CardBus Analysis Probe and Interposer

For use with Agilent Logic Analyzers

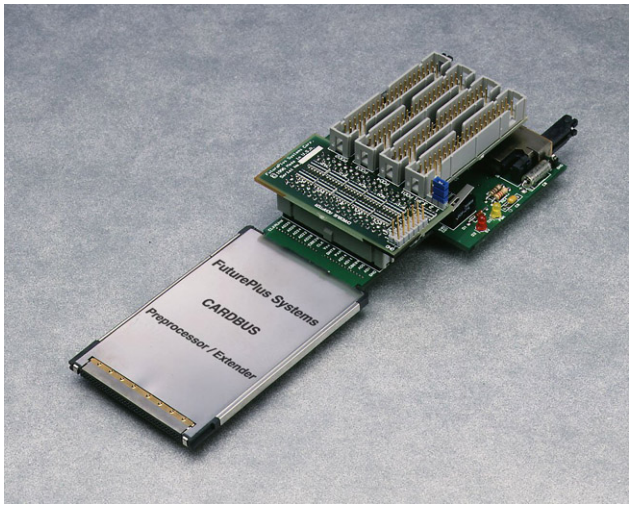
FuturePlus® Systems

Power Tools for Bus Analysis

Straightforward, Reliable CardBus Analysis

The FS2004 CardBus Analysis Probe provides an electrical and mechanical interface to Agilent logic analyzers for passive CardBus bus analysis. In State Analysis mode, the bus protocol decode software executes in the Agilent logic analyzer and decodes the key CardBus signals.

A readable display is presented that lists the transaction type, address, data and address modifiers. The software also supports user-defined symbols that can be easily added to the state listing display. To assist with triggering, pre-defined resource terms have been included.



FS2004 CardBus Analysis Probe and Interposer

Key Features

- Low profile design compatible with Type I, II, or III sockets.
- 6 layer construction insures a low noise environment.
- All 68 pins available as test points, to be used for high speed timing analysis or an oscilloscope connection.
- Surface mount components can be added in series to any signal line.
- 32-bit CardBus signals clearly marked.
- Reliable and accurate 32-bit CardBus analysis.
- Complete State Analysis to 33 MHz, Timing Analysis to 500 MHz.
- Logic Analyzer Configuration Software gets you up and running fast.
- CardBus protocol decode assembly software executes in your Agilent logic analyzer.
- No need for flying leads or termination adapters.
- CardBus module under test extends beyond the host board for easy debug.
- Passive buffering of signals provides accurate Timing Analysis.
- Post-Processing filters allow you to display just want you want to see, and suppress the rest!
- Extender Card function supports bus analysis AND extender card capability.
- Card insertion/removal operation simulated by Swap Switches.
- Vcc LED's indicate 3.3V or 5V operation.
- Vcc can be isolated through jumper blocks for current measurements

Helping you Design Tomorrow's Computers, Today

FuturePlus Systems is the technology leader in protocol analysis tools for the computer design industry. Our analysis probes and software help you monitor and verify complex activities on your advanced technology computer bus design. FuturePlus systems offerings include bus-analysis solutions for most popular computer buses. Visit www.futureplus.com for more information.

Agilent Technologies

Channel Partner

General Description

The CardBus analysis probe and extender card provides three functions:
1) Acts as an extender for a CardBus module beyond the host board front panel, and provides access to both sides for easy debug. Pads are available to add series resistors if necessary to compensate for the extension of your card.

2) Provides an electrical and mechanical interface to Agilent logic analyzers for passive CardBus bus analysis. The passive logic analyzer termination presents a single electrical load on the CardBus via low capacitance (10 pf), high impedance terminators, and also provides a matched impedance to the logic analyzer. The analysis probe includes four, 40 pin logic analyzer connectors.

