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(54) Title: SINGLE PANEL COLOR IMAGE PROJECTION SYSTEM HAVING IMPROVED SCANNING

(57) Abstract

A color video projection video system in which a white light source is separated into red, green and blue bands (212, 216, 220) with dark guard bands (211, 214, 218) spaced therebetween. Scanning optics cause the colored bands to be sequentially scanned across a light valve, such as a transmission LCD panel. Prior to each color passing over a given row of on the light panel on the light valve, that row will be addressed, by the display electronics with the appropriate color content of that portion of the image which is being displayed. The image of the panel is projected by a projection lens onto a viewing surface, such as a screen. In order to optimize the color purity of the system when used with certain types of light valves, the intervals (d_R, d_G, d_B) between each of the three colors is adjusted and scaled to the differing response times of the LCD panel for each of the colors. Additionally, color balance can be adjusted by changing the relative size of each color band with respect to the others.

