

MIL-E-1/985B
 15 July 1977
 SUPERSEDING
 MIL-E-1/985A
 30 March 1970

MILITARY SPECIFICATION SHEET
 ELECTRON TUBE, RECEIVING
 TYPE 5U4GB

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

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

DESCRIPTION: Rectifier, full wave, high vacuum

Outline --- 12-16
 Base --- B5-121
 Envelope --- T12
 Cathode --- Coated filament

Base connections:

Pin No.	---	1	2	3	4	5	6	7	8
Element	---	nc	f	---	2a	---	1a	---	f

ABSOLUTE RATINGS: See note 1

Parameter:	Ef	Epp/a	epx	ib	Io	Rl	CL	i (surge)	Alt
Unit:	Vac	Vac	v	ma	mAdc	Ohms	μ F	a	ft
Maximum:	5.5	---	1,700	1,100	300	---	--	5.0	10,000
Minimum:	4.5	---	---	--	---	---	--	---	---

TEST CONDITIONS: 5.0 550 --- --- --- 1,950 10 --- ---

GENERAL:

Qualification - Required

ⓑ denotes changes

5U4GB

METHOD	REQUIREMENT OR TEST	CONDITIONS	AQL (PERCENT DEFECTIVE)	INSPECTION LEVEL OR CODE	SYMBOL	LIMITS		UNIT
						Min	Max	
ⓑ	<u>Qualification test</u>							
1031	Low-frequency vibration	No voltages	----	---	---	---	---	---
1353	<u>Quality conformance inspection, part 1</u> Operation of rectifiers (1)	See notes 2 and 3	0.65	II	I _o	285	---	mAdc
1231	Emission	E _b = 75 Vdc See note 4	0.65	II	I _s	350	---	mAdc
----	<u>Quality conformance inspection, part 2</u> Alignment	See note 5	----	---	---	---	---	---
1301	Filament current		----	---	I _f	2.7	3.3	A
1353	Operation of rectifiers (2)	E _f = 4.5 Vac	----	---	ΔI _o I _f	---	10	%
1211	Insulation of electrodes		----	---	---	---	---	---
1101	Secureness of base, cap, or insert		----	---	---	---	---	---
1105	Permanence of marking		----	---	---	---	---	---
----	<u>Quality conformance inspection, part 3</u> Life-test provisions	Group B, See note 6	----	---	---	---	---	---
----	Life-test end point (500 hours)		----	---	---	---	---	---
1353	Operation of rectifiers (1)		----	---	I _o	275	---	mAdc

NOTES:

1. Tube shall be operated in a vertical position. Tube may be mounted in a horizontal position provided pins No. 2 and 4 are in a vertical plane.
2. In a full-wave circuit Z_p/a shall be adjusted such that a tube having $E_{td} = 44$ Vdc at 225 mAdc per anode gives $I_o = 300$ mAdc.
3. This test to be performed at the conclusion of the holding period.
4. Test each section separately. Anode voltage = 0 for section not under test.
5. The plane of the filament shall be parallel to the plane passing through the centerline of pins No. 2 and 4 plus or minus 22.5 degrees.
6. The values of R1 and CL given in test conditions may be considered as approximate, and shall be adjusted initially to give $I_o = 300$ mAdc with i_b equal to or greater than 1.1A.

Custodians:

Army - EL
Navy - EC
Air Force - 85

Preparing activity:
Air Force - 85

Review activities:

Army - MU, MI
Air Force - 99
DSA - ES

(Project No. 5960-3127)

User activities:

Army - ME, WC
Navy - AS, QS, MC, CG, SH

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS: This form is provided to solicit beneficial comments which may improve this document and enhance its use. DoD contractors, government activities, manufacturers, vendors, or other prospective users of the document are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity. A response will be provided to the submitter, when name and address is provided, within 30 days indicating that the 1426 was received and when any appropriate action on it will be completed.

NOTE: This form shall not be used to submit requests for waivers, deviations or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

DOCUMENT IDENTIFIER (Number) AND TITLE

MIL-E-1/985B Electron Tube, Receiving Type 5U4GB FSC 5960

NAME OF ORGANIZATION AND ADDRESS OF SUBMITTER

VENDOR USER MANUFACTURER

1. HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE? IS ANY PART OF IT TOO RIGID, RESTRICTIVE, LOOSE OR AMBIGUOUS? PLEASE EXPLAIN BELOW.

A. GIVE PARAGRAPH NUMBER AND WORDING

B. RECOMMENDED WORDING CHANGE

C. REASON FOR RECOMMENDED CHANGE(S)

2. REMARKS

SUBMITTED BY (Printed or typed name and address - Optional)

TELEPHONE NO.

DATE

FOLD

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

POSTAGE AND FEES PAID
DEPARTMENT OF AIR FORCE
DOD-318



AFLC/LOIE/Standardization
Wright-Patterson AFB OH 45433

FOLD