

USB to I²C Interface Adapter Kit

Model ZM00056-KIT

User Manual

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Introduction

The USB to I²C interface adapter kit includes a USB to I²C interface adapter part number ZM00056 and a 4-foot I²C cable. The adapter is intended for communication between a PC equipped with a USB port and the I²C interface on a ZM7100 or ZM7300 series Digital Power Manager.

1. Reference Documents

The I²C-Bus Specification, Version 2.1, Philips Semiconductors
ZM7100 Digital Power Manager. Data Sheet
ZM7300 Digital Power Manager. Data Sheet
Z-Alliance Graphical User Interface Version 6.0.0 or later

2. Description

The adapter is shown in Figure 1. The dimensions of the adapter are approximately 3" by 1" by 0.75".



Figure 1. USB to I²C Interface Adapter Model ZM00056

The I²C connector is a Tyco Electronics connector part number 4-943197-1. The pinout of the connector is shown in Figure 2.

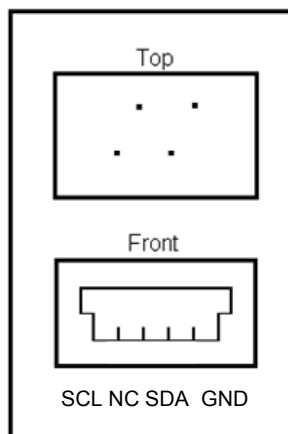


Figure 2. Pinout Of I²C Connector

The 4-foot I²C cable shown in Figure 3 is used to connect the adapter to a board with ZM7100 or ZM7300 series Digital Power Managers. For proper interface, the board needs to have the Tyco connector mentioned above or equivalent.

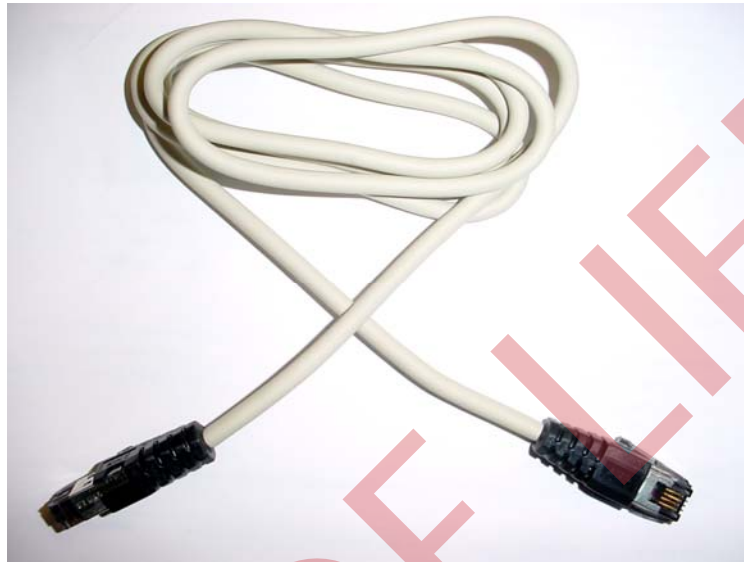


Figure 3. I²C Cable

3. Setup

3.1 GUI Installation

1. Launch the GUI Installer
2. Follow directions on the screen. When the warning message shown in Figure 4 appears, click **Continue Anyway** and complete the installation

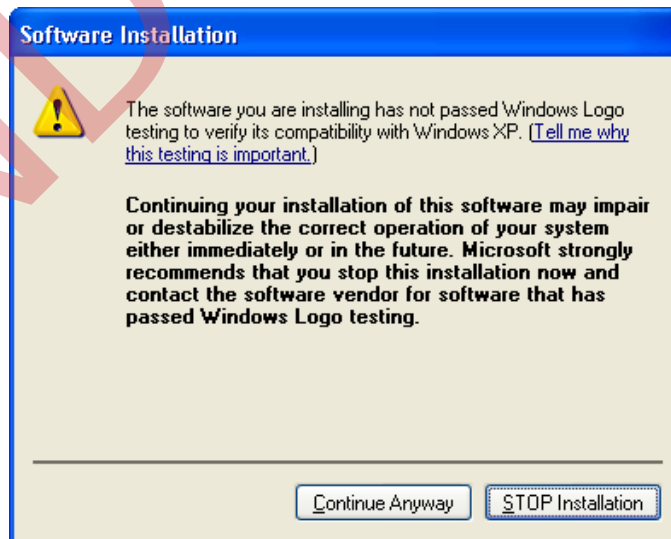


Figure 4. Software Installation Warning Message

Note: Drivers for the USB to I²C interface adapter are downloaded during installation of the GUI.

