71M6515H Demo Board

QUICK START GUIDE

Getting Started

The TERIDIAN Semiconductor Corporation (TSC) 71M6515H Demo Board is a demonstration board for evaluating the 71M6515H meter AFE IC for three-phase electronic power metering applications. It incorporates a 71M6515H integrated circuit, peripheral circuitry, and on-board power supply as well as a companion Debug Board that allows a connection to a PC through a RS232 port. The Demo Board allows the evaluation of the 71M6515H energy meter AFE chip for measurement accuracy and overall system use.

A PC-resident program provides a graphical user interface (GUI) that enables the user to control and evaluate all important chip functions without having to write software.

Safety and ESD Notes

Connecting live voltages to the demo board system will result in potentially hazardous voltages on the demo board.

EXTREME CAUTION SHOULD BE TAKEN WHEN HANDLING THE DEMO BOARD ONCE IT IS CONNECTED TO LIVE VOLTAGES!

THIS DEMO SYSTEM IS ESD SENSITIVE! ESD PRECAUTIONS SHOULD BE TAKEN WHEN HANDLING THE DEMO BOARD!
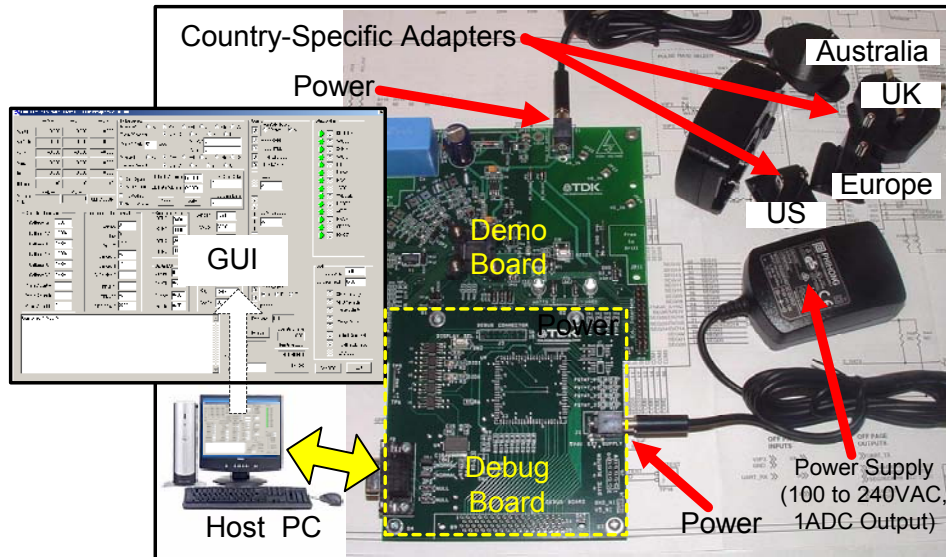
Demo Board Kit Contents

- 71M6515H Demo board containing one 71M6515H IC (rectangular PCB) in 64-pin LQFP socket.
- Debug Board (small rectangular PCB)
- Two 5VDC/1,000mA universal voltage wall transformers w/ 2.5mm plug (Switchcraft 712A compatible)
- Serial cable, DB9, Male/Female, 2m (Digi-Key order number AE1020-ND)
- CD-ROM containing 71M6515H data sheet, PC-resident program (GUI) and Demo Board Documentation (PDF files), Utilities

Demo Board Test Setup

The file DBUM6515.pdf is a document containing detailed instructions on how to set up and use the Demo Board. **This document should be carefully read** and understood before attempting to use the Demo Board.

The figure below shows the basic connections of the Demo Board plus Debug Board with the external equipment.

Using the Demo Board

The Demo Board is a ready-to-run meter with a Kh of 3.2 Wh/pulse (if used with CTs with 2,000:1 winding ratio). The Demo Board has been tested on a meter calibration system, but it has not been calibrated. Please refer to the Demo Board User's Manual for further details on how to use the Demo Board.

Documentation

All data sheets and User's Manuals are provided in electronic form, i.e. on the CD-ROM supplied with this kit. The TERIDIAN Semiconductor web site should be checked frequently for updates.

Software/Utilities

The PC program (GUI) can be found on the supplied CD-ROM. The Windows ® 2000 operating system is required to run the executable (PMTest.exe).

Support

Support is available from:

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