

VMIACC-0562

IDE and Floppy Drive Backplane Adapter Board for VME

INSTALLATION GUIDE



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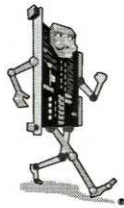
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INSTALLATION

Contents

Installation of the VMIACC-0562
Connectors
E2 40-Pin IDE Header
34-Pin Floppy Drive Connector
64-Pin Female VMEbus Connector

7
8
8
9
10

Introduction

The VMIACC-0562 is a passive backplane adapter board designed for use with VMIC’s family of CPUs. The VMIACC-0562 provides IDE hard drive and floppy drive headers for external connection to the CPU through the VMEbus backplane. The adapter board uses a standard 40-pin header for the hard drive connector, and a 34-pin header for the floppy drive. See Figure 1 on page 6 for an illustration of the board and connector layout.

The following is a list of compatible boards:

- VMIVME-7589
VMIVME-7589A
VMIVME-7591
VMIVME-7691
VMIVME-7689
VMIVME-7695

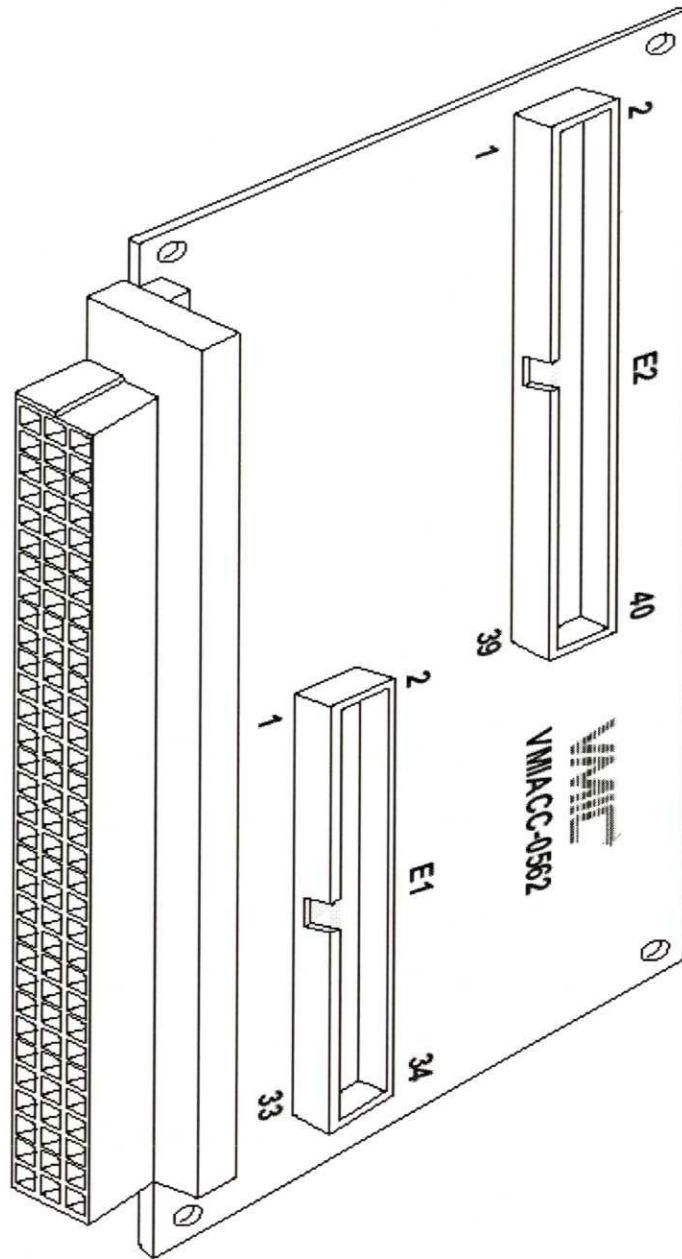


Figure 1 VMIACC-0562 IDE/Floppy Drive Adapter Board

Installation of the VMIACC-0562

The VMIACC-0562 adapter board installs onto the rear backplane of the VMEbus chassis using the P2 connector. The board is designed for installation in VMEbus chassis that have shrouded connectors on the rear backplane for the P2 connectors. See Figure 2 for an illustration of the installation. The backplane shroud is designed to protect the pin contacts and support the adapter board in double-sided backplane applications. The pins on the backplane connectors should not be less than 4.90 mm in length.

