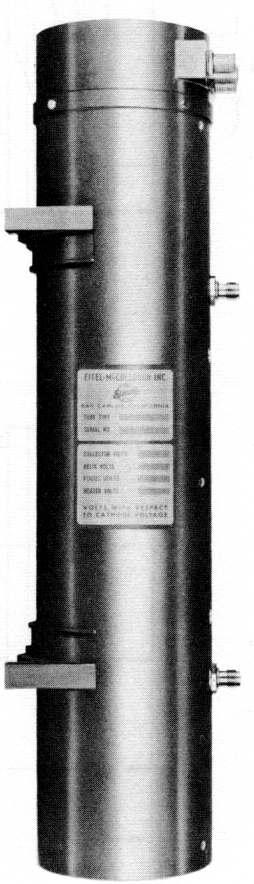
EITEL-McCULLOUGH, INC.
SAN CARLOS, CALIFORNIA

EM 114

TRAVELING WAVE TUBE



The EM114 is a grid modulated pulse TWT covering the frequency range of 2.8–3.5 Gc with a peak power output of 2.0 kw. This tube is designed for use in airborne and missile environments.

ELECTRICAL SPECIFICATIONS

Absolute Ratings	Maximum
Filament Voltage	7.0 Volts
Cathode Voltage	−8000 vdc
Peak Cathode Current	2.0 adc
Grid Voltage	+400 to −150 vdc
Duty Cycle	2%

Operating and Performance Data	
Filament Voltage	6.3 Volts
Filament Current	3.0 Amperes
Cathode Voltage	−7800 Vdc
Peak Cathode Current	1.5 adc
Grid Voltage (Beam on)	200 Vdc
Grid Voltage (Beam off)	−90 Vdc
Duty Cycle	2%
Frequency Range	2.8–3.5 Gc
Small Signal Gain—Minimum	36 db
Saturated Power Out—Minimum	2.0 kw
Saturated Gain—Minimum	30 db
Grid Capacitance (to all other elements)	15 picofds.

