



## VGA Booster VB100 User Manual



## FCC Information

### FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE

**STATEMENT:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**FCC Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

**CE Warning:** This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

## RoHS

This product is RoHS compliant.

## SJ/T 11364-2006

The following contains information that relates to China.

部件名称	有毒有害物质或元素					
	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
电器部件	●	○	○	○	○	○
机构部件	○	○	○	○	○	○

- : 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T 11363-2006规定的限量要求之下。
- : 表示符合欧盟的豁免条款, 但该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006的限量要求。
- ×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006的限量要求。



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## User Information

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### Online Registration

Be sure to register your product at our online support center:

International	<a href="http://eservice.aten.com">http://eservice.aten.com</a>
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### Telephone Support

For telephone support, call this number:

International	886-2-8692-6959
China	86-400-810-0-810
Japan	81-3-5615-5811
Korea	82-2-467-6789
North America	1-888-999-ATEN ext 4988
United Kingdom	44-8-4481-58923

### User Notice

All information, documentation, and specifications contained in this manual are subject to change without prior notification by the manufacturer. The manufacturer makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties as to merchantability or fitness for any particular purpose. Any of the manufacturer's software described in this manual is sold or licensed *as is*. Should the programs prove defective following their purchase, the buyer (and not the manufacturer, its distributor, or its dealer), assumes the entire cost of all necessary servicing, repair and any incidental or consequential damages resulting from any defect in the software.

The manufacturer of this system is not responsible for any radio and/or TV interference caused by unauthorized modifications to this device. It is the responsibility of the user to correct such interference.

The manufacturer is not responsible for any damage incurred in the operation of this system if the correct operational voltage setting was not selected prior to operation. PLEASE VERIFY THAT THE VOLTAGE SETTING IS CORRECT BEFORE USE.

## **Package Contents**

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### **Basic Package**

The basic VB100 package consists of:

- ◆ 1 VB100 VGA Booster
- ◆ 1 Power Adapter
- ◆ 1 User Instructions\*

Check to make sure that all the components are present and that nothing got damaged in shipping. If you encounter a problem, contact your dealer.

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the unit, and/or any of the devices connected to it.

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\* Features may have been added to the VB100 since this manual was published. Please visit our website to download the most up-to-date version.

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## About this Manual

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This User Manual is provided to help you get the most from your device. It covers all aspects of installation, and operation. An overview of the information found in the manual is provided below.

**Chapter 1, *Introduction***, introduces you to the VB100 system. Its purpose, features and benefits are presented, and its front and back panel components are described.

**Chapter 2, *Hardware Setup***, describes how to set up your installation. All necessary steps to prepare for operation are provided.

**An Appendix**, provides specifications and other technical information regarding the VB100.

## Conventions

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This manual uses the following conventions:

- |   |  |
|---|--|
| Monospaced  | Indicates text that you should key in.   |
| [ ]   | Indicates keys you should press. For example, [Enter] means to press the <b>Enter</b> key. If keys need to be chorded, they appear together in the same bracket with a plus sign between them: [Ctrl+Alt]. |
| 1.  | Numbered lists represent procedures with sequential steps.   |
| ◆   | Bullet lists provide information, but do not involve sequential steps.   |
| →   | Indicates selecting the option (on a menu or dialog box, for example), that comes next. For example, Start → Run means to open the <i>Start</i> menu, and then select <i>Run</i> .                         |
|  | Indicates critical information.  |

## Product Information

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For information about all ATEN products and how they can help you connect without limits, visit ATEN on the Web or contact an ATEN Authorized Reseller. Visit ATEN on the Web for a list of locations and telephone numbers:

International	<a href="http://www.aten.com">http://www.aten.com</a>
North America	<a href="http://www.aten-usa.com">http://www.aten-usa.com</a>

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# Chapter 1

## Introduction

### Overview

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The VB100 VGA Booster amplifies the VGA signal from a source device and transmits it to a display up to 70 meters away. The VGA booster extends the display distance without signal loss; to bring you a crystal clear video display at a longer distance. The VB100 is built with a compact housing design for easy installation and a manual gain control knob to improve image quality at different distances. The VB100 can be powered from the VGA source and has a built-in LED indicator for power. The VB100 supports hot-plugging and requires no software for installation, making it an easy, compact, and affordable solution to extend your VGA display.

