

cRIO-9111/9112/9113/9114/ 9116/9118

cRIO-9111: 4-Slot, Virtex-5 LX30 FPGA CompactRIO Chassis (Legacy)

cRIO-9112: 8-Slot, Virtex-5 LX30 FPGA CompactRIO Chassis (Legacy)

cRIO-9113: 4-Slot, Virtex-5 LX50 FPGA CompactRIO Chassis (Legacy)

cRIO-9114: 8-Slot, Virtex-5 LX50 FPGA CompactRIO Chassis (Legacy)

cRIO-9116: 8-Slot, Virtex-5 LX85 FPGA CompactRIO Chassis (Legacy)

cRIO-9118: 8-Slot, Virtex-5 LX110 FPGA CompactRIO Chassis (Legacy)

Physical Characteristics

Weight

cRIO-9111	581 g (20 oz)
cRIO-9112	880 g (31 oz)
cRIO-9113	581 g (20 oz)
cRIO-9114	880 g (31 oz)
cRIO-9116	880 g (31 oz)
cRIO-9118	880 g (31 oz)

Dimensions

Visit ni.com/dimensions and search by model number.

Environmental

Temperature

Operating	-40 °C to 70 °C
Storage	-40 °C to 85 °C



Notice If the ambient temperature is 56 °C to 70 °C, you must mount the chassis on a thermally conductive material. For information about how mounting configuration can affect the accuracy of C Series modules, visit ni.com/info and

enter the Info Code `rdcriotemp`. Measure the ambient temperature at each side of the CompactRIO system, 63.5 mm (2.5 in.) from the side, and 25.4 mm (1 in.) from the rear cover of the system

Ingress protection	IP40
Operating humidity	10% RH to 90% RH, noncondensing
Storage humidity	5% RH to 95% RH, noncondensing
Pollution degree	2
Maximum altitude	5,000 m

Indoor use only.

Hazardous Locations

Explosive atmospheres rating	Ex nA IIC T4 Gc
CCC certificate number	2021312310000318

Safety Guidelines

Operate the product only as described in this document.



Caution This icon denotes a caution, which advises you to consult documentation where this symbol is marked.



Caution Do not operate this product in a manner not specified in this document. Product misuse can result in a hazard. You can compromise the safety protection built into the product if the product is damaged in any way. If the product is damaged, return it to NI for repair.

Safety Guidelines for Hazardous Locations

These products have been evaluated as Ex nA IIC T4 Gc equipment and are CCC certified. Each product is suitable for use within ambient temperatures of $-40\text{ }^{\circ}\text{C} \leq T_a \leq 70\text{ }^{\circ}\text{C}$ in either nonhazardous locations or Zone 2 hazardous locations.

Follow these guidelines if you are installing the product in a potentially explosive environment. Not following these guidelines may result in serious injury or death.



Caution Do not disconnect the power supply wires and connectors from the product unless power has been switched off.



Caution Do not disconnect I/O-side wires or connectors unless power has been switched off or the area is known to be nonhazardous.



Caution Do not remove modules unless power has been switched off or the area is known to be nonhazardous.



Caution Substitution of components may impair suitability for Zone 2.



Caution You must make sure that transient disturbances do not exceed 140% of the rated voltage.



Caution The system shall only be used in an area of not more than Pollution Degree 2, as defined in IEC/EN 60664-1.



Caution The system shall be mounted in a CCC-certified enclosure with a minimum ingress protection rating of at least IP54 as defined in GB3836.1.



Caution The enclosure must have a door or cover accessible only by the use of a tool.

Power Requirements

These power requirements are for a fully loaded chassis and exclude the power requirements of the controller and the I/O modules in the chassis.

Chassis power consumption/dissipation

cRIO-9111 and cRIO-9112

+5 VDC	500 mW maximum
+3.3 VDC	2,100 mW maximum
Total chassis power consumption	2,600 mW maximum

cRIO-9113 and cRIO-9114

+5 V DC	500 mW maximum
+3.3 V DC	2,800 mW maximum
Total chassis power consumption	3,300 mW maximum

cRIO-9116

+5 V DC	500 mW maximum
+3.3 V DC	4,600 mW maximum
Total chassis power consumption	5,100 mW maximum

cRIO-9118

+5 V DC	500 mW maximum
+3.3 V DC	5,400 mW maximum
Total chassis power consumption	5,900 mW maximum

Installing the Controller on the Chassis

Complete the following steps to install the controller on the chassis.

1. Make sure that no power is connected to the controller or the chassis.
2. Align the controller with the chassis.
3. Slide the controller onto the controller slot on the chassis. Press firmly to ensure the chassis connector and the controller connector are mated.
4. Using a number 2 Phillips screwdriver, tighten the two captive screws on the front of the controller to 1.3 N · m (11.5 lb · in.) of torque.

Installing C Series Modules

Verify that power is not connected to the I/O connector(s) on the C Series module.

Removing C Series Modules

Verify that power is not connected to the I/O connector(s) on the C Series module before you remove a module from the chassis.

Product Certifications and Declarations

To obtain product certifications and the DoC for NI products, visit ni.com/product-certifications, search by model number, and click the appropriate link.

Worldwide Support and Services

NI corporate headquarters is located at 11500 North Mopac Expressway, Austin, Texas, 78759-3504, USA.

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