Spy and simulation for CI and CI+

Product description

CAM Inspector is a test tool for DVB-CI and CI plus interface. It's an affordable yet efficient tool for any company that works in the Digital TV area. It allows to have an inside look to everything that is happening on the Common Interface from low level hardware timings to high level application behavior including incoming and outgoing transport streams.

Hardware

CAM Inspector probe plugs on top of a standard Syscard extender (included with the probe). Level translation buffer isolate captured signals on the bus and feed them into a FPGA containing capture logic. Capture traces are then fed to a 32 bits CPU that can either :

- Feed them to capture software on PC via USB 2.0 connection
- Store them to a micro SD card
- Display them on integrated 1.8" TFT display

Traces contains microsecond time stamped events down to register access, timings, TS data etc...

Probe can also drive Common Interface signals to run a CAM simulation or an Host simulation. Host simulation requires specific host extension hardware to receive and supply power to CAM.

Software
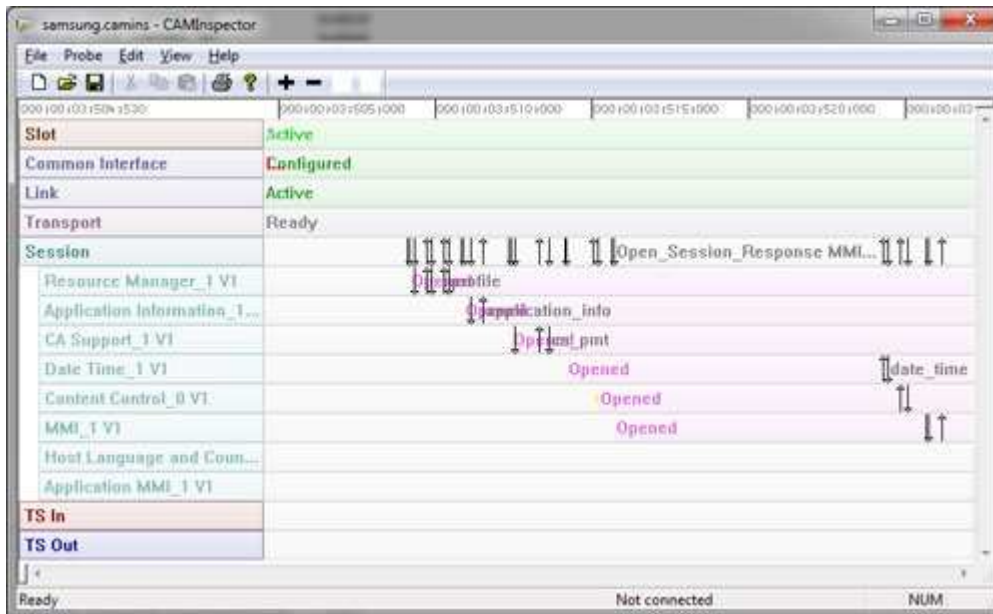
Analysis software runs on a Microsoft Windows PC (also runs with wine under Linux machines). It is a stand alone executable that can be run from USB key or installed on as many computers as you need. It perform live trace analysis and display them in a chronogram view. Thanks to efficient implementation, it allows viewing, browsing and zooming over thousands of events without noticeable slow down. Simple and clear user interface does not need long training before being able to use the tool.

Software also contains full commercial grade host and CAM stacks for simulation mode. These stacks can be licensed separately at competitive cost for your own design on request. Being integrated in a test tool guarantee that these stacks will be thoroughly tested against a large number of real life implementation.

Development

CAM Inspector can be used by development teams to quickly find issues while developing a DVB-CI or CI plus product. Problems with protocol, timing, data format ... will be detected and reported by the tool allowing a quick trouble shooting. Affordable cost allows CAM inspector to become widely available in the labs and be used continuously during testing to detect early any regression or issue in the code right at developement phase.

Qualification

CAM Inspector can also be used by QA team to perform extensive test on product and make sure rare defect are detected. Stand alone mode allows unattended continuous recording over micro SD card for long period of time. CAM Inspector software perform deferred analysis over recorded data quickly spotting error or warning over large amount of recorded data

CAMeleon mode the tool to impersonate an existing CAM from a pre-recorded profile. This save the need of purchasing and maintaining bunches of CAM in the QA lab (note testing with real CAM is also recommended for better compatibility).

Certification

CAM Inspector can be used to perform product qualification by executing test plan in simulation mode and check for result. Simulation mode allows to load CAM profile with extreme and yet valid timing or behavior. It can be used to check that qualified system perform well even at specifications boundaries.

Review

CAM Inspector can evaluate performance of a specific host-CAM couple for channel surfing or interactive content access. Thanks to external input on the probe, time from IR blast to actual video can be accurately measured showing contribution in delay of each element in the chain. Independent labs can use the tool to provide an objective and precise measurement of system responsiveness to help customers in their choice. Manufacturers can leverage timing analysis to address responsiveness problem in their design.