



Video Recorders



Medical Imaging



Video Surveillance



Machine Visioning



Telecommunication



Overview

Andromeda is Bill of Material optimised reference platform combining various ready to use video and imaging product development components aimed to help in accelerating customer's product development process. The reference platform facilitates customer's product team to concentrate their effort in designing and developing innovative end application leveraging existing platform component as-is.

Andromeda comprises of Texas Instruments' latest processor families based System on Module (SOM)*, common carrier card, and add-on video module. The high performance, low cost Andromeda hardware platform is combined with various software components. The software includes BSP, field proven libraries and frameworks, performance and size optimized Linux OS & drivers, and sample applications.

We also provide end-to-end product development and enhancement services on Andromeda reference platform designed to reduce hardware complexity and increase system customisation facility as required by end application.

***Supported SOM:** eInfochips' DaVinci™ DM816x & DM814x and C6A816x DSP + ARM SOM

BOM Optimized Hardware combining SOM, Carrier Card, and Add-on Video module

Customizable BSP components, Middle libraries & Framework with multiple OS support

Sample applications pertaining to high end video & imaging intensive designs

Reduce 5x to 10x design cost in terms of NRE, mechanical design, software design etc.

Product Highlights

- **Variants:** Andromeda is available with three different SoC, DaVinci™ DM816x & DM814x and C6A816x DSP + ARM SOM
- **Modular Product Design:** System level partitioning for application specific design
- **Faster Prototyping:** Readily available development system with various SoC Interfaces
- **Development Ready Kit:** Complete software kit including Drivers, OS, Middleware libraries, and Reference Applications
- **Field Deployable,** high end video processing system
- **In-built SATA storage**
- **Easy Customization:** Add-on video input card, customizable BSP, Middleware components, libraries, and Framework
- **Local Display:** In-built 7" touch screen LCD with enriched Graphical User Interface (GUI)
- **Applications:** Reference Applications pertaining to video & imaging intensive designs
- **Interfaces:** HD video capture, HDMI IO, Gigabit Ethernet, USB 2.0, 802.11 b/g/n Wi-Fi & Bluetooth support



Product Components

- 3D Video Conferencing application using Skype™ for telecom.
- Surface detection application to detect surface smoothness
- Automated sign language detection by hand gesture

- Readily available imaging, video, and DSP libraries of eInfochips, Texas Instruments, and other free libraries like OpenCV
- Audio Video CODECs, containers, and file formats
- eInfochips' integration and optimization services

- Fully integrated firmware and Linux Board Support Package
- Speed and Size Optimized Device Drivers, OS, File System, and Bootloader to offer enhanced system performance

- Smallest form factor SOM around these processor families
- Hardware with Pin-compatible SOM providing customization
- Carrier card with multiple IOs and other interfaces
- 7" LCD Display

Reference Applications

3-D Video Conferencing

Surface Detection for Machine Vision

Sign language by hand gesture detection

Available Libraries & Frameworks

RTP/RTSP stacks | MPEG2TS | MP4 | AVI | Video Post processing modules (scaling, de-interlacing, rotation) | AES encryption | Texas Instruments' VLIB | Texas Instruments' DSPLIB | Texas Instruments' ImageLIB | OpenCV

Middleware Components

Optimized Drivers | Bootloader – Uboot | Linux Kernel | File system |

Andromeda Hardware

eInfochips System on Module

Carrier card with multiple interfaces

Add-on Video Card

Service Offerings

Product Development

End to end product development around Andromeda

- 3D Video Conferencing Solution
- 3D video enabling on Android
- High end video processing IP Cameras
- Machine Visioning solutions
- Video broadcasting systems
- Embedded video recorders for surveillance etc.

Middleware & Firmware based Services

Development and Optimization services

- Architecture and Design
- Firmware design and development
- Application specific library integration and optimization
- Driver porting, integration, and optimization
- Automated testing

Platform / OS Porting Services

- RTOS porting, integration, and optimization
- Protocol stack development
- Performance enhancement through optimization of battery life, boot-up time, video streaming etc.

Hardware Services

Hardware development and enhancement services

- End-to-end Complex hardware design
- Testing including Engineering Design Verification Testing (EDVT)
- Industrial Design and certification
- Hardware enhancement through Technology migration, module integration, and redesign
- Sustenance and Re-engineering

About eInfochips

eInfochips is a CMMi Level 3 & ISO 9001:2008 certified Product Engineering Services company offering a broad portfolio of services comprising of New Software Product Development and Hardware Product Development, QA & Independent Testing, and Product Sustenance to key industry verticals.

eInfochips is Platinum Design House network partner of Texas Instruments with decade old association. Thereby, eInfochips provides comprehensive and innovative product engineering solutions in key industry verticals globally.



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