

IEEE Standard for Mechanical Core Specifications for Conduction-Cooled Eurocards

Sponsor

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Abstract: Mechanical characteristics of conduction-cooled versions of Eurocard-based circuit card assemblies are described. This specification is applicable to, but not limited to, the VMEbus standard, an internal interconnect (backplane) bus intended for connecting processing elements to their immediate fundamental resources. The aim is to ensure mechanical interchangeability of conduction-cooled circuit card assemblies in a format suitable for military and rugged applications and to ensure their compatibility with commercial, double-height, 16 mm, Eurocard chassis.

Keywords: dimensions, card slot requirements, circuit card assemblies, conduction-cooled, mechanical interchangeability, Eurocard-based

The Institute of Electrical and Electronics Engineers, Inc.
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Foreword

(This foreword is not a part of IEEE Std 1101.2-1992, IEEE Standard for Mechanical Core Specifications for Conduction-Cooled Eurocards.)

This document describes mechanical characteristics for conduction-cooled versions of Eurocard-based circuit card assemblies. It is intended that this specification will be applicable to, but not limited to, the VMEbus standard, an internal interconnect (backplane) bus intended for connecting processing elements to their immediate fundamental resources.

This standard is intended to be a companion standard to other standards, which include IEEE Std 1101.1-1991, Mechanical Core Specifications for Microcomputers Using IEC 603-2 Connectors; IEEE Std 1014-1987, IEEE Standard for a Versatile Backplane Bus: VMEbus; and MIL-C-55302/131 and MIL-C-55302/132, connector specifications for module and backplane.

Other uses for the standard are in no way prohibited.

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Naresh Agerwal
Wayne Anderson
Michael Blomquist
Clint Brown
Barry Burnsides
Dave Caserza

Michael Crawford
Thomas Curnan
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Tres Wiley
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IEEE Standard for Mechanical Core Specifications for Conduction-Cooled Eurocards

1. Scope

This standard defines the mechanical requirements for Eurocard-based conduction-cooled circuit card assemblies (CCAs).

1.1 Mechanical Characteristics

The standard defines dimensions and card slot requirements for conduction-cooled, CCAs of the double-height, nominal 160 mm, Eurocard format.

1.2 Environmental Requirements

The prime use of CCAs developed according to this specification is for environments with extreme temperature, shock, and vibration. However, there are other applications for which this specification is suitable.

P1156.1 [3]¹ deals with environmental conditions and should be used to specify environmental requirements.

2. Purpose

The purpose of this standard is to ensure mechanical interchangeability of conduction-cooled CCAs in a format suitable for military and rugged applications. The CCAs shall also be compatible with commercial, double-height, 160 mm Eurocard chassis.

¹ The numbers in brackets correspond to those of the references in Section 3; when preceded by a “B,” they correspond to those in the Bibliography in Section 8.