

EVOSKILLZ Audio Embedder

with Source Sensing, EDID and Scaling



**Source Sensing Audio
Embedder**

**Part Number:
EVOSKLZ1**

EVOLUTION
BY 

www.vanco1.com • 800.626.6445

DEAR CUSTOMER

Thank you for purchasing this product.
For optimum performance and safety, please
read these instructions carefully before connecting, operating or
adjusting this product. Please keep this manual for future reference.

This product is 100% inspected and tested in the United States to verify
HDMI performance parameters.

WARNING

1. Do not expose this unit to water, moisture, or excessive humidity.
2. Do not install or place this unit in a built-in cabinet, or other confined space without adequate ventilation.
3. To prevent risk of electrical shock or fire hazard, due to overheating do not obstruct unit's ventilation openings.
4. Do not install near any source of heat, including other units that may produce heat.
5. Do not place unit near flames.
6. Only clean unit with a dry cloth.
7. Unplug unit during lightening storms or when not used for an extended period of time. A surge protector is strongly recommended.
8. Protect the power cord from being walked on or pinched, particularly at the plugs.
9. Use unit only with accessories specified by the manufacturer.
10. Refer all servicing to qualified personnel.

CAUTION

HDMI is a very complex technology requiring continuous authentication of the signal and the same video resolution and audio settings on all electronic equipment in the system. When there are multiple sources and displays, the video resolution and audio setting on all connected units must be adjusted to correspond with that of the display having the lowest video and audio capability.

INTRODUCTION

The Evolution by Vanco EVOSKILLZ is a first of its kind. This patent pending technology gives the ability to pass audio and video from an HDMI source and have the audio switched to a secondary audio source automatically via 3.5mm input. EVOSKILLZ comes equipped with an HDMI 2.0a input for audio and video, a 3.5mm stereo port to provide audio from a secondary source, and an HDMI 2.0a output which can pass the audio and video coming from the HDMI input, or embed the audio coming from the secondary audio source. Capable of passing 4K@60Hz with 4:4:4 chroma, with HDR10 and Dolby Vision compatibility, and can also pass through PCM, Dolby, and DTS audio. The micro-USB port can be used to power the unit or provide any needed future firmware updates. There are also 2 dials on the unit which allows the source sensitivity (gain) and audio time out to be manually adjusted. For embedding any analog audio over HDMI video, the EVOSKILLZ is a great and unique solution!

Audio Embedder with Source Sensing, EDID and Scaling

Part # EVOSKLZ1

- Automatically embeds audio from a secondary analog audio source onto an HDMI video signal
- Switches back to HDMI Input audio once analog audio signal is not present
- Adjustable gain for increased volume and stabilizing audio switching
- Supports 4K@60Hz, 4:4:4 chroma sampling with HDR10 and Dolby Vision video
- HDCP 2.2/1.4 Compliant
- Supports CEC Bypass
- HDMI Passthrough of PCM, DTS, and Dolby audio formats
- USB port for power, firmware updates, and software setup
- Dimensions: 5" W x 2.6" H x 1" D

PACKAGE CONTENTS

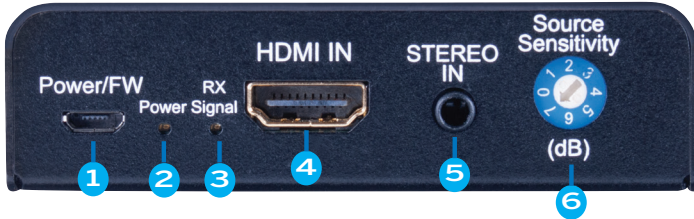
- EVOSKLZ1 Audio Embedder
- 5V Power Supply
- Product Manual

