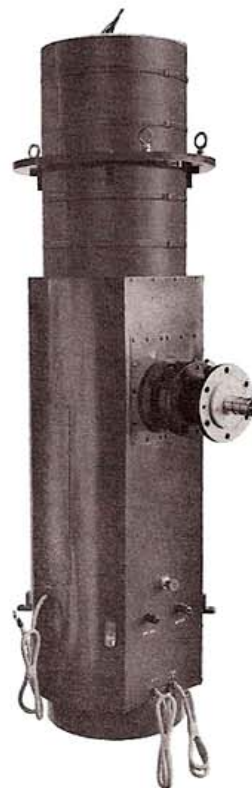


DESCRIPTION

The VKP-7758 five-cavity, electrostatically-focused klystron amplifier is a new high-power tube for use in troposcatter communication equipment. It delivers a CW output of at least 11 kilowatts at any frequency over its tunable frequency range of 755 to 985 megahertz. With electrostatic focusing, a focusing electromagnet and its power supply are not required and since focusing adjustments are eliminated, potential tube damage is minimized. The VKP-7758 is forced-air cooled and requires only one blower, because of its shrouded duct system.

MAXIMUM RATINGS¹

Beam Voltage	19 kVdc
Beam Current	2 Adc
Collector Dissipation	28 kW
Body Current	300 mAdc
Load VSWR	1.5:1
Collector Temperature	275 °C



GENERAL CHARACTERISTICS²

ELECTRICAL

Frequency Range	755 to 985 MHz
Power Output	11 kW
Heater Voltage	7.5 ± 0.37 V
Heater Current	12 A
Heater Warm-up Time, min	5 min
Focusing	Electrostatic

PHYSICAL

Dimensions	See Outline Drawing
Weight, approximate	250 lb
Mounting Position	Vertical, cathode down
Cooling	Forced Air
Air Flow	800 ft ³ /min
Back Pressure	3.5 in-H ₂ O
Connectors	See Outline Drawing

TYPICAL OPERATING CONDITIONS³

Frequency	755 MHz	Efficiency	33 %
Power Output	11.2 kW	Beam Voltage	18.5 kVdc
Drive Power	2.75 W	Beam Current	1.82 Adc
Gain	36.1 dB	Body Current	175 mAdc
Bandwidth, 3-dB	6 MHz		

NOTES:

1. Ratings should not be exceeded under continuous or transient conditions. A single rating may be the limitation and simultaneous operation at another rating may not be possible. Equipment design should limit voltage and environmental variations so that ratings will never be exceeded.

2. Characteristics and operating values are based on performance tests. These figures may change without notice as a result of additional data or product refinement. Varian should be consulted before using this information for final equipment design.

OUTLINE DRAWING

