; and

wherein the means for emitting and detecting is located among elements comprising a pixel of the means for providing a visual image, such that the pixel comprises a plurality of light emitting cells and the means for emitting and detecting.

28. The touch screen display of claim **27**, wherein the means for providing an image includes organic light emitting diodes for providing the visual image.

29. The touch screen display of claim **27**, wherein the means for providing an image includes a liquid crystal display for providing the visual image.

30. The touch screen display of claim **27**, wherein the means for emitting and detecting includes a piezoelectric transmitter for emitting the ultrasonic energy wave.

31. The touch screen display of claim **27**, wherein the ultrasonic transducer includes a piezoelectric hydrophone array for detecting reflected ultrasonic energy.

32. The touch screen display of claim **27**, wherein the ultrasonic transducer includes a thin-film transistor receiver for detecting reflected ultrasonic energy.

33. The touch screen display of claim **27**, wherein the means for emitting and detecting includes a plurality of receivers for detecting reflected ultrasonic energy.