L5047LIT

COAXIAL PULSE MAGNETRON

L-5047

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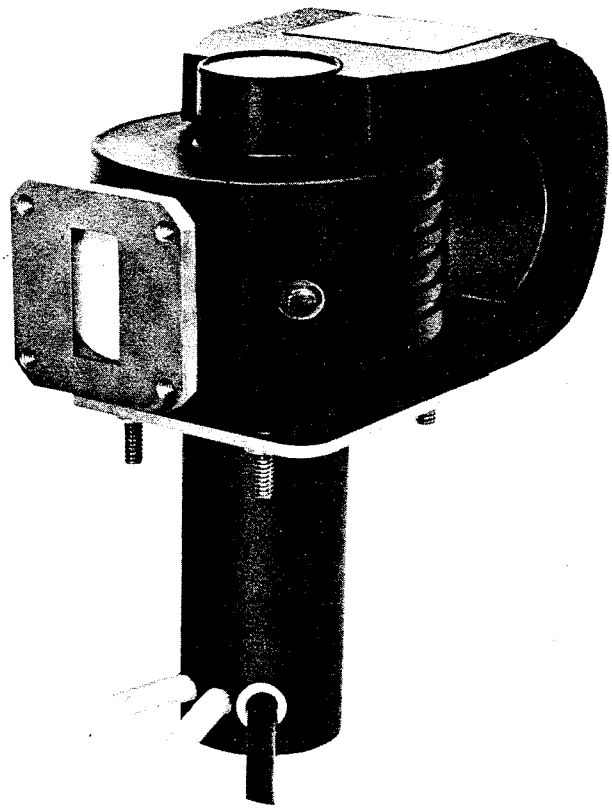
75 Kilowatts Peak Power
Fixed Frequency 9375 ± 30 MHz

This coaxial X-band pulse magnetron was designed using a very conservative load factor. Its low cathode emission density, and large anode structure provide many thousands of hours of service life. The coaxial design provides high efficiency and excellent spectrum shape. The L-5047 is recommended for all new 75 KW radar systems as well as a replacement magnetron to upgrade life, power output, and spectrum of existing radars. The center frequency can be set to suit individual requirements. Tunable versions are available.



OPERATING CONDITIONS

Heater Voltage (Standby)	14.0 V
Heater Current	Max. 1.5 A
Preheat Time	Min. 180 sec.
Pulse Voltage	Nominal 13 kv
Pulse Current	12 A

ABSOLUTE MAXIMUM RATINGS

Heater Voltage	15.5 V
Heater Surge Current	6 A
Pulse Current	16 A
Pulse Length	7.0 us
Average Input Power	250 W
Duty Cycle	0.0013
Anode Temperature	150° C
Cathode Temperature	175°C
VSWR	1.3:1 Ratio

PERFORMANCE CHARACTERISTICS

Peak Power	Min. 65 kW
Fixed Frequency	9375 ± 30 MHz
Pulling Factor (1.3:1 VSWR)	Max. 5 MHz
Missing Pulses	Max. 0.1 Percent
Side Lobes	Min. 8.0 db
Bandwidth	Max. 2.0/tpc. MHz
Anode Temperature Co-efficient	Max. 0.25 MHz/°C

MECHANICAL RATINGS

Mounting Position	Any
Weight	Approx. 7 lbs.
Mating Mounting Flange	UG-137 B/U or equivalent modified with clearance mounting holes.
Anode Cooling	Forced Air or Conduction

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Personnel should not be exposed to the microwave energy which may radiate from this device if improperly used or connected. All input and output rf connections, waveguide flanges, and gaskets must be rf leak proof and properly engaged. Never operate this device without a microwave energy absorbing load attached. Never look into an open waveguide or antenna while the device is energized.

This device may produce X-radiation when energized. Operating personnel must be protected by appropriate shielding. X-ray caution signs or labels should be permanently attached to equipment directing operating personnel never to operate this device without X-ray shielding in place.