

# Agilent E1421B 6-Slot, C-Size VXI Mainframe

## Data Sheet

- **6-Slot, C-size**
- **Compact size, low cost**
- **Portable or rack-mount**
- **Ultra-reliable power supply**
- **Power supply serviceable through the rear panel**
- **Pressurized air channel cooling**

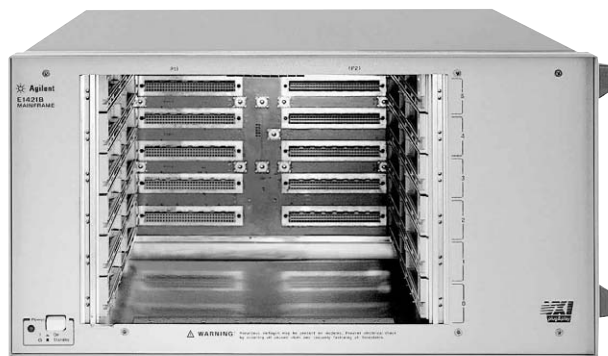
## Description

The Agilent Technologies E1421B **C-size, 6-slot VXI mainframe** is a compact, cost-effective solution for configurations requiring fewer slots than the 13-slot E1401B or E84XX series C-size mainframes.

The smaller size and weight of the E1421B make it an excellent choice for either portable or rack-mount applications. The E1421B complies with the VXIbus Specification by providing injector surface rails used by the QUIC easy module insertion and extraction system.

Agilent has incorporated its industry-leading Pressurized Air Channel cooling system into the design of the E1421B. It ensures clean, uniform airflow to each module. For greater power supply serviceability, power input intake is through the rear of the mainframe. Airflow is through the right side and exhausts through the left.

Refer to the Agilent Technologies Website for instrument driver availability and downloading instructions, as well as for recent product updates, if applicable.



Agilent E1421B

## General Characteristics

### Airflow and Power Supply Serviceability

- Power input through the rear
- Power supply serviceable through the rear panel
- Cooling air enters through right side and exhausts through the left side
- No air filters

### Backplane

- High performance
- Monolithic
- 6 slots
- VXI P1 and P2 connectors

The backplane features solid state automatic daisy-chain jumpering for the VMEbus grant and interrupt acknowledge lines, eliminating the need for hand selection of switch settings. The E1421B backplane is compatible with the Agilent backplane connector shield kit, P/N E1400-80920.

## Product Specifications

### Mechanical Specifications

	mm	inches
Height without bottom feet:	221.5	8.72
Height with bottom feet:	233.4	9.19
Width without side feet:	425.5	16.75
Width with side feet:	447.8	17.63
Depth with rear feet + power supply handles:	558.8	22.00
Weight:	13.9 kg / 30.6 lbs	

### Power

The power supply generates backplane logic signals ACFAIL\* and SYSRESET\* in full compliance with the VXI Specification, Revision 1.4.

**Usable power:** 450 W maximum at 55° C

### Power Supply Protection

All outputs are protected from over-temperature, over-voltage, over-current, and short-to-ground.

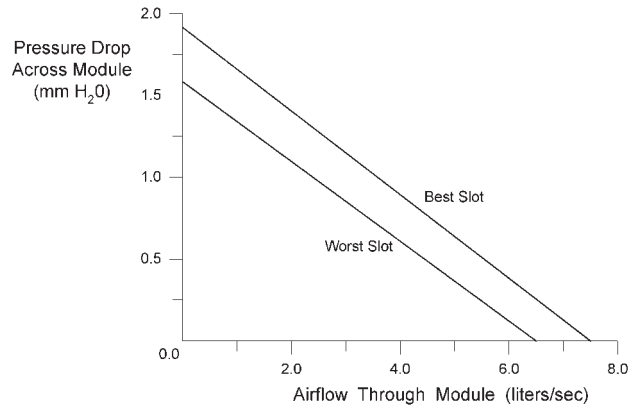
### Power Input

**50-60 Hz input power:**  
Automatic voltage ranging, nominal range: 100-240 Vac  $\pm 10\%$   
Nominal frequency range: 50-60 Hz  $\pm 10\%$

