

Ocean Blue Software

White Paper

Consumer electronic buyer's quick guide to Freeview and digital TV specifications

Introduction

The purpose of this guide is to help CE buyers in the UK understand the technology and minimum specification requirements for digital terrestrial TV receiver product (i.e. Freeview products).

Digital switchover starts in the UK in October 2007 and in order to access Digital TV services consumers will need a Freeview set top box or iDTV (Integrated Digital TV).

The Digital UK (www.digitaluk.co.uk) organisation supported by all the major broadcasters has started an awareness and publicity campaign via TV commercials and mailings to help educate the UK public about the switch from analogue TV broadcasts to digital broadcasts.

Specifications and requirements for a Freeview digital TV Receiver product

The hardware and software specifications for UK digital TV receivers have been set by the DTG (Digital Television Group). These DTG specifications form the minimum requirements and help create benchmarks in an emerging marketplace. These specifications should be adopted by CE buyers to prevent non-standard product entering the UK marketplace and also helping to reduce product return rates for Freeview digital TV receiver devices.

Product compliance to the DTG specification allows the manufacturer to use the Freeview and Digital tick logos - and helps to ensure the customer will have a good experience before and after digital switchover.



CE buyers should obtain copies of the DTG test report from suppliers, before buying any Freeview digital TV products.

See Diagram below for set top box architecture

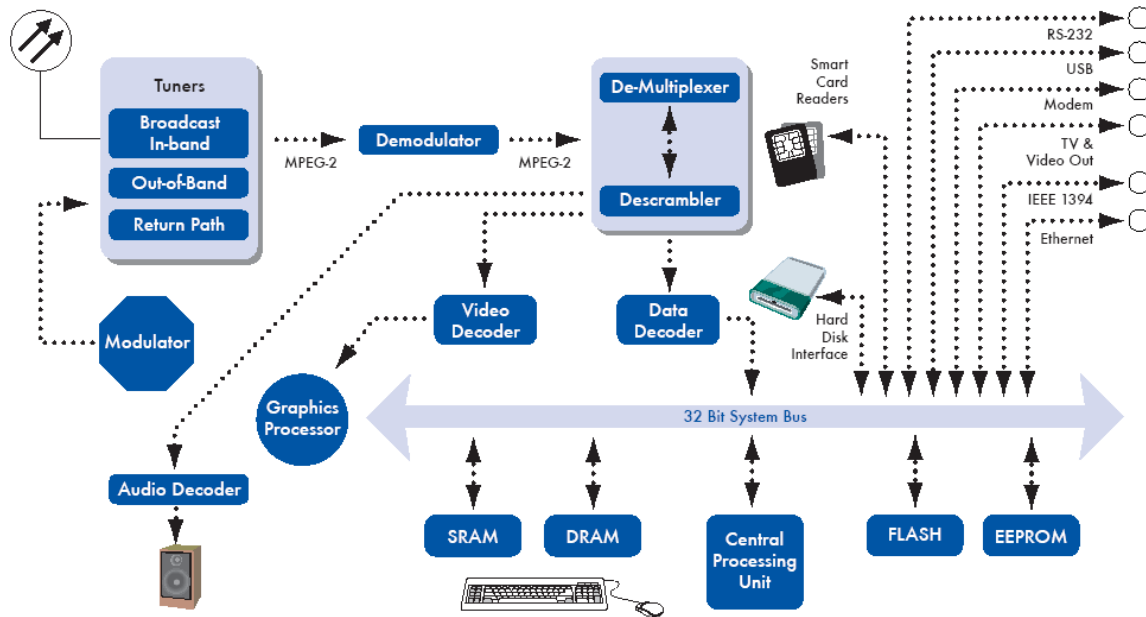


Figure 1: Set top box architecture

Technical Specification

Freeview digital TV receivers should meet the DTG D-Book: Chapter 22 Receiver Requirements specification.

<http://www.dtg.org.uk/publications/books.html>

This specification is available to all manufacturers producing digital TV receivers.

