

DAB RECEIVER KIT



SOFTWARE FOR EFFICIENT IMPLEMENTATION OF DAB / DAB+ / T-DMB RADIO RECEIVERS

BENEFITS

FASTER TIME TO MARKET:

READY-TO-RUN SOFTWARE GREATLY SIMPLIFIES WHAT WOULD OTHERWISE BE A HIGHLY TIME AND RESOURCE INTENSIVE IMPLEMENTATION PROCESS, AND ACCELERATES THE PRODUCT DEVELOPMENT STAGE.

FLEXIBLE ARCHITECTURE:

SUPPORT FOR DIFFERENT CONFIGURATIONS OF BASEBAND AND SERVICE LAYER FUNCTIONS.

INTEGRATION SERVICES:

SUPPORT FOR RECEIVER INTEGRATION INTO MANUFACTURER'S OWN SOFTWARE DEFINED RADIO (SDR) PLATFORM.

FASTER ACCESS TO NEW TECHNOLOGIES:

FRAUNHOFER IIS OFFERS DAB/DAB+/T-DMB BASEBAND AND SERVICE LAYER DECODERS USED WITH POPULAR FIXED-POINT AND EMBEDDED FLOATING-POINT PROCESSORS.

RELIABLE AND EXPERIENCE:

FRAUNHOFER IIS HAS BEEN DEVELOPING OR CO-DEVELOPING DIGITAL RADIO RECEIVERS SINCE THE EARLY 90TH AND IS AN ACTIVE MEMBER OF WORLDDBM.

Modern radio receivers for car and home entertainment contain more and more software. This enables the radio maker to support different radio standards on the same hardware platform. Updates or extensions become possible even in the very last stage of the development process. The Fraunhofer IIS DAB Receiver Kit is the first DAB/DAB+/T-DMB solution providing radio manufacturers this flexible software option for their radio platforms.

Key Features

The DAB Receiver Kit from Fraunhofer IIS is a fully validated DAB/DAB+/T-DMB solution for the automotive and consumer market. This innovative software radio approach allows terminal manufacturers to efficiently enhance their radio platform with the full range of DAB/DAB+/T-DMB feature set. It is a platform independent fixed point C-code ready for multiple baseband and service layer instances.

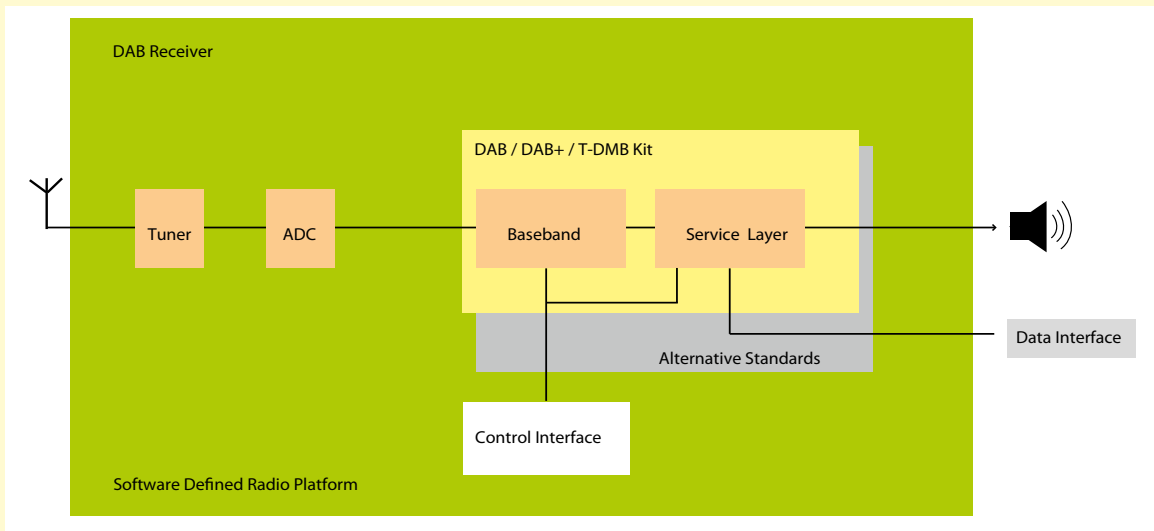
Fully compliant with the ETSI EN 300 401, the DAB Receiver Kit is able to decode a full DAB ensemble or only a subset to save computing power. With its flexible data interface, it can be easily combined with external applications. The API interface is adoptable to the customers framework.

Basic feature set of the baseband processing:

- Band III and L-band support
- Automatic mode detection for DAB mode 1-4
- FIC decoding including all FIGs

Basic feature set for audio and data decoding:

- MOT decoder in header and directory mode
- PAD decoder
- Packet mode decoder
- MPEG Layer 2 decoding
- HE-AAC v2 decoding
- BSAC for Korean market



Software defined radio platform with DAB/DAB+/T-DMB Receiver Kit

Optional Features

Digital Audio Broadcasting offers more than just digital radio: Besides distortion-free reception and CD-quality sound, this technology allows audio, video and other data to be broadcast efficiently and reliably. The DAB standard has included the capability of optional features, which are offered together with the DAB Receiver Kit:

- MPEG Surround®
- Proprietary Data Services
- TPEG
- HECA – High Efficient Conditional Access
- Journaline®

Availability

The Fraunhofer IIS DAB Receiver Kit is designed to fit on arbitrary fixed point digital signal processors (DSP). Extensions and additional features can smoothly be integrated into the kit – on customer request.

The library has three main interfaces, which have to be customized for customer platforms. These interfaces are the IF input interface, the audio output interface and the control interface to operate the library from an external host. Fraunhofer IIS also offers integration support for customer radio platforms.

The terminal DAB/DAB+/T-DMB development framework of Fraunhofer IIS allows embedding and optimization of a receiver architecture from the antenna input to the audio output as complete design based on customer requirements.

Licensing

Generally, Fraunhofer IIS DAB Receiver Kit licensing scales with the type of application and the adaptation efforts. The basic DAB Receiver Kit can be licensed and the additional services for the adaptation and integration can be provided as NRE.

For more information about the DAB Receiver Kit licensing options, please contact martin.speitel@iis.fraunhofer.de.

For more information please visit

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