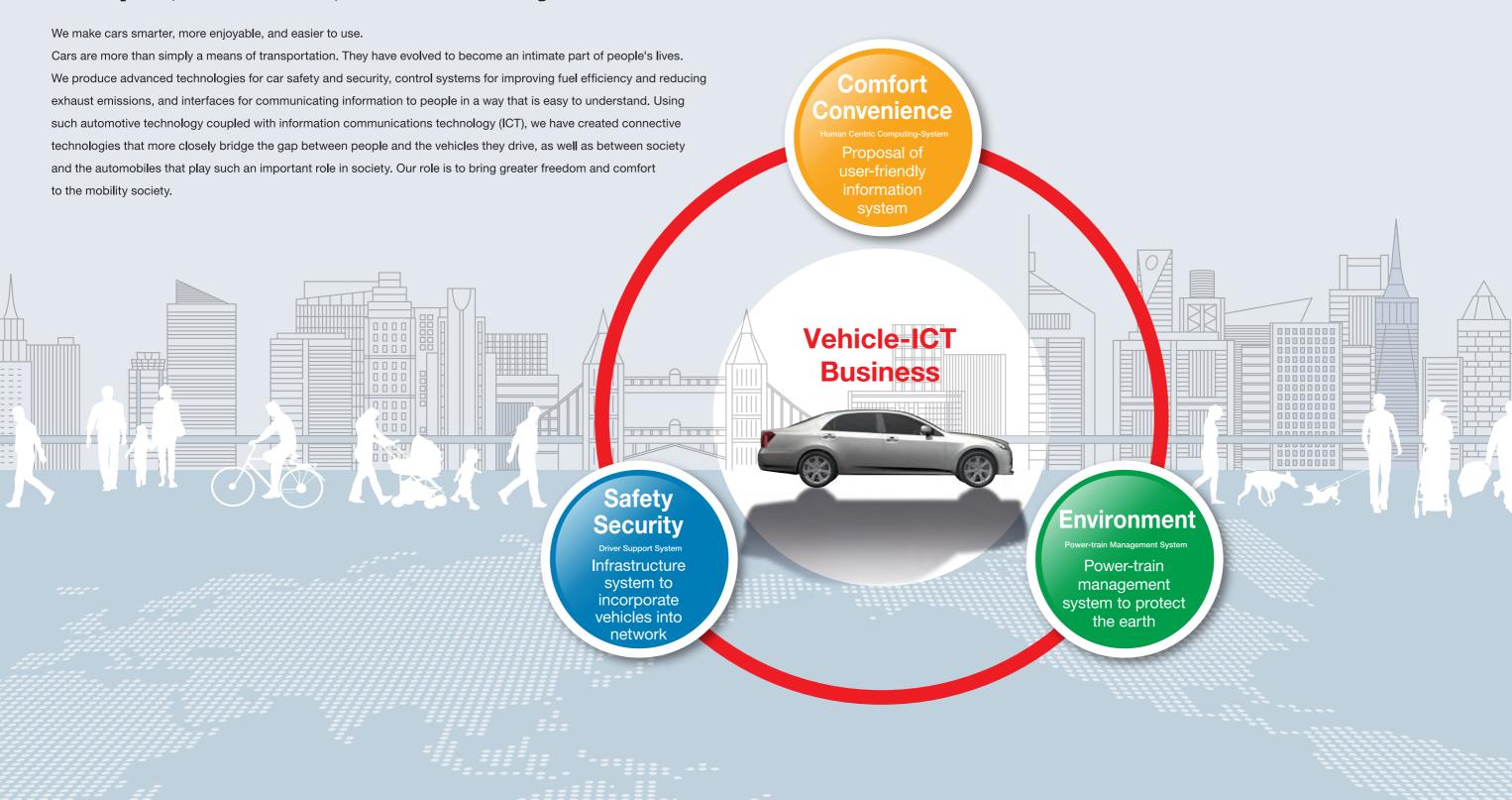
DENSOTEN

CORPORATE PROFILE



Published April, 2019

DENSO TEN Builds Bridges Between People, Vehicles, and Society.







We have built a system that delivers information on traffic conditions, parking availability, and the weather at the driver's destination in real time. Our goal is to deliver information with optimal content delivered with optimal timing based on sensors that help ascertain how the driver is feeling, his or her state of health, and conditions on that

Products that contribute to comfort and convenience





Safety Security

Comfort Convenience



Enhancing Vehicles through ICT

We are aiding the global environment by helping to improve fuel efficiency, reduce CO₂ emissions, and optimize energy in vehicular travel.



