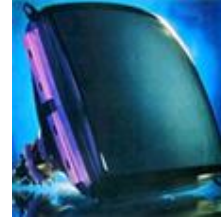




Technical Specifications - 20" CPT - JCTEL A48JSK61X

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• Electrical Data

Electron Gun	Unitized (one piece) triple aperture electrodes centre beam (Green), side beam (Blue, Red)	Heater Current at 6.3 volts	680mA
Focus Method	Electrostatic	Focus Lens	Bi-potential - Uni-potential Uni-potential - Bi-potential
Convergence Method	Magnetic	Deflection Method	Magnetic
Deflection Angles (Approx.): Diagonal	90 deg.	Direct Interelectrode Capacitance (Approx.) Grid No.1 to all other electrodes	12 pF
All cathodes at all other electrode	15 pF	Grid No. 3, 5 to all other electrodes	5 pF
External conductive coating to anode	2000 max. pF, 1500 min. pF	-	-
• Optical Data			
Light Transmission at Centre (Approx.)	52.5%	Screen on Inner Surface of Face Plate	Aluminized, Tricolour, Phosphor-Stripe, Black Matrix Type Stripe Screen
Phosphor (three separate phosphor, collectively)	P22-New Rare-Earth (Red) Sulphide(Blue & Green) Type	Arrangement	Vertical Line Trios
Spacing between centre of adjacent Stripe trios (Approx.)	Horizontal-0.82 mm (0.032 in.) Vertical-0.64 mm (0.025 in.)	-	-

• Mechanical Data

Overall Length : 430.9 ± 6.5 mm (16.96 ± 0.26 in.) Minimum Useful Screen Dimensions (Projected) :

Diagonal	480.0 mm (18.90 in.)	Horizontal axis	404.4 mm (15.92 in.)
Vertical axis	303.3 mm (11.94 in.)	Area	1194 cm ² (185 sq.in.)
Base Designation	B10-277	Bulb Contact Designation	Record Small Cavity Cap. (JEDEC No. J1-21)

• Bulbs

Funnel	EIAJ-JF510AF01	Panel	EIAJ-JP510AD11
Pin Position Alignment	Pin No. 9 and No.10 Aligns Approx. with Anode Contact	Implosion Protection	Banded Type with Mounting Lugs
Weight (Approx.)	13.5 kg (29.7 lbs)	-	-

• Ratings

a. Maximum and Minimum Rating, (Design- Values) :

Unless otherwise specified, voltage values are for each Gun and values are positive with respect to Grid No.1

Anode Voltage	27,500 max.V 20,000 min. V	Total Anode Current: Long-Term Average	1,000 max. uA
Grid No. 3, 5 (Focusing Electrode) Voltage	8,200 max. V	Peak Grid No. 2 Voltage Including Video Signal Voltage	1,000 max. V
CV*: Positive Bias Value	400 max. V	CV*: Positive Operating Cut-off Value	200 max. V
CV*: Negative Bias Value	0 max. V	CV*: Negative Peak Value	2 max. V

Heater Voltage (AC or DC)	6.9 max. Vrms 5.7 min. Vrms	Surge of Heater Voltage (within 100 /m sec)	9.5 max. Vrms
PHCV** : Heater negative with respect to Cathode	200 max. V	PHCV** : Heater positive with respect to Cathode - AC component	200 max. V
PHCV** : Heater positive with respect to Cathode - DC component	0 max. V	Peak Heater-Heater Voltage (Operating with pulse of F. B. T.)	22 max. Vo-p

NOTE: * CV = Cathode Voltage **PHCV = Peak Heater-Cathode Voltage

b. Equipment Design Ranges :

Unless otherwise specified, values are for each Gun and Voltage Values positive with respect to Grid No. 1.

For anode voltages between 20,000 and 27,500 volts: Grid No. 3, 5 (Focusing Electrode) Voltage	26.6% to 29.8% of Anode Voltage.
Grid No. 2 and Cathode Voltages for Visual Extinction of undeflected focused Spot	See CUT-OFF DESIGN CHART
For anode voltages between 20,000 and 27,500 volts: Grid No. 3, 5 (Focusing Electrode) Voltage	26.6% to 29.8% of Anode Voltage.
Maximum Ratio of Cathode Voltages, Highest Gun to Lowest Gun in any Tube (With Grid No. 2 at 425 Volts and Cathode Voltage Adjusted for spot cut-off)	1.25
Grid No. 3, 5, Current	-15 to + 15 uA
Grid No. 2 Current	-5 to + 5 uA

c. Examples of Use of Design Ranges :

Unless otherwise specified, values are for each Gun and are positive with respect to Grid No. 1.

Anode Voltage	25,000 V
Grid No. 3, 5 (Focusing Electrode) Voltage	6,650 to 7,450 V
Grid No. 2 Voltages when circuit design utilize cathode voltage of 160 volts for visual extinction of focused spot	460 to 820 V
Heater Voltage (1) : Under operating condition	6.3 Vrms

d. Limiting Circuit Values :

High-Voltage Circuits :

In order to minimize the possibility of damage to the circuit caused by a momentary internal arc, it is recommended that the high-voltage power supply and the Grid No. 3, 5 power supply should be of the limited energy type.

Grid No. 3, 5 Circuit Resistance	30 Max. mega ohms.
Low-Voltage Circuits : Effective Grid No.1 to cathode Circuit resistance (each Gun)	0.75 Max. mega ohms

• Sagittal Heights and Mounting Lug Height

X Dimension is 434.2 mm and Y Dimension is 336.8 mm.

Tolerance of the Mounting Lug holes will accommodate mounting screws up to 8.5 mm in diameter when positioned on the true centre of the hole.