

**Morgan Stanley Semiconductor & Systems Conference  
March 6 - 8, 2006**

Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Shawn Kim, Viktor Ma, Harlan Sur, Naoki Sato, Shima Nakao, Sunil Gupta, Bernie Mahon, Scott Coleman, Stuart Adrian, John Marchetti, Louis Gerhardy, Mark Edelstone, Frank A.Y. Wang, Kazuo Yoshikawa, Timm Schulze-Melander, Rebecca Runkle.

Important US Regulatory Disclosures on Subject Companies

The information and opinions in this report were prepared by Morgan Stanley & Co. Incorporated and its affiliates (collectively, "Morgan Stanley").

The following analyst, strategist, or research associate (or a household member) owns securities in a company that he or she covers or recommends in this report: Rebecca Runkle - IBM (common stock), DELL (common stock). Morgan Stanley policy prohibits research analysts, strategists and research associates from investing in securities in their sub industry as defined by the Global Industry Classification Standard ("GICS", which was developed by and is the exclusive property of MSCI and S&P). Analysts may nevertheless own such securities to the extent acquired under a prior policy or in a merger, fund distribution or other involuntary acquisition.

As of January 31, 2006, Morgan Stanley beneficially owned 1% or more of a class of common equity securities of the following companies covered in this report: Apple Computer Inc., Atheros Communications, DELL, Intersil Corporation, Jabil Circuit Inc., Applied Materials, FormFactor, KLA-Tencor, Advanced Micro Devices, Gateway, ADTRAN Inc., Applied Micro Circuits, Broadcom Corporation, LSI Logic, Novellus Systems Inc., NVIDIA Corporation, ARM Holdings Plc, Lexmark International, Lam Research, ASML Holding NV, Polycom, SanDisk, SOITEC, Texas Instruments, Tokyo Electron, Toshiba, UMC, PMC - Sierra Inc., MICRON TECHNOLOGY.

Within the last 12 months, Morgan Stanley managed or co-managed a public offering of securities of Advanced Analogic Technologies Incorpora, LG.Philips LCD, Seagate Technology, UMC, Vimicro International Corporation, Photronics, SPANSION INC.

Within the last 12 months, Morgan Stanley has received compensation for investment banking services from Arrow Electronics, DELL, Infineon Technologies AG, Maxim Integrated Products, Network Appliance, Inc., Advanced Analogic Technologies Incorpora, Altera Corporation, Applied Materials, Atmel Corp, Ingram Micro, Linear Technology, Advanced Micro Devices, Gateway, Microchip Technology, Broadcom

Corporation, IBM, LSI Logic, LG.Philips LCD, Analog Devices, NVIDIA Corporation, ARM Holdings Plc, Intel Corp, Integrated Device Tech., ON Semiconductor, Cadence Design, Polycom, Sanmina-SCI, Seagate Technology, Semtech Corporation, SOITEC, Texas Instruments, STMicroelectronics NV, UMC, Photronics, Fairchild Semiconductor Corporation.

In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from Apple Computer Inc., Arrow Electronics, Atheros Communications, Avaya Inc., Celestica Inc, Conexant, DELL, Chartered Semiconductor, Intersil Corporation, Infineon Technologies AG, LTX Corp, Lattice Semiconductor, Network Appliance, Inc., Advanced Analogic Technologies Incorpora, Altera Corporation, Applied Materials, Atmel Corp, Cymer, EMC Corp., FormFactor, Ingram Micro, International Rectifier, KLA-Tencor, Linear Technology, Advanced Micro Devices, Gateway, Microchip Technology, ADTRAN Inc., Applied Micro Circuits, Broadcom Corporation, IBM, LSI Logic, LG.Philips LCD, Analog Devices, Novellus Systems Inc., NVIDIA Corporation, Cypress Semiconductor, ARM Holdings Plc, Intel Corp, Agere Systems Inc., Avnet Inc., Integrated Device Tech., Lexmark International, ON Semiconductor, Cadence Design, Lam Research, ASML Holding NV, Nanya Technology Corp., Polycom, SanDisk, Sanmina-SCI, Seagate Technology, Semtech Corporation, SOITEC, STATS ChipPAC Ltd., Synopsys, Teradyne Inc, Texas Instruments, STMicroelectronics NV, Toshiba, UMC, Photronics, Tellabs, Xilinx, PMC - Sierra Inc., Silicon Laboratories, UTStarcom, Fairchild Semiconductor Corporation, Triquint Semiconductor, Varian Semiconductor.