We are actively developing systems for improving fuel efficiency and reducing exhaust emissions. As power sources become more advanced in various ways, our products that control power sources and make them more **Environment** products that control power sources and make them more efficient are used to optimize energy use not only in cars and towns, but throughout society.

Products that contribute to

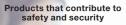


Hybrid control ECU

Data gathered by devices connected to the latest technology extends car safety and security throughout society.



We make products that support safe driving from many angles-by preventing accidents and minimizing damage if an accident does occur-with the aim of establishing a support system for safe driving that links together cars, pedestrians, cities, and road information.



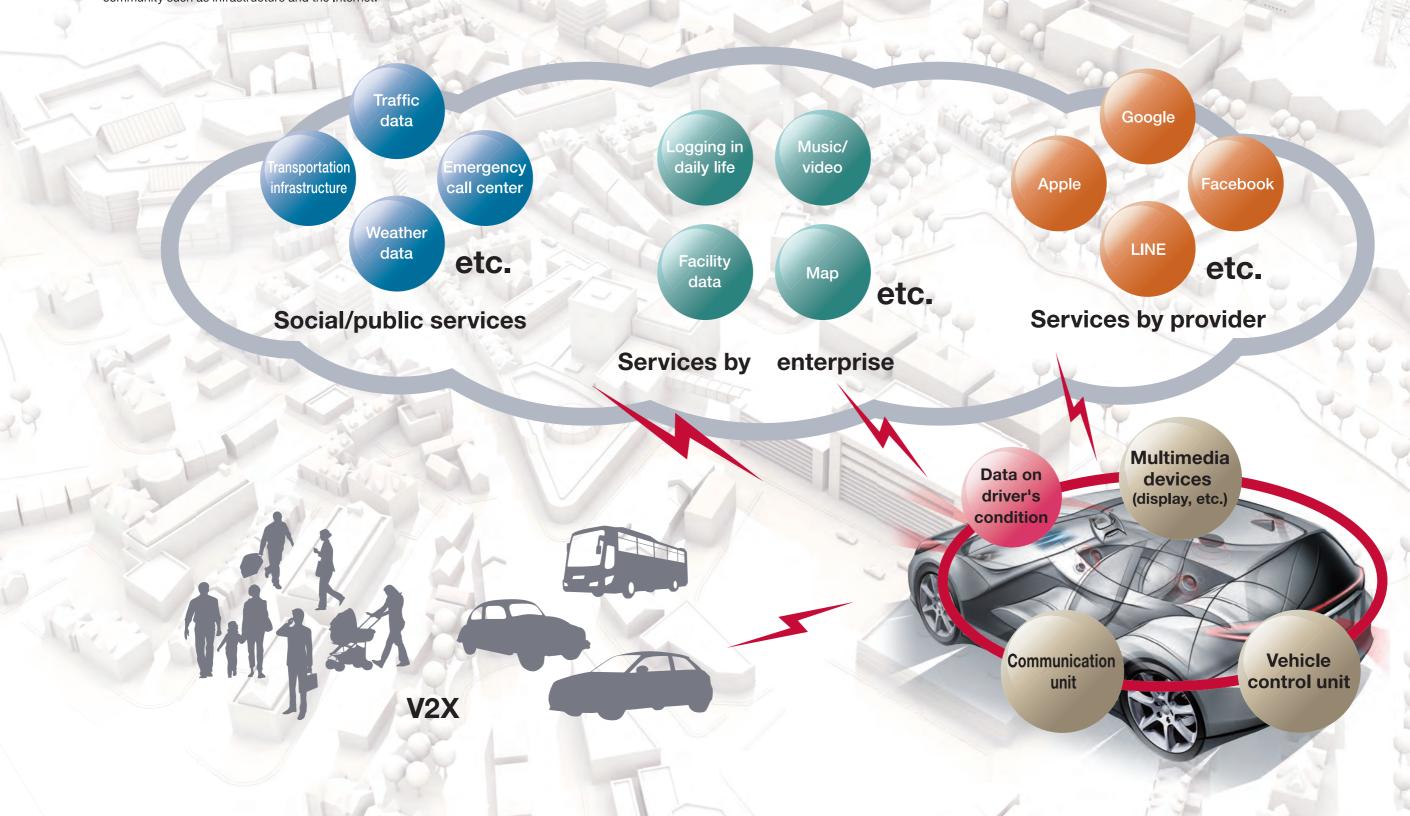




Telematics Unit for Emergency Call System

Providing a New Mobility Life Through Our Linking Service Future Link

We aim to provide new value best suited to individual customers by connecting data on people such as individual driving characteristics, data on vehicles obtained from in-vehicle devices, and data from the community such as infrastructure and the Internet.



