tion along which light having entered the liquid crystal layer is polarized by 90°. Thus, the polarized light having entered the liquid crystal **11** via the first polarizing plate **13***a* is first rotated by 90° within the liquid crystal layer, passes through the second polarizing plate **13***b* and exits the first display module **10** to enter the second display module **20**.

[0084] As a voltage is applied from the transparent electrode (not shown), the liquid crystal **11** assumes a different liquid crystal molecule arrangement in the liquid crystal layer and the polarizing direction for the incident light is no longer rotated by 90°. Thus, the polarized light having entered the liquid crystal **11** via the first polarizing plate **13***a* can no longer pass through the second polarizing plate **13***b* and the quantity of transmitted light exiting the first display module becomes reduced. Since the extent to which the liquid crystal molecule arrangement changes is in proportion to the voltage applied from the transparent electrode, the rate of rotation of the polarizing direction for light advancing through the liquid crystal layer, too, is in proportion to the voltage applied. Accordingly, the quantity of light transmitted through the first display module **10** to enter the second display module **20** decreases as the level of the voltage applied to the liquid crystal **11** increases.

[0085] The liquid crystal **11** adopts a structure that allows a given voltage corresponding to a drive signal provided from a display control circuit (to be detailed later) based upon image signals to be applied to each of specific areas (pixels) separated from one another so as to achieve a matrix pattern. Thus, an optical image generated via the first display module **10** based upon the image signals enters the second display module **20**. This display method, which enables individual control of the transmittance of the illuminating light, i.e., the quantity of modulated light to be emitted, in correspondence to each pixel, assures rich tonal expression in the display. In addition, since the light is transmitted through the color filter as explained earlier, the display method is ideal for a full-color display of a photographic image or a dynamic image.

[0086] The second display module **20** is constituted with a liquid crystal panel with a cholesteric liquid crystal **21** sealed between two glass substrates **22***a* and **22***b*. The cholesteric liquid crystal **21** adopts a structure that allows a given voltage corresponding to a drive signal provided from a display control circuit (to be detailed later) based upon an image signal to be applied to each of specific areas (pixels) separated from one another so as to achieve a matrix pattern. As a voltage is applied to the liquid crystal **21** from the transparent electrode, a change over between the transmitting state and the reflecting state occurs.

[0087] A pixels switched to the reflecting state diffuses and reflects the ambient light and are thus seen by the user as, for instance, a yellowish glow. A pixel switched to the transmitting state, on the other hand, allows the optical image generated at the first display module **10** to be transmitted and the user is able to view the color image displayed at the first display module **10**. Since the cholesteric liquid crystal has a retentive property which allows it to function as a memory, it sustains the reflecting state (or the transmitting state) even when the power supply to the second display module **20** stops.

[0088] The effective display area **100***a* of the display device **100** corresponds to the effective display area of the first display module **10**, whereas the second display module **20** has an effective display area greater than, at least, the effective display area **100***a*. The light guiding plate **14**, the first display module **10** and the second display module **20** are stacked one on top of the other in substantially close contact with one another, and together they constitute the display device **100**.

[0089] FIG. **4** is a control block diagram of the display device **100**. From a battery BT, power is supplied to various blocks including a CPU **31**. The drive of the first display module **10** is controlled by a display control circuit **32**. The display control circuit **32** includes a liquid crystal drive circuit **32***a* that drives the liquid crystal **11** via the transparent electrode and a backlight control unit **32***b* that executes on/off control for the white LED **141**. The drive of the second display module **20** is controlled by a display control circuit **33**. The display control circuit **33** drives the liquid crystal **21** via a transparent electrode. In addition to transmitting a liquid crystal drive command together with display data to the display control circuits **32** and **33**, the CPU **31** reads out image data and character data from an image storage device **34** or a recording medium **37** and writes image data and character data into the image storage device **34** or the recording medium **37**. A light sensor **35** detects the level of brightness around the display device **100** and outputs a detection signal to the CPU **31**. A clock circuit **36** generates time point information by dividing a clock signal. The image storage device **34** may be constituted with, for instance, a hard disk device. The recording medium **37** may be a detachable memory card.

[0090] Display modes that may be assumed in the display device **100** structured as described above are now explained.

[0091] (Image Display)

[0092] When displaying a reproduced (replayed) image at the display device **100** by using image data recorded in the image storage device **34** or the recording medium **37**, the white LED **141** is turned on, the reproduced image is displayed at the first display module **10** and all the pixels at the second display module **20** are set in the transmitting (transparent) state as shown in FIG. **5**. The user observes the display image formed with display light emitted from the first display module **10** through the second display module **20** in the transmitting state. If the second display module **20** has a memory property for display retention (the current state is sustained after the power supply stops), the power supply to the second display module **20** is stopped after all the pixels at the second display module are switched to the transmitting state and the transmitting state is sustained at the second display module **20**. Thus, a still image brought up at the display device **100** is held on display simply by setting all the pixels at the second display module in the transmitting (transparent) state and supplying power to the first display module **10**. The first display module **10** may be referred to as an image display module.

[0093] (Text Display)

[0094] When displaying characters or the like at the display device **100**, areas (pixels) corresponding to the characters to be brought up on display at the second display module **20** are set in the transmitting state with the other areas (pixels) set in the reflecting state and the drive of the liquid crystal **11** at the first display module **10** is stopped