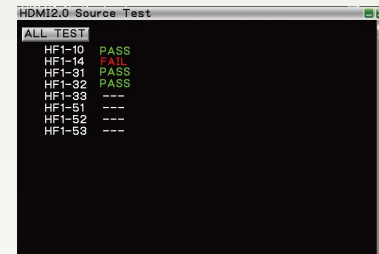
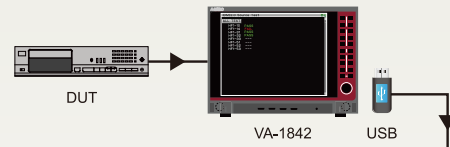


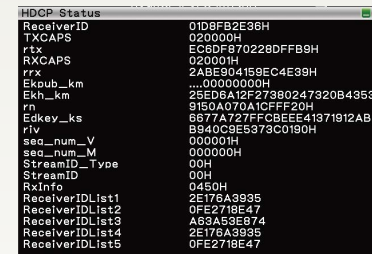
## Functions

### Compliance Test (HDMI 2.0, HDCP 2.2)



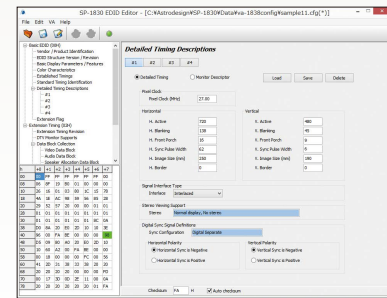
HDMI 2.0 MOI (Method of Implementations) 's can be tested. HDCP 2.2, HDMI 1.4b, CEC 1.4b, HDCP 1.4 pre-test function are also available.

### HDCP Status



HDCP 2.2 certification status is displayed.

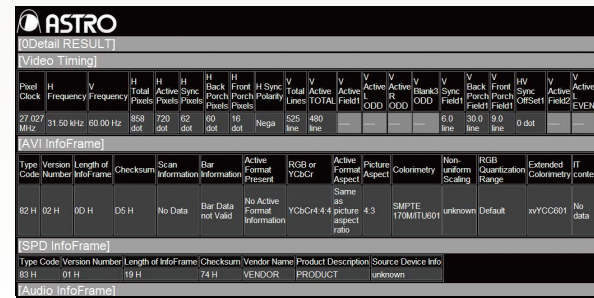
### EDID Edit Software SP-1830



Standard accessory of VA-1842. This software can capture and edit EDID data. Users can then transfer it to VA-1842. VA-1842 can simulate custom made EDID's.

### Log

#### Video Timing and InfoFrame



Video/audio timing, InfoFrames, HDCP, ARC (Audio Return Channel) and Compliance test results are saved as log data.

## Specifications

|                     |                    |                                      |   |
|---------------------|--------------------|--------------------------------------|---|
| HDMI Input / Output |                    |                                      |   |
| Pixel Clock         |                    | 25 to 600MHz (Data Rate: Max.6Gbps)  |   |
| Color Space         |                    | RGB / YCbCr: 4:4:4, 4:2:2, 4:2:0     |   |
| Audio               | Input / Output     | Sampling Frequency                   | 32 to 192kHz (L-PCM 8ch) , 768kHz (HBR)<br>* There is timing limitation |
|                     |                    | Audio Type                           | ISC 60958, 61937  |
|                     |                    | Bit depth                            | 16, 20, 24-bit  |
| HDCP                |                    | Ver.1.4, 2.2                         |   |
| Repeater Function   |                    | Available (MAX 16 sets)              |   |
| DDC                 |                    | DDC2B                                |   |
| E-EDID              |                    | Ver.1.4                              |   |
| Other Interface     |                    |                                      |   |
| USB                 | HOSTx2             | For USB mouse control and USB memory |   |
|                     | DEVICE             | For PC control with Utility Software |   |
| LAN                 |                    | For PC control with Utility Software |   |
| COAX Input / Output | Audio Type         | SPDIF, IEC60958, 61937               |   |
|                     | Sampling Frequency | 32 to 192kHz (L-PCM 8ch)             |   |
|                     | Bit depth          | 16, 20, 24-bit                       |   |
| Trigger (Optional)  |                    | Trigger or I2S output                |   |

|                             |   |
|-----------------------------|---|
| General                     |   |
| Power Requirement           | AC100-240V (50 / 60Hz)                              |
| Power Consumption           | 60W MAX   |
| Operating Temperature Range | 5 to 40°C   |
| Operating Humidity Range    | 20 to 85%RH (No Condensation)                       |
| Dimensions                  | 340(W)x285(H)x197.5(D)mm<br>(Excluding Protrusions) |
| Weights                     | Approx.5.1kg  |

The terms of HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries. Product specifications and appearance are subject to change without notice for improvement.



