

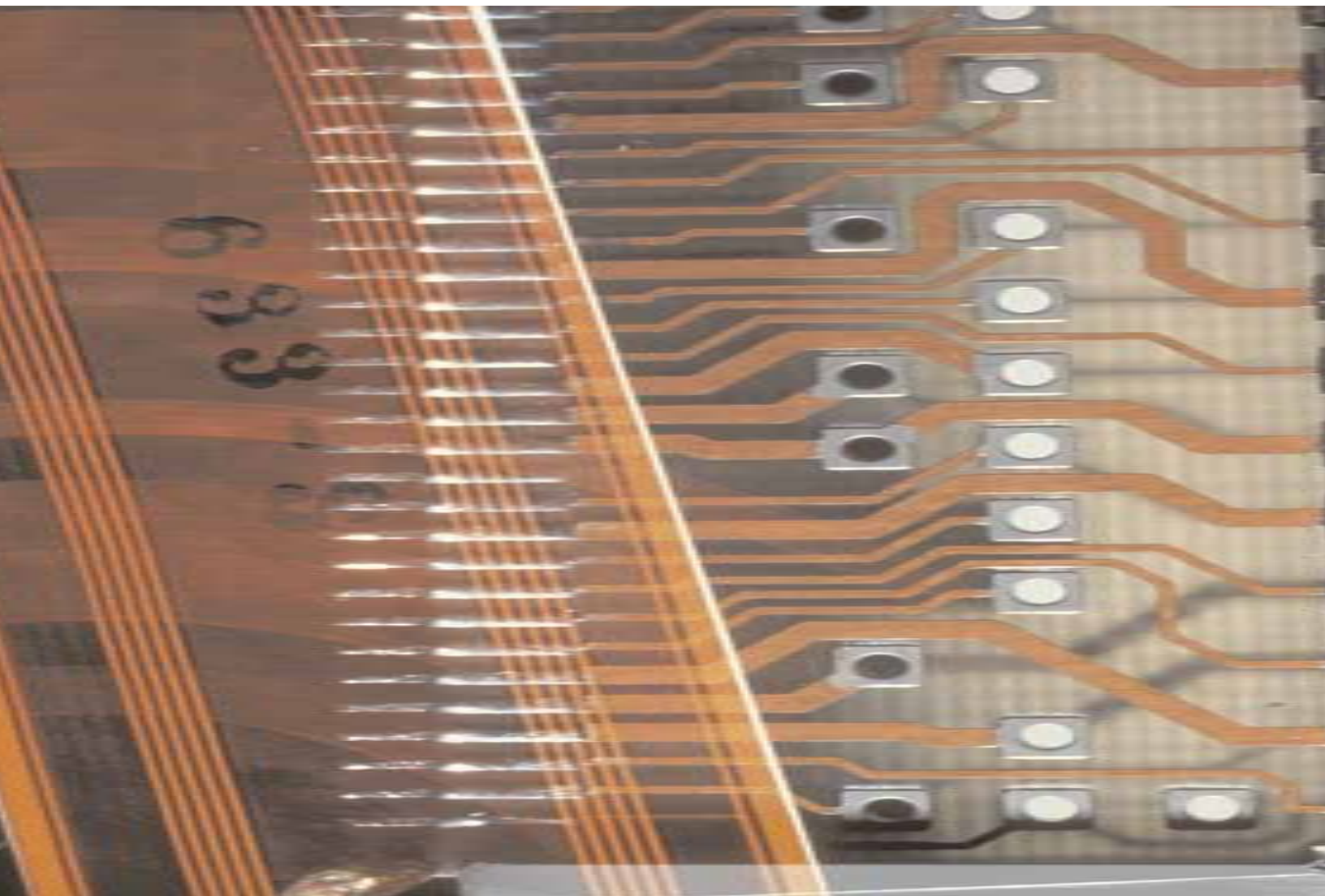
THE POSSIBILITIES ARE INFINITE

FUJITSU



CORPORATE OVERVIEW 2004

FUJITSU MICROELECTRONICS AMERICA, INC.



The year 2004 is proving to be a strong year for the semiconductor industry worldwide. We expect it will also be a good year in Silicon Valley, where the emergence of vibrant new companies and technologies will end the speculation that the Valley's best days are gone.

Integrated Device Manufacturer, New Business Model

In order to take advantage of this upturn as an integrated device manufacturer, Fujitsu Microelectronics will deploy flexible business models aimed at helping our customers enhance their competitive advantage.

Foundry Services and COT

A fundamental engagement model is to leverage state-of-the-art process technology (including Fujitsu's leading-edge 90nm process), packaging expertise and manufacturing capabilities to develop high-performance LSI devices that meet our customers' power, speed and reliability expectations. Customer-Owned Tooling (COT) engagements fall into this category.

