



FOUR-SLOT VXIBUS MAINFRAME MODEL V198-AA11

USER'S MANUAL

Release: August 26, 2002

KineticSystems Company, LLC

**900 N. State Street
Lockport, IL 60441
(815) 838-0005**

CERTIFICATION

KineticSystems Company, LLC (KSC) certifies that this product met its published specifications at the time of shipment from the factory. KSC further certifies that its calibration measurements are traceable to the United States National Institute of Standards and Technology (formerly National Bureau of Standards), to the extent allowed by that organization's calibration facility, and to the calibration facilities of other International Standards Organization members.

WARRANTY

The product referred to herein is warranted against defects in material and workmanship for a period of three years from the receipt date of the product at customer's facility. The sole and exclusive remedy for breach of any warranty concerning these goods shall be repair or replacement of defective parts, or a refund of the purchase price, to be determined at the option of KSC.

For warranty service or repair, this product must be returned to a KineticSystems Company, LLC authorized service center. The product shall be shipped prepaid to KSC and KSC shall prepay all returns of the product to the buyer. However, the buyer shall pay all shipping charges, duties, and taxes for products returned to KSC from another country.

KSC warrants that its software and firmware designated by KSC for use with a product will execute its programming when properly installed on that product. KSC does not however warrant that the operation of the product, or software, or firmware will be uninterrupted or error free.

LIMITATION OF WARRANTY

The warranty shall not apply to defects resulting from improper or inadequate maintenance by the buyer, buyer-supplied products or interfacing, unauthorized modification or misuse, operation outside the environmental specifications for the product, or improper site preparation or maintenance.

KineticSystems Company, LLC shall not be liable for injury to property other than the goods themselves. Other than the limited warranty stated above, KineticSystems Company, LLC makes no other warranties, express or implied, with respect to the quality of product beyond the description of the goods on the face of the contract. KSC specifically disclaims the implied warranties of merchantability and fitness for a particular purpose.

RESTRICTED RIGHTS LEGEND

Use, duplication, or disclosure by the Government is subject to restrictions as set forth in subdivision (b)(3)(ii) of the Rights in Technical Data and Computer Software clause in DFARS 252.227-7013.

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DECLARATION OF CONFORMITY

KSC declares that this product conforms to the following product specifications according to ISO/IEC guide 22 and EN 45014:

EMC: CISPR 11, EN 55011, Class A
 IEC 801-2, EN 50082-1, 4kVCD, 8kVAD
 IEC 801-3, EN 50082-1, 3 V/M
 IEC 801-4, EN 50082-1, 1kV

GENERAL SAFETY INSTRUCTIONS

Review the following safety precautions to avoid bodily injury and/or damage to the product. These precautions must be observed during all phases of operation or service of this product. Failure to comply with these precautions, or with specific warnings elsewhere in this manual, violates safety standards of design, manufacture, and intended use of the product.

Service should only be performed by qualified personnel.

TERMS AND SYMBOLS

These terms may appear in this manual:

- WARNING** Indicates that a procedure or condition may cause bodily injury or death.
- CAUTION** Indicates that a procedure or condition could possibly cause damage to equipment or loss of data.

These symbols may appear on the product:



ATTENTION - Important safety instructions



Frame or chassis ground

WARNINGS

Follow these precautions to avoid injury or damage to the product:

- Use Proper Power Cord** To avoid hazard, only use the power cord specified for this product.
- Use Proper Power Source** To avoid electrical overload, electric shock, or fire hazard, do not use a power source that applies other than the specified voltage.
- Use Proper Fuse** To avoid fire hazard, only use the type and rating fuse specified for this product.

WARNINGS (CON'T)

Avoid Electric Shock

To avoid electric shock or fire hazard, do not operate this product with the covers removed. Do not connect or disconnect any cable, probes, test leads, etc. while they are connected to a voltage source. Remove all power and unplug unit before performing any service. ***Service should only be performed by qualified personnel.***

Ground the Product

This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground.

