
PXle-7911

Specifications

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Contents

PXIe-7911 Specifications 3

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Definitions

Warranted specifications describe the performance of a model under stated operating conditions and are covered by the model warranty.

Characteristics describe values that are relevant to the use of the model under stated operating conditions but are not covered by the model warranty.

- **Typical** specifications describe the performance met by a majority of models.
- **Nominal** specifications describe an attribute that is based on design, conformance testing, or supplemental testing.

Specifications are **Typical** unless otherwise noted.

Conditions

Specifications are valid under the following conditions unless otherwise noted.

- Ambient temperature of 23 °C ±5 °C
- Installed in chassis with slot cooling capacity ≥58 W

Reconfigurable FPGA

FPGA	Xilinx KU035
LUTs	203,128
DSP48 Slices (25 × 18	1,700

multiplier)	
Total block RAM	19.0 Mb
Default timebase	80 MHz
Timebase reference sources	PXI Express 100 MHz (PXIe_CLK100)
Number of DMA channels	60
Connection resources	PXI triggers, PXI_CLK10, PXI star trigger, PXIe_DStarB, PXIe_DStarC, and PXIe_Sync100



Note The preceding specifications describe the total number of FPGA resources available on the part. The number of resources available to the user is slightly lower, as some FPGA resources are consumed by board-interfacing IP for PCI Express, device configuration, and various board I/O. For more information, contact NI support.



Note For FPGA designs using the majority of KU040 or KU060 FPGA resources while running at clock rates over 150 MHz, the module may require more power than is available. If the module attempts to draw more than allowed per its specification, the module protects itself and reverts to a default FPGA personality. Refer to the getting started guide for your module or contact NI support for more information.

Driver and Application Software

This device is supported in NI LabVIEW Instrument Design Libraries for FlexRIO

(instrument design libraries). Instrument design libraries allow you to configure and control the device.

The instrument design libraries provide programming interfaces, documentation, and sample projects for LabVIEW and LabVIEW FPGA Module.

Bus Interface

Form factor	PCI Express Gen-3 x8
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Maximum Power Requirements



Note Power requirements depend on the contents of the LabVIEW FPGA VI used in your application.

+3.3 V	3 A
+12 V	4 A
Maximum total power	58 W

Physical

Dimensions (not including connectors)	18.8 cm × 12.9 cm (7.4 in. × 5.1 in.)
Weight	190 g (6.7 oz)

Environment

Maximum altitude	2,000 m (800 mbar) (at 25 °C ambient temperature)
Pollution Degree	2

Indoor use only.

Operating Environment

Ambient temperature range	0 °C to 55 °C ^[1]
Relative humidity range	10% to 90%, noncondensing

Storage Environment

Ambient temperature range	-40 °C to 71 °C (Tested in accordance with IEC 60068-2-1 and IEC 60068-2-2. Meets MIL-PRF-28800F Class 4 limits.)
Relative humidity range	5% to 95%, noncondensing (Tested in accordance with IEC 60068-2-56.)

Shock and Vibration

Operating shock	30 g peak, half-sine, 11 ms pulse
Random vibration	

Operating	5 Hz to 500 Hz, 0.3 g _{rms}
Nonoperating	5 Hz to 500 Hz, 2.4 g _{rms}