

3GDA 1x6 3G/HD/SD Reclocking Distribution Amplifier User Manual



AJA[®]
VIDEO SYSTEMS

July 17, 2008

Trademarks

AJA®, KONA®, and XENA® are registered trademarks of AJA Video, Inc. Io HD™ and Io™ are trademarks of AJA Video, Inc. All other trademarks are the property of their respective holders.

Notice

Copyright © 2008 AJA Video, Inc. All rights reserved. All information in this manual is subject to change without notice. No part of the document may be reproduced or transmitted in any form, or by any means, electronic or mechanical, including photocopying or recording, without the express written permission of AJA Inc.

FCC Emission Information

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. Changes or modifications not expressly approved by AJA Video can effect emission compliance and could void the user's authority to operate this equipment.

Contacting Support

To contact AJA Video for sales or support, use any of the following methods:

443 Crown Point Circle, Grass Valley, CA. 95945 USA

Telephone: +1.800.251.4224 or +1.530.274.2048

Fax: +1.530.274.9442

Web: <http://www.aja.com>

Support Email: support@aja.com

Sales Email: sales@aja.com

When calling for support, have all information on the product (serial number etc.) at hand prior to calling.

Limited Warranty

AJA Video warrants that this product will be free from defects in materials and workmanship for a period of five years from the date of purchase. If a product proves to be defective during this warranty period, AJA Video, at its option, will either repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product.

In order to obtain service under this warranty, you the Customer, must notify AJA Video of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. The Customer shall be responsible for packaging and shipping the defective product to a designated service center nominated by AJA Video, with shipping charges prepaid. AJA Video shall pay for the return of the product to the Customer if the shipment is to a location within the country in which the AJA Video service center is located. Customer shall be responsible for paying all shipping charges, insurance, duties, taxes, and any other charges for products returned to any other locations.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. AJA Video shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than AJA Video representatives to install, repair or service the product, b) to repair damage resulting from improper use or connection to incompatible equipment, c) to repair any damage or malfunction caused by the use of non-AJA Video parts or supplies, or d) to service a product that has been modified or integrated with other products when the effect of such a modification or integration increases the time or difficulty of servicing the product.

THIS WARRANTY IS GIVEN BY AJA VIDEO IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. AJA VIDEO AND ITS VENDORS DISCLAIM ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. AJA VIDEO'S RESPONSIBILITY TO REPAIR OR REPLACE DEFECTIVE PRODUCTS IS THE WHOLE AND EXCLUSIVE REMEDY PROVIDED TO THE CUSTOMER FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES IRRESPECTIVE OF WHETHER AJA VIDEO OR THE VENDOR HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

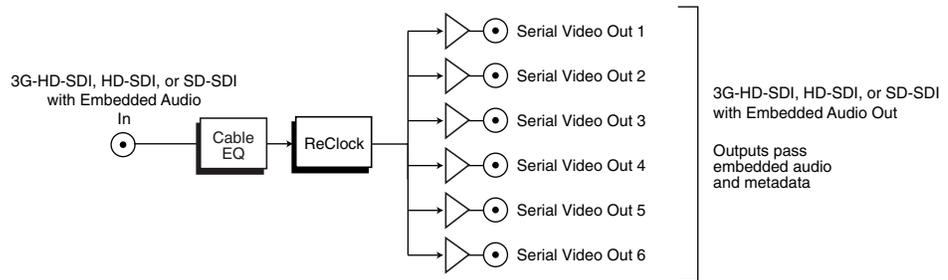
Introduction

The 3GDA is a miniature, low-cost 1x6 3G HD-SDI, HD-SDI, and SDI re-clocking distribution amplifier. Featuring six separately buffered SDI outputs, the 3GDA provides automatic input detection, re-clocking and cable equalization.

Features

- SD/HD/3G-HD Distribution
- Six Separately Buffered Outputs
- Miniature Size
- 120m 3G cable equalization (1694 coax)
- 3G HD-SDI, HD-SDI or SDI input, auto-sensing
- Passes all ancillary data
- +5-18V power supply (power supply sold separately)

Block Diagram



3GDA Block Diagram

I/O Connections



3GDA, Side View

Green: Lock to SD
Red: Lock to HD or 3G

Installation

Typically, 3GDA installation consists of the following:

1. Connect video equipment to the BNCs
2. Apply +5-18VDC power to the converter (AJA power supply model DWP or DWP-U)

Specifications

| Item | Specification |
|--|---|
| Input | 1 HD-SDI, SDI (SMPTE 259/292/296/424), 1x BNC |
| Formats | 3Gb, 1.5Gb, 270Mb Auto Select |
| Outputs | 3G HD-SDI, HD-SDI, SDI, 6x BNC, Equalizing and re-clocking |
| Cable Equalization | 270mb, 350m 1.5Gb, 200m 3Gb, 120m Cable Equalization (1694 coax) |
| Input/Output Return Loss | >15db, 270Mb - 3Gb |
| Power (AJA power supply model DWP or DWP-U) | +5-18VDC, Regulated, 3 watts |
| Size | 5.8" x 2.4" x 1" (131 x 61 x 25mm) |