CATHODE RAY

THE 16LP4 AND 16LP4A ARE DIRECT-VIEW PICTURE TUBES DESIGNED FOR USE IN TELEVISION APPLICATIONS. THEY ARE IDENTICAL EXCEPT FOR THE GREY FILTER FACEPLATE USED ON THE 16LP4A. THEIR COMMON FEATURES INCLUDE:

- UNIPOTENTIAL CATHODE
- MAGNETIC FOCUS & DEFLECTION
- EXTERNAL DOUBLE FIELD ION TRAP
- ROUND GLASS CONSTRUCTION
- 10 1/8" X 14 1/2" RASTER SIZE

ELECTRICAL DATA

FOCUSING METHOD MAGNETIC
DELECTING METHOD MAGNETIC
DEFLECTION ANGLE (APPROX.) 52 DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):
- CATHODE TO ALL OTHER ELECTRODES 5 μf
- GRID #1 TO ALL OTHER ELECTRODES 6 μf
- MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE 2 000 μf
- MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE 750 μf

OPTICAL DATA

PHOSPHOR NUMBER SULFIDE
FLUORESCENT COLOR WHITE
PHOSPHORESCENT COLOR WHITE
PERSISTENCE MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.) 66 PERCENT

MECHANICAL DATA

OVERALL LENGTH 22 1/4 ± 3/8 INCHES
GREATEST DIAMETER OF BULB 15 7/8 ± 1/8 INCHES
MINIMUM USEFUL SCREEN DIAMETER 14 1/2 INCHES
BULB CONTACT RECESSED SMALL CAVITY CAP J1-21
BASE SMALL SHELL DUODECAL 5 PIN 85-57
BASING 12N
BULB CONTACT ALIGNMENT J1-21 CONTACT ALIGNS WITH PIN POSITION #3 ± 10 DEGREES

PIN CONNECTIONS

PIN 1 - HEATER
PIN 2 - GRID NO. 1
PIN 10 - GRID NO. 2
PIN 11 - CATHODE
PIN 12 - HEATER
ANODE CAP

CONTINUED ON FOLLOWING PAGE
RATINGS
DESIRED CENTER VALUES

HEATER VOLTAGE 6.3 VOLTS
HEATER CURRENT 0.6 AMP.
MAXIMUM DC ANODE VOLTAGE 14 000 VOLTS
MAXIMUM DC GRID #2 VOLTAGE 410 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 125 VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE 125 VOLTS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE 12 000 VOLTS
DC GRID #2 VOLTAGE 300 VOLTS
DC GRID #1 VOLTAGE^A \(-33 \text{ to } -77 \) VOLTS
DC FOCUSING COIL CURRENT (APPROX.)^B 110 MA.
DC ION TRAP CURRENT STANDARD COIL #108 (APPROX.) 120 MA.

^A VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

^B FOR STANDARD FOCUS COIL #106, OR EQUIVALENT, WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 20 FOOT LAMBERTS ON A 10 1/4" BY 14 1/2" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP OR FOCUS COIL SHALL BE 3.25 INCHES.

CIRCUIT VALUES

MAXIMUM GRID #1 CIRCUIT RESISTANCE 1.5 MEGOHMS