Safety & Security

ICT enables more reliable safety and security for people, cars and society.



CLOSE UP Developmental History

We launched drive recorders for taxis for the first time in 2005. At the time, the number of traffic accidents and injuries were on the rise. The Ministry of Land, Infrastructure and Transport began implementing verification tests for taxis using drive recorders, and installations began with a focus on the taxi industry. We launched drive recorders for consumers under the ECLIPSE brand in 2006; these have been made widely available by car dealers as an option since around 2008, and we have also been promoting adoption in passenger cars. Later, for commercial use, we developed products that offered total support for safety, security, and business operations, such as a digital tachograph and cloud connectivity to support safe driving. In 2016, we released a drive recorder with built-in navigation system, which has garnered high commendations from the market.





OBVIOUS Commercial Use Drive Recorder Drive recorder with built-in navigation

In an emergency, the Emergency Answering Center is automatically notified, allowing for the quick rescue of the driver if ever necessary.

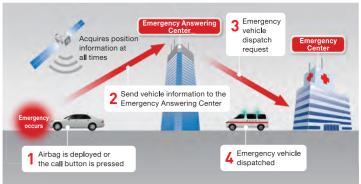
Telematics Unit for the Emergency Call System





This telematics unit for the Emergency Call System automatically notifies authorities of a car accident or other emergency when it occurs.

Overview of Emergency Call System

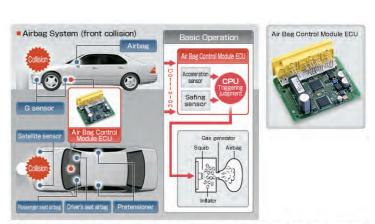


Airbags inflate instantaneously and unerringly upon impact, helping to ensure the safety of the driver and passengers.

Airbag Control ECU



In a collision, sensors are activated and an airbag will deploy from the steering wheel or dashboard and inflate to lighten the impact on the driver's or passenger's body. The system also assists seatbelt action.



Ensures that the airbag inflates to the ideal parameters in conjunction with securing of the body by the seatbelt. Airbag deployment disperses or mitigates the force of a collision on the head and chest to lighten impact on the body.

Quickly detects unusual conditions in the car. A siren sounds intermittently to deter car theft.

Vehicle Security System (VSS)



Immediately detects an intrusion into the vehicle or unusual conditions. A warning siren goes off if a door is forced open or upon an impact to the window glass to deter auto theft.





Comfort & Convenience

Human Centric Computing-System

The information you want, customized and delivered smoothly, enjoyably, and without stress, all for your added comfort.

Linking technology makes driving more enjoyable and active.



Car Navigation and Car Audio

DENSO TEN's car navigation systems, which are sold under the "ECLIPSE" brand, are highly regarded. These products' bidirectional communications capability and seamless integration of functionality not only allow customers to enjoy multimedia content, but also make possible connectivity-oriented services that utilize information and communications technology to deliver capabilities such as updates to map data and searches that return up-to-date information about destinations. In this way, we provide services that make driving more pleasant and convenient.



CLOSE UP | Automatic Map Updating Future Link.

Progress in information and communications technology is giving rise to new services that keep car navigation systems up to date with the latest map data without any effort on the part of the user. These services allow navigation systems to access a central database via the customer's smartphone to download and apply differential updates containing data for newly opened roads. These technologies make possible navigation functionality that utilizes fresh data, for example so that customers can search for new destinations or parking lots with empty spaces.



Enhancing the comfort of mobile spaces from Japan to the world.

Unique development expertise accumulated over decades goes into our OEM products.

Products for Automakers

DENSO TEN has a long history in developing cutting-edge sound systems for car audio, starting with our car radios used in the Toyota Crown. The changes in technology have been rapid – from radios to cassette tapes, CDs, MDs, TVs, and car navigation systems. We have developed products in quick succession in response to such trends in physical media over the years. We have also contributed our systems development know-how to collaboration with the world's top automakers from the planning stages.



