

BUREAU OF INDIAN STANDARDS

(Not to be reproduced without permission of BIS or used as standard)
Draft Indian Standard

Medical Electrical Equipment-
Characteristics of electro-optical X-ray image intensifiers-
Part 4: Determination of the image distortion

Last date of receipt of comments is 15-05-2010

**Ionizing Radiation Imaging and Radiotherapy Equipments Sectional Committee,
MHD 18**

NATIONAL FOREWORD

(Formal clause of adoption will be added later)

This draft Indian Standard is identical with IEC 61262-4:1994 'Medical Electrical Equipment-Characteristics of electro-optical X-ray image intensifiers-Part 4:Determination of the image distortion' issued by the International Electrotechnical Commission (IEC).

This draft standard will supersede IS 13814:1993 as the base IEC 60858(1986) has been withdrawn and replaced by IEC 61262-4(1994).

The image distortion is a functional performance characteristic which describes deviations from a similarity representation of an image in the entrance plane to the output image of an electro-optical X-ray image intensifier. It will however be assumed that angular distortions like the S-shaped distortion of a straight line through the centre of the entrance field can be reduced to a small size by adequate magnetic shielding since the X-ray image intensifier itself is by construction very nearly axially symmetrical.

Therefore this standard will be confined to radial distortion. A slight S-shaped distortion may persist in spite of the shielding. Its influence on the measurement of magnification, described below, is negligible.

Other parts of this standard are:

- (i) IS/IEC 61262 (Part 1) Determination of the entrance field size
- (ii) IS/IEC 61262 (Part 2) Determination of the conversion factor
- (iii) IS/IEC 61262 (Part 3) Determination of the luminance distribution and luminance non-uniformity

The text of this standard has been approved as suitable for publication as an Indian standard. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’; and
- b) Comma (,) has been used as the decimal marker while in Indian Standards, the current practice is to use a point (.) as a decimal marker.

In this adopted Indian Standard, reference appears to the following International Standard for which Indian Standards also exist. The corresponding Indian Standard which is to be substituted in its respective place is listed below along with its degree of equivalence for the edition indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
IEC/TR 60788:2004 Medical Electrical Equipment–Glossary of defined terms Note: This IEC replaces 1984 version.	IS/IEC TR 60788:2004 Medical Electrical Equipment–Glossary of defined terms (first revision)	Identical

Only the English language text has been retained while adopting it in this Indian Standard, and as such the page numbers have been given afresh here since they are not the same as in IEC Publication.
