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Irish Standard
I.S. EN 60297-3-107:2012

Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series -- Part 3-107: Dimensions of subracks and plug-in units, small form factor (IEC 60297-3-107:2012 (EQV))

I.S. EN 60297-3-107:2012

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EUROPEAN STANDARD

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**Mechanical structures for electronic equipment -
Dimensions of mechanical structures of the 482,6 mm (19 in) series -
Part 3-107: Dimensions of subracks and plug-in units, small form factor
(IEC 60297-3-107:2012)**

Structures mécaniques pour équipements
électroniques -
Dimensions des structures mécaniques de
la série 482,6 mm (19 pouces) -
Partie 3-107: Dimensions des bacs et
blocs enfichables de petit facteur de forme
(CEI 60297-3-107:2012)

Bauweisen für elektronische
Einrichtungen -
Maße der 482,6 mm-(19-Zoll-)Bauweise -
Teil 3-107: Maße von Baugruppenträgern
und Baugruppen, kleiner Formfaktor
(IEC 60297-3-107:2012)

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CENELEC

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

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I.S. EN 60297-3-107:2012

EN 60297-3-107:2012

- 2 -

Foreword

The text of document 48D/492/FDIS, future edition 1 of IEC 60297-3-107, prepared by SC 48D, "Mechanical structures for electronic equipment", of IEC TC 48, "Electromechanical components and mechanical structures for electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60297-3-107:2012.

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) 2012-11-14
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-02-14

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60297-3-100	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-100: Basic dimensions of front panels, subracks, chassis, racks and cabinets	EN 60297-3-100	-
IEC 61076-4-116	-	Connectors for electronic equipment - Product EN 61076-4-116 requirements - Part 4-116: Printed board connectors - Detail specification for a high-speed two-part connector with integrated shielding function	EN 61076-4-116	-
PICMG AMC.0	-	Advanced Mezzanine Card Specification	-	-
PICMG MicroTCA.0	-	Micro Telecommunications Computing Architecture	-	-
PICMG MicroTCA.1	-	Air Cooled Rugged MicroTCA Specification	-	-

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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope and object.....	7
2 Normative references	7
3 Arrangement overview (4U shown)	8
4 Subrack dimensions	9
4.1 Subrack dimensions front mounting area	9
4.2 Subrack dimensions, rear view, backplane mounting area	12
5 Plug-in unit dimensions	13
6 Connector and related printed board dimensions	14
6.1 Connector according to PICMG-MicroTCA.0/ IEC 61076-4-116, fixed board connector and related printed board dimensions.....	14
6.1.1 PICMG- MicroTCA.0/ IEC 61076-4-116 connector, isometric view	14
6.1.2 Connector according to PICMG- MicroTCA.0/ IEC 61076-4-116, fixed board connector and related printed board – arrangement overview	14
6.1.3 Printed board dimensions	15
6.1.4 Printed board dimensions, 4U example.....	16
6.1.5 Connector according to PICMG-MTCA.0, fixed board connector dimensions	17
6.2 Two part connector according to IEC 61076-4-116 and related printed board dimensions	17
6.2.1 Two part connector, isometric view	17
6.2.2 Two part connector, arrangement overview	18
6.2.3 Two part connector, printed board dimensions.....	18
6.2.4 Two part connector, fixed board connector dimensions.....	19
6.3 Two part connector with PIU PB component side attachment features	19
6.3.1 Two part connector, arrangement overview	19
6.3.2 Two part connector, printed circuit board dimensions, 2 U	19
6.3.3 Two part connector, connector mounted on backplane, 2 U	20
7 Backplane dimensions	21
7.1 Backplane dimensions using two part connector according to IEC 61076-4-116	21
8 Subrack and plug-in units with electromagnetic shielding (EMC) provisions	23
8.1 General	23
8.2 Subrack EMC provisions	23
8.3 Plug-in unit and filler panels EMC provisions	24
9 Subrack and plug in units electrostatic discharge provisions (ESD)	24
9.1 General	24
9.2 Subrack ESD provisions	25
9.3 Plug-in unit ESD provisions, front mounted	26
10 Nomenclature	27
Annex A (informative) Connector hole pattern at the backplane	29
Annex B (informative) Rear mounted plug-in unit implementation.....	30
Annex C (informative) Hot swap latch function	32
Annex D (informative) Subrack latch mechanism interface dimensions for ruggedized applications	33
Annex E (informative) Subrack ESD contact interface dimensions	34

