

INTERNATIONAL STANDARD

IEC 61947-2

First edition
2001-09

Electronic projection – Measurement and documentation of key performance criteria –

Part 2: Variable resolution projectors

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE X

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CONTENTS

FOREWORD	4
INTRODUCTION	6
1 Scope	7
2 Normative references	7
3 Definitions	8
4 General requirements	12
5 Light output measurement and specification	13
5.1 Light output specifications	14
5.1.1 Light output specification for projectors with a separate screen	14
5.1.2 Full-black light level specification	15
5.1.3 Luminance specification for devices with an integral screen	15
5.2 Light output uniformity	15
5.2.1 Example of a uniformity specification	15
5.3 Contrast ratio	15
5.4 Blanking measurement and specification	15
5.5 Effective blanking time	16
5.6 Blanking specification	16
6 Variable resolution projector characteristics	17
6.1 Visual resolution measurement and specification	17
6.1.1 Description and general requirements	17
6.1.2 Horizontal resolution	17
6.1.3 Vertical resolution	18
6.1.4 Procedure	18
6.2 Video frequency response specifications	20
6.2.1 Frequency response specifications	20
6.3 Viewing angle (half/gain) specification for devices with an integral screen	20
6.4 Input signal format compatibility	20
6.5 Response time	20
6.6 Colour measurements	21
6.6.1 Colour chromaticity	21
6.6.2 Colour uniformity	21
6.7 Keyframe correction	22
7 Range of focus and image size	22
8 Audio characteristics	22
9 Light source specification	22
10 Noise maximum sound level	23
11 Power consumption	23
12 Weight	23
13 Dimensions	23
14 Recommended practices	23
14.1 Recommended practice 1 – Sync hierarchy	23
14.2 Recommended practice 2 – DC restoration	23
14.3 Recommended practice 3 – Sync	24
14.4 Recommended practice 4 – Scan range labelling	24

Annex A (normative) Figures	25
Annex B (normative) Pattern generator specifications	29
Annex C (informative) Considerations in formulating this standard	30
C.1 General.....	30
C.2 Light output measurement.....	30
C.3 Visual resolution measurement.....	31
C.4 Possible causes for measurement errors	31
C.5 Input signal levels	31
Annex D (normative) Complete sample specification	33
Annex E (informative) Other issues, outside the scope of this standard, that may affect picture clarity.....	35
Annex F (informative) Possible causes of photometric measurement errors.....	36
F.1 Size of measured spot.....	36
F.2 Colour measurement.....	36
Annex G (normative) Alternative method for measuring resolution using the MTL grille contrast method.....	37
Annex H (informative) Photometer precision and veiling glare	39
H.1 Photometer precision	39
H.2 Integration time	39
H.3 Veiling glare	39
Annex I (informative) Light measuring devices	41
Annex J (informative) Figure of merit for projection display colour gamut.....	42
Bibliography	44
Figure A.1 – Test patterns/measurement set-up	25
Figure A.2 – Thirteen-point measuring grid	26
Figure A.3 – Contrast measurement	26
Figure A.4 – Vertical alternating lines.....	26
Figure A.5 – Horizontal alternating lines.....	27
Figure A.6 – Resolution equipment set-up/depth of modulation measurement.....	27
Figure A.7 – Sync and blanking timing	28
Figure C.1 – Simulation of lowered resolution	32

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRONIC PROJECTION –
MEASUREMENT AND DOCUMENTATION
OF KEY PERFORMANCE CRITERIA –**

Part 2: Variable resolution projectors

FOREWORD

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International Standard IEC 61947-2 has been prepared by subcommittee 100C: Audio, video and multimedia subsystems and equipment, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this standard is based on the following documents:

FDIS	Report on voting
100/268/FDIS	100/418/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

Annexes A, B, D, and G form an integral part of this standard.

Annexes C, E, F, H, I and J are for information only.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

The committee has decided that the contents of this publication will remain unchanged until 2004. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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INTRODUCTION

This standard was developed to ensure a common, meaningful description of key performance parameters for variable resolution projectors (for example, CRT or laser projectors). The measurement methods and test signals correlate closely to typical uses involving computer-generated text and graphics displays. These measurements evaluate the actual viewable image that emanates from variable resolution projectors. The resulting performance specifications are conservative in nature and allow any display device to be used beyond its rated specifications with degraded performance. The point at which this degraded performance is no longer useful is highly subjective and strongly affected by the environment and the application.

This standard is designed to specify a means of measuring and quantifying the performance of variable resolution projectors and is not intended to provide design goals for manufacturers of such equipment.

ELECTRONIC PROJECTION – MEASUREMENT AND DOCUMENTATION OF KEY PERFORMANCE CRITERIA –

Part 2: Variable resolution projectors

1 Scope

This part of IEC 61947 specifies requirements for measuring and documenting key performance parameters for CRT and laser-based projectors and other variable resolution projectors that are capable of multiple variable resolutions and in which the image is raster-scanned.

The provisions of this standard are designed to codify the measurement of the performance of variable resolution projectors and are not intended to provide design goals for manufacturers of such equipment.

This standard is intended for variable resolution projectors (including projection displays that are capable of multiple variable resolutions) that are designed for use with primarily discrete colour (RGB) raster-scanned video, text, and graphics signals generated by computer equipment.

NOTE These devices may also accept composite or component television video signals encoded to NTSC/RS170A, PAL, SECAM, or future HDTV, or ATV standards, which are fully described in their respective documentation and are not within the scope of this part of IEC 61947. In this part of IEC 61947, all of these signals are referred to as television video (TV video) (see IEC 60107-1:1997).

Displays with fixed resolutions (i.e. individual pixel light sources or matrix displays such as liquid crystal, DMD, plasma, or electroluminescent panels), are not fully addressed by this standard, and reference should be made to IEC 61947-1.

Factors outside the scope of this standard that may have a bearing on projector performance are listed in annex E. A discussion of considerations informing the development of standard appears in annex C.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61947. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61947 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60050(845):1987, *International Electrotechnical Vocabulary (IEV) – Chapter 845: Lighting*

IEC 61947-1, *Electronic projection – Measurement and documentation of key performance criteria – Part 1: Fixed resolution projectors¹⁾*

¹⁾ To be published.

ISO 3741:1999, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Precision methods for reverberation rooms*

ISO 7779:1999, *Acoustics – Measurement of airborne noise emitted by information technology and telecommunications equipment*