Specifications

1.0 Mechanical
1.1 Dimensions (mm)
Camera: 95 (W) x 165 (H) x 339 (D)
ADC-79E: 208 (W) x 320 (H) x 96 (D)
RDC-79E: 73 (W) x 355.5 (H) x 165 (D)
1.2, Weight
13.2 pounds including 1-1/2-inch electronic viewfinder and pick-up tubes, less lens and battery.
1.3 Lens Mount
Bayonet, interchangeable with HL-79A/D
1.4 Filter Complement

ND	0	0.6	CAP
COLOR	3000°K	4200°K	5600°K

2.0 Electrical
2.1 Input Voltage
2.1.1 DC (to camera from battery or power supply with AC input)
Nominal: 12 volts, negative grounded
Tolerance: 11~16 volts
2.1.2 AC (to ACP-23 A.C. power supply for camera)
Nominal: 117 volts, single phase
Tolerance: ±5%
Frequency: 50/60Hz
2.2 Input Power
2.2.1 DC (to cameras)
2.2.1.1 Normal Operation
26 watts
2.3 Input Signals
2.3.1 Synchronization
2.3.1.1 Independent (isolated camera mode)
NONE: Operates from built-in color sync generator
2.3.1.2 Systems Mode (Gen-lock synchronization via BNC or multi-pin cable connector)
2.3.1.2.1 NTSC Color Composite (VBS) Signal: 1.0V (pp) positive, 75 ohms.
Input voltage fluctuation of −6dB/+3dB.
OR
2.3.1.2.2 Black Burst/Sync (BBS) Signal: 0.45V (pp) negative, 75 ohms.
Input voltage fluctuation of −6dB to +3dB.
2.3.2 External Video/Return Viewfinder Feed (via multi-pin cable connector): Synchronous or non-synchronous composite signal, 1.0V (pp) positive, 75 ohms.
2.3.3 Program Audio (via XLR Connector): Microphone Output, −50dBm to −70dBm, high impedance, balanced.
2.3.4 Tally (via Multi-Pin Cable Connector): D.C. voltage or contact closure.
2.3.5 Intercom Audio (via Ring/Tip/Sleeve Jack): RTS system
2.4 Vertical Sweep Rate:
59.94Hz
2.5 Horizontal Sweep Rate:
15.7342kHz
2.6 Scanning:
525 lines frame, 60 fields/second; 30 frames/second (2:1 interlace)
2.7 Sync & Blanking Waveform:
in accordance with EIA standard RS-170A.
2.7.1 Horizontal Blanking Width:
adjustable, 10.2~11.2 μsec
2.7.2 Vertical Blanking Width: Programmable: 18, 19 or 20 lines
2.8 Pick-up Device Types:
2/3-inch separate mesh tubes with 6.3 volts filament at 90 ma. current each.
2.8.1 Broadcast Quality Plumbicons®
2.8.1.1 XQ-1427 Plumbicons®
2.8.1.2 XQ-2427 Diode Gun Plumbicons®
2.8.1.3 XQ-3427 Low Capacitance Diode Gun Plumbicons®
2.8.2 Broadcast Quality Saticons®
2.8.2.1 H-9386B Diode Gun Saticons®
2.8.2.2 H-9386D Low Capacitance Diode Gun Saticons®
2.9 Optical System
2.9.1 Color Separation:
Sealed Prism Beam Splitter with RED-GREEN-BLUE Outputs.
2.9.2 Effective Aperture:
The color separation optical system has an effective aperture sufficient to utilize the total light output of a lens with a geometric aperture of f/1.4.
2.10 Sensitivity
2.10.1 Standard Illumination:
With a scene illumination of 2000 lux (187 foot candles) at 3000°K scene color temperature, 0dB Video Gain, a scene reflectance co-efficient of 89.9%, the lens opening necessary to obtain a standard video signal of 0.7 volts non-composite shall be f/5 or greater (higher f number).
2.10.2 Master Gain Control:
Normal: 0, +9dB, +18dB
Internally Switchable to the following:
0, +6dB, +12dB
0, +6dB, +15dB
0, +9dB, +15dB
2.10.3 Low Light Level Illumination:
Using an f/1.4 lens and +18dB Video Gain, the standard signal level is obtained with a scene illumination of 20 lux or less (89.9% reflectance).
2.11 Signal-To-Noise Ratio:
At 0dB Video Gain the signal-to-noise ratio of the output signal is typically −57dB for standard target contact tubes and −59dB for low capacitance target contact tubes, measured under the following conditions:
