

Application Note

Product: VideoEase CCTV Baluns (500000, 500009, and 500007)
Subject: CCTV Baluns and 24VAC
Date: Revised March 24, 2003

Installers of CCTV systems have asked whether 24VAC can be connected to adjacent pairs to a CCTV video signal under the same Cat 5 cable jacket.

MuxLab has performed tests in its lab to determine if 24VAC on adjacent twisted pairs using Cat 5 cable affect picture quality. Sanyo CCD color camera and monitor were used for testing.

The following table summarizes the results:

Cable Length	Voltage level	Results
100 ft	26.70 VAC	Video image unaffected
500ft	24.10 VAC	Video image unaffected
750 ft	21.79 VAC	Video image unaffected
1000 ft	20.50 VAC	Insufficient voltage to power camera

The test results conclude that the video signal is not affected by running 24VAC on adjacent cable pairs.

However in regard to loss of voltage due to attenuation, the installer should check with the CCTV camera manufacturer to determine what the minimum voltage and power requirements are for the camera.

For more information, please contact MuxLab Customer Technical Support at 1-877-689-5228.