ENVIRONMENTAL SPECIFICATIONS

Complies with MIL-5400 Class II Equipment

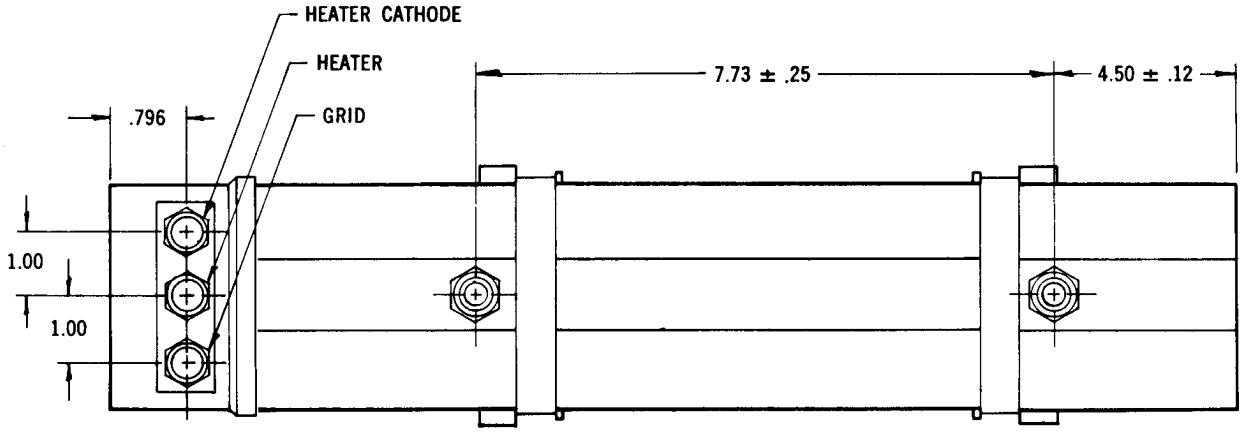
Temperature	−65° C to +125° C

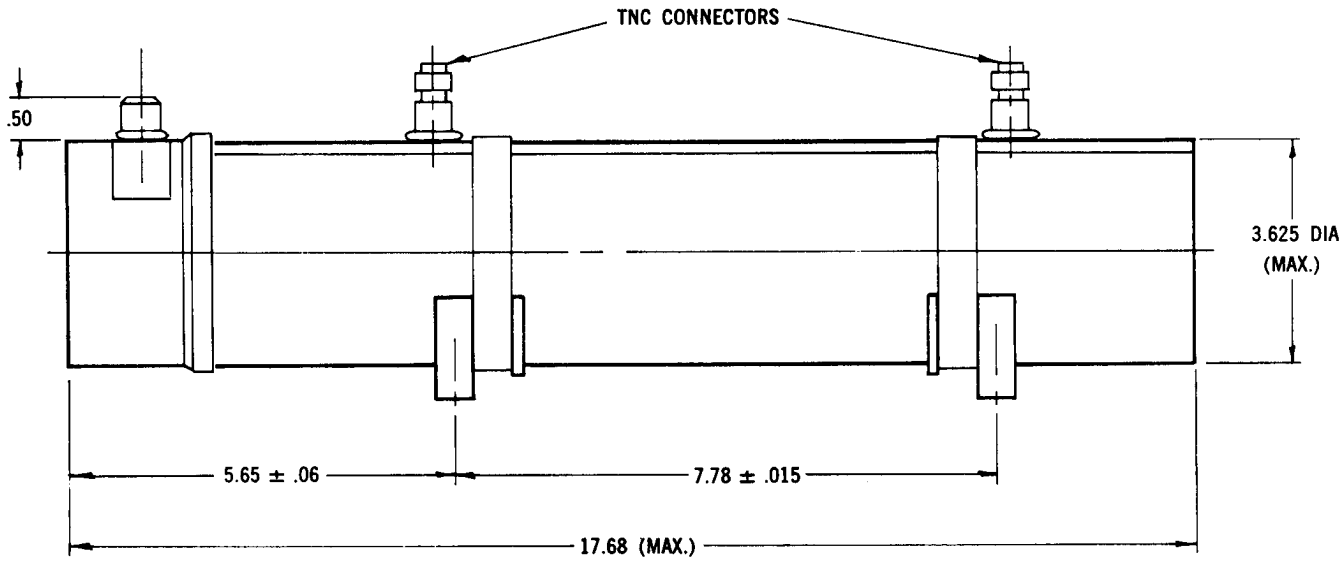
MECHANICAL SPECIFICATIONS

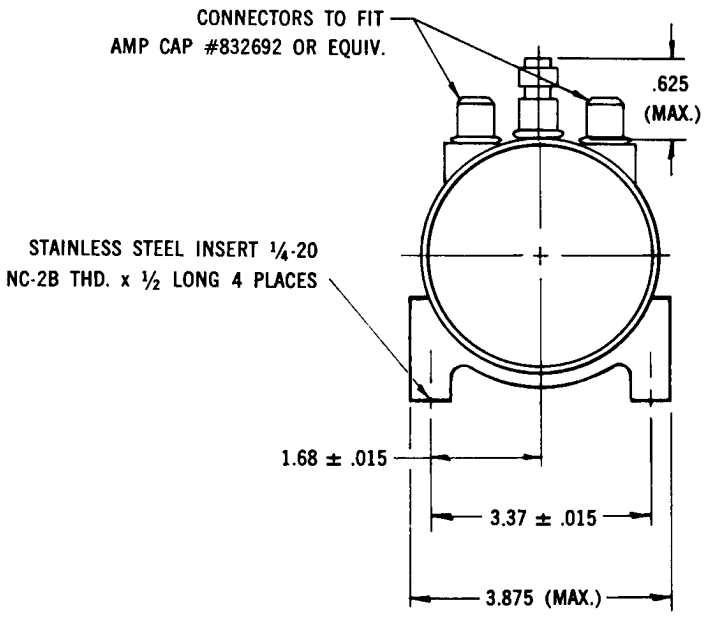
Operating Position	Any
Input Coupling, rf	TNC
Output Coupling, rf	TNC
Focusing	PPM
Cooling	75 CFM forced air
Dimensions	See outline drawing
Weight	9 lbs.
Supply Connections	Cathode—yellow Filament—brown Grid—green

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

(EFFECTIVE 3-15-64)


HEATER CATHODE
HEATER
GRID
.796
7.73 ± .25
4.50 ± .12
1.00
1.00


TNC CONNECTORS
.50
3.625 DIA
(MAX.)
5.65 ± .06
7.78 ± .015
17.68 (MAX.)


CONNECTORS TO FIT
AMP CAP #832692 OR EQUIV.
.625
(MAX.)
STAINLESS STEEL INSERT ¼-20
NC-2B THD. x ½ LONG 4 PLACES
1.68 ± .015
3.37 ± .015
3.875 (MAX.)