Within the last 12 months, Morgan Stanley has received compensation for products and services other than investment banking services from Apple Computer Inc., DELL, Maxim Integrated Products, Network Appliance, Inc., Altera Corporation, Applied Materials, Linear Technology, Advanced Micro Devices, Gateway, Microchip Technology, Broadcom Corporation, IBM, LSI Logic, Analog Devices, Novellus Systems Inc., NVIDIA Corporation, Cypress Semiconductor, ARM Holdings Plc, Intel Corp, Cadence Design, Polycom, Sanmina-SCI, Seagate Technology, Semtech Corporation, Texas Instruments, Toshiba, Xilinx, FREESCALE SEMICONDUCTOR, QLOGIC, RAMBUS.

Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following companies covered in this report: Apple Computer Inc., Arrow Electronics, Atheros Communications, Avaya Inc., Celestica Inc, Conexant, DELL, Chartered Semiconductor, Intersil Corporation, Infineon Technologies AG, LTX Corp, Lattice Semiconductor, Maxim Integrated Products, Network Appliance, Inc., Advanced Analogic Technologies Incorpora, Altera Corporation, Applied Materials, Atmel Corp, Cymer, EMC Corp., FormFactor, Ingram Micro, International Rectifier, KLA-Tencor, Linear Technology, Advanced Micro Devices, Gateway, Microchip Technology, ADTRAN Inc., Applied Micro Circuits, Broadcom Corporation, IBM, LSI Logic, LG.Philips LCD, Analog Devices, Novellus Systems Inc., NVIDIA Corporation, Cypress Semiconductor, ARM Holdings Plc, Intel Corp, Agere Systems Inc., Avnet Inc., Integrated Device Tech.,

Lexmark International, ON Semiconductor, Cadence Design, Lam Research, ASML Holding NV, Nanya Technology Corp., Polycom, SanDisk, Sanmina-SCI, Seagate Technology, Semtech Corporation, SOITEC, STATS ChipPAC Ltd., Synopsys, Teradyne Inc, Texas Instruments, STMicroelectronics NV, Toshiba, UMC, Photronics, Tellabs, Xilinx, PMC - Sierra Inc., Silicon Laboratories, UTStarcom, Fairchild Semiconductor Corporation, Triquint Semiconductor, Varian Semiconductor.

Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following companies covered in this report: Apple Computer Inc., Arrow Electronics, Advanced Semi Engineering, Conexant, DELL, Infineon Technologies AG, Lattice Semiconductor, Maxim Integrated Products, Network Appliance, Inc., Altera Corporation, Applied Materials, Atmel Corp, Cymer, EMC Corp., Ingram Micro, Linear Technology, Advanced Micro Devices, Gateway, Microchip Technology, ADTRAN Inc., Broadcom Corporation, IBM, LSI Logic, Analog Devices, Novellus Systems Inc., NVIDIA Corporation, Cypress Semiconductor, ARM Holdings Plc, Intel Corp, Cadence Design, Nanya Technology Corp., Polycom, SanDisk, Sanmina-SCI, Seagate Technology, Semtech Corporation, SOITEC, Synopsys, Texas Instruments, STMicroelectronics NV, Toshiba, UMC, Tellabs, Xilinx, PMC - Sierra Inc., FREESCALE SEMICONDUCTOR, QLOGIC, RAMBUS.

The research analysts, strategists, or research associates principally responsible for the preparation of this research report have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues.

