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## **Corporate Profile**

Mixed Mode Solutions, Inc. (MMS) is a design consulting and intellectual property (IP) provider located in the Minneapolis/St. Paul area of Minnesota. The company principals have extensive experience in digital and analog circuit design for CMOS technologies and have worked with industry-leading companies including Intel, LSI Logic, Toshiba, Seagate, Micron and Honeywell.

Key development areas for MMS include:

1. Phase- and Delay-Locked Loops
2. SerDes (3.2Gbps)
3. IO buffer architecture and design (Standard drivers, Power/Corner cells, SSTL, DDR, HSTL, PECL, LVDS, PCI, PCI-X, USB, GMII, Controlled Impedance)
4. Standard cell library architecture and design
5. Full custom and metal programmable architectures
6. Verilog behavioral models for Analog/Mixed-Signal subsystems

MMS has the expertise with EDA tools necessary to perform a complete design including:

- Innoveda Viewdraw and Cadence Schematic Composer
- Mentor ICStation, Cadence Virtuoso, Virtuoso XL, and SOC Encounter
- Mentor Calibre (DRC/LVS), Calibrexrc (LPE), Silvaco (LPE)
- Hspice/Smartspice/Eldo/Analog Artist/HSIM-RA
- Synopsys Primetime, Formality
- Proprietary software for layout compilation, design automation and verification
- Programming languages and scripts including C, C++, Java, Perl, Python, Tcl, Skill, Unix Shell scripts

MMS understands the engineering associated with a quality design with emphasis on:

- Architectural planning and development
- Application RTL development and verification
- Digital and analog circuit design with emphasis on system-level robustness
- Design for low power consumption and mobile applications
- Detailed knowledge of reliability and qualification needs such as electro-migration, ESD and latch-up tolerance
- Open and closed-loop simulations in both SPICE and Verilog environments
- Jitter and timing budget analysis and verification
- ASIC design services taking netlists through physical design, cross-talk analysis, timing closure, IR/EM analysis, physical verification and tape-out

MMS will work with your company within a flexible business relationship and deliver a quality product on schedule.