MHEG-5

For example MHEG-5 is a required software standard for Freeview products and the Digital Tick logo. The MHEG-5 software embedded in the Freeview device allows the “Press Red” functions for interactive applications.

MHEG-5 is the UK DTG interactive media standard for sending and receiving digital media objects, for example; text, cartoons, images, games and photos, and can be used for applications such as interactive advertising and online gaming.

Recent developments include the announcement by The DTG, the industry association for digital television in the UK, that a new working group has been set up to define and deliver a specification for a broadband return path for interactive television on the UK digital terrestrial TV platform (Freeview). Ocean Blue Software is a part of this group.

There has been industry-wide recognition for the need to enhance interactive services through the introduction of a return path. A return path will allow content providers on digital terrestrial to offer viewers a new range of applications e.g. voting, games, chat-like services (allowing viewers to send

in comments and opinions), video on demand and interactive transactions for purchasing goods and services.

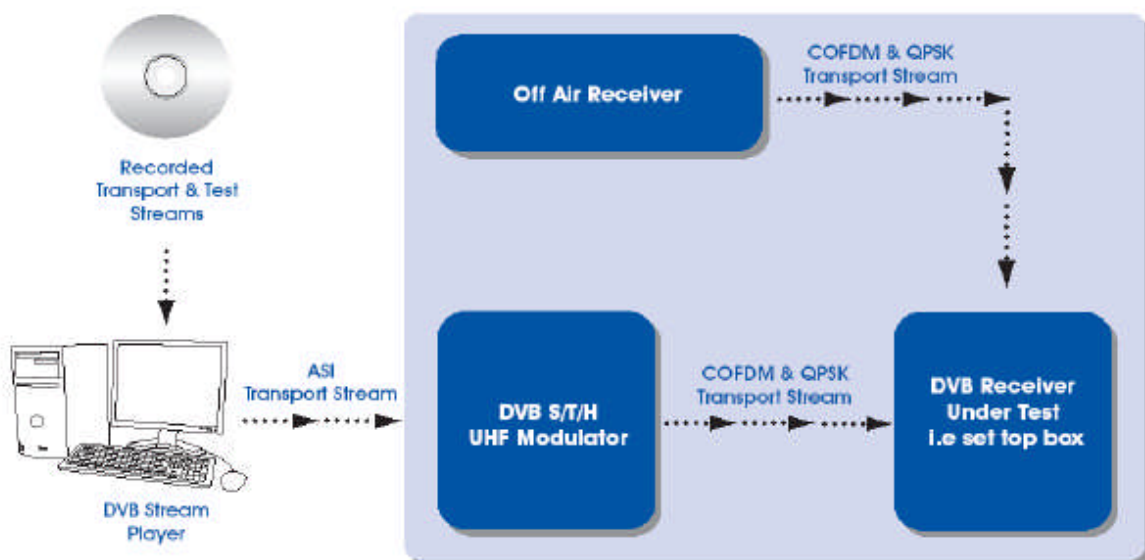
DTG Software Test Suites

The finished digital TV receiver should go through a series of DTG test suites to ensure that it is compliant with UK standards.

These test suites cover;

- MHEG Application Programming Interface (API) testing
- Common Interface (CI) testing
- Service Information (SI) and Programme Service Information (PSI) signaling operations, including Electronic Programme Guide (EPG)
- Audio and video testing, including Active Format Descriptors which tell the digital TV receiver which parts of the picture are important
- Subtitle and audio description stream testing
- RF (Radio frequency) performance testing which tests the performance of the box

Ocean Blue Software DVB Test Process



Any manufacturer of digital TV receivers should be able to produce these reports for CE Buyers. The Digital Tick logo can also be put onto any unit that meets these standards.

A number of poor quality digital TV receivers have found their way into the UK market recently, so by following these steps, it will ensure your customer receives a quality product and hopefully minimal product returns for the retailer and good customer satisfaction scores.

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