

MILITARY SPECIFICATION SHEET

ELECTRON TUBE, RECEIVING

TYPE 6AB4

This amendment forms a part of Military Specification Sheet MIL-E-1/351A, dated 1 May 1968, and is mandatory for use by all Departments and Agencies of the Department of Defense.

Page 2

Quality conformance inspection, part 2, Method 1221 and 4.3.2. Base strain: Delete "1221 and 4.3.2" from method column and substitute "1121"; Add, "See note 4" to the conditions column.

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Add: New note 4 as follows:

"4. The "Base-strain test, miniature tube, sampling" paragraph of MIL-E-1 and all subparagraphs thereto (Normal inspection, Sampling, Acceptance and rejection criteria, Rejected tubes, and Records) shall apply to this test."

Custodians:
Army - EL
Navy - EC
Air Force - 85

Preparing activity: Navy - EC

Agent: DSA - ES

(Project 5960-2401-61)

Review activities:
Army - EL
Navy -
Air Force - 11, 85
DSA - ES

User activities:
Army - MU, ME, WC
Navy - AS, OS, MC, CG, SH
Air Force - 19

MILITARY SPECIFICATION SHEET
 ELECTRON TUBE, RECEIVING
 TYPE 6AB4

The complete requirements for procuring the electron tube described herein shall consist of this document and the latest issue of Specification MIL-E-1.

This specification is mandatory for use by all Departments and Agencies of the Department of Defense.

DESCRIPTION: Triode, miniature, 400 MHz. medium Mu

Outline --- 5-2 (EIA) (A)

Base --- E7-1

Envelope --- T5-1/2

Cathode --- Coated unipotential

Base connections:

Pin No.	---	1	2	3	4	5	6	7
Element	---	p	(int con)	h	h	nc	g	k

ABSOLUTE-MAXIMUM RATINGS:

Parameter:	Ef	Eb	Ec	Ehk	Rk	Pp	Alt
Unit:	V	Vdc	Vdc	v	Ohms	W	ft
Maximum:	6.9	330	---	100	---	2.8	(see
Minimum:	5.7	---	---	---	---	---	note 1)

TEST CONDITIONS: 6.3 250 0 --- 200 --- --- (A)

REQUIREMENT OR TEST:

GENERAL

3.2 Qualification - Required

E-50.3 Preheating

E-50.2 Holding period

5. Preparation for delivery

(A) denotes change

6AB4

METHOD OR PARAGRAPH	REQUIREMENT OR TEST	CONDITIONS	AQL (PERCENT DEFECTIVE)	INSPECTION LEVEL OR CODE	SYMBOL	LIMITS		UNIT
						MIN	MAX	
	<u>Quality conformance inspection, part 1</u>							
1266	Total grid current	See note 3	0.65	II	Ic	0	-1.5	μ Adc
1256	Electrode current (1) (anode)		0.65	II	Ib	7	14	mAdc
1306	Transconductance (1)		0.65	II	Sm	4,500	6,500	μ mhos
1236	Power oscillation	Ef = 6.3 V; Eb = 300 Vdc; Rg = 2,700 ohms; F = 400 MHz; Rk = 0 (see notes 2 and 3)	0.65	II	Pe	190	---	mW
1201	Short and discontinuity detection		0.4	II	---	---	---	---
Appendix D, 20(a), 30	Visual and mechanical inspection criteria		---	---	---	---	---	---
Appendix D, 20(b)	Dimensions	Outline 5-2; dimensions A, C, D, and E	1.0	I	---	---	---	---
	<u>Quality conformance inspection, part 2</u>							
1301	Heater current		4.0	L6	If	138	162	mA
Ⓐ 1336	Heater-cathode leakage		4.0	L6	Ihk	---	20	μ Adc
1256	Electrode current (2) (anode)	Ec = -20 Vdc; Rk = 0	4.0	L6	Ib	---	100	μ Adc
1231	Emission	Eb = Ec = 10 Vdc; Rk = 0	6.5	L6	Is	50	---	mAdc
1211	Insulation of electrodes		4.0	L6	R	10	---	Meg
1306	Transconductance (2)	Ef = 5.7 V	4.0	L6	Sm	4,000	---	μ mhos
1316	Amplification factor		6.5	L6	Mu	48	72	---
1031	Low-frequency vibration	Rk = 0; Ec = -3 Vdc; Rp = 2,000 ohms	6.5	L6	Ep	---	150	mVac
1331	Direct-interelectrode capacitance	No external shield	6.5	L6	Cgp Cin Cout	1.2 1.5 0.2	1.8 3.0 0.8	pf pf pf
1221 and 4.3.2	Base strain		---	---	---	---	---	---
2126	Glass strain		4.0	I	---	---	---	---
1105	Permanence of marking		---	---	---	---	---	---
	<u>Quality conformance inspection, part 3</u>							
Ⓐ 4.7 and 1501	Life-test provisions (intermittent)	Group A; Ehk = 100 Vdc; Rg = 0.5 Meg	---	---	---	---	---	---
Ⓐ 4.7.3	Life-test end points (intermittent) (500 hours)	Transconductance (1) Total grid current	---	---	Sm Ic	3,800 0	---	μ mhos μ Adc

