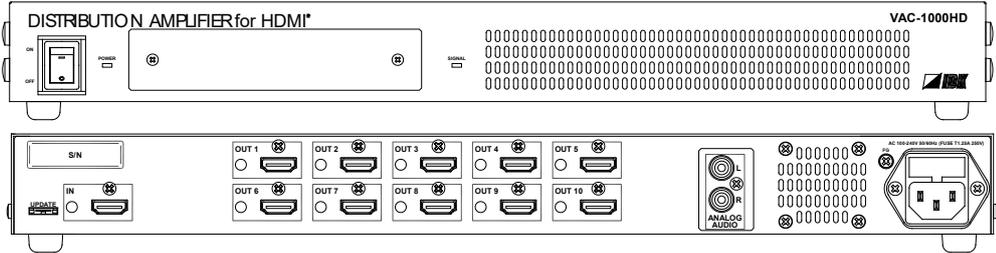# HDMI Distribution Amplifier
# VAC-1000HD

The IDK VAC-1000HD is an HDMI Distribution Amplifier for distributing HDMI video and audio to 10 displays. TMDS signals are automatically equalized at the input so that signal degradation due to the cable can be minimized. The VAC-1000HD is ideal for applications that require the distribution of an HDMI source signal to multiple displays. The VAC-1000HD has 7segment LED status check function, and this is useful for field support.

## ■ Specification

| Item | | | | Description |
|---|---|---|---|---|
| Input | Video | HDMI/DVI | Number/Signal | 1 input/HDMI (*1)/DVI 1.0<br>- HDCP 1.4<br>- TMDS single link<br>- TMDS clock: 25 MHz to 225 MHz<br>- Dot clock: 25 MHz to 165 MHz |
| | | | Connector | 1 female HDMI Type A (19-pin) |
| | | Others | | Color depth : 24 bit, 30 bit, 36 bit Deep Color |
| | | Formats | | VGA to QWXGA<br>  For WUXGA/QWXGA, only Reduced Blanking is supported.<br>480i / 480p / 576i / 576p / 720p / 1080i / 1080p |
| | Audio | Digital | Number/Signal | 1 input/Multi-channel LPCM up to 8 channels<br>- Sampling frequency: 32kHz to 192kHz,<br>- Sample Size: 16bit to 24bit<br>- Reference level:-20 dBFS<br>- Max. input level: 0 dBFS |
| | | | Connector | 1 female HDMI Type A (19-pin) |
| Output | Video | HDMI/DVI | Number/Signal | 10 outputs/HDMI (*1)/DVI 1.0<br>- HDCP 1.4<br>- TMDS single link<br>- TMDS clock: 25 MHz to 225 MHz<br>- Dot clock: 25 MHz to 165 MHz |
| | | | Connector | 10 female HDMI Type A (19-pin) |
| | | Others | | Color depth : 24 bit, 30 bit, 36 bit Deep Color |
| | | Formats | | VGA to QWXGA<br>  For WUXGA/QWXGA, only Reduced Blanking is supported.<br>480i / 480p / 576i / 576p / 720p / 1080i / 1080p |
| | Audio | Digital | Number/Signal | 10 outputs/Multi-channel LPCM up to 8 channels<br>- Sampling frequency: 32kHz to 192kHz,<br>- Sample Size: 16bit to 24bit<br>- Reference level:-20 dBFS<br>- Max. input level: 0 dBFS |
| | | | Connector | 10 female HDMI Type A (19-pin) |
| | | Analog | Number/Signal | 1 output/Unbalanced Stereo LR (*2)<br>- Output impedance: 75 Ω<br>- Reference level: -10 dBu<br>- Max. output level: +10 dBu |
| | | | Connector | 1 RCA jack |
| Plug & Play | | | | DDC2B<br>*Selectable from preset EDID/EDID copied from the monitor/EDID of the destination monitor<br>* If preset EDID selected, maximum resolution can be selected. |
| Maximum transmission distances | | Digital input | | 164 ft. (50 m) (*3) |
| | | Digital output | | 164 ft. (50 m) (*3) |
| Functions | Contents | | | Input and output cable equalization, Anti-snow (*4), De-embedded audio from HDMI signal<br>DDC buffer, 7 segment LED signal status check, Connection Reset (*5) |
| General | Power | | | 100 - 240 VAC ± 10%, 50 Hz/60 Hz ± 3 Hz |
| | Power consumption | | | About 35 Watts |
| | Dimensions | | | 16.9 (W) × 1.7 (H) × 7.9 (D)" (430 (W) × 44 (H) × 200 (D) mm)<br>(1U high) (Excluding connectors and the like) |
| | Weight | | | 6.8 lbs. (3.1 kg) |
| | Temperature | | | Operating : 32°F to 104°F   (0°C to +40°C)<br>Storage   : -4°F to +176°F  (-20°C to +80°C) |
| | Humidity | | | Operating/ Storage: 20% to 90% (Non Condensing) |

