MINISTRY OF SUPPLY (R.R.E.)

VALVE ELECTRONIC **CV5110**

Specification MOS/CV5110 Issue 1 dated 12.12.57 To be read in conjunction with K1001	SECURITY	
	Specification	Valve
	Unclassified	Unclassified

TYPE OF VALVE:- H.F. Pentode, variable-mu.

CATHODE:- Indirectly heated.

ENVELOPE:- Glass-metallised

PROTOTYPE:- CV1053

RATING

			Note
Heater Voltage	(V)	6.3	
Heater Current	(A)	0.2	
Max. Anode Voltage	(V)	300	
Max. Screen Voltage	(V)	300	
Max. Anode Dissipation	(W)	2.0	
Max. Screen Dissipation	(W)	0.3	
Mutual Conductance			
(1)	(mA/V)	2.2	A
(2)	(mA/V)	0.0045	B
Anode Impedance			
(1)	(m)	1.25	A
(2)	(m)	10	B
Max. Operating Frequency	(Mc/s)	20	

CAPACITANCES (pF)

Cae	7.9
Cge	5.6
Cag (max.)	0.003

NOTES

A. At Va = 250V, Vg2 = 100V.
Vg1 = -2.5V, Ia = 6 mA.

B. At Va = Vg2 = 250V, Vg1 = -49V

MARKING

See K1001/4

BASE

I.O.

CONNECTIONS

Pin	Electrode
1	Metallising
2	Heater
3	Anode
4	Screen Grid
5	Suppressor Grid
6	Pin Omitted.
7	Heater
8	Cathode
T.C.	Control Grid

TOP CAP

See K1001/AI/D5.2

DIMENSIONS

Dimension	Min.	Max.
Overall length (mm)	95	100
Diameter (mm)	-	32

CV5110

TESTS

To be performed in addition to those applicable in K.1001

	Test Conditions					Test		Limits Min.	Limits Max.	No. Tested
a	See K1001/AIII									
	Links to H.P.		Links to L.P.		Links to E	Capacitances	(pF)			
	3		1, 2, 4, 5, 7, 8.		TC1, 6, 9, 10, TC2	Cae		7.0	9.4	6 per week
	TC1		1, 2, 4, 5, 7, 8.		3, 6, 9, 10, TC2	Cge		4.8	6.4	
	3		TC1		1, 2, 4, 5 6, 7, 8, 9 10, TC2.	Cag		-	0.003	T.A.
	Vh (V)	Va (V)	Vg2 (V)	Vg3 (V)	Ia (mA)					
b	6.3	0	0	0	0	Ih	(A)	0.18	0.22	100% or S
c	6.3	250	100	0	6	Vg1	(V)	-1.9	-3.1	100%
d	6.3	250	100	0	6	Ig2	(mA)	1.4	2.0	100% or S
e	6.3	250	100	0	6	Gm	(mA/V)	1.8	2.6	100%
f	6.3	250	100	0	6	Reverse Ig	(uA)	-	0.5	100%
g	6.3	200	200	0	10uA	Vg1	(V)	-35	-52.5	100%
h	6.3					Measured Gain / Ideal Linear Gain. (See Note 2)		0.83	1.01	100%

NOTES

1. Peak grid swing ± 0.5 volts.
2. To be rested in an equipment approved by R.R.E. See drawings page 3.

   Principle of Test. This is illustrated in fig. 2 on page 3. With Vg (D.C.), (grid to earth) set to 108 volts, the ratio $\frac{\text{Measured Gain}}{\text{Ideal Linear Gain}}$ is set to be unity.

   Then with Vg (D.C.) set to 48 volts the ratio $\frac{\text{Measured Gain}}{\text{Ideal Linear Gain}}$ (Y/X) shall be within the limits given.

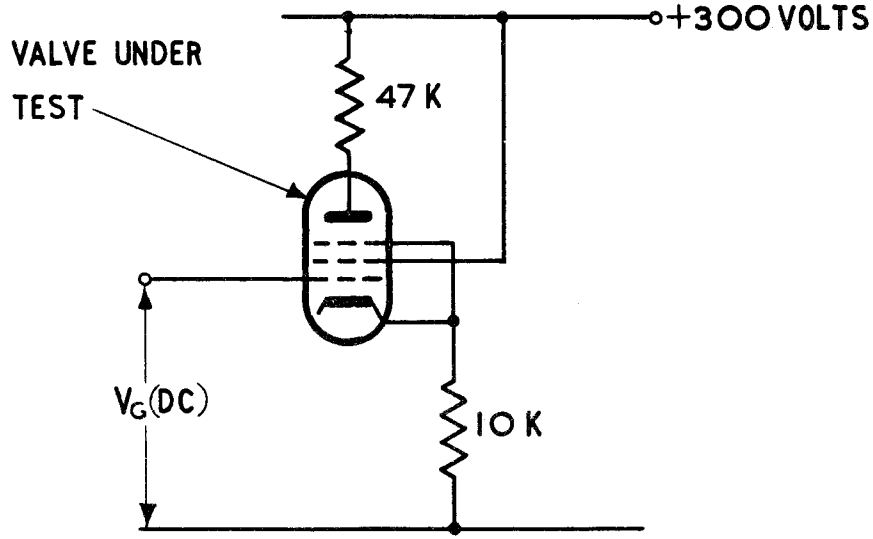

FIG. 1.
TEST CIRCUIT

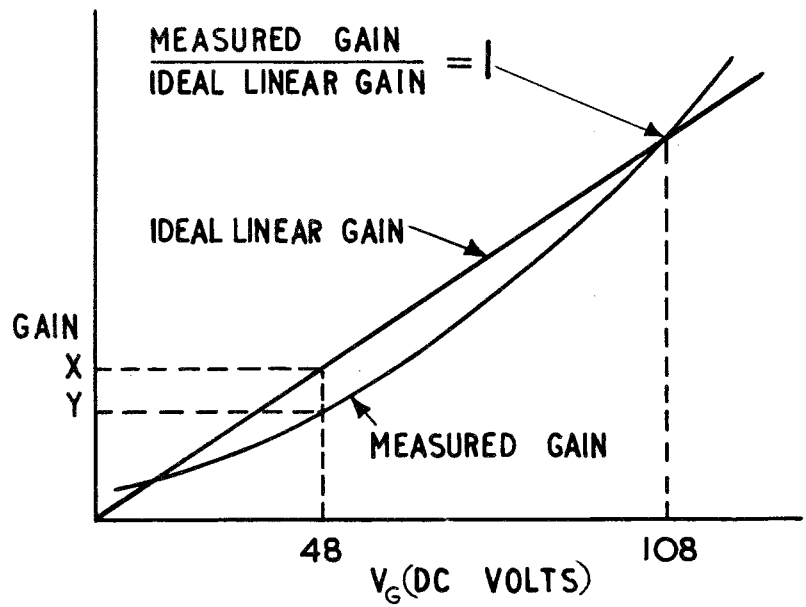

FIG. 2.
PRINCIPLE OF TEST