**400 Hz input power:**  
Nominal voltage range: 100-120 Vac  $\pm 10\%$   
Nominal frequency: 400 Hz  $\pm 10\%$

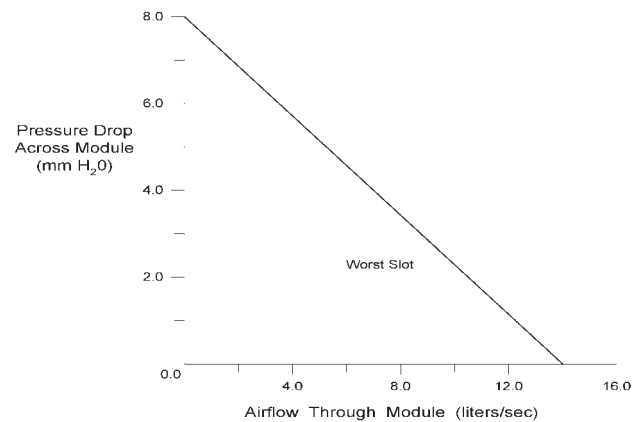
**Inrush current:** 40 A max

## Agilent E1421B Cooling Specification Charts



### VXI-8 Specification Draft 2.0. Fixture revision 1.7.

- VXI-8 Standard Modules installed in all other slots.
- Performance shown for Worst Slot (slot 1) and Best Slot (slot 4).
- Front-to-Rear Variance 19% worst case.
- Fans on Full Speed.
- Measurements taken at 1,500 m altitude.



**All other slots blocked.** Airflow decreases as additional slots are opened.

- Performance shown for Worst Slot (slot 1). Airflow is greater in all other slots.
- Fans on Full Speed.
- Measurements taken at 1,500 m altitude.

## Environmental and Regulatory

<b>Acoustic noise:</b>	
Low-speed fan:	53 dBA sound pressure <i>(at bystander position)</i>
High-speed fan:	59 dBA sound pressure <i>(at bystander position)</i>

## Shielding

<b>Intermodule:</b>	Gasketing per VXI Rev. 1.4, B.7.2.3. is provided.
<b>Backplane:</b>	Backplane Connector Shields per VXI Rev. 1.4, B.7.2.3 (available as Option 918 or as a separate accessory, p/n E1400-80920)
<b>Intermodule chassis:</b>	Intermodule chassis shields per VXI Rev 1.4, B.7.3.4 <i>(available as a separate product, p/n E1409B)</i>

## Electromagnetic Compliance

To ensure compliance with RFI levels specified in standards EN55011 and CISPR11, the Backplane Connector shields must be installed in the mainframe. Order Option 918 to get shields factory installed.

The Agilent E1409B C-Size Chassis Shield allows grounded shielding between mainframe slots in the E1401B and E1421B VXI Mainframes. This shield fits between slots – not using up a mainframe slot.

## General Specifications

### VXI Characteristics

<b>VXI device type:</b>	Mainframe
<b>Data transfer bus:</b>	All per VXIbus specification, Rev. 1.4
<b>Size:</b>	C
<b>Slots:</b>	6
<b>Connectors:</b>	P1/2
<b>Shared memory:</b>	n/a
<b>VXI buses:</b>	All per VXIbus Standard Specification, Rev. 1.4

### Available Current

	Peak Current (Amps) $I_{MP}$	Dynamic Current (Amps) $I_{MD}$
+5 V:	45.00	5.00
+12 V:	8.00	2.50
-12 V:	8.00	2.50
+24 V:	8.00	4.00
-24 V:	8.00	4.00
-5.2 V	40.00	5.00
-2 V:	15.00	3.50

