

Power Budgeting – An example

Canon GL-1 digital camcorder

From the specifications:

- 7.2V dc power supply

- 6.7 W (using viewfinder)

- 7.4 W (using the LCD and not the viewfinder)

- Professional standards -- 20:1 zoom, f/1.6-2.9

 - 3 CCD's of 250,000 pixels each

 - auto or manual zoom, focus, white balance, exposure

 - optical image stabilization

Experimental protocol:

Identify the relevant separable components, power it from our instrumented power supply, devise scenarios that will separate each component, and see what happens:

Components:

- Imaging systems:

 - Zoom mechanism

 - Autofocus mechanism

 - Image stabilizer

 - Exposure and white balance

 - 3 CCDs

- Recording subsystem:

 - Motors for tape transport

 - playback channel

 - record and erase electronics

results: