

RK 7718

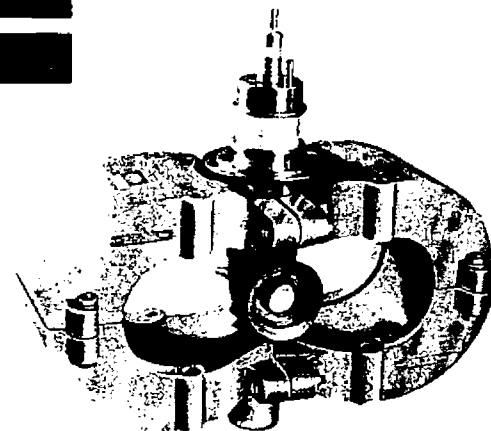
PRELIMINARY

DATA SHEET

RAYTHEON

GENERAL DESCRIPTION

The RK7718 magnetron is a fixed frequency, high power, pulsed oscillator which is capable of delivering a minimum of 1.0 megawatt peak power and 875 watts average power. The RK7718 operates within 9340-9440 megacycles. The tube has an integral magnet, unipotential cathode, waveguide output coupling and is liquid cooled.



RK7718

Mechanical Data

Mounting Position	Cathode Vertical
Net Weight	80 lbs. Approx.
Cooling	Liquid
Input Bushing	Oil Immersed
Pressurization (Output)	45 p.s.i.a. Min.

Typical Electrical Data

Heater Current (Preheat - 600 sec.)	36 Amperes *
Heater Voltage @ 150 A	3.6 Volts *
Pulse Duration	2.0 usec
Duty Cycle	.000875
Peak Anode Voltage	39 Kilovolts
Voltage Rise Time	.45 usec Min.
Peak Anode Current	68.6 Amperes
Maximum VSWR	1.5
Average Power Output	975 Watts
R.F. Bandwidth	2.0/tpc. Max.
Objective Life - 1.5 VSWR, Off-On Cycle	1000 Hrs. Min.

* Not Final Values

Reliable operation and optimum magnetron life can be achieved only if the overall radar transmitter is designed with the magnetron characteristics and peculiarities clearly in mind. This preliminary data sheet is intended only to acquaint the reader with the basic characteristics of the magnetrons and should not be used as an absolute guide. Detailed test specifications are available upon request, and specific problems pertaining to applications should be directed to the Applications Engineering Department, Microwave and Power Tube Division at Raytheon, Waltham, Massachusetts.

from JEDEC release #3478, Nov. 6, 1961

The specifications for this tube have not been finalized. The tube is being manufactured in limited quantities and is available for engineering analysis purposes only. This engineering information and/or delivery of sample tubes do not imply availability of tubes with the same electrical and/or mechanical characteristics. Changes in ratings and/or dimensions may be made at our discretion, as deemed advisable by us, without notice. For current information concerning this tube, contact the nearest Raytheon Microwave and Power Tube Regional Sales Representative.



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- NOTES
1. REFERENCE PLANE "A" IS DEFINED AS A PLANE PASSING ALONG THE FACE OF THE MAGNET.
 2. REFERENCE PLANE "B" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE ANODE FLANGE.
 3. REFERENCE PLANE "C" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 4. REFERENCE PLANE "D" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 5. REFERENCE PLANE "E" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 6. REFERENCE PLANE "F" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 7. REFERENCE PLANE "G" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 8. REFERENCE PLANE "H" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 9. REFERENCE PLANE "I" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 10. REFERENCE PLANE "J" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 11. REFERENCE PLANE "K" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 12. REFERENCE PLANE "L" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 13. REFERENCE PLANE "M" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 14. REFERENCE PLANE "N" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 15. REFERENCE PLANE "O" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 16. REFERENCE PLANE "P" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.
 17. REFERENCE PLANE "Q" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" AND PASSING THROUGH THE CENTER OF THE CATHODE FLANGE.

OUTLINE DRAWING
ELECTRON TUBE

