

# TX™ SERIES

## Model TX-VLA1

### Video Line Amplifier

#### ANYWHERE YOU NEED...

- To Boost Video Levels
- Adjustable Video Level
- Adjustable Equalization
- To Drive Long Video Lines
- Video Amplifier Powered from Available Voltage Sources
- High Quality Video in Small Size



#### ***You Need The TX-VLA1!***

The TX-VLA1 is part of the group of versatile TX series from Radio Design Labs. TX series feature the advanced circuitry and high quality connectors for which RDL products are known. The ultra-compact TX series can be mounted in limited space using the adhesive methods popularized by RDL's STICK-ON® Series. The TX-VLA1 may be mounted directly to a backboard using optional mounting brackets available from RDL.

**APPLICATION:** The TX-VLA1 is the ideal choice in installations where video signals are being fed into long cables, or where a low video signal needs to be amplified. The unique power supply input allows the TX-VLA1 to be powered from a wide variety of existing ac or dc power sources.

Security or surveillance cameras are frequently located significant distances from monitoring or recording equipment. Cable losses produce a decrease in the overall video level. High-frequency attenuation in the cable produces additional loss of higher-frequency components of the video signals. These combined losses result in degradation of color signals, and decreased resolution in black-and-white images. The TX-VLA1 can be located right at the camera and adjusted to compensate for both losses. Gain and equalization may be adjusted on the TX-VLA1 to drive video cables as long as 2000 feet (600 meters).

The TX-VLA1 power supply input accepts an **ac** or **dc** voltage from 12 to 24 volts. This versatile arrangement typically makes it possible to run the module from the same supply as the camera. 12 Vdc batteries may power the TX-VLA1 in broadcast applications; a common low-voltage ac supply may power the module together with the camera in security installations provided the camera is internally ground-referenced. The TX-VLA1 is a negative ground referenced product. In the unlikely event it is connected on a common ac supply together with a camera which is positive ground-referenced *and* not transformer isolated, a *ground fault* may occur. The TX-VLA1 automatically detects such a fault, disconnects itself from the power input, and illuminates the **FAULT** LED. This alerts the installer to transformer isolate the TX-VLA1 power source from the camera power source. This unique circuit protects both the camera and TX-VLA1 from damage. RDL's available PS-24 power supply may be used to power the module when isolation is required, or in any other installation.

The TX-VLA1 is supplied with a chart showing recommended beginning settings of gain and equalization for various lengths of cable. The settings may then be further fine tuned for an optimum, high-quality video transmission.

For installations where high quality video signals must drive extended cable lengths, the TX-VLA1 is the ideal choice. Use the TX-VLA1 individually in NTSC or PAL systems, or combine it with other RDL RACK-UP®, STICK-ON®, TX, or FLAT-PAK™ series products as part of a complete audio/video system.

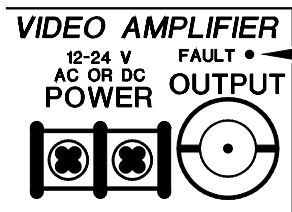
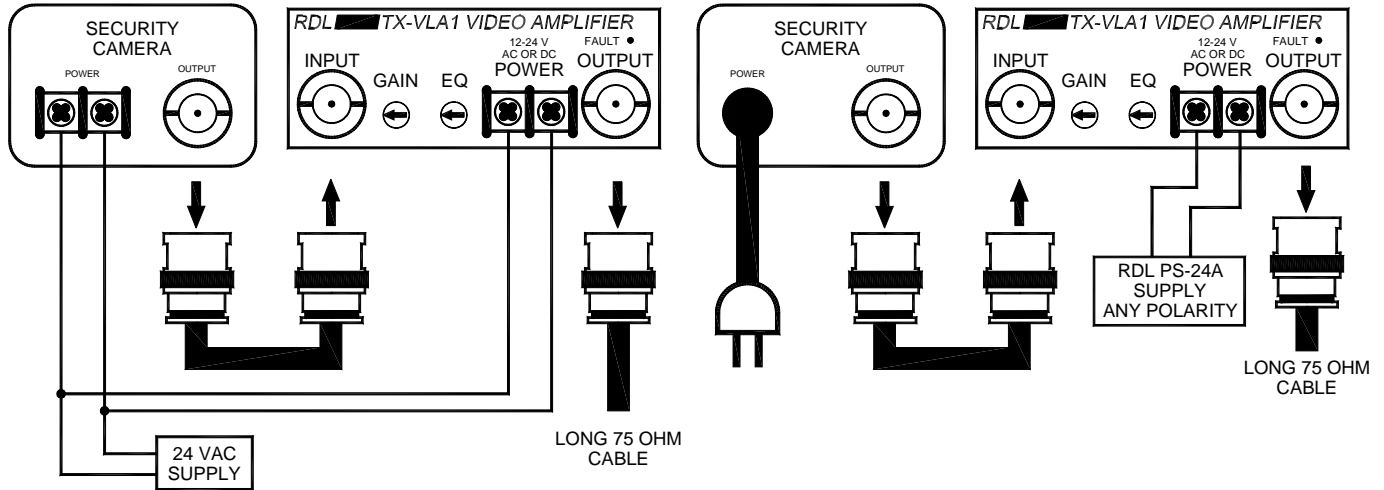
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## Installation/Operation

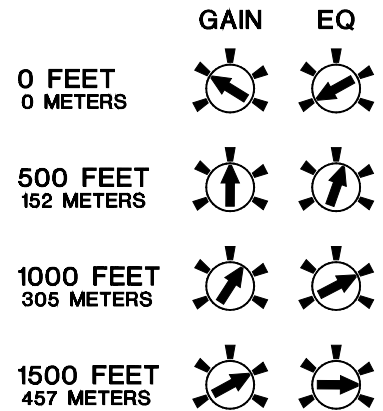
**CE** EN55103-1 E1-E5; EN55103-2 E1-E4  
 Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.



If the **FAULT** LED lights, isolate the TX-VLA1 power from the camera power

### TYPICAL PERFORMANCE

Input:	75 Ω, BNC, Ground-referenced
Input Level:	1 V p-p video
Gain:	Adjustable from Unity to +5 dB
Bandwidth:	10 MHz
Equalization Adjustment:	Adjustable Flat to +4 dB @ 3.58 MHz; Flat to +7 dB @ 5 MHz
Equalization curve:	Optimized at each setting for flattest response of video signal components without square wave overshoot
Residual Noise:	< -65 dB (referenced to 1 v p-p)
Output:	75 Ω source-terminated, BNC, Ground referenced
Power Requirement:	12 to 33 Vdc Ground-referenced OR 12 to 24 Vac, @ 30mA
Mounting:	Bottom mount using adhesive strips provided; mount directly to a flat surface using optional mounting brackets
Dimensions:	Height: 1.4 in 3.6 cm Length: 3.0 in 7.6 cm Width: 1.2 in 3.0 cm



**Initial Settings for Specific Cable Lengths**  
 (fine adjust for optimum video performance)

The TX-VLA1 power supply input accepts an **ac** or **dc** voltage from 12 to 24 volts. 12 Vdc batteries may power the TX-VLA1 in remote applications. A common low voltage ac supply may power the module together with the camera in security installations provided the camera is internally ground-referenced. The TX-VLA1 is a negative ground-referenced product. In the unlikely event it is connected on a common ac supply together with a camera which is positive ground-referenced *and* not transformer isolated, a "ground fault" may occur. The TX-VLA1 automatically detects such a fault, disconnects itself from the power input, and illuminates the **FAULT** L.E.D. This alerts you to transformer isolate the TX-VLA1 power source from the camera power source.