

Digital TV – Tier-1 European Automotive OEM

Leading European automotive OEM delivers next-generation rear seat entertainment by leveraging Ittiam’s high performance digital TV transcoder framework

ENGAGEMENT BACKGROUND

The customer, a global tier-1 automotive company headquartered in the US, was looking to deploy an effective rear seat entertainment (RSE) solution for a top German automobile manufacturer. The customer chose Ittiam as its solution partner based on their prior engagement experience with us in delivering class leading automotive infotainment solutions.

KEY CHALLENGES

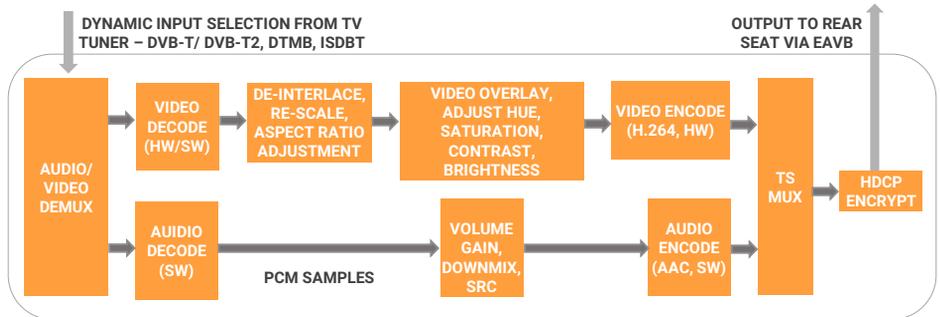
The customer required a transcoding solution for broadcast digital TV reception with support for a wide range of terrestrial broadcast standards including the latest DVB-T2. The solution, running on the head unit, required high level of optimization, with support for HEVC and HDCP. Due to processor limitations in the rear seat unit, the video streams required HEVC to H.264 transcoding. This in turn called for effective optimization to manage the additional stress on the processing resources on the head unit.

SOLUTION OVERVIEW

We provided our next-gen digital TV transcoder framework that used high performance HW/SW video codecs, and offered support for a wide range of terrestrial broadcast standards including DVB-T/DVB-T2, DTMB and ISDBT.

The system supported the following key features:

- ▶ DVB-T2 with software HEVC split decoder (ARM-EVE) on TI J6 platform
- ▶ HDCP: 2.0/2.1/2.2 protocol with 2.0 & 2.2 keys
- ▶ MPEG-2/4, H.264, H.265 video | MP(1/2/3), AAC/HE-AAC and AC3 audio



Our solution took input from the TV tuner and transcoded it to deliver TS streams containing H.264 video and AAC audio, for display by the rear seat unit. We also fine tuned A/V sync for the TI Jacinto-6 platform.

IMPACT

By leveraging Ittiam’s comprehensive solution, the client built a robust RSE solution, despite the platform constraints. The OEM was thus able to deliver high performance audio and video playback, ultimately enhancing end-user satisfaction. Road tests performed by the customer across multiple geographies demonstrated the reliability and superior performance of our transcoder framework to effectively enable terrestrial broadcast entertainment.

SUMMARY

CUSTOMER
Leading tier-1 automotive company

REGION
Europe

INDUSTRY
Automotive Infotainment

CHALLENGES

- ▶ Support for various broadcast digital TV standards with advanced formats like HEVC
- ▶ Support for the latest HDCP2.2 standard
- ▶ Full transcoding solution due to limitations in the rear seat units

SOLUTION
Digital TV transcoder framework for Texas Instruments Jacinto 6 and Intel Apollo Lake SOCs with high performance audio and video for multiple formats

For more information explore our [Automotive Infotainment Solutions](#) or contact us at mkt@ittiam.com

ABOUT ITTIAM

Ittiam Systems is a trusted solutions provider to world leaders in multimedia, enabling next generation video experiences through its complete suite of intelligent video technologies, systems and solutions. Backed by its proven video expertise and insights, Ittiam’s products deliver real intelligence to solve its customers’ most complex technology challenges, empowering them to deliver high performance, efficient and reliable video products in rapid time. Ittiam’s solutions are at the heart of millions of lifestyle products that drive mobility, content access, networking and sharing.