

CEA HDMI Roundtable

Update on HDCP Compliance and Interoperability 2009

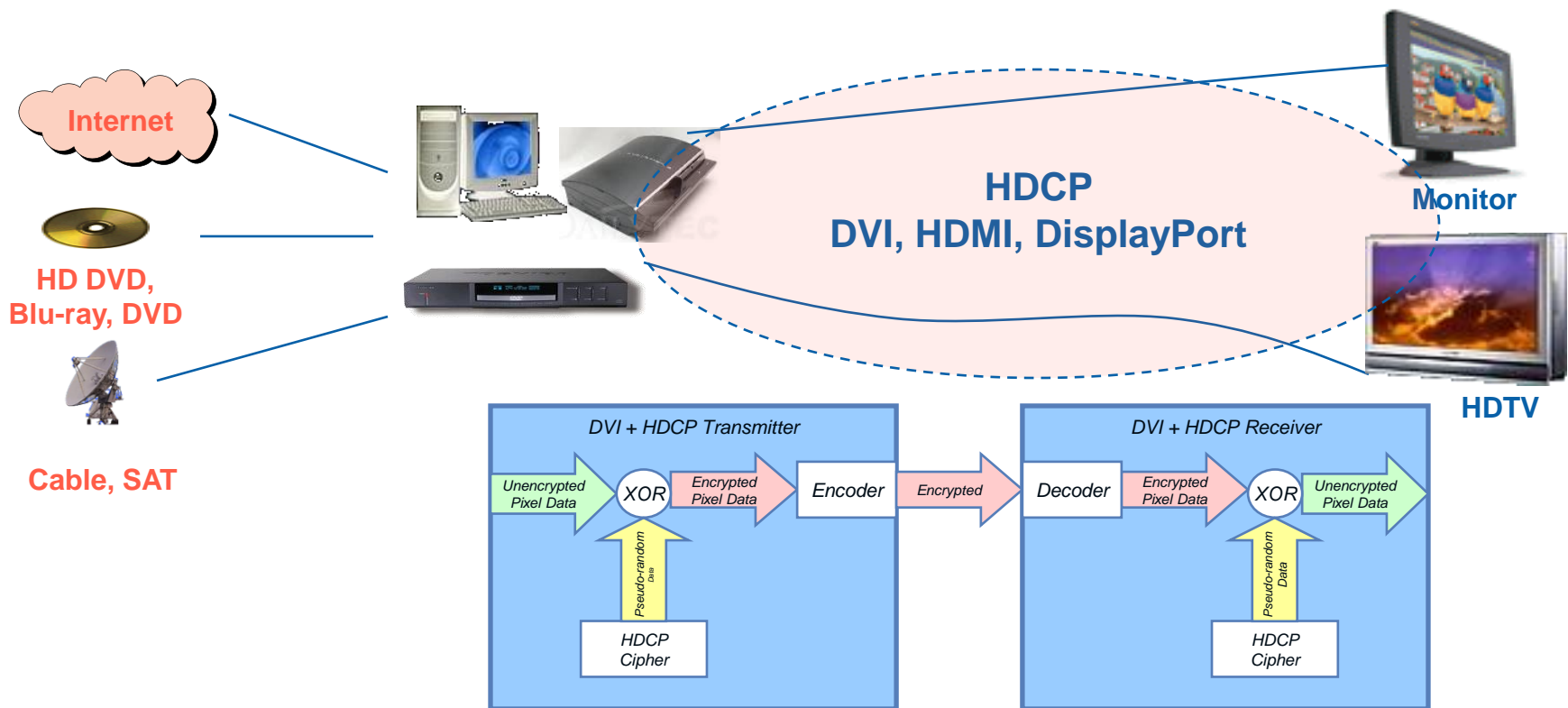


HDCP

High-bandwidth Digital Content Protection

Protection of Digital Video Interfaces (DVI, HDMI, GVIF, DisplayPort, etc) to Monitors/ High Definition TV

- Video and Audio
- For Display Only
- HDCP Version 1.4 released to support New HDMI 1.4



Example HDCP Products



Projectors



Plasma/LCD



DLP, Other



Game Consoles



DVD/CHD DVD and Blu-ray Players



Cable Tuner and Satellite Receiver



HD Graphics cards



AV Receivers
Video switchers



HD DVD Enabled Laptops
With HDCP Out

Environment

HDCP is an approved output for:

- CSS, AAC3, DTCP, CPPM/CPRM, CMLA, ARIB, Open Cable...
- Proprietary solutions: Conditional Access, Windows DRM, Fairplay, others...

Studio expectations

- Third Party Beneficiary rights
- Market monitoring for compliance
- Enforcement

Implementers expectations

- Backwards compatibility
- Low cost
- Interoperability
- Enforcement against non-compliant products

Consumers/Installers/government regulators, etc

- Transparent operations with high interoperability and no additional cost burden

Test Tools

Current Compliance Test Specification is version 1.1
1.2 is under development for release later this year.

Authorized Test tool

Panasonic UITA-2000



At ATCS and available for lease from VTM, Inc.
testtools@vtm-inc.com

Authorized Test tool



Quantum Data 882EA

Available through Quantum Data
www.quantumdata.com

12 HDMI/ HDCP ATCs Worldwide

Silicon Image ATC
Shanghai, PRC

Allion ATC*
Tokyo, Japan

Philips ATC
Bangalore, India

Sony ATC
Tokyo, Japan

Silicon Image ATC
Shenzhen, PRC

Panasonic FVL
Osaka, Japan

Allion ATC*
Taipei, Taiwan

Silicon Image ATC
South Korea

Silicon Image ATC
Sunnyvale, California

HDCP Lab
Beaverton, Oregon
HDCP Only

NXP ATC
Caen, France

Allion ATC*
Beaverton, Oregon

www.digital-cp.com/compliance

* Not a licensed HDMI ATC, Third Party Names and Brands are the property of others

Plugfests

CEA / HDMI – 8-13 Nov, Burlingame, CA.

VESA DP PlugTest 7-10 Dec, Yokohama, Japan

Interoperability Status

Based on observations at the two most recent Plugfests, many devices now pass compliance testing and have eliminated interoperability issues

DCP lists products that pass compliance on our website

Challenges remain

Many HDCP Source and Repeater devices do not support many downstream devices – e.g. DVD, STB, etc only support 1 to 3 devices while many Blu-ray players support 127.

Many A/V receivers/ Repeaters incorrectly set the Repeater bit making them non-compliant

Help us make HDMI with HDCP better...

- What's the biggest challenge facing you today wrt HDMI/HDCP?
- What can we do beyond what we are already doing?



THANK YOU