Touchboards
205 Westwood Ave, Long Branch, NJ 07740
Phone: 866-94 BOARDS (26273) / (732)-222-1511
Fax: (732)-222-7088 | E-mail: sales@touchboards.com



EIKI

# External Wireless Display Adapter

# Product Specifications

**EZ-WDVA**

**Version 0.4**

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# 1 Product Overview

EIKI's compact Wireless Display Adapter (P/N: EZ-WDVA) is compatible with virtually all the available projectors and video displays in the market. Compatible with wireless (IEEE 802.11 b/g) computers, EIKI's Wireless Display Adapter revolutionizes how projectors are used. The adapter connects to a projector's VGA or DVI port and enables a computer to display to the projector without any cable. Presenters no longer are limited by the cable length from the computer to the projector.

Unlike any product in the market, EIKI's Wireless Display Adapter allows first time installation to be completed in just seconds. When powered on, the unit will show up as an available wireless network connection on the computer's network setting. User simply clicks on the connection to initiate communication to the adapter. Upon user's confirmation, the software driver will then be automatically downloaded and installed to the computer via the wireless network. To send images to the unit and the projector, the user simply launch the driver application by double clicking on the driver icon. There's no need to set up IP address, DHCP settings…etc.

Sharing the adapter among users is as straight forward as first time installation. To allow the second user to gain access to the projector, the first user clicks on the "Exit" button of the application. The second user can gain access to the projector by launching the software driver.

