

VXI C -SIZE HARDWARE KIT



VXI MODULE HARDWARE KITS

DESCRIPTION

ICS's VXI-Kits are complete hardware kits for assembling 1, 2 or 3-slot wide C-size VXI modules with 96-pin DIN connectors. Each kit includes a blank front panel with ejectors, side shields and all necessary hardware to assemble a VXI module. Documentation includes the complete PCB layout information and assembly directions. Complimentary CAD files and ORCAD design templates are available to designers for starting the PCB layout. The user only needs his printed circuit board assembly to complete the VXI module. ICS's VXI-Kits fit all VXI chassis with 96-pin connectors.

Full RFI Shielding

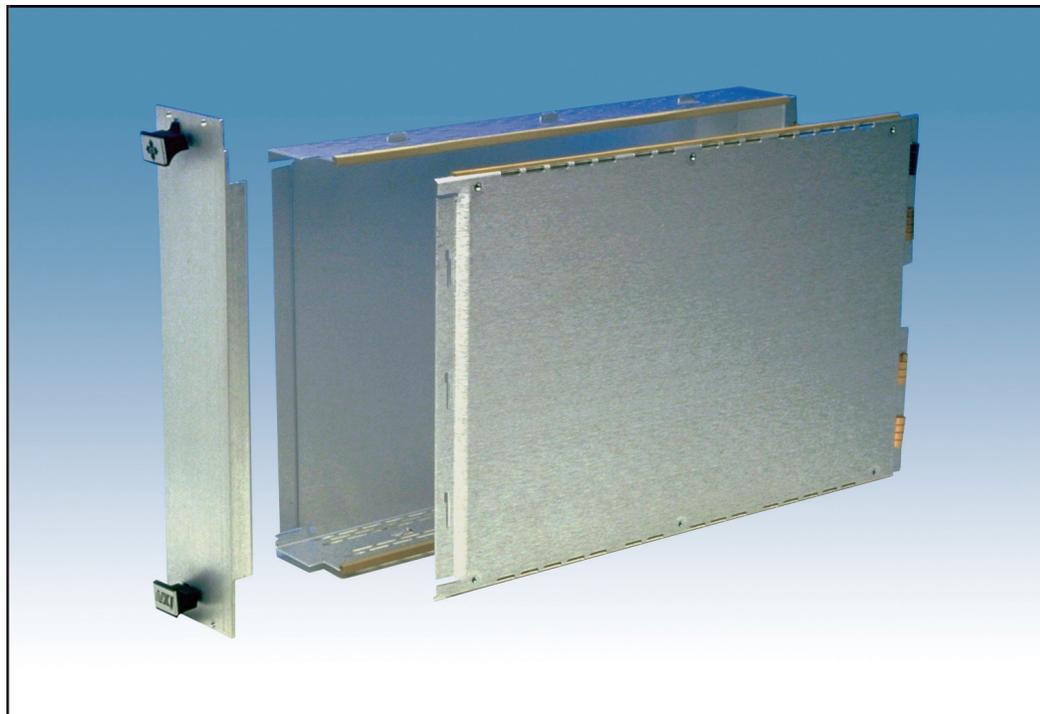
The VXI module kit incorporates design details for complete RFI/EMI emission control. Each side shield includes air vents at the top and bottom of the module for passing cooling air through the module. The air slot size was selected to attenuate RF signals up to 2 GHz. RFI gaskets seal the sides of the case to the PC board. Copper bushings and connector shrouds pick up the VXI back plane ground and ground the side shields to the adjacent module.

Construction Concept

Shield construction is essentially a clamshell type design with the shields surrounding the printed circuit board assembly. The printed circuit board assembly fits in the chassis card guides and supports the module. The user provides 6 clearance holes in his circuit board for screws which hold the two side pieces together. A 0.25 inch (6.3 mm) strip along the top and bottom edges of the PCB acts as a grounding strip for the RFI gaskets on the module's side shields. The front panel is a separate piece that mounts directly to the front edge of the user's PCB. The front panel stays attached to the PC Board assembly when the side shields are removed.

Multiple Configurations

ICS's VXI-Kits are available in a variety of module widths and configurations. The single-wide kits enclose the main printed circuit assembly which slides into the chassis card guides and supports the module. The PCB centerline is offset to the left edge of the module. Single-wide modules can accommodate components up to 0.76 inches high.



