GENERAL DESCRIPTION

The RK7452 is a fixed frequency, pulsed-type oscillator operating within the frequency limits of 15,840 - 16,160 megacycles, with a minimum peak power output of 70 kilowatts. It is an integral magnet, waveguide output type tube requiring forced air cooling and is designed for coupling to standard RG 91 U waveguide (0.702 x 0.391).

Mechanical Data
Mounting Position ........................................ Cathode Vertical
Net Weight .................................................. 25 Lbs.
Cooling ....................................................... Forced Air
Output Pressurization ...................................... Required (25 psia Min.)

Electrical Data
Heater Voltage - Preheat/180 sec ...................... 4.8 Volts
Heater Current at 4.8 Volts ............................... 10.8 - 13.2 Amperes
Voltage Rise Time ......................................... ,09 to .14 usec
R. F. Bandwidth ........................................... 2.0/tpc Max.
Maximum V. S. W. R. ....................................... 1.5

Typical Operation
Pulse Duration .............................................. 0.25 usec
Duty Cycle .................................................. .00215
Average Anode Current ................................... 26 Milliamperes
Average Power Output .................................... 150 Watts (Min.)
Peak Anode Voltage ....................................... 24 KV

Reliable operation and maximum magnetron life can be achieved only if the overall radar transmitter is designed with the magnetron characteristics clearly in mind. This preliminary Data Sheet is intended as an introduction to this type magnetron and not as an absolute guide to users. Inquiries on this magnetron and its application should be directed to the Applications Engineering Department at Raytheon Company, Waltham, Massachusetts.