AS ISO 20954.1:2019

Australian STANDARD®

Digital cameras — Measurement for image stabilization performance

Part 1: Optical systems

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STANDARDS Australia

AS ISO 20954.1:2019

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Australian Institute of Professional Photography
Australian War Memorial
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Preface

This Standard was prepared by the Standards Australia Committee MS-065, Photography.

The objective of this Standard is to define the measurement method of optical image stabilization performance for still images compensating for hand-held blur consisting of two rotational components, yaw and pitch.

This Standard applies to consumer digital cameras with optical image stabilization for still images. Apparatuses such as camcorders and mobile phones with still image shooting functionality are within the scope of this Standard.

This Standard is identical with, and has been reproduced from, ISO 20954-1:2019, *Digital cameras — Measurement method for image stabilization performance — Part 1: Optical systems*.

As this document has been reproduced from an International Standard, a full point substitutes for a comma when referring to a decimal marker.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee 42, *Photography*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

The image stabilization function is important for digital cameras and has become a selling point in marketing materials. Therefore, the measurement methods and its reporting method are then very important to compare the image stabilization performance among cameras based on their brochures.

The Camera & Imaging Products Association (CIPA) issued CIPA standard DC-011 in 2012 to specify how to measure and describe the optical image stabilization performance of digital cameras. When image stabilization performance is measured and described according to this standard, end users have unbiased and useful information to help them select from a variety of digital cameras (see Bibliography).

This document is based on the CIPA standard, which is referenced in the Bibliography. The standardized measurement method primarily includes performance assessment with simulated handheld camera movements.

The International Organization for Standardization (ISO) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent.

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Panasonic Corporation and Panasonic Intellectual Property Management Co.,Ltd.

1-15 Matsuo-cho, Kadoma City, Osaka 571-8504, Japan

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Australian Standard®

Digital cameras — Measurement for image stabilization performance

Part 1: Optical systems

1 Scope

This document defines the measurement method of optical image stabilization performance for still images compensating for handheld blur consisting of two rotational components, yaw and pitch.

It applies to consumer digital cameras with optical image stabilization for still images. Apparatuses such as camcorders and mobile phones with still image shooting functionality are within the scope of this document.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
image stabilization
camera function that prevents handheld blur by using a means of camera movement detection

Note 1 to entry: Even if a camera function uses a means of camera movement detection, it is not regarded as an image stabilization function if its primary means of blur mitigation is shortening exposure time based on exposure control program optimization.

3.2
optical image stabilization
function that compensates for image displacement on the focal plane due to movement of a handheld camera by moving a part or whole of the optical system and/or image sensor, based on a means of camera movement detection

3.3
handheld blur
loss of image sharpness caused by movement of a handheld camera during exposure

3.4
stop
number that expresses a doubling or halving of the amount of light let in when taking a picture and which is typically represented by an exposure value

Note 1 to entry: For instance, the difference between exposure times of 1/1 000 s (TV10) and 1/500 s (TV9) or 1/125 s (TV7) and 1/60 s (TV6) is one stop.

Note 2 to entry: "TV*n*" expresses that time value of APEX equals to *n*. See Annex C of Reference [5] for APEX.

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