C-Size Dual Wide VXI-KIT

- All kits include side shields, blank front panels, ejector handles, all hardware, and assembly instructions.
Complete package simplifies your module design.
- Wide range of 1, 2 and 3-slot wide module kits.
Encloses all C-size modules.
- Simple clam-shell design with full RFI shielding.
Easy to assemble case with proven EMI/RFI shielding.
- Component shield includes an address switch opening.
Permits logical address changes without removing the covers.
- Front panel kits available as separate items.
Provides blank front panels and hardware where side shields are not required.
- Complimentary layout files for designers includes PCB design templates and CAD files.
Provides a head start on your PCB design.
- Fits all VXI-1 Revision 1.0- to Revision 3.0 chassis.
See our VXI4-Kits for Revision 4.0 chassis.



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Module Configurations Cont'd

Dual-wide modules are available with the extra 1.2 inches of space on either the circuit side or on the component side of the printed circuit assembly. When the extra space is added to the circuit side, the circuit side interior space is increased to 1.426 inches and the printed circuit board is on the right-hand portion of the module. This increased space accommodates many types of RF modules and socket wire-wrap tails for prototyping circuits.

When the extra space is added to the component side, the PCB centerline stays by the left edge of the module. Component side interior space is increased by 1.2 inches for stacking daughter boards or for tall components up to 1.96 inches high. The dual-wide version is available without the PCB mounting holes for users who have PCBs with different hole patterns.

The triple-wide kit has 3.16 inches of inside space on the component side of the PCB.

The dual and triple-wide component side shields have tabs which slide into the second and third slot chassis card guides for increased module support.

Cover Screw Patterns

VXI-Kits are available with two different screw patterns and address switch opening locations. Figure 1 shows the original screw pattern and address switch opening locations. These kits are available in single and dual-wide versions with the extra space on the circuit side of the PCB. The original kit layout is **not** recommended for new designs.

Figure 2 shows the layout for kits with the **new** screw pattern layout which results in a cleaner component layout. The new screw pattern kits are available in single, dual and triple-wide configurations.

Variations of these kits are available with no address switch openings or without the PCB mounting holes.

Two PCB Module Design

A dual-wide kit is available for VXI module designs that require two full-size printed circuit cards. This dual board kit has a 'U' shaped inside spacer shield that fits between two printed circuit boards as shown in Figure 3.

The module designer fixes the two printed circuit boards to each other on 1.2 inch centers as a single assembly so both

printed circuit boards slide into the chassis card guides together. The boards mount to the dual ejector assembly that on the rear of the front panel. The inside spacer shield slides onto the module from the rear. The outside shields are held against the printed circuit board assembly by mounting screws that go into captive nuts on the inside spacer shield. The completed module is supported by both printed circuit boards which slide into the chassis card guides.

Front Panel Kits

Front panel kits are available for single, dual and triple-wide modules. The front panels are blank except for the retaining screw, ejector handle slot and mounting screw holes at the top and bottom ends. Front panel kits include all necessary hardware, assembly instructions and PCB layout information.

Custom Front Panels

ICS provides kits with machined front panels finished to your specification. Get a complete kit from a single source. Send front panel layout drawings to custsvc@icselect.com for a quotation.