*1    x.v.Color, 3D, ARC and HEC are not supported. CEC: Pass through between IN and OUT6.
*2    Analog audio output only supports 2-channel LPCM.
*3    The maximum cable distance varies depending on the connected devices and was measured under following conditions:
      ・1080p@60: When IDK's 24 AWG cable was used and signals of 1080p@60 24 bit/pixel (8 bit/component) was input or output.
      The maximum cable distance depends on the connected devices. The distance may not be extended with some device combinations, cabling method, or other manufacturer's cable. Video may be disturbed or may not be output even if signals are within the range mentioned above.
*4    The anti-snow feature automatically fixes snow noise that is a specific symptom of HDCP-compliant signals and mainly occurs at start-up. This feature does not work when snow noise has already occurred during startup or when it occurs due to a bad condition of the transmission line.
*5    For digital systems, some problems, such as an HDCP authentication error, can often be recovered by physically disconnecting and reconnecting the digital cables. However, the Connection Reset feature will fix these problems automatically without the need to physically plug and unplug the cables. It creates the same condition as if the cable were physically disconnected and reconnected. This feature only works for the VAC's output. If other devices are connected between the VAC's output and sink device, this feature may be invalid.
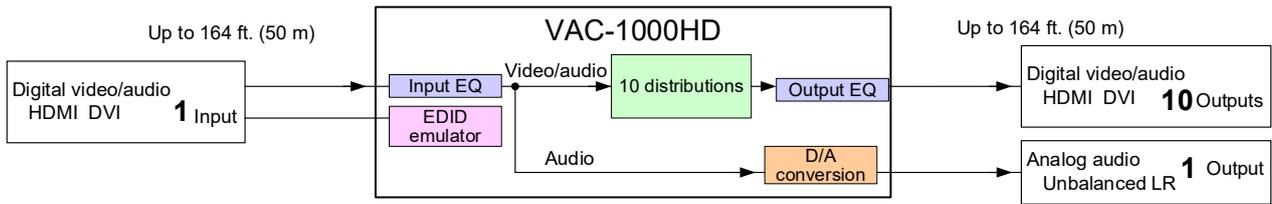
## ■ Front & Rear Panels

IDK Corporation

## ■ Diagram

Up to 164 ft. (50 m)

VAC-1000HD

Up to 164 ft. (50 m)

| Digital video/audio HDMI DVI **1** Input |

Input EQ

EDID emulator

Video/audio

10 distributions

Output EQ

Audio

D/A conversion

| Digital video/audio HDMI DVI **10** Outputs |

| Analog audio Unbalanced LR **1** Output |

[Features]
## ■ Video
・ Up to 1080p/QWXGA (Reduced Blanking)
・ HDCP 1.4
・ Automatic signal equalization
　　　Input　　: Up to 164 ft. (50 m)
　　　Output　: Up to 164 ft. (50 m)
・ Anti-snow

## ■ Audio
・ De-embedding

## ■ Others
・ EDID emulation
・ DDC buffer
・ Displaying I/O signal status
・ Connection Reset

IDK Corporation