



MIE FUJITSU SEMICONDUCTOR CORPORATE PROFILE



MIE FUJITSU SEMICONDUCTOR LIMITED

Shin-Yokohama Chuo Bldg.
2-100-45 Shin-Yokohama, Kohoku-ku, Yokohama-shi, Kanagawa, Japan
Tel. +81-45-755-7050

<http://www.fujitsu.com/jp/mifs/en/>

©2014-2015 MIE FUJITSU SEMICONDUCTOR LIMITED.
Printed in Japan
AD70-00010-2E August 2015

shaping tomorrow with you

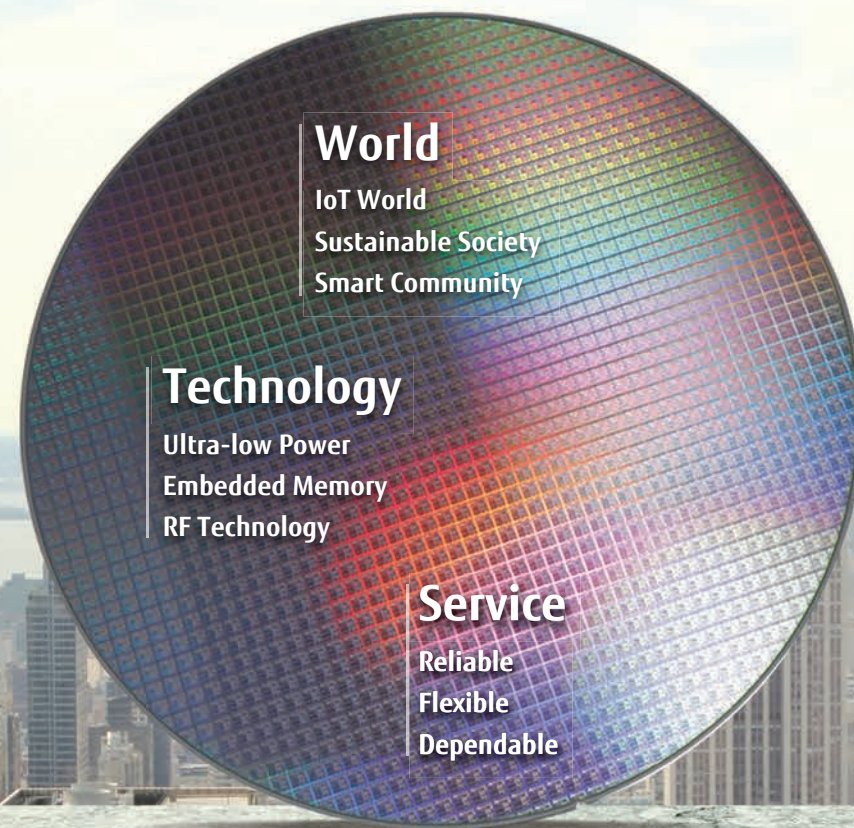
Be with mie.

New Smart Foundry for Smart Society

Mie Fujitsu Semiconductor is a foundry partner that guides customers' businesses towards success by providing technology, customization, and support.

Through the creation of new high value-added technologies and accumulated technologies such as ultra-low power consumption and embedded memory processes,

we contribute to the realization of the IoT world and a sustainable society in which people and technology live in harmony.



Aiming to become a foundry company loved by customers

In December 2014, Mie Fujitsu Semiconductor took over the 300mm production line and related facilities of the Mie Fab of Fujitsu Semiconductor Limited, and was born anew as a pure-play foundry company. The head office and marketing functions are located in Yokohama and the business is being developed globally.

Following the phenomenal growth of the mobile market typified by smart phones and tablets, the trend of Smartization in every field, such as automotive, medical, and industrial, is expected to grow and expand into new markets, as exemplified in the rise of the IoT (Internet of Things). Consequently, the demands on foundry companies will not only be for the conventional finer fabrication processes, but also for a range of other areas, such as in further reducing the power consumption of existing technology nodes. Our company promises to meet customers' demands with revolutionary solutions and swift actions.

Through Mie Fujitsu Semiconductor's unique expertise in ultra-low power and embedded memory processes, its highly-experienced engineers, its unceasing production improvement activities, and its capacity to deal with high risk scenarios using technology such as hybrid, earthquake-proof buildings, Mie Fujitsu Semiconductor is aiming to become the most-loved foundry company in the world, and is determined to contribute to innovation for the coming IoT society.