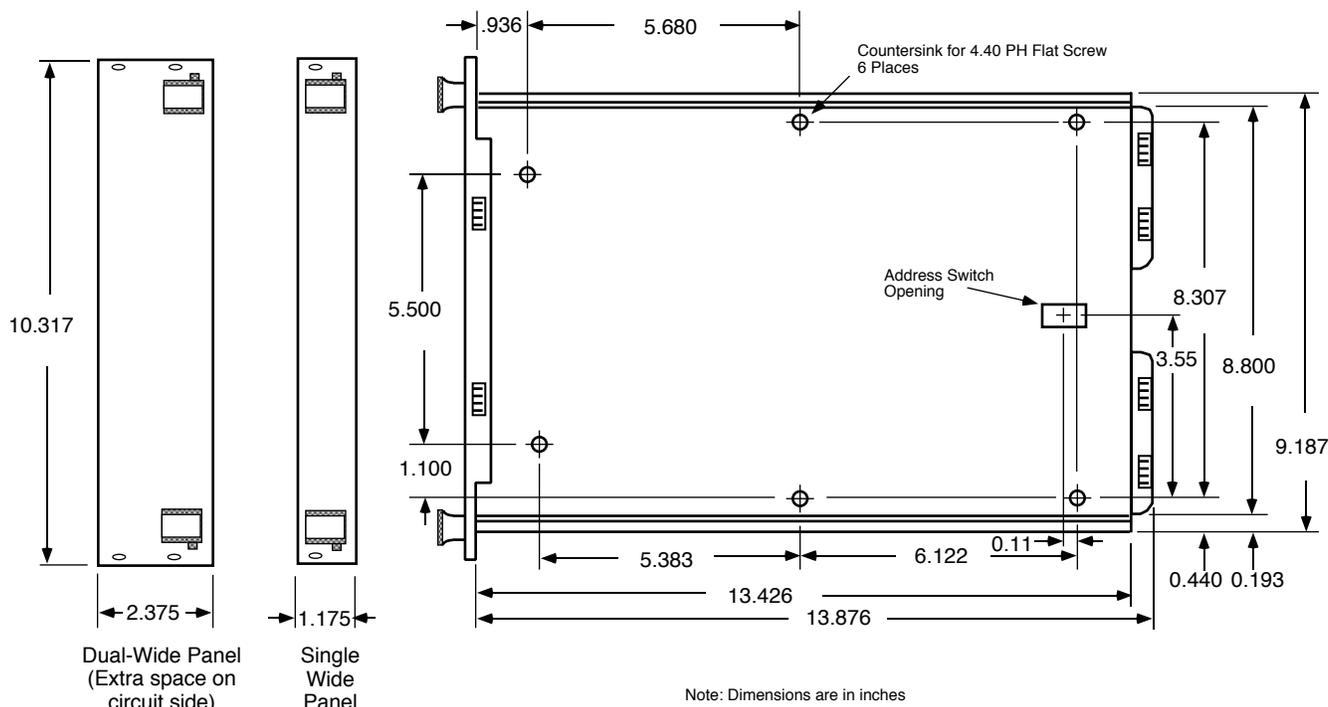


Figure 1 C-Size VXI Kit with Original Mounting Hole Pattern
(not recommended for new designs)

