

QuickLogic and Chrontel Deliver Simultaneous LCD and Video Output for Handheld Devices

- -- Ultra-low power solution architected to provide X-Y swap, frame buffering, and frame rate conversion for simultaneous LCD display and video output from portable devices.
- -- QuickLogic Customer Specific Standard Product (CSSP) works in conjunction with popular Application Processors and Chrontel TV encoder.

SUNNYVALE, Calif .-- (BUSINESS WIRE) --

Underscoring its commitment to the mobile electronics market, QuickLogic(R) Corporation (NASDAQ:QUIK), the lowest power programmable solutions leader, today announced that, together with development partner Chrontel, it can now enable handheld device developers to add simultaneous video output to their products without sacrificing battery lifetime or burdening the host application processor. The proven QuickLogic/Chrontel solution has already been adopted by a leading smart phone manufacturer and can be customized to fit a wide range of design needs required by other adopters. For more detail please visit http://www.embedded.com/underthehood/201803541?_requestid=163373.

"This is one more of the many examples of QuickLogic's low power CSSP solutions providing fast time-to-market and design flexibility for handheld applications," said Jing Ma, Director of Partnerships and Strategic Alliances at QuickLogic. "This new simultaneous display solution enables developers to implement a wide range of exciting handheld capabilities, such as plugging a PDA into a conference room television to give a presentation, playing a mobile-phone video game on a TV, or even watching a movie stored on a portable media player on any TV."

Working in conjunction with Chrontel, QuickLogic addressed three major challenges associated with the simultaneous display of images on both LCD screens and external video devices such as televisions and VGA projectors which have different scan directions. The first challenge was providing the memory control to manage frame buffers using an X-Y pixel swap that provides correct simultaneous image display on both the portrait-mounted LCD panels common to handheld devices and the landscape-oriented displays of television and video projectors. The second challenge was to accommodate frame- and pixel-rate differences between LCD and various television standards, including NTSC and PAL. The third was to provide this functionality without making excessive demands on system battery power and without requiring host processor intervention beyond setup and configuration.

QuickLogic's CSSP solution leverages the company's ultra-low power programmable fabric technology to implement the memory interfaces, RGB interfaces, X-Y Swap conversion logic, and active power management needed to address these challenges, all in a single device. When coupled with Chrontel's CH7013 TV Encoder and a mobile SDRAM frame buffer, the total design handles all rate conversions and voltage level shifting needed to get input data from the LCD display controller on the application processor and drive the TV encoder device.

"By partnering with QuickLogic," said David Tsai, Chrontel's Director of Marketing, "we have successfully developed an approach that enables portrait-oriented images and video from mobile handsets, personal digital assistants (PDAs), and portable media players (PMPs) to display correctly on conventional NTSC and PAL displays. QuickLogic's CSSP handles all the timing related to the various display rates and scan direction conversion while the CH7013 processes and tunes the video stream to produce excellent TV-out quality."

Availability

As with all of its CSSP designs, QuickLogic can adapt its X-Y swap proven system block to meet a customer's specific needs, speeding time-to-market for developers having unique requirements. For more information and to discuss requirements, contact QuickLogic sales at www.quicklogic.com/sales.

About QuickLogic

QuickLogic Corporation (NASDAQ:QUIK) is the inventor and pioneer of innovative, customizable semiconductor solutions for mobile and portable electronics OEMs and ODMs. These silicon plus software solutions are called Customer Specific Standard Products (CSSPs). CSSPs enable our customers to bring their products to market more quickly and remain in the market longer, with the low power, cost and size demanded by the mobile and portable electronics market. For more information about QuickLogic and CSSPs, visit www.quicklogic.com.

About Chrontel, Inc.

Founded in 1986, privately-held Chrontel is a leading supplier of video interface ICs and technologies to computer manufacturers worldwide. The company's innovations include the world's first VGA-to-TV encoder. Chrontel video display chips are incorporated into reference designs offered by Intel and other leading microprocessor and graphics processor vendors. The company currently offers the industry's most complete product line of video interface ICs for notebook and desktop computers, and its components can be found in PCs sold by dozens of leading manufacturers. Additional information about Chrontel can be found on its website: www.chrontel.com.

The QuickLogic name and logo are registered trademarks of QuickLogic Corporation. All other brands or trademarks are the property of their respective holders and should be treated as such.

Code: QUIK-G

Source: QuickLogic Corporation