Next-generation Premium Sound System featured in the Toyota Crown

Remote Engine Starter System with Smartphone Connectivity

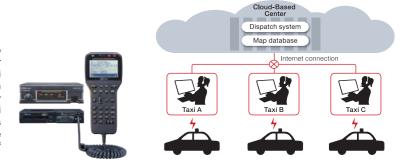
Using the Internet and mobile phone networks, it is now possible to start a car's engine by remote control even from far away, something not possible with earlier keyless remote control systems. By downloading an exclusive app and registering it in advance, the user can remotely control the registered vehicle—not only starting the engine, but also locking or unlocking the doors, turning air conditioning on or off, and adjusting the temperature in the car. Users can also check the status of their vehicle on the smartphone screen for even greater convenience.



For systematic taxi dispatching and efficient operational flow.

Cloud-Based Dispatch System for Taxis

Vehicle locations and other information is used to automatically search for the vehicle closest to the customer when dispatching, to enable a smooth and speedy taxi dispatching system. By concentrating the dispatch management functions that were previously handled by each taxi company at our cloud-based center, a taxi operators can connect to big data such as weather forecasts or local event information. The system supports the systematic dispatching of taxis and an efficient flow of operations.



Creative technologies based on "time domain" theory accurately reproduce the emotion in a musical performance.

Home Audio Systems

We applied the innovative "time domain" acoustic theory to development based on the concept of duplicating a live performance in the listening space by adapting to the sound of the recording. The acoustic evaluation, analysis, and R&D was conducted at the company's Acoustics Development Center, where our attention to detail extends from car audio to home audio, resulting in a new style of listening.



ECLIPSE

Acoustics Development Center Studio For

Environment

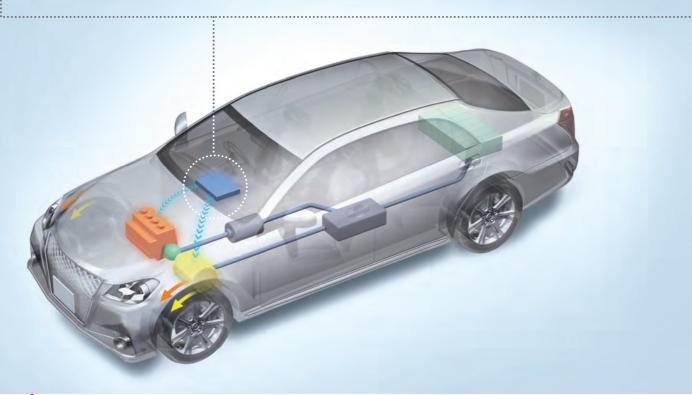
Power-train Management System

Optimizing mobile energy through control technologies to address environmental issues faced by vehicle-based societies.

Optimized control of two types of power sources for reducing fuel consumed by hybrid vehicles.

Hybrid Control ECU

Hybrid vehicles combine the strengths of an electric motor, which exhibits maximum torque at standstill, and a gasoline engine that generates high power at high rpms. Compared to conventional gasoline-powered cars, hybrids offer a significant reduction in CO₂ emissions with high fuel economy. The hybrid control ECU offered by DENSO TEN optimally controls the two types of power sources to improve fuel consumption and reduce exhaust gas. Also, as development tools for the hybrid control ECU, we have developed and supplied a dedicated motor model and a motor board for high-speed simulation — one of the fastest in the industry in terms of computing power.



The ECU can also be installed in the engine compartment.

Optimally controls the ignition timing and amount of fuel injected.

Engine Control ECU

This device supports clean, high-performance engines that heighten on-road performance and reduce exhaust gas pollutants. A microcomputer is used to precisely supply fuel to the engine as needed, ensure proper ignition timing, and control the transmission.



Battery charge and discharge management eliminates waste and helps extend the life of your vehicle.

Power Management Control ECU

This system manages battery charge and discharge. It delivers charging instructions to the alternator (generator) for the precise amount of charge required, thereby avoiding waste, improving fuel efficiency, and extending battery life.

