

REGULATORY COMPLIANCE

FSR'S ELECTRONIC PRODUCTS have been tested for compliance with: FCC Class A and CE
The Power Adapter has been tested for compliance with: UL, CSA and CE.

WARRANTY POLICY

This product is warranted against failures due to defective parts or faulty workmanship for a period of one year after delivery to the original owner. During this period, FSR will make any necessary repairs or replace the unit without charge for parts or labor. Shipping charges to the factory or repair station must be prepaid by the owner, return-shipping charges, via UPS / FedEx ground, will be paid by FSR.

This warranty applies only to the original owner and is not transferable. In addition, it does not apply to repairs done by other than the FSR factory or Authorized Repair Stations.

This warranty shall be cancelable by FSR at its sole discretion if the unit has been subjected to physical abuse or has been modified in any way without written authorization from FSR. FSR's liability under this warranty is limited to repair or replacement of the defective unit.

FSR will not be responsible for incidental or consequential damages resulting from the use or misuse of its products. Some states do not allow the exclusion of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Warranty claims should be accompanied by a copy of the original purchase invoice showing the purchase date (if a Warranty Registration Card was mailed in at the time of purchase, this is not necessary). Before returning any equipment for repair, please read the important information on service below.

SERVICE

Before returning any equipment for repair, please be sure that it is adequately packed and cushioned against damage in shipment, and that it is insured. We suggest that you save the original packaging and use it to ship the product for servicing. Also, please enclose a note giving your name, address, phone number and a description of the problem.

NOTE: all equipment being returned for repair must have a Return Authorization (RMA) Number. To get a RMA Number, please call the FSR Service Department (973-785-4347).

Please display your RMA Number prominently on the front of all packages.

Contact Information:

FSR Inc.
244 Bergen Boulevard,
Woodland Park, NJ 07424

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CDA - 4/6

375 MHz COMPUTER DISTRIBUTION AMPLIFIERS

OPERATION MANUAL



PROPRIETARY INFORMATION

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Operators Safety Summary

The general safety information in this summary is for operating personnel.

Read Instructions Read and understand all safety and operating instructions before using this equipment. Keep the instructions handy.

Do Not Remove Covers or Panels There are no user-serviceable parts within the unit. Removal of the top cover will expose dangerous voltages. To avoid personal injury, do not remove the top cover. Do not operate the unit without the cover installed.

Power Source This product is intended to operate from the specified wall plug-in transformer. Do not use any other power source.

Grounding the Product This product is grounded through the grounding conductor of the power cord. To avoid electrical shock, plug the power cord into a properly wired receptacle before connecting to the product input or output terminals.

Use the Proper Power Cord Use only the power cord and connector specified for your product. Use only a power cord that is in good condition. Refer cord and connector changes to qualified service personnel.

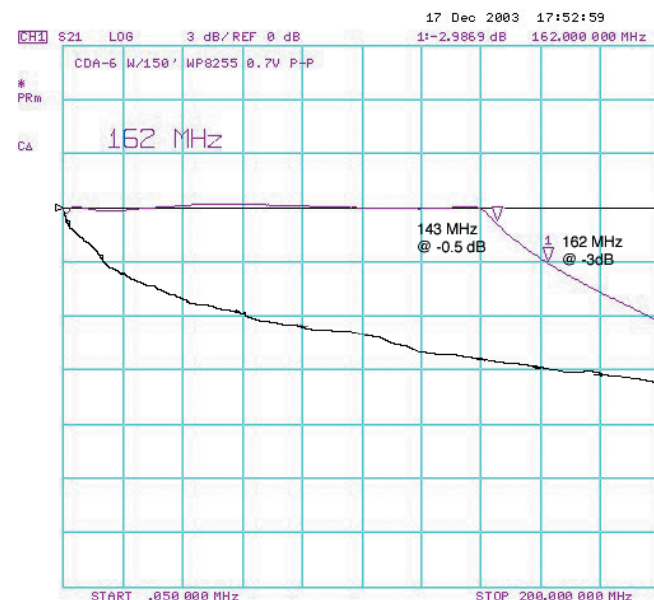
Do Not Operate in Explosive Atmospheres To avoid explosion, do not operate this product in an explosive atmosphere.