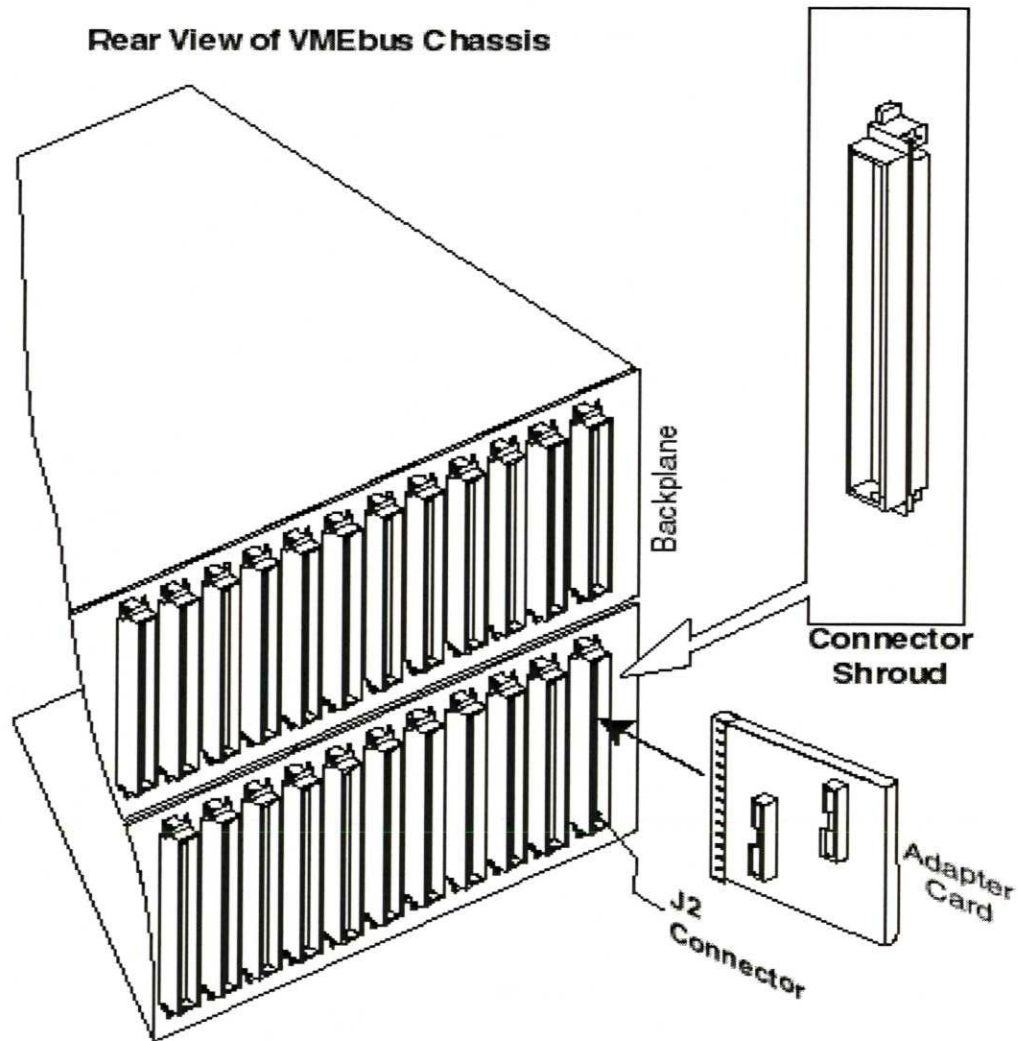


Figure 2 Installation of the VMIACC-0562 Adapter Board



The VMIACC-0562 adapter board is designed to be installed on backplanes with the shroud over the connectors, it is highly recommended that backplanes without the shroud not be used. This is due to the fact that the shroud and connector pins are used to hold the board in place.