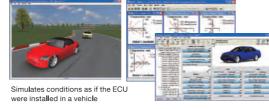


CLOSE UP | ECU Development Simulator

With advances made in recent years in automotive control technologies, the performance of the in-vehicle electronic control unit (ECU) has been greatly expanded. Out of necessity, significantly more time is also being invested in developing functions and assessing reliability. That is why DENSO TEN designed the CRAMAS simulator for developing electronic control units. The simulator recreates conditions exactly as if an ECU or other hardware were installed in a vehicle to evaluate functioning and performance. In combination with vehicle test runs, the simulator helps to shorten the development cycle, makes development efficient and environmentally friendly, and leads to better quality.

CRAMAS, ECU Development Simulator





DENSO TEN aims to "make everything green" related to cars. We are working to supply products with the highest level of environmental performance and also reduce the impact on the environment at various stages of vehicle manufacturing.

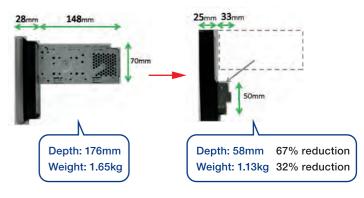
Developing "Super Green Products"

DENSO TEN has established a system of environmental assessment to reduce the impact on the environment at various stages in the product life cycle.

Products that have been improved to meet established criteria for low energy consumption, low resource use, etc., are certified with the "Green Product" label. Those that meet criteria putting them at the top of the class in terms of eco-friendliness compared to our products or those of other companies are given the "Super Green Product" label. We are working to develop more environmentally-friendly designs.

Development Example Case

DENSO TEN has developed a slim-type display audio system, drastically saving space and weight. We carried out a fundamental overhaul of the component structure and, through means such as replacing the existing chip with a smaller one, consolidated the main unit into one panel. Positioning this upright greatly saves space.



"Super Green Product" Certification Criteria

We have added "eco-friendly technologies" to the assessment criteria for certification as a "Super Green Product". In this way we hope to further propel the development of eco-friendly products with functions that contribute to the environment, such as those that improve fuel consumption and reduce CO_2 emissions.

Example of an eco-friendly product: Stop and Start Control ECU This module detects when the brakes are applied, and automatically stops the engine; when the brakes are released, it automatically restarts the engine. In this way it reduces CO_2 emissions when the vehicle is stationary.





DENSO TEN carries out global R&D to develop products and services for markets around the world.

Tokyo Office

Software Development

Planning and development takes place at this key location on systems (services and on-board devices) that have global applications. Also, the most cutting-edge R&D at DENSO TEN is conducted here to develop software technologies with the aim of building next-generation vehicle platforms.



Nakatsugawa Technical Center

The center consists of an electromagnetic compatibility (EMC) testing facility, for evaluating and researching electromagnetic wave noise that affects electronic equipment, along with a test ground, for driving vehicles around various test courses to conduct a wide range of tests that include tracking performance and reception sensitivity. The center works to assure safety and security in products and achieve high performance.





Acoustics Development Center

The center consists of Studio Forte, at which original music software is developed for car audio systems, an in-car acoustics measuring system for conducting various in-car tests, an anechoic room used for analyzing noise generated from precision mechanisms, and other facilities. It is a comprehensive acoustics development facility at which research on sound itself is conducted, extending to activities that support the production of reliable products for a diverse range of media.





DENSO TEN's production network extends throughout the world. Our plants in Japan and outside of Japan have obtained ISO/TS16949 certification and carry out thorough quality management.

DENSO TEN has established a global production system to deliver to expanding automobile markets around the world. Notably, two plants in Japan, the Nakatsugawa Plant and Oyama Plant, are positioned as mother plants within the Group. These plants develop cutting-edge production technologies, which are then deployed to plants outside Japan, strengthening our international competitiveness through manufacturing capabilities.





Nakatsugawa Plan

Oyama PI

Wire Bonding Connection System

Wire bonding systems for connecting high-frequency sensor modules are a cutting-edge technology that enables compact, high-density high-quality components that are indispensable for auto manufacturing to be pro-



High-Speed Assembly Line for Engine Control ECUs

Linking product design with process planning has simplified assembly and inspection, making these processes faster and more accurate. The high-speed assembly line for engine control modules has been streamlined



through the use of a fully automated rapid inspection system.

Lead-Free Soldering Apparatus (Flat-DIP)

We have independently developed an apparatus for lead-free soldering of a wide range of products. It is in use at nine plants in Japan and overseas. (Pat. No. 39426235)



Durability Test

This test evaluates the reliability of the car navigation system and measures durability as it relates to operability after the product has been used for an extended period of time.