# HDMI 2.0a/HDCP 2.2 Protocol Analyzer VA-1842

HDMI 2.0 and HDCP 2.2 Compliance Test Functions



➤ HDMI 4K/60p YCbCr 4:4:4 Signal Analysis and Generation

➤ Real Time Data Analysis as a Stand Alone Unit

➤ ITU-R BT.2020 Color Analysis

➤ HDR (High Dynamic Range) InfoFrame Analysis

**ASTRODESIGN, Inc.**

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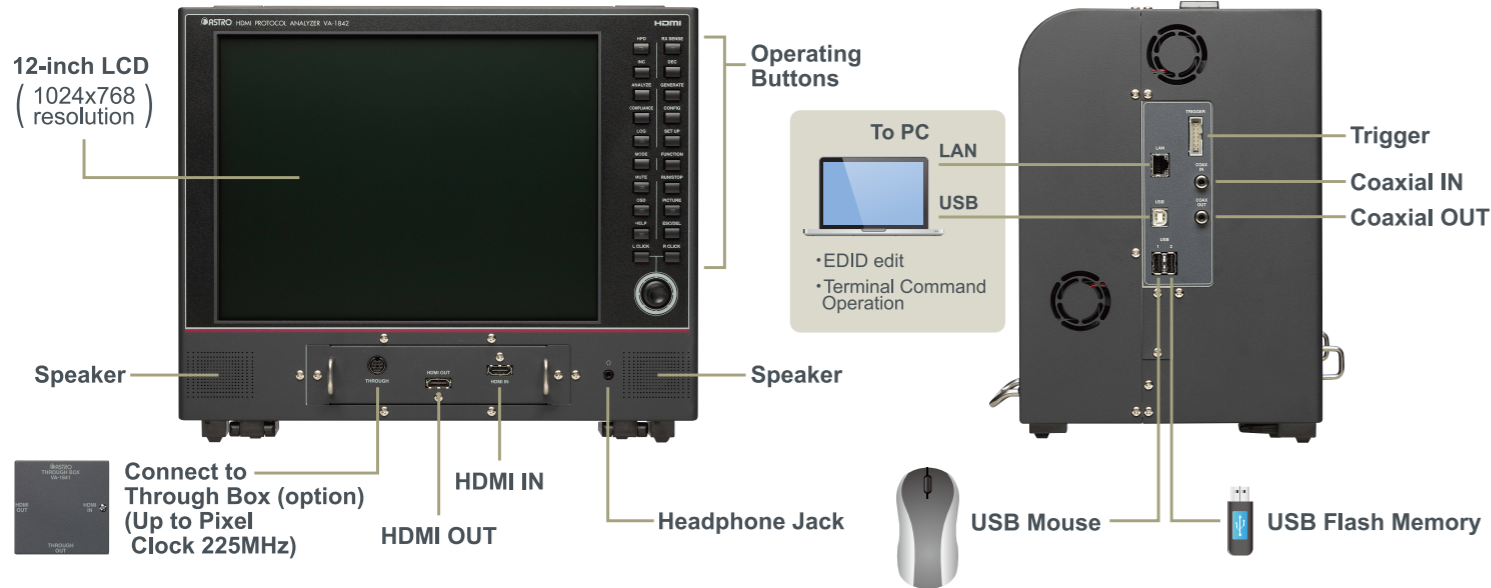
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780 Montague Expressway, Suite 302, San Jose CA 95131 USA  
URL <http://www.astro-americas.com>

VA1842-CH4009E-1000-1

# Appearance

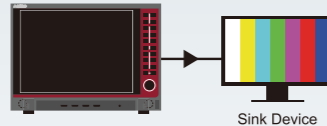
## FRONT

## SIDE



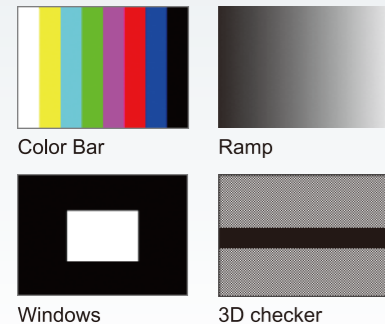
# Functions

## Generate Mode

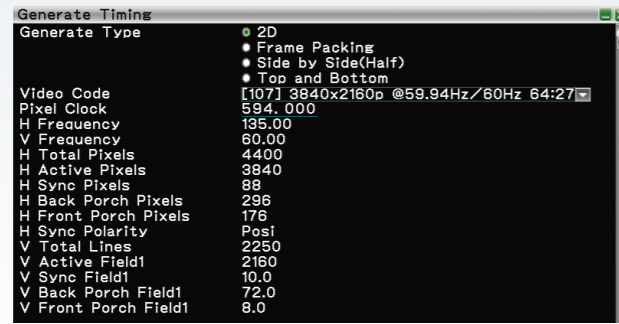


VA-1842 can be used as a simple signal generator. Capable of generating standard timings within the EIA CEA-861-F standard.

