GENERAL ELECTRODYNAMICS

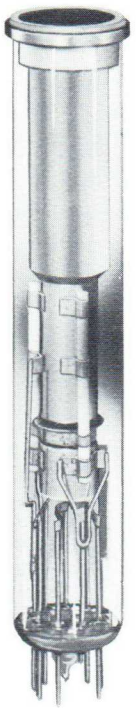
7735A VIDICON

MAGNETIC FOCUS AND DEFLECTION
600 MILLIAMP HEATER

The 7735A Vidicon has been specially designed for televising live scenes giving pictures of satisfactory quality with as little as 0.2 foot-candles of illumination on the faceplate. The improved photoconductive coating features high sensitivity, resistance to burn-in, and excellent uniformity, so that optimum pictures may be obtained by adjustment of the signal electrode voltage without limiting restrictions on the dark current. The 7735A features uniformity of focus over the scanned area and high resolution and sensitivity at the corners as well as in the center of the faceplate. Patented internal construction allows the tube to be operated in any position and in high ambient noise environments.

GENERAL:

Operating Position	Any
Focusing Method	Magnetic
Deflection Method	Magnetic
Maximum Useful Diagonal of Rectangular Image (4 x 3 Aspect Ratio)	0.625 in.
Orientation of Image....Horizontal Scan should be essentially parallel to a plane passing through tube axis and the short index pin.	



ELECTRICAL CHARACTERISTICS:

Heater	
Voltage (AC or DC)	6.3 V ± 10%
Current (at 6.3 V)	.60 A ± 10%
Direct Interelectrode Capacity (Signal Electrode to all other Electrodes)	3.1 pf
Spectral Response	S-18

ABSOLUTE MAXIMUM RATINGS:

Heater - Cathode Peak Values	
Heater Negative with Respect to Cathode	125 V
Heater Positive with Respect to Cathode	10 V
Grid No. 1 Voltage	
Negative Bias Values	300 V
Positive Bias Values	0 V

ELECTRONIC TUBE DIVISION
GENERAL ELECTRODYNAMICS CORPORATION, GARLAND, TEXAS

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ABSOLUTE MAXIMUM RATINGS (Continued):

Grid No. 2 Voltage	1000 V
Grid No. 3 Voltage	1000 V
Faceplate	
Illumination	1000 ft-c
Operating Temperature	71° C
Storage Temperature	125° C
Signal Electrode Current	.60 uA

TYPICAL OPERATION:

Minimum Peak-to-Peak Blanking Voltage	
When applied to Grid No. 1	30 V
When applied to Cathode	10 V
Grid No. 1 Voltage (For picture cut off with no blanking voltage on Grid No. 1)	-45 to -100 V
Grid No. 2 Voltage	300 V
Grid No. 3 Voltage	200 to 300 V
Average Gamma of Transfer Characteristic over Signal Output Current operating range of .05 to .2 uA	.65
Scanned Area	0.500 x 0.375 in.
Faceplate Temperature	30° to 35° C.
Typical Signal Output Current at .02 ua dark current and 1 foot-candle faceplate illumination	.18 ua
Signal Electrode Voltage (for typical signal output current)	15 V to 75 V

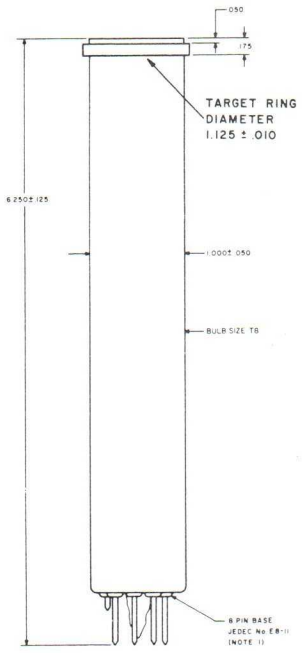

FIG. 1

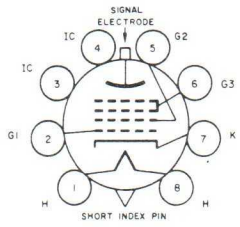

FIG. 2 BOTTOM VIEW

PIN 1: HEATER
PIN 2: GRID No. 1
PIN 3: INTERNAL CONNECTION--DO NOT USE
PIN 4: INTERNAL CONNECTION--DO NOT USE
PIN 5: GRID No. 2
PIN 6: GRID NO. 3
PIN 7: CATHODE
PIN 8: HEATER
FLANGE: SIGNAL ELECTRODE
SHORT INDEX PIN: INTERNAL CONNECTION--DO NOT USE

NOTES

1. Base-pin positions fit 0.25 inch thick, 10-hole flat-plate gage with holes located as follows: 9 holes, 0.0550 (±0.0005) inch diameter equally spaced, 0.2052 (±0.0005) inch apart on a circle, 0.6000 (±0.0005) inch diameter, plus a center hole, 0.300 (±0.001) in. diameter, concentric with 9-hole circle.

2. All dimensions are shown in inches.