

**Rules for the preparation of
Detail specifications for**

**Gas filled microwave
switching tubes of
assessed quality:
Tunable and broadband
TR tubes and
TR limiters —
Full assessment level**

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 13 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Amendments issued since publication

Amd. No.	Date of issue	Comments
2716	August 1978	Indicated by a sideline in the margin

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1 Introduction

This British Standard should be used with BS 9040, “*Gas-filled microwave switching tubes of assessed quality: generic data and methods of test*”.

The object of the rules in this standard is to ensure that all detail specifications for tunable and broadband TR tubes and TR limiters are closely similar to enable detail specifications to be readily compared.

2 Scope

This standard lists the ratings, characteristics, inspection requirements and additional information which shall be included as minimum mandatory requirements in the detail specifications for tunable and broadband TR tubes and TR limiters at the full assessment level. The purpose of the detail specification is to describe fully a particular tube so that the specification can be used contractually for the procurement of that tube, for acceptance testing and for circuit design and maintenance purposes.

3 General

Detail specifications are prepared either by BSI or by manufacturers. They shall be prepared in accordance with the rules given in 3.1 to 3.4. The minimum information which is to be given in a detail specification for tunable and broadband TR tubes and TR limiters is given in the mandatory layout. All detail specifications shall be printed on A4 size paper.

3.1 Basic information. The information given in 3.1.1 to 3.1.9 shall appear on the first two pages of the detail specification as far as is practicable. This information is not for inspection purposes; inspection requirements are given in 3.2.

3.1.1 Originator of specification. Each detail specification shall give the name and address of the originator of the specification.

3.1.2 Numbering of the detail specification. Each detail specification shall carry a distinguishing number made up of the number of this standard followed by a three-digit number to designate the particular detail specification. Where the detail specifications have been prepared by BSI the two portions of the distinguishing number shall be separated by the letter “N”, e.g. BS 9041 NXXX. When the detail specification has been prepared by a manufacturer BSI will issue a BS number which will be separated by the letter “F”, e.g. BS 9041 FXXX, to show that the detail specification has been prepared by a manufacturer. The issue number and date of issue (month and year) of the detail specification shall be given and re-issues shall give the issue number and date of issue of the superseded document, all changes being clearly marked.

3.1.3 Description of the tube and intended application. This shall be as shown on the first page of the mandatory layout for a detail specification.

3.1.4 Outline drawing (not for inspection purposes). An illustration of the tube showing overall dimensions shall be given as an aid to easy recognition and for comparison of the tube with other tubes.

Code names of shapes, bases, etc., shall be in accordance with BS 448¹⁾ and terminal connections shall be given as appropriate. The symbols used shall be in accordance with the relevant British Standards or IEC publications. The location of the inspection drawing (see 3.3) shall be given.

3.1.5 Ratings (not for inspection purposes). Any limiting conditions of use, e.g. mounting, shall be stated. The absolute system of ratings shall be used (see IEC publication 134).

The ratings listed in the mandatory layout of this standard shall be stated. Additional ratings may be included at the manufacturer’s discretion but in all cases the values of the ratings and the conditions under which they apply shall be given. Any interdependence of ratings shall be stated.

3.1.5.1 Ratings (limiting values). These are defined as ratings which establish either a limiting capability or a limiting condition of use beyond which significant performance deterioration, life reduction and/or possible damage to the device may occur.

NOTE The limiting value may be either a maximum or minimum quantity and is referred to as a “maximum rating” or a “minimum rating” respectively. Such values do not necessarily define a frontier where one side gives satisfactory performance and the other immediate failure.

3.1.6 Characteristics (not for inspection purposes). The characteristics listed in the mandatory layout of this standard shall be stated.

¹⁾ BS 448, “*Dimensions of electronic tubes and valves*”

Additional characteristics may be included at the manufacturer's discretion but in all cases the values of the characteristics and the conditions under which they are measured shall be stated.

3.1.7 Related documents. Reference shall be made to BS 9000²⁾, BS 9040³⁾ and to any other British Standards or IEC publications which are called up in the detail specification but not already referenced in BS 9040.

3.1.8 Additional information. This part of the detail specification shall include any circuit diagrams, graphs and notes necessary to clarify any part of the detail specification. Also where any items such as those listed below are not fully defined in BS 9040 (and/or BS 9000 in some cases) additional details covering those items shall be given in the detail specification:

- a) terms and definitions;
- b) letter symbols;
- c) test procedures.

The general principles contained in the relevant British Standard and/or IEC publications shall be followed when preparing such additional information.

3.1.8.1 Application data. The application data shall be that which, in the view of the manufacturer, will provide adequate user information. This information shall be given on a voluntary basis and is not a mandatory requirement in the sense of forming part of the inspection procedure to meet the needs of the detail specification. However, it is the responsibility of the manufacturer to ensure that the information given is correct and representative of current production.

3.1.9 Ordering information. The minimum ordering information required for tunable and broadband TR tubes and TR limiters covered by this standard shall be given.

3.2 Inspection requirements. The requirements of 2.2 of BS 9000-2:1972 shall apply and in addition, tests to be performed at qualification approval only shall be included in subgroup D7.

²⁾ BS 9000, "General requirements for electronic parts of assessed quality".

³⁾ BS 9040, "Gas-filled microwave switching tubes of assessed quality: generic data and methods of test".