Morgan Stanley & Co. Incorporated makes a market in the securities of Apple Computer Inc., Atheros Communications, Conexant, DELL, Chartered Semiconductor, Intersil Corporation, LTX Corp, Lattice Semiconductor, Maxim Integrated Products, Multi-Fineline Electronix, Network Appliance, Inc., Advanced Analogic Technologies Incorpora, Altera Corporation, Applied Materials, Atmel Corp, Cymer, FormFactor, KLA-Tencor, Linear Technology, Microchip Technology, ADTRAN Inc., Applied Micro Circuits, Broadcom Corporation, Novellus Systems Inc., NVIDIA Corporation, ARM Holdings Plc, Intel Corp, Integrated Device Tech., ON Semiconductor, Cadence Design, Lam Research, ASML Holding NV, Polycom, SanDisk, Sanmina-SCI, Semtech Corporation, Synopsys, Vimicro International Corporation, Photronics, Tellabs, Xilinx, PMC - Sierra Inc., Silicon Laboratories, UTStarcom, MARVELL TECHNOLOGY GROUP LTD, PALM INC, SPANSION INC, VARIAN SEMICONDUCTOR.

## STOCK RATINGS

Different securities firms use a variety of rating terms as well as different rating systems to describe their recommendations. For example, Morgan Stanley uses a relative rating

system including terms such as Overweight, Equal-weight or Underweight (see definitions below). A rating system using terms such as buy, hold and sell is not equivalent to our rating system. Investors should carefully read the definitions of all ratings used in each research report. In addition, since the research report contains more complete information concerning the analyst's views, investors should carefully read the entire research report and not infer its contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

### Global Stock Ratings Distribution

(as of Jan 31, 2006)

Stock Rating Category	Coverage Universe		Investment Banking Clients (IBC)		
	Count	% of Total	Count	% of Total IBC	% of Rating Category
Overweight/Buy	764	36%	283	40%	37%
Equal-weight/Hold	946	45%	336	47%	36%
Underweight/Sell	388	18%	91	13%	23%
Total	2,098		710		

Data include common stock and ADRs currently assigned ratings. For disclosure purposes (in accordance with NASD and NYSE requirements), we note that Overweight, our most positive stock rating, most closely corresponds to a buy recommendation; Equal-weight and Underweight most closely correspond to neutral and sell recommendations, respectively. However, Overweight, Equal-weight, and Underweight are not the equivalent of buy, neutral, and sell but represent recommended relative weightings (see definitions below). An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations. Investment Banking Clients are companies from whom Morgan Stanley or an affiliate received investment banking compensation in the last 12 months.

### Analyst Stock Ratings

**Overweight (O or Over)** - The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis over the next 12-18 months.

**Equal-weight (E or Equal)** - The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis over the next 12-18 months.

**Underweight (U or Under)** - The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

**More volatile (V)** - We estimate that this stock has more than a 25% chance of a price move (up or down) of more than 25% in a month, based on a quantitative assessment of

historical data, or in the analyst's view, it is likely to become materially more volatile over the next 1-12 months compared with the past three years. Stocks with less than one year of trading history are automatically rated as more volatile (unless otherwise noted). We note that securities that we do not currently consider "more volatile" can still perform in that manner.

Unless otherwise specified, the time frame for price targets included in this report is 12 to 18 months. Ratings prior to March 18, 2002: SB=Strong Buy; OP=Outperform; N=Neutral; UP=Underperform. For definitions, please go to [www.morganstanley.com/companycharts](http://www.morganstanley.com/companycharts).

### Analyst Industry Views

Attractive (A) - The analyst expects the performance of his or her industry coverage universe to be attractive versus the relevant broad market benchmark over the next 12-18 months.

In-Line (I) - The analyst expects the performance of his or her industry coverage universe to be in line with the relevant broad market benchmark over the next 12-18 months.

Cautious (C) - The analyst views the performance of his or her industry coverage universe with caution versus the relevant broad market benchmark over the next 12-18 months.

