SPECIFICATIONS FOR CLOSED CIRCUIT T.V. CAMERA AND MONITOR SYSTEM

by

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1.0. Camera Specifications

1.1. Video Output Sensitivity

1 volt (black to white) output across 75 ohms using f1.9 lens, with 4 foot lamberts highlight illumination.

1.2. Gamma

Must provide 10 shades of gray, viewing standard ElA resolution chart with gray scale overlay strip and illumination as in 1.1 above.

1.3. Video Output

1.4 volts peak to peak composite signal (sync negative).

1.4. Geometric Distortion and Linearity

All portions of the scanned area must be displaced from their true positions by no more than 2% of the picture height.

1.5. Horizontal Sweep

15,750 cps.

1.6. Vertical Sweep

60 cps. with 2:1 positive interlace.

1.7. Focus

a. Electrical:

Must be regulated to compensate for both line voltage and temperature variations.

b. Optical:

Focus: 2 feet to infinity with standard 1" lens.
1.8. **Vidicon Protection**  
Vidicon must be protected against scanning failure.

1.9. **Automatic Target Correction**  
Automatic correction for light variations of 4000:1.

1.10. **Vertical Resolution**  
525 line system (350 lines with Kell factor of 0.7).

1.11. **Solid State Circuitry**  
Circuits transistorized where feasible (i.e. not including vidicon or regulator tubes).

1.12. **Temperature Range**  
-10°C to +45°C.

1.13. **Horizontal Resolution**  
800 lines in center of picture.  
600 lines in corners.

1.14. **Bandwidth**  
12 megacycles (+15 db. aperture correction at 10 megacycles).

1.15. **ELA Internal Sync Generator**  
Binary divider chain and monostable circuitry to provide all drive pulses, blanking and synchronizing waveforms.

1.16. **Master Oscillator**  
Crystal controlled master oscillator.
1.17. **Sync Waveform**

Synchronizing waveform meets ELA specifications RS170 as revised.

1.18. **Vidicon**

Type 8489 high resolution Vidicon.

1.19. **Power Supply**

Power transformer with regulated DC output. Input 108-132 VAC, 60 cps.

1.20. **Lens Mounting**

Single lens mount for standard 16 mm. C mount lens.

1.21. Camera must be compatible with monitor.

1.22. Camera focus, target and beam controls must be accessible.

1.23. Minimum of 15 feet of cable for connecting camera to monitor must be included.

2.0. **Monitor**

2.1. **Input Power**

105-130 VAC, 60 cps.

2.2. **Video Signal**

0.25 volt pp (minimum for 50 volts at kinescope). Sync negative at input.
2.3. **Video-Input Impedance**

High impedance bridging (approximately 470K in parallel with 15 pfd.). Can be internally terminated by 75 ohm load by means of a switch.

2.4. **Video Response**

10 megacycles +1 db. (800 line resolution).

2.5. **Linearity**

Within 2% of picture height.

2.6. **Controls**

On-off, brightness, contrast, vertical hold, horizontal hold, vertical size, vertical linearity, fuses (AC and horizontal output), focus, video input, sync input, sync level, horizontal linearity, horizontal drive and horizontal width.

2.7. **Monitor Must be Compatible with Camera**

2.8. **Picture tube to be 23-inch tube with bonded safety shield (un-frosted) such as 23BTP4.**

2.9. **Picture tube should be capable of a resolution compatible with that of the camera and video amplifier.**