Sync

Input level:	TTL 2.0V minimum
Output level:	5.0 Vp-p into Hi-Z, 2.4 Vp-p into 75 ohm
Delay Time:	8nS
Rise & Fall Time:	2.5nS
Input Impedance:	475 ohms
Output impedance:	75 ohms
Polarity:	Positive or negative
Horizontal frequency:	15 kHz - 200 kHz
Vertical frequency:	50 Hz - 150 Hz

General

Power Supply:	12VDC 0.5A Wall plug-in power supply with locking connector
Enclosure:	Metal 8.5" W x 4.75" D x 1.62" H (1/2 rack unit). Rack mounting kit is supplied.
Weight:	1.6 lbs.



Response curves of a 150 foot length of West Penn 8255 coax driven with a 0.7V P-P signal. Notice that by itself, the cable's -3dB bandwidth is only 17 MHz, but when used with the CDA-4/6, the bandwidth is restored to 162 MHz at the end of the cable.

TECHNICAL SPECIFICATIONS

Video Input

Number/Type: 1 RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, HD - 15 female connector
Impedance: 75 Ohms
Output Offset: +/-20 mv
Level (nominal): Analog 0.7V p-p
Level (maximum): 2V p-p

Equalized Video Output

Number/Type: 4 or 6 RGBHV, RGBS, RGsB, RsGsBs, component video, S-video
Connectors: 4 or 6 HD - 15 female connectors

Bandwidth:

Supports up to QXGA (2048 X 1536 @ 60 Hz)

This performance data is based on the CDA-4/6 plus the specified length of WP8255 (West Penn) cable with a full amplitude (0.7V p-p) signal applied.

150' cable 162 MHz (-3dB) 0-143 MHz 0.5 dB flatness

a small amplitude (0.2V p-p) signal applied.

150' cable 305 MHz (-3dB) 0-256 MHz 0.5 dB flatness

Level (nominal): Unity / User adjustable via potentiometer
Impedance: 75 ohms
Design Cable: West Penn WP8255 or equal

Video Output

Number/type: 4 (CDA-4), 6 (CDA-6), RGBHV, RGBS, RGsB, RsGsBs, component video, S-video,
Connectors: All female HD - 15
Bandwidth: 375 MHz @ -3 dB (typical) fully loaded with a 0.7V p-p input signal
Flatness: 0.5 dB to 297 MHz (typical) fully loaded with a 0.7V p-p input signal
Gain: Unity (buffered)
Impedance: 75 Ohms
Differential Gain 0.04%
Differential Phase 0.15 degrees

INTRODUCTION

The all new CDA - 4 and 6 are ultra high resolution, ultra high bandwidth 1 x 4 and 1 x 6 computer distribution amplifiers suitable for applications requiring the highest possible video quality. The output channels on each unit have cable equalization permitting long cable runs while maintaining excellent signal integrity for even the highest video resolutions.

Not only do these two units have over 375 MHz of bandwidth but they also have the FSR computer compatible synchronizing circuitry to ensure a rock stable video image at any resolution and signal level.

The outputs are equalized to maintain excellent signal integrity for all video resolutions. Cable runs of up to 150 feet are possible with 162 MHz of full amplitude bandwidth and 0.5 dB peaking. Peaking remains below 0.5 dB even at 0.2V p-p input level.

Channel-channel matching (red vs green/red vs blue) response is extremely flat. About 0.25 dB out to 320MHz

It will restore the bandwidth of 150' of the design cable to 162 MHz, with a 0.5 dB flatness to 143MHz at full 0.7V p-p amplitude. At 0.2V p-p, these figure become 305MHz and 256MHz respectively

This means that the signal you feed into the CDA-4 or CDA-6 will arrive at the far end of the cable with an almost immeasurable amount of loss and no distortion due to peaking effects.

FEATURES

- Minimum 350 MHz of bandwidth fully loaded
- +/- 0.5 dB flatness to 270 MHz
- Computer compatible synchronizing circuitry
- HD-15 female connectors for the input and each output
- Full cable equalization control for the output channels
- Compatible with all computer standards
- 12VDC , 0.5A Wall plug-in power supply with locking connector

APPLICATIONS

- *Boardrooms*
- *Houses of Worship*
- *Control Rooms*
- *Classrooms*
- *Staging and Rental*

INSTALLATION AND OPERATION

Do not connect the power line cord until all the video connections are completed.

Mount the unit in the equipment rack, using the supplied rack mounting.

Connect all the video cables per the diagram. Please read the note concerning output 2 on the application drawing. Connect the power cord. Note the robust locking power connector.

Adjust the cable equalization, with the variable control for minimum distortion using an appropriate test signal or full motion video.

Perform the final operational check.

FRONT AND REAR PHOTOS OF THE EQUIPMENT



TYPICAL APPLICATION

