

This is a preview of "DS/EN 63035:2017". [Click here to purchase the full version from the ANSI store.](#)

MIDI (Musical Instrument Digital Interface) 1.0-specifikation (forkortet udgave, 2015)

MIDI (Musical Instrument Digital Interface)
specifikation 1.0 (Abridged edition, 2015)



DANSK STANDARD
Danish Standards Association

Göteborg Plads 1
DK-2150 Nordhavn
Tel: +45 39 96 61 01
Tel: +45 39 96 61 01
dansk.standard@ds.dk
www.ds.dk

This is a preview of "DS/EN 63035:2017". [Click here to purchase the full version from the ANSI store.](#)

DS projekt: M302928

ICS: 33.160.30; 35.040.01; 35.200

Første del af denne publikations betegnelse er:

DS/EN, hvilket betyder, at det er en europæisk standard, der har status som dansk standard.

Denne publikations overensstemmelse er:

IDT med: IEC 63035:2017

IDT med: EN 63035:2017

DS-publikationen er på engelsk.

DS-publikationstyper

Dansk Standard udgiver forskellige publikationstyper.

Typen på denne publikation fremgår af forsiden.

Der kan være tale om:

Dansk standard

- standard, der er udarbejdet på nationalt niveau, eller som er baseret på et andet lands nationale standard, eller
- standard, der er udarbejdet på internationalt og/eller europæisk niveau, og som har fået status som dansk standard

DS-information

- publikation, der er udarbejdet på nationalt niveau, og som ikke har opnået status som standard, eller
- publikation, der er udarbejdet på internationalt og/eller europæisk niveau, og som ikke har fået status som standard, fx en teknisk rapport, eller
- europæisk præstandard

DS-håndbog

- samling af standarder, eventuelt suppleret med informativt materiale

DS-hæfte

- publikation med informativt materiale

Til disse publikationstyper kan endvidere udgives

- tillæg og rettelsesblade

DS-publikationsform

Publikationstyperne udgives i forskellig form som henholdsvis

- fuldttekstpublikation (publikationen er trykt i sin helhed)
- godkendelsesblad (publikationen leveres i kopi med et trykt DS-omslag)
- elektronisk (publikationen leveres på et elektronisk medie)

DS-betegnelse

Alle DS-publikationers betegnelse begynder med DS efterfulgt af et eller flere præfikser og et nr., fx **DS 383**, **DS/EN 5414** osv. Hvis der efter nr. er angivet et **A** eller **Cor**, betyder det, enten at det er et **tillæg** eller et **rettelsesblad** til hovedstandard, eller at det er indført i hovedstandard.

DS-betegnelse angives på forsiden.

Overensstemmelse med anden publikation:

Overensstemmelse kan enten være IDT, EQV, NEQ eller MOD

- **IDT:** Når publikationen er identisk med en given publikation.
- **EQV:** Når publikationen teknisk er i overensstemmelse med en given publikation, men præsentationen er ændret.
- **NEQ:** Når publikationen teknisk eller præsentationsmæssigt ikke er i overensstemmelse med en given standard, men udarbejdet på baggrund af denne.
- **MOD:** Når publikationen er modificeret i forhold til en given publikation.

This is a preview of "DS/EN 63035:2017". [Click here to purchase the full version from the ANSI store.](#)

EUROPÄISCHE NORM

September 2017

ICS 33.160.30; 35.040.01; 35.200

English Version

MIDI (Musical Instrument Digital Interface) specification 1.0
(Abridged edition, 2015)
(IEC 63035:2017)

Midi (Interface Numerique pour Instruments de Musique)
Specification 1.0 (Edition abrégée, 2015)
(IEC 63035:2017)

MIDI (Musikalisches Instrument digitale Schnittstelle)
Festlegung 1.0 (Gekürzte Ausgabe, 2015)
(IEC 63035:2017)

This European Standard was approved by CENELEC on 2017-07-24. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

This is a preview of "DS/EN 63035:2017". [Click here to purchase the full version from the ANSI store.](#)

The text of document 100/2597/CDV, future edition 1 of IEC 63035, prepared by IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 63035:2017.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2018-04-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-07-24

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 63035:2017 was approved by CENELEC as a European Standard without any modification.

This is a preview of "DS/EN 63035:2017". [Click here to purchase the full version from the ANSI store.](#)

Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60130-9	-	Connectors for frequencies below 3 MHz -- Part 9: Circular connectors for radio and associated sound equipment	EN 60130-9	-

This is a preview of "DS/EN 63035:2017". [Click here to purchase the full version from the ANSI store.](#)

This is a preview of "DS/EN 63035:2017". [Click here to purchase the full version from the ANSI store.](#)



Edition 1.0 2017-06

INTERNATIONAL STANDARD

**MIDI (musical instrument digital interface) specification 1.0
(Abridged Edition, 2015)**



CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	7
3 Terms and definitions	7
4 General	8
4.1 Hardware	8
4.2 Data format.....	10
4.3 Message types.....	11
4.3.1 General	11
4.3.2 Channel messages	11
4.3.3 System messages.....	11
4.4 Data types	12
4.4.1 General	12
4.4.2 Status bytes	12
4.4.3 Data bytes	12
4.5 Channel modes.....	13
4.6 Power-up default conditions	14
5 MIDI implementation chart instructions	14
5.1 Introduction.....	14
5.2 General.....	14
5.3 Function description.....	14
5.3.1 Basic Channel	14
5.3.2 Mode	14
5.3.3 Note Number	15
5.3.4 Velocity	15
5.3.5 Aftertouch.....	15
5.3.6 Pitch Bend.....	15
5.3.7 Control Change	15
5.3.8 Program Change	15
5.3.9 System Exclusive	15
5.3.10 System Common	15
5.3.11 System Real Time	15
5.3.12 Aux. messages	16
5.3.13 Notes.....	16
Annex A (normative) Summary of MIDI messages.....	17
Annex B (normative) Control Change messages (Data bytes)	20
B.1 Control Change messages and Channel Mode messages	20
B.2 Registered Parameter numbers.....	23
Annex C (normative) System Exclusive messages	25
C.1 System Exclusive messages	25
C.2 Universal System Exclusive messages.....	25
Annex D (normative) MIDI Implementation Chart template	30
Bibliography.....	31

