WINTERGREEN RESEARCH, INC.

Worldwide Crosspoint Switch Market Shares, Strategies, and Forecasts, 2009-2015

Crosspoint Switches Provide Increased Throughput Density

Picture by Susie Eustis

MOUNTAINS OF OPPORTUNITY

WinterGreen Research, Inc.
Lexington, Massachusetts **www.wintergreenresearch.com**

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Crosspoint Switches, Market Shares, Strategies, and Forecasts, 2009-2015

Crosspoint switches are poised to achieve significant growth as units become smaller, less expensive, and power conservation is achieved. Less expensive crosspoint switches allow proliferation of devices into a wide range of equipment applications. According to Susan Eustis, lead author of the study, "Economies of scale leverage the technology advances needed to make crosspoint switches competitive. Integration technology provided by crosspoint switches solves the issues poised by high speed network conflicting standards. Crosspoint switch price reductions are poised to drive market adoption by making multimedia technology affordable."

The Internet and wireless communications dominate communications technology. Wireless web devices, Voice over Internet Protocol (VoIP), video-on-demand, third generation (3G) wireless services increase demand for higher speed, higher bandwidth communications systems. Remote network access has increased network bandwidth requirements and complexity. The continuing adoption of broadband technology is unrelenting.

E-mail, instant messaging, blogging, wikis, and e-commerce originally PC based, are being combined with the increasing availability of next-generation wireless devices. Features include internet browsing, cameras and video recorders. These initiatives drive data traffic through the network infrastructure.

The different types of data transmitted at various speeds over the Internet require service providers and enterprises to invest in multi-service equipment. Broadband equipment is emerging that can securely and efficiently process and transport the varied types of network traffic, regardless of whether it is voice traffic or data traffic. To achieve the performance and functionality required by such systems, original equipment manufacturers (OEMs) utilize complex crosspoint switch ICs to address both the cost and functionality of a system.

As a result of the pace of new product introductions in response to the changing market conditions in the telecommunications environments, there is a proliferation of standards. Crosspoint switches are designed to accommodate cost reductions involved in implementing new systems. Difficulty of designing and producing required ICs has stimulated the market for crosspoint switches. A position has evolved for the semiconductor companies. Equipment suppliers have increasingly outsourced IC design and manufacture to semiconductor firms with specialized expertise.

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These trends have created a significant opportunity for IC suppliers that can design cost-effective solutions for the processing and transport of data. OEMs require IC suppliers that possess system-level expertise and can quickly bring to market high-performance, highly reliable, power-efficient ICs.

Demand for high bandwidth, high speed video and multimedia applications create demand for cross point switches. The weakening global economy is a concern to vendors participating in the crosspoint switch market. Previous revenue targets are being revised downward. Some market segments like security and video are anticipated to remain strong even in the global downturn. Some of the market segments will shrink from 2008 levels before picking up again. The automotive market appears to be particularly vulnerable. Carrier spending is likely to be cut back during the economic downturn.

Many semiconductor companies have cut back their expected revenue outlook. Texas Instruments is illustrative of the effect of the financial market thrashing. DALLAS (Dec. 8, 2008) – In a scheduled update to its business outlook for the fourth quarter of 2008, Texas Instruments Incorporated (TI) (NYSE: TXN) today lowered its expected ranges for revenue and earnings per share (EPS). The company currently expects its financial results to fall within the following ranges: * Revenue: $2.30 – 2.50 billion, compared with the prior range of $2.83 – 3.07 billion.

December 18, 2008 – LSI Corporation (NYSE: LSI) business outlook for the fourth quarter ending projects revenues of $570 to $610 million. The previous business outlook, which was announced on October 22, 2008, projected revenues in the range of $670 million to $710 million. The revised LSI outlook reflects anticipated sales levels that are lower than previously expected due to the weakening global macroeconomic environment. LSI has already begun taking steps to reduce operating expenses as a result of continuing demand uncertainty and expects to maintain tight expense controls for the foreseeable future.

Markets for crosspoint switches at $554 million in 2008 are anticipated to reach $2.98 billion by 2015, growing in response to decreases in unit costs and increases in integrated IC functionality. Some applications are relatively recession proof, including security and high speed video applications. Crosspoint switches are poised to make people more productive in security environments, help increase productivity with faster desktop access capabilities, and increase storage seek times.

