

7UP7 CATHODE-RAY TUBE

The Type 7UP7 is a 7-inch magnetic focus and deflection cathode-ray tube with a relatively large and flat screen area. It is designed for applications requiring a long persistent type screen. The screen is metal-backed.



GENERAL CHARACTERISTICS

Electrical Data

Heater Voltage	6.3 Volts
Heater Current	0.6 $\pm$ 10% Ampere
Focusing Method	Magnetic
Deflecting Method	Magnetic
Deflecting Angle (Approx.)	53 Degrees
Phosphor	No. 7
Fluorescence	Blue
Phosphorescence	Yellow
Persistence	Long
Direct Interelectrode Capacitances, Approx.	
Cathode to all other electrodes	5 μ f.
Grid No. 1 to all other electrodes	8.5 μ f.

Mechanical Data

Overall Length	13 $\frac{1}{4}$ $\pm$ $\frac{3}{8}$ Inches
Greatest Diameter of Bulb	7 $\pm$ $\frac{1}{8}$ Inches
Minimum Useful Screen Diameter	6 Inches
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base (Long Medium-Shell Octal 8-Pin or)	B8-65 or
(Long Medium-Shell Octal 5-Pin)	B5-80
Basing	5AN
Bulb Contact Alignment	
J1-21 Contact aligns with Pin No. 5	$\pm$ 10 Degrees

MAXIMUM RATINGS (Design Center Values)

Accelerator Voltage	10,000 Max. Volts D-C
Grid No. 2 Voltage	700 Max. Volts D-C
Grid No. 1 Voltage	
Negative Bias Value	180 Max. Volts D-C
Positive Bias Value ¹	0 Max. Volts D-C
Positive Peak Value	2 Max. Volts
Peak Heater-Cathode Voltage	
Heater Negative with respect to cathode	
During warm-up period not to exceed 15 seconds	410 Max. Volts D-C
After equipment warm-up period	180 Max. Volts D-C
Heater Positive with respect to cathode	180 Max. Volts D-C

TYPICAL OPERATING CONDITIONS

Accelerator Voltage	7,000 Volts D-C
Grid No. 2 Voltage	250 Volts D-C
Grid No. 1 Voltage ²	-25 to -70 Volts D-C
Focusing Coil Current ³	99 to 135 Ma. D-C

MAXIMUM CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Max. Megohms
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NOTES

1. At or near this rating, the effective resistance of the accelerator supply should be adequate to limit the accelerator input power to 6 watts.
2. Visual extinction of undeflected focused spot.
3. For JETEC standard focus coil No. 106, or equivalent, with the grid voltage adjusted to produce an accelerator current of 200 microamperes and with distance (D) from reference line to center of air gap equal to 2.75 inches.

TYPE 7UP-

