

Specification No. MOS/CV251/6 Dated : 25.9.45. To be read in conjunction with K1001, ignoring clauses 5.2, 5.3, 5.8.	<u>SECURITY</u>			
	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center; border: none;"><u>Specification</u></td> <td style="text-align: center; border: none;"><u>Valve</u></td> </tr> <tr> <td style="text-align: center; border: none;">SECRET</td> <td style="text-align: center; border: none;">RESTRICTED</td> </tr> </table>	<u>Specification</u>	<u>Valve</u>	SECRET
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SECRET	RESTRICTED			

→ Indicates a change

<u>TYPE OF VALVE</u> : Magnetron <u>CATHODE</u> : Indirectly Heated <u>ENVELOPE</u> : Metal Glass (This valve is the CV209 with special tests)	<u>MARKING</u> As in K1001/4, also the word "Cathode" and an arrow shall be marked on the valve in such a position as to indicate to which of the filament terminals the cathode is connected.
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<u>RATING</u>	Notes	<u>BASE</u> None
Filament Voltage (Volts)	6.3	<u>DIMENSION AND ELECTRODE CONNECTIONS</u> See Page 3
Filament Current (Amps)	0.8	
Nominal Frequency (Mc/s)	9475	
Nominal Wavelength (cms)	3.17	
Mean Power Input (Max) (Watts)	160	
<u>TYPICAL OPERATING CONDITIONS</u>		<u>PACKING</u>
Peak Anode Voltage (kV)	18 A & B	See K1001/7.3
" " Current (A)	25 A & B	
Field Strength (Gauss)	3520	
Peak Power Output (kW)	150 A & B	

NOTES

- A. When operated under these conditions the magnetron must be air-cooled such that the temperature of the block does not exceed 140°C.
- B. The operating conditions apply only to pulse lengths between 0.1 and 0.15 μs.

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TESTS

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To be performed in addition to those applicable in K1001

Test Conditions				Test	Limits		No. Tested	Note
Field Strength (gauss)	Vf	Magnetron Peak Current (amps)	Min.		Max.			
a	0	6.3	0	If (amps)	0.7	0.9	100%	
b	3250 _± 50	3.0	30	Peak Va (kV)	17	20	100%	2 ± 3
c	3250 _± 50	3.0	30	Output Frequency Mc/s	9350	9600	100%	3 ± 4
d	3250 _± 50	3.0	30	Peak Power Output (kW)	120	-	100%	3

NOTES

- For the above tests the temperature of the anode block shall not exceed 140°C.
- The valve shall run for a period of one minute with Vf = 6.3. At the end of that time, the H.T. voltage shall be switched on and the filament voltage shall be switched down simultaneously. All subsequent tests shall be carried out with Vf = 3.0.
- This test shall be carried out with a Modulator Type ZC.22278 or one of design approved by R.R.D.E., and a standard output unit Type ZC.22272 terminated in a resistive load giving less than 1.1 standing wave voltage ratio. The matching shall be adjusted for maximum power consistent with Note 4.
- The current waveform and R.F. envelope shall be a clearly defined single trace.

