

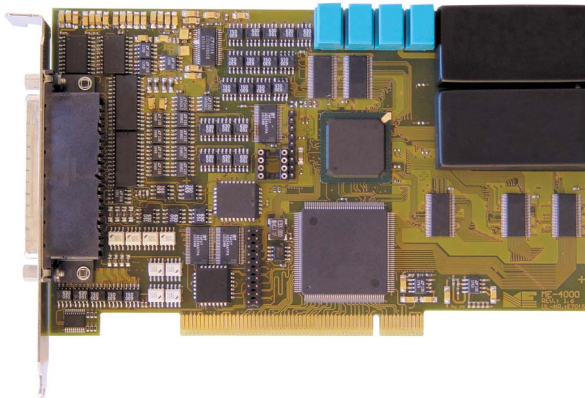
DATA ACQUISITION BOARDS

ME-4650 to ME-4680is

High Performance DAQ Boards

Description

The ME-46xx family of PCI DAQ boards offers a variety of innovative features not found in other boards: Isolated A/D, D/A, digital I/O and counters on a single PCI board. Other features include isolated channels with simultaneous sampling, analog and digital outputs with FIFOs and sophisticated analog and digital triggers.



ME4680is Board

Family Overview

There are five standard models with the variations shown in Table 1. The ME-4650 is the low cost version with 16 single-ended 16-bit A/D channels and four 8-bit digital ports. Use the ME-4650 for data acquisition up to 500 kHz in laboratories or industrial applications.

The ME-4670i is the mid-range card with the addition of isolation on all analog inputs, on the 4 16-bit D/A outputs and two isolated digital ports. One isolated port is an output port and one isolated port is an input port.

The ME-4680 series is the high-end card with all of the more popular features. The Model ME-4680 has 32 single-ended or 16 differential inputs, 4 16-bit analog outputs with 4 kword FIFOs for generating wave-

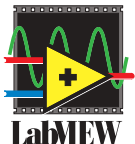
forms, 4 8-bit digital ports with FIFOs and 3 counters. The ME-4680i adds isolation to the analog inputs and outputs, isolates two digital ports (1 in and 1 out) and isolates the three counters. The ME-4680is adds sample & hold amplifiers to 8 analog input channels for simultaneous sampling of the analog inputs. The digital ports can be equipped with FIFOs for digital word pattern generation.

Software Support

Software includes drivers for Windows 98, Me, NT, 2K and XP. Driver supports Visual Basic, Visual C++, Delphi and Borland C/C++. Drivers are also included for Agilent VEE, and National LabVIEW. Linux support includes Open Source C code for Kernel 2.2 - 2.4.

- Wide range of PCI DAQ boards to choose from.
Order the features you need
- 32 SE/16 Diff A/D Inputs at 500 kHz with 8 S&H channels.
Simultaneous measurements for high speed applications.
- 4 D/A outputs with FIFOs for waveform generation.
Steady state or dynamic outputs.
- 32 TTL digital I/O lines.
4 Bidirectional ports
- Three 16-bit counters
Record events etc.
- Included drivers support Visual Basic, C++, Delphi, Borland C/C++ and Linux, LabVIEW and VEE.
Works with most application languages.
- Supports Win 98/Me/NT/2k and XP
Easy Plug&Play Installation

CE Approved



ME-46xx Board Family

Board Model Number	Analog Inputs					Analog Outputs			Digital I/O		Counters	
	SE	Isol	Diff	Trig	S&H	#Ch	Isol	FIFO	Ports	Isol	#Ctrs	Isol
ME-4650*	16								4 x 8			
ME-4660	16					2			4 x 8		3	
ME-4660i	16	Y				2			4 x 8	2 ports	3	Y
ME-4660s	16				8	2			4 x 8		3	
ME-4660is	16	Y			8	2			4 x 8	2 ports	3	Y
ME-4670	32		16	Y		4			4 x 8		3	
ME-4670i*	32	Y	16	Y		4	Y		4 x 8	2 ports	3	Y
ME-4670s	32		16	Y	8	4			4 x 8		3	
ME-4670is	32	Y	16	Y	8	4	Y		4 x 8	2 ports	3	Y
ME-4680*	32		16	Y		4		Y	4 x 8		3	
ME-4680i*	32	Y	16	Y		4	Y	Y	4 x 8	2 ports	3	Y
ME-4680s	32		16	Y	8	4		Y	4 x 8		3	
ME-4680is*	32	Y	16	Y	Y	4	Y	Y	4 x 8	2 ports	3	Y

* denotes standard boards. Other versions available for quantity orders only

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ME-46xx SPECIFICATIONS

I/O specifications apply to the applicable models with the installed options. See the Table on page 1. The isolation option provides 500 V of protection.

