



ANSI/VITA 1-1994, VME64

Up for 5 Year Reaffirmation/Revision Ballot

Possible Revisions

- ◆ +/- 12 Volt Power Supply Noise Margin
- ◆ 64 mA Driver Requirements
- ◆ Other typographical or inconsistency errors

12 Volt Power Supply

- ◆ Issue: Standard specifies 50 mV noise ripple (See Table 6-1).
- ◆ Fact: Most (all?) power supplies used in VMEbus systems do not meet this specification.
- ◆ Fact: Manufacturers are not likely to make power supplies to meet this specification.

64 mA Driver Issue

- ◆ Chip that is being developed in VITA 2.1 task group will have 48 ma drive capability.
- ◆ Rules 6.13 and 6.17 require 64 ma drivers for AS*, DS0*, DS1*, recinding DTACK*, SYSCLK, and BCLR*
- ◆ In order to use the TI chip for the above signals and be in compliance, we need to revise the standard.

Rule 6.13

IF a VMEbus board drives AS*, DS0*, DS1*, or Rescinding DTACK* **THEN** its drivers for these lines **MUST** meet the following specifications:

Low state sink current: $I_{OL} > 64 \text{ mA}$

Low state voltage: $V_{OL} < 0.6\text{V}$ at $I_{OL} = 64 \text{ mA}$

High state source current: $I_{OH} > 3 \text{ mA}$

High state voltage: $V_{OH} > 2.4\text{V}$ at $I_{OH} = 3 \text{ mA}$

Minimum source current with board pin grounded:

$I_{OS} > 50 \text{ mA}$ at 0V

Maximum source current with board pin grounded:

$I_{OS} < 225 \text{ mA}$ at 0V

Rule 6.13x

IF a VMEbus board drives AS*, DS0*, DS1*, or Rescinding DTACK* **THEN** its drivers for these lines **MUST** meet one of the following specifications:

For $V_{cc} = 5.0V$

- (a) Low state sink current: $I_{OL} > 64 \text{ mA}$
Low state voltage: $V_{OL} < 0.6V$ at $I_{OL} = 64 \text{ mA}$
High state source current: $I_{OH} > 3 \text{ mA}$
High state voltage: $V_{OH} > 2.4V$ at $I_{OH} = 3 \text{ mA}$
Minimum source current with board pin grounded: $I_{OS} > 50 \text{ mA}$ at $0V$
Maximum source current with board pin grounded: $I_{OS} < 225 \text{ mA}$ at $0V$

OR

For $V_{cc} = 3.3V$

- (b) Low state sink current: $I_{OL} > 48 \text{ mA}$
Low state voltage: $V_{OL} < 0.55V$ at $I_{OL} = 48 \text{ mA}$
High state source current: $I_{OH} > 48 \text{ mA}$
High state voltage: $V_{OH} > 2.4V$ at $I_{OH} = 24 \text{ mA}$
Minimum source current with board pin grounded: $I_{OS} > \text{xx mA}$ at $0V$
Maximum source current with board pin grounded: $I_{OS} < \text{xxx mA}$ at $0V$

Rule 6.17

VMEbus systems **MUST** have no more than one board driving each of the lines SYCLK, or BCLR*. Its drivers for these lines **MUST** meet the following specifications:

Low state sink current: $I_{OL} > 64 \text{ mA}$

Low state voltage: $V_{OL} < 0.6\text{V}$ at $I_{OL} = 64$

High state source current: $I_{OH} > 3 \text{ mA}$ High state voltage:

$V_{OH} > 2.4\text{V}$ at $I_{OH} = 3 \text{ mA}$

Minimum source current with board pin grounded $I_{OS} > 50 \text{ mA}$ at 0 V

Maximum source current with board pin grounded $I_{OS} < 255 \text{ mA}$ at 0V