NOTES:

1. See 6.5.2.3 for reduced pressure (altitude) rating, and for altitude, maximum peak voltage. (A)
2. The tube shall be tested as shown in figure 1. Tune the capacitor in the load circuit for maximum power output. Ik shall not exceed 20 mAdc.
3. This test to be performed at the conclusion of the holding period.

Custodians:

Army - EL
Navy - EC
Air Force - 11

Preparing activity:

Navy - EC

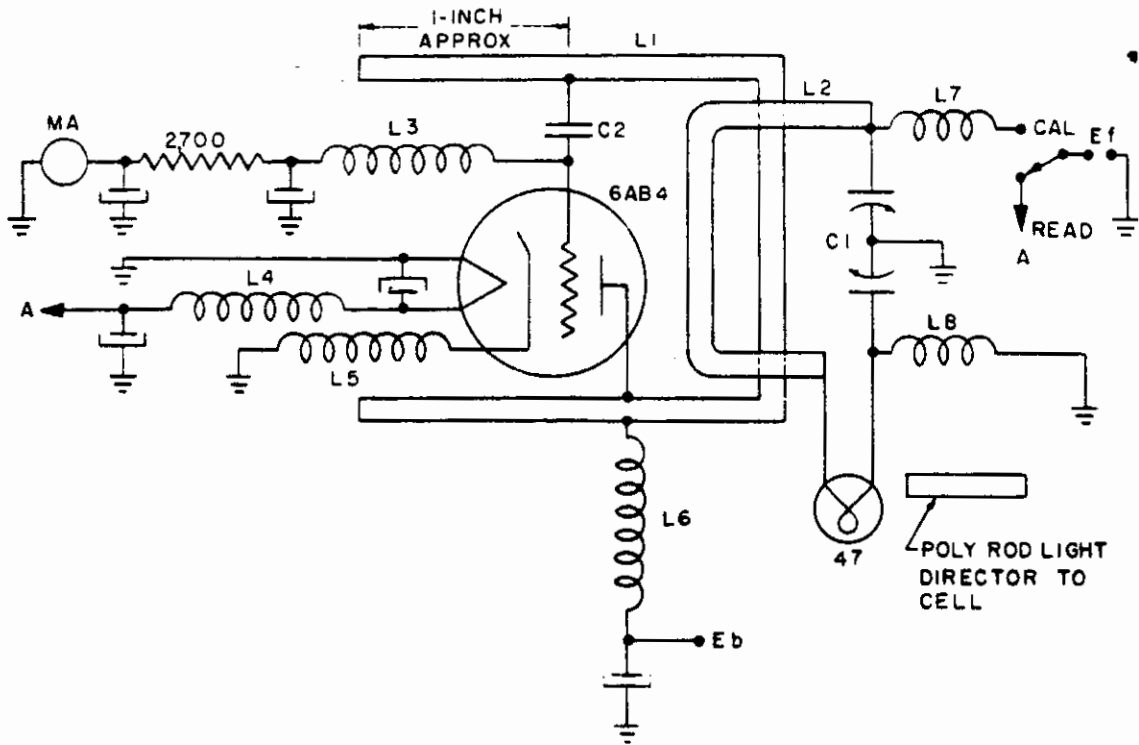
(Project 5960-2247-58)

Review activities:

Army - EL
Navy - 53
Air Force - 11, 85
DSA - ES

User activities:

Army - MU, ME
Navy - AS, OS, MC, CG
Air Force - 19



- L1 - .188 inch Copper tubing 3.375 inch long spaced .250 inch C.C.
- L2 - No. 14 Formex approx. 1 inch lap with tank lines.
- L3-L6 - 26T No. 28 Formex on .188 inch form (1/2 watt 15-Meg resistor).
- L4 - 16T No. 24 Formex on .250 inch form (1 watt 10-Meg resistor).
- L5 - 35T No. 34 Formex on .125 inch form.
- L7-L8 - 20T No. 28 Formex on .125 inch form.
- C1 - 160-205 pf
- C2 - 10 pf
- Other capacitors - 500 pf

FIGURE 1. Test circuit.