

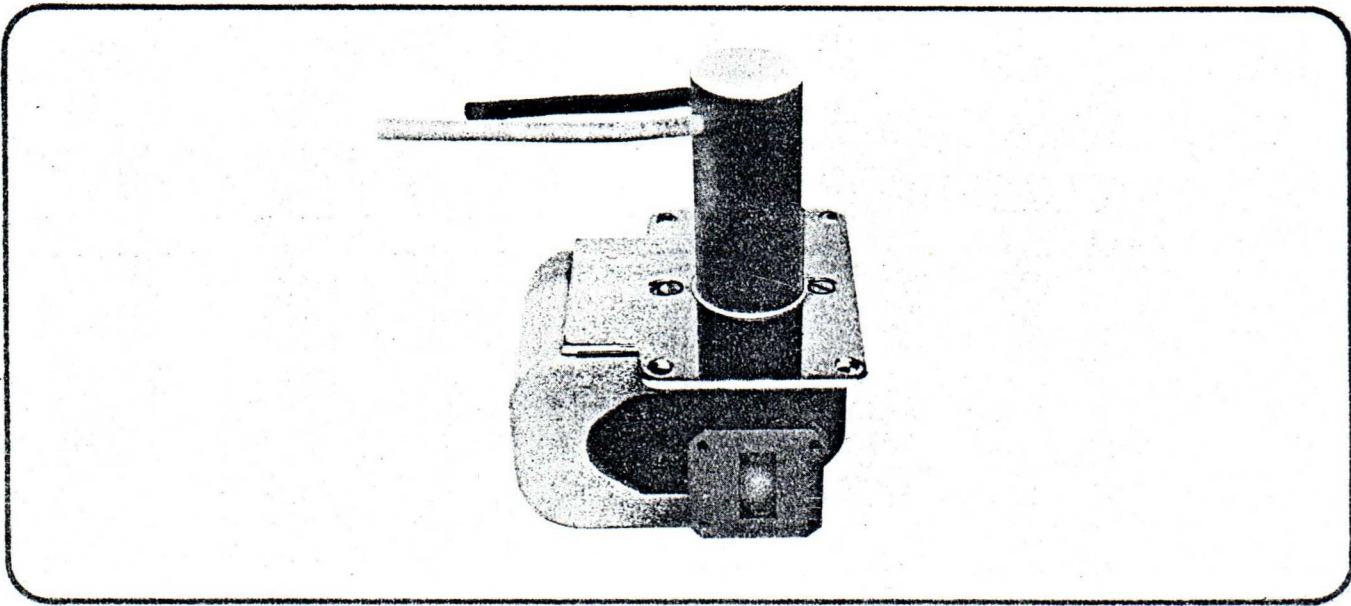
M5138/

RM-103 / MA-2851

Pulsed X-Band Coaxial Magnetron

M5109/RM117

Bulletin 1563



DESCRIPTION

75 kW Peak Power X-Band coaxial magnetron. Fixed frequency integral magnet. Forced air cooled.

APPLICATIONS

Airborne Weather Radar, and Navigation Systems 30X System.

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SPECIFICATIONS

Electrical Characteristics

Peak Power	75 kW
Fixed Frequency	9375 MHz
Pulling Factor (1.3:1 VSWR)	5 MHz Max.
Pushing Factor ($\pm 10\% 1_{\text{p}}$)	1 MHz/A Max.
Missing Pulse Rate	.25% Max.
Side Lobes	8 dB Min.
Thermal Coefficient	.250 MHz/ $^{\circ}\text{C}$ Max.

Mechanical Characteristics

Size	See Outline Drawing
Weight	8 lbs./3,63 kg.
Mounting Position	Any
Output Connector	Waveguide
	See Outline Drawing

Operating Conditions

Heater Voltage*	14.0 V
Heater Current	1.5 A Max.
Preheat Time	180 Sec. Min.
Pulse Voltage	12.5-13.5 kV
Pulse Current	12 A
Duty Cycle	.0012 Ratio Max.

Environmental Characteristics

Cooling	Forced Air
Ambient Temperature	-40 $^{\circ}\text{C}$ to 71 $^{\circ}\text{C}$
Altitude	55,000 Ft./16764 m
Vibration (10 to 1,000 Hz)	3 G
Shock (11 \pm 1 ms)	10 G

*Heater voltage is reduced during oscillation to 11.00

OUTLINE DRAWING

