

Press release

eCOUNT embedded presents new high-performance 4K UHD flatpanel controllers

eCOUNT embedded connects monitors, displays and control panels to the cloud



Munich, Germany, 30 January 2018 – The CRTtoLCD-91 from eCOUNT embedded is a new flatpanel controller for the development of customer-specific monitors, displays and control panels that supports flat screens with up to 4K UHD resolution. As the first industry solution of this kind, it also offers cloud connectivity plus an integrated RFID reader. Thanks to these innovative three features, the new solution platform of the well-established CRTtoLCD product family provides a completely fresh user experience with brilliant, high-resolution 4K UHD graphics, RFID support for screen unlock authentication, and easy management via cloud apps. This IIoT connectivity for monitors, displays and control panels offers users greater convenience, efficiency and reliability, enabling them for instance to configure distributed installations remotely, monitor the operating status constantly and manage access control centrally.

"Our new CRTtoLCD-91 flatpanel controllers will significantly change the way how OEMs design and deploy and how users operate their monitors, displays and control panels, as RFID and cloud connectivity open up whole new worlds of possibilities," explains Dirk Finstel, Managing Partner and CTO of eCOUNT embedded. "Today, the control of devices,



machines and systems are carried out by touch displays and their peripherals. When it is possible to monitor the usage or to manage the authorization processes and userdependent configurations of these touch displays centrally, even payment systems for payper-use applications can be connected. This is just one of many scenarios that can be implemented with our new CRTtoLCD-91 flatpanel controllers. We are very excited to see what new applications our customers will think up."

The feature set in detail

The new 4K UHD CRTtoLCD-91 flatpanel controller from eCOUNT embedded is based on the Himax HX6310-A scaler chip and supports flatpanel displays with 4K-UHD up to 3840×2160@60Hz. Thanks to content-dependent backlight control and new scaling algorithms, displays – even of non-native 4K content – are exceptionally brilliant and sharp.

An optional industry-first HF RFID reader with NFC support and WiFi cloud connection can be plugged onto the controller board. Later this year, a UHF RFID reader with a range of up to 10 meters will be added as an ideal option for logistics applications. The RFID reader enables user authorization management or the identification of RFID tagged goods of all kinds. The WiFi cloud connection, which is designed as a powerful, ready-to-use, end-toend solution, can be customized and/or expanded as needed. With a comprehensive range of on-screen display functions, as well as extended configuration and scripting options for OEM-specific designs, the intelligent LCD controller board also provides all features OEMs need to develop custom monitors, displays and control panels.

For the connection of flatpanel displays, there are 8 VbyOne lanes @ 3.75 Gbps/lane, or 4 eDP 1.2a lanes @ 5.4 Gbps/lane. RGB color formats up to 30-bit depth and CYbCr (420/422/444) are supported. Graphics and HDCP 1.4/2.2 protected content is handled via DisplayPort 1.4 or DVI/HDMI 2.0.

Additional interfaces include Dolby 7.1 audio and analog stereo sound, dual USB for touch functionality as well as keyboard/mouse and 1x USB for client connection to embedded computer systems. Digital and analog GPIOs – e.g. for fan control and intrusion detection – as well as a serial interface (USB to RS232) for industrial peripherals complete the range of interfaces. Power is supplied via 12-24 VDC wide-range mains supply, which allows control of large displays up to 8A and backlights up to 3.5A.

The new display controller is now also available with extensive optional accessories, ranging from a keypad with infrared-receiver and ambient light sensor for situational brightness control, to RFID support, Bluetooth Low Energy (BLE) and WiFi IoT modules for



cloud connectivity. Off-the-shelf cable sets for flatpanels and eCOUNT's customer-specific integration support further simplify the integration process.

For more information on the new CRTtoLCD-91 LCD flatpanel controller and how OEMs use it to design custom monitors, displays and control panels, see <u>www.ecount-</u> embedded.com/crttolcd.

About eCOUNT embedded

eCOUNT embedded is a manufacturer of flatpanel controllers, RFID readers and BLE to WiFi gateway platforms and accessories with optional IIoT and cloud connectivity. The company focuses on application-ready solution platforms for OEMs and embedded computer manufacturers that can be individually adapted to customer-specific requirements. Custom development and production include the design of customized monitor, display and control panels, RFID solutions and their assembly.

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