



ELECTRONIC TUBE REFERENCE

23ENP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Twenty-three-inch 92-degree RCA Pan-O-Ply monochrome television CRT with low-voltage electrostatic focus and magnetic deflection. Integral implosion protection supports large-screen direct-view receiver operation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	6
NOMINAL HEATER	6.3 V / 600 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	25000 V
<i>CRT-specific ratings, operating conditions, capacitances, focus/deflection, cutoff, optical, and screen data are retained in section parameters.</i>	

23-inch 92-degree RCA Pan-O-Ply monochrome television CRT with low-voltage electrostatic focus.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1964 RMA EIA

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

1964 RMA EIA

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focusing method	Electrostatic	—
Deflection method	Magnetic	—
Horizontal deflection angle	81 deg	—
Vertical deflection angle	66 deg	—
Diagonal deflection angle	92 deg	—
Heater voltage	6.3 V	—
Heater current	600 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode-to-all capacitance	5 pF	—
Grid1-to-all capacitance	6 pF	—
External coating capacitance minimum	2000 pF	—
External coating capacitance maximum	2500 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage maximum	25000 V	—
Anode voltage minimum	11000 V	—
Typical anode voltage	20000 V	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Monochrome television picture display	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 1 of 7

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

1971 RCA HB3 BINDER 1 OF 7

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
LOW-VOLTAGE ELECTROSTATIC FOCUS	92 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid No,1 to all other electrodes	6 pF	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Heater Current at 6.3 volts – published value 1	6.3 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Heater Current at 6.3 volts – published value 2	600 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Heater Warm-up Time (Average)	11	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Light transmission at center (Approx)	42	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Projected Area of Screen	282	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Anode Voltage	20000 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.4 Voltage b	2 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid-No.2 Voltage	50 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
extinction of focused raster – published value 1	3 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
extinction of focused raster – published value 2	5 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
b 7ne grid-No.0 voltage required	7 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
current of 200 microamperes on a13-1/2-inch by 18-inr.n pattern from an – published value 1	200 uA	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
current of 200 microamperes on a13-1/2-inch by 18-inr.n pattern from an – published value 2	1 uA	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
current of 200 microamperes on a13-1/2-inch by 18-inr.n pattern from an – published value 3	2 uA	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
current of 200 microamperes on a13-1/2-inch by 18-inr.n pattern from an – published value 4	18 uA	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
External conductive coating to anodes	2500 mA	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Anode Voltage	25000 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Heater Voltage	6.9 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Combined AC & DC voltage	200 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid-No.1 Circuit Resistance	1.5 mA	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

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