



grid connect GRID45 Evaluation Kit User Guide

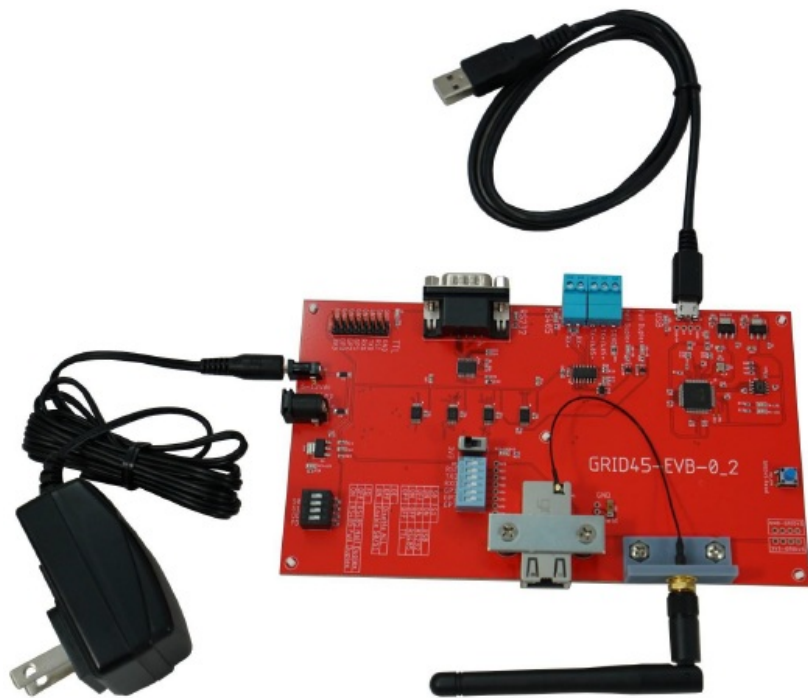
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grid connect GRID45 Evaluation Kit



Product Information

The GRID45 Evaluation Kit is a comprehensive package designed to quickly set up and use the GRID45 OEM module. The kit includes all the necessary components and documentation to facilitate the evaluation and integration of the module into various IIoT applications. The GRID45 OEM module is a powerful co-processor module that combines Wi-Fi and Ethernet capabilities. It is specifically designed to be easily integrated into an OEM's host processor, offering a range of IIoT communication protocols. With its small form factor, the GRID45 provides a fully integrated network solution.

Features:

- Combination of Wi-Fi and Ethernet capabilities
- Support for popular IIoT communication protocols
- Small form factor for easy integration
- Powerful co-processor module

Specifications

- Revision: A.2
- Date: August 7, 2023
- Manufacturer: Grid Connect Inc.
- Trademark: Grid Connect and GRID45TM
- Address: 1630 W. Diehl Rd. Naperville, IL 60563, USA
- Contact Phone: 630.245.1445
- Technical Support Phone: 630.245.1445
- Technical Support Fax: 630.245.1717
- Website: www.gridconnect.com

Product Usage Instructions

Quick Start Setup:

To quickly set up the GRID45 Evaluation Kit, follow these steps:

1. Install the GRID45 Module:
 - Refer to the provided documentation for detailed instructions on how to physically install the GRID45 module into your host processor.
2. Powering the Evaluation Board:
 - Connect the power supply to the evaluation board according to the instructions provided in the documentation.

Connecting a Serial Interface:

If you need to connect a serial interface to the GRID45

Evaluation board, follow these steps:

1. Refer to the provided documentation for the pinout and connection details of the serial interface.
2. Connect the serial interface to the appropriate pins on the evaluation board, ensuring proper alignment and secure connections.

Connecting to the Network Interface:

If you want to connect to the network interface of the GRID45

Evaluation board, follow these steps:

1. Refer to the provided documentation for the network interface specifications and connection details.
2. Connect the network interface to the evaluation board using the recommended cables or connectors.

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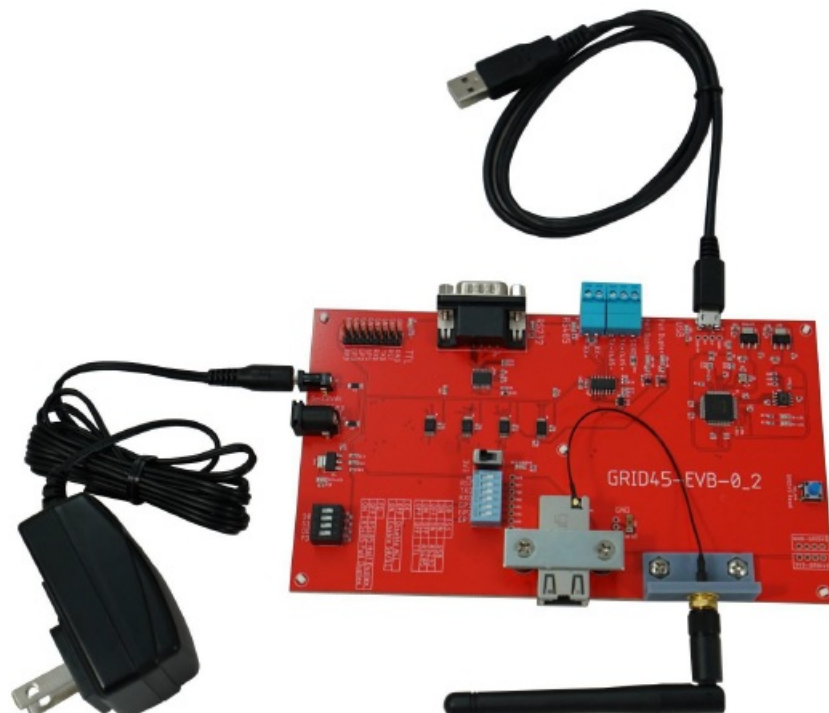
Operation of this equipment in a residential area is likely to cause interference in which case the user, at his or her own expense, will be required to take whatever measures may be required to correct the interference.