Haruyoshi Yagi, President

New Smart Foundry for Smart Society

Mie Fujitsu Semiconductor is the foundry partner to help guide your business success through customized process capability and technological support.

● Technology

Ultra-Low Power Technology

In order to achieve the ultra-low power consumption that is necessary for mobile and wearable devices, we developed the “C55DDC” technology. “C55DDC” is a technology having transistors that can operate at ultra-low voltage and ultra-low leak transistors.

These transistors adopt a structure that is different from conventional CMOS in order to achieve ultra-low power consumption. As a result, the “C55DDC” achieves a reduction in power consumption of approximately 50% at the same operating speed when compared to the “C55LP”. Furthermore the leakage current of the ultra-low leak transistors has been decreased to pico-ampere levels, and even to femto-ampere levels. With the “C55DDC,” we provide low power solutions meet our customers’ various needs.

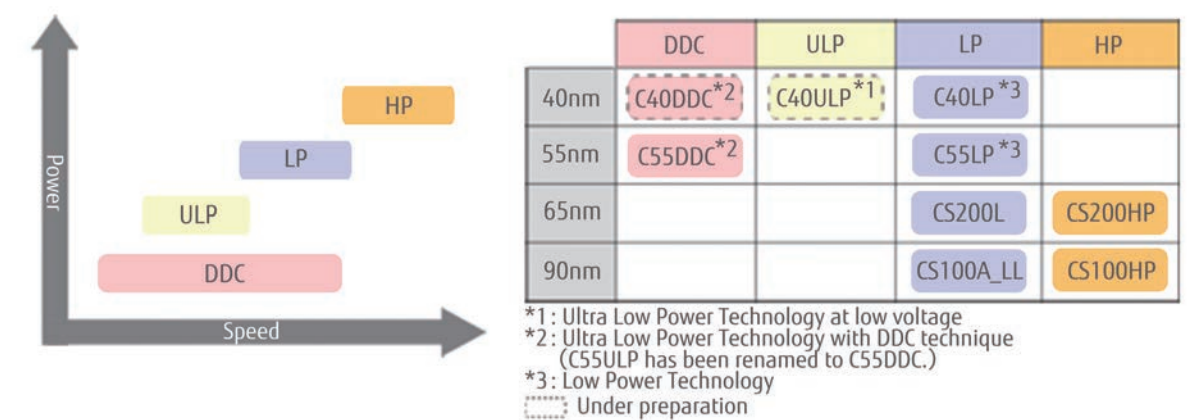
Our company is the first in the world to manufacture these ultra-low voltage and ultra-low leak transistors, and we are the only foundry mass-producing such products.

Nonvolatile memories

Nonvolatile memories are embedded in a variety of electrical equipment such as automobiles, IC cards, smart meters, etc. We mount nonvolatile memories with high CMOS compatibility our customers' products at the lowest cost.

RF

Wireless communication is a key word in the rapidly progressing IoT society. Our ULP/LP technology comes with PDK and the devices necessary for RF design (such as varactors, inductors, and MOM/MIM capacitors), allowing us to provide optimal RF solutions to our customers.



