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Information technology — Digitally recorded media for information interchange and storage — 120 mm Single Layer (25,0 Gbytes per disk) and Dual Layer (50,0 Gbytes per disk) BD Recordable disk

Technologies de l'information — Supports enregistrés numériquement pour échange et stockage d'information — Disques BD enregistrables de 120 mm simple couche (25,0 Go par disque) et double couche (50,0 Go par disque)

Reference number
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Foreword

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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 document 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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, SC 23, *Digitally recorded media for information interchange and storage*.

This second edition cancels and replaces the first edition (ISO/IEC 30190:2013), which has been technically revised. It also incorporates the Technical Corrigendum ISO/IEC 30190:2013/Cor 1:2015.

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Introduction

In March of 2002, nine companies known as the Blu-ray Disc Founders, or BDF, came together to create optical-disk formats with the large capacity and high-speed transfer rates that would be needed for recording and reproducing high-definition video content.

Then, in October of 2004, more than a hundred companies joined and the BDF became an open forum called the Blu-ray Disc Association (BDA). The BDA issued the first version of the Blu-ray Disc™ Recordable Format Part1 in October of 2005, and Version 1.3 of the Blu-ray Disc™ Recordable Format Part1 in April of 2008, which enabled the Recording Velocity up to 6x.

By the end of 2010, over a hundred million Blu-ray Disc™ had already been shipped, and Blu-ray™ devices such as players, recorders, game consoles and PC drives were in use all over the world.

The BDA also conducts verification activities for the disks and devices and has established more than 10 Testing Centers in Asia, Europe and the USA.

The BDA gave consumer applications the highest priority in the first few years. But it was known, of course, that International Standardization would be required before many government entities and their contractors would be allowed to use Blu-ray Disc™. In February and January of 2011, the chair of ISO/IEC JTC 1/SC 23 and JIIMA (Japan Image and Information Management Association) formally requested the BDA to consider International Standardization. The reason for this was to enable the inclusion of writable BDs, along with DVDs and CDs, in an International Standard specifying test methods for the estimation of lifetime of optical storage media for long-term data storage. In October 2011, the president of the BDA responded that his organization had decided to pursue International Standard of the basic physical formats for the Recordable and Rewritable Blu-ray™ Format.

In December of 2011, BDA sent project proposals for the International standardization of four formats to ISO/IEC JTC 1/SC 23 via the Japan national body. They are 120 mm Single Layer (25,0 Gbytes per disk) and Dual Layer (50,0 Gbytes per disk) BD Recordable disks, 120 mm Single Layer (25,0 Gbytes per disk) and Dual Layer (50,0 Gbytes per disk) BD Rewritable disks, 120 mm Triple Layer (100,0 Gbytes per disk) and Quadruple Layer (128,0 Gbytes per disk) BD Recordable disks and a 120 mm Triple Layer (100,0 Gbytes per disk) BD Rewritable disk.

This International Standard specifies the mechanical, physical and optical characteristics of a 120 mm recordable optical disk with a capacity of 25,0 Gbytes or 50,0 Gbytes.

Some technical errors were found during the editorial work for JIS X 6230, which is the Japanese Industrial Standard identical with ISO/IEC 30190:2013. In December of 2014, a Defect Report was submitted by the Japan national body of ISO/IEC JTC 1/SC 23. The project editor proposed a Draft Technical Corrigendum for ISO/IEC 30190:2013 and it was approved by ISO/IEC JTC 1/SC 23 in May of 2015.This International Standard is the updated First edition of ISO/IEC 30190:2013, including the Technical Corrigendum and additional corrections for some minor editorial errors.

A few additional specifications are required in order to write and read video-recording applications, such as the BDMV and BDAV formats, which have been specified by the BDA for use on BD Recordable disks. These specifications, which are related to the Application, the file systems or the Content-protection system, are required for the disk, the generating system and the receiving system. For more information of the Application, the Content-protection system and the additional requirements for the Blu-ray™ Format specifications, see http://www.blu-raydisc.info.

The International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) draw attention to the fact that it is claimed that compliance with this International Standard may involve the use of patents.

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