Connectors

There are three connectors on the adapter board. The J1 connector is a standard 64-pin female VMEbus connector. E1 is a 34-pin shrouded header, and E2 is a 40-pin shrouded header. Each connector and the pinout are shown on the following pages.

E2 40-Pin IDE Header

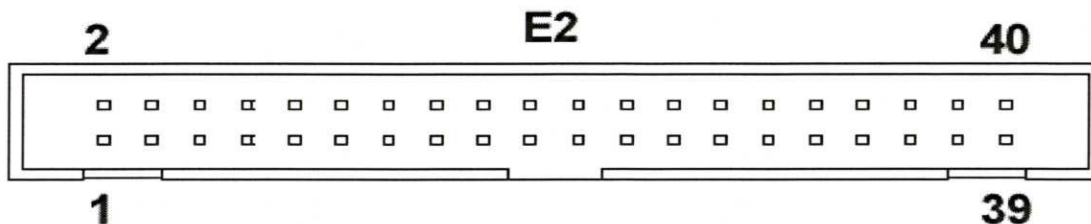


Figure 3 E2 40-Pin IDE Shrouded and Keyed Connector

Table 1 E2 40-Pin IDE Connector Pinout

Pin	Signal	Pin	Signal
1	Reset Drive	2	AGND
3	Bidirectional bus [7]	4	Bidirectional bus [8]
5	Bidirectional bus [6]	6	Bidirectional bus [9]
7	Bidirectional bus [5]	8	Bidirectional bus [10]
9	Bidirectional bus [4]	10	Bidirectional bus [11]
11	Bidirectional bus [3]	12	Bidirectional bus [12]
13	Bidirectional bus [2]	14	Bidirectional bus [13]
15	Bidirectional bus [1]	16	Bidirectional bus [14]
17	Bidirectional bus [0]	18	Bidirectional bus [15]
19	AGND	20	N/C
21	IDE Data Request 0	22	AGND
23	IO Write Strobe	24	AGND
25	IO Read Strobe	26	AGND
27	IO Ready	28	Address Latch Enable
29	DTACK	30	AGND
31	Interrupt Request [14]	32	16-bit Data Word Size
33	Address Line [1]	34	N/C
35	Address Line [0]	36	Address Line [2]
37	Chip Select [0]	38	Chip Select [1]
39	DASP	40	AGND

34-Pin Floppy Drive Connector

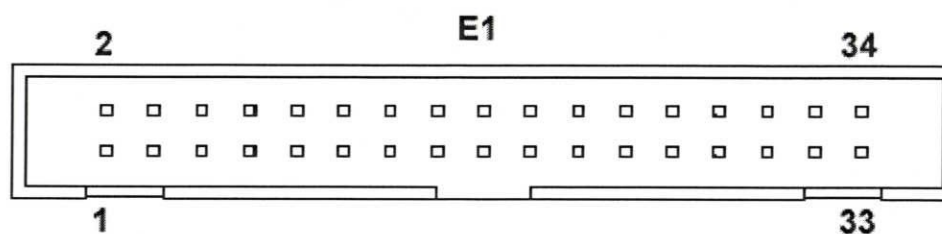


Figure 4 E1 34-Pin Floppy Drive Shrouded and Keyed Connector

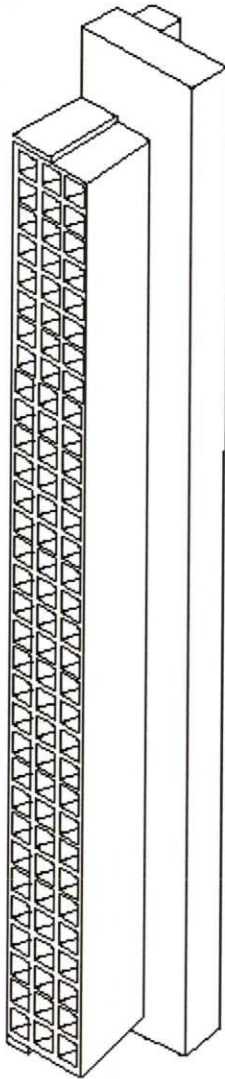
Table 2 E1 34-Pin Floppy Drive Connector Pinout

