

IEEE Standard Physical and Environmental Layers for PCI Mezzanine Cards (PMC)

Sponsor

**Microprocessor and Microcomputer Standards Committee (MMSC)
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Abstract: *This standard, in conjunction with IEEE Std 1386-2001, IEEE Standard for a Common Mezzanine Card (CMC) Family, defines the physical and environmental layers of a PCI mezzanine card (PMC) family to be usable on (but not limited to) single slot VME, VME64 and VME64x boards, CompactPCI boards, Multibus I and Multibus II boards, desktop computers, portable computers, servers, and similar types of applications. The electrical and logical layers are based on the PCI specification from the PCI Special Interest Group. The PCI mezzanine cards allow for a variety of optional function expansions for the host system. I/O functionality from the PMC may be either through the mezzanine front panel, or via the backplane by routing the I/O signals through the mezzanine connector to the host.*

Keywords: *backplane I/O, bezel, board, card, CompactPCI, face plate, front panel I/O, metric, host computer, I/O, local bus, mezzanine, module, modular I/O, PCI, Multibus I, Multibus II, VME, VME64, VME64x, VMEbus*

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Introduction

[This introduction is not part of IEEE Std 1386.1-2001, IEEE Standard Physical and Environmental Layers for PCI Mezzanine Cards (PMC).]

This standard provides the specifications for implementing the PCI local bus between a host and mezzanine card, based on IEEE Std 1386-2001, for usage on VME64x boards, CompactPCI boards, and Multibus I and Multibus II boards. PCI boards defined for the general personal computer market will not fit on these boards since they mount perpendicular on the host computer. This standard provides the necessary mechanical and environmental requirements for the use of PCI-based mezzanine cards in a large variety of low-profile applications. PCI mezzanine cards can provide front bezel I/O, backplane I/O via the host, additional local host functions, or a combination of the three.

Special thanks are due to Dave Moore, original P1386.1 Working Group Draft Editor, for the generation of the many drafts, and Rick Spratt, Cliff Lupien, Harry Parkinson, Chau Pham and Heinz Horstmeier for their contribution to development of this standard.

Participants

At the time this standard was completed, the Working Group for IEEE Std 1386.1-2001 had the following membership:

Wayne Fischer, *Chair*
Chau Pham, *Vice Chair*

Malcolm Airst
Harry Andreas
James Barnette
Juergen Baumann
Martin Blake
Hans Brand
Dave Brearley
Gorky Chin
Dick DeBock
Ian Dobson
Mike Hasenfratz
Ryuji Hayasaka
Roger Hinsdale
Heinz Horstmeier

Dave Horton
Anotol Kaganovich
Gary Kidwell
Jing Kowk
Tom Kuleza
Dees Lambreshtse
Sang Dae Lee
Cliff Lupien
Kristian Martinson
Jim Medeiros
Robert McKee
Dave Mendenhall
David Moore
Rob Noffke
Joseph Norris

Harry Parkinson
Elwood Parsons
Dave Rios
John Rynearson
Richard Spratt
Nobuaki Sugiura
Dennis Terry
Russ Tuck
Jim Turley
Mark Vorenkamp
Eike Waltz
Dave Wickliff
Bob Widlicka
David Wright

The following members of the balloting committee voted on this standard:

Malcolm Airst
Edmund H. Baulsir
Tom Bertram
Janos Biri
Michael L. Bradley
John L. Cole
Dante Del Corso
Sourav K. Dutta
Roger D. Edwards

Wayne Fischer
Clay E. Hudgins
Lawrence Lamers
Joseph R. Marshall
Klaus-Dieter Mueller
Joseph Norris
Elwood Parsons
Dave A. Perez

Gary S. Robinson
Malcolm Rush
John Rynearson
Thomas J. Schaal
Gary K. Sloane
Hermann H. Strass
Fred J. Strauss
Michael G. Thompson
Don Wright

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James W. Moore
Robert F. Munzner
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Akio Tojo
Donald W. Zipse

*Member Emeritus

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