MAGNETRON TYPE 7795

Fixed Frequency	5 Watt Output	Integral Magnets
4300 ± 10 Megacycles	100% Amplitude Modulated	10 Watts with Duty Cycles

The 7795 is a C band 5 watt CW magnetron. It is designed for amplitude modulated communications, telemetering and relay systems requiring high average power with good bandwidth. In pulse code modulation systems peak powers up to 10 watts are available with duty cycles ranging to five watts average power. In amplitude modulated systems one hundred percent modulation of a five watt carrier is permitted. With 100% modulation incidental FM is less than 8 megacycles. The rugged, light weight design of the 7795 permits use on airborne systems where shock and vibration are severe.

The 7795 uses a multivaned anode structure and an oxide coated unipotential cathode. It contains a capacitive tuning element preset in the factory to 4300 ± 10 megacycles. The integral magnets are enclosed in steel shells to shield the magnetron from stray magnetic field effects.

ELECTRICAL:

Cathode	Coated Unipotential	
Heater:		
Voltage (Note 1)	6.3	Volts
Current	0.6 ± 10%	Amperes
Heating Time (minimum)	40	Seconds

MECHANICAL:

Operating Position (Note 4)	Any	
Connectors:		
Output	Couples with BNC Jack (JAN UG-89/U)	
Operating Voltages	Special 8-Pin In-Line Socket	
Cooling	Unrestricted Air Convection	
Ambient Temperature	−55 to +70 °C	
Shell Temperature (maximum)	40 °C Above Ambient	
Vibration: (Note 2)		
Frequency	25	CPS
Amplitude	0.080	Inches
Net Weight	1	Pound
Shipping Weight	2	Pounds

MAXIMUM RATINGS:

Absolute Maximum Values

Heater Voltage	7.0	max.	Volts
Anode Voltage	425	max.	Volts
Modulation Frequency	1	max.	Mc.
Average Power Input	30	max.	Watts
Heater-Cathode Voltage	± 45	max.	Volts

TYPICAL OPERATING CHARACTERISTICS:

Voltages are with respect to Ground

Anode	Grounded	
Cathode Voltage	−425	Volts
Anode Current	30	Ma.
Power Output:		
Peak Power at 0.5 Min. Duty	10	Watts
Average Continuous Power (Note 3)	5	Watts
Frequency (Note 5)	4300	Mc.
Frequency Tolerance	± 10	Mc.

1. Heater should be connected to cathode through 100 K resistor.
2. Special vibration problems should be referred to Westinghouse Electronic Tube Division, Elmira, N.Y.
3. 100% amplitude modulation with 5 watts carrier is permitted.
4. The connectors do not provide mechanical support. Non-magnetic clamps should be used to support the shell.
5. Other versions of this tube are available to operate on different frequencies. The tube may be set, at the factory, to any frequency between 4200 and 4400 megacycles with a tolerance of ± 10 megacycles.

from JEDEC release #3184, March 13, 1961

PIN#	CONNECTION
1	NO CONNECTION
2	NO CONNECTION
3	NO CONNECTION
4	NO CONNECTION
5	ANODE (GROUND)
6	HEATER
7	CATHODE
8	HEATER