3.2 Connecting the Adapter

1. Plug the adapter into a USB port on the host PC as shown in Figure 5.



Figure 5. Adapter Plugged Into USB Port

2. If the adapter is plugged in for the first time, the Windows will start the **Found New Hardware Wizard**. Allow Windows searching for the software and click **Next** in the **Welcome to the Found New Hardware Wizard** window shown in Figure 6




Figure 6. Welcome to the Found New Hardware Wizard Window

3. In the next window, select **Install the software automatically** and click **Next**
4. When the warning message shown in Figure 7 appears, click **Continue Anyway** and complete the installation



Figure 7. Hardware Installation Warning Message

4. Operation

1. When the adapter is plugged in the USB port, the red LED on the top of the adapter will start flashing every 3s, indicating that the adapter is properly powered and in the idle mode.
2. Connect the adapter to the target board using the enclosed I²C cable.
3. Double-Click the maXyz icon  to launch the GUI
4. Click **Operate System** in the Introduction Window. The **IBS Monitoring** window shown in Figure 9 will appear
5. Click **Connect** in the **IBS Monitoring** window. The USB interface window shown in Figure 8 will appear

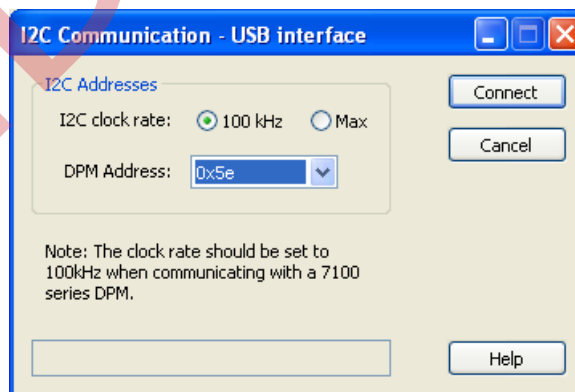


Figure 8. USB Interface Window

6. Select the DPM address according to the settings on the target board and an appropriate I²C transmission speed.
7. Click **Connect**. The **IBS Monitoring** window will start displaying status and parametric information as shown in Figure 10. The LED will be ON during periods when data is transmitted over the I²C interface.

Troubleshooting Tip: If the USB connection is not established, the Serial Interface window will appear. Close the window, unplug and plug back the USB cable, and repeat steps 5 to 7.

