

ELECTRONIC TUBE REFERENCE

20AEP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

CATHODERAY

Twenty-inch 114-degree black-and-white television picture tube with tension-band implosion protection and low-grid-2 cathode-drive operation. Westinghouse documentation identifies a large direct-view receiver CRT with safety-oriented envelope construction.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 450 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray
No fixed ratings recorded.
Television CRT electron-gun/display section.

The Westinghouse 20AEP4 is a 20-inch 114-degree black-and-white CRT with tension-band implosion protection and low-grid-2 cathode drive.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1965 Westinghouse Data Book

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

1965 WESTINGHOUSE DATA BOOK

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	450 mA	—
Heater Warm-up Time	11 s	—
Focusing Method	Low Voltage Electrostatic text	—
Deflection Method	Magnetic text	—
Horizontal Deflection Angle	99 deg	Approximate
Vertical Deflection Angle	82 deg	Approximate
Diagonal Deflection Angle	114 deg	Approximate
Phosphor	Aluminized P4 text	—
Fluorescence	White text	—
Persistence	Short to Medium text	—
Light Transmittance	44 percent	Approximate
Cathode-to-All Capacitance	5 pF	Approximate
Grid1-to-All Capacitance	6 pF	Approximate
External Coating-to-Anode Capacitance Minimum	1500 pF	—
External Coating-to-Anode Capacitance Maximum	2200 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode Voltage	23500 V	—
Minimum Anode Voltage	12000 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Focus Electrode Voltage Positive	1100 V	Grid4
Maximum Focus Electrode Voltage Negative	-550 V	Grid4
Maximum Grid2 Voltage	60 V	—
Minimum Grid2 Voltage	20 V	—
Maximum Heater-Cathode Voltage During Warmup	450 V	Duration<=15s
Maximum Heater-Cathode Voltage After Warmup	200 V	—
Typical Anode Voltage	16000 V	CathodeDrive
Typical Focus Voltage Minimum	0 V	Grid4
Typical Focus Voltage Maximum	400 V	Grid4
Typical Grid2 Voltage	30 V	CathodeDrive
Cathode Voltage for Raster Cutoff Minimum	30 V	CathodeDrive
Cathode Voltage for Raster Cutoff Maximum	45 V	CathodeDrive
Maximum Grid1 Circuit Resistance	1.5 Mohm	—

TUBE TINKER

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