Design Services Provider

Another approach brings an integrated design and development environment suitable for leading-edge CMOS technology. FMA offers a robust and proven design methodology and library support, memory cores, high-speed I/O macros and other complex and differentiated IP. Traditional ASIC SoC engagements fall into this category, as does COT augmented with IP support, which is particularly appealing to fabless semiconductor companies.

LSI Solutions Provider

The application-platform approach involves FMA moving further up the

value chain by bringing a complete LSI solution to the customer. An example is the broadband wireless initiative in which FMA will not only offer the baseband SoC, but will develop a complete reference design by interfacing the RF subsection, providing a full suite of software and undertaking WiMAX certification.

FMA Product Updates

While pursuing these new business models in the United States, we have aggressively introduced new products to the market. Highlights include AccelArray's embedded CPU and Giga platforms; a new version of the single-chip, 10Gbps Ethernet IC featuring 10GBASE-CX4 interface support; low-power Mobile Media Processors incorporating MPEG-4 and JPEG hardware encoding and decoding functionality; the world's fastest CMOS 14-bit DAC; and the world's first WiMAX Certified™ broadband wireless SoCs.

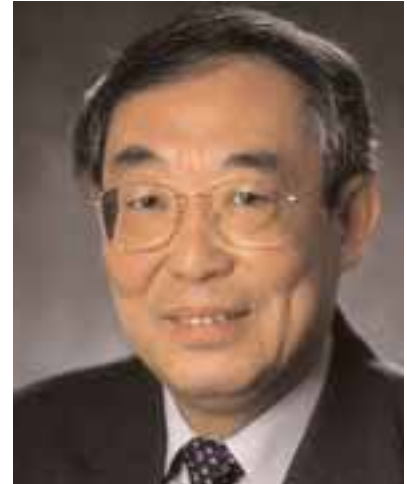
We continue to focus on vertical markets that best utilize Fujitsu's technological excellence:

- Networking (metro, enterprise, access and wireless)
- Automotive
- Consumer
- Industrial
- Security

Within each category, we develop products that draw on our strengths in high-level systems integration.

Our Commitment

Fujitsu's recent announcement that it will build a 300mm wafer fabrication plant in Mie, Japan, demonstrates our commitment to deep sub-micron process technologies (90nm, 65nm and beyond) and to products using cutting-edge technologies. The



Kazuo "Ken" Iida

factory, which will begin operation in April 2005, will support a wide product spectrum, including ASICs/COT, foundry, ASSPs and MCUs.

I am confident that, by providing Fujitsu's technology, products and services to our target markets on a timely basis, we will grow by helping our customers differentiate their products, enhancing their competitive advantage and helping them succeed.

A handwritten signature in black ink, appearing to read "Ken Iida".

Kazuo "Ken" Iida
President and
Chief Executive Officer

Corporate Overview

Fujitsu Microelectronics America, Inc. (FMA) leads the industry in innovation. FMA provides high-quality, reliable semiconductor products and services for the networking (metro, enterprise, access and wireless), automotive, consumer, industrial, security and other markets throughout the Americas.

Established in 1979, FMA is a wholly owned subsidiary of Fujitsu Limited (TSE:6702), a \$45 billion company (fiscal year ending March 31, 2004) that provides customer-focused IT and communications solutions for the global marketplace. As part of Fujitsu's global network, FMA taps into Fujitsu's vast resources, including its in-depth engineering capabilities, deep sub-micron process, packaging technologies, and manufacturing network.

FMA's headquarters in Sunnyvale, California, together with its network of design and marketing operations throughout the Americas, demonstrate Fujitsu's commitment to this marketplace. FMA's engineers at its design centers in Sunnyvale and Dallas work with customers' engineers and Fujitsu's engineering organizations worldwide.

Products and Services

FMA's logic product line includes high-performance ASICs and ASSPs, such as the single-chip 10Gbps Ethernet switch IC; micro-controllers; Mobile Media Processors (MMPs); graphic display controllers (GDCs); biometric sensors; and wireless and

other network ICs. FMA also offers a range of core processor "building blocks" for complex microprocessors, and a variety of IPs for highly integrated embedded solutions.

Memory products include FCRAM™ and FRAM. FMA also markets flat panel displays and provides advanced packaging and wafer fab services.

ASICs

A world-leading ASIC supplier, FMA provides cost-effective deep submicron CMOS ASICs for performance-driven applications, using Fujitsu's 0.09-, 0.11-, 0.18-, 0.25- and 0.35-micron CMOS process technologies. Fujitsu leverages in-depth system level expertise and a broad array of IP offerings from the IPWare™ library to provide first-time working silicon to meet customer requirements.

