



NSAI
Standards

Irish Standard
I.S. EN 63035:2017

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

I.S. EN 63035:2017

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN 63035:2017

Published:

2017-09-29

*This document was published
under the authority of the NSAI
and comes into effect on:*

2017-10-17

ICS number:

33.160.30

35.040.01

35.200

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 63035:2017 is the adopted Irish version of the European Document EN 63035:2017, MIDI (Musical Instrument Digital Interface) specification 1.0 (Abridged edition, 2015)

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD

EN 63035

NORME EUROPÉENNE

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

EN 63035:2017

European foreword

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

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.

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 page is intentionally left blank



IEC 63035

Edition 1.0 2017-06

INTERNATIONAL STANDARD

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



THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2017 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

IEC Catalogue - webstore.iec.ch/catalogue

The stand-alone application for consulting the entire bibliographical information on IEC International Standards, Technical Specifications, Technical Reports and other documents. Available for PC, Mac OS, Android Tablets and iPad.

IEC publications search - www.iec.ch/searchpub

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and also once a month by email.

Electropedia - www.electropedia.org

The world's leading online dictionary of electronic and electrical terms containing 20 000 terms and definitions in English and French, with equivalent terms in 16 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary

65 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: csc@iec.ch.



IEC 63035

Edition 1.0 2017-06

INTERNATIONAL STANDARD

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

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 33.160.30; 35.040.01; 35.200

ISBN 978-2-8322-4355-8

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

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

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

IEC 63035:2017 © IEC 2017

– 5 –

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

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

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 Bibliography.

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 Recommended 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

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-