

ELECTRONIC TUBE REFERENCE

7566

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Three-inch Radechon barrier-grid storage tube using electrical write and read with electrostatic focus and deflection. Designed for digital or analog computers and pulse-height analyzers, it combines high resolution with rugged construction.

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/electrical section.

WCStilghOIISé WL-7566 December 1, 1959 BARRIER GRID STORAGE TUBE TYPE WL-7566 (RADECHON) - Rugged Construction High Resolution 2.6' Useful Diameter Target 1 Shie!ded Target Assembly Coaxial Connection for Signal Output The WL-7566 is a 3" electrical write, electrical read, barrier-grid type storage tube, It is designed for service in digital or analog computer systems and pulse h eight analyzers. The WL-7366 uses a single gun with electrostatic focus and deflection. The electron-optical design of this gun mckes unnecessary any astigmatic correction AN / in order to achieve a fine electron beam of high current density at all deflections, A high degree of mechanical strength is imparted to the 4-bead gun structure by making the collector terminal an integral part of the gun. The coliector terminal is a thick Kovar ring sealed into the envelope of the tube and electricully con- nected to the collector wall coating and externsl conductive coating. Permanent axial alignment of the gun is t



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1947 Westinghouse

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

1947 WESTINGHOUSE

Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
A high degree of mechanical strength is imparted to the	4	A high degree of mechanical strength is imparted to the 4-bead gun structure by
Voltage e e e e	8	Voltage e e e e 6.3 Volts Moximum Overall Length i 1.7/8"
Cureentd ..ottt it	2.6	Cureentd ..ottt it 0.6 Ampere Maximum Usable Target Diometer [P 2.6"
Cothode to Barrier Grid Voltage	-3300	Cothode to Barrier Grid Voltage -3300 max. Volts
Grid to Barrier Grid Voltage	-3000	Grid to Barrier Grid Voltage -3000 max. Volts
Barrier Grid to Backplate	3	Barrier Grid to Backplate 1600 £ 20% e Grid 1 to Cathode Voltage +3 max. Volts
' Grid	-3000	' Grid 3 to Grids 2 & d Voltage. -3000 mox. Volts
Cathade Voltage £	100	- Cathade Voltage £100 mox. Volis
Colloctor ta All Other Eelectrodes	22	Colloctor ta All Other Eelectrodes 22 ppf Tttt :
Cathode to all Other Electrodes	500	Cathode to all Other Electrodes 500 min. Magohms {With Barrier Grid Graundad)
Meater to Cathode	-1100	Meater to Cathode 50 min. Megohms Cathodo Voltage ot onnn -1100 Volis
Any one Defloction Plate to Grid	-1140	Any one Defloction Plate to Grid 1 Cutoff Voltage N . -1140 Volts
all Other Deflection Plotes	150	all Other Deflection Plotes 500 min. Megohms Grids 28 4 Voltage e 4+150 Volta

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Backplate to Barrier Geid	77015	Backplate to Barrier Geid 100 min. Megohms Grid3Voltage 00 <77015% Volts
Grid	150	Grid 3 to all Other Electrodes 500 min. Megohms Collector Voltage. vi it +150 VYoits
Grid	500	Grid 1 1o oll Othor Electrodes 500 min. Megohms Back Plate Voltage:
FocusingMethod Electrostatic Reading Conditions o vt vvnvans	0	FocusingMethod Electrostatic Reading Conditions o vt vvnvans . 0 Volts
Doflacting Methed PR Electrostatic Writing Conditions o vie i esnn	40	Doflacting Methed PR Electrostatic Writing Conditions o vie i esnn +40 Volts
o h	3000	o h ... 125f7% Volta/lach/KY di 806 3000
shown in CE-A	421	shown in CE-A1421. electrons are emitted in proportion to the secondary
canter of tho target. voltage. For the WL	7566	canter of tho target. voltage. For the WL-7566 target, this ratio follows the
pulsed	50	pulsed 20 to 50 volts positive with respect to the barrier
scanned across the target. The barrier grid prevents	150	scanned across the target. The barrier grid prevents 150 VOLTS g VOIS I
/ +	50	/ + 50 VOLTS PERFORMANCE
(	0	(30 VOLTS 0 VOLTS cE avars
to either	1	to either +15 volts to write a *'1'" or -15 volts to write 8192 '0"' 's or *'1'* 's is stored on the target. The re-
a *	3	a *0"'. In each case the beam duration is sufficient to generation cycle is set at 1 microsecond "read", 3
bring the spot to equilibrinm. The Radechon grid drive microsecond "rewrite" and	6	bring the spot to equilibrinm. The Radechon grid drive microsecond "rewrite" and 6 microsecond "deflect".
current of approximately	1024	current of approximately 1 ua. of the 1024 locations is addressed N consecutive times.
quarter of the nominal '	1	quarter of the nominal '1" signal amplitude. Any

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
an ultor voltage of	1100	an ultor voltage of 1100 volts and a well focused spot.
consulted N consecutive times, and the smallest value September	1195	consulted N consecutive times, and the smallest value September 1958 Page 1195
target does not exceed	1	target does not exceed 2 to 1 with a cathode voltage of cations employing a conventional raster. The tube
=	80	= 80 Mesh Volts = O
20 Curve {a})+--QI9-- -- 50 --pamperes	20	20 Curve {a})+--QI9-- -- SO --pamperes
Curve (c)	-150	Curve (c)---0.38---150- pamperes
Curve (d)	-200	Curve (d)-- - 048---200 - -yamperes ¥

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DJland DJ	70	DJland DJ2. ... U 11027% Volts/inch/ky MERIT FACTOR: waing 70% of usoble Min. Bogey .
100 —4 100 SECONDARY EMISSION CHARACTERISTIC	100	100 —4 100 SECONDARY EMISSION CHARACTERISTIC
-1100 volts. The signal output actually is much more charact	-1100	-1100 volts. The signal output actually is much more characteristic of value in this application is its reso-

TUBE TINKER

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