## 2 Mechanism Design

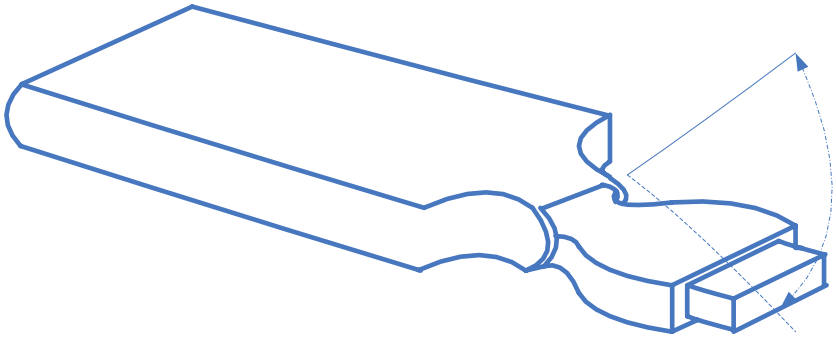


Figure 1 Mechanism of the EZ-WDVA

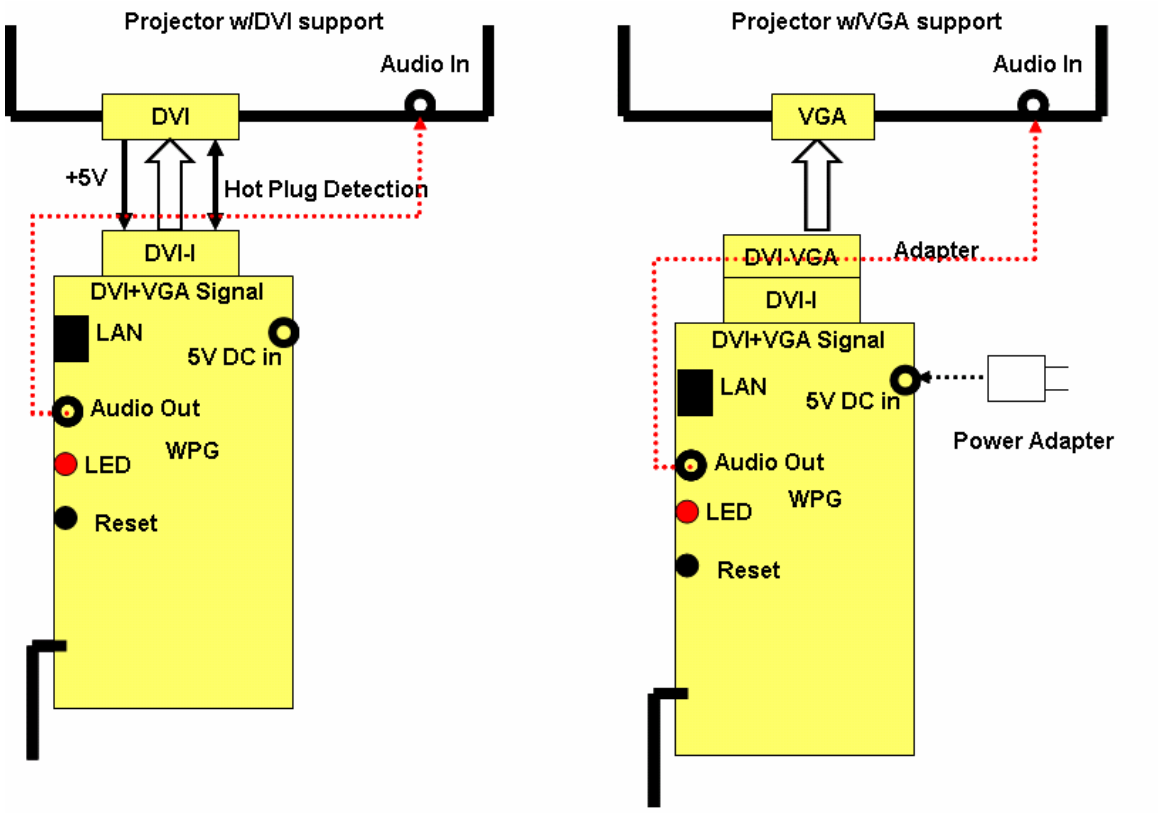
| | |
|---|---|
| Housing | • EIKI' customized enclosure design<br>• Male DVI-Connector with rotation angle of 35 degrees. When connected to video displays (projectors, monitors, LCDs. TVs), this rotation shall not allow the unit to interfere with other interfaces on the video displays.<br>• RJ-45 10/100 Mbps Ethernet<br>• Audio (mini-Jack) connector for audio stereo L/R out<br>• Status LED with:<br>o Red LED on indicating<br>▪ unit is attached to the video display,<br>▪ 5V DC adapter is plugged in,<br>▪ unit without communication to PC<br>o Green LED on indication initiating communication with PC<br>• Reset button that allows system to restore settings to factory default<br>• DC power jack for external 5V/2A adapter<br>• Reverse SMA connector for<br>o Optional 2.0 dBi 2.4GHz Reverse SMA antenna |

## 2.1 Enclosure design


1. More details will be provided by EIKI when available

## 2.2 Application

1. Attach EZ-WDVA to projector (or other video displays)
   a. 3 available methods
      - Connect EZ-WDVA's DVI-I interface to DVI projectors supplying 5V
      - Connect EZ-WDVA's DVI-I interface to DVI projectors that do not supply 5V. External 5V AC-DC power adapter is then plugged into 5V DC-in jack.
      - Connect EZ-WDVA's VGA interface with DVI-I to VGA adapter to VGA projectors. External 5V AC-DC power adapter is then plugged into 5V DC-in jack.
2. EZ-WDVA detection
   a. For DVI-I to DVI projector connection, projector performs hot plug detection and decides whether