Companies Profiled

Market Leaders

National Semiconductor
Texas Instruments
Analog Devices
MindSpeed
Vitesse
Fairchild Semiconductor
Intersil
LSI
Maxim

Market Participants

Apcon
Applied Micro Circuits
Conexant
Exar
Micrel
TranSwitch / Centillium Communications

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REPORT METHODOLOGY

THIS IS THE 398TH REPORT IN A SERIES OF MARKET RESEARCH REPORTS THAT PROVIDE FORECASTS IN COMMUNICATIONS, TELECOMMUNICATIONS, THE INTERNET, COMPUTER, SOFTWARE, TELEPHONE EQUIPMENT, HEALTH EQUIPMENT, AND ENERGY. THE PROJECT LEADERS TAKE DIRECT RESPONSIBILITY FOR WRITING AND PREPARING EACH REPORT. THEY HAVE SIGNIFICANT EXPERIENCE PREPARING INDUSTRY STUDIES. FORECASTS ARE BASED ON PRIMARY RESEARCH AND PROPRIETARY DATA BASES. FORECASTS REFLECT ANALYSIS OF THE MARKET TRENDS IN THE SEGMENT AND RELATED SEGMENTS. UNIT AND DOLLAR SHIPMENTS ARE ANALYZED THROUGH CONSIDERATION OF DOLLAR VOLUME OF EACH MARKET PARTICIPATION IN THE SEGMENT. INSTALLED BASE ANALYSIS AND UNIT ANALYSIS IS BASED ON INTERVIEWS AND AN INFORMATION SEARCH. MARKET SHARE ANALYSIS INCLUDES CONVERSATIONS WITH KEY CUSTOMERS OF PRODUCTS, INDUSTRY SEGMENT LEADERS, MARKETING DIRECTORS, DISTRIBUTORS, LEADING MARKET PARTICIPANTS, OPINION LEADERS, AND COMPANIES SEEKING TO DEVELOP MEASURABLE MARKET SHARE. OVER 200 IN DEPTH INTERVIEWS ARE CONDUCTED FOR EACH REPORT WITH A BROAD RANGE OF KEY PARTICIPANTS AND INDUSTRY LEADERS IN THE MARKET SEGMENT. WE ESTABLISH ACCURATE MARKET FORECASTS BASED ON ECONOMIC AND MARKET CONDITIONS AS A BASE. USE INPUT/OUTPUT RATIOS, FLOW CHARTS, AND OTHER ECONOMIC METHODS TO QUANTIFY DATA. USE IN-HOUSE ANALYSTS WHO MEET STRINGENT QUALITY STANDARDS. INTERVIEWING KEY INDUSTRY PARTICIPANTS, EXPERTS AND END-USERS. OUR RESEARCH INCLUDES ACCESS TO LARGE PROPRIETARY DATABASES. LITERATURE SEARCH INCLUDES ANALYSIS OF TRADE PUBLICATIONS, GOVERNMENT REPORTS, AND CORPORATE LITERATURE.

YOU MUST HAVE THIS STUDY

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ABOUT THE COMPANY

WINTERGREEN RESEARCH, HAS A MULTIFACETED PRIMARY RESEARCH STRATEGY FOR IDENTIFYING MARKET TRENDS THROUGH READING AND INTERVIEWING OPINION LEADERS. BY READING, INTERVIEWING OPINION LEADERS, AND ACCESSING MARKET TRENDS WINTERGREEN RESEARCH SENIOR ANALYSTS ADDRESS RESEARCH. THE VALUE PROPOSITION FOR COMPETITIVE ANALYSIS COMES FROM RICH AND DIVERSE SOURCES OF INPUT.

IT IS THE DUTY OF THE SENIOR ANALYSTS TO LOOK AT MASSIVE AMOUNTS OF CONTENT, AND THEN TO MAKE SENSE OF THAT CONTENT. THE ABILITY TO THINK ABOUT MARKET TRENDS IS ENHANCED BY DOING IT OVER AND OVER FOR MANY DIFFERENT MARKETS. THAT IS WHAT WINTERGREEN RESEARCH IS ALL ABOUT: READING AND THINKING IS AN ESSENTIAL ASPECT OF COMPETITIVE ANALYSIS. TALKING TO OPINION LEADERS IS THE THIRD ESSENTIAL ASPECT OF PRODUCING GOOD, RELIABLE DATA.