Electromagnetic Field Simulation

In an era of high demand for shorter product development cycles and lower costs, we employ electromagnetic field simulation technology to visualize the electromagnetic waves generated inside a product, contributing to EMC design in the early stages of



product development and speeding up product develop-



Based on our Behavior Declaration (CSR Policy), we are committed to building a more prosperous society and local communities through corporate activities as a solid member of society.

Environmental Contribution Activities

At the DENSO TEN Group, we perform tree planting and thinning, and stock waterways with fish to help maintain biodiversity as part of our global activities. Also, to clean up our local communities, we pick up trash on streets and sidewalks and in parks near each business location. We are widening our circle of voluntary environmental action, with every employee joining in to fulfill his or her responsibility as a member of the community.





Suma Beach Cleanup Campaign

ree thinning volunteers in America

Cultural & Social Activities

As a company deeply involved with sound, DENSO TEN believes in contributing to society through sound and music. Our acoustics technology and corporate culture are visible in a variety of original activities. For example, we organize or sponsor many types of concerts and music events, and run the KOBEjazz, jp website.





Promoting Sports

The DENSO TEN Group actively aims to promote community and social development through sports. Our women's volleyball corporate team engages in various activities to build ties with and assist the community. The players teach volleyball to amateur women players and to elementary school and junior high school children. They also help with community cleanups, host their own website, and contribute locally in many other ways.







The "TEN" in our company name DENSO TEN means

"heavenly," in the sense of "ultimate" or "supreme".

We have always followed the ideal that "sincerity is the way to heaven,"

as stated in the classic Confucian text, The Doctrine of the Mean.

Corporate Philosophy: *Makoto* (Sincerity)

We will work with the utmost sincerity to support our customers and contribute to society.

Customer Focus, Highest Possible Quality

We always think first how to best serve our customers, to create products of the highest quality that exceed our customers' expectations.

Responsibility and Contributions to Society

Recognizing we are a part of society, we shall fulfill our social responsibilities and contribute to our society through our corporate activities.

Work Values

Each and everyone shall take pride in their work, and utilize their own abilities to realize a workplace where everyone shares in our achievements.

Behavior Declaration (CSR Policy)

We, DENSO TEN, shall contribute in building a better relationship between human and automobiles by providing our products and endeavor to become a corporation trusted by both regional and international society.

(The complete Behavior Declaration is available on our company website.)

Customers

- Customer as number one, optimal product quality, and products/services that exceed expectations
- Improve safety and product quality
- Protect personal information

Employees

- Respect for human rights
- Prohibition of forced and child labor
- Actualize job satisfactionFair labor conditions and safe work environment

Clients

- Co-existence and co-prosperity
- Fair and transparent business opportunities, and just relationships

Shareholders

Improve corporate value

Environment

• Reduce environmental impact **Society**

- Proper information disclosure
- Compliance with all international and local rules
- Proper relationship with
- governmental authorities

 Avoidance of antisocial forces

Social contribution

Contribute to creating a prosperous society and local communities

Eco Vision

I. Commitment (toward 2050)

The DENSO TEN Group is aware that coexisting harmoniously with the environment and economy is our crucial business task, and by aiming to solve environmental and energy problems and achieve coexistence with nature through all of our corporate behavior, we will promote the better relationships between people, cars, and the environment.

We will boldly undertake the challenge of dealing with the critical environment issues faced by society. Aiming for sustainable regions and society, we will create new environmental value, protect the earth, and deliver a bright future to the next generation.

Commit 2050: Achieve balance between the absorption and emission of greenhouse gases caused by humans (zero-emissions)

II. Environmental Policy (toward 2025)

Through the framework of our globally established environmental management system, we will reflect and promote the DENSO Group Eco Vision in our Environmental Action Plan

Note: The entire Eco Vision can be read on our company website.

Corporate History

Management History

1920

 Kawanishi Machine Works established. **1949**

Kobe Industries Corp. established. 1967

• Ten Onkyo Co., Ltd. established (now Oyama Plant of DENSO TEN

1968

 Kobe Industries Corp. merges with Fujitsu Limited, and the car radio and car stereo department becomes affiliated with the Kobe Industries Division of Fujitsu Limited.

