

KEYSIGHT TECHNOLOGIES (AGILENT HP)

E1401B

The Keysight (Agilent/HP) E1401B is a high-performance, 13-slot, C-size VXI modular instrument mainframe. It is engineered to meet the demands of high-density instrumentation systems by providing ultra-reliable power distribution, high peak and dynamic currents, and advanced cooling technology. Designed for rapid serviceability with a Mean Time To Repair (MTTR) of under 5 minutes for fans and power supplies, it is a mainstay in automated test environments requiring high performance and low downtime.

SPECIFICATIONS

General

Interfaces	25-pin D-sub diagnostic/monitoring connector on rear panel
Display	Front panel status LEDs (+5V, -5.2V, +12V, -12V, +24V, -24V, -2V, Fan, Temp, Access)

Physical

Power Supply	90 - 263 VAC (47 - 66 Hz) / 103 - 140 VAC (360 - 440 Hz), 1500 VA max, auto-ranging
Operating Temperature	0°C to 55°C °C
Dimensions (W×H×D)	483 mm × 352 mm × 631 mm (with rack flanges) mm
Weight	20.0 kg
Rack Height	8U
Shipping Weight	26.8 kg

System Architecture & Slot Configuration

Mainframe Format	VXI C-size
Total Number of Slots	13
Slot Size Compatibility	C-size
VXIbus Specification Compliance	Revision 1.4
Slot Spacing	30.48 mm (1.2 inches)
Interrupt/Grant Line Jumpering	Solid-state automatic daisy-chain jumper connections for VMEbus BG/IACK lines

Power Supply Input Specifications

AC Input Voltage Range	90 - 263 VAC
AC Input Frequency Range	47 - 66 Hz (90 - 263 VAC) / 360 - 440 Hz (103 - 140 VAC)
Maximum Input Power	1500 VA
Power Supply Serviceability	Rear-removable modular design with MTTR < 5 minutes

Power Supply Output Specifications

Total Usable Output Power	900 W (0°C to 55°C)
Peak Current +5V Rail	90 A
Peak Current -5.2V Rail	60 A
Peak Current +12V Rail	15 A
Peak Current +24V Rail	15 A
Peak Current -2V Rail	30 A
Dynamic Current +5V Rail	9.0 A
Dynamic Current -5.2V Rail	6.0 A
Dynamic Current +12V Rail	1.5 A
Dynamic Current +24V Rail	3.0 A
Dynamic Current -2V Rail	3.0 A

Cooling & Thermal Management

Airflow Direction	Rear panel intake, exhausting out the sides and top
Cooling Capacity per Slot	100 W (for a 15°C temperature rise)
Fan Speed Control Mode	Automatic temperature-sensing or full-speed switch
Number of Cooling Fans	3
Fan Serviceability	Rear panel access, replaceable in < 5 minutes

Backplane Signal & Timing Performance

Trigger Lines	Supports VXI standard TTLTRG and ECLTRG lines
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System Monitoring & Diagnostics

Diagnostic Monitor Connector	Rear-panel 25-pin D-sub
Voltage Monitoring	Analog voltage level outputs on rear diagnostic connector
Status Indicators	Front-panel LEDs (+5V, -5.2V, +12V, -12V, +24V, -24V, -2V, Fan, Temp)
Over-Temperature Warning	LED indicator and rear-panel diagnostic signal output
Fan Fail Sensor	LED indicator and rear-panel diagnostic signal output

Physical Specifications

Form Factor / Height	8U EIA Rack Units
Chassis Width (excluding ears)	426 mm
Chassis Height	352 mm
Chassis Depth (overall)	631 mm
Chassis Depth (chassis body only)	580 mm
Weight (without modules)	20 kg

Environmental Conditions

Storage Temperature Range	-40°C to +75°C
Operating Humidity Range	Up to 95% RH (non-condensing) at 40°C
Operating Altitude	Up to 4,600 m (15,000 ft)
Storage Altitude	Up to 15,000 m (50,000 ft)

Compliance & Certifications

VXIbus Compliance	VXIbus Revision 1.4, VXIplug&play compliant
Safety Standards	UL 1244, CSA C22.2 No. 231, EN 61010-1
EMC Standards	EN 55011 Class A, CISPR 11 Class A, FCC Part 15 Class A

Accessories & Options

Backplane Connector Shield Kit Part Number	E1400-80920
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Power Specifications

AC Input Maximum Current	15.0 A (100-120 VAC) / 8.0 A (220-240 VAC)
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Cooling Specifications

Maximum Airflow (High Speed)	90 L/s
Maximum Airflow (Low Speed)	50 L/s

Acoustic Specifications

Acoustic Noise (High Speed)	52.5 dBA
Acoustic Noise (Low Speed)	43.5 dBA

Environmental Specifications

Operating Vibration	0.22 g rms, 5 to 500 Hz
Survival Vibration	2.09 g rms, 5 to 500 Hz
Operating Shock	3 g, 11 ms, half-sine
Survival Shock	30 g, 11 ms, half-sine

Backplane Specifications

CLK10 Frequency	10 MHz
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Diagnostics & Monitoring

Diagnostic Connector Type	25-pin female D-sub
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Power Supply

Power Factor Correction	Active PFC, 0.99 typical (115 VAC)
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Cooling

Air Filter	Removable and washable
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TECHNOLOGY

VXIbus

APPLICATIONS

Modular instrumentation and automated testing systems

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.