This is a preview of "DS/EN 63035:2017". [Click here to purchase the full version from the ANSI store.](#)

Figure 1 – MIDI standard hardware	9
Figure 2 – Types of MIDI bytes	10
Figure 3 – Types of MIDI messages	10
Figure 4 – Structure of a single message	11
Figure 5 – Structure of System Exclusive message	11
Table 1 – Modes for receiver	13
Table 2 – Modes for transmitter	13
Table A.1 – MIDI Specification 1.0 message summary	17
Table B.1 – Control Changes and Mode Changes (Status bytes 176 to 191)	20
Table B.2 – Registered Parameter numbers	24
Table C.1 – System Exclusive messages	25
Table C.2 – Universal System Exclusive messages	26
Table D.1 – MIDI Implementation Chart template	30

INTERNATIONAL ELECTROTECHNICAL COMMISSION

MIDI (MUSICAL INSTRUMENT DIGITAL INTERFACE) SPECIFICATION 1.0 (Abridged Edition, 2015)

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 63035 has been prepared 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
100/2597/CDV	100/2858/RVC

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

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

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

This is a preview of "DS/EN 63035:2017". [Click here to purchase the full version from the ANSI store.](#)

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

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

This is a preview of "DS/EN 63035:2017". [Click here to purchase the full version from the ANSI store.](#)

INTRODUCTION

IEC 63035 contains the same first 8 pages as in the MIDI 1.0 Detailed Specification (the original core specification text) published by the MIDI Manufacturers Association (MMA). These are included within this standard as Clauses 1 to 4. This specification was submitted to the IEC under the auspices of a special agreement between the IEC and the MMA.

The MMA is a non-profit corporation that serves as a support organization and forum for the advancement and adoption of MIDI technology (along with the Association of Musical Electronics Industry, or AMEI, in Japan).

The MIDI 1.0 technology dates back to 1983 when the protocol and electrical specification comprised 8 pages and the majority of the message identifiers were not yet defined. Over the subsequent years, the MMA and AMEI determined consensus of the worldwide MIDI industry, and defined numerous additional messages (via Confirmation of Approval documents), as well as many Recommended Practices for the use of MIDI technology, all the while maintaining MIDI as "1.0" (meaning that no significant changes were made to the initial specification).

The MMA documentation for MIDI 1.0 now encompasses more than 50 different documents in print or on the World Wide Web. This standard contains the same first 8 pages as in the MMA's MIDI 1.0 Detailed Specification but does not contain all of the subsequent information developed by MMA/AMEI. Rather, this document contains a complete listing (with basic description) of all defined MIDI messages to date, with references to the appropriate MMA documentation. Companies that want to implement MIDI technology are advised to also consult the MMA documentation that is listed in the Biography.

Although the MIDI 1.0 Detailed Specification includes an electrical connection specification ("MIDI-DIN"), other transports (USB, Firewire, etc.) have also been approved by MMA/AMEI for use with MIDI Protocol. For details and documentation of approved physical transports, please contact the MIDI Manufacturers Association.

The term "MIDI" is known all around the world as referring to the technology which is defined in the MMA/AMEI documents, and so should not be used for any other purpose. Companies that implement MIDI technology in their products in compliance with MMA specifications may use the term MIDI to describe their products, but may not use the term to describe any extensions or enhancements that are not defined by MMA/AMEI. Only MMA/AMEI can define the messages, transport payloads, and Recommend Practices which are promoted as "MIDI" so as to prevent any dilution and confusion of the meaning of "MIDI". Implementers of MIDI technology should consult MMA and/or AMEI (depending on the relevant market) for specific trademark usage policies.

MIDI (MUSICAL INSTRUMENT DIGITAL INTERFACE) SPECIFICATION 1.0 (Abridged Edition, 2015)

1 Scope

This International Standard specifies a hardware and software specification which makes it possible to exchange symbolic music and control information between different musical instruments or other devices such as sequencers, computers, lighting controllers, mixers, etc. using MIDI technology (musical instrument digital interface).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60130-9, *Connectors for frequencies below 3 MHz - Part 9: Circular connectors for radio and associated sound equipment*

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:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

velocity

parameter which typically changes the intensity and resultant volume of the note that is being played and varies according to the force applied

Note 1 to entry: Velocity is used as Key Velocity as in a piano key.

3.2

aftertouch

parameter that measures the level of intensity applied to a note after it has been played and continues to be depressed

Note 1 to entry: Typically, Aftertouch is useful for adding vibrato or tremolo effects to a sound in much the same way that a violin can add volume or pitch changes to a sustained note using finger vibrato or additional bowing intensity.

3.3

modulation wheel

wheel controller found on synthesizers that players can use to progressively introduce modulation depth to a sound