● Customization

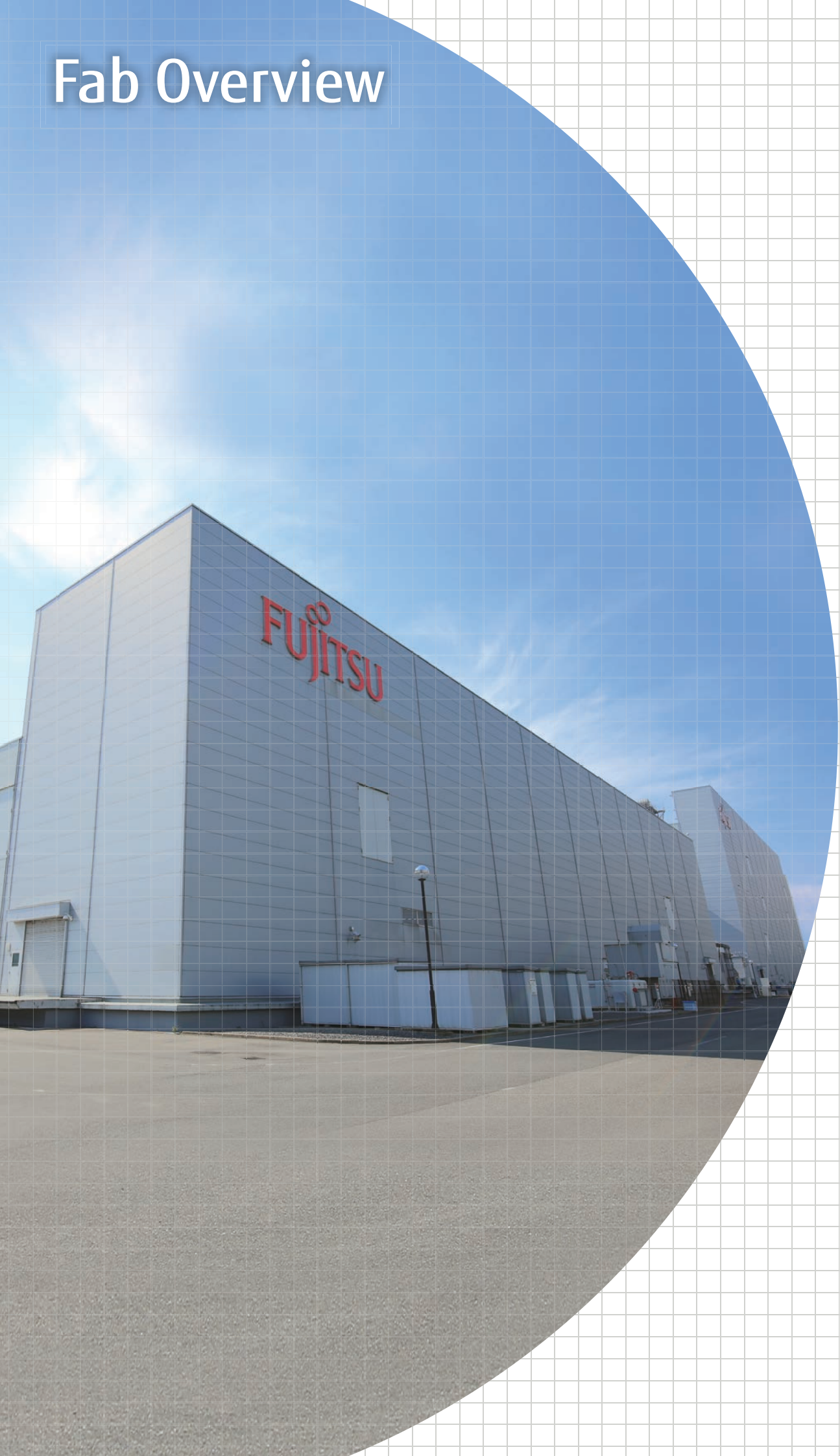
Based on the needs of our customers, we can customize our superior CMOS technology in a flexible manner such as process optimization device target shift and etc.

● Customer Support

In our fab, we have been developing and manufacturing LSIs for over 30 years. Utilizing our wealthy experience and accumulated knowledge, we provide careful and swift support to our customers from design to manufacturing.

Through the technology and services we provide, together with our customers, we are contributing to the realization of the coming smart society. Through our excellent technology and support, we realize products that support a smart society.

Fab Overview



Fab Overview

Our company took over the Mie 300mm fab from Fujitsu Semiconductor Limited. The fab started operations in 2005.

From the beginning of operations, this fab has been mainly providing foundry services for the advanced logic LSIs, and has established manufacturing, information management, quality control, and customer support systems for the foundry business. In accordance with ISO14001, we pursue “Green Fab”. According to the ISO9000 series and automotive ISO/TS16949 certifications, we have established quality assurance and control systems. Additionally, we have been making our utmost efforts towards safety and quality improvements.

	Fab B1	Fab B2
Start of operations	2005	2007
Total floor area	38,000m ²	80,000m ²
Clean room area	17,000m ²	15,000m ²
Location	Kuwana City, Mie Prefecture	
Wafer size	300mm	
Process technology	40nm, 55nm, 65nm, 90nm	
Production capacity	About 35,000 wafers/month	
International Certifications	ISO9001, ISO14001, ISO/TS16949	
Major features	We deal with the risk of large-scale disasters by having clean rooms with earthquake-proof construction, a liquefied natural gas satellite base, and NAS batteries.	

Disaster Management

● Earthquake-proof construction

For our earthquake management, we are the first semiconductor fab in the world to adopt a hybrid seismic isolation structure. Three types of seismic isolation systems have been placed between the building and its foundation, which under normal conditions minimize the effect of fine vibrations, allowing us to achieve a stable supply for our customers.