FMA's high-performance embedded arrays and standard cells provide full support for mixed-signal macros, diffused SRAMs, ROMs, and a wide variety of reusable embedded SoC cores and high-speed interfaces supported by IPWare.

The CS101 (0.09 micron) CMOS standard cell series can support both high-speed and low-power libraries. Additionally, this technology can support up to 10 layers of metal with a variety of logic, SRAM, analog and high-speed I/Os. The technology is appropriate for a broad spectrum of applications ranging from high-end servers to low-power cellular applications.

The CS91 (0.11 micron) CMOS standard cell series features a broad range of versatile macros and IPs. These high-speed and high-density cells are ideal for high-end storage

networks and network-processing systems based on the 10Gbps Ethernet and OIF standards. The standard cells are also appropriate for set-top boxes, storage, gateway and similar network access systems, as well as for cellular handsets, PDAs, and other mobile and handheld devices.

Fujitsu's innovative design methodology incorporates the best-in-class third-party or in-house EDA tools. The company's hierarchical physical-design flow provides a scalable solution for implementation of designs far in excess of 10 million gates. Fujitsu's methodology resolves issues associated with nanometer design upfront, through extensive use of physical-synthesis technologies, multi-Vth library support, power-supply integrity analysis, Xtalk noise avoidance, analysis and fixing. These capabilities, combined with a robust verification environment, enable Fujitsu to achieve rapid closure in the timing, signal integrity and power arenas, shortening the time to silicon.

AccelArray™

AccelArray is an innovative semiconductor "structured platform" and design environment that addresses the challenges in designing high-performance customized solutions in 0.11-micron technology. The technology is an alternative to the 0.11-micron standard-cell ASICs with the fast time-to-market and customization benefits of FPGAs. AccelArray takes advantage of Fujitsu's extensive, proven ASIC design techniques to reduce design risks, cost and time-to-market with a fast turnaround and low upfront NRE cost.



Microcontrollers

Fujitsu's 8-, 16- and 32-bit microcontroller (MCU) product line includes both general-purpose and application specific MCUs. Fujitsu's microcontrollers integrate Flash, ROM, A/D, D/A, CAN, USB and an LCD controller to provide superior solutions for automotive, communications, computer peripheral, industrial, and consumer applications. These highly integrated MCUs simplify system designs, reduce costs and accelerate time-to-market. The feature-rich MCUs are supported by excellent software and hardware development tools.

10Gbps Ethernet Switch Chip

The MB87Q3070 is the industry's first 10Gbps Ethernet switch IC with a CX4 (IEEE 802.3ak) interface. This allows the switch chip to directly drive copper cable over 25 meters. The new switch chip has high-speed buffer memories, a SERDES interface, an IEEE 802.3ae-compliant 10Gbps

Ethernet MAC, and high-speed CS4/XAUI interface macros. The MB87Q3070, which runs on a core-clock speed of 312.5MHz, delivers an aggregate bandwidth of 240Gbps, making it ideal for high-performance computing interconnects, blade-server switching, enterprise aggregation switches, 1Gbps modular and stackable switches, switch fabrics and similar applications.

Biometric Fingerprint Sensors

Fujitsu's robust, solid-state fingerprint sensors and world-class minutia-based matching algorithms improve the security and convenience of user authentication. The cost-effective sensors provide a quick, reliable alternative to passwords, PINs, keys and other methods of user authentication. Applications include computer and network logon, physical access, mobile device security, government IDs, transport systems, and medical records. A wide variety of biometric solutions, including embedded matching systems, USB peripherals

and software, is available through Fujitsu partners.

FRAM

The industry's largest FRAM supplier, Fujitsu was the first company to incorporate FRAM into microcomputers in 1998 and to release the industry's first production quantities in 1999. The next-generation nonvolatile FRAM outperforms existing memories like EEPROM and BBSRAM, consumes less power and offers higher endurance to multiple read-and-write operations. This breakthrough storage medium is used in many applications including smart cards, RFID and security.

High-Performance CMOS DACs

Fujitsu offers two high-speed, low-power CMOS Digital-to-Analog Converters (DACs). The 12-bit, 400Msa/s and 16-bit, 100Msa/s DACs are fabricated using Fujitsu's 0.35-micron CMOS process for low power consumption. Triple-well technology assures superior analog/digital noise isolation.

Applications include base stations, linear power amplifiers, and test equipment.

The latest addition to Fujitsu's family of high-performance ASSP DACs is an advanced 14-bit, 1Gsa/s DAC.

The same DAC core is also available as part of Fujitsu's mixed-signal ASIC offering. This technology enables designers to implement multi-carrier systems for the cellular infrastructure market, such as W-CDMA and GSM. Other applications include video systems and test equipment. The technology has been developed using Fujitsu's advanced mixed-signal 0.18-micron CMOS process technology.

