CHARACTERISTICS

GENERAL DATA

Focusing Method ............................................ Electrostatic
Deflecting Method .......................................... Electrostatic

Types* | Fluorescence | Phosphorescence | Persistence
--- | --- | --- | ---
5AMP1 | Green | —— | Medium
5AMP1A | Green | —— | Medium
5AMP2 | Blue-Green | Green | Long
5AMP2A | Blue-Green | Green | Long
5AMP7 | Blue-White | Yellow | Long
5AMP7A | Blue-White | Yellow | Long
5AMP11 | Blue | —— | Short
5AMP11A | Blue | —— | Short

Faceplate .............................................. Flat, Clear

*In addition to the types shown, the 5AMP- can be supplied with several other screen phosphors.

ELECTRICAL DATA

Heater Voltage ............................................ 6.3 Volts
Heater Current ........................................... 0.6 ± 10% Ampere

Direct Interelectrode Capacitances MIN. MAX.
Cathode to All Other Electrodes .......................... 2.7 4.9 µF
Grid No. 1 to All Other Electrodes ...................... 2.9 5.5 µF
Between Deflecting Plates 1-2 ......................... 2.1 3.9 µF
Between Deflecting Plates 3-4 ......................... 1.3 2.5 µF
Deflecting Plate 1 to All Other Electrodes .......... 4.3 7.9 µF
Deflecting Plate 2 to All Other Electrodes .......... 4.0 7.4 µF
Deflecting Plate 3 to All Other Electrodes .......... 2.9 5.5 µF
Deflecting Plate 4 to All Other Electrodes .......... 2.6 4.8 µF

MECHANICAL DATA

Minimum Useful Screen Diameter ...................... 4½ Inches
Neck Contacts (Small Ball Caps) ....................... J1-25
Bulb ......................................................... J42P
Base (Medium Shell Diheptal 12-Pin) ................ B12-37
Basing ..................................................... 14U

Base Alignment
D1-D2 Trace Aligns with Pin No. 5
and Tube Axis .............................................. ± 10 Degrees

Positive Voltage on D1 deflects Beam
approx. Toward Pin No. 5

Positive Voltage on D3 deflects Beam
approx. Toward Pin No. 2

Angle Between D1-D2 trace and D3-D4 trace .......... 90 ± 1 Degrees

Weight (approx.) ........................................ 2¾ Pounds
RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

- Anode No. 2 Voltage: 6600 Volts dc
- Anode No. 1 Voltage (Focusing Electrode): 1650 Volts dc
- Grid No. 1 Voltage
  - Negative Bias Value: 220 Volts dc
  - Positive Bias Value: 0 Volts dc
  - Positive Peak Value: 0 Volts
- Peak Heater-Cathode Voltage
  - Heater Negative with Respect to Cathode: 200 Volts
  - Heater Positive with Respect to Cathode: 200 Volts
- Peak Voltage Between Anode No. 2 and Any Deflection Plate: 1320 Volts

TYPICAL OPERATING CONDITIONS

- Anode No. 2 Voltage: 2500 Volts dc
- Anode No. 1 Voltage for Focus: 0 to 300 Volts dc
- Grid No. 1 Voltage Required for Cutoff: −34 to −56 Volts dc
- Deflection Factors
  - Deflecting Plates 1-2: 40 to 50 Volts dc/Inch
  - Deflecting Plates 3-4: 20 to 25 Volts dc/Inch
- Deflection Factor Uniformity: 1% Max.
- Modulation: 45 Volts dc/Max.
- Line Width “A”:
  - .032 Inches Max.
- Anode No. 2 Current: 800 μA Max.
- Pattern Distortion @ 75% Useful Scan: 2% Max.
- Spot Position (Undelected, Focused):
  - Within a 3/16 Inch Radius Circle
- Useful Scan
  - D1-D2: ± 2 Inches From Tube Face Center or a Total of 4 Inches Minimum
  - D3-D4: ± 1.25 Inches From Tube Face Center or a Total of 2.5 Inches Minimum

CIRCUIT VALUES

- Grid No. 1 Circuit Resistance: 1.5 Megohms Max.
- Deflection Circuit Resistance: 1.0 Megohms Max.

NOTES:

1. The product of the Anode No. 2 Voltage and Average Anode No. 2 Current should be limited to 6 watts.
2. Visual extinction of undeflected focused spot.
3. Deflection plates D1 and D2 are nearer the screen; deflecting plates D3 and D4 are nearer the base.
NOTES: (Cont’d)

4. The deflection factor (for both D1-D2 and D3-D4 plate pairs, separately) for any deflection of less than 75% of the useful scan will not differ from the deflection factor for a deflection at 25% of the useful scan by more than the indicated value.

5. Measured in accordance with MIL-E-1 on a P1 screen at a brightness of 15 foot Lamberts on a 2" x 2" focused raster.

6. Raster pattern adjusted so widest points just touch the sides of a 1.912 x 3.060 inch rectangle will fall within the area bounded by the 1.912 x 3.060 inch rectangle and an inscribed 1.837 x 2.940 inch rectangle.

7. Limit circle centered on tube face, with the tube shielded and with all deflection plates connected to Anode No. 2. Under stable operating conditions the spot will not shift with changes in intensity by more than .025 inch.

8. It is recommended that the deflecting electrode circuit resistances be approximately equal.

9. Types 5AMP1A, 5AMP2A, 5AMP7A and 5AMP11A are identical to the 5AMP1, 2, 7, 11 except for the following:

   (a) Angle between D3-D4 trace and D1-D2 trace — 90° ± 0.8° Degrees

   (b) Pattern distortion at 100% of useful scan: All portions of a raster pattern adjusted so its widest points just touch the sides of a 2.500 by 4.000 inch rectangle will fall within the area bounded by the 2.500 by 4.000 inch rectangle and inscribed 2.420 by 3.912 inch rectangle.