### Features

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- ◆ Long distance transmission – up to 70 m
- ◆ Adjustable video compensation – manually adjust signal strength to compensate for distance
- ◆ Superior video quality – up to 1920x1200 (30 m); 1280x1024 (70 m)
- ◆ Supports VGA, XGA, SVGA, UXGA, WUXGA, and multisync monitors
- ◆ Supports wide screen formats
- ◆ Powered from the VGA source\*
- ◆ Supports hot-plugging
- ◆ Compact housing
- ◆ LED indication of power status and source device
- ◆ Plug-and-play – no software installation required

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**Note:** The VB100 can obtain power from the VGA source if it is installed close enough for the video card to provide sufficient power. If there is no video or poor image quality on the monitor, you must use the power adapter included with this package.

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## **Requirements**

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### **Source Device**

The following equipment must be installed on the source device or computer:

- ♦ VGA video card with HDB-15 connector

### **Display Device**

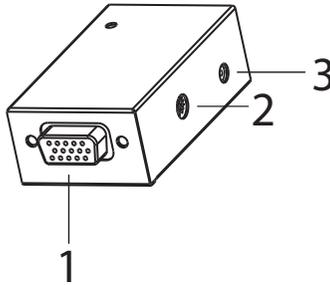
- ♦ A VGA, XGA, SVGA, SXGA, UXGA, WUXGA, multi-sync monitor, or multimedia projector with an HDB-15 connector.

### **Cables**

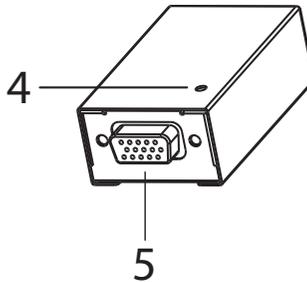
- ♦ 2 VGA cables

## Components

### Front View



### Rear View



No.	Component	Description
1	Video Out	Connects to a VGA monitor using a video cable.
2	Gain/Compensation Knob	Use this knob to control the video gain and compensation to adjust the picture quality for distance.
3	Power Jack	The power adapter cable plugs in here.
4	Power LED	The LED (green) lights when the VB100 is powered on.
5	Video In	Connects to a VGA source device using a video cable.

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# Chapter 2

## Hardware Setup



1. Important safety information regarding the placement of this device is provided on page 7. Please review it before proceeding.
2. Make sure that the power to all devices connected to the installation are turned off. You must unplug the power cords of any computers that have the Keyboard Power On function.

### Installation

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Setting up the VB100 is a matter of plugging in the VGA cables. Refer to the installation diagram below (the numbers in the diagram correspond to the numbered steps) and do the following:

1. Use a HDB-15 VGA cable\* to connect the computer's video port to the video input port on the VB100.
2. Use a HDB-15 VGA cable\* to connect the monitor to the VB100's video output port.
3. Plug the power adapter cable\*\* into the VB100's power jack, and plug it into a power source.
4. Use the Gain/Compensation knob to improve the display quality, adjusting for distance.

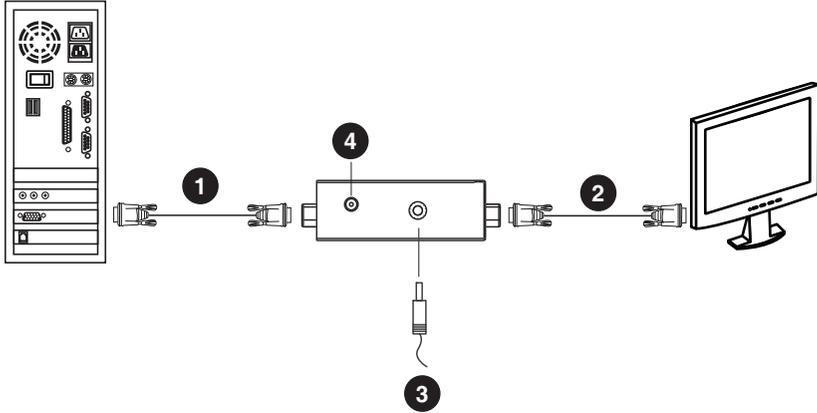
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**Note:** 1. The length of each of the two VGA cables can vary, but the maximum distance of the two VGA cables combined can not exceed 70 meters.

2. The VB100 can obtain power from the VGA source if it is installed close enough to the video source to provide sufficient power. If there is no video or poor image quality on the monitor, you must use the power adapter included with this package.

