Marlin Single Chip Reference Solution:

Android Based Connected TV

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Features

- Platform independent single chip reference solution
- Integrated QAM
- Supports in-home distribution and content protection with Marlin DRM
- IPTV and HLS reception
- Enhanced UX
- Supports HD video at resolutions up to 1080p (H.264, MPEG4)

QAM & IP Enabled CPE – Running Android
- Linear TV and IPTV reception
  - DVB-T support
  - Sigma Design & Broadcom SoC
  - BCM 7425, SMP8654/44/70
- Integrated Marlin DRM for content protection
- Receives OTT video streams in H.264, MPEG4, MPEG2 or WMV over broadband

Innovative UX
- Seamless Media Search
- Guide with XML TV
- RSS feeds
- Android applications

Seamless Media Sharing across devices
- DLNA

Smart Remote
- Smart phone / Tablet
- Voice activated search
System Overview

Content Server
- Encoder
- Segmenter
- Scrambler

Web Portal

Index file

User Login

DVB-T

Android based Connected TV from TATA

Hosted Marlin Service
- Backend + Broadband Server

VOD + Live Content

Key and Content ID

License and device authentication

Android/Third party Developed
TATA developed
TATA Integrated
Linear TV

- Portable plug-in architecture compliant with regional standards
- Android Applications integrating Broadcast video.

**WatchTV** includes channel scan, channel banner and channel change functionality.

**Channel List** arranges the scanned channels in a jazzy and innovative list. Display preview of the selected channel and genre listing.

**EPG with Cloud Support** 7 day EPG support for stream based and cloud based EPG. Extended EPG from XMLTV

**Upcoming features**

- **ATSC Reception**
- **OCAP Support** – Multiple approaches being explored.
- **Targeted Advertisement**
Seamless Media Sharing

- HTTP Adaptive Streaming
- Aggregation and playback of media files

**Tata’s DLNA** stack integrated in the platform allowing users to share and play content from DLNA enabled devices across home network.

**Media Search** enables users to search, aggregate & play media from internet, and local network. Supports parameterized metadata search. Voice assisted search also integrated with this application.

**Content on Demand** feature provides users to access media files on-demand using pay-per-view option. Marlin DRM is enabled allowing users to view protected content.

**Upcoming features**

**Tuner Sharing**
View channels and EPG, schedule programs etc. from buddy boxes
Soft Remote Control

- Provides user “lean back experience”.
- Innovative interactivity interface.

**Smart Remote Controls**
Any tablet/ smart phone can function as a remote control device. Can be integrated with legacy STB.

**Voice Activated Search**
Voice activated search /browse media content

**Media Rendering from Tablet**
Search/ browse content and render on STB.

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**Upcoming features**

- **Second Screen** - Tablet can function as a second screen for viewing different channel or provide feedback on running program
- **Smart EPG** - Tablet used to display EPG. Individual programs can be selected (drag and drop) for viewing.
Innovative UX

- **Android Applications**
  - Access to thousands of android applications.
  - Improved graphics performance to support games.

- **Intuitive Visual Design**

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**Home Screen**
Customized home screen for “10 feet viewing experience”

- Easy navigation to popular applications.

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**Android Applications**

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**News Feed**
Configurable RSS feed reader, as news ticker.

- Integrated with broadcast video.

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**Media Browser**
Unified interface for content browsing and watching across devices in home.

- Extensible architecture to include media from cloud.

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**Upcoming features**

**Social Media Integration**

**Video Chat** – Integration of Skype application.

- Media browser integration to cloud.