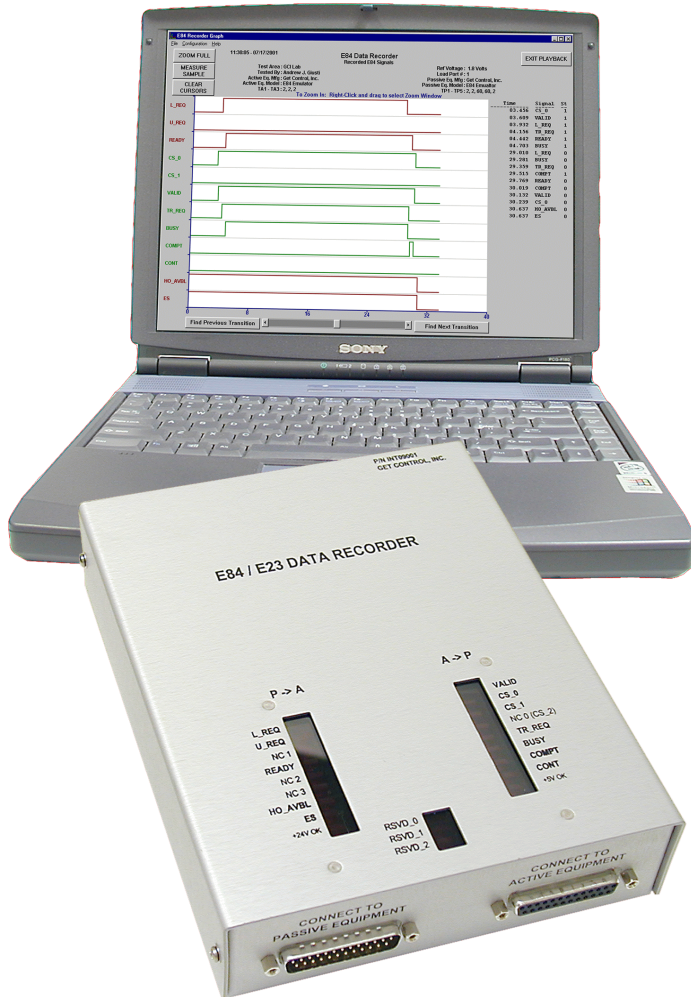


Semiconductor Equipment Testing SEMI E84/E23 Communications Interface



E84/E23 Data Recorder

INT09001

Factory automation is used extensively in 300mm semiconductor fabrication facilities. The majority of new process equipment and automated material handling systems (AHMS) are equipped with E84 Enhanced Parallel Input/Output (PI/O) interfaces. GCI's E84/E23 Data Recorder provides a non-intrusive solution to locate and resolve a wide range of EPI/O interface related problems during installation and scheduled and unscheduled maintenance. It is also compatible with the E23 Parallel Input/Output specification used in 200mm automation.

Connected to a parallel printer port on a PC, the GCI E84/E23 Data Recorder captures the PI/O signals on the interface between active equipment (AHMS) and passive equipment (production equipment) during material handoff operations. GCI's powerful windows-based graphical acquisition software provides an easy to use interface with no programming required. The GCI E84/E23 Data Recorder is an indispensable tool for capturing and analyzing PI/O interface signals without interrupting the work stream.

FAST SETUP

The Configuration menu drops down to allow you to specify data acquisition options including interface type, voltage reference level, default recording X-axis time scale, and short and long-term recording modes. Test information such as operator name, test location, equipment manufacture and model number, and timeout values may also be entered.

FLEXIBLE RECORDING

The GCI E84/E23 Data Recorder provides two recording modes, Short-Term and Long-Term. The GCI E84/E23 Data Recorder samples the interface signals simultaneously every 1 millisecond (1 KHz). Using a transitional recording method, signal changes on the interface are captured to disk for playback and analysis. A single Load or Unload cycle typically requires only 100 bytes of disk space.

Short-Term recording mode is ideal for capturing one or more Load and Unload cycles. It is typically used to document or troubleshoot the handshaking between the AHMS and process equipment. In Short-term recording mode, the interface signals may be observed in the real-time graph window as they are captured.

Long-Term recording mode provides continuous recording of the interface signals over a period of several hours or days. This mode is useful for troubleshooting intermittent exceptions occurring on the interface between the AHMS and the process equipment.

