



**EITEL-McCULLOUGH, INC.**  
SAN CARLOS, CALIFORNIA

**EM 116**  
**TRAVELING WAVE**  
**TUBE**

The EM116 is a 2% duty cycle TWT providing 1.6 kw of power over the frequency range of 2.9-3.1 Gc. This tube is PPM focused and of metal-ceramic construction for use in stringent environments.

**ELECTRICAL SPECIFICATIONS**

<b>Absolute Ratings</b>	<b>Maximum</b>
Filament Voltage	7.0 Volts
Pulse Cathode Voltage	-8000 vdc
Peak Cathode Current	2.0 adc
Duty Cycle	2%

**Operating and Performance Data**

Filament Voltage	6.3 Volts
Filament Current	3.0 Amperes
Cathode Voltage	-7500 Vdc
Peak Cathode Current	1.3 adc
Duty Cycle	2%
Frequency Range	2.9-3.1 Gc
Small Signal Gain—Minimum	36 db
Saturated Power Out—Minimum	1.6 kw
Saturated Gain—Minimum	30 db

**ENVIRONMENTAL SPECIFICATIONS**

Complies with MIL-5400 Class II Equipment	
Temperature	-65° C to +125° C

**MECHANICAL SPECIFICATIONS**

Operating Position	Any
Input Coupling, rf	TNC
Output Coupling, rf	TNC
Focusing	PPM
Cooling	75 CFM forced air
Dimensions	See outline drawing
Weight	9 lbs.
Supply Connections	Cathode—yellow Filament—brown Grid—green

NOTE: Electrode Voltages are with respect to cathode; tube shell at ground potential.



