

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.