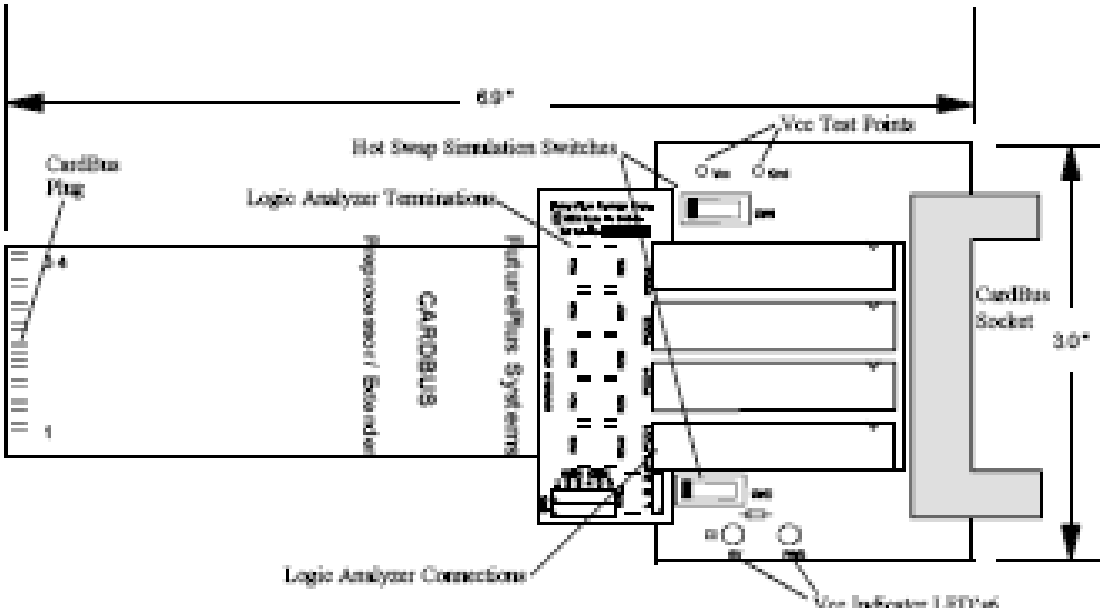
3) Provides test points to measure the power and signal fidelity of the CardBus bus.

The CardBus protocol decode software executes in your Agilent logic analyzer. In State Analysis mode, the analyzer master clock is derived from the CardBus clock. The bus decoder software decodes the key CardBus bus signals and presents a readable display that lists the transaction type, address, data, and key status conditions, such as wait states and retries. The software also supports user-defined symbols that can be easily added to the state listing display. The user can also select post-processing filters which allow the acquired data to display only chosen transactions.

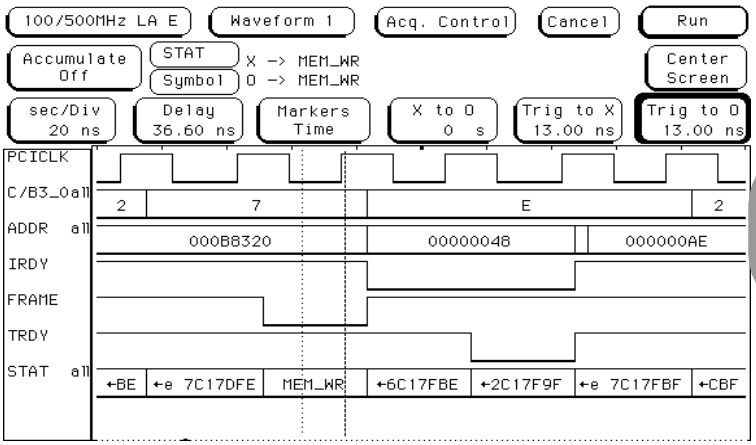
To assist with triggering, pre-defined resource terms have been included that can be used to prevent WAIT and IDLE states from being acquired, thus saving trace memory and providing an easier-to-read state display. FuturePlus Systems also provides a PCI bus triggering application note to all its CardBus analysis probe customers.

In Timing Analysis mode, the logic analyzer provides the master clock to make precision timing measurements. All signals are also available for probing with an oscilloscope or high speed timing analyzer.