Figure 1 – Arrangement overview	8
Figure 2 – Subrack dimensions, front view	10
Figure 3 – Subrack dimensions, side view	11
Figure 4 – Subrack dimensions, top view	12
Figure 5 – Subrack dimensions, rear view.....	12
Figure 6 – Plug-in unit dimensions	13
Figure 7 – PICMG- MicroTCA.0/ IEC 61076-4-116 connector, isometric view	14
Figure 8 – PICMG- MicroTCA.0/ IEC 61076-4-116 fixed board connector, arrangement overview – Top view	14
Figure 9 – Printed board dimensions.....	15
Figure 10 – Printed board dimensions, 4U example	16
Figure 11 – Connector according to PICMG- MTCA.0, fixed board connector dimensions	17
Figure 12 – Fixed board and free board connector – Isometric view	17
Figure 13 – Two part connector, arrangement overview – Top view	18
Figure 14 – Two part connector, printed board dimensions	18
Figure 15 – Two part connector, arrangement overview – Top view	19
Figure 16 – Two part connector, dimensions, 2 U	19
Figure 17 – Two part connector, connector mounted on backplane dimensions, 2 U	20
Figure 18 – Backplane dimensions.....	22
Figure 19 – Subrack EMC dimensions	23
Figure 20 – Plug-in unit EMC dimensions.....	24
Figure 21 – Subrack ESD provision	25
Figure 22 – Plug-in unit ESD provision.....	26
Figure A.1 – Connector pin location according to IEC 61076-4-116, front view.....	29
Figure B.1 – Depth dimension subrack type 1, side view.....	30
Figure B.2 – Depth dimension subrack type 2, side view.....	30
Figure B.3 – Depth dimension subrack type 3, side view.....	31
Table 1 – Height dimensions.....	26
Table 2 – Depth dimensions.....	27

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENT –
DIMENSIONS OF MECHANICAL STRUCTURES
OF THE 482,6 mm (19 in) SERIES –**

**Part 3-107: Dimensions of subracks and
plug-in units, small form factor**

FOREWORD

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International Standard IEC 60297-3-107 has been prepared by subcommittee 48D: Mechanical structures for electronic equipment, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

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

FDIS	Report on voting
48D/492/FDIS	48D/501/RVD

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.

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– 5 –

A list of all parts of IEC 60297 series, under the general title *Mechanical structures for electronic equipment – Dimensions of mechanical structures of the 482,6 mm (19 in) series*, 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.

INTRODUCTION

This standard provides for an alternative/smaller form factor of plug-in units as defined in IEC 60297-3-101.

New technologies requiring smaller plug-in unit form factors used in 19 in equipment practice are rapidly gaining acceptance.

Recognizing this development it became obvious that a generic interface standard would be an advantage to the industry.

This standard is based upon and coordinated with the plug-in unit form factor as defined in AMC.0 and MicroTCA developed by PICMG (PCI Industrial Computers Manufacturer Group).

By making critical interface dimensions available and permitting the use of alternative connectors to the industry (beyond AMC.0 and MicroTCA) multiple product solutions may make use of this technology and will increase the overall market acceptance, increase availability, and reduce cost.

In order to meet the requirements of small form factor plug-in units within the subrack the interface dimensions required differ from IEC 60297-3-101. This standard defines these small form factor interface dimensions.

The small form factor generic dimensions are based on and coordinated with AMC.0 and MicroTCA.

Since the AMC.0 and MicroTCA Specification defines only a limited range of connectors this standard opens the possible use of other suitable connectors.

**MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENT –
DIMENSIONS OF MECHANICAL STRUCTURES
OF THE 482,6 mm (19 in) SERIES –**

**Part 3-107: Dimensions of subracks and
plug-in units, small form factor**

1 Scope and object

This part of IEC 60297 defines the interface dimensions between subracks and associated plug-in units using connectors as defined in PICMG-MTCA.0 (Fixed board, see Figure 7) and IEC 61076-4-116 (Two part, see Figure 12) and other two part connectors, (see Figure 15).

For mechanical and climatic tests refer to IEC 61587-1.

For electromagnetic shielding performance tests refer to IEC 61587-3.

2 Normative references

The following referenced documents are indispensable for the application 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 60297-3-100: *Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series – Part 3-100: Basic dimensions of front panels, subracks, chassis, racks and cabinets*

IEC 61076-4-116: *Connectors for electronic equipment – Product requirements – Printed board connectors: Detail specification for a high-speed two-part connector with integrated shielding function* (to be published)

PICMG AMC.0: *Advanced Mezzanine Card Specification*

PICMG MicroTCA.0: *Micro Telecommunications Computing Architecture*

PICMG MicroTCA.1: *Air Cooled Rugged MicroTCA Specification*

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