

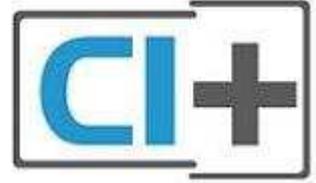
# GkWare CI Plus

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## ABOUT CI PLUS

CI Plus is an extension to the classic EN 50 221 standard, it

- adds an extra layer of security to the communication between the Host (STB, IDTV or Headend) and the CI Module
- secures the content on the transport stream interface
- enforces copy protection regulation compliance
- adds support for graphical MHEG-5 menus and applications



CI Plus compatible hosts are also compatible to standard DVB-CI modules. In compatible hosts, the MHEG-5 MMIs will replace the limited EN 50 221 Highlevel MMIs.

## OUR SOLUTION

The GkWare CI Plus software is available as add-on to our popular CI Stack. Customers that wish to perform an upgrade just have to include the new source code and a few new APIs in their projects. We also give you the choice for MHEG-5. You can, but you do not have to choose our MHEG-5 engine.

## FEATURES

- Implements the following CI+ resources:
  - Content Control
  - CAM Upgrade
  - Host Language and Country
- Support for different Types of licensee specifications:
  - CI+ Trust Authority "Test"
  - CI+ Trust Authority "Production"
  - SmarDTV IPP
  - GkWare "Test"
- X.509 Certificate validation
- support for hardware-accelerated or -secured crypto-operations

## REQUIREMENTS

- CI+ Compatible hardware design (AES/DES TS descrambling support, HDCP, Macrovision)
- ANSI-C Compiler

## SUPPORTED PLATFORMS

(if your platform is not listed yet, please ask us !)

- STi 71xx series: 7101,7105,7109,7111  
Operating system: STLinux and OS21
- Fujitsu MB86H61
- NXP/Trident: CX2450x

## CERTIFICATION

The stack already passed the official CI+ certification on customer platforms several times. We are also in close contact with several module manufacturers and other adopters of the CI+ specification for early interoperability testing.

## TEST MATERIAL

We also created a lot of test material which can be licensed/purchased separately from our software stack. Material available for purchasing includes:

- Transport stream (de-)scrambling software for Windows (implementing the AES & DES TS scrambling algorithms)
- Reference Streams scrambled with fixed AES and/or DES keys
- CI Modules implementing parts of the CI Plus Specification, based on our BISS CI Module

More information is available at: <http://www.streamguru.de/ci-plus/>