Pin	Signal	Pin	Signal
1	AGND	2	REDWC
3	AGND	4	N/C
5	AGND	6	DRATE [0]
7	AGND	8	Index from Drive
9	AGND	10	Floppy Motor Enable [A]
11	AGND	12	Floppy Drive Select [B]
13	AGND	14	Floppy Drive Select [A]
15	AGND	16	Floppy Motor Enable [B]
17	AGND	18	Floppy Step Motor Direction
19	AGND	20	Floppy Step Pulse
21	AGND	22	Floppy Write Data
23	AGND	24	Floppy Write Enable
25	AGND	26	Floppy Track [0]
27	AGND	28	Floppy Write Protect
29	AGND	30	Floppy Read Data
31	AGND	32	Floppy Select Head [1]
33	AGND	34	Floppy Disk Change

64-Pin Female VMEbus Connector

The 64-pin female VMEbus connector is used to plug the adapter board into the VMEbus backplane. The connector utilizes only the A and C rows of pins. There are no pins in the B row of this connector.

Table 3 64-Pin Female VMEbus Connector



Pin	Signal	Pin	Signal
C1	Reset Drive	A1	AGND
C2	Bidirectional Data bus [7]	A2	Bidirectional Data bus [8]
C3	Bidirectional Data bus [6]	A3	Bidirectional Data bus [9]
C4	Bidirectional Data bus [5]	A4	Bidirectional Data bus [10]
C5	Bidirectional Data bus [4]	A5	Bidirectional Data bus [11]
C6	Bidirectional Data bus [3]	A6	Bidirectional Data bus [12]
C7	Bidirectional Data bus [2]	A7	Bidirectional Data bus [13]
C8	Bidirectional Data bus [1]	A8	Bidirectional Data bus [14]
C9	Bidirectional Data bus [0]	A9	Bidirectional Data bus [15]
C10	16-bit Data Word Size	A10	IDE Data Request [0]
C11	AGND	A11	IO Write Strobe
C12	AGND	A12	IO Read Strobe
C13	AGND	A13	IO Ready
C14	Address Latch Enable	A14	AGND
C15	IDE DTACK [0]	A15	AGND
C16	Interrupt Request [14]	A16	AGND
C17	Address Line [2]	A17	Address Line [1]
C18	Address Line [0]	A18	Chip Select [0]
C19	Chip Select [1]	A19	DASP
C20	REDWC	A20	DRATED
C21	Index from Drive	A21	AGND
C22	Floppy Motor Enable [A]	A22	Floppy Drive Select [B]
C23	Floppy Drive Select [A]	A23	AGND
C24	Floppy Motor Enable [B]	A24	AGND
C25	Floppy Step Pulse	A25	AGND
C26	Floppy Write Data	A26	AGND
C27	Floppy Track [0]	A27	AGND
C28	Floppy Read Data	A28	AGND
C29	Floppy Select Head [1]	A29	Floppy Disk Change
C30	Floppy Step Motor Direction	A30	AGND
C31	Floppy Write Enable	A31	+5 V
C32	Floppy Write Protect	A32	+5 V

Maintenance

Maintenance

This section provides information relative to the care and maintenance of VMIC's products. If the products malfunction, verify the following:

- Software
- System configuration
- Electrical connections
- Jumper or configuration options
- Boards are fully inserted into their proper connector location
- Connector pins are clean and free from contamination
- No components of adjacent boards are disturbed when inserting or removing the board from the chassis
- Quality of cables and I/O connections

If products must be returned, contact VMIC for a Return Material Authorization (RMA) Number. **This RMA Number must be obtained prior to any return.**

Maintenance Prints

User level repairs are not recommended. The drawings and diagrams in this Installation Guide are for reference purposes only.