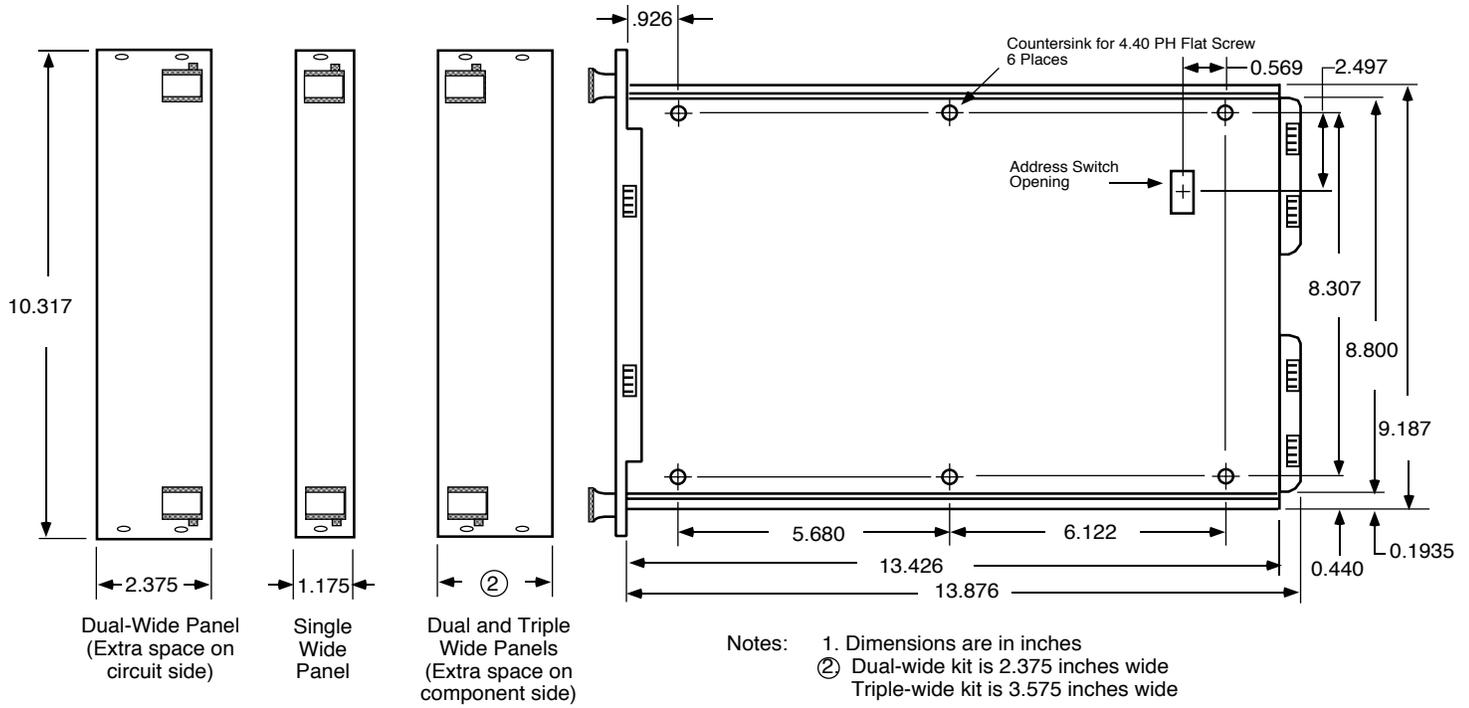


Figure 2 C-Size VXI Kits with the New Mounting Hole Pattern
(Available in one, two and three slot wide versions)

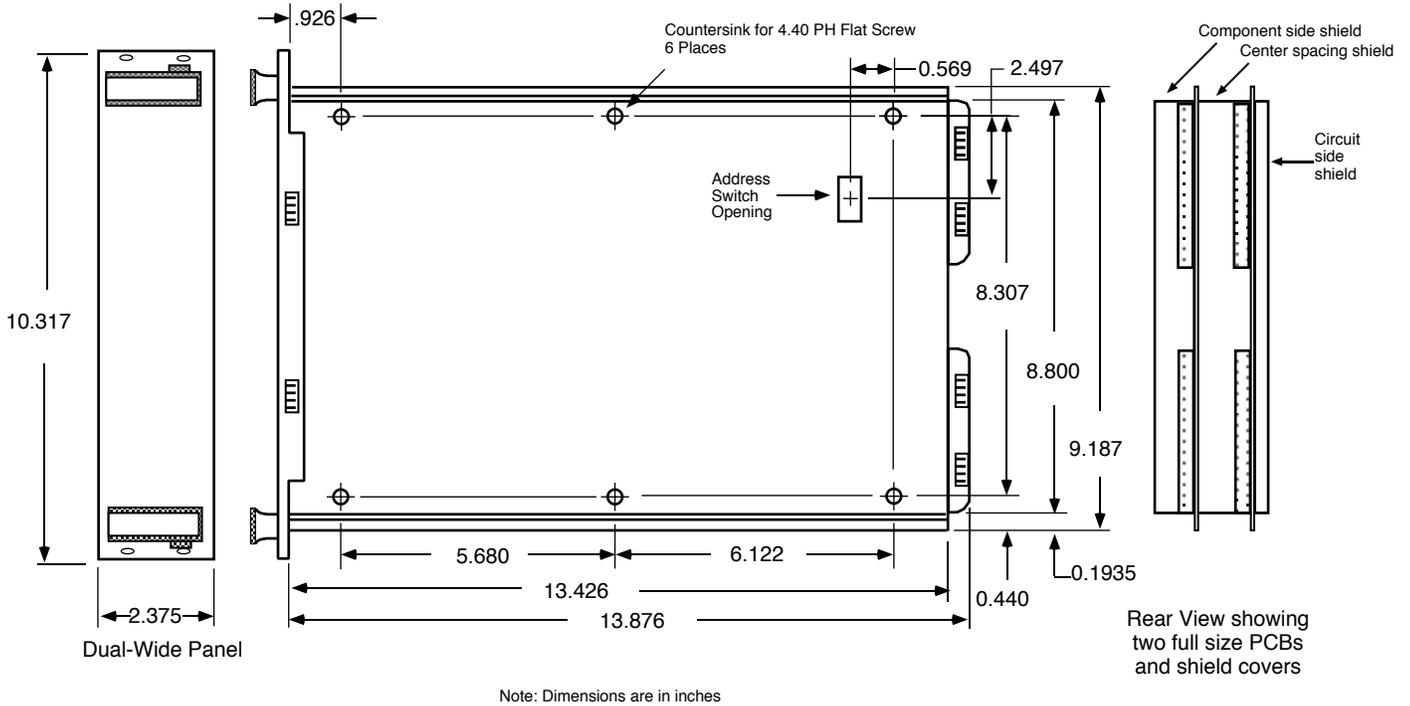


Figure 3 C-Size, dual-wide VXI Kit for two full-size PC boards (P/N 114753)

VXI-KIT: SPECIFICATIONS

Specifications

ICS's VXI-Kits meet all of the requirements of the VXI-1 Specification, revisions 1.0 - 3.0. Not for use in VXI-1 revision 4.0 chassis where the connector shrouds would interfere with the new 160-pin connectors.

