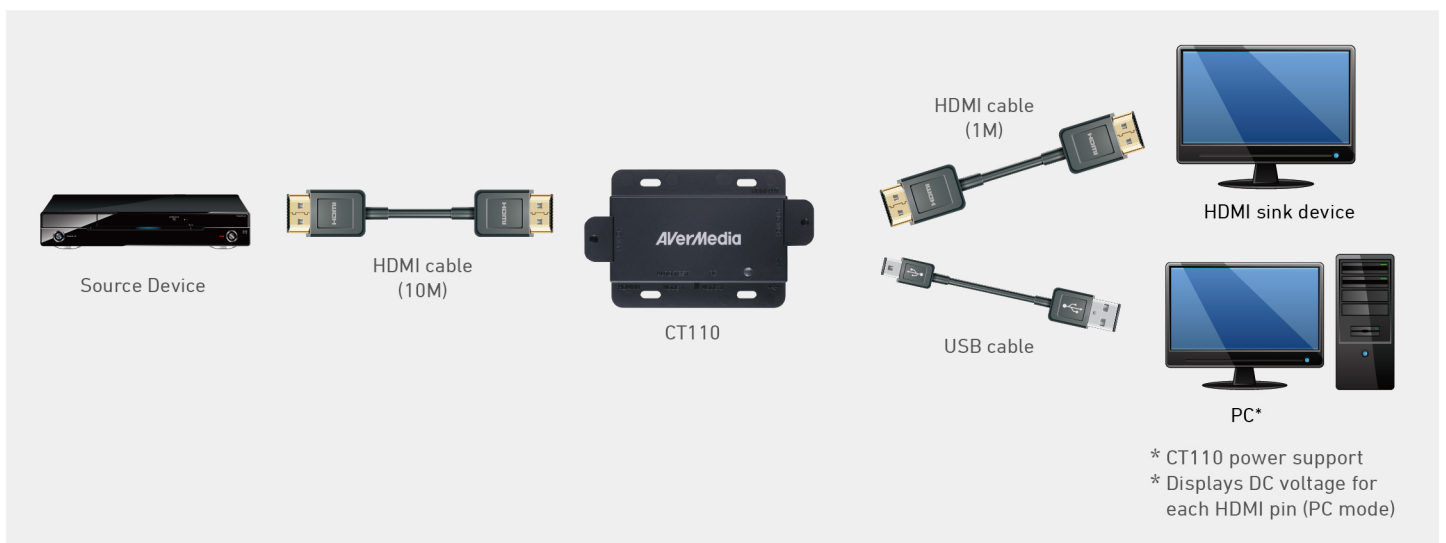# AVerMedia

Why CT110 ?

- Fast deployment
- Simple to use
- Reliable HDMI signal detection

CT110 Signal Detector

The extensive use of High-Definition Multimedia Interface (HDMI) across a broad range of hardware from PCs to set-top boxes has given rise to the need for compliance measurement tools. AVerMedia CT110 Signal Detector is specifically designed to detect and validate DC voltage levels for each HDMI signal pin. Once tested, CT110 measures continuity for all HDMI features. The CT110 cross tests between source and sink device to verify the transmission of all digital signals, ensuring source HDMI signal compliancy to prescribed limits.

Source Device

HDMI cable (10M)

CT110

HDMI cable (1M)

USB cable

HDMI sink device

PC*

* CT110 power support
* Displays DC voltage for each HDMI pin (PC mode)

Features

- Detect HDMI DC voltage levels up to 1080p60
- Dual operation modes for auto testing or pc-operation
- Customized sample time
- 4 layers PCB designed to meet EMI/EMC standards
- RoHS compliant

Spec

- Dimensions: 98.7 x 62.2 x 19.1 mm
- Weight: 45.5g
- Operating temperature: 0°C-35°C
- I/O connector: HDMI input, HDMI output, MINI USB

CT110 can check DC level of each HDMI pin

Type A HDMI

(1) TMDS Data2+
(2) TMDS Data2 Shield*
(3) TMDS Data2–
(4) TMDS Data1+
(5) TMDS Data1 Shield*
(6) TMDS Data1–
(7) TMDS Data0+

(8) TMDS Data0 Shield*
(9) TMDS Data0–
(10) TMDS Clock+
(11) TMDS Clock Shield*
(12) TMDS Clock–
(13) CEC
(14) Reserved(N.C. on device)*

(15) SCL
(16) SDA
(17) DDC/CEC Ground*
(18) +5V Power
(19) Hot Plug Detect

*No need to check

Introduction of Operation Modes

The CT110 is an HDMI signal testing toolkit with dual operation modes design for validation of TMDS signal detection and detection of HDMI voltage levels.

Auto Mode: Automatic TMDS signal testing

Standard Testing:

- Abnormal TMDS DC voltage levels (Base on HDMI 1.4 specification)
- Abnormal 5V DC voltage level

Customized testing:

- Abnormal DDC/HPG/CEC DC voltage levels
- Sample times

Validation Acquired

LED indicator: Blue

HDMI cable

HDMI signal displays on screen

Validation Failure

LED indicator: Green

HDMI cable

No video screen

PC Mode: HDMI DC voltage detection

Check following: HDMI/DDC/HPG/CEC DC voltage levels

HDMI signal measurement
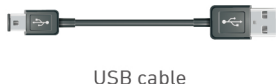
USB cable

Display DC voltage levels on PC

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