

ELECTRONIC TUBE REFERENCE

21KP4A

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Twenty-one-inch rectangular direct-view television picture tube with electrostatic focus, magnetic deflection, gray-filter faceplate, external single-field ion trap, and white P4 medium-persistence screen for monochrome receiver service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	12
NOMINAL HEATER	6.3 V / 600 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	20000 V
MAXIMUM SCREEN VOLTAGE	410 V
Published promoted fields populated by printed ratings/characteristics headings.	

A-version of the 21KP4 electrostatically focused, magnetically deflected television picture tube.



SOURCE OPERATING CONDITIONS

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Cathode Ray

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HighVoltageAnodeMaximum	20000 V	CRT

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
CathodeToOtherElectrodesCapacitance	5 pF	Approximate



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 4 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 4 OF 4

Section 1 · Cathode Ray

CONSTRUCTION

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focusing method	Electrostatic	—
Deflecting method	Magnetic	—
Phosphor	P4	White;MediumPersistence

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Deflection angle	70 deg	Approximate
Faceplate light transmission at center	66 %	Approximate

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	600 mA	—
Maximum DC anode voltage	15000 V	—
Maximum DC grid #2 voltage	410 V	—
Maximum grid #1 negative-bias magnitude	125 V	—
Maximum grid #1 positive DC voltage	0 V	—
Maximum grid #1 positive peak voltage	2 V	—
Typical DC anode voltage	12000 V	TelevisionPictureTube
Typical DC grid #2 voltage	300 V	TelevisionPictureTube
Typical grid #1 voltage minimum	-77 V	VisualExtinctionRange
Typical grid #1 voltage maximum	-33 V	VisualExtinctionRange
Maximum grid #1 circuit resistance	1.5 megohm	—
Ion trap magnet rated strength	50 gauss	Approximate
Focusing electrode voltage minimum	-500 V	ElectrostaticFocus
Focusing electrode voltage maximum	1000 V	ElectrostaticFocus
Centering magnet field strength maximum	8 gauss	Approximate

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode-to-all-other-electrodes capacitance	6 pF	Approximate
Grid #1-to-all-other-electrodes capacitance	6.5 pF	Approximate

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Direct-view television picture tube	—

TUBE TINKER

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and their source documents.

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