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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 EIA 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. Bandwith

12 megacycles (+15 db. aperature correction at 10 megacycles).

1.15. EIA 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 EIA 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 (unfrosted) such as 23BTP⁴.

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