Physical

Size, W x H x D

Single-Slot:

29.92 x 233.35 x 353.06 mm
(1.178 x 9.187 x 13.900 inches)

Dual-Slot:

60.32 x 233.35 x 353.06 mm
(2.375 x 9.187 x 13.900 inches)

Triple-Slot:

90.81 x 233.35 x 353.06 mm
(3.575 x 9.187 x 13.900 inches)

Weight

Single-Slot Kit: 0.93 kg. (2.0 lbs.)
Dual-Slot Kit: 1.09 kg. (2.4 lbs.)
Triple-Slot Kit: 1.36 kg. (3.0 lbs.)

Material

Front Panel - Aluminum panel
Side Shields - .050 inch aluminum
RFI Gaskets - Conductive rubber
Ejectors - Plastic with slide in aluminum faces. One face has a VXI logo, the second face is blank for the user's logo.

Finish

Clear alodine

Address Switch Opening

Opening provided on component side shield for an 8 position dip rocker switch that can be used to set the module's logical address or control other functions. Supplied address switch label identifies rocker switch bit weights and logical I/O positions as shown in the following figure. Single-slot 115131 Module Kits available with no address switch opening.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 6 | 3 | 1 | 8 | 4 | 2 | 1 |
| ↑ | 2 | 4 | 2 | 6 | | | | |
| ↓ | 1 | 8 | | | | | | |

Address Switch Label

Air Vents

0.1 x 0.6 oval slots in patterns over chassis air vents. Table lists module total air vent openings.

TABLE 1 - MODULE AIR VENTS

| Module P/N | Width (# slots) | Vent Opening in sq.-in. |
|------------|-----------------|-------------------------|
| 113991 | 1 | 3.66 |
| 113992 | 2 | 10.00 |
| 114341 | 1 | 5.40 |
| 114342 | 2 | 11.70 |
| 114343 | 2 | 13.62 |
| 114753 | 2 | 12.00 |
| 114750 | 3 | 20.34 |

Supplied Items

Each VXI-Kit includes the following items:

Front Panel
Side shields
Ejector handles
Ejector face with VXI logo
Ejector face blank
Ejector mounting hardware
Assembly screws
Address switch label
Assembly and layout instructions

Each Front Panel Kit includes the following items:

Front Panel
Ejector handles
Ejector face with VXI logo
Ejector face blank
Ejector mounting hardware
Assembly screws

Optional Items

123153 Layout Template files are not included with ICS VXI products but are supplied at no charge to qualified VXI Kit designers. Call or email ICS sales department at sales@icselect.com for your copy.



Single-wide, Front Panel Kit

ORDERING INFORMATION

VXI-KIT Description

| VXI-KIT Description | Part Number |
|---|-------------|
| C-Size, Single-Slot Kit with original PCB screw pattern | 113991 |
| C-Size, Dual-Slot Kit with original PCB screw pattern, extra space on PCB circuit side | 113992 |
| C-Size, Single-Slot Kit, new screw pattern | 114341 |
| C-Size, Single-Slot Kit, new screw pattern with no address switch opening | 115131 |
| C-Size, Dual-Slot Kit, new screw pattern, extra space on PCB circuit side | 114342 |
| C-Size, Dual-Slot Kit with new screw pattern, extra space on PCB component side | 114343 |
| C-Size, Dual-Slot Kit. 114343 kit with no screw pattern or address switch opening | 114575 |
| C-Size, Triple-Slot Kit, new screw pattern, with two extra spaces on PCB component side | 114750 |
| C-Size, Dual-Slot Kit, new screw pattern, with spacing shield for two full-size PCBs. | 114753 |

Front Panel Kit Part Number

| Front Panel Kit Part Number | Part Number |
|--|-------------|
| C-Size, Single Wide Front Panel kit | 114300 |
| C-Size, Dual-Slot Wide Front Panel Kit for PCB in the right hand slot | 114301 |
| C-Size, Dual-Slot Wide Front Panel Kit for PCB in the left hand slot | 114304 |
| C-Size, Dual-Slot Wide Front Panel Kit for two PCB kits | 114763 |
| C-Size, Triple-Slot Wide Front Panel Kit for PCB in the left hand slot | 114305 |