

Theia

ISDB-T Receiver Middleware Solution



Modules and Responsibilities

Middleware Core

Main processing module in ISDB-T Middleware. It receives and handles requests from the API layer and controls the parsing of SI Tables, Service Selection and Scan functions.

Service Information

Service Information module is responsible for parsing all Service Information tables and Descriptors associated with the ISDB stream and stores in the SI database.

Service Manager

Service Manager controls Service selection. It is also responsible for Service Switching and automatic selection of full segment service to one segment service and vice-versa.

ISDB-T Scan

ISDB-T Scan module handles all types of ISDB-T scanning features, such as auto scan and manual scan. It is responsible for tuning to a specified frequency for reception of ISDB Signal.

Electronic Program Guide (EPG)

Electronic Program Guide (EPG) module is responsible for extracts and manages schedule EPG and Present Following information from Event Information Table (EIT) and stores in the EPG database. EPG provides a list of current and future programs along with program information.

Closed Caption (CC)

Closed Caption module extract and decode Caption and Superimpose from the ISDB stream and provides to the Graphics HAL for render Caption and Superimpose data.

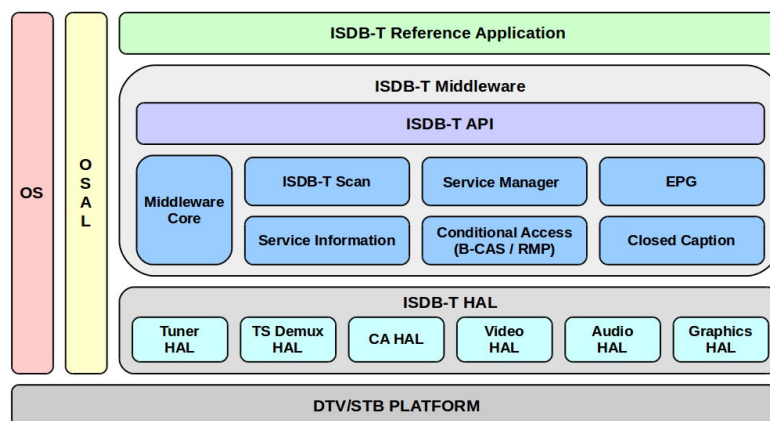


Figure: ISDB-T System Architecture

Features

- Manual Scan
- Auto Scan
- Service List
- Service Select
- Supports full segment and one segment
- Automatic selection of full segment service to one segment service and vice-versa
- Schedule EPG
- EPG Present Following
- Closed Caption

Standards

- ARIB TR-B14 Version 3.8 (Fascicle 1) (2/2) - OPERATIONAL GUIDELINES FOR DIGITAL TERRESTRIAL BROADCASTING - 8-TR-B14v3_8-1p3-2-E1
- ARIB STD-B24 Version 5.2 VOLUME 1 - Data Coding and Transmission Specification for Digital Broadcasting - 6-STD-B24v5_2-1p3-E1
- ARIB STD-B14 Version 6 VOLUME 2 - DIGITAL TERRESTRIAL TELEVISION BROADCASTING Function Specification for the Receiver - 8-TR-B14v6_0-1p5-E-1