# 3 Product Specifications

## 3.1 Hardware Features

| | |
|---|---|
| Hardware Functions | • Network<br>o 10/100 Fast Ethernet<br>o Wireless 802.11 b/g<br>• Power Supply<br>o 2 available 5V power input sources<br>▪ DVI-I interface<br>▪ 5V DC-in jack<br>▪ Note: 5V DC jack takes priority when both DC jack (via power external power supply) and DVI interface (via projector) are receiving power<br>o 5V DC jack<br>▪ To be used with 5V/2A universal switching DC power adapter<br>▪ 2A capability for 5V & 5V-GND pin<br>▪ Over voltage and over current protection<br>• Display Resolutions:<br>o Up to 1024 x 768 resolution<br>o Up to 16-bit color depth<br>o Up to 75Hz frequency<br>• DVI-I Interface<br>o Connect to projectors and video displays with DVI support<br>o Visual signal out (Digital + Analog)<br>o RS232 (reserved)<br>o Hot plug detection<br>o 5V DC-in (2A supported) |
| Standards | • 10/100 Fast Ethernet compliant with the following standards<br>o IEEE 802.3 compliance<br>o IEEE 802.3u compliance<br>o Support full-Duplex operations<br>o IEEE 802.3x Flow control support for full-duplex mode<br>• Wireless communication compliant with the following standards<br>o IEEE 802.11b 2.4GHz, 11Mbps<br>o IEEE 802.11g 2.4GHz, 54 Mbps |

## 3.2 Software Features

| | |
|---|---|
| Functions | 1. Embedded Software<br>o Graphics IC OS: Full Linux OS running on MIPS core<br>o TCP IP Stack: High performance with small footprint<br>o Decoder Driver: Driver for Hardware Decoder<br>o Wireless Plug & Play download: Auto-Bring up with reset<br>o Display Driver: Display Driver<br>o OSD: User Interface control, no other OSD setting is required for EZ-WDVA<br>o Wireless 802.11 Driver: PCI - Mini-PCI Card Bus Driver, Wireless performance optimization / automatically channel scan<br>o Supported resolution: VGA (640 x 480), SVGA (800 x 600), XGA (1024 x 768)<br>o Downloadable EZ-WDVA utility installation pack<br>o EZ-WDVA start-up screen (800 x 600, 60Hz)<br>2. PC Application<br>o Display features: freeze, hide functions<br>o Encoder / Compression SW: Proprietary, with high rate Compression<br>o Transport: Proprietary, optimized transport<br>o Plug & Play Install: One click, software install<br>o EZ-WDVA utility installation<br>o Connection setting<br>o Configuration and settings<br>o Multi-user control<br>o Multi-projector/EZ-WDVA control<br>o EZ-WDVA start-up screen customization utility<br>o OS compatibility: Windows 2000/XP<br>o Security: 128-bit WEP, Projector Password, User Level<br>o Access Internet or upgrade firmware through integrated Ethernet port |

## 3.3 Accessories

- DVI-I to VGA Adapter
- 5V DC Power Adapter
- 50cm Audio Cable (mini-plug to mini-plug)
- User's manual & software on CD-ROM
- Printed Quick Start Up Guide
- Printed EIKI Warranty Postcard
- Antenna (2.0 dBi 2.4GHz Reverse SMA antenna and Antenna cable assembly)

## 4 Physical & Environmental

- Operating Temperature: 0 ~ 40°C
- Storage Temperature: -25~55°C
- Humidity: 5 ~ 95% non-condensing

## 5 EMC and Safety Approval (Red denotes to-be-completed items)

| | |
|---|---|
| EMI Certification (Class B) | • US: FCC 47 CRF Part 15, Subpart B<br>• Europe: CE Mark (EN 55022/55024; EN 55081-1 (EMI), EN 55082-1 (EMS))<br>• AS/NZ: C-Tick (AS/NZS3548, CISPER 22); Customer Self-Declaration of conformity<br>• Japan: VCCI (V-3/02.04), schedule TBD |
| Safety Certification | • US, Canada, UL/CUL (UL60950 / CSA60959)<br>• Europe: TUV Bauart mark (EN60950)<br>• CB Scheme (IEC60959) |
| RF Certification | • USA: FCC 47 CRF Part 15, Subpart C<br>• Canada: IC (RSS-210)<br>• Europe: CE Mark (EN300328 & EN301489-1/17)<br>• Japan: TELEC (ARIB STD-33/T66), schedule TBD<br>• AS/NZ: AS/NZS 4268.2<br>• China: SRMC (SRRC) (TBD), WLAN mPCI, schedule TBD |