

Agilent Technologies in collaboration with KTH/IEEE EDS present the

2003 High-Speed Digital Seminar

A half-day event, at Electrum in Kista on April 2nd
In lecture room C1, Electrum, Isafjordsgatan 22/Kistagången 16

- **Why This Seminar is Important**

Recent breakthroughs in test technology from Agilent Technologies enable our customers to tackle their greatest high-speed digital design and validation challenges more effectively than ever before. Higher speeds and band-widths, new signal integrity measurement and probing technologies – along with more user-friendly interfaces – combine to accelerate the design and validation process to help you get your products to market faster.

- **What to Expect**

You are invited to this complimentary half-day seminar, where you will see the latest signal integrity measurement and protocol analysis innovations focusing on both design and validation solutions from Agilent Technologies. You will learn about the most advanced applications, solutions, and technologies in high-speed digital signal integrity areas such as eye diagram measurements for computer and communications buses, common challenges and new techniques on active probing, and how different jitter measurement techniques are best applied in digital circuits.

In addition, you will have a unique opportunity to meet with our technical experts and applications engineers for informal discussions.

- **Who Should Attend**

This seminar will be valuable to engineers in a number of industries where new high-speed memory, I/O, or communications technologies are being implemented.

- **Agenda**

12.15	Registration
12.30	Shortening the Development Cycle through effective Eye Measurements
13.30	BREAK & DEMO
14.00	Achieving Higher Bandwidth Connectivity with High-speed Active Probes
15.00	BREAK & DEMO
15.30	Jitter Measurements in Digital Circuits
16.30	DEMO followed by questions & discussions
17.00	End

- **How to Register?**

You can register to this event by phone, email or web:

Tel: 0200-88 22 55
E-mail: kundcenter_sverige@agilent.com
Web: www.agilent.se/Test & Mät/Event

Paper Presentations

“Shortening the Development Cycle through effective Eye Measurements”

For high-speed computer and communications buses, eye diagrams give a comprehensive overview of signal integrity effects at a glance. For this reason, eye diagram measurements are an important part of signal integrity validation. In this paper you will learn what information is visible in an eye diagram, how eye diagrams can help you achieve your signal integrity goals, where eye diagrams play a role in the development cycle, what tools are available from Agilent and Agilent's partners for eye diagram measurements.

“Achieving Higher Bandwidth Connectivity with High-speed Active Probes”

High-speed digital designers usually select the oscilloscope first for signal integrity measurements, and then worry about how to get the signal into the scope later. But for multi-GHz measurement applications, today's high-speed digital designer should consider the active probe first, and then worry about which scope to put behind it. This presentation will present some of the common problems associated with high-speed active probing, and demonstrate some novel techniques for solving these probing problems. Two of the biggest problems associated with high-speed active probing are the physical connection resonances and making the physical connection without bandwidth loss. This presentation shows how Agilent Technologies has solved the in-band resonance problem with a damped resistive tip technology that results in a flat transmitted frequency response. In addition, we will show how Agilent has addressed the connectivity bandwidth loss problem by employing a new physical topology that maximizes bandwidth performance when using connection accessories.

“Jitter Measurements in Digital Circuits”

While the telecom (i.e. SONET/SDH) and enterprise (i.e. Ethernet) industries are used to measuring jitter as a key performance/compliance specification, this is not common in digital circuits. The "datacomm" industry has no analog to the SONET/SDH oriented jitter measurement solutions like the Agilent OmniBER. With the new high-speed buses such as Infiniband, Fibre Channel, and PCI-Express specifying jitter as a compliance specification due to the higher bit rates, knowing how to test jitter is now critical to your success. Once you understand the measurements to make, you then have to decide which of the many jitter measurement approaches is best for you. This presentation will review jitter measurements in digital circuits, how the different measurement techniques are best applied, and how this may change as your data rates increase.

**Should you have any questions, please do not hesitate to contact
Sven-Åke Andersson from Agilent Technologies at 08-5064 8665!**

We are looking forward to meet you!

