LCOS microdisplay fits AR designs

Susan Nordyk - November 01, 2018

A 1080p liquid crystal on silicon (LCOS) microdisplay, the OP02220 from OmniVision integrates a driver and memory buffer for use in augmented reality (AR) applications like AR glasses, head-mounted displays, and pico projectors. By combining the microdisplay and driver function into a compact 25.7×12.6×3.33-mm package, the OP0220 not only conserves board space, but also extends battery life by lowering power consumption.

The OP02220 provides a native resolution of 1920×1080 pixels and a pixel pitch of 4.5 μm. Its 0.39-in. diagonal LCOS panel displays crisp, clear high-definition video with 1080p resolution at a frame rate of 60 fps or 720p resolution at a frame rate of 120 fps. The device also has a frame refresh rate of up to 360 Hz for field sequential color. Video data input is via a four lane MIPI display serial interface.

Power consumption for the OP02220 is 300 mW, which is considerably lower than a two-chip design, according to the manufacturer. The OP02220 LCOS microdisplay and an evaluation kit with a reference board are available now.

OP02220 product page

OmniVision Technologies, www.ovt.com

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