Gamma: OFF
Horizontal Aperture Correction: OFF
Chroma Aperture Correction: OFF
Knee Aperture Correction: OFF
Detail Correction: OFF
Bandwidth: 4.2MHz
Pedestal: 5%
2.12 Picture Fidelity:
Measured with the following frequency response in each color channel:
50Hz~5.5MHz: $^{+1dB}_{-2dB}$ (with respect to 100KHz reference)
2.13 Luminance Signal Resolution:
Horizontal: 650 TV lines center
500 TV lines corners
Vertical: 350 TV lines center
2.14 Detail Correction:
Balanced horizontal and 2H vertical.
2.15 Automatic Lens Control
2.15.1 Automatic Iris:
The auto iris detection circuit is capable of sensing peak video, average picture (APL) level or variable combination of peak and APL.
2.15.2 Automatic Iris Closure:
Closes iris to protect pick-up tube from damage when unscanned (OFF or STANDBY).
2.15.3 Automatic Iris Waiting:
Iris is closed on camera turn-on until beam stabilization (to protect tubes).
2.16 Camera Cable:
Camera cables (between camera head and optional camera control units) of the following types and maximum lengths shall be usable.
2.16.1 Multicore Camera Cable:
300 meters maximum (MA-79)
2.16.2 Triax Camera Cable:
1800 meters maximum (TA-79E)
2.17 Overall System Delay
2.17.1 Encoded Signals
2.17.1.1 Subcarrier Phase:
Adjustable 360° with respect to the gen-lock input signal.
2.17.1.2 Horizontal Timing;
Adjustable ±3.5μsec with respect to the gen-lock input signal.
2.17.2 R-G-B Signals:
Advanced approximately 0.84μsec with respect to the encoded output.
2.18 Output Signals
2.18.1 Video
2.18.1.1 Encoded Video:
FCC/NTSC Encoded Color Signals, 1.0 Volt (pp) composite, positive polarity, 75 ohms. Separate isolated outputs available at — a) BNC connector and b) Multi-pin cable connector. In accordance with RS-170A and FCC Rule 73.682.
2.18.1.2 R-G-B Video:
Separate processed R-G-B color signals, 0.7V (pp) non-composite positive polarity, 75 ohms. Available at multi-pin cable connector.
2.18.1.3 Monitor Video:
Separate isolated output, available at BNC connector. 1.0V (pp) composite, positive polarity, 75 ohms.
Selectable as follows: R, G, B, −G, Encoded.
2.18.1.4 Encoded Color Bars Signal:
Selectable in lieu of 2.18.1.1. Includes 75% and 100% white as well as 6 hues and black, I and Q.
2.18.1.5 Calibration Signal:
Horizontal rate sawtooth input to each R-G-B channel video amplifier, selectable in lieu of 2.18.1.1.
2.18.1.6 Audio
2.18.1.6.1 Program Audio Output: −20dBm, 600 ohms balanced.
2.18.1.6.2 Intercom Audio: RTS system
2.19 R.F. Signal Output: None supplied
2.20 Registration Accuracy:
2.20.1 Zone 1 (within a circle having a diameter equal to 80% of picture height): Deviations of RED and BLUE with respect to GREEN; less than 0.05% of picture height.
2.20.2 Zone 2 (within a circle having a diameter equal to picture width): Deviations of RED and BLUE with respect to GREEN; less than 0.1% of picture height.
2.20.3 Zone 3 (outside of Zone 2): Deviations of RED and BLUE with respect to GREEN; less than 0.3% of picture height.
2.21 Geometric Distortion:
Less than 1.5% of picture height at any point in the picture area (excluding lens errors).
2.22 Performance Stability:
When the ambient temperature varies ±10°C (±18°F) from the set-up temperature in the range of 0°C to 40°C (32°F to 104°F), specifications are satisfied without re-adjustment.

Designs and specifications are subject to change without prior notice.

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