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RK7630/QK702

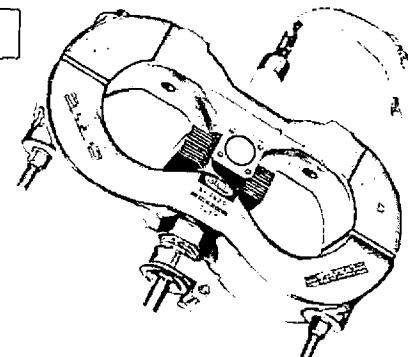
PRELIMINARY

DATA SHEET

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## GENERAL DESCRIPTION

The RK7630/QK702 is a tunable, medium power, pulsed type oscillator capable of delivering 70 kilowatts of peak power. The RK7630/QK702 is tunable within the frequency region of 15,840 - 16,160 megacycles. The magnetron 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 .....	26 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.

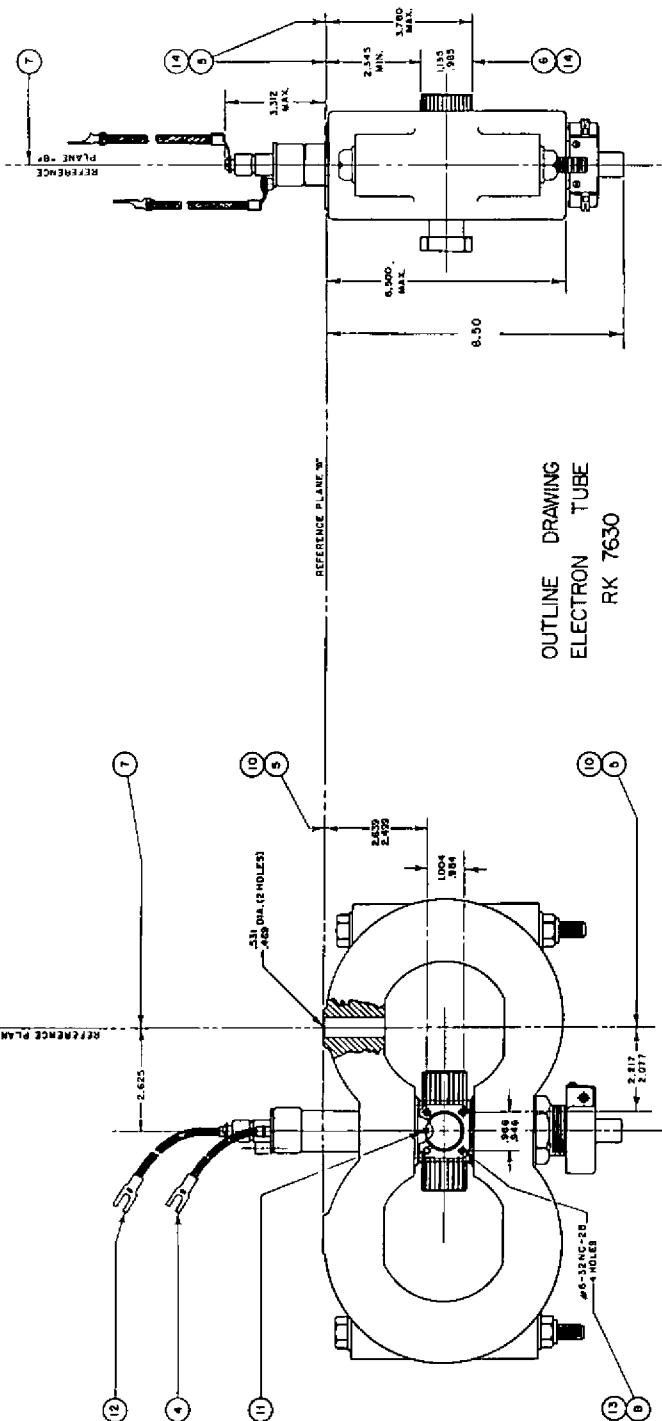
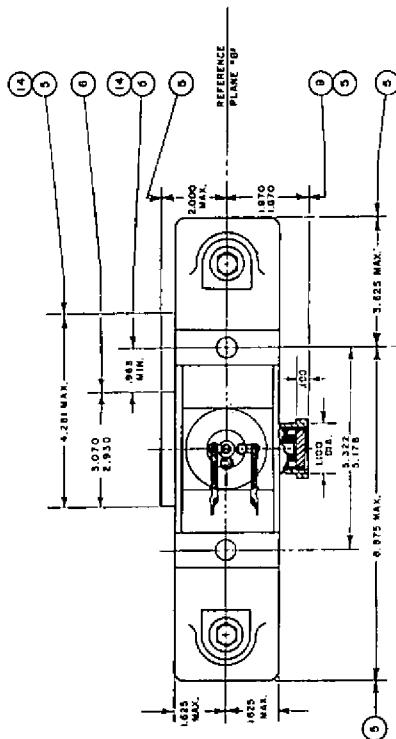
The specifications for this tube have not been finalized. The tube is being manufactured in limited quantities and is available for engineering analysis purposes only. This engineering information and/or delivery of sample tubes do not imply availability of tubes with the same electrical and/or mechanical characteristics. Changes in ratings and/or dimensions may be made at our discretion as deemed advisable by manufacturing experience or other considerations. For current information concerning this tube contact the nearest Microwave and Power Tube Regional Sales Representative.

**RAYTHEON**

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**preliminary  
data  
sheet**

- NOTES
1. REFERENCE PLANE "A" IS DEFINED AS A PLANE PASSING ALONG THE FINISHED SURFACE OF THE MAGNET AS SHOWN.
  2. REFERENCE PLANE "B" IS DEFINED AS A PLANE PERPENDICULAR TO PLANE "A" PASSING THROUGH THE CENTER OF HOLES AT PLATE "A" AS SHOWN.
  3. REFERENCE PLANE "C" IS DEFINED AS A PLANE MUTUALLY PERPENDICULAR TO PLANE "A" AND "B" PASSING THROUGH THE CENTER OF THE HOLE AT PLATE "B" AS SHOWN.
  4. BROWN PAINT TO IDENTIFY COMMON CATHODE CONNECTION.
  5. INCLUDES ANGULAR AS WELL AS LATERAL DEVIATION.
  6. THESE DIMENSIONS APPLY TO RADIATOR SIZE ONLY.
  7. PARTS OF THIS CENTERLINE MAY VARY BY 1/8".
  8. PITCH DIAMETER MUST ACCEPT CLASS 2 "GO" GAGE ONLY.
  9. FACE OF OUTPUT FLANGE TO BE PARALLEL TO REFERENCE PLANE "B" WITHIN .020".
  10. TAPERED HOLES MUST BE PARALLEL TO REFERENCE PLANES WITHIN .005".
  11. ANODE TEMPERATURE CHECK POINT.
  12. HEATER CONNECTION.
  13. MINOR DIAMETER MUST NOT BE GREATER THAN .116".
  14. APPLIED ONLY TO THAT PORTION OF RADIATOR WHICH EXTENDS BEYOND MAGNETS.



OUTLINE DRAWING  
ELECTRON TUBE  
RK 7630