Seismic Isolation System: “Laminated rubber supports”
A rubber bearing that absorbs vibrations and attenuates the swaying of the building.



Seismic Isolation System: “Solid sliding supports”
A Teflon-coated sliding face that slides horizontally and absorbs the building’s vibrations.



Seismic Isolation System: “Oil damper”
This restricts the range of lateral movement of the Solid sliding supports bearing.

● LNG Base

In preparation for a stoppage of the supply of city gas in the event of a large scale disaster, we have installed a liquefied natural gas (LNG) satellite base. As a result, in the event of a stoppage of gas, we are able to supply LNG using the satellite base and tanker vehicles. We continue to further strengthen our fab infrastructure against such disasters.



● NAS Batteries

As a countermeasure against instantaneous voltage drops or power failures, we have adopted NAS (Sodium – Sulfur) batteries. This enables the continuous operation of a stable fab.



Environmental Activities

Fujitsu Semiconductor Group Environmental Policy

With our customers, we contribute to the protection of a rich global environment, using state-of-the-art technology to provide semiconductor devices with superior environmental characteristics.

● Operational Principles

By applying the following principles, we work to prevent pollution of the global environment and reduce the environmental burden of our products throughout their lifecycles, including development, procurement, manufacture, sales, usage, and disposal :

1. By aggressively promoting the development of Super Green Products and the proper management of product chemical content, we improve the environmental characteristics of our products and actively reduce the burden on the global environment and our customers.
2. We aggressively promote measures to counteract global warming and reduce emissions of greenhouse gases (e.g., CO₂, PFCs).
3. We aggressively promote chemical management and reduced emissions of volatile organic compounds (VOCs).
4. We aggressively promote waste reduction and appropriate recycling.
5. We conform to environmental regulations around the world and keep our promises to customers.
6. We work to improve the individual environmental consciousness of our employees, to help them become good environmental citizens, promote the preservation of biological diversity, and make environmental and social contributions in their local communities.
7. We expand the effectiveness and transparency of our environmental management system, driving continuous improvement and development.

Main Activities of the Mie Fab

Based on the Intermediate Environmental Vision “Green Policy 2020” of the Fujitsu Group, our Mie Fab has been engaging in environmental activities. While promoting activities such as the reduction of waste and greenhouse gases, we have also expanded our environmental contributions by interacting with local regions through activities like our cleaning initiatives.

● Environmental Considerations

Monitoring of Fab waste water using local killifish

Water and chemicals containing harmful substances are used in large quantities in a semiconductor fab. The wastewater and chemicals are treated in a state-of-the-art water treatment facility and, after processing, are safely discharged into a nearby river or stream. In order to ensure that this wastewater does not damage the biological environment and that a very important role is being played in preserving the eco system, we are monitoring our fab wastewater using killifish. The killifishes are then donated to local elementary schools as teaching material for science classes.



Local killifish

Composting of Raw Waste from the Dining Hall

The raw waste from the dining hall is composted into organic fertilizer, which is provided to employees and nearby citizens. It is also used as prizes for local sporting events.



Composting raw waste from the dining hall

● Contribution to Society

Cleaning activities

We contribute to our nearby society by cleaning activities in the area surrounding our fab, including the cleaning of nearby parks (* Kuwana Adopt Program) 4 times a year. We also encourage our employees and their family members to take part every year in our outside-the-fab event: “Major Operation for Cleaning Rivers and the Sea” .

* The “Adopt Program” is a system for carrying out the cleaning and beautification of public spaces in Kuwana City, such as roads and parks. It is carried out by citizens and volunteers from businesses in the region.



Cleaning activities

Visiting Lessons on the Environment

Every year we visit nearby elementary schools and give lessons about the environment. In the lessons, we teach the necessity of the 3 Rs (reduce, reuse, and recycle) by dismantling a personal computer.



Visiting lessons on the environment

Corporate Profile

Corporate Profile

Corporate Name	MIE FUJITSU SEMICONDUCTOR LIMITED
Date of establishment	December 1, 2014
Head office location	Shin-Yokohama Chuo Bldg. 2-100-45 Shin-Yokohama, Kohoku-ku Yokohama-shi, Kanagawa, Japan
President and CEO	Haruyoshi Yagi
Capital	7.5 Billion Yen
Employees	850
Business description	Semiconductor manufacturing and testing services

Head Office



Fab



Head Office and Fab Locations