Stock price charts and rating histories for companies discussed in this report are available at <http://www.morganstanley.com/companycharts>. You may also request this information by writing to Morgan Stanley at 1585 Broadway, 14th Floor (Attention: Research Disclosures), New York, NY, 10036 USA.

### Other Important Disclosures

This research report has been published in accordance with our conflict management policy, which is available at [www.morganstanley.com/institutional/research/conflictolicies](http://www.morganstanley.com/institutional/research/conflictolicies).

For a discussion, if applicable, of the valuation methods used to determine the price targets included in this summary and the risks related to achieving these targets, please refer to the latest relevant published research on these stocks. Research is available through your sales representative or on Client Link at [www.morganstanley.com](http://www.morganstanley.com) and other electronic systems.

This report does not provide individually tailored investment advice. It has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. The securities discussed in this report may not be suitable for all investors. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of a particular investment or strategy will depend on an investor's individual circumstances and objectives.

This report is not an offer to buy or sell any security or to participate in any trading strategy. In addition to any holdings disclosed in the section entitled "Important US Regulatory Disclosures on Subject Companies", Morgan Stanley and/or its employees not involved in the preparation of this report may have investments in securities or derivatives of securities of companies mentioned in this report, and may trade them in ways different from those discussed in this report. Derivatives may be issued by Morgan Stanley or associated persons.

Morgan Stanley & Co. Incorporated and its affiliate companies do business that relates to companies covered in its research reports, including market making and specialized trading, risk arbitrage and other proprietary trading, fund management, investment services and investment banking. Morgan Stanley sells to and buys from customers the equity securities of companies covered in its research reports on a principal basis.

Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in this report change apart from when we intend to discontinue research coverage of a subject company.

With the exception of information regarding Morgan Stanley, reports prepared by Morgan Stanley research personnel are based on public information. Facts and views presented in this report have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley research personnel conduct site visits from time to time but are prohibited from accepting payment or reimbursement by the company of travel expenses for such visits.

The value of and income from your investments may vary because of changes in interest rates or foreign exchange rates, securities prices or market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in your securities transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized.

This publication is disseminated in Japan by Morgan Stanley Japan Limited; in Hong Kong by Morgan Stanley Dean Witter Asia Limited; in Singapore by Morgan Stanley Dean Witter Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore, which accepts responsibility for its contents; in Australia by Morgan Stanley Dean Witter Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services licence No. 233742, which accepts responsibility for its contents; in Taiwan by Morgan Stanley & Co. International Limited, Taipei Branch; in Korea by Morgan Stanley & Co. International Limited, Seoul Branch;

in India by JM Morgan Stanley Securities Private Limited; in Canada by Morgan Stanley Canada Limited, which has approved of, and has agreed to take responsibility for, the contents of this publication in Canada; in Spain by Morgan Stanley, S.V., S.A., a Morgan Stanley group company, which is supervised by the Spanish Securities Markets Commission (CNMV) and states that this document has been written and distributed in accordance with the rules of conduct applicable to financial research as established under Spanish regulations; in the United States by Morgan Stanley & Co. Incorporated and Morgan Stanley DW Inc., which accept responsibility for its contents. Morgan Stanley & Co. International Limited, authorized and regulated by Financial Services Authority, disseminates in the UK research that it has prepared, and approves solely for the purposes of section 21 of the Financial Services and Markets Act 2000, research which has been prepared by any of its affiliates. Private U.K. investors should obtain the advice of their Morgan Stanley & Co. International Limited representative about the investments concerned. In Australia, this report, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act.

The trademarks and service marks contained herein are the property of their respective owners. Third-party data providers make no warranties or representations of any kind relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages of any kind relating to such data. The Global Industry Classification Standard ("GICS") was developed by and is the exclusive property of MSCI and S&P.

This report or any portion hereof may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.

Morgan Stanley research is disseminated and available primarily electronically, and, in some cases, in printed form.

Additional information on recommended securities is available on request.