EVALUATION KIT OPTIONS
EtherCAT: EV-RPG2-ECZ
EtherNet/IP: EV-RPG2-ENZ
Profinet: EV-RPG2-PNZ
Powerlink: EV-RPG2-PLZ
Modbus: EV-RPG2-MBZ

EVALUATION KIT CONTENTS
Baseboard
  RapID Generation 2 module installed and preloaded with protocol specific software
Wall mount ac adapter, 90 V ac to 264 V ac to 12 V dc, 12 W, 1 A
4 power supply plug adapters (A, C, G, and I types)
1 USB A male to USB micro B male cable
Ethernet cable

ADDITIONAL HARDWARE NEEDED
PC with Windows® 10 operating system

DOCUMENTS NEEDED
Protocol specific user guides available for download from the ADI Chronous Developer Portal
EtherCAT Quick Start Guide
EtherNet/IP Quick Start Guide
PROFINET Quick Start Guide
POWERLINK Quick Start Guide
Modbus TCP Quick Start Guide

GENERAL DESCRIPTION
This user guide describes how to set up the provided hardware of the evaluation kit and establish the link type specific host connection and connect the evaluation board to an industrial Ethernet network.

The operation of the EV-RPG2 boards vary by Industrial Ethernet Protocol, and separate user guides are available for each protocol on the ADI Chronous Developer Portal.

The EV-RPG2 evaluation kits provide an end to end evaluation of the communication path from the host processor to the programmable logic controller (PLC) or PC-based tool.

The EV-RPG2 evaluation kits can completely verify the communication path between the host processor and a PLC before integrating the network interface into the end field device.
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REVISION HISTORY

4/2020—Revision 0: Initial Version
EVALUATION KIT PHOTOGRAPH

Figure 1 shows the contents of the evaluation kit.

Figure 1. EV-RPG2 Evaluation Kit Example
EVALUATION BOARD SETUP

ELECTROSTATIC SENSITIVE DEVICE (ESD) WARNING

Handle the hardware in this evaluation kit in accordance with proper ESD device handling techniques. Use a grounding wrist strap when using this evaluation board to prevent accidental damage to the hardware.

POWER SUPPLY AND GROUNDING

A wall adapter power supply is included with the evaluation kit. This power supply is 12 V, 12 W, 1 A, and attaches to the barrel connector on the evaluation board. A screw terminal on the evaluation board allows attachment of a lab benchtop power supply. For either type of power supply connection, the input voltage to the board must be in a voltage range of 9 V to 42 V.

HARDWARE SETUP

The following steps detail the hardware setup process. The evaluation kit comes preinstalled jumpers and preset switches. To set up the evaluation kit, take the following steps.

1. Plug the provided ac adapter into the wall socket, and connect the barrel connector of the ac adapter to the baseboard, as shown in Figure 2. The Power Valid LED illuminates blue. At this point, the evaluation board is powered.

2. Switch the Power Enable switch on the baseboard to the ON position, as shown in Figure 3. The 3.3 V LED (V702) and the 5.0 V LED (V703) illuminate blue.

3. If it is necessary to reset the evaluation board, press the Reset switch, which illuminates two red LEDs, as shown in Figure 4.
CONNECTING THE ETHERNET HOST INTERFACE

Install the provided Ethernet cable between the host PC and the host port of the evaluation board as shown in Figure 5.

CONNECTING TO THE INDUSTRIAL ETHERNET

Use the two industrial Ethernet ports on the baseboard to connect the evaluation board to an industrial Ethernet network, as shown in Figure 6. The two industrial Ethernet ports are labeled Port 1 and Port 2 on the evaluation board.

LEGAL TERMS AND CONDITIONS

By using the evaluation board discussed herein (together with any tools, components documentation or support materials, the "Evaluation Board"), you are agreeing to be bound by the terms and conditions set forth below ("Agreement") unless you have purchased the Evaluation Board, in which case the Analog Devices Standard Terms and Conditions of Sale shall govern. Do not use the Evaluation Board until you have read and agreed to the Agreement. Your use of the Evaluation Board shall signify your acceptance of the Agreement. This Agreement is made by and between you ("Customer") and Analog Devices, Inc. ("ADI"), with its principal place of business at One Technology Way, Norwood, MA 02062, USA. Subject to the terms and conditions of the Agreement, ADI hereby grants to Customer a free, limited, personal, temporary, non-exclusive, non-sublicensable, non-transferable license to use the Evaluation Board FOR EVALUATION PURPOSES ONLY. Customer understands and agrees that the Evaluation Board is provided for the sole and exclusive purpose referenced above, and agrees not to use the Evaluation Board for any other purpose. Furthermore, the license granted is expressly made subject to the following additional limitations: Customer shall not (i) rent, lease, display, sell, transfer, assign, sublicense, or distribute the Evaluation Board; and (ii) permit any Third Party to access the Evaluation Board. As used herein, the term "Third Party" includes any entity other than ADI, Customer, their employees, affiliates and in-house consultants. The Evaluation Board is NOT sold to Customer; all rights not expressly granted herein, including ownership of the Evaluation Board, are reserved by ADI. CONFIDENTIALITY This Agreement and the Evaluation Board shall all be considered the confidential and proprietary information of ADI. Customer may not disclose or transfer any portion of the Evaluation Board to any other party for any reason. Upon discontinuation of use of the Evaluation Board or termination of this Agreement, Customer agrees to promptly return the Evaluation Board to ADI. ADDITIONAL RESTRICTIONS. Customer may not disassemble, decompile or reverse engineer chips on the Evaluation Board. Customer shall inform ADI of any modifications to the Evaluation Board. TERMINATION. ADI may terminate this Agreement at any time upon giving written notice to Customer. Customer agrees to return to ADI the Evaluation Board at that time. LIABILITIES AND LIMITATIONS. ESD (electrostatic discharge) sensitive device. Charged devices and circuit boards can discharge without detection. Although this product features patented or proprietary protection circuitry, damage may occur on devices subjected to high energy ESD. Therefore, proper ESD precautions should be taken to avoid performance degradation or loss of functionality.

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