

TUNG-SOL**CATHODE RAY**

THE 21AYP4 IS A DIRECT VIEW PICTURE TUBE DESIGNED FOR TELEVISION APPLICATIONS. EXCEPT FOR INCREASED EXTERNAL CONDUCTIVE COATING TO ANODE CAPACITANCE VALUES, IT IS IDENTICAL TO THE 21XP4. ITS FEATURES INCLUDE:

MAGNETIC DEFLECTION	SPHERICAL FACEPLATE
ELECTROSTATIC FOCUS	GREY FILTER FACEPLATE
UNIPOTENTIAL CATHODE	12 3/4" X 17" RASTER SIZE
RECTANGULAR GLASS CONSTRUCTION	EXTERNAL SINGLE FIELD ION TRAP
EXTERNAL CONDUCTIVE COATING	

ELECTRICAL DATA

		ELECTROSTATIC
		MAGNETIC
FOCUSING METHOD		
DEFLECTING METHOD		
DEFLECTION ANGLE (APPROX.):		
HORIZONTAL	66	DEGREES
VERTICAL	50	DEGREES
DIAGONAL	77	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):		
CATHODE TO ALL OTHER ELECTRODES	5	$\mu\mu\text{f}$
GRID #1 TO ALL OTHER ELECTRODES	6	$\mu\mu\text{f}$
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	2500	$\mu\mu\text{f}$
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	750	$\mu\mu\text{f}$

OPTICAL DATA

PHOSPHOR NUMBER	P-4
FLUORESCENT COLOR	WHITE
PHOSPHORESCENT COLOR	WHITE
PERSISTENCE	MEDIUM
FACEPLATE TRANSMISSION AT CENTER (APPROX.):	72 PERCENT

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE VOLTAGE	18 000	VOLTS
MAXIMUM DC GRID #4 VOLTAGE	-500 TO +1000	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	500	VOLTS
MAXIMUM GRID #1 VOLTAGE:		
DC NEGATIVE-BIAS VALUE	125	VOLTS
DC POSITIVE-BIAS VALUE	0	VOLTS
POSITIVE-PEAK VALUE	2	VOLTS
MAXIMUM DC PEAK HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE		
DURING WARM-UP PERIOD NOT TO EXCEED 15 SECONDS	410	VOLTS
AFTER EQUIPMENT WARM-UP PERIOD	180	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	180	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEG OHMS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	16 000	VOLTS
DC GRID #4 VOLTAGE ^A	-64 TO +352	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^B	-28 TO -72	VOLTS
DC ION TRAP MAGNET STANDARD COIL #117 (APPROX.)	30 $\pm$ 40%	MA.
DC ION TRAP MAGNET RATED STRENGTH	35	GAUSSSES

^A WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO-SIGNAL VOLTAGE ADJUSTED TO GIVE AN ANODE CURRENT OF 100 MICROAMPERES ON 17" BY 12 3/4" PICTURE SIZE.

^B VISUAL EXTINCTION OF FOCUSED RASTER.

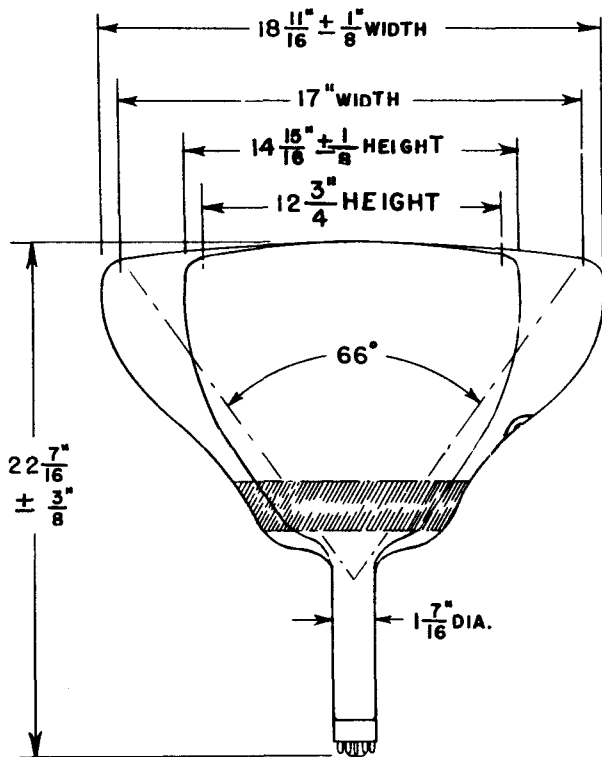
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TUNG-SOL

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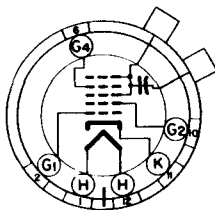
MECHANICAL DATA

OVERALL LENGTH	22 $\frac{7}{16}$ $\pm$ $\frac{3}{8}$	INCHES
GREATEST DIMENSIONS OF BULB:		
DIAGONAL	20 $\frac{5}{8}$ $\pm$ $\frac{3}{16}$	INCHES
WIDTH	18 $\frac{11}{16}$ $\pm$ $\frac{1}{8}$	INCHES
HEIGHT	14 $\frac{15}{16}$ $\pm$ $\frac{1}{8}$	INCHES
MIN. USEFUL SCREEN DIMENSIONS:		
WIDTH	12 $\frac{3}{4}$	INCHES
HEIGHT	12 $\frac{3}{4}$	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J4-21
BASE	SMALL SHELL DUODECAL 6 PIN	B6-63
BULB CONTACT ALIGNMENT		
J4-21 CONTACT ALIGNS WITH PIN POSITION #6 $\pm$ 30 DEGREES		
BASING		12L



PIN CONNECTIONS

PIN 1 - HEATER
 PIN 2 - GRID #1
 PIN 6 - GRID #4
 PIN 10 - GRID #2
 PIN 11 - CATHODE



PIN 12 - HEATER
 ANODE CAP:
 GRID NO. 3
 GRID NO. 5

BOTTOM VIEW