Attention: This product has been designed to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with this guide, may cause harmful interference to radio communications. Changes or modifications to this device not explicitly approved by Grid Connect will void the user's authority to operate this device. The information in this guide may change without notice. The manufacturer assumes no responsibility for any errors that may appear in this guide.

OVERVIEW

Introduction

This Quick Start guide provides the information needed to quickly setup and use the GRID45 Evaluation Kit. The intended audience is any Test, Software or Design engineer that is responsible for qualifying, testing or integrating the GRID45 into their product. The GRID45 OEM module is a powerful, Wi-Fi + Ethernet co-processor module that can be used in a wide variety of IIoT applications. It is designed to be a simple, easy to integrate add-on module to an OEM's host processor that provides many of the popular IIoT communication protocols. The GRID45 is a fully integrated network solution in a small form factor module.



The GRID45 Evaluation Board provides a flexible test and qualification platform for all variations of the GRID45 module. The evaluation board uses a multiplexor circuit to provide four optional, external serial connection options

to the single serial interface on the GRID45 module. This allows OEMs to test the GRID45 in any one of the following modes:

- RS232 serial connection
- RS485/RS422 serial connection
- USB serial for a connection to a PC
- Direct TTL connection (all eight signals) to the OEMs host controller UART interface through the Multiplexor circuit.

The Evaluation board is easily powered using the provided +5V wall adaptor and provides pin sockets for a GRID45 module to be easily plugged into the evaluation board. The pin sockets also allow the module to be swapped in or out.

Additional Documentation

The following additional user guides and documents are available for download on the internet.

Title	Description and Location
GRID45 Modbus User Guide	Document providing Quick Start instructions and describing the Modbus firmware configuration and operation. www.gridconnect.com
GRID45 Evaluation Board User Guide	User Guide for the GRID45 Evaluation kit www.gridconnect.com
GRID45 Module Data Sheet	Documentation for the GRID45 module hardware. www.gridconnect.com
GRID45 Modbus Product Brief	Overview of the GRID45 Modbus module www.gridconnect.com

Software User Guide Documentation

For the User Guide documentation on the GRID45 module and the evaluation kit, please see the applicable GRID45 software User Guide. For example, if you are interested in evaluating the GRID45 Modbus module, please refer the GRID45 Modbus User Guide.

Tools required (or suggested) to use the GRID45 Evaluation board.

The following tools will be helpful to complete the following examples

- USB to RS232 serial adapter
- USB cable Type A to Micro connector
- Grid Connect Devie Manager Program (Free Download)
 - <https://gridconnect.box.com/s/9nh54cxizqlnad9zb92n4833wn0gxn9q>
- Tera Term software (Free download)
 - https://github.com/TeraTermProject/osdn-download/releases/tag/teraterm-4_106

Evaluation Kit

Contents of the GRID45 Evaluation kit

The GRID45 Evaluation Kit contains the following items:

- GRID45 Evaluation Board

- 5V wall adaptor
- USB Cable Type A to Micro connector
- Insulated w.fl antenna cable to reverse SMA connector
- Dipole antenna

Note: You must buy a GRID45 module separately for use with this Evaluation Kit. The GRID45 Evaluation board supports multiple versions of the GRID45 module. Each GRID45 module can run different Industrial Automation protocols.

Part Numbers for the GRID45 Evaluation Kit

Part Number	Description
GRID45-EVAL-BD-110	GRID45 Evaluation Kit for 110 Vac US
GRID45-EVAL-BD-U	GRID45 Evaluation Kit for 110/220 Vac International Plugs



Quick Start setup

Install the GRID45 Module

The evaluation board has pin sockets for the GRID45 module that makes it easy to plug in the GRID45 module on the board. The pin sockets allow the module to be interchanged or swapped out as the testing or qualification requires.

1. Make sure power is off to the Evaluation board
2. Remove the Hold down bar by un-screwing the 2 screws.
3. Carefully line up and install the GRID45 module
4. Re-install the hold down bar by screwing in the 2 screws.

Documents / Resources

 	grid connect GRID45 Evaluation Kit [pdf] User Guide GRID45, GRID45 Evaluation Kit, Evaluation Kit, Kit
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References

- [Grid Connect: Your networking products authority.](#)
- [Grid Connect: Your networking products authority.](#)
- [Release Tera Term 4.106 · TeraTermProject/osdn-download · GitHub](#)
- [Box](#)