

HIGH RADIATION COLOR CAMERA

QUALITY YOU CAN COUNT ON...
INTEGRITY YOU CAN TRUST.



FEATURES:

- ◆ Uses a standard RH-400 Camera
- ◆ 7×10^7 Rad Accumulated Radiation Dose
- ◆ 2/3" Chalnicon Tube
- ◆ Non-Browning Zoom Lens
- ◆ Standard Illuminator works up to 16 ft.
(5 meters) from subject matter
- ◆ Special Illuminators can be designed to meet customer requirements.
- ◆ Stainless Steel or Aluminum Housing
- ◆ Rack Mount or Desktop Controller

The RH-400 radiation-tolerant color system uses a special control unit in conjunction with a high-powered LED illuminator to provide color pictures from a high radiation tolerant monochrome camera. The camera functions best in relatively low levels of ambient light, however good results are obtained in bright conditions up to 850 lux.

The scene to be recorded is exposed to alternate periods of red, green and blue light; in each case the period is 2 complete frames, sufficient to enable the camera to recover from its previous exposure; the second frame of each sequence is then written into one of three video memories, on for each of the three primary colors.

The three memories are read continuously and the resulting RGB signals are encoded into an NTSC or PAL video signal and fed out both as composite video and "S" video.

To assist in the initial deployment of the camera, the light controls are so organized that the "continuous" lighting mode may be selected and a standard monochrome signal is then available for locating the scene of interest. This mode of operation also makes it easier to focus the lens. The "flashing" color mode can then be selected to allow detailed examination and recording of the scene in full color.

As well as the standard video signals, a DV output is also available, which allows the user to feed the signal into a computer equipped with a "Firewire" port, (IEEE1394), and suitable software. In this way, video sequences or individual frames may be captured for later examination.

RH-400 COLOR CAMERA

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MECHANICAL - CAMERA

- ◆ Diameter w/ 4:1 zoom..... 63mm (2.48") with 22-90mm zoom lens
- ◆ Length w/ 4:1 zoom 10.83 in. (275mm) with 22-90mm zoom lens (excluding connector)
- ◆ Weight w/ 4:1 zoom 2.43 lb. (1.1 Kg) enclosed with 22-90mm zoom lens
- ◆ Diameter w/ 6:1 zoom..... 1.34 in. (85mm) with 12-72mm zoom lens
- ◆ Length w/ 6:1 zoom 10.43 in. (300 mm) with 12-72mm zoom lens (excluding connector)
- ◆ Weight w/ 6:1 zoom 3.75 lb. (1.7Kg) enclosed with 12-72mm zoom lens

MECHANICAL - LIGHTING UNIT

- ◆Diameter w/ 4:1 zoom..... 4.33 in. (110mm) with 22-90mm zoom lens
- ◆Weight w/ 4:1 zoom 14.11 oz. (400g) enclosed with 22-90mm zoom lens
- ◆ Diameter w/ 6:1 zoom..... 5.39 in. (137mm) with 22-90mm zoom lens
- ◆ Weight w/ 6:1 zoom 1.32 lb. (600g) enclosed with 22-90mm zoom lens

MECHANICAL - CONTROL UNIT

- ◆ Dimensions 3U Rack Mount x 14.17 in. (360mm) depth
- ◆ Weight..... 14.99 lb. (6.8 Kg.)
- ◆ Dimensions 16.93 in. W x 0.24 in. D x 4.72 in. H (430 mm x 260mm x 120mm)
- ◆ Weight..... 15.65 lb. (7.1 Kg.)

ENVIRONMENTAL

- ◆ Operating Temperature..... -13° to 113° F (-25° to 45° C) continuous operation
- ◆ Storage Temperature -13° to 140° F (-25° to 60° C)
- ◆ Radiation Tolerance >7 x 10⁷ Rad total dose
>10⁶ Rad/Hr dose rate

ELECTRICAL

- ◆ Video Signal..... 525 lines, 60 fields/sec, 2:1 interlace NTSC (EIA RS170)
625 lines, 50 fields/sec, 2:1 interlace PAL (CCIR)
Standard 1V including sync pulses
- ◆ Resolution..... >650 Horizontal TV lines
"S" Video >600 TV lines
Composite color >450 TV lines
- ◆ Internal Video Storage 950 x 484 pixels (NTSC)
950 x 576 pixels (PAL)
- ◆ Power..... 115VAC/60Hz to Control Unit, 12VDC @ approx. 650mA to Camera

INTERCONNECTION

- ◆ Camera 4 wire connectin for camera (balanced pair or coax for video + 2 wires for 12VDC supply. Standard connector - 7 pole LEMO push-pull type
- ◆ Lighting Unit..... 4 wire small diameter cable (common 0V + RGB supplies)
Standard connector - Fisher 4 pole push-pull type
- ◆ Control Unit..... 7-pin LEMO camera connector
4-pin Fisher lighting connector
IEEE1394 Firewire 4-pin connector