

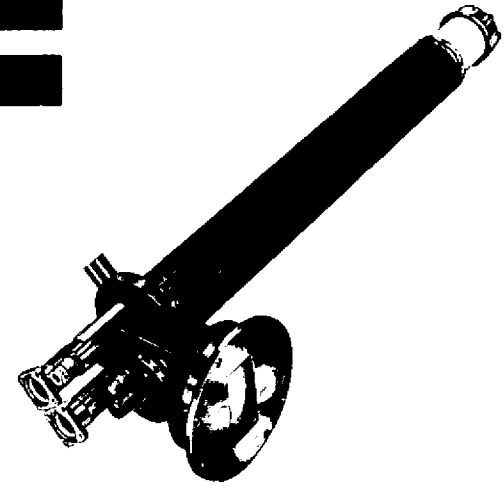
The technical information on this data sheet is of a proprietary nature and is furnished as a customer service for private use only.

8128

OBJECTIVE

DATA SHEET

RAYTHEON



The 8128 is a wide band, 60 kw, (minimum) traveling wave tube designed for pulsed operation over the 2900 to 3100 megacycle range. This tube has a minimum gain of 20 db, and it utilizes a solenoid for the focusing magnetic field. This is a high duty cycle version of the QKW750 which was originally developed under BuShips Contract No. NObsr-72820

The 8128 is designed for use as a driver for the 8129 Amplitron, and it is ideal for frequency diversity type radar applications.

GENERAL CHARACTERISTICS

Typical Electrical Data

| | |
|----------------------------|---------------------|
| Heater Voltage | 8 Volts |
| Heater Current | 8.0 Amperes |
| Cathode Heating Time | 5 Minutes |
| Frequency Range | 2900 - 3100 Mc |
| Peak Power | 60 kilowatts (min.) |
| Average Power Output | 1260 Watts (min.) |
| Magnetic Field | 700 Gauss |
| Pulse Width | 30 usec |
| Duty Cycle | .021 |
| Pulse Voltage | 34.5 kilovolts |
| Peak Current | 12 amperes |
| Perveance | 1.9 uperv. |
| Load VSWR | 1.5 Max. |

Mechanical Data

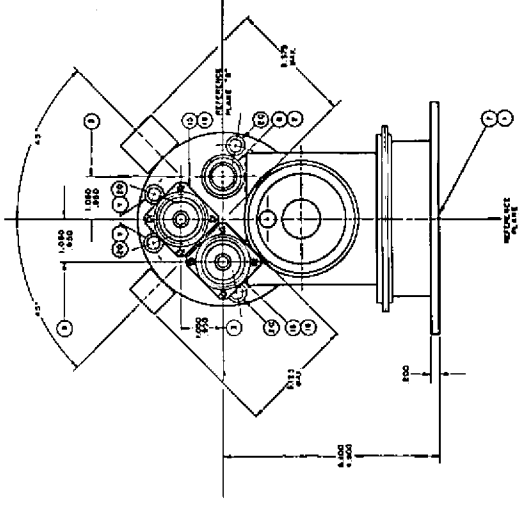
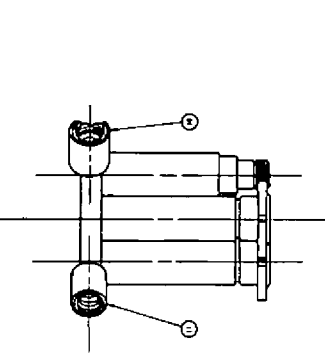
| | |
|--------------------------|---------------------|
| Overall Dimensions | See Outline Drawing |
| Net Weight | 20 Pounds (approx.) |
| Cooling | Liquid |
| Output Coupling | UG 54 A/U |
| Mounting Position | Any |
| Solenoid | Raytheon SWS 100 |
| Termination | Raytheon Le SH 1 |

12/61

RAYTHEON COMPANY | Microwave and Power Tube Division | WALTHAM 54, MASS.

The specifications for this tube have not been finalized. The tube is in the development stage 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.

**ELECTRON TUBE
OUTLINE DRAWING
8128**



NOTES

1. REFERENCE FLANGE "A" IS A PLATE MOUNTED THROUGH THE AXIS OF "A" DIA. AND MOUNTS BETWEEN THE PAIRS OF PLATE "T" AND "T" THROUGH THE AXIS OF "A" DIA. A PLATE PERPENDICULAR TO PLATE "A" MOUNTS THROUGH THE AXIS OF "A" DIA.
2. PART TO MATE WITH A TYPICAL COUPLING FLANGE.
3. THESE DIMENSIONS APPLY FROM THE AXIS OF DIA. "A".
4. THESE TEMPERATURE MEASUREMENT POINTS.
5. THESE DIMENSIONS APPLY FROM "T" DIA.
6. SEE NOTE 1.
7. SEE NOTE 2.
8. THE POSITION OF THIS TUBE MAY BE CHANGED BY SUBSTITUTION OF A 1/16" DIAMETER GAGE BLOCK OF WHICH CONTACTS A "T" SWITCH. THE LOCATION OF THESE POINTS IS FOR INFORMATION PURPOSES AND HAS NO EFFECT ON THE OPERATION OF THE TUBE.
9. PITCH DIA. MUST ACCEPT A CLASS J "COO" GAGE ONLY.
10. MONOR DIA. MUST NOT BE GREATER THAN .148.
11. PART TO BE IDENTICAL TO AND IDENTICAL GETTER BOMBING.
12. CATHODE TEMPERATURE MEASUREMENT POINT.
13. PART TO BE IDENTICAL TO AND IDENTICAL FOR TERMINATION.
14. PART TO MATE WITH 100/10 COUPLING FLANGE.
15. CENTERLINE "C" IS DEFINED AS A CENTERLINE WHICH PASSES NORMAL BETWEEN DIMENSION "C".
16. CENTERLINE "C" MUST BE ON PLATE "A" WITHIN .010.
17. THESE DIMENSIONS MUST ACCEPT THE TOLERANCE OF A 1/16" DIAMETER GAGE BLOCK.
18. THESE DIMENSIONS MUST ACCEPT THE TOLERANCE OF A 1/16" DIA. LOW GAGE.
19. THESE DIMENSIONS MUST ACCEPT THE TOLERANCE OF A 1/16" DIA. GAGE BLOCK.
20. THESE DIMENSIONS MUST ACCEPT THE TOLERANCE OF A 1/16" DIA. GAGE BLOCK.