WINTERGREEN RESEARCH, FOUNDED IN 1985, PROVIDES STRATEGIC MARKET ASSESSMENTS IN TELECOMMUNICATIONS, COMMUNICATIONS EQUIPMENT, HEALTH CARE, INTERNET AND ADVANCED COMPUTER TECHNOLOGY. INDUSTRY REPORTS FOCUS ON OPPORTUNITIES THAT EXPAND EXISTING MARKETS OR DEVELOP MAJOR NEW MARKETS. THE REPORTS ASSESS NEW PRODUCT AND SERVICE POSITIONING STRATEGIES, NEW AND EVOLVING TECHNOLOGIES, AND TECHNOLOGICAL IMPACT ON PRODUCTS, SERVICES, AND MARKETS. MARKET SHARES ARE PROVIDED. LEADING MARKET PARTICIPANTS ARE PROFILED, AND THEIR MARKETING STRATEGIES, ACQUISITIONS, AND STRATEGIC ALLIANCES ARE DISCUSSED. THE PRINCIPALS OF WINTERGREEN RESEARCH HAVE BEEN INVOLVED IN ANALYSIS AND FORECASTING OF INTERNATIONAL BUSINESS OPPORTUNITIES IN TELECOMMUNICATIONS AND ADVANCED COMPUTER TECHNOLOGY MARKETS FOR OVER 30 YEARS.

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ABOUT THE PRINCIPAL AUTHORS

ELLEN T. CURTISS, TECHNICAL DIRECTOR, CO-FOUNDER OF WINTERGREEN RESEARCH, CONDUCTS STRATEGIC AND MARKET ASSESSMENTS IN TECHNOLOGY-BASED INDUSTRIES. PREVIOUSLY SHE WAS A MEMBER OF THE STAFF OF ARTHUR D. LITTLE, INC., FOR 23 YEARS, MOST RECENTLY AS VICE PRESIDENT OF ARTHUR D. LITTLE DECISION RESOURCES, SPECIALIZING IN STRATEGIC PLANNING AND MARKET DEVELOPMENT SERVICES. SHE IS A GRADUATE OF BOSTON UNIVERSITY AND THE PROGRAM FOR MANAGEMENT DEVELOPMENT AT HARVARD GRADUATE SCHOOL OF BUSINESS ADMINISTRATION. SHE IS THE AUTHOR OF RECENT STUDIES ON WORLDWIDE TELECOMMUNICATIONS MARKETS, THE TOP TEN INTERNET EQUIPMENT COMPANIES, THE TOP TEN CONTRACT MANUFACTURING COMPANIES, AND THE TOP TEN TELECOMMUNICATIONS MARKET ANALYSIS AND FORECASTS.

SUSAN EUSTIS, PRESIDENT, CO-FOUNDER OF WINTERGREEN RESEARCH, HAS DONE RESEARCH IN COMMUNICATIONS AND COMPUTER MARKETS AND APPLICATIONS. SHE HOLDS SEVERAL PATENTS IN MICROCOMPUTING AND PARALLEL PROCESSING. SHE HAS THE ORIGINAL PATENTS IN ELECTRONIC VOTING MACHINES. SHE HAS NEW PATENT APPLICATIONS IN FORMAT VARYING, MULITPROCESSING, AND ELECTRONIC VOTING. SHE IS THE AUTHOR OF RECENT STUDIES OF THE SERVICES ORIENTED ARCHITECTURE, CONTENT MANAGEMENT, MID SIZE BUSINESS MIDDLEWARE, REGIONAL BELL OPERATING COMPANIES' MARKETING STRATEGIES, INTERNET EQUIPMENT, BIOMETRICS, A STUDY OF INTERNET EQUIPMENT, WORLDWIDE TELECOMMUNICATIONS EQUIPMENT, TOP TEN TELECOMMUNICATIONS, DIGITAL LOOP CARRIER, WEB HOSTING, WEB SERVICES, AND APPLICATION INTEGRATION MARKETS. MS. EUSTIS IS A GRADUATE OF BARNARD COLLEGE.

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