1972

The car radio and car stereo department are separated from Fujitsu Limited and established as FÚJITSU TEN LIMITED with a capital of 550 million yen.

1973

• Capital is increased to 1,000 million yen with investment by Toyota Motor Corp. Nippondenso Co., Ltd., and Fujitsu Limited.

 Nakatsugawa Ten Ltd. established (now Nakatsugawa Plant of DENSO TEN Limited). 1979

· Capital increased to 1,300 million

New production facilities

1984

 Vehicle electronics building constructed at Main Plant.

1985

constructed at Main Plant. Capital increased to 3,300 million

1987

 Nakatsugawa Ten Ltd. merges with FUJITSU TEN LIMITED.

Rushville Indiana Operations of FUJITSU TEN CORP. OF AMERICA established.

1989

- Technical facilities constructed at
- Company symbol mark changed.

1990

Acoustics Development Center opens at Main Plant.

1991

Additional production facilities built at Nakatsugawa Plant. New manufacturing building construction at FUJITSU TEN

CORPORATION OF THE

PHILIPPINES completed.

Capital increased to 5,300 million

1994

 FUJITSU TEN Social Contribution Fund founded.

1995

 Operations at Main Plant suspended for four days due to the Great Hanshin Earthquake

1996

Start of car audio system production in Europe. Obtained international quality

assurance system standard ISO9001:1994 certification.

1997

 Plant construction at FUJITSU TEN de MEXICO, S.A. de C.V. completed.

Construction of Nakatsugawa Technical Center completed.

environmental management

 Plant construction at TIANJIN FUJITSU TEN ELECTRONICS CO., LTD. completed. Obtained international

system standard ISO14001 certification.

 Obtained QS-9000 quality control standard certification, meeting the criteria established by America's "Big Three" (General Motors, Ford and Chrysler).

Starts use of the electronic "kanban" system for parts procurement, a first in the car audio industry.

1998

Opens Kobe Logistics Center

2000

· Introduces environmental accounting. Obtained Automotive EMC accreditation for the ISO/IEC17025 international standard at the Nakatsugawa Technical Center.

2002

 Construction of plant at FUJITSU TEN (THAILAND) COMPANY LIMITED completed.

- Launches car AV products using lead-free solder.
- Vehicle electronics products division attains international CMM standard Level 3, a first among Japanese car electronics manufacturers.

2003

- Opens Toyota Logistics Center Achieves zero emissions at all
- domestic manufacturing plants.

 Plant construction at FUJITSU TEN ELECTRONICS (WUXI) LTD.

2005

Co-sponsors EXPO 2005 International Workshops (Concert and Performance), one of the EXPO 2005 Message Events planned by the Japan Committee of EXPO 2005 Aichi. Obtained international quality

assurance system standard ISO/TS16949:2002 certification.

2007

- Obtained international environmental management system standard ISO14001 integrated certification for all domestic group businesses.
- FUJITSU TEN SOLUTIONS PHILIPPINES INC attains international CMMI standard Level 3
- FUJITSU MANUFACTURING ESPAÑA,
- S A made into a subsidiary. · Company makes a new start as
- FUJITSÚ TEN ESPAÑA, S.A. · Car AV units manufactured reaches
- the 100 million unit mark.

2008

 Plant expansion at FILITSLITEN ELECTRONICS (WUXI) LTD.

2010

- FUJITSU TEN SERVICE LIMITED is established
- A corporate officer system is introduced.
- Technosepta Co., Ltd. made into a subsidiary, name changed to FUJITSU TEN TECHNÖSEPTA CO., LTD. 2011

- Great East Japan Earthquake causes suspension of some plant operations domestically as well as suspension of some operations for domestic-bound products at overseas plants
- FUJITSU TEN DO BRASIL LTDA established.

2012

- In order to expand the domestic market business, three domestic sales subsidiaries are integrated to establish FUJITSU TEN SALES LIMITED.
- FUJITSU TEN (CHINA) LTD. established as the headquarters for business in China.

• FUJITSU TEN MINDA INDIA PRIVATE LIMITED, a manufacturing joint venture in

 MINDA F-TEN PRIVATE LIMITED, a sales joint venture in India, is established.

2013

• PT FUJITSU TEN AVE INDONESIA is established.

India, is established.

 Kawasaki Sensor Development Center is established.

