



16DP4-A CATHODE-RAY TUBE

16-INCH ROUND, GLASS
FOCUS—MAGNETIC
DEFLECTION—MAGNETIC

14½ BY 10⅞-INCH PICTURE SIZE
FACEPLATE—SPHERICAL, GRAY
ION-TRAP GUN

60-DEGREE DEFLECTION ANGLE

DESCRIPTION AND RATING

The 16DP4-A is a magnetic-focus and -deflection, direct-view all-glass picture tube which provides a 14½ by 10⅞-inch picture with rounded sides for television applications. Features of this tube include a high-quality gray faceplate to increase picture contrast and detail under high ambient light conditions, and an electron gun which was designed for use with an external double-field ion-trap magnet.

GENERAL

ELECTRICAL

Heater Voltage	6.3	Volts
Heater Current	0.6 ± 10%	Amperes
Focusing Method—Magnetic		
Deflecting Method—Magnetic		
Deflection Angle, approximate	60	Degrees
Direct Interelectrode Capacitances, approximate		
Cathode to All Other Electrodes	5	μμf
Grid-No. 1 to All Other Electrodes	6	μμf

OPTICAL

Phosphor Number—P4, Sulfide Type		
Fluorescent Color—White		
Phosphorescent Color—White		
Persistence—Short		
Faceplate—Gray		
Light Transmission at Center, approximate	73	Percent

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MECHANICAL

Over-all Length	20 ³ / ₄ ± 1/4	Inches
Greatest Bulb Diameter	15 ⁷ / ₈ ± 1/8	Inches
Minimum Useful Screen Diameter	14 ¹ / ₂	Inches
Neck Length	7 ⁷ / ₈	Inches

Bulb Number, ASA Designation—J127B

Bulb Contact—Recessed Small-cavity Cap, JETEC No. J1-21

Base—Small-shell Duodecal 5-pin, JETEC No. B5-57

Basing, JETEC Designation—12D

Bulb Contact Alignment

Anode Contact Aligns with Pin No. 3 Position ±30 Degrees

Mounting Position—Any

Net Weight, approximate 16¹/₂ Pounds

MAXIMUM RATINGS†

DESIGN-CENTER VALUES*

Anode Voltage †	15,000	Max Volts DC
Grid-No. 2 Voltage	410	Max Volts DC
Grid-No. 1 Voltage		
Negative-Bias Value	125	Max Volts DC
Positive-Bias Value	0	Max Volts DC
Positive-Peak Value	2	Max Volts

Peak Heater-Cathode Voltage

Heater Negative with Respect to Cathode 125 Max Volts

Heater Positive with Respect to Cathode 125 Max Volts

TYPICAL OPERATING CONDITIONS‡

Anode Voltage †	12,000	Volts DC
Grid-No. 2 Voltage	300	Volts DC
Grid-No. 1 Voltage §	—28 to —72	Volts DC
Focusing-Coil Current π, approximate	101	Milliamperes DC
Ion-Trap Field Intensity Δ, approximate	35	Gausses

CIRCUIT VALUES

Grid-No. 1 Circuit Resistance 1.5 Max Megohms

† All voltages are measured with respect to cathode.

* The maximum ratings provide a ten-percent safety factor in accordance with the standard design-center system of rating cathode-ray tubes. The tube will withstand the combined effects of variations in line voltage and components provided the maximum design-center values are not exceeded by more than ten percent.