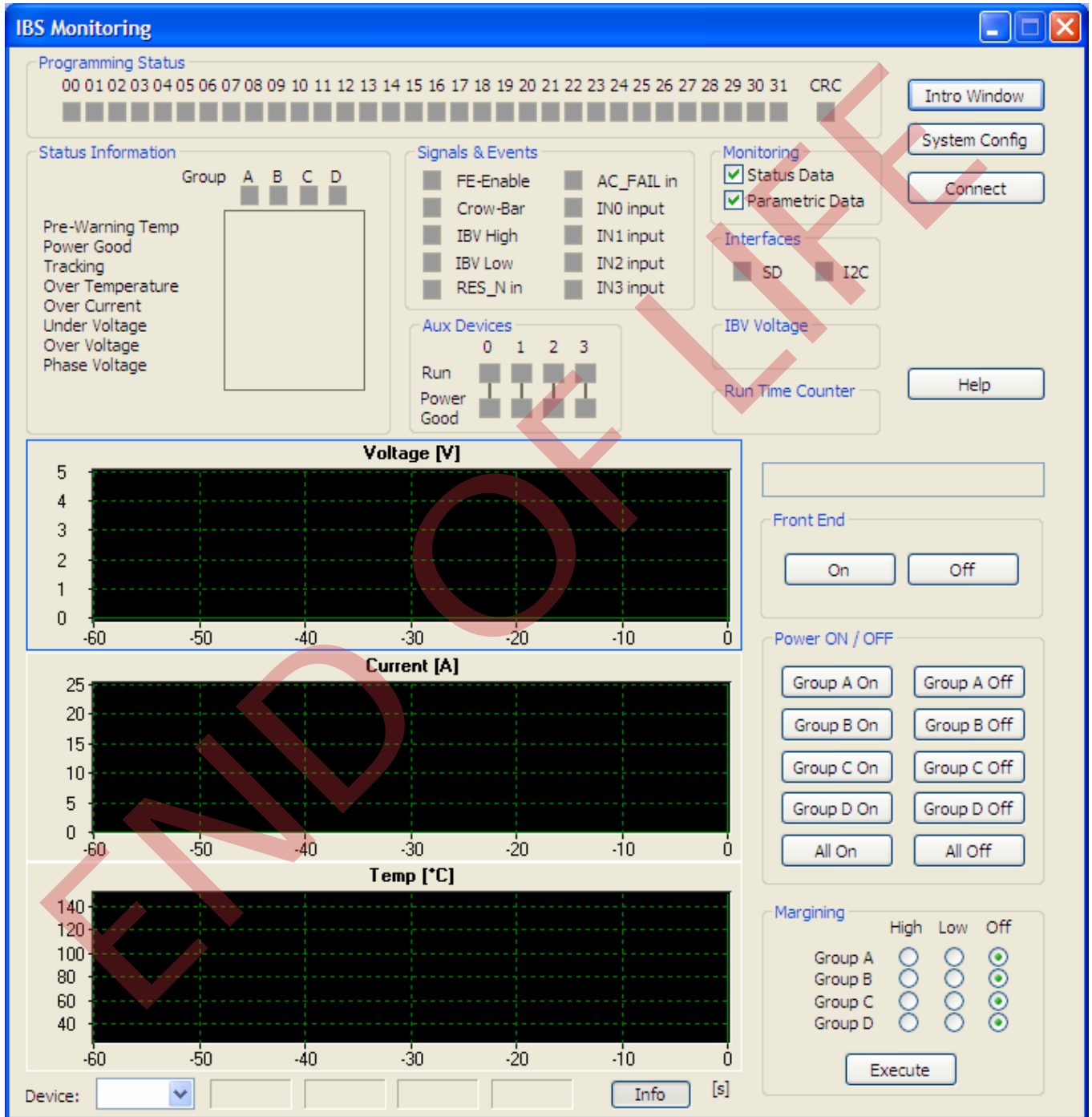


Figure 9. IBS Monitoring Window, Communication Is Not Established

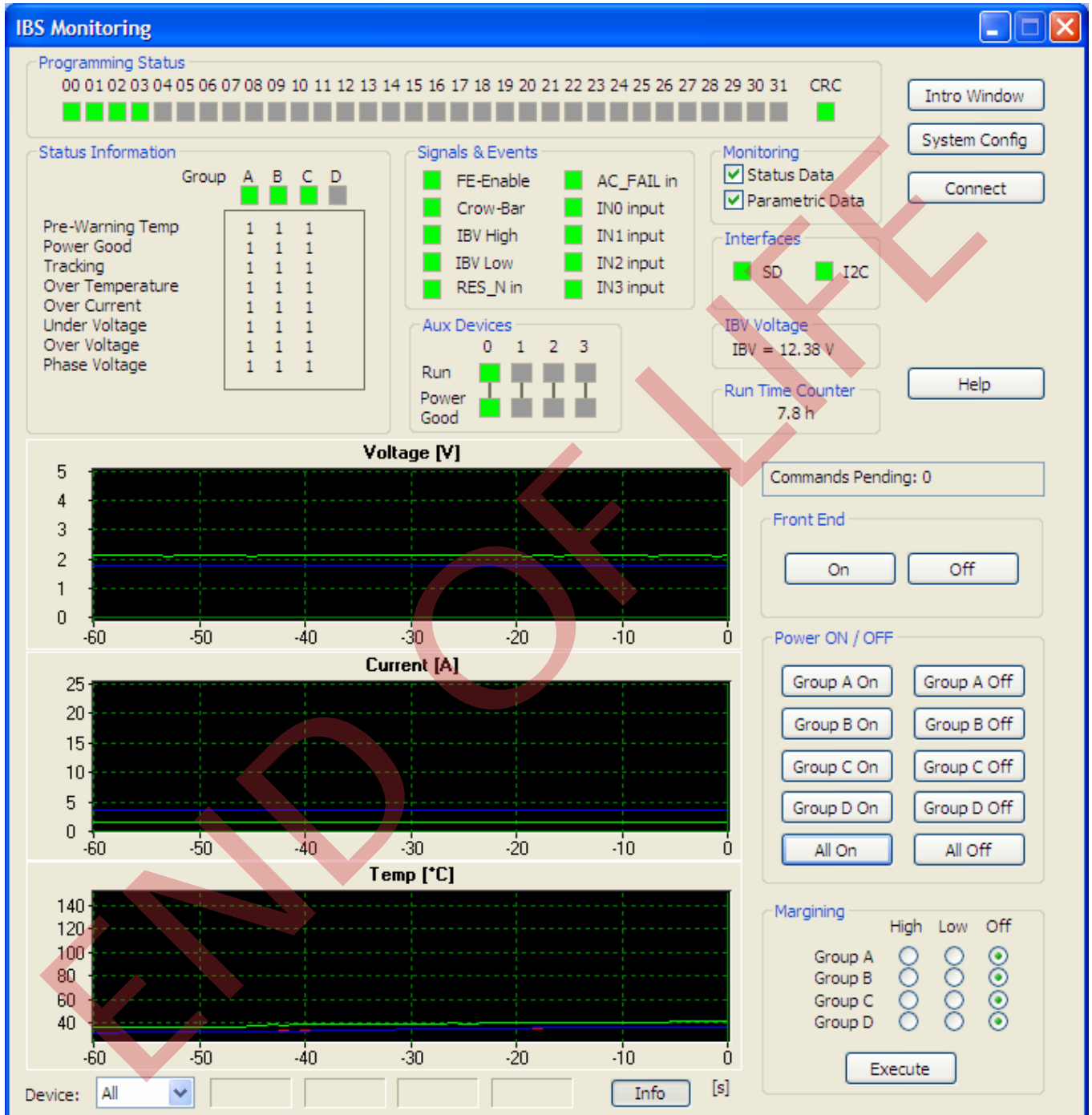


Figure 10. IBS Monitoring Window, Communication Is Established