Connecting the EG&G LC1911 Camera to the DT3152-LS Board

It is recommended that you use the EG&G LC1911 camera with the RS1910 camera controller when connecting to the DT3152-LS board. In addition to providing the necessary power sources, the RS1910 camera controller differentially receives the video output of the LC1911 camera and outputs it as a single-ended video signal, as required by the DT3152-LS board. A cable is provided with the controller for connecting it to the camera. If you choose not to use the RS1910 camera controller, you must supply three power sources (+12 V, -12 V, and +5 V) externally. In addition, you must provide a differential receiver circuit for the video signal. The following subsections describe how to connect the EG&G LC1911 camera to the DT3152-LS board with and without using the RS1910 camera controller.

Using the LC1911 Camera with the RS1910 Camera Controller

In this configuration, a custom cable is necessary to interface the sync and clock signals from the RS1910 camera controller to the DT3152-LS board. The cable should have a 25-pin, **male** D-shell on one end, and a 15-pin, **female** D-shell on the other end. The pinout is shown in Figure 1. The RS1910 camera controller must be configured to output single-ended video at BNC V1. This is done by setting jumpers E6-E7, E3-E4, and E9-E10. The video signal should use a coax cable, and can be broken out at either connector. The coax can be terminated in a BNC connector or directly to another 15-pin, female D-shell, and mated directly to the J1 connector of the DT3152-LS. Alternatively, a standard EP306 input cable from Data Translation can be used to connect to BNC V1 at the controller. The distance from the controller to the DT3152-LS board can determine which method is used. The clock and sync signals should be twisted pairs.

Using the LC1911 Camera without the RS1910 Camera Controller

In this configuration, a custom cable is necessary to interface the sync and clock signals from the LC1911 camera to the DT3152-LS board. The cable should have a 25-pin, **female** D-shell on one end, and a 15-pin, **female** D-shell on the other end. The pinout is shown in Figure 2. Three power sources (+12 V, -12 V, and +5 V) must be provided; the video must be differentially received as shown. The video coax can be terminated in a BNC connector or directly to another 15-pin, female D-shell, and mated to J1 connector of the DT3152-LS board. The clock and sync signals should be twisted pairs.

