Adaptive Video Amplifier
V-data Model AVA

Front and Rear View

- Standard video output while input video ranges from 10% to 150% of standard
- Five independent channels
- Sync tip referenced to ground level at output
- Compensates for long line attenuation, multiple termination, and camera mis-adjustment
- LED indication of active video input

Ordering Information:

Adaptive Video Amplifier, Model AVA, with AC adapter	$935.
1.75” high rack mount panel (holds two AVA units for ten channels)	$125.

Terms: Net 30 in USA, or MasterCard/Visa Delivery: FOB destination in USA

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V-data

SPECIFICATIONS
Adaptive Video Amplifier, V-data Model AVA

The V-data Adaptive Video Amplifier (AVA) is designed to terminate five video lines and automatically restore the video signals to standard levels. The sync portion of standard video is specified at 0.3 volt into a 75 ohm termination while the picture portion ranges from 0 to 0.7 volt, for a total 1 volt peak-to-peak maximum signal. It is not uncommon for video to vary from this standard because of attenuation in long lines or faults such as camera mis-adjustment or double termination. A double termination results when a video signal is fed to two devices each having 75 ohm input terminations. With a double termination the video signal is reduced to 0.66 volts or 66% of the standard level. One thousand feet of RG-59 cable introduces about 55 ohms and reduces the received video to 73% of standard. Most video devices operate on the presumption that input video will be standard, and may otherwise exhibit sync problems or reduced dynamic range. Typical Automatic Gain Control (AGC) techniques are not suitable for video because the sync level must stay constant while the picture content varies widely. The AVA employs special circuitry to isolate and measure video sync, adjusting gain accordingly until the sync is at standard level. In addition to restoring standard signal range, ground reference is restored so that output sync tips are at ground level. This assures minimum dissipated power in the AVA output driver and in the input termination of video equipment connected to the AVA output. The AVA has five independent channels and each will output standard video for input video ranging from 10% to 150% of standard. The AVA is ideal for use in conjunction with passive transformer adapters for converting video from single-ended (co-ax) to differential for transmission over telephone line or twisted pair. Level losses in the transformers and lines are easily corrected by the AVA. The AVA measures 1.75”H x 6.5”W x 5”D and weighs 1.5 pounds. The optional rack mount panel is 1.75”H and holds two AVA units. An LED indicator for each channel shows when active video is connected. Each Video input has an internal 75 ohm termination. Video input and output connectors are BNC. Input power is 7 to 16 VDC at 50 ma per active channel, provided by the supplied AC wall adapter. The input power connector is a 2.1 mm standard jack. Internal reverse power protection is standard. The AVA can also be supplied as a distribution amplifier in various input/output combinations with five outputs, such as 1 x 5, or 1 x 2 plus 1 x 3. Consult **V-data** for an adaptive distribution amplifier configuration at the same cost of the standard AVA. A convenient way to test the AVA is to insert a 470 ohm resistor inline with a standard video source. This resistor along with the 75 ohm source output resistor and the 75 ohm termination resistor in the AVA form a network which attenuates the video signal to about 0.1 volt or 10% of standard level. Video which exceeds standard levels is not a likely problem but should it occur, the AVA will reduce input video up to 1.5 volts or 150% of standard level to standard output level.