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## Installation Diagram



## Safety Instructions

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### General

- ◆ This product is for indoor use only.
- ◆ Read all of these instructions. Save them for future reference.
- ◆ Follow all warnings and instructions marked on the device.
- ◆ Do not place the device on any unstable surface (cart, stand, table, etc.). If the device falls, serious damage will result.
- ◆ Do not use the device near water.
- ◆ Do not place the device near, or over, radiators or heat registers.
- ◆ The device cabinet is provided with slots and openings to allow for adequate ventilation. To ensure reliable operation, and to protect against overheating, these openings must never be blocked or covered.
- ◆ The device should never be placed on a soft surface (bed, sofa, rug, etc.) as this will block its ventilation openings. Likewise, the device should not be placed in a built in enclosure unless adequate ventilation has been provided.
- ◆ Never spill liquid of any kind on the device.
- ◆ Unplug the device from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- ◆ The device should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- ◆ The device is designed for IT power distribution systems with 230V phase-to-phase voltage.
- ◆ To prevent damage to your installation it is important that all devices are properly grounded.
- ◆ The device is equipped with a 3-wire grounding type plug. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not attempt to defeat the purpose of the grounding-type plug. Always follow your local/national wiring codes.
- ◆ Do not allow anything to rest on the power cord or cables. Route the power cord and cables so that they cannot be stepped on or tripped over.

- ◆ If an extension cord is used with this device make sure that the total of the ampere ratings of all products used on this cord does not exceed the extension cord ampere rating. Make sure that the total of all products plugged into the wall outlet does not exceed 15 amperes.
- ◆ To help protect your system from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or un-interruptible power supply (UPS).
- ◆ Position system cables and power cables carefully; Be sure that nothing rests on any cables.
- ◆ Never push objects of any kind into or through cabinet slots. They may touch dangerous voltage points or short out parts resulting in a risk of fire or electrical shock.
- ◆ Do not attempt to service the device yourself. Refer all servicing to qualified service personnel.
- ◆ If the following conditions occur, unplug the device from the wall outlet and bring it to qualified service personnel for repair.
  - ◆ The power cord or plug has become damaged or frayed.
  - ◆ Liquid has been spilled into the device.
  - ◆ The device has been exposed to rain or water.
  - ◆ The device has been dropped, or the cabinet has been damaged.
  - ◆ The device exhibits a distinct change in performance, indicating a need for service.
  - ◆ The device does not operate normally when the operating instructions are followed.
- ◆ Only adjust those controls that are covered in the operating instructions. Improper adjustment of other controls may result in damage that will require extensive work by a qualified technician to repair.

## Technical Support

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### International

- ◆ For online technical support – including troubleshooting, documentation, and software updates: **<http://support.aten.com>**
- ◆ For telephone support, see *Telephone Support*, page iii:

### North America

Email Support		<a href="mailto:support@aten-usa.com">support@aten-usa.com</a>
Online Technical Support	Troubleshooting Documentation Software Updates	<a href="http://www.aten-usa.com/support">http://www.aten-usa.com/support</a>
Telephone Support		1-888-999-ATEN ext 4988

When you contact us, please have the following information ready beforehand:

- ◆ Product model number, serial number, and date of purchase.
- ◆ Your computer configuration, including operating system, revision level, expansion cards, and software.
- ◆ Any error messages displayed at the time the error occurred.
- ◆ The sequence of operations that led up to the error.
- ◆ Any other information you feel may be of help.

## Specifications

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Function		VB100
Connectors	Video In	1 x HDB-15 Female (Blue)
	Video Out	1 x HDB-15 Female (Blue)
	Power Jack	1 x DC Jack
Switches	Manual Gain Control	1 x knob
LED	Power	1 (Green)
Video	Signal Range	1920x1200@60Hz at 30m, 1280x1024@60Hz at 70m
Power Consumption		DC 5V; 0.9W
Environment	Operating Temp.	0–50°C
	Storage Temp	-20–60°C
	Humidity	0–80% RH, Non-condensing
Physical Properties	Housing	Metal
	Weight	56 g
	Dimensions (L x W x H)	6.88 x 3.53 x 2.06 cm

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## Limited Warranty

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ATEN warrants its hardware in the country of purchase against flaws in materials and workmanship for a Warranty Period of two [2] years (warranty period may vary in certain regions/countries) commencing on the date of original purchase. This warranty period includes the LCD panel of ATEN LCD KVM switches. Select products are warranted for an additional year (see *A+ Warranty* for further details). Cables and accessories are not covered by the Standard Warranty.

### **What is covered by the Limited Hardware Warranty**

ATEN will provide a repair service, without charge, during the Warranty Period. If a product is defective, ATEN will, at its discretion, have the option to (1) repair said product with new or repaired components, or (2) replace the entire product with an identical product or with a similar product which fulfills the same function as the defective product. Replaced products assume the warranty of the original product for the remaining period or a period of 90 days, whichever is longer. When the products or components are replaced, the replacing articles shall become customer property and the replaced articles shall become the property of ATEN.

To learn more about our warranty policies, please visit our website:  
<http://www.aten.com/global/en/legal/policies/warranty-policy/>