ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION MOA/CV.5724 ISSUE NO.1 DATED 6.12.61

AMENDMENT NO.1

Page 2

GROUP A Anode Current (3) test

In the column headed 'Test Conditions' against sub-clause (d) add 'Vg2 = 0'

GROUP B Capacitances

In the column headed Inspection Level amend 'IE' to read 'IC'

February, 1964 T.V.C. for R.A.E.

N.222034

VALVE ELECTRONIC

CV5724

MINISTRY OF AVIATION DIRD/RAE

Specification MOA/CV.5724 Issue No. 1 Dated 6.12.61 To be read in conjunction with K1001	SECURITY Specification: UNCLASSIFIED Valve: UNCLASSIFIED

TYPE OF VALVE:- Beam Deflection Tube

CATHODE :- Indirectly Heated

ENVELOPE :- Glass

PROTOTYPE :- E80T

MARKING

See K1001/4

RATINGS

(All limiting values are absolute)

Heater Volts	(V)	6.3
Heater Current	(A)	0.15
Max. Anode Voltage (Ia = 0)	(V)	600
Max. Operating Anode Voltage	(V)	330
Max. Grid 3 and Grid 4 Voltage (Ig3 & 4 = 0)	(V)	600
Max. Operating Grid 3 and Grid 4 Voltage	(V)	330
Max. Screen Grid Voltage (Ig2 = 0)	(V)	330
Max. Operating Screen Grid Voltage	(V)	100
Max. Deflector 1 Peak Voltage	(Vpk)	970
Max. Deflector 1 Negative Peak Voltage	(Vpk)	800
Max. Deflector 1 Operating Voltage	(V)	170
Max. Deflector 2 Peak Voltage	(Vpk)	670
Max. Deflector 2 Negative Peak Voltage	(Vpk)	500
Max. Deflector 2 Operating Voltage	(V)	170
Max. Heater-Cathode Voltage	(V)	50
Max. Cathode Current	(mA)	5.5

BASE

BS.448/B9A/1.1

CONNECTIONS

Pin	Electrode	
1	Beam Forming Plates	g3 + g4
2	Control Grid	g1
3	Cathode and Suppressor Grid	k, g5
4	Heater	h
5	Heater	h
6	Beam Forming Plate	g2
7	Deflector 1	d'
8	Internal Connection	IC
9	Deflector 2	d''
TC.	Anode	a

DIMENSIONS

BS.448/B9A/2.2
Size Ref. No. 3

Dimensions	Min.	Max.
'A' Seated Height	57.2	66.7
'C' Diameter	19.0	22.2
'D' Overall Length	-	73.8

CAPACITANCES (pF)

Cg1 - all	(nom.)	2.2
Cd' - all	(nom.)	3.0
Cd" - all	(nom.)	3.0
Ca - all	(max.)	2.0
Ca - d'	(max.)	0.03
Ca - d"	(max.)	0.03

NOTES

A. Functionally Pins 1, 2 and 6 are the Accelerating, Focussing and Gating electrodes respectively.

B. The Joint Services Catalogue Number is 5960-99-037-2554.

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TESTS

To be performed in addition to those applicable in K1001

TEST CONDITIONS:- Unless otherwise stated:-

Vh (V)	Va (V)	Vg2 (V)	Vg3 + g4 (V)	Vg1 (V)	Vd' (V)
6.3	100	70	250	0	120

K1001 Ref.	TEST	TEST CONDITIONS	AQL	INSP. LEVEL	SYMBOL	LIMITS Min.	LIMITS Max.	UNIT
	GROUP A							
	Electrode Insulation	Vh = 6.3V excluding Va - all (g1) = -300V	-	100%	R	50	-	M
		Vg1 - all = -100 V.	-	100%	R	50	-	M
	Heater Cathode Leakage Current	Vhk = ± 100 V. Note 1	-	100%	Ihk	-	25	µA
	Heater Current	Vh = 6.3V	-	100%	Ih	135	165	mA
	Reverse Grid Current	Vg1 = -2V. Vd" = 120V	-	100%	Ig1	-	0.5	µA
	Anode Current (1)	Adjust Vd" for maximum anode current.	-	100%	Ia(1)	0.9	1.8	mA
	Deflector " Volts	As in Anode Current (1) test	-	100%	Vd"	115	125	V
	Anode Current (2)	As in Anode Current (1) test						
		(a) Vd' = 114V	-	100%	Ia(2)	0.25	-	mA
		(b) Vd' = 126V	-	100%	Ia(2)	0.25	-	mA
		(c) Vd' = 111V	-	100%	Ia(2)	-	0.25	mA
		(d) Vd' = 129V	-	100%	Ia(2)	-	0.25	mA
	Anode Current (3)							
		(a) Vd" = 160V	-	100%	Ia(3)	-	10	µA
		(b) Vd" = 80V	-	100%	Ia(3)	-	10	µA
		(c) Vd" As in Anode Current (1) Vg1 = -20V	-	100%	Ia(3)	-	50	µA
		(d) Vd" As in Anode Current (1)	-	100%	Ia(3)	-	50	µA
	Cathode Current	Va = 65V, Vg2 = 0, Vg3 + g4 = 150V, Vg1 = 0, Vd' = Vd" = 150V Rk = 180 Ohms.	-	100%	Ik	60	120	µA
	GROUP B							
A VI/ 5.1	Stability Life Test (2 hours)	As for Group A Cathode Current	1.0	I	ΔIk (Individual)	-	5.0	%
AIII	Capacitances	To be performed in a 1 Mc/s R.F. Bridge with valve mounted in a fully shielded socket. Valve unscreened. Note 2	6.5	II	-	-	-	-
					Cg1-all	-	3.5	pF
					Cd'-all	-	4.5	pF
					Cd"-all	-	4.5	pF
					Ca-all	-	2.0	pF
					Ca-d'	-	0.03	pF
					Ca-d"	-	0.03	pF

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NOTES

1. Protective Resistance of 1 MΩ.

2. The Capacitance connections shall be :-

Capacitance	Connections		
	H.P.	L.P.	Earth
Cg1 - all	2	1 3 4 5 6 7 8 9 TC	-
Cd' - all	7	1 2 3 4 5 6 8 9 TC	-
Cd" - all	9	1 2 3 4 5 6 7 8 TC	-
Ca - all	TC	1 2 3 4 5 6 7 8 9	-
Ca - d'	TC	7	1 2 3 4 5 6 8 9
Ca - d"	TC	9	1 2 3 4 5 6 7 8