

## Case Study

### South Africa: DVB-T2 Conformance Lab

Back in 2012, South Africa adopted the second-generation DVB-T2 standard. The South African Bureau of Standards (SABS) issued its receiver specification, known as SANS862 in June 2012 to ensure that conformant receivers allow viewers to access all services available on the DTT platform. The digital terrestrial television (DTT) platform was then launched in 2013, running alongside the then-existing analogue terrestrial platform, with the analogue service finally being retired in 2015. It was important for the switchover to be a success as an extensive range of e-government services were to be accessed via DTT receivers.

To ensure that only reliable and conformant receivers entered the market, the Department of Communications (DOC) appointed SABS to set up a receiver conformance facility at their labs in Pretoria. Following a competitive tender, Eurofins Digital Testing (formerly Digital TV Labs) was selected as the prime contractor to provide a complete DVB-T2 conformance receiver solution. This included setting up a DVB-T2 receiver testing facility, building test suites and providing test tools to ensure that DTT receivers entering the market comply with the South African receiver specification, SANS862.



#### The South African DTT Receiver Specification

The SANS862 receiver specification has demanding Radio Frequency (RF) requirements including multiple physical layer pipes (PLPs) as well as obligatory support for high-definition (HD) services and interactive services using the MHEG-5 standard. The specification also includes audio, video, power consumption, EMC interfaces, PSI/SI, parental control and subtitle requirements. Uniquely, the specification incorporates a specialised control system that allows receivers to be disabled if outside of the South African DTT network or placed under broadcast control.

#### Our Solution

The South Africa Bureau of Standards selected Eurofins Digital Testing to build specialised test suites and deliver a conformance test process based on our extensive experience in building and operating receiver conformance regimes around the world. Additionally, we provided training and a transfer of technology know-how to help develop skills locally and the independent operation of the testing facilities.

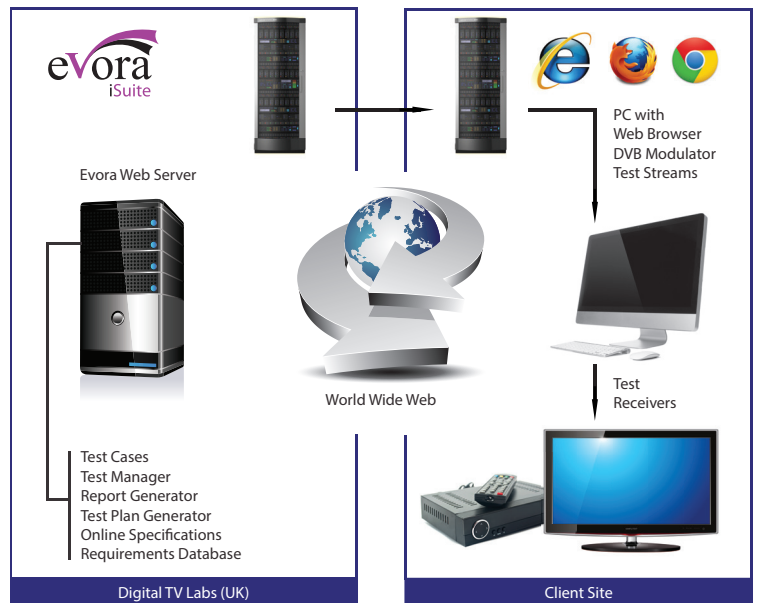
We provided a strategic advisory service, the technical evaluation of the receiver specification, development of testing tools, as well as support for equipment procurement, resource management, lab operations and hosting manufacturers at lab facilities.

## Evora iSuite

Eurofins Digital Testing's proprietary test suite, Evora iSuite, is a unique solution consisting of a vast relational database of test cases and custom MPEG test streams that are packaged into a user-friendly test framework and test manager. It includes receiver requirements for over 40 countries and nearly every global DVB-T/T2 and ISDBT receiver specification.

In South Africa, we analysed the SANS862 specification in detail for testable requirements. Each of the test requirements were added to the Evora Requirements Database so that the corresponding test cases and test procedures could be generated. It was also possible for us to provide a customised SANS862 test suite in a short period of time, since many of the specification test requirements, test cases and test streams are common to test regimes used in other countries and so are already included in the Evora databases.

Evora is provided as a web interface and can support multiple tests simultaneously on the same receiver so as to optimise resource allocation. Additionally, supervisors can monitor test reports and test plans from a remote location. The Evora iSuite for SANS862 is available to consumer equipment manufacturers, middleware vendors and semi-conductor suppliers to assist in receiver development and pre-testing prior to certification. It can be acquired as either an upgrade to existing Evora licenses or as a stand-alone test suite.



# evora iSuite

## About Eurofins Digital Testing

Eurofins Digital Testing is the world's leading end-to-end Quality Assurance (QA) service provider for Digital TV Operators and device testing specialists, operating globally with test lab facilities in the UK, Belgium, Sweden, Poland and Hong Kong. We provide specialised on-site test resources, testing tools and services to validate digital media delivery systems and device conformance for multiple standards and operators across the world. Eurofins Digital Testing was formed from the merger of Digital TV Labs and Testronic Labs Belgium and is part of the Eurofins Group. Eurofins has a network of more than 225 laboratories in 39 countries and has over 23,000 employees worldwide. Eurofins Digital Testing delivers complete testing solutions to manufacturers, broadcasters, operators and related media and device supply chains, covering terrestrial, satellite, cable, OTT and IPTV delivery.

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