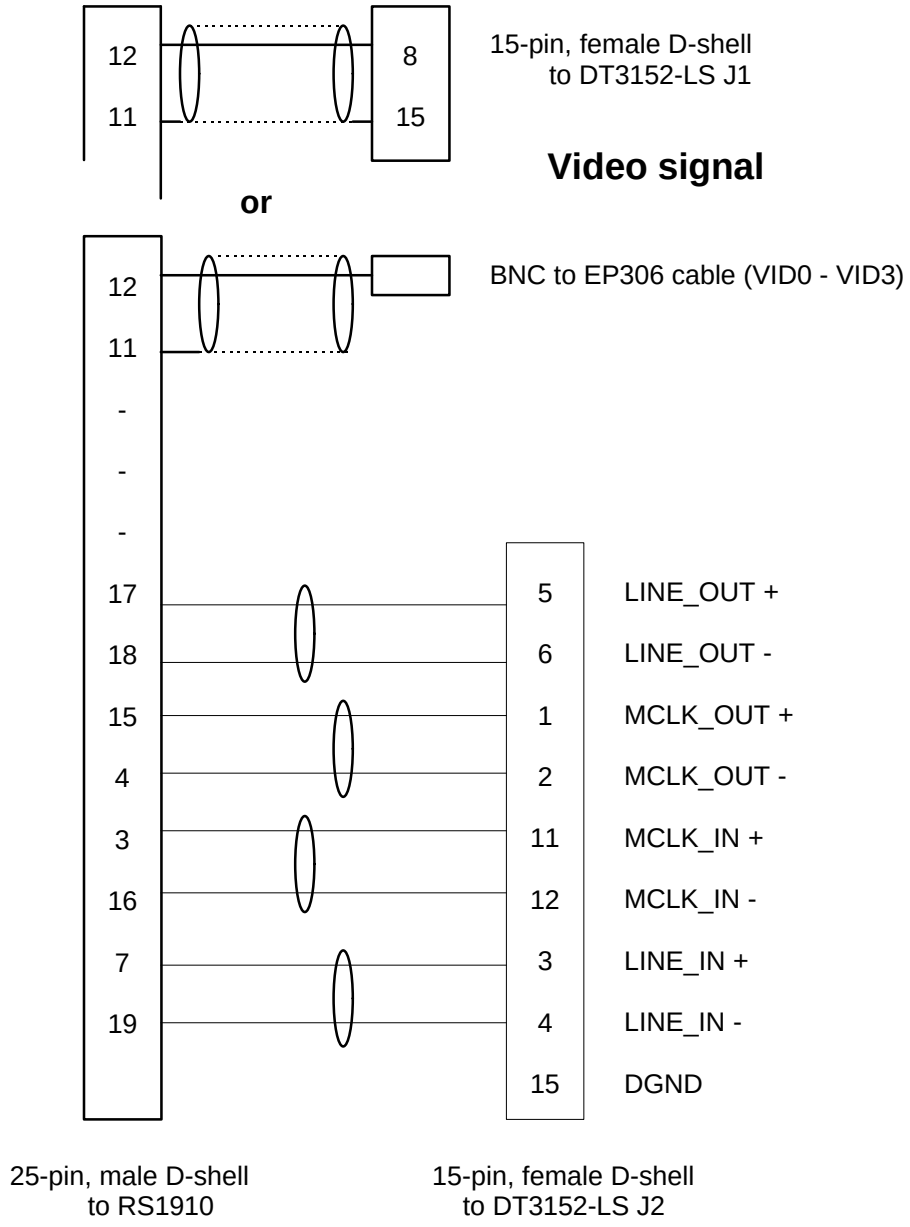

Figure 1. Connecting the LC1911 Camera to the DT3152-LS Board Using the RS1910 Camera Controller

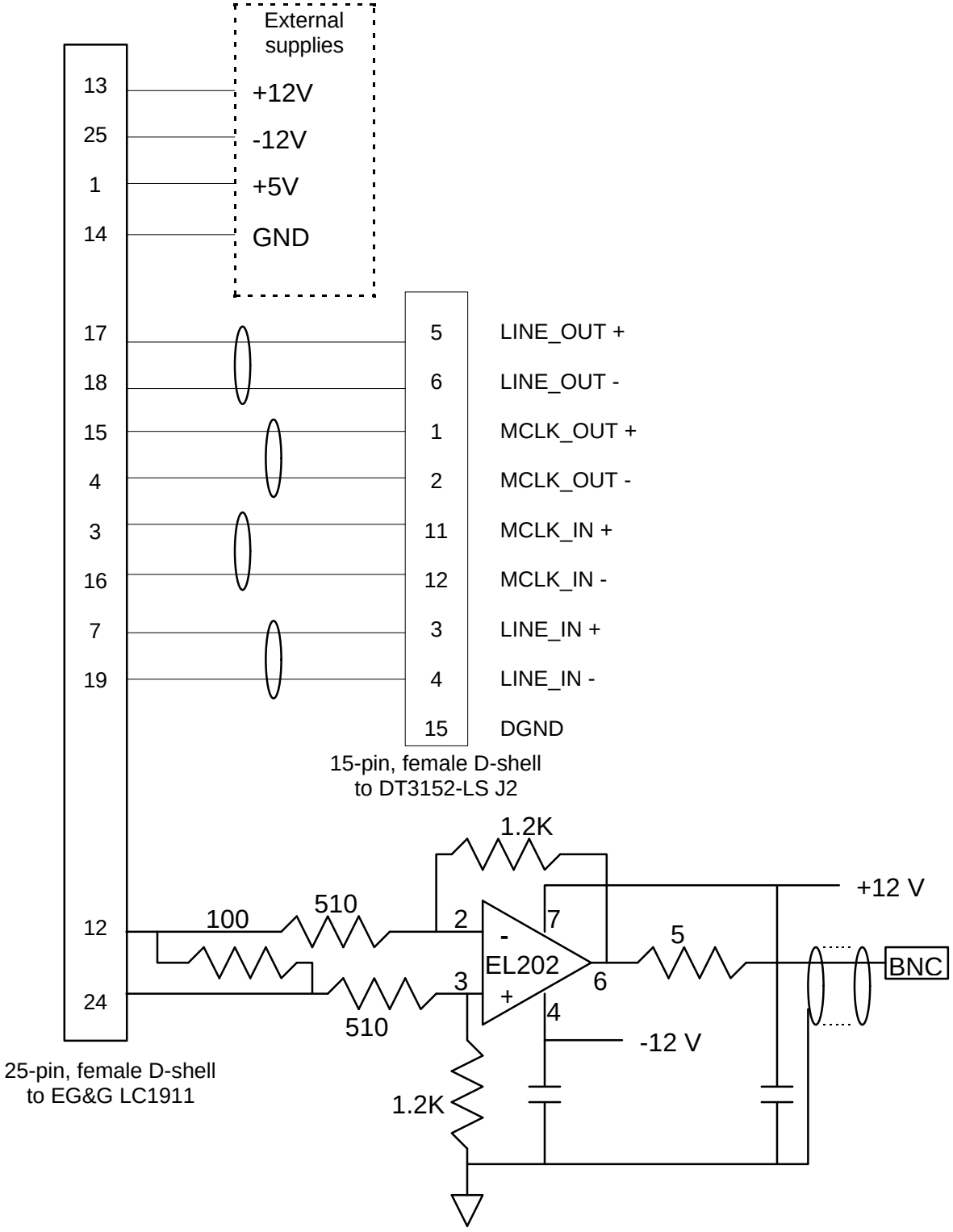

Figure 2. Connecting the LC1911 Camera Directly to the DT3152-LS Board