Rambus

CRYPTOGRAPHY RESEARCH CryptoMedia Security Platform Solution Overview



CryptoMedia Security Platform

Designed to protect high-value content, including 4K UHD and High Dynamic Range (HDR) programming, the CryptoMedia Security Platform enables consumers to securely and easily watch, stream, store and share premium content across multiple devices and platforms.

Superior Security

- Provides robust hardware root-of-trust for highest level of security
- Secure, integrated channel for delivery and maintenance of encryption data
- Supports VIDITY and MovieLabs ECP security requirements

Reduced Cost

- Reduces cost with embedded security cores for cardless device design
- Greater diversity of CAS and DRM partners in deploying solutions
- Enables new features and services with no changes to hardware

Improved Time-to-Market

- Reduces implementation time with a comprehensive suite of ready-to-use components
- Simplifies certification with pre-validated IP
- Improves flexibility through pre-integration with a wide variety of industry standard solutions

Overview

The CryptoMedia Security Platform is a complete content delivery and storage solution that provides an embedded hardware root-of-trust and trusted key provisioning services to meet the growing demand for highquality digital movie watching experiences of 4K Ultra-high Definition (UHD) and High Dynamic Range (HDR) content and reduced cost cardless Set Top Box (STB) design for emerging markets.

With a comprehensive suite of components for the entire content protection ecosystem, the platform complies with the latest industry security requirements and enables VIDITY-compliant chipset makers, storage and player device manufacturers, broadcast operators and Over the Top (OTT) operators to bring their products to market faster and easier.



The CryptoMedia security platform focuses on providing robust content protection and delivery:

Storage and Ownership

- Delivery of VIDITY- compliant hardware and player agents for a complete content protection solution
- A Key Issuance Center (KIC) that provides keys to content providers and player and storage device manufacturers

Broadcast and Streaming

- Providing a robust embedded hardware based cardless security system that reduces cost while improving flexibility
- Enables flexibility in design as our solutions are integrated into multimedia chipsets and work with a wide variety of industry standard solutions

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Features

- Enables dramatic cost reduction for STB design, manufacture and operation
- Supports VIDITY and MovieLabs security requirements for 4K UHD and HDR content
- Secure delivery and storage of premium content with integrated hardware and software solution
- Provides a hardware root-of-trust that is embedded in the multimedia chipset
- Allows for dynamic in-field feature updates and pay-per-view (PPV) applications
- Integrated with a wide variety of industry standard CAS and DRM solutions for flexible system architecture and design

Deliverables

Storage and Ownership

- Content Protection Core:
 - Encrypted Verilog RTL
 - Full documentation and integration code
- Player Software Agent:
 - Complete SCSA-compliant solution
 - Full documentation and SDK
- Key Issuance Center:
 - Key distribution service for content protection
- DPA Resistant Solutions:
 - Configurable DPA Resistant HW Core
 - DPA Resistant Software Library

Broadcast and Streaming

- Delivery Protection Core:
 - Encrypted Verilog RTL
 - Full documentation and integration code
- Secure Broadcast and Streaming Services:
 - Services and infrastructure for the delivery of cryptographic data, including: encryptions keys, differentiation vectors and payload protection

