

## **Embedded Serial Buses Measurement Techniques**

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In this presentation, we'll define embedded serial buses as generally running at bit rates of 10 Mb/s or lower. At these speeds, it is possible to use a variety of bus topologies, unlike high-speed serial buses which must be point-to-point connections to maintain adequate signal integrity. Physical layer compliance testing is generally not needed, although at the high end of the speed spectrum, such as with 10 Mb/s FlexRay, more emphasis must be placed on signal integrity.

For designers using embedded serial buses, the primary applications for test equipment are for debugging the hardware, enabling the hardware / software integration, and then system-level performance verification and optimization.

Questions like "How do I reliably setup my oscilloscope for triggering and decoding?", "How do I measure the bit rate of my signal?", "How do I probe serial digital buses?" and "How do I probe differential signals properly?" will be discussed.

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