



EITEL-McCULLOUGH, INC.
SAN CARLOS, CALIFORNIA

TENTATIVE DATA
X1097
VOLTAGE TUNABLE
MAGNETRON
FREQUENCY
600-1200 Mc
MINIMUM
OUTPUT POWER
5 WATTS

TYPICAL PERFORMANCE

ELECTRICAL

Frequency Range	- - - - -	600-1200 Mc
Anode Voltage	- - - - -	1250-2450 V
Cathode Current	- - - - -	9-25 mA
Typical Output Power	- - - - -	5.5 watts
Anode FM Sensitivity	- - - - -	0.48 Mc/V
Injection Anode Voltage	- - - - -	100 V
Injection Anode Current	- - - - -	0 mA
Heater Voltage (AC)	- - - - -	6.3 V
Heater Current (AC)	- - - - -	0.8 A
Load Impedance	- - - - -	50 ohms
Service	- - - - -	cw



**L-BAND
OSCILLATOR**

***MAXIMUM RATINGS**

Anode Voltage	- - - - -	3000 V
Cathode Current	- - - - -	35 mA
Injection Anode Voltage	- - - - -	+500 V
Injection Anode Current	- - - - -	1 mA

*Damage to the tube may occur if maximum ratings are exceeded.

MECHANICAL

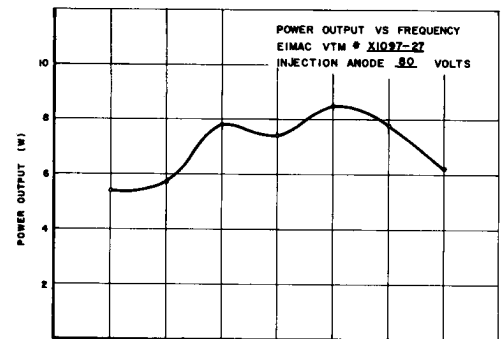
Operating Position	- - - - -	Any
Cooling	- - - - -	Forced Air
Electrical Connection	- - - - -	Flexible Leads
RF Output Coupling	- - - - -	TNC Jack
Weight	- - - - -	1.5 Pounds

ENVIRONMENTAL

Vibration	- - - - -	10 G-(to 2kc)
Shock	- - - - -	100 G-(11 ms)
Altitude	- - - - -	70,000 ft.

OUTLINE DIMENSIONS

Height	- - - - -	2 inches
Width	- - - - -	1-1/4 inches
Length	- - - - -	3.5 inches



FREQUENCY MC	600	700	800	900	1000	1100	1200
ANODE VOLTAGE	1250	1470	1680	1900	2100	2280	2450
ANODE CURRENT MA	9.5	11	14	18	18	21	25



APPLICATION NOTES

1. COOLING: To insure optimum tube performance the magnet temperature should be maintained below 70° C.
2. PROXIMITY OF FERROUS MATERIALS: To minimize variations in performance, ferrous materials should be kept at least 6 inches from the magnetron package. Modulation of the tube may be produced by rotating ferrous materials and such parts as fans, shafts and couplings should be placed as far from the magnetron package as possible. Transformers and chokes should not be placed in such close proximity to the tube that their stray magnetic fields will interfere with the magnetron operation.
3. This tube was designed for operation in missile environments and can be operated for short periods of time without any cooling.
4. ANODE VOLTAGE: The operating frequency is a function of the anode voltage; therefore, any voltage ripple on the anode supply will appear as frequency modulation on the RF output signal.