Operating Conditions

To avoid injury, electric shock or fire hazard:

- Do not operate in wet or damp conditions.
- Do not operate in an explosive atmosphere.
- Operate or store only in specified temperature range.
- Provide proper clearance for product ventilation to prevent overheating.
- DO NOT operate if you suspect there is any damage to this product. ***Product should be inspected or serviced only by qualified personnel.***

SUPPORT RESOURCES

Support resources for this product are available on the Internet and at KineticSystems Company, LLC customer support center.



Internet Support

E-mail: tech-support@kscorp.com
Web Address: <http://www.kscorp.com>



Telephone Support (U.S.)

Tel: (815) 838-0005

Fax: (815) 838-4424

KineticSystems Company, LLC

Technical Support
KineticSystems Company, LLC
900 N. State Street
Lockport, IL 60441

SECTION 1

INTRODUCTION

INTRODUCTION

This section contains a general description of operating features of the V198.

Figure 1-1 - V198 Four-Slot Mainframe

GENERAL DESCRIPTION

The V198 mainframe is a C-size, four-slot, VXIbus compatible mainframe that conforms fully to VXIbus Specification Revision 1.4. The mainframe employs a multi-layer backplane to ensure premium VXIbus and VMEbus performance and provides all power supplies required by the VXIbus specification.

The V198 mainframe contains four slots in the card cage, twelve of which are available for use by VXIbus compatible instruments. The fourth slot in the card cage (slot0) is typically dedicated to the VXIbus Resource Manager.

POWER SUPPLY

The V198 is designed to operate at line frequencies from 47 Hz to 440 Hz, and is factory preset to operate at a nominal line voltage of 115VAC. The AC input is both auto-voltage and auto-frequency ranging, and may be reconfigured to operate at a nominal 220VAC.

The power supply assembly is completely removable from the rear of the mainframe. The power supply assembly is short-circuit, over-voltage, reverse-voltage and thermal-shutdown protected. In addition, all supply lines are monitored and displayed on the front panel to provide user-feedback of correct operation.

BACKPLANE

The V198 has a jumperless auto-configurable backplane with automatic bus grant and IACK jumpering. There is also a custom power sub-panel to distribute all the supply lines across the backplane, as well as a 10-layer stripline construction that minimizes crosstalk.

COOLING

The airflow design uses a pressurized plenum system with a baffling system to guarantee enough cooling capacity. The cooling direction for the VXI instruments is air is drawn through the back of the mainframe, and exhausted out both sides, at the top. The power supply is cooled from a left side (facing the mainframe) to right side airflow.

TABLE 1-1 - V198 GENERAL SPECIFICATIONS

Size:	25" deep x 14" high x 16.7" wide	
	C-size	
	Four C-size VXIbus card slots	
Weight:	< 50 lbs	
VXIbus Revision:	1.4	
Cooling:	> K100 Watts/slot	
Input Voltage:	90VAC - 250VAC (47 Hz - 440 Hz) power factor corrected	
MTBF:	K100,000 Hours	
MTTR:	5 Minutes	
Temperature:	0 °C to 50 °C	Operating
	-40 °C to +70 °C	Storage
Power Supply:	UL, CSA, TUV approved	
	short circuit, over-voltage, reverse voltage, and thermal shutdown protection	

A total of K1000 watts may be supplied to the modules with the following maximum currents (1800 watt version available):

DC Supply Voltage	Peak Current (Imp)	Dynamic Current (Imd)
+5V	80A	15A
- 5.2V	60A	10A
+12V	12A	3A
- 12V	12A	3A
+24V	12A	4A
- 24V	12A	4A
- 2V	30A	5A

Total Available Power:	1630 Watts	
Total Usable Power:	K1000 Watts	
Periodic and Random Deviations (PARD):	+/- 24V:	150mVpp
	All others:	50mVpp
Auxiliary DC Outputs (fused, self-healing):	1.5A each all 7 supply voltages	

