

EITEL-McCULLOUGH, INC.
SAN CARLOS, CALIFORNIA

X1132

**TRAVELING WAVE TUBE -
POWER SUPPLY PACKAGE**

**7.0 - 8.0 Gc
3.0 WATTS
36 db GAIN**

TENTATIVE DATA SHEET TRAVELING WAVE TUBE AMPLIFIER POWER SUPPLY PACKAGE X1132

The X1132 is a long life, highly reliable amplifier package consisting of a PPM focused ceramic-metal TWT amplifier (X1131) and integral solid state power supply designed for space applications. Over the frequency range of 7.0 to 8.0 Gc, 2.5 Watts of rf power are produced at a saturated gain of 36 db.

ELECTRICAL SPECIFICATIONS:

Absolute Ratings				Maximum	Minimum
Power Supply Voltage	-	-	-	40	20 V
Power Supply Power	-	-	-	16	- W
Duty Cycle	-	-	-	100	- %
Input Power, rf	-	-	-	100	0 mw
Power Reflected From Load	-	-	-	3.0	- W
Temperature, Collector	-	-	-	+150	- 40° C
Ambient Temperature	-	-	-	+80	- 40° C
Altitude	-	-	-	Any	
Operating and Performance Data					
Power Supply Voltage	-	-	-	28	V
Power Supply Current	-	-	-	0.48	A
Duty Cycle	-	-	-	100	%
Frequency Range	-	-	-	7.0-8.0	Gc
Small Signal Gain-Minimum	-	-	-	40	db
- Typical	-	-	-	43	db
Saturated Power-Minimum	-	-	-	2.5	W
- Typical	-	-	-	3.0	W
Saturated Gain-Minimum	-	-	-	36	db
- Typical	-	-	-	38	db
Output VSWR (Cold)	-	-	-	1.5:1	
Input VSWR (Cold)	-	-	-	1.5:1	
Input and Output Impedance	-	-	-	50	ohms
Noise Figure-Maximum	-	-	-	30	db
- Typical	-	-	-	28	db

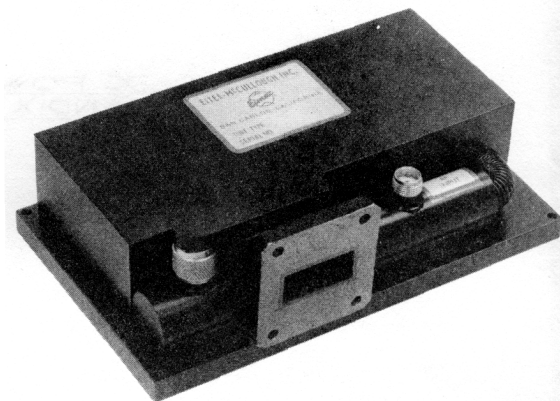
ENVIRONMENTAL SPECIFICATIONS:

Vibration	-	-	-	-	-	20 g's to 2000 cps
Shock	-	-	-	-	-	100 g's
Acceleration	-	-	-	-	-	20 g's, sustained
Temperature	-	-	-	-	-	-20° C to +50° C
Altitude	-	-	-	-	-	Any

MECHANICAL SPECIFICATIONS:

Operating Position	-	-	-	-	-	Any
Input Coupling, rf	-	-	-	-	-	TNC Coax Fitting
Output Coupling, rf	-	-	-	-	-	TNC Coax or UG 51/U Waveguide
Focusing	-	-	-	-	-	PPM, shielded
Cooling	-	-	-	-	-	Conduction through heat sink
Dimensions	-	-	-	-	-	See outline drawing
Weight	-	-	-	-	-	4.0 lbs
Power Supply Connections	-	-	-	-	-	Bendix PTIH - 3P

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APPLICATION NOTES:

1. Full rf performance will be obtained for input voltages between 24 and 30 volts dc.
2. Six telemetry outputs are available for monitoring of TWTA performance.
3. DC operation may be programmed by use of 20 V control signal (draws 10 mW).
4. Especially useful in long unattended mission applications, MTTF 50,000 hours, rated.
5. Magnetic shield minimizes interference with sensitive components, permits dense packing. Two units may be mounted and operated as close as mechanical outline permits.

DATA SHOULD NOT BE USED FOR FINAL EQUIPMENT DESIGN

