RT-TS-STB-DS

www.bbt.rs

Failures due to increasing complexity and improper use of STBs are expected, resulting in returning of the device for repair, regardless if physical damage or software type error. STB Diagnostic Station is a perfect automated solution for fast diagnostic of the returned units.

To whom is it intended?

Manufacturers and distributors of Set-Top Boxes (STB) face with the issue of returned devices due to numerous problems occurring during exploitation. These malfunctions can be caused by various reasons, either in software (bugs in device's functionality) or hardware (damages caused by improper use or malfunction of the hardware).

STB Diagnostic Station is intended for rapid testing and verification of devices intended for repair and returned from exploitation, from the standpoint of functionality. Set of developed tests is optimized and fast to execute, covering the basic functionalities, and at the same time allowing simultaneous testing of multiple devices.

Thus STB Diagnostic Station finds its area of application at operators who deliver set-top-boxes, manufacturers, and service companies engaged in the repair.

STB service centers

How it improves your productivity?

Reduces human interference

Independent of different manufacturers and types of STB

In-depth testing

What is tested?

A pre-defined set of tests* running on STB Diagnostic Station cover following aspects:

- Reading the voltage levels on LNB and analog audio and video interfaces (CVBS and SCART)
- Decoding of compressed channels (MPEG4, MPEG2 ..) on the internal network (internal cable network)
- Testing of audio and video content for analog (CVBS, SCART, RGB) and digital (HDMI, S/PDIF Coax and Optical) interfaces with static or live video stream
- Testing in "loop through" conditions
- Testing of USB functionality
- …

*The set of tests can be expanded in accordance with requirements of testing.

Most commonly detected errors

The most commonly reported errors are:

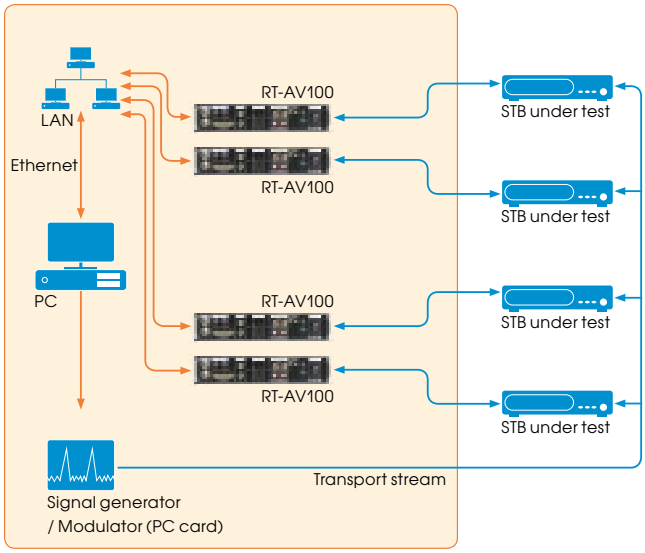
- Incorrect voltage values at SCART pin 8 and 16 - voltages which are related to aspect ratio selection and to RGB / CVBS selection, respectively
- Bad decoding of audio and video signals
- External media storage / shared content playback error

How does it work?

Testing of STB using Diagnostic Station assumes that audio and video interfaces of the tested device are electrically correct. The system records output audio and video content, and based on their comparison with referent content, by using various algorithms, decides whether the tested condition is correct or not.

The system is set up in the way that the outputs from the STB to be tested are fed to the grabber device's (RT-AV100) inputs. RC emulators are positioned in front of each device under test, enabling navigation through their menus. When the application is started on the PC workstation, it automatically loads the configuration, and controls the system and all connected devices.

How to build the environment?



What am I buying?

STB Diagnostic Station consists of:

- HW* - 19" rack with:
  - 12 RT-AV100 devices
  - 12 RC emulators
  - 4-button keyboard
  - LAN switch
- SW
  - RT-INTENT application for management of requirements, tests, test plans, and reporting
  - RT-Executor Lite application for carrying out tests
- Test suite**

* The described system accommodates 12 STB units. System size is scalable, and fully configurable to meet customer's needs. The system comes fully assembled (completed cabling)
** Includes adjustments of the tests to client's STB

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