

ELECTRONIC TUBE REFERENCE

7WP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Seven-inch projection kinescope with electrostatic focusing, magnetic deflection, P4 screen, forced-air cooling, and extremely high accelerating voltage. Designed for projected television images, it carries explicit X-radiation precautions.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	14
NOMINAL HEATER	6.3 V / 620 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	80000 V
CRT maximum accelerating/anode/ultor voltage is promoted to MaxPlateVoltage; additional electrode ratings, capacitances, operating conditions, deflection/focus and optical data are preserved as parameters.	

7WP4 is a projection kinescope using electrostatic focusing and magnetic deflection. The source specifies a P4 screen and publishes CRT accelerating-electrode ratings, control/focus electrode limits, heater-cathode limits, capacitances, and operating or deflection characteristics. Forced-air cooling is specified. The datasheet explicitly states that its electrical characteristics are the same as 7NP4, with the listed differences applying primarily to the screen/optical or mechanical configuration. The source includes an X-ray or X-radiation warning/precaution.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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Published test conditions and operating points. Values on this page are preserved as reported by this source.

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Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum grid 3 to cathode voltage	20000 V	GridDriveService
Maximum grid 2 to cathode voltage	1050 V	GridDriveService
Maximum grid 1 negative-bias voltage	250 V	NegativeBias
Maximum grid 1 positive-bias voltage	0 V	PositiveBias
Maximum grid 1 positive-peak voltage	2 V	PositivePeak
Maximum average anode current	2 mA	—
Peak heater-cathode voltage	410 V	HeaterNegativeWarmup
Peak heater-cathode voltage	150 V	HeaterNegativeAfterWarmup
Peak heater-cathode voltage	150 V	HeaterPositive
Maximum accelerating/anode voltage	80000 V	—
Anode-to-Grid-No. 1 Voltage b	80000 V	—
Grid-No.3-to-Grid-No. 1 Voltage	20000 V	—
Grid-No.2-to-Grid-No. 1 Voltage	1300 V	—
Average Anode Currentb	2 mA	—
For anode-to-grid-No.1 voltage of	75000 V	—
Voltage for Focus	15000–17000 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No. 1 Circuit Resistance	1.5 MΩ	—
Anode-to-Cathode Voltage ^b	80000 V	—
Grid-No.3-to-Cathode Voltage	20000 V	—
Projection throw distance for 20 ft by 15 ft picture	80 ft	TypicalSystem

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 to all other electrodes capacitance	12 pF	Approximate
Cathode to all other electrodes capacitance	6 pF	Approximate

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Deflection angle	35 degrees	Approximate
Current	620 mA	—
Deflection Angle (Approx.)	35 degrees	—
Grid No.1 to all other electrodes	12 pF	—
Cathode to al l other electrodes	6 pF	—
Grid-No.2 Current	-15–15 uA	—
Deflection angle	35 degrees	Approximate

TUBE TINKER

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