

Sixteen-inch P7 persistent-screen cathode-ray display tube operating at high anode voltage. Westinghouse documentation indicates approximately 12-14 kV operation and yellow phosphorescent afterglow, supporting prolonged visibility of displayed traces.

GENERAL CHARACTERISTICS

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

SECTION RATINGS

SECTION1 Cathode Ray
No fixed ratings recorded.
Source-derived physical section; applicable promoted ratings are populated from the printed sheet.

Westinghouse RELIATRON® TUBES 16AKP7 Septem ber 2, 1957 from JETEC release #2011, Sept. 16, 1957 RADAR DISPLAY TUBE TYPE 16AKP7 The 16AKP7 is an electrostatic focus, magnetic deflection round gless radar display tube. The screen is alumin- ized to increase brightness and uses a P7 phosphor for improved viewing characteristics. The 16AKP7 features a straight no-ion-trap gun which produces a very narrow line which gives the tube high resclution capabilities. ELECTRICAL: MAXIMUM RATINGS: Cathode e h e et e Coated Unipotential Design Center Valuves Heater: Anode Voltage 14000 max. Yalots Voltage . . . o v v i v i e i a n s 6.3 Velts Grid 4 {Focusing Electrode)} Yoltaga 1000 max. Yolts Curtent o v v a s n v e n n n . P 0.60 Amperes Grid2 Voltage. 450 max. Yolts Direct Interlactrode Capacitances: Grid 1 Volts: Grid 1 to al! other Electrodes . . . 9.0 uuf Negative Bias Valve. 140 max. Volis Grid 2 to ol!l other Electrodes. . . 7.0 uuf Positive



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
Heater: Anode Voltage	14000 V	Heater: Anode Voltage 14000 max. Volts
Voltage . . . o v v i v i e i a n s	1000 V	Voltage . . . o v v i v i e i a n s 6.3 Volts Grid 4 {Focusing Electrode} Voltage 1000 max. Volts
Current o v v a s n v e n n n . P	450 Amperes	Current o v v a s n v e n n n . P 0.60 Amperes Grid 2 Voltage. 450 max. Volts
Grid	140 pF	Grid 1 to all other Electrodes . . . 9.0 uuf Negative Bias Valve. 140 max. Volts
Grid	0 pF	Grid 2 to all other Electrodes. . . 7.0 uuf Positive Bias Valve. 0 max. Volts
Cathode to all other Electrodes	0 V	Cathode to all other Electrodes . 7.0 uuf Positive Peak Value. 0 max. Volts
Phosphorescence., . . . - Yellow to exceed	410 s	Phosphorescence., . . . - Yellow to exceed 15 Seconds. 410 max. Volts
Grid	1.5 Mohm	Grid 1 Circuit Resistance 1.5 max. Megohms
Glass o i e Fitter Anode Voltage. Volts	12000 V	Glass o i e Fitter Anode Voltage. Volts 12000 Volts
Transmission	250 V	Transmission 76% Grid 4 Voltage -300 10 +250 Volts
Bulb Diameter. v	300 V	Bulb Diameter. v 0y, 15-7/8" + 1/8" Grid 2 Voltage 300 Volts
Overall Length	75 V	Overall Length 22-1/16" + 3/8" Grid 1 Voltage® =35 to <75 Volts
Anode Terminal	1 V	Anode Terminal 31210 φ With the combined grid 1 bias voltage and video-sign al voltage

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Base. ...+ iv i iaranaioan B7	100 A	Base. ...+ iv i iaranaioan B7-51 adjusted 1o give an anode current of 100 micreamp eres on a

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Direct Interlactrode Capacitances: Grid	1 V	Direct Interlactrode Capacitances: Grid 1 Volts:
MECHANICAL: Grid	0.1 Mohm	MECHANICAL: Grid 2 Circvit Resistance, .. 0.1 min, Megohms
Any Grid	0.1 Mohm	 Any Grid 4 Circuit Resistance 0.1 min. Megohms

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