from JEDEC release
#2403, March 9, 1959

electronic ETC tube corp.

5CTP- CATHODE RAY TUBE

The ETC Type 5CTP- is a dual beam electrostatic deflection and focus cathode ray tube having a multiband post-accelerator electrode and extremely high sensitive signal deflection plates. Each of the beams is independently controlled with the exception of post-acceleration which is common to both. The deflector leads have been brought directly out through the bulb wall for shortest lead length.

GENERAL CHARACTERISTICS

Electrical Data

Heater Voltage	6.3 Volts
Heater Current	.6 ± 10% Amperes
Focusing Method	Electrostatic
Deflecting Method	Electrostatic

Phosphor	P1	P2	P7	P11
Fluorescence	Green	Green	Blue	Blue
Phosphorescence	-	Green	Yellow	-
Persistence	Medium	Long	Long	Short

Direct Interelectrode Capacitances
- Cathode to all other electrodes
- Grid No. 1 to all other electrodes
- D1 to D2
- D3 to D4
- D1 to all other electrodes except D2
- D2 to all other electrodes except D1
- D3 to all other electrodes except D4
- D4 to all other electrodes except D3

Mechanical Data

Overall Length	18-5/8 ± 3/8 Inches
Greatest Bulb Diameter	5-1/4 ± 3/32 Inches
Minimum Useful Screen Diameter	4.5 Inches
Bulb Contact	J1-22
Base	B12-37
Neck Contacts	J1-25
Base Alignment	
D3D4 trace aligns with Pin No. 4 and tube axis	± 10 Degrees
Positive voltage on D4 deflects the beam approximately towards Pin No. 11	
Positive voltage on D1 deflects the beam approximately towards Pin No. 7 and 8.	
Bulb Contact Alignment	
J1-22 contact aligns with D3D4 trace	45 ± 10 Degrees
Trace Alignment	
Angle between D3D4 and D1D2 trace	3 Degrees

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MAXIMUM RATINGS Design Center Values

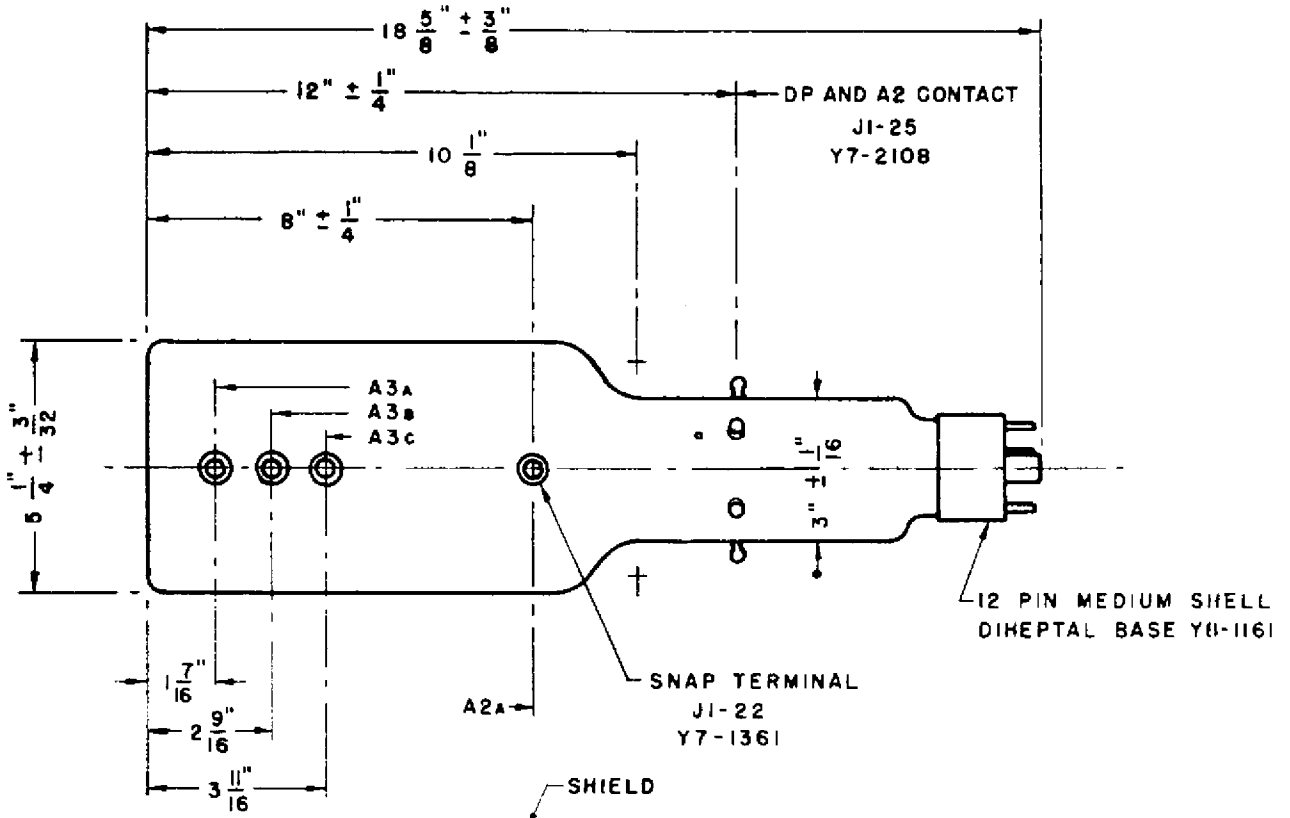
Post Accelerator Voltage	6600 Max. Volts D-C
Accelerator Voltage	2200 Max. Volts D-C
Ratio Post-Accelerator Voltage to Accelerator Voltage	3.0 Max.
Focusing Voltage	1500 Max. Volts D-C
Grid No. 1 Voltage	
Negative Bias Value	200 Max. Volts D-C
Positive Bias Value	0 Max. Volts D-C
Positive Peak Value	0 Max. Volts D-C
Peak Heater to Cathode Voltage	
Heater Negative with respect to Cathode	180 Max. Volts D-C
Heater Positive with respect to Cathode	Max. Volts D-C

