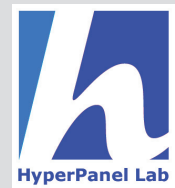


HyperPanel Lab Middleware for STB

EMMA STB solutions for OTT markets

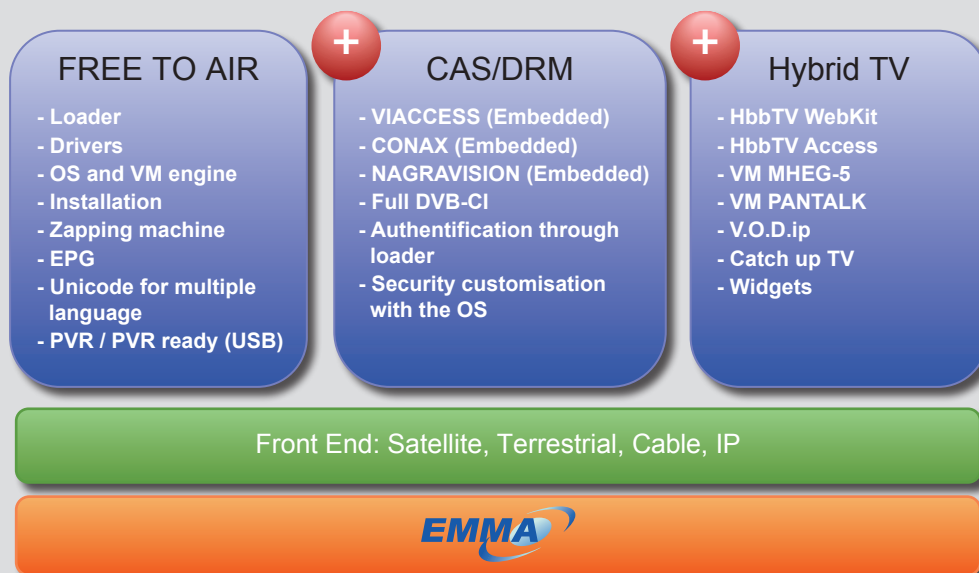
HyperPanel Lab is a leading provider of STB middleware for the Digital TV industry for more than 20 years. HyperPanel Lab software and services provide leading edge and reliable solutions to meet the most demanding market requirements. Advanced PVR functionality and HbbTV compliant middleware from Hyperpanel Lab will provide STB makers with the best solution for the Connected STB market.

For the STB market the HyperPanel Lab middleware is available on the EMMA series of MPEG decoder ICs from Renesas.

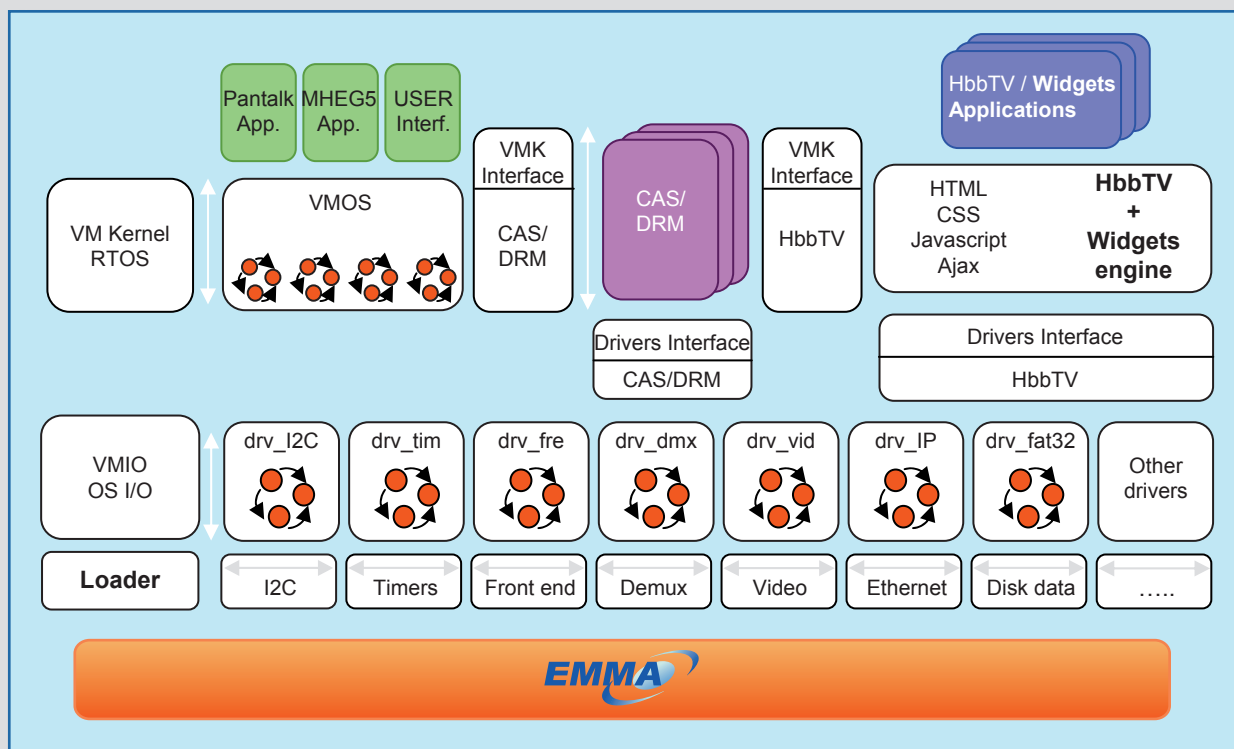


HyperPanel Lab software stack

HyperPanel Lab provide, customise and integrate complete software solutions for satellite, terrestrial, cable and IP television set top boxes. Standard and High Definition products range from middleware for free-to-air and conditional access television zappers up to PVR solutions, media center and a full HbbTV solution. Three different interactivity engines provide the ability to port new widgets onto the STB to offer users additional services.



Architecture



Features

Video

- DVB-T and DVB-S2 Standard and High Definition support
- On Screen Display subtitles and multi language support (Teletext, Subtitles)
- Live TV, Advanced Personal Video Recorder (PVR), Video on Demand (VOD)

Connected STB features

- HbbTV module with Webkit or Access browser
- Widgets such as YouTube
- PANTALK, MHEG-5 & HTML interactivity engines to develop new applets
- Various internet protocols (IGMP, RSTP, Multicast...)

Connectivity

- Physical port compliance: HDMI, SCART and YUV
- USB2.0 Host management
- RSS feeds

Security

- CAS support
- Parental control
- Content Protection (HDD pairing, Video flow encryption, DRM)

Before purchasing or using any Renesas Electronics products listed herein, please refer to the latest product manual and/or data sheet in advance.

