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engineering data service 21AYP4

CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflecting Method	Magnetic
Deflection Angle (approx.)	
Horizontal	66 Degrees
Diagonal	70 Degrees
Phosphor	P4
Fluorescence	White
Persistence	Medium
Faceplate	Gray Filter Glass
Light Transmittance (approx.)	72 Percent

ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current (approx.)	0.6 Ampere
Direct Interelectrode Capacitances (approx.)	
Cathode to All Other Electrodes	5 $\mu\mu$f
Grid No. 1 to All Other Electrodes	6 $\mu\mu$f
External Conductive Coating to Anode[1]	1500 $\mu\mu$f Max.
	750 $\mu\mu$f Min.
Ion Trap Magnet	External, Single Field Type

MECHANICAL DATA

Minimum Useful Screen Dimensions	17 x 12¾ Inches
Minimum Useful Screen Area	219 Sq. Inches
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base (Small Shell Duodecal 6-Pin)	B6-63
Basing	12L

RATINGS

MAXIMUM RATINGS (Design Center Values)

Anode Voltage	18,000 Volts dc
Grid No. 4 Voltage (Focusing Electrode)	-500 to +1000 Volts dc
Grid No. 2 Voltage	500 Volts dc
Grid No. 1 Voltage	
Negative Bias Value	125 Volts dc
Positive Bias Value	0 Volts dc
Positive Peak Value	2 Volts
Peak Heater-Cathode Voltage	
Heater Negative with Respect to Cathode During Warm-Up Period Not to Exceed 15 Seconds	410 Volts
After Equipment Warm-Up Period	180 Volts
Heater Positive with Respect to Cathode	180 Volts

RECOMMENDED OPERATING CONDITIONS

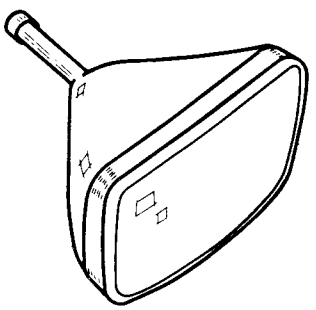
Anode Voltage	16,000 Volts dc
Grid No. 4 Voltage	-64 to +352 Volts dc
Grid No. 2 Voltage	300 Volts dc
Grid No. 1 Voltage Required for Cutoff[2]	-28 to -72 Volts dc
Ion Trap Magnet Strength (approx.)	35 Gausses

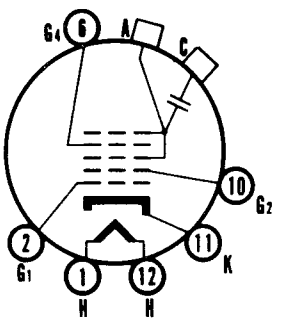
CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Megohms Max.

QUICK REFERENCE DATA

Television Picture Tube
21" Direct Viewed
Rectangular Glass Type
Spherical Faceplate
Gray Filter Glass
Magnetic Deflection
Electrostatic Focus
Single Field Ion Trap
External Conductive Coating





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SENECA FALLS, NEW YORK

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NOTES:

1. *External Conductive Coating must be grounded.*
2. *Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be about 5 volts more negative.*

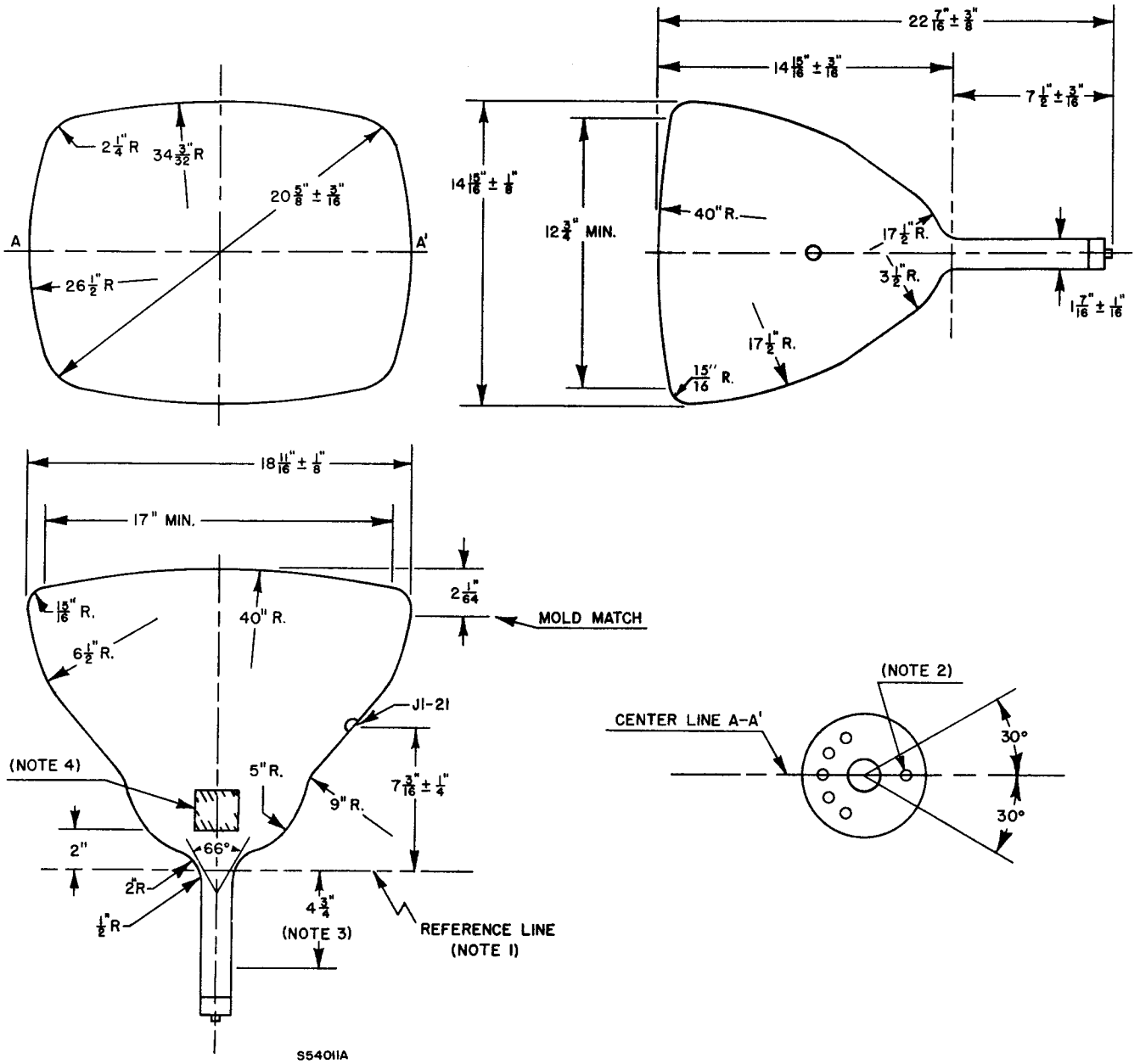

DIAGRAM NOTES:

1. *Reference line is determined by the plane C-C1 of the reference line gauge (JETEC No. 110) when the gauge is resting on the glass cone. The neck diameter near the cone may exceed 1.500" but is limited by the internal contour of the yoke reference line gauge.*
2. *Anode contact aligns with Pin No. 6 ±30 degrees.*
3. *Nominal position of ion trap magnet.*
4. *Contact area for external conductive coating, 2" x 2", located 90 degrees counter clockwise from anode contact as viewed from base end of tube.*

WARNING:

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltage or 16,000 volts, whichever is less.