### Pre-installed patterns

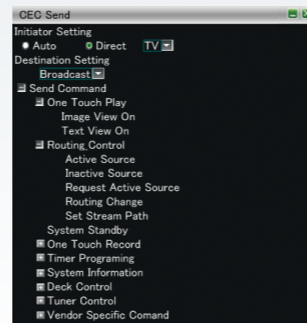


### Timing Select



Pre-installed timing can be selected. 4K/60p YCbCr 4:4:4 timing is supported.

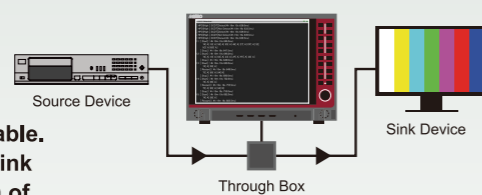
### CEC Command Send



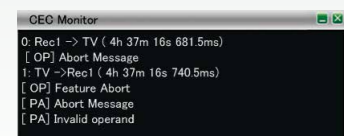
Select pre-installed commands.

## Through Mode

VA-1842 will be emulated as a passive cable. The unit is placed between source and sink devices and will monitor communication of DDC/CEC lines. Log of testing can be saved. Option box is required to use this mode.



### CEC Monitor



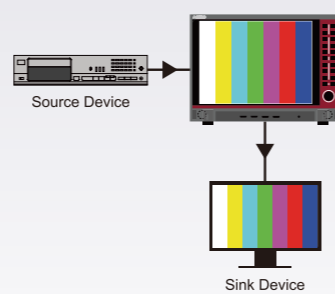
CEC command communication is viewed. Command details and time are displayed. Either hexadecimal or GUI display are selectable. This data can be saved as log data.

### DDC Monitor



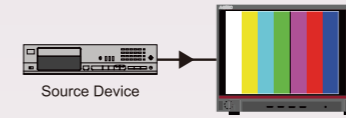
DDC line is monitored. EDID reading and HDCP certification can be confirmed. This data can be saved as log data.

## Repeater Mode

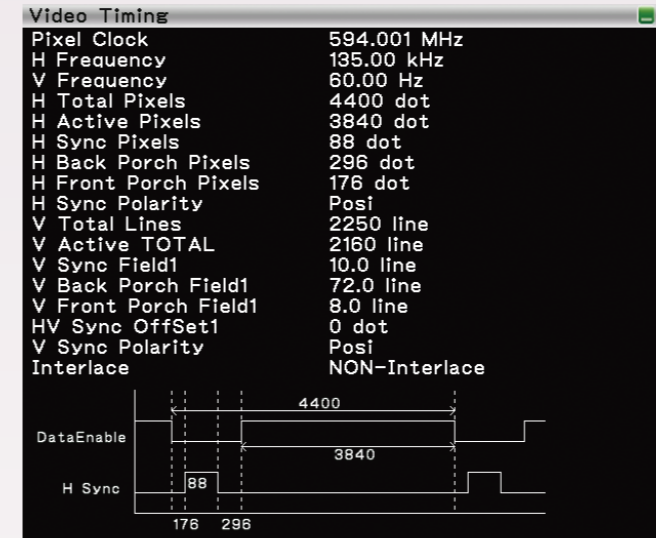


VA-1842 is emulated as a repeater device, such as an AV amplifier. Users will be able to confirm their products performance when connecting to repeater devices.

## Receiver Mode

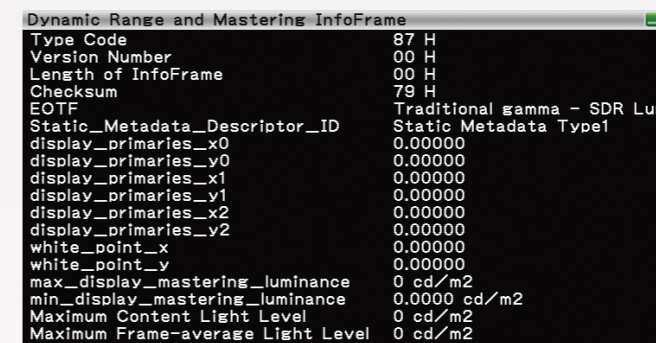


### Video Timing



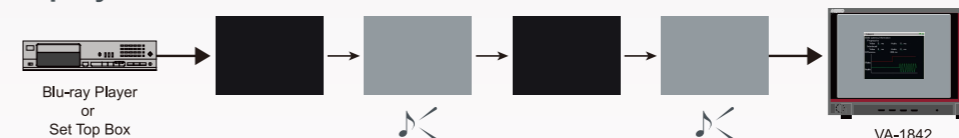
Up to 4K/60p YCbCr 4:4:4 input signal is displayed. Visual waveform of timing format is one of the units unique functions.