## Cooling/Slot

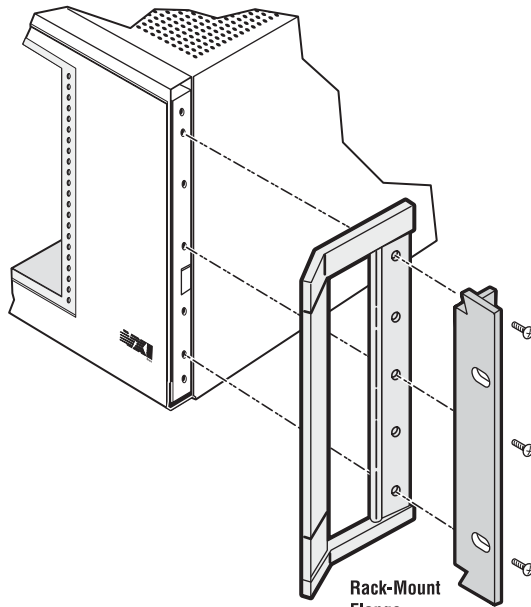
<b>Watts/slot:</b>	60 W (10° C rise)
$\Delta P$ mm H <sub>2</sub> O:	n/a
<b>Air Flow liter/s:</b>	n/a

## Ordering Information

Description	Product No.
6-Slot, C-Size VXI Mainframe	E1421B
Flange Kit	E1421B 80908
Flange Kit (if ordered separately)	5063-9216
Handle and Flange Kit	E1421B 80909
Handle and Flange Kit (if ordered separately)	5063-9223
Smoked Acrylic Door	E1421B 80905
Smoked Acrylic Door (if ordered separately)	E1421-61205
Recess Flange Mounting Kit	E1421B 80916
Recess Flange Mounting Kit (if ordered separately)	E1421-80916
Flush Rack Flange Kit	E1421-65000
Backplane Connector Shield Kit for 6-Slot Mainframe	E1421B 80921
VXI Backplane Connector Shield Kit for 6-Slot Mainframe (if ordered separately)	E1421-80920
Filler Panel 1 Slot	E1400-60202
Series C Chassis Shield for E1401B	E1409B
Rack Slide Kit	1494-0060
Rack Slide Kit for Non-Agilent Rack	1494-0061
VXI Rail Kit	E3665AC

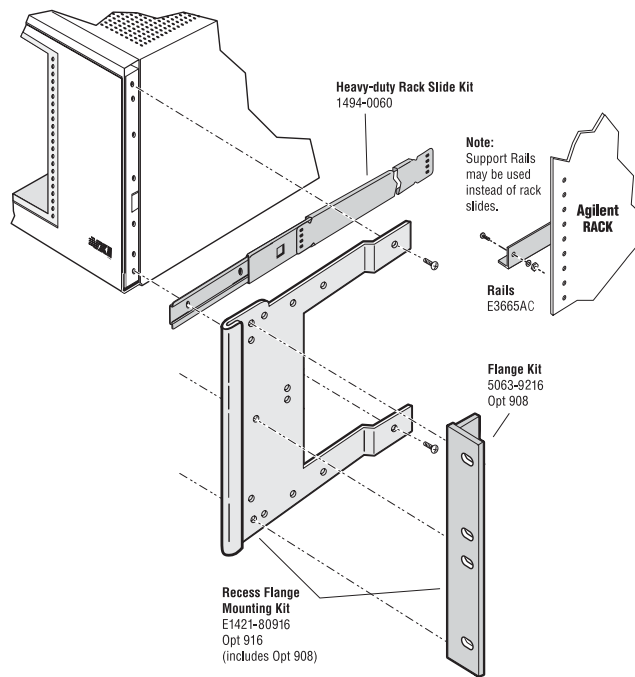


E1421B



**Rack-Mount  
Flange  
with Handle**  
5063-9223  
Opt 909

E1421B



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