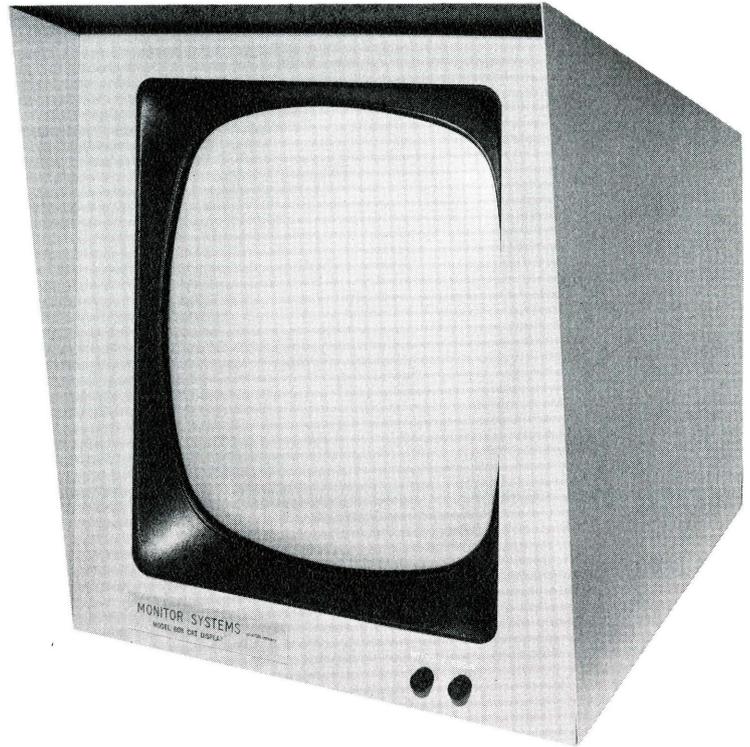




MONITOR 8011
CRT DISPLAY
for
COMPUTER GRAPHIC
TERMINALS

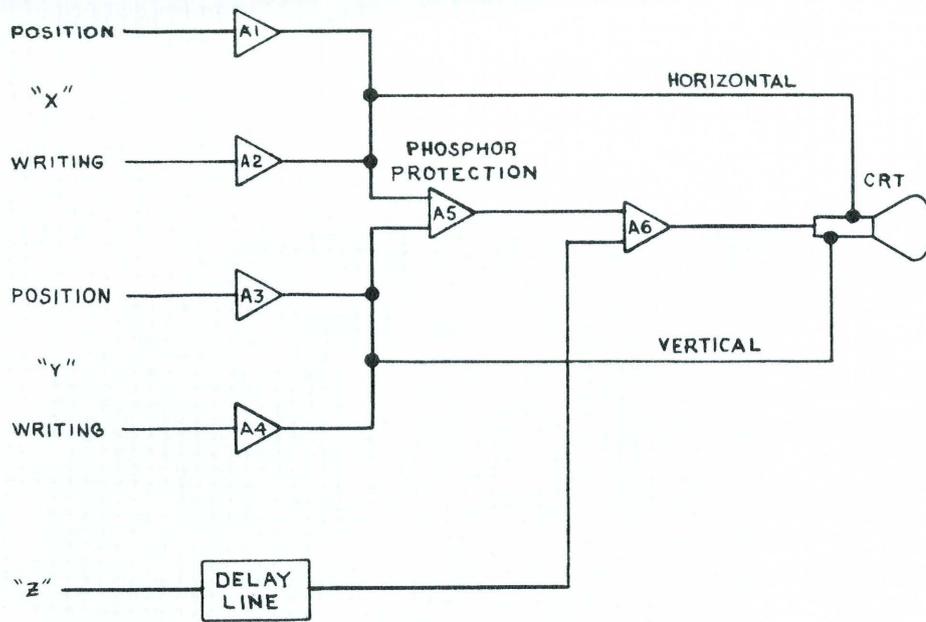


The MONITOR Model 8011 CRT Display is a direct-writing, alphanumeric/graphic computer output display. Characters, dots, vectors or conics may be displayed. Gamma correction and delay time cancellation are provided so that special circuits are not required in the appropriate generators. The tube is protected from phosphor burns as a result of failure in the deflection circuitry or absence of input signal. Up to 1000 characters may be displayed at a refresh rate of 60 Hz; the writing rate for vectors and graphics is 500,000 inches/second. A complete line of character, vector, circle, ellipse and arc generators is available from MONITOR to work with this unit.

