

Interactive Display and Image Processor **Evaluation Kit**

CX92735-FVK

Conexant's portfolio includes a comprehensive suite of semiconductor solutions for communications and consumer applications.

Conexant's CX92735 is an integrated imaging and interactive display processor that enables advanced functions for a variety of applications, including connected frames, interactive display appliances, and smart home and security systems. The device delivers best-in-class image processing, a flexible LCD interface, and supports streaming media content, MP3 audio playback with slideshow functionality, and Wi-Fi[®], Bluetooth[®], and Ethernet connectivity. The CX92735 Evaluation Kit (EVK), available for ThreadX and Linux Operating Systems, is a robust platform that offers OEM's, ODM's, and designers a full system development environment to bring applications and solutions to market quickly. The Evaluation Kit supports Conexant audio, video, modem, and surveillance products, and also interfaces to third party peripherals for advanced networking and touchscreen support.

CX92735 Interactive Display Processor Features

- ARM processor with Vector Floating Point Unit
- Hardware JPEG and image processor
- Integrated USB 2.0 device and host ports
- High resolution LCD display controller
- MP3 and video playback
- Full memory card support
- I²S, I²C, UART, SDIO support
- DDR2 memory
- Multi-Channel A/D Converter

CX92735 EVK Hardware Features

- CX92735 Processor
- 128MB DDR2 Memory, 128MB NAND Flash
- 8MB Serial ROM
- 8" 800x600 LCD with surface capacitive touchscreen
- Resistive touchscreen option
- Expansion support for 12" 1280x800 LVDS LCD
- USB 2.0 device and two USB 2.0 host ports
- CX92735 10/100Mbit Ethernet and RJ-45 connector
- Full memory card connectors and SDIO slot
- IR remote control and rotation sensor
- Conexant's CX20709 Speakers-on-a-Chip with Voice/Audio DSP, Codec and PWM Class-D Amplifer
- CX92735 PWM Audio Option
- CSR Bluetooth BC-5MM EDR 2.1 Module
- 4 button UI interface
- JTAG and UART debug ports, SPI support

CX92735 EVK Support for Conexant Security, Modem, Smart Home, and

The CX92735 supports a number of peripheral interfaces, including USB, I²C, SPI/UART and others, supporting connection to, and system development with other Conexant solutions for modem, video, smart home, and surveillance

• CX93510 - Conexant's low power, PIR sensor, surveillance camera solution. Designed for low cost and low power motion detection camera applications, the CX93510 can interface to the CX92735 EVK to capture, store, display, and send images (CX93510 EVK Part Number CX93510 EVK R1)



		/:4 /	
-vai	uation	K IT (ONTONT
_vai	uation		Olltellt

- CX92735 development board
- 8" LCD with touchscreen and remote controller
- Microphone and a pair of speakers with
- USB and serial (RS-232) cables
- USB wireless adaptor (Linux only)
- Custom Lexan panel
- CD for Software Development Kit (SDK) includes Getting Started Guide, User's Guide and all documentation for CX92735 chip, board, and SDK
- ☐ ThreadX or Linux Operating System
- ☐ 5V AC switching power adapter

Part Number CX92735-EVK-L, CX92735-EVK-X

Description

Interactive Display and Image Processor Evaluation Kit

- Fax and data modem options are supported for connected devices, kiosk, point of sale, security, and other applications
- CX95110 Conexant's SSF336/314 Serial V.34 High Performance Fax Modem with SmartDAA[®] Technology
- CX93010 Conexant's 4th generation SmartModem EVK USB Dongle Part Number CX-9Z-NR0226

CX92735 Third Party Peripheral Hardware Support

The CX92735 EVK interfaces with a number of third party hardware solutions, to extend functionality in areas such as networking, 3G connectivity, and touchscreen

- 3G / Broadband Cellular The CX92735 EVK Supports the AnyDATA DTP-600W 3G High Speed Data Packet Access Module, through a USB interface. Driver support for this module is included in the CX92735 Linux SDK.
- WiFi Conexant Supports WiFi network through USB WiFi peripherals from a number of major solution providers. WiFi drivers are included in both the ThreadX and Linux SDK's.
- Bluetooth –To support advanced handsfree speakerphone and audio streaming applications, the CX92735 EVK supports the CSR BC5-MM Bluetooth 2.1 EDR solution. Application software support is included in the ThreadX SDK.
- Touchscreen The EVK supports an 8" Surface Capacitive Touchscreen solution, including CX92735 touchscreen drivers for ThreadX and Linux. Resistive touchscreen drivers are also included in the ThreadX and Linux SDKs.

CX92735 EVK Software and SDK Support

The CX92735 EVK is available with either ThreadX or Linux Operating Systems. The EVK hardware is the same with each version. The CX92735 Threadx and Linux EVK software supports a robust feature set of functions, which customers can quickly customize or take to market using Conexant's CX92735 SDK's.

CX92735-EVK-XThreadX EVK Software

- Supports a full reference application for connected appliances and mobile phone call center functions
 - Call control with touchscreen control
 - Phone book sync
 - Multiple phone support
 - A2DP audio streaming
- Supports photo playback with full screen/split screen playback

- Thumbnail view
- Slideshow Duration and Transition Effects
- Zoom and Pan
- Real-time Clock with Alarm, Auto On / Off
- Imaging Features
 - o Mono / Sepia Image Manipulation
- o On screen file management
- MP3 audio playback
- MJPEG / MPEG4 / H.264 playback
- WiFi network support for popular RSS services, including Flickr, Picassa
- Source code for these functions, to modify or extend these functions, is available with the CX92735 ThreadX SDK

CX92735-EVK-L Linux EVK Software

- Supports a 2.6.28-based Linux kernel environment that provides an open source development system and board support package, along with reference applications
- Touchscreen UI launchpad
- Photo Viewer
- Webkit Browser
- RSS Reader
- Media Player with UI
- Command Line Media Player
- Conexant JPEG Image Processing Reference Applications
- WiFi (802.11n) and Ethernet Drivers
- AnyDATA HSDPA 3G Modem Driver (model DTP-600W)
- Conexant CX93010 Linux Modem Driver
- Conexant CX93510 JPEG Encoder with BT.656 Camera Interface - PIR Sensor /Camera / EVK Reference Application. This Linux application will capture an image from the CX93510, store it in the CX92735 EVK memory, and email or post this file over WiFi, Ethernet, or AnyDATA 3G HSDPA modem.

The Conexant CX92735 ThreadX and Linux EVK systems are flexible, robust environments to evaluate and begin development of unique interactive display applications, leveraging the strengths of the CX92735, Conexant software, and Conexant and third party peripherals.



Linux EVK/BSP SDK Software



ThreadX EVK/SDK Software

Conexant Product Portfolio

Conexant's comprehensive product portfolio includes solutions for imaging, audio, embedded modem and video surveillance applications.

© 2010 Conexant Systems, Inc. All Rights Reserved. Conexant and the Conexant logo are registered trademarks of Conexant Systems, Inc. All other trademarks are owned by their respective owners. Although Conexant strives for accuracy in all its publications, this material may contain errors or omissions and is subject to change without notice. THIS MATERIAL IS PROVIDED AS IS AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. Conexant shall not be liable for any special, indirect, incidental or consequential damages as a result of its use.

www.conexant.com

General Information: U.S. and Canada: (888) 855-4562 International: 1+ (949) 483-3000 Headquarters 4000 MacArthur Blvd. Newport Beach, CA 92660

Doc# EVK-202519

