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**Information technology — Digitally  
recorded media for information  
interchange and storage — 120 mm  
Triple Layer (100,0 Gbytes single  
sided disk and 200,0 Gbytes double  
sided disk) and Quadruple Layer  
(128,0 Gbytes single sided disk) BD  
Recordable disk**

*Technologies de l'information — Supports enregistrés  
numériquement pour échange et stockage d'information — 120 mm  
de couche triple (100,0 Go disque unique face et 200,0 Go disque  
double face) et quadruple couche (128,0 Go disque unique face) sur  
disque enregistrable BD*

**iTeh STANDARD PREVIEW**  
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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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](http://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 and IEC 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](http://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.

ISO/IEC 30191:2015

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 (ISO/IEC 30191: 2013), of which it constitutes a minor revision.

## Introduction

In March 2002, 9 companies started BDF (Blu-ray Disc Founders) aiming for the creation of the Formats with large capacity and high speed transfer rate, that enable the recording and reproducing of the high definition video contents. In October 2004, more than 100 companies joined and BDF was changed to an open forum named BDA (Blu-ray Disc Association). In October 2005, BDA issued the first version of the Blu-ray Disc™ Recordable Format Part1 and in April 2008 Version 1.3 of Blu-ray Disc™ Recordable Format Part1 was issued, which enabled the Recording Velocity up to 6x. In June 2010, BDA issued Blu-ray Disc™ Recordable Format Part1 Version 2.0, which specifies the TL and QL of BD Recordable disk.

By the end of 2010, over 100 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 both 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 chairs of ISO/IEC JTC 1/SC 23 and JIIMA (Japan Image & 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™ Formats.

### ISO/IEC 30191:2015

In December of 2011, the BDA sent project proposals for the International standardization of four formats to ISO/IEC JTC 1/SC 23 via the Japan national body. In July of 2013, ISO/IEC published the four International standards. They are ISO/IEC 30190 - 120 mm Single Layer (25,0 Gbytes per disk) and Dual Layer (50,0 Gbytes per disk) BD Recordable disk, ISO/IEC 30192 - 120 mm Single Layer (25,0 Gbytes per disk) and Dual Layer (50,0 Gbytes per disk) BD Rewritable disk, ISO/IEC 30191 - 120 mm Triple Layer (100,0 Gbytes per disk) and Quadruple Layer (128,0 Gbytes per disk) BD Recordable disk and ISO/IEC 30193 - 120 mm Triple Layer (100,0 Gbytes per disk) BD Rewritable disk.

In July of 2014, the BDA developed a double sided Triple Layer BD Recordable disk of 200,0 Gbytes and revised Blu-ray Disc™ Recordable Format Part1 Version 2.0 to Version 2.1. In the same month, the BDA sent a project proposal to revise ISO/IEC 30191 to include the double sided Triple Layer BD Recordable disk to ISO/IEC JTC 1/SC 23 via the Japan national body. The revised edition of ISO/IEC 30191 includes the 120 mm Triple Layer (100,0 Gbytes single sided disk and 200,0 Gbytes double sided disk) and Quadruple Layer (128,0 Gbytes single sided disk) BD Recordable disk.

This International Standard specifies the mechanical, physical and optical characteristics of a 120 mm recordable optical disk with a capacity of 100,0 Gbytes, 128,0 Gbytes or 200,0 Gbytes.

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 system 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 document may involve the use of patents.

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NOTE Blu-ray™, Blu-ray Disc™ and the logos are trademark of the Blu-ray Disc Association.