



Racal Instruments™ 1263MPf

Medium-Power, Front-Maintainable VXI 4.0* Mainframe

The Racal Instruments™ 1263MPf is a 13-slot, front-maintainable VXI 4.0 mainframe. Its power and cooling capability make this chassis ideal for housing the latest generation of high-performance VXIbus instruments.

Key Features

- Front-removable power supply and fan tray module
- LAN monitoring of voltage, temperature, and fan speed
- 1.7 kW of backplane power
- VXI 4.0 backplane for ultra-high speed and power
- Automatic fan speed control for quiet operation



Product Information

Medium Power

The 1263MPf medium-power mainframe is capable of delivering up to 1.7 kW of power to installed VXIbus modules. The power supply/fan drawer is easily removable from the front of the chassis, thereby reducing the time to replace or service this item. This makes the 1263MPf mainframe ideal for test systems with limited rear accessibility.

Unprecedented Power and Speed

The 1263MPf medium-power mainframe takes advantage of the power and speed delivered by the latest revision to the VXIbus 4.0 specification.

The new more powerful 5-row backplane connectors replace the traditional 3-row type, providing up to 320 MB/s of transfer

speed with 2eSST protocol, which was created to handle high-speed transfer rates. The VXS serial backplane fabric connectors deliver up to eight lanes of switched serial data to each slot via a third-party VXS switch card, which would be located in the rear of the mainframe.

Remote Access Monitoring

The 1263MPf has a built-in system for monitoring each individual VXI voltage rail, ambient and exhaust temperatures for each slot, and fan speed. Voltage and temperature monitored items are tied to programmable alarms that report out-of-tolerance conditions via a discrete fault indicator or over the LAN. Fan speed is controlled automatically depending on sensed exhaust temperatures.

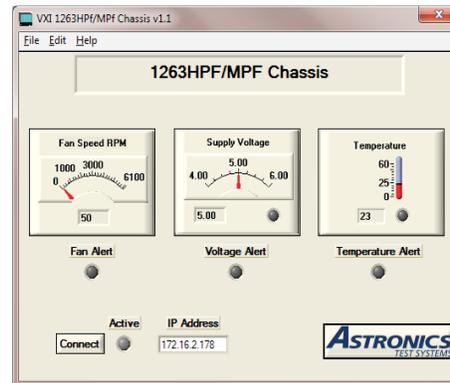


Figure 1: Main Soft Front Panel for 1263MPf Smart Monitor

* VXI-1 revision 4.0

Specifications

Note: The Astronics Test Systems policy is one of continuous development and improvement. Consequently, the equipment may vary in detail from the description and specifications in this publication.

Electrical Performance

Input Voltage Range

- 85 to 264 VAC or 100 to 380 VDC

Input Frequency Range

- 47 to 500 Hz

Maximum Power Consumption

- 2,500 W

Maximum Usable Power

- 1,700 W*

DC Current Capacity

Voltage	Current
+3.3 V	20 A
+5 V	80 A
+12 V	8 A
-12 V	8 A
+24 V	16 A
-24 V	16 A
-5.2 V	69 A
-2 V	3 A

Monitoring System

Software Driver

- VXIplug&play 64-bit, Windows 7

Monitor Connectors

- Alarms: Front panel mounted DE-9F
- LAN: Front panel Ethernet connector (RJ45 compatible)

Temperature Monitoring I/O

- Pins 4, 8 go to open circuit when ambient temperature >45° C or exhaust >65° C temperature rise

Fan Fault Monitoring

- Pins 3, 7 go to open circuit when fan failure is detected

Chassis Power Remote On/Off

- Pin 5 must be connected to pin 9 (Gnd) to power up chassis

Voltage Monitoring I/O

- A window comparator (with 5 to 10% tolerance) on each VXIbus supply rail.
- Pins 2, 6 go to open circuit when tolerance is exceeded (closed when in tolerance)

LAN Monitoring and Control

- Voltage: Each voltage rail is monitored. Alarm limits can range from 5 to 10%.
- Temperature: Alarm limits are settable for ambient and slot 0 to 12 exhaust temperature. All temperatures may also be read back.
- Fan Speed: Manual or automatic mode is selectable. Fan speed range may be set. Speed and fault status may be read back.

Environmental

Temperature

- Operating: 0° C to 50° C
- Storage: -40° C to 71° C

Relative Humidity

- 95% non-condensing

Emissions/Immunity (pending)

- EN61326:2006 Class B

Safety (pending)

- EN61010-1:2010-06

Altitude

- Operating: 15,000 ft

Shock

- 30 g, 11 ms, ½ sine wave

Vibration

- 0.013 in (pk-pk), 5 to 55 Hz

MTBF (MIL-HDBK-217 FN2, GB GC, 25° C)

- 88,077 hrs

MTTR

- The following component can be replaced in less than 5 minutes from the front of the chassis:
 - Power supply/fan drawer

Mechanical

Mainframe Size

- VXI-1 Rev. 4.0, C-size, Slot 0, 12 module slots, 1 switch slot (rear)

Dimensions

- 14" H x 19.0" W x 24.3" D

Weight

- 50.7 lbs

Front Panel Power Connector **

- Power drawer MS3102A-10SL-3P
- Mating connector MS3106A-10SL-3P
- Pinouts:
 - A- Hot
 - B- Ground
 - C- Neutral

Cooling System

- Forced air circulation with positive pressurization using four 50 CFM fans.

* <10,000 feet and <45° C

** Mating connector and power cable not supplied and must be ordered separately

Ordering Information

408177-002 : Racal Instruments™ 1263MPf Medium-Power, Front-Accessible VXI 4.0 Mainframe

408177-S-2827 : Racal Instruments™ 1263MPf Medium-Power, Front-Accessible VXI 4.0 Mainframe, no fan filters installed

Accessories

991211 : U.S. Power Cable

MS3106A-10SL-3P : Mating connector

408040-002 : Power Supply/Fan Drawer



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