DESIGN FEATURES

- LARGE DISPLAY AREA (10" x 12")
- BONDED FACEPLATE
- GAMMA CORRECTION
- ZERO DIFFERENTIAL DELAY INTERFACE FOR FAITHFUL REPRODUCTION OF CHARACTERS, VECTORS, AND CONICS.
- ALL SILICON SOLID STATE CIRCUITRY
- PHOSPHOR PROTECTION
- PINCUSHION CORRECTION
- LOW POWER CONSUMPTION (250 WATTS TYPICAL)

CRT DISPLAY
Model 8011



A1 through A4 are wideband amplifiers used for positioning and writing. All amplifiers are dc coupled and have 75 ohm inputs. Self-contained adjustments are available to set up each channel. A5 is the phosphor protection amplifier whose output inhibits the z-axis amplifier A6, should there be no deflection signal at the outputs of A1 - A4. A6 is the z-axis amplifier with gamma correction which is dc coupled and accepts an analog signal. A delay line is added in series with the input to match the delay of the x and y amplifiers.

SPECIFICATIONS

CATHODE-RAY TUBE

SIZE AND TYPE	21" with P31 phosphor and bonded faceplate.
DISPLAY AREA	13" x 14"
LINEARITY	±1%
PINCUSIONING	±2%
LIGHT OUTPUT	50 foot-lamberts
WRITING SPEED	500,000 inches/second
LINE WIDTH	0.020"

Z-AXIS

INPUT SENSITIVITY	+3 v for full intensity
INPUT IMPEDANCE	75 ohm termination is standard.
RISE TIME	50 nsec
GAMMA CORRECTION	Light output is linear with respect of input voltage
DELAY TIME	Zero differential delay of the z-axis with respect to the X and Y signals.

MAJOR DEFLECTION

INPUT SENSITIVITY	5 v p-p for 12" deflection.
INPUT IMPEDANCE	75 ohm termination is standard.
LARGE SIGNAL RESPONSE	20 kHz.
SMALL SIGNAL RESPONSE	500 kHz @ -3db.
X-Y PHASE SHIFT	Less than 1 line separation @ 15 kHz.
SETTLING TIME	3.0 microseconds plus 1.5 microseconds per inch of deflection to settle within 1 spot size.

MINOR DEFLECTION

INPUT SENSITIVITY	5 v p-p for 0.5 inch deflection.
INPUT IMPEDANCE	75 ohm (termination)
FREQUENCY RESPONSE	1 MHz @ -3db.
X-Y DIFFERENTIAL PHASE SHIFT	Less than 1 line separation @ 1 MHz.

INPUTS: (BNC Connectors, rear)

1. X-input Major Deflection
2. X-input Minor Deflection
3. Y-input Major Deflection
4. Y-input Minor Deflection
5. Z-input

OPERATOR CONTROLS: (Front)

- On/off
- Focus
- Intensity

SERVICE ADJUSTMENTS: (Rear).

- X-input deflection sensitivity
- X-input D. C. level
- Y-input deflection sensitivity
- Y-input D. C. level
- Z-axis D. C. level

POWER REQUIREMENTS	115 v ± 10%, 60 Hz, 250 watts
ENVIRONMENT	50° F to 100° F.
MOUNTING	for Standard 19" relay rack with slides and cover.

CABINET as illustrated (Optional)	24½" H x 19" W x 27½" D. Quick Access type.
	27" H x 22" W x 36¼" D.

- OTHER OPTIONS
- Higher performance
 - Custom configurations
 - Daisy chain operation.
 - Ruggedized units.
 - MIL or NASA Specifications



DATA TERMINALS
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