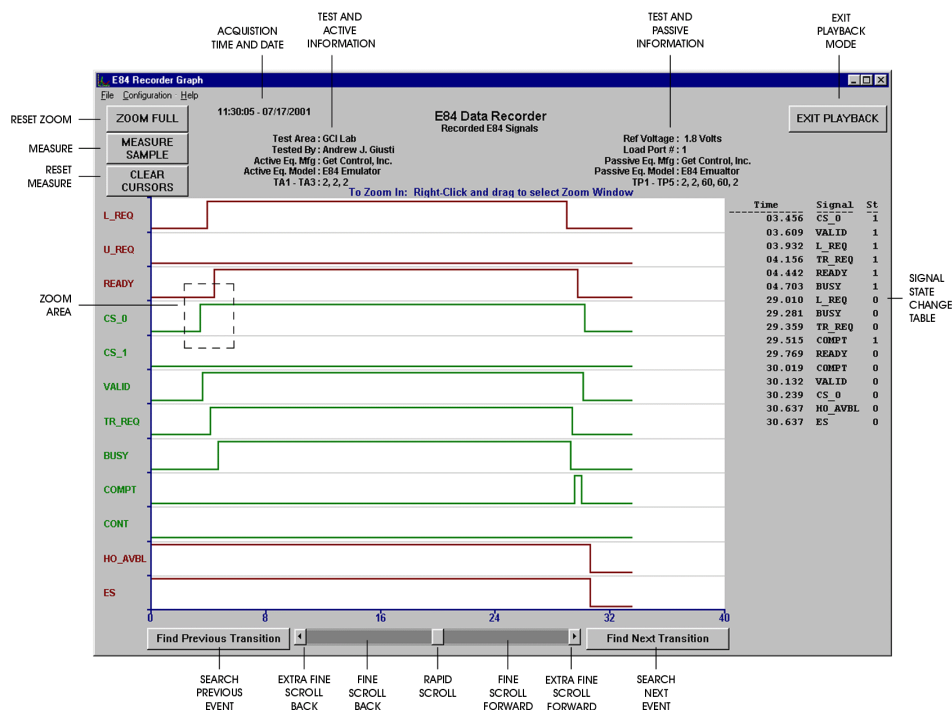
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POWERFUL ANALYSIS

The Playback Analysis Mode is powerful, yet easy to use. Initially, the entire recorded data set is displayed on a timing diagram in the Playback Analysis Mode Graph Window. Using the interactive zooming, scrolling, and search features, you can quickly locate and view even the smallest details of your recorded data. A time-stamped signal state change table is also provided for reference.

ZOOM

Focus in on a specific area of your timing diagram with the Graph Zoom Tool. Simply draw a rectangle around a specified area on the timing diagram to expand the area of interest in the Playback Analysis Graph Window. Select the Zoom Full button to re-display the entire recorded data set.

SYSTEM REQUIREMENTS

- Laptop or Desktop PC
- Windows 95, 98, NT 4.0 or 2000
- ECP parallel printer port
- 40 MB hard disk space

PACKAGE CONTENTS

- E84/23 Data Recorder
- E84/23 Data Recorder CD ROM
- 6' male-male DB-25 cable
- 2- 15' male-female DB-25 cables
- 6' power cable (North American)
- User's guide

SPECIFICATIONS

- 110 or 220VAC, 60 or 50Hz, 0.3A
- ECP PC Parallel Port Interface
- Passive and Active entity interfaces
- 16 input channels
- 1 KHz Sample Rate
- Hardwire implementation compatible
- Optical transceiver compatible
- W 159 mm (6.25")
- D 203 mm (8.0")
- H 45mm (1.75")

PAN

Pan forward and back through your recorded data using the Playback Scroll Feature. A single scroll bar provides three scrolling methods for rapid, fine and extra fine scrolling.

MEASURE

Measure the time between any two signal transitions using the Delta Signal Measurement Tool. This tool can measure the time between two transitions on the same signal or between transitions on different signals.

SEARCH

Search for an event on a specific signal with the Transition Search Tool. Use this tool to locate the next or previous signal transition of a specific signal from the current location in the Playback Analysis Mode Graph Window.

SAVE AND EXPORT DATA

Recorded data can be saved and reloaded for analysis at a later time. Four options are also provided for exporting data for printing or sharing with other applications such as wordprocessors and spreadsheets. Create a formatted ASCII text file of your recorded data using the Export Data to Text File feature. Export a graph in standard or enhanced Windows metafile formats with the Export Graph as Metafile option. The Export Graph as Bitmap option creates a bitmap file of the currently displayed graph.