



CIPlus Standard

A standard to protect and monetize local content

February 2014

A brief History of Common Interface



1997

The DVB CI Standard is created to specify a TV PCMCIA **module as a plug-in equipment for TV receivers to descramble the encrypted TV channels**. Once descrambled, the module is sending back the program in the clear to the TV. The interface between TV and module is named **the Common Interface**.

2002

European Union mandates all Digital TV sets with screen larger to 30cm to be fitted with Common Interface. Europe is at that time preparing the **Terrestrial Analog Switch Off** that triggers TV replacement for users in most countries. **It allows population to keep the freedom to switch between operators and services without having to replace their equipments**.

2007

Creation of the **CIPlus (CI+)** forum by 4 TV manufacturers (Samsung, Panasonic, Sony and Philips) and 2 modules manufacturers (Neotion, SmarDTV) with the **objective to make evolve the DVB-CI standard to enhance copy protection on the common interface**.

2009

Release of the CIPlus Specification V1.2 as an open standard by CI+ LLP. TC TrustCenter GmbH is appointed to provide licences and certificates to IDTV and Modules Manufacturers.

2011

Release of the CIPlus Specification V1.3 and transfer the responsibility of standard evolution from LLP to DVB.

2013

CIPlus has registered 8 CAM licensees, 49 Solution Licensees (SW Vendors), 74 TV/STB licences and more than 289 million CI Plus devices which proves a total adoption of this standard.

CI Plus wide adoption in Europe



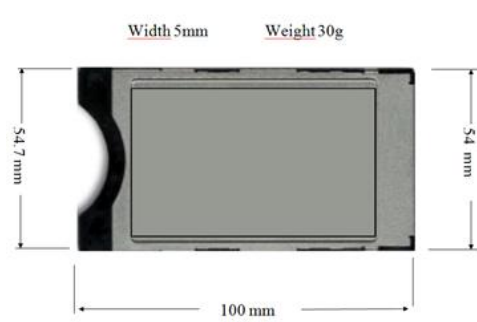
- 289 million CI Plus device certificates delivered
- CI Plus CAMs currently available in more than 15 EU countries

All European IDTV are CIPlus compliant since 2010

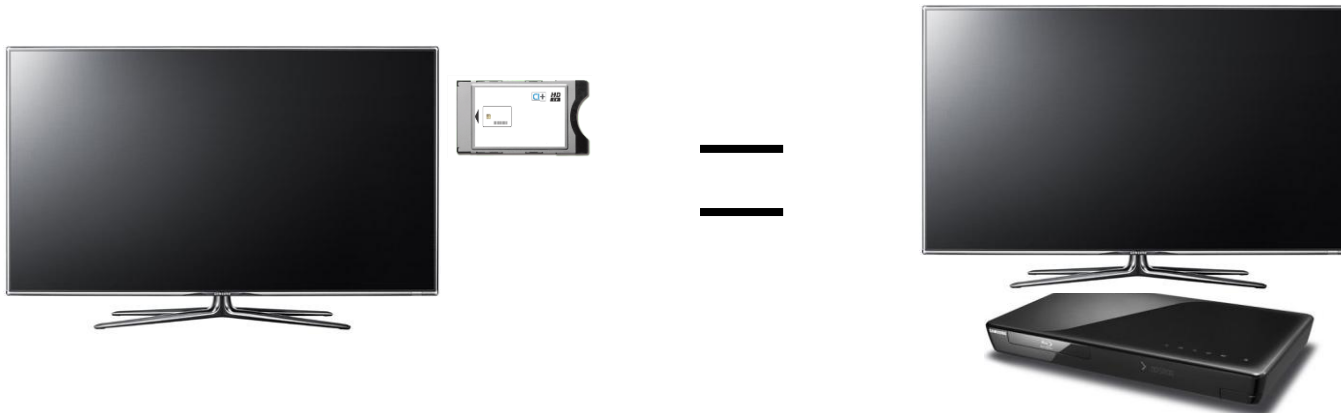
Module Overview



- A CAM - Conditional Access Module - is a TV plug-in module, that allow users to descramble protected TV programs. The form Factor is a PCMCIA card : 100mn x 54mn x 5mn and a module weights 30g.



- TV + Module is doing the same functionality than an HD decoder + TV but with no redundancy of electronics devices in equipment



Why protecting contents with a standard ?



- ❑ **Protection of contents needed by Hollywood studios**
 - ❑ Guarantee encryption of contents never “in the clear”
 - ❑ Guarantees continuation of revenues to content owners
 - ❑ Continue to distribute highly demanded contents to operators
 - ❑ Create high quality contents for population entertainment

- ❑ **PayTV Operators continue to grow Subscribers base**
 - ❑ No free high quality contents get available illegally
 - ❑ Enhance their offer to subscribers with guarantee revenues

- ❑ **Population free to choose their TV sets and change services**
 - ❑ TV and Modules are certified compliant by the standard
 - ❑ Population don't have to change TV when switching operator
 - ❑ Population not restricted to sole decoders of PayTV operator

TV + Module : a natural fragmentation



- ❑ TV manufacturers distribute the **same TV models all over a continent.**



- ❑ Country local TV operators require **dedicated HW security to protect their premium local contents** from Piracy and redistribution.

