Universal Switching Corporation

Specification Sheet VXI-RM1-001

Ruggedized 11-Slot VXIbus Mainframe
Accepts VXIbus Plug-in Modules
Model VXI-RM1

September 2006

General

The VXI-RM1 is a rugged 11 slot C-Sized VXI mainframe from our family of VXI products. It can be used in COTS, industrial applications and various military programs. It is designed and manufactured to Mil Standard specifications ensuring exceptional levels of ruggedness and EMI/RFI shielding.

The power supply section within the VXI-RM1 ruggedized mainframe delivers 2000 Watts of usable power. With integrated shock absorbers, it's built to protect your valuable VXI equipment while in the most demanding of environments.

Packed with advanced and proven design features, the VXI-RM1 also includes ease of use features such as an innovative hinged shelf for smooth power supply changeover. Unique supply mounting features prevent the power supply from being connected incorrectly. The power supply support shelf is fitted with solid gold connector pins for good electrical conductivity and high current capacity.

Front view with hinged front panel closed showing integrated air filter

Applications

The extremely rugged and RFI shielded mainframe can be used for numerous applications :

- For systems with frequencies DC to 50GHz
- Mobile communications centers
- Airborne systems
- Radar installations
- ATE test stations

Features

- Filed proven design in a compact 9RU height
- 11-Slot capacity
- Popular C-size modules
- Mil-Spec ruggedized version VXI mainframe
- Passes 100G impact shock and 15G drop tests
- Exceptional EMI/RFI construction and shielding
- Large 2KW of usable DC power
- High peak and dynamic currents
- Multiple cooling configurations possible
- International AC power range
- Built-in rack mount design (19 inch)
- Self-monitoring plug-in power supply (CANbus output)
- Built-in chassis slide mounting (HD slides optional)

Tested to Meet

EMI / RFI

- MIL-STD-461
- MIL-STD-461D

DC Magnetic Field

- DOD-STD 1399 (MIL-STD-2306)

Shock / Vibration

- MIL-STD-901C (Grade A, Type A, Class 1)
- MIL-STD-810 (Method 516)
- MIL-E-16400
- MIL-STD-167
- DOD-STD 1399 (Section 73, Part 1)
- MIL-STD-167B (Type 1)

Temperature

- MIL-STD-2036
- MIL-16400

Example Model Number

VXI-RM1-100

This specifies the standard VXI mainframe with the -100 option (side filter kits w/2 filters).

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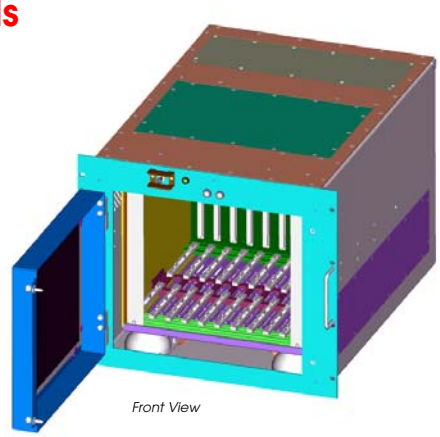
Mainframe Construction

The VXI-RM1 Mainframe is equipped with an integral anti-shock system for long-lasting performance in both industrial or extreme environments. The included heavy EMI/RFI shielding also means that your VXI modules perform as they should without external signals interfering, and for Mil-Spec needs, without your VXI modules leaking unwanted signals into the surrounding environment.

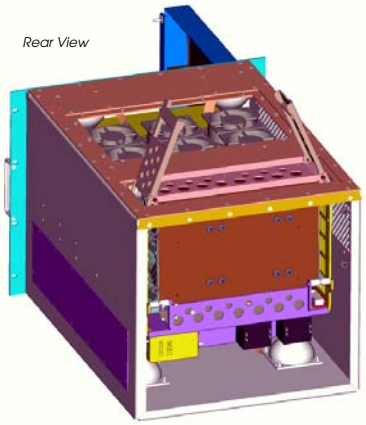
Front view with hinged front panel removed exposing the EMI/RFI gasketing, floating internal 11-slot module cage, and integrated anti-shock system

Built-in anti-shock system

Design Details



Front View



Rear View

Specifications

Size (less handles and door) .....15.72"H x 19.00"W x 24.06"D
Power switch .....Front panel
AC power .....85-264VAC, 47 to 440Hz, <15A
Front panel color .....Grumman Grey
Front panel thickness.....3/16"
Capacity.....Up to 11 single-wide modules
Cooling.....Fan assisted (11)
Venting.....Flexible locations (T/S/F/R)
Supply capacity.....2000 watts
Supply type . . . . . .Field replaceable plug-in

Weight 74lbs
Operating temp . . . . . .0 to +50C
Non-operating temp . . . . . .-62 to +71C
Humidity . . . . . .0 to 95% (non-condensing @ +25C)
Mounting . . . . . .RETMA slots (EIA), 9RU high
Chassis finish . . . . . .Two coats "Grumman Grey" (safflower oil-based paint)
Handles . . . . . .Included

Options

- -100 Side filter kit (2), with back and front blocking plates
- -101 Rear panel cut-out, for custom cabling bundles
- -102 Heavy duty rack slide kit to support 65kg load

Universal Switching's policy is one of continuous development, and consequently the company reserves the right to vary from the descriptions and specifications shown in this publication.

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