FS2004 Mechanical Drawing

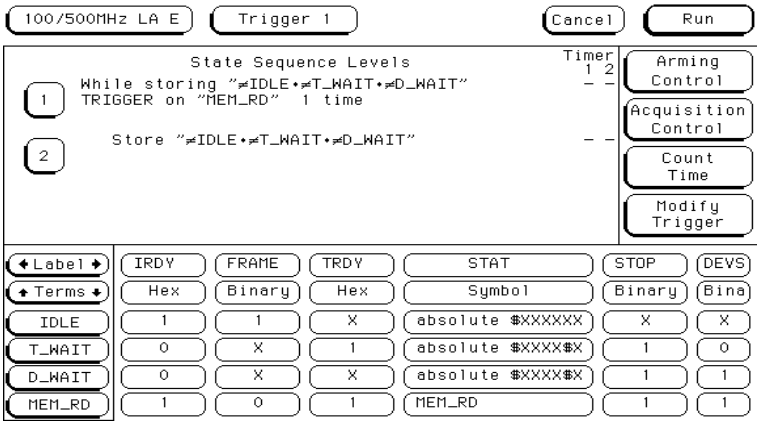


Timing Analysis

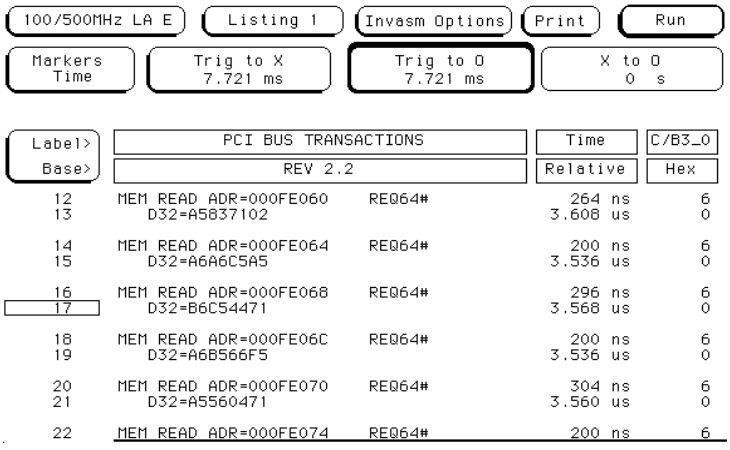


Matched signal length, low capacitive loading, and no active buffering of the CardBus signals makes the FS2004 ideal for accurate and easy timing analysis.

The CardBus analysis probe software contains pre-defined trigger terms that help track down those hard to find bugs.

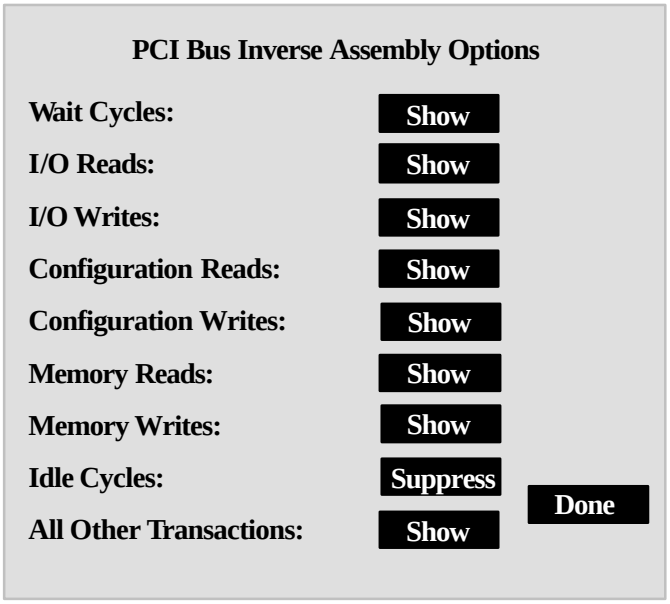


State Analysis



The CardBus Inverse Assembler software translates the acquired data into PCI CardBus transactions at the full bus speed.

CardBus transaction inverse assembly options post-process the acquired data. This feature allows the user to customize the display to show only the transactions or cycles that are of interest.



Ordering Information

FS2004 CardBus Analysis Probe and Extender Card

Software included with the FS2004:
Configuration files for the Agilent logic analyzer
Protocol Decoder software, runs on the Agilent logic analyzer

Logic Analyzer Requirements

The FS2004 supports all Agilent 1670, 16700, 1680, 1690, 16800 and 16900-series Logic Analyzers that have 40 pin connectors. Pod requirements are listed below:

For 32-bit protocol or timing analysis, the FS2004 requires 4 40-pin 33 MHz logic analyzer pods

Please note: for the most up-to-date information about Agilent logic analyzer compatibility, please check the FuturePlus Systems website at:
http://www.futureplus.com/products/fs2004/fs2004_sysreq9.shtml

We offer excellent technical support and quick delivery.

More information and application notes are on the FuturePlus Systems website at:
http://www.futureplus.com/products/fs2004

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