PLLs

Fujitsu established the first Phase Locked Loop (PLL) industry standard with the introduction of the MB1501 Super PLL, a high-frequency PLL with integral prescaler. Today, Fujitsu offers one of the industry's largest selections of PLL frequency synthesizers, and continues its technical leadership through the constant development of new Super PLLs. These are being designed into hundreds of applications, including CATV, set-top boxes, pagers, digital cellular radios, and cordless telephone systems.

PMICs

As part of Fujitsu's telecom IC product offering, the Power Management IC (PMIC) product line offers several devices to address the stringent requirements of diverse applications. Fujitsu offers a variety of low-integration ICs such as AC/DC and DC/DC converters, voltage detectors, battery back-ups, voltage monitors, and switching regulators. Highly integrated PMICs address specific wireless applications such as cell phones and PDAs.

GDCs

Fujitsu's family of innovative graphic display controllers has a long history of success and enjoys a significant share of the automotive market. These controllers are targeted at embedded graphic applications such as in-dash car-navigation and mobile-information terminals. Many functions, such as 2D/3D graphics acceleration, alpha blending and texture mapping, are state-of-the-art in graphic controllers today, but have been specially optimized for embedded systems.

MMPs

Building on the company's long-standing experience and expertise in graphics display control technology and market fulfillment, Fujitsu's new advanced Mobile Media Processors, the MB86V00 and MB86V01, are designed to function as visual subsystems for cellular phones and other mobile applications. Key functions such as 2D/3D graphics acceleration, rotator, image resizer, JPEG and MPEG-4 codecs are supported in hardware. These implementations are highly optimized for operation in a small screen environment (QVGA or below). Special algorithms and clock-gating techniques provide excellent image quality while keeping the operating power consumption to as low as 13mW.

Plasma Display Panels (PDPs)

Fujitsu's 32-, 37-, 42- and 55-inch high-definition PDP modules employ two key proprietary technologies – Alternative Lighting of Surface (ALIS) and Technology of Reciprocal Sustainer (TERES) – which outpace competitors with respect to value and image performance. Current panels offer up to 60,000-hour lifetimes,

1100-nit brightness, 1000:1 contrast ratios, 1.07-billion color depth, and and 95 percent NTSC color purity.

LCD Displays

Fujitsu's proprietary premium multi-domain vertically aligned (MVA) LCD modules offer a new dimension in display innovation and performance with up to 700:1 contrast ratios, 15ms response times, and 170-degree-plus viewing angles. Leading-edge LCDs are best suited for performance-oriented applications that require 17W-, 19-, 20.1-, 22W- and 23.1-inch screens, such as medical imaging, PC television, casino gaming, industrial control, and PC workstation applications.

Foundry Services

As a world leader in leading-edge process technologies, Fujitsu offers front-end, back-end and full-turnkey wafer-foundry services.

Front-end services: Fujitsu's wafer foundry services offer state-of-art 90/65nm CMOS process with well-optimized transistors. Fujitsu's 90nm process is in full production and will begin sampling 65nm in Q105. LCOS (Liquid Crystal On Silicon) and high-voltage applications are also available.

Back-end services: Fujitsu's advanced packaging and testing services include package design, simulation, assembly and testing.

Full turnkey services: Fujitsu also provides turnkey services, including design support, wafer fab, testing (probe, final test), water bumping, RDL, package design, assembly and product engineering.

Product Offerings

CMOS ASICs

- High-performance ASIC
- IP-based SoC ASIC
- AccelArray

Microcontrollers

- 8-, 16- and 32-bit Microcontrollers

Biometric Sensors

- Solid-state Fingerprint Sensor ICs

Networking ASSP

- 12-port, 10Gbps Ethernet Switch Chip with CX4 Interface

Wireless ASSPs

- Digital-to-Analog Converters (DACs)
- Phase Locked Loop Synthesizers (PLLs)
- Power-Management ICs (PMICs)
- Spread Spectrum Clock Generator (SSCG)

Other ASSPs

- Mobile Media Processors (MMPs)
- Graphic Display Controllers (GDCs)
- 1394 Controllers
- MPEG Encoders/Decoders

Memory

- Fast Cycle RAM (FCRAM)
- Ferroelectric Random Access Memory (FRAM)

Display

- Plasma Display Panels (PDPs)
- Active Matrix (AM) LCD Modules

Foundry Services

- Wafer Fabrication Services
 - 350nm to 90nm, and soon 65nm
- Advanced Packaging and Test Services
 - CSP, Flip-Chip, Wafer Bumping, Wafer Probe, Final Test

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Printed in the U.S.A. CORP-BR-21039-08/2004