SPECIFICATIONS

| | |
|--------------------------------|---|
| HDMI Compliance | HDMI 2.0a |
| HDCP Compliance | HDCP 2.2/1.4 |
| Video Bandwidth | 18Gbps |
| Video Resolutions | Up to 4K2K@50/60Hz(YUV4:4:4), HDR10 and Dolby Vision Compatible |
| Color Space | RGB, YCbCr 4:4:4, YCbCr 4:2:2 |
| HDMI Audio (Pass-through)..... | LPCM 2/5.1/7.1CH, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos, DTS:X |
| Audio Embedding | PCM |
| Inputs | HDMI (audio and video) and 3.5mm stereo (audio) |
| Output | HDMI |
| ESD Protection | Human Body model: ±8kV (air-gap discharge) ±4 kV (contact discharge) |
| Dimensions | 5" W x 2.6" H x 1" D |
| Weight | 0.4 lbs |
| Power Supply Input | AC100 - 240V 50/60Hz |
| Power Supply Output..... | DC 5V/2A |
| Power Consumption (Max) | 1 Watt (maximum) |
| Operating Temperature..... | 0 °C~40 °C/ 32 °F~104 °F |
| Storage Temperature | -20 °C ~ 60 °C/-4 °F ~140 °F |
| Relative Humidity | 20~90 % RH (non-condensing) |

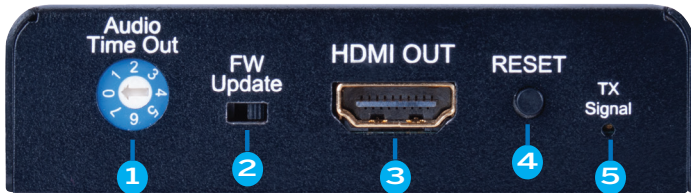
PANEL DESCRIPTIONS

Front Panel



1. Micro USB C: Plug in included power cable and adapter, cable can also be connected to a PC for available firmware updates
2. Power LED: Solid and on when power is being provided to the unit
3. RX Signal: Solid and on when a device is powered on, connected, and passing signal from the HDMI output port
4. HDMI Input: Connects to HDMI source
5. Stereo IN: Connects to a secondary analog audio source via 3.5mm
6. Source Sensitivity: Acts as a gain for the Stereo Input

Back Panel



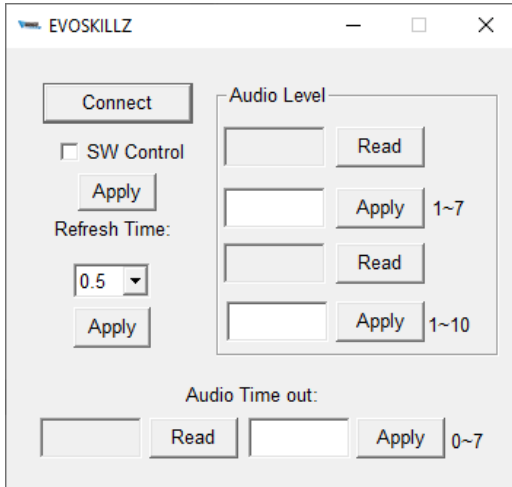
1. Audio Time Out: Sets the time after the secondary audio signal is no longer present to switch back to HDMI audio. Setting of 0 means it will instantly switch back; setting of 7 means after 7 seconds the audio will switch back to HDMI audio
2. F/W UPDATE: when switch is set to the right, it is in normal operating mode. When switch is set to the left, the device is set to firmware mode
3. HDMI OUT: Connects to an HDMI display
4. RESET: Press and release to reset and power cycle device
5. TX Signal: Solid and on when HDMI input is connected, powered on, and sending a signal

CONNECT AND OPERATE

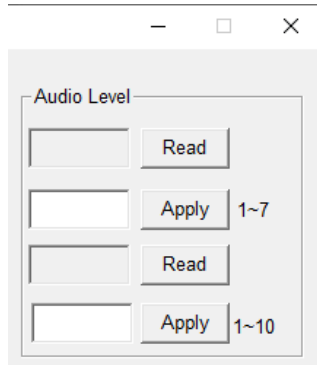


1. With power off, connect an HDMI source to the HDMI INPUT of the EVOSKILLZ unit using an HDMI cable
2. Connect an HDMI display to the HDMI OUTPUT using a HDMI cable
3. Connect an analog audio source to the 3.5mm Stereo IN port
4. For a manual set up, adjust the Source Sensitivity (db) dial and Audio Timeout Dial
 - a. Turn on the devices and test. Please note that different devices may require different adjustments to work properly. Settings are able to be changed with all devices powered on
 - b. Also note for more consistent results, it is best to have the analog audio source set to a FIXED output level to ensure audio is able to be switched without issues
5. For software setup, connect the provided Micro USB cable to the device and the USB A end into a computer
6. Install the software from the provided disc or download it from the website at www.vanco1.com
7. Open the software