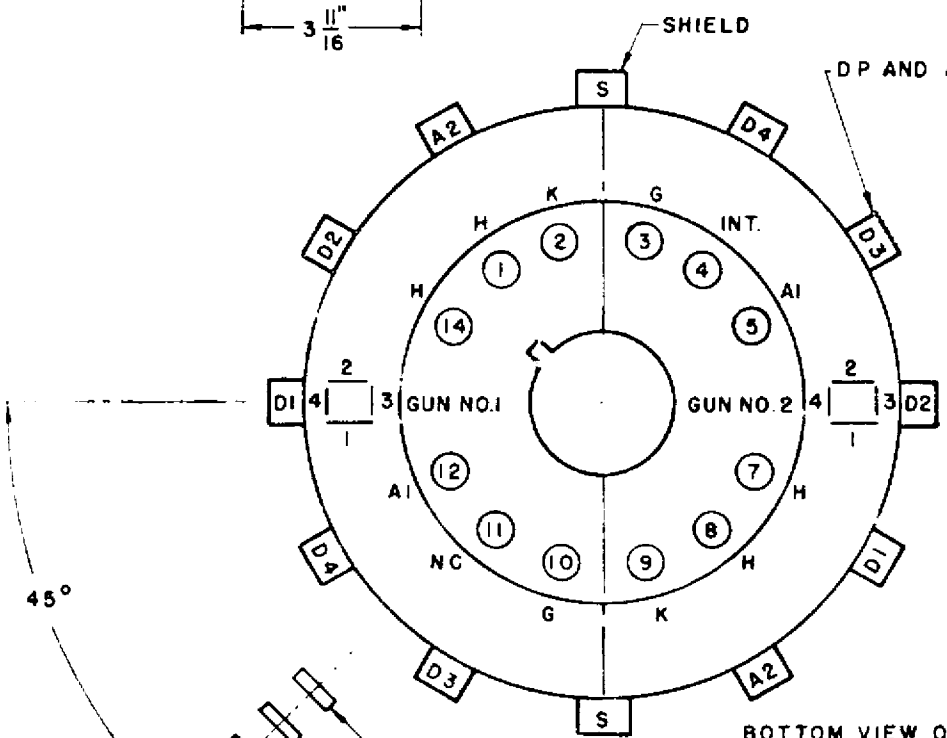
TYPICAL OPERATING CONDITIONS

For Post-Accelerator Voltage of	6000 Volts D-C
For Accelerator Voltage of	2000 Volts D-C
Focusing Voltage	300 to 550 Volts D-C
Grid No. 1 Voltage	-30 to -70 Volts D-C
Modulation Factor Ib3 = 25 us	50 Volts Max.
Line Width A Ib3 = 25 ua	.028 Inches Max.
Deflection Factors	
D1 and D2	65 to 75 Volts D-C/Inch
D3 and D4	25 to 35 Volts D-C/Inch
Deflection Factor Uniformity	5% Max.
Useful Scan	
D1D2	4 Inches
D3D4	3-1/2 Inches
Spot Position (Undeflected and focused)	25 mm. square

CIRCUIT DESIGN VALUES

Focusing Voltage	Volts per Kilovolt of Accelerator Voltage
Focusing Current for any operating condition	-50 to +10 Microamperes
Grid No. 1 Voltage	Volts per Kilovolt of Accelerator Voltage
Grid No. 1 Circuit Resistance	1.5 Max. Megohms
Deflection Factors:	
Post-Accelerator Voltage = Accelerator Voltage	
D1 and D2	Volts D-C/Inch/KV of Accelerator Voltage
D3 and D4	Volts D-C/Inch/KV of Accelerator Voltage
Resistance in any Deflecting-Electrode Circuit	5 Max. Megohms





NOTE:
+ ID2 TOWARDS PIN NO.10

BOTTOM VIEW OF
BASE CONNECTIONS

ELECTRONIC TUBE CORPORATION

PHILADELPHIA, PA.

TITLE

5CTP TUBE OUTLINE DRAWING

TOLERANCES DEC.	FRAC. ± 1/8"	ANG.
ENG.	DATE 11-26-54	APP.
DR. W. ZIEGLER	SCALE 1/4" = 1"	DRAWING NO. A-2358
CKD. H. Warren	REV REDRAWN-186 WAS52REP	