Analog Inputs

Number	16 or 32 SE/16 diff
Ranges	±10, ±2.5, 0-10 and 0-2.5V
Rate	500 kHz
Trigger	external

Analog Outputs

Number	4 SE
Range	±10 V
FIFO	1 k words

Digital I/O

Ports	4 8-bit
Range	0-10V
Levels	
Std	TTL 5 V
Optional	48 V open collector
FIFO	1 k words

Counters

Number	3 16-bit
Level	
Std	TTL 5 V
Optional	48 V open collector

Software

Windows 98, Me, NT, 2K and XP support
 Visual C++ from version 4.0
 Visual Basic from version 4.0
 Delphi from 2.0
 Borland C/C++ Builder
 Linux C source code for kernel 2.2 through 2.4.

Drivers

Agilent VEE and National LabVIEW.

Physical

Bus Interface	32-bit/33 MHz PCI bus
Settings	via software
Connectors	78-pin D-sub female 25-pin D-sub female

CE Certification

EMC Directive 89/336/EMC
 Emission EN 55022
 Noise immunity EN 50082-2C

Accessories

ME AK-D78 Cable, 2 M 78-pin D-sub male-female

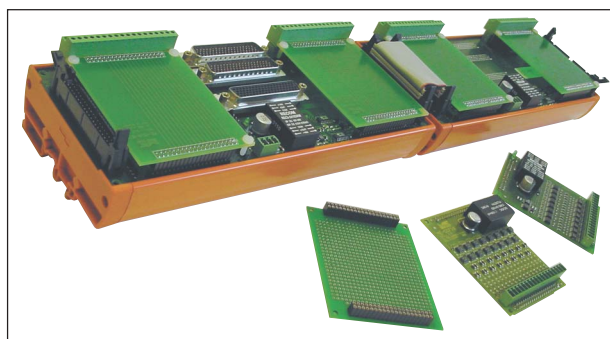
ME AK-D78/1 Cable, 1 M 78-pin D-sub male-female

ME AB-D78M Terminal Block, 78-pin D-dub male and spring terminals

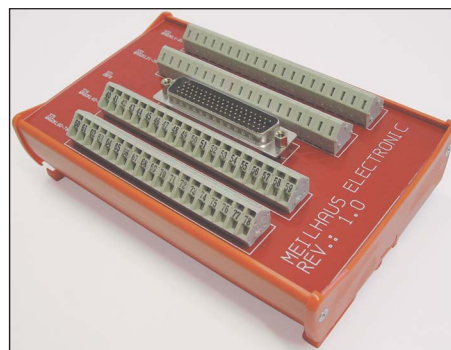
ME-MUX32 Multiplex System, 63, 287 or 8192 analog inputs

ME-SIG32, 32 channels of signal conditioning

ME-DEMUX32 Demultiplexer, 35 analog outputs.



ME MUX32 Signal Expansion and Conditioning



ME AB-D78M Terminal Box

Note: The following ME-46xx boards are factory standard versions. Other versions are available for volume orders.

ORDERING INFORMATION	Part Number
Low-end 16 Analog Inputs, 4 8-bit digital ports	ME-4650
Low-end 16 Analog Inputs, 2 16-bit Analog Out, 4 8-bit digital ports, 3 ctrs	ME-4660
Mid-range 32 SE/16 diff isol Analog Inputs, 4 16-bit isol Analog Out, 4 x 8-bit digital ports (2 isol), 3 isol ctrs	ME-4670i
High-end 32 SE/16 diff Analog Inputs, 4 16-bit Analog Outputs w/FIFO, 4 x 8-bit digital ports (2 isol), 3 ctrs	ME-4680
High-end 32 SE/16 diff isol Analog In, 4 16-bit isol Analog Out w/FIFO, 4 x 8-bit dig ports (2 isol), 3 isol ctrs	ME-4680i
High-end 32 SE/16 diff isol Ana S&H in, 4 16-bit isol Ana Out w/FIFO, 4 x 8-bit dig ports (2 isol), 3 isol ctrs	ME-4680is