L-6170
1,700 kW X-Band
Coaxial Pulsed Magnetron

- Linear accelerator applications
- 9.3 GHz, high frequency stability
- Tunable +/- 25 MHz to match accelerator
- 1,700 kW peak output power
- 0.0008 duty cycle
- Liquid cooled anode
- Integral permanent magnets

Performance Characteristics
Frequency ........................................ 9.300 GHz, +/- 25 MHz
Peak Pulse Power Output .............................. 1,700 kW min
Average Power Output ........................................ 1,360 W
Peak Anode Voltage ........................................ 34 to 38 kV
Peak Anode Current ............................................ 88 A
Average Anode Current ........................................ 70 mA
Pulse Width .................................................. 4.0 uSec
Duty Cycle ..................................................... 0.0008
Filament Voltage (Standby) ............................ 10 V
Filament Current (Standby) ............................... 15 A
Filament Voltage (Oscillating) .......................... 2 V (back-down required)
Warm-up time ................................................ 300 Sec.
Load VSWR .................................................. 1.2:1 max

Environment
Cooling ......................................................... Laboratory environment
Water cooling to anode & tuner
Flow Rate (Operating) ...................................... 1.0 gallon min
Max Inlet temp (Operating) .................................... +45 °C
Max Outlet temp (Operating) ............................... +85 °C
Temperature Range (Ambient Air) ...................... 5 °C to 40 °C

The L6170 is a high output power coaxial pulse magnetron that delivers 1,700 kW minimum peak output power at a duty cycle of up to 0.0008 and a pulse width of up to 4.0 µ Sec.

Mechanical Description
RF Launch Type .......... WR-112 mates with UG-51/U flange
Weight (nominal) ................................. 35 lb. (16 Kg)
Outline dimensions .................................. See outline drawing
Mounting position ........................................ Any orientation
Tuning .................................................. 10 turns, nominal

This technical data is controlled under the Export Administration Regulations (EAR) and may not be exported to a foreign person, either in the U.S. or abroad, without proper authorization by the U.S. Department of Commerce.
Current detailed outline drawings are available on request. Specifications and features are subject to change without notice.