- ❑ Embedding the security in TV sets is problematic because of TV lifecycle: TV already sold can't be maintained over the years with the latest security technology.

- ❑ **The module is the natural upgradable add-on to a TV** to match with the local specificities requested by country operators for their contents and their signalization



Benefits of the Module



- For PayTV operators or regulations
 - Lower investment than a decoder
 - Simpler technology => Low Material Return
 - Robust to environmental conditions

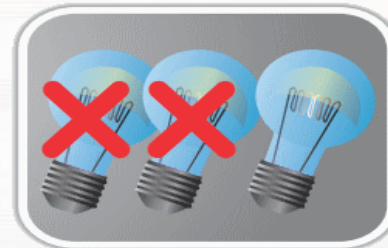
■ For End Users



Easy to install:
No new wires



Easy to use:
**No additional
Remote control**



Economic:
**Reduced energy
consumption**

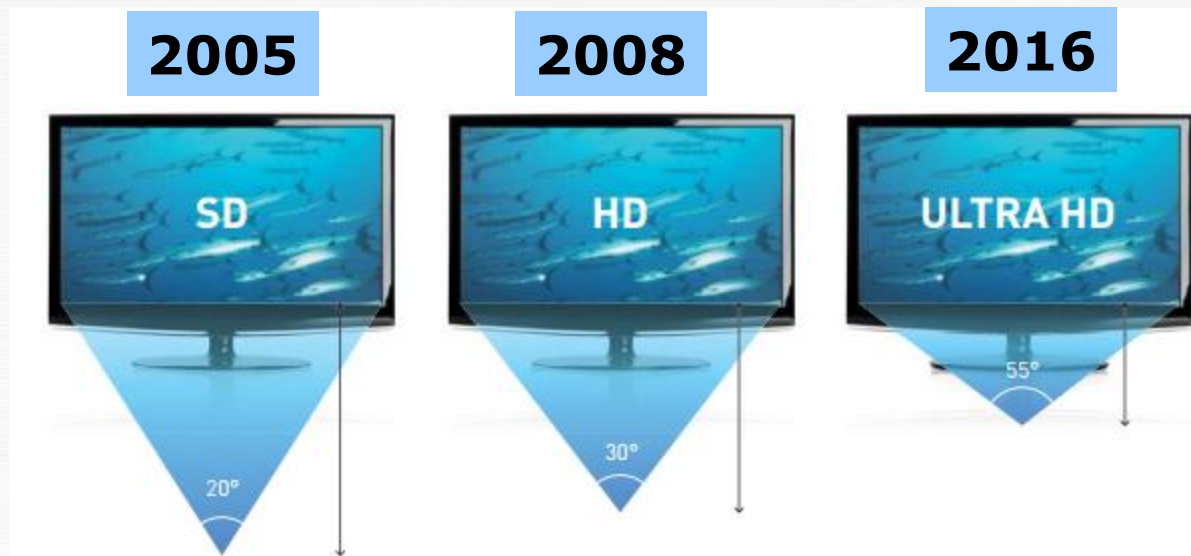


Aesthetic
**No box
required**

Examples of Modules



Module limit equipments renewal and investments for operators



- Technology (DVB-S2/DVB-T2/MPEG2/MPEG4/HEVC/IP) is changing rapidly forcing Operators to renew their park of decoders to offer enhanced services to their subscribers which lead to large investments.
- Since TV are sold on the Retail market and are de-facto available to population, upgrading the module over the air represents very little investment for PayTV operators and give a fast access to newer technology to their subscribers

What is next on CIPlus standard ?



- CIPlus version 1.4 specifications have been released in September 2013 and the following features will be available in 2016 with IDTV and Modules :
 - **MultiStream PVR** will allow to watch one programme while recording others programmes
 - **Hybrid OTT services** will provide VOD contents over the top to end users through the TV IP interface
- CIPlus 2.0 standard specifications - starting soon
 - One objective would be to support USB form Factor for modules using **USB3.0 interface of IDTV**
 - UltraHD and HEVC decoding will be supported by this version of the standard for richer quality of Video Contents on Broadcast with reasonable bandwidth usage

Conclusions



- Population should not be forced to change technology but be willing to get access to new technologies at an affordable cost and TV is the equipment that population wants
- TV is a worldwide market so technology can quickly arrive by itself to every country but needs to be supported by regulation with at least specification and eventually certification

THE TECHNOLOGY EXISTS AND IS AVAILABLE



Thank you!

gracias

obrigado

merci

danke

grazie

toda

xie xie

spasib