



AXPvme Single-Board Computer Release Notes

EK-EBV1X-RN. B01

December 1994

Write Posting in the VIC64

- Subject:** Write Posting in the VIC64 should NOT be enabled
- Description:** Collisions of outbound cycles, cycles posted in the VIC64, and incoming VME slave cycles may cause a deadlock condition that is not detected by the VIC64. If the VIC64 Local Bus timer is enabled, this deadlock condition will generate a Local Bus timeout error. If the VIC64 Local Bus timer is not enabled, this deadlock condition will persist, causing the Local Bus and possibly the VMEbus to hang.

Front Panel Damage

- Subject:** Possible damage to the front panel due to improper module installation
- Description:** If the captive screws on the front panel of an AXPvme module are not retracted when the final seating of the module is attempted, there is a possibility that the module will not seat properly. In addition, if excessive pressure is applied to the front panel while the captive screws are in an improper position, the press-fit shoulder washer that holds the screw washer in place may become disengaged. This situation is prevented if the captive screws are pulled out as far as possible from the screw retaining washer prior to seating the AXPvme module in a chassis.
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D64 Usage Warning

Subject: Two situations to be aware of when using D64 transfers

Description: The first situation occurs when developers perform illegal memory access operations using D64 transfers. The board fails to recover according to specification, causing the system to crash. Developers and customers should not be using memory in this fashion. If they do, the board fails and a reboot is required.

The illegal memory access operations are:

- D64 Write to a page mapped to nonexistent memory
- User mode D64 Write to a Supervisor page
- D64 Write to a page with an invalid scatter/gather map
- D64 Write to a write-protected page

The second situation occurs when the AXPvme board is a VME interrupter. In the presence of a D64 transfer targeted to the AXPvme, an incorrect VME vector may be returned in response to the IACK cycle. Systems in which the AXPvme is never a VME interrupter will not be affected.

The conditions described above are the only known conditions using D64 transfers that do not perform according to specifications. Eventually, these conditions will be corrected. Both DEC OSF/1 and VxWorks on Alpha systems exhibit the same conditions.

AXPvme 64LC Firmware

The following information applies ONLY to the AXPvme 64LC (no external backup cache or SCSI) model.

- Subject:** Firmware detection of a bad memory module
- Description:** A bad memory module installed on an AXPvme 64LC module (no external backup cache or SCSI) is not properly detected during the first stages of the console startup phase. As with the other AXPvme variations, the console is NOT started and the Serial ROM miniconsole is entered. When the bad memory module is installed on the other AXPvme variations (that is, other than the 64LC), the Serial ROM diagnostics correctly detect a memory problem. This failing test is indicated by a "5" on the module LED, the countdown sequence on the console terminal stopping with a "5", and the Serial ROM miniconsole is entered.

Installation/User Guide Addendum

- Subject:** -12 V requirement
- Description:** The *AXPvme Single-Board Computer Installation/User Guide* does not specify the maximum power requirement of 100 ma at -12 V. The -12 V power is only used for the console and auxiliary serial-line drivers.
- Subject:** PCI Mezzanine card keepout area
- Description:** The AXPvme modules are not totally compliant with the proposed PCI Mezzanine Card Standard (IEEE 1386 draft 1.5). Specifically, the modules do not meet the 30.5 mm keepout area that is specified by that draft standard. The actual keepout area for the modules is 18.5 mm. When purchasing a PCI Mezzanine card for AXPvme products, you must ensure that the card conforms with the 18.5 mm keepout area restrictions.

SCSI Cables

Subject: SCSI cable recommendations

Description: In order to attach a local disk, a 50-pin IDC SCSI cable is required and must be properly terminated. The exact cable requirements will depend upon the enclosure, disk mounting, and so forth. A PC “internal SCSI cable” will work if you are connecting to an internal disk and the cable has a SCSI terminator, or the last disk (or other SCSI device) has an internal terminator.

The following Digital cables may be used for this purpose:

- Part number 17-01244-01, -02, -03—This cable is a 20.32 cm (8 in), 30.48 cm (12 in), or 53.34 cm (21 in) cable with a 50-pin female IDC connector for connection to the AXPvme breakout module, and a female IEEE (Champ) connector for connection to external drives.
- Part number 17-03459-02—This cable is a 102.87 cm (40.5 in) cable with six 50-pin female IDC connectors. A 50-pin IDC SCSI terminator is included. This cable will allow connection to the AXPvme breakout module and up to 4 internal drives with the terminator on the last connector.
- Part number 17-03036-01—This cable is a 220.98 cm (87 in) cable with five 50-pin female IDC connectors for connection to the AXPvme breakout module and up to 4 internal drives. It also contains a female IEEE (Champ) connector for connection to external drives. A Champ SCSI terminator (PN H8574-A) may be required if external drives are not connected.