



IEC 62481-5

Edition 1.0 2013-10

INTERNATIONAL STANDARD

**Digital living network alliance (DLNA) home networked device interoperability
guidelines –
Part 5: DLNA Device Profile guidelines**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

PRICE CODE

K

ICS 33.160; 35.100.05; 35.110

ISBN 978-2-8322-1129-8

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references	6
3 Terms, definitions and abbreviated terms	6
3.1 Terms and definitions	6
3.2 Abbreviations	7
3.3 Conventions	7
4 Networking architecture, device models and guideline conventions	7
4.1 DLNA home networking architecture.....	7
4.2 DLNA device model.....	7
4.3 Document conventions and conventions	7
5 DLNA Device Profile guidelines	7
5.1 Overview	7
5.2 Defined Device Profiles	7
6 CVP-NA-1 guideline requirements	8
6.1 Device Profile definition.....	8
6.2 Media format guidelines – NA media format profiles	8
6.3 Client architecture and protocol guidelines	8
6.3.1 Baseline client.....	8
6.3.2 Client device discovery and control.....	8
6.4 Trick modes.....	9
6.5 DLNA Link Protection	10
6.6 DLNAQOS.....	10
Table 1 – CVP-NA-1 Device Profile definition.....	8
Table 2 – Updates to existing general HTTP Media Transport for streaming transfer guidelines	9
Table 3 – Updates to existing general HTTP Media Transport for streaming transfer guidelines with DLNA Link Protection.....	9
Table 4 – Updates to existing QoS requirement guidelines.....	10

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**DIGITAL LIVING NETWORK ALLIANCE (DLNA) HOME
NETWORKED DEVICE INTEROPERABILITY GUIDELINES –**
Part 5: DLNA Device Profile guidelines

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62481-4 has been prepared technical area 9: Audio, video and multimedia applications for end-user network, by IEC technical committee 100: Audio, video and multimedia systems and equipment.

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

CDV	Report on voting
100/1996/CDV	100/2084/RVC

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of IEC 62481 series, published under the general title *Digital Living Network Alliance (DLNA) home networked device interoperability guidelines*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

This International Standard is structured differently from the other parts of the IEC 62841 series of standards, to allow each DLNA Device Profile to be a standalone clause.

Clauses 1 through 5 align with the overall structure of IEC 62481-1:2013 and IEC 62481-2:2013, Clauses 1 to 7. However, only the generic guidelines description of IEC 62481-2:2013, Clause 7 applies.

DIGITAL LIVING NETWORK ALLIANCE (DLNA) HOME NETWORKED DEVICE INTEROPERABILITY GUIDELINES –

Part 5: DLNA Device Profile guidelines

1 Scope

This part of IEC 62481 specifies guidelines that define various DLNA Device Profiles. A Device Profile is a collection of DLNA capabilities and features within a DLNA device. A device is compliant with a Device Profile, when it conforms to all the guidelines listed for that Device Profile.

In practice, Device Profiles reference existing optional or recommended DLNA guidelines, that enable certain features, and make those DLNA guidelines mandatory within the context of a Device Profile. A Device Profile may also provide some additional guidelines that complement or modify existing DLNA guidelines for a feature.

A particular type of the DLNA Device Profile is the Commercial Video Profile (CVP). A CVP Device Profile is an extension of the DLNA guidelines that allows content from service providers and multichannel video programming distributors to be distributed on the DLNA network. DLNA Commercial Video Profiles (CVPs) are defined as Device Profiles that consistently enable commercial content that enters the home network through a gateway device via an interface to a commercial content service provider. Since different regions of the world have different requirements for commercial content, multiple CVPs are defined.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 62481-1:2013, *Digital living network alliance (DLNA) home networked device interoperability guidelines – Part 1: Architecture and protocols*

IEC 62481-2:2013, *Digital living network alliance (DLNA) home networked device interoperability guidelines – Part 2: DNLA media formats*

IEC 62481-3:2013, *Digital living network alliance (DLNA) home networked device interoperability guidelines – Part 3: Link protection*