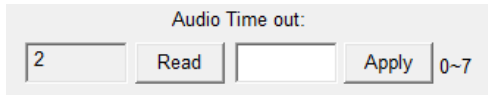
SOFTWARE SETUP



1. Click on Connect
2. Click on the Checkbox for SW Control
3. Click Apply
 - a. If SW Control is not selected, settings will be read from the dials on the unit
 - b. If SW Control IS selected, settings will be read and applied from the software and will override any dial settings
4. Click on Read for Audio Level and Audio Timeout to get the current setting
5. Type in an Audio Level Setting and click Apply



6. The top number is the largest WHOLE number
7. The bottom number is to the nearest tenth
 - a. The example shown above would 4.1db as a setting.
 - b. A setting that is too HIGH will never switch from HDMI to Analog Audio
 - c. A setting that is too LOW will constantly switch back and forth between HDMI and analog audio
 - d. For example, the ideal setting for a Gen 2 Echo Dot is 4.1.
8. Type in an Audio Time Out setting and click Apply. This is a value from 0 seconds to 7 seconds



- a. This is helpful when the secondary audio source is for music as you want to make sure the audio does not switch back to HDMI audio between songs. NOTE: Setting this function disables Refresh Time option

9. For installations where other variables can apply such as a microphone or paging application, use the REFRESH TIME setting. This setting will look for the analog audio signal based on the time period that is selected.

- a. Click on the dropdown menu and select a time interval, then click apply
- b. Values are from .5 seconds to 4.0 seconds in half second intervals



- c. The Refresh Time in the example above is .5 seconds. That mean the device will search for the analog audio signal every .5 seconds and will switch back to HDMI once no signal is found. NOTE: Once this setting is applied, Audio Time Out will be deactivated
- d. Please note that different devices may require different adjustments to work properly. Settings are able to be changed with the devices powered on.
- e. Also note for more consistent results, it is best to have the analog audio source set to a FIXED output level to ensure audio is able to be switched without issues

SAFETY AND NOTICE

The EVOSKLZ1 has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment, the EVOSKLZ1 should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit
- Do not attempt to service this unit yourself, except where explained in this manual
- Provide proper ventilation and air circulation and do not use near water
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface
- Use only the power adapter and power cords and connection cables designed for this unit
- Do not use liquid or aerosol cleaners to clean this unit
- Always unplug the power to the device before cleaning

LIMITED WARRANTY

With the exceptions noted in the next paragraph, Vanco warrants to the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of two years from the date of purchase. Should this product, in Vanco's opinion, prove defective within this warranty period, Vanco, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of Vanco. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

Items integrated into Vanco products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to Vanco. A surge protector, power conditioner unit, or an uninterruptible power supply must be installed in the electrical circuit to protect against power surges.

If repairs are needed during the warranty period the purchaser will be required to provide a sales receipt/sales invoice or other acceptable proof of purchase to the seller of this equipment. The seller will then contact Vanco regarding warranty repair or replacement.

TECHNICAL SUPPORT

In case of problems, please contact Vanco Technical Support by dialing 1-800-626-6445. You can also email technical support issues to techsupport@vanco1.com.

When calling, please have the Model Number, Serial Number (affixed to the bottom of the unit) and Invoice available for reference during the call.

Please read this Instruction Manual prior to calling or installing this unit, since it will familiarize you with the capabilities of this product and its proper installation.

All active electronic products are 100% inspected and tested to insure highest product quality and trouble-free installation and operation. The testing process utilizes the types of high-definition sources and displays typically installed for entertainment and home theater applications.

For additional information, such as helpful installation videos, etc. please visit www.vanco1.com

LIABILITY STATEMENT

Every effort has been made to ensure that this product is free of defects. The manufacturer of this product cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user and installer of the hardware to check that it is suitable for their requirements and that it is installed correctly. All rights are reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

Manufacturer reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.



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