FS2801 DDR Detective

For LPDDR3 Protocol, Compliance, Performance and Trace all in one tool!

Key Features

- Supports LPDDR3 bus protocols
- Analyzes bus speeds up to and including 1600MT/s
- 8GB Internal memory can stores up to 512M Captured States!
- Powerful user interface includes sophisticated triggering and store qualification
- Real time analysis, not post-processing
- Eye Detector guarantees valid data acquisition
- Protocol Violation Detector executes hundreds of simultaneous real time tests
- Command Bus and Data Bus Performance and Power Utilization measurements
- Interactions among up to 4 ranks
- Mode register capture is supported on up to 4 ranks,
- Supports Auto-Clock rate detect, MRS capture / decode
- Connects to the target under test with BGA interposers or a midbus probe FS2826
- Trigger Out to a Scope or other test equipment
- Trigger In to trigger and store trace
- Supports Clock stoppage

NEW up to 512M captured states!
Hardware Filtering (storage qualification) gives 70% more!

Helping you Design Tomorrow’s Computers, Today
FuturePlus Systems is the technology leader in protocol analysis tools for the computer design industry. Our protocol, performance and power management analyzers combined with our Interposers 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.
Easy Triggering and Storage Qualification

- Trigger on any command or violation
- Comprehensive store qualification
- Store only certain commands or just violations
Protocol Violations

- Supports over 40 LPDDR protocol violations on all banks and ranks for hundreds of concurrent checks
- Analyzes LPDDR3 bus speeds up to 1600MT/s
- Compliance parameters preprogrammed but easily modified for unique configurations
- Ability to enable and disable each compliance test
- Monitors and displays running totals of the test failures once per second.
- Real time analysis, not post-processing

Continuous monitoring of the LPDDR3 bus

Compared to the traditional trigger on violation, stop then trace
Trigger out to Logic Analyzer or scope

Find Problems Faster!
Waveform and State Listing

The FS2800 State Listing and Waveform displays 512M states.

- Selecting which signals will be displayed
- Trace around the trigger point
- Decode of bus protocol
- See the violation on the exact state it occurs on

Hardware tracks Rank Power Status for Power Management Analysis.

Waveform allows for notes to be added.
On every clock! Real Time All The Time Continuous Analysis

What does this mean? Currently available products capture a miniscule amount of DDR traffic, count the events in the trace and then display. Deadtime between traces and trace depth give only a small sampling of actual DDR events. The DDR Detective uses new breakthrough architecture to accumulate events on EVERY clock cycle! Thus no bus events are missed. This never been done before feature gives unprecedented insight into DDR bus activity for validation, system architects, software engineers and designers.
Connecting to the Target

- BGA Interposers
- MidBus Footprint

FS2425 BGA cable adapter to Agilent BGA Interposers

FS2826 Flexible Midbus connection

Ordering Information

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<tr>
<td>FS2801</td>
<td>LPDDR3 DDR Detective</td>
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<tr>
<td>FS2851</td>
<td>ADD FS2800 DDR3/DDR4 Trace to the FS2801*</td>
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<tr>
<td>FS2820</td>
<td>Add DDR4 Violation Detection to DDR Detective*</td>
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<td>FS2850</td>
<td>Add DDR4 Performance Counters to DDR Detective*</td>
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<tr>
<td>FS2826</td>
<td>Add DDR Midbus A/C/C Connection for DDR Detective</td>
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<tr>
<td>FS2425</td>
<td>DDR3 BGA Cable Adapter and SW upgrade to support BGA</td>
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<td>FS2852</td>
<td>DDR4 BGA Cable Adapter and SW upgrade to support BGA</td>
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</tbody>
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* DIMM, SODIMM, BGA and Midbus probing also available for DDR3 and DDR4

See [http://www.futureplus.com/products](http://www.futureplus.com/products) for detailed requirements.

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