### HDR Status



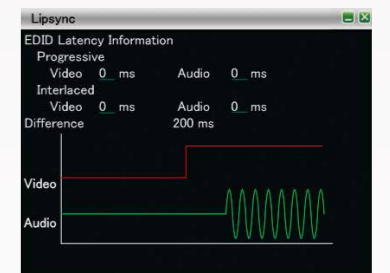
Dynamic Range and Mastering InfoFrame is displayed.

### Lip Sync Function (To be Supported)

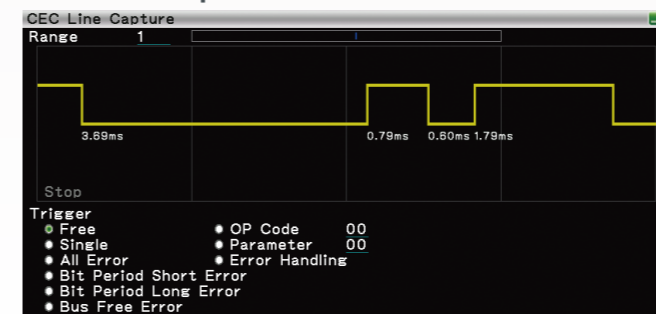


Delay between audio and video is measured.

Set Top Box or Blu-ray Player outputs lip sync test patterns, and VA-1842 will be able to measure delay time.



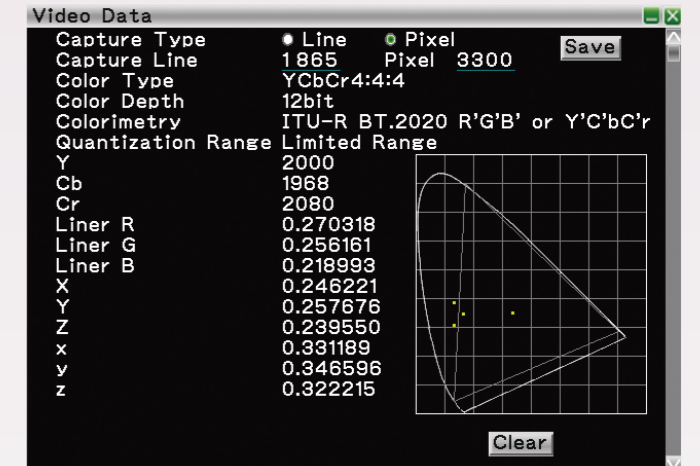
### CEC Line Capture



This is useful for hardware engineer by checking waveform visually. By setting trigger to a certain OP Code or error, waveform freezes at that moment and can be easily debugged.

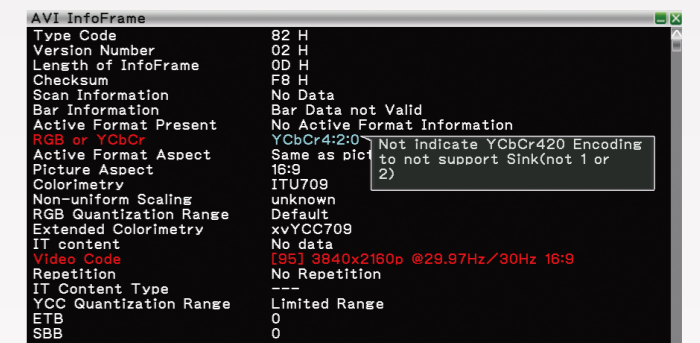
Emulates TV or other sink devices by preloaded EDID. Able to analyze video timing, HDMI InfoFrame, HDCP, DDC, SCDC and CEC status.

### Video Data



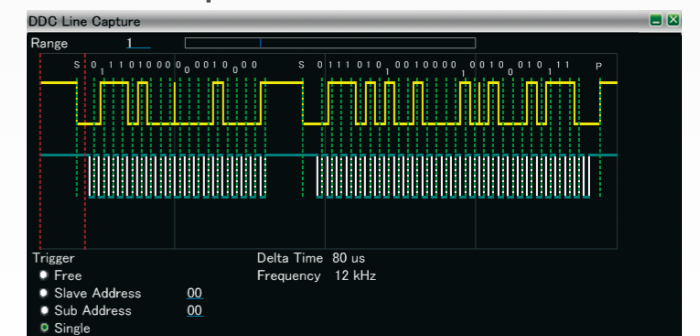
The video data of a designated line or pixel is viewable. ITU-R BT.2020 color format is supported. Either XYZ Color Diagram or RGB Color level display can be selected.

### HELP Function



When input signal has an error, correct information is presented.

### DDC Line Capture



Waveforms of SDA (Serial Data Line) and SCA (Serial Clock Line) are displayed. This visual image is useful to check access to DDC line, or clock frequency.