2014

 The Nakatsugawa Plant and TOCHIGI FUJITSU TEN LTD. are integrated to establish FUJITSU TEN MANUFACTURING LIMITED.

DENSO TEN Limited is

established.

2019

 DENSO TEN MANUFACTURING LTD, and DENSO TEN RESEARCH LTD. are integrated into DENSO

~1989 1990~

Product History

1955

 Starts supplying car radios for Crown model of Toyota Motor Corp.



· Starts production of car radios for the aftermarket.

 Starts production of radio communications equipment for taxis.

1959

 Develops all-transistor car radio. 1967 Markets 8-track car stereo



Starts supplying Toyota Motor Corp. with electronic devices for controlling safety belts and gas emission.

1977

 Markets component car stereos. 1978

 Starts supplying Toyota Motor Corp. with electronic devices for cruise control. 1979

Starts supplying Toyota Motor

Corp. with car stereos equipped with electronically tuned radio and recording functions.

1980 Markets Ten AVM (automatic

vehicle monitoring) system. Markets the component car stereo,

1981

Starts supplying Aishin Seiki Co., Ltd. with electronic devices for electronically controlled automatic

Markets MCA (multi-channel

access) mobile radio equipment. Jointly develops and starts supplying Aishin Seiki Co. with electronic mobile height control devices

1983

Markets personal mobile radio communications equipment,

Pasocall Bivo. Starts supplying Toyota Motor Corp. with preheat timer devices for diesel engines.





 Starts supplying Toyota Motor Corp. with control units for electronically controlled fuel injection devices (EFI).

 Starts supplying Toyota Motor Corp. with mobile security systems.

1985

 Jointly develops and starts supplying Toyota Motor Corp. with the Live Sound System integrated vehicle audio system.

Markets a bus location system 1988

 Markets DAT (digital audio tape) players for in-car use.

• Markets the new ECLIPSE series of

car audio systems to the U.S. 1989

 Develops DSP sound processor for in-car use. Markets new $\boldsymbol{\alpha}$ Series car audio systems.



 Markets high-end car audio system, Sound Monitor.

1992

 Starts supplying Toyota Motor Corp. with anti-lock braking system (ABS) control units. 1993

Jointly develops and starts

supplying Asahi Security Systems Co., Ltd. with vehicle position tracking systems.

1994 Markets multimedia player for



· Markets inter-vehicle distance warning device, Laser Alarm.

1995 Markets the new ECLIPSE car audio series for the domestic aftermarket.

1996 · Starts supplying Toyota Motor Corp. with VICS units for car navigation.

Jointly develops and starts

supplying Toyota Industries

Corporation with diesel black

smoke purification control ECU.

1997

 Starts supplying Toyota Motor Corp. with 1-DIN 6-disk CD

 Markets the 2-DIN size AVN, an integrated car navigation and audio-visual system.



 Markets CTI (computer telephony integration) automatic dispatching system for taxi companies.

1998

 Develops and starts sample shipment of 60 GHz scan-type millimeter wave radar for automobiles.

• Markets DVD car navigation

• Develops CRAMAS, a real-time

simulator and ECU development tool for automobile control use.

1999 Develops and starts sample shipment of 76 GHz scan-type millimeter wave radar for automobiles

control system electronic

equipment.

Achieves cumulative sales of ten

million units for in-car use engine

2000

 Develops DVD 5.1ch playback system with Haas effect

integrated for in-car use Starts supplying Toyota Motor Corp. with DVD-AVN that integrates DVD navigation and audio visual system in 2-DIN size

2001 Markets ECLIPSE TD, an amplifier system for home use based on time-domain theory.



2002

time-domain theory. Markets car navigation system equipped with two 20 GB hard

 Markets i-audio, a car audio system that downloads maps and other information via

wave radar. Develops and starts delivery of radio system for dedicated taxi

 Markets AVN in the U.S. and China under the ECLIPSE brand. Develops integrated film antenna

for car-TV and GPS use.

Launches ECLIPSE in Asia.

egg-shaped speaker and power



Markets ECLIPSE Sound Monitor, in-car speakers based on

disk drives.

 Starts supplying Honda Access Corp. with combination AVN as supplies.

telecommunications feature. Starts supplying Honda Motor Co. Ltd. with 76 GHz band millimeter

2004

2005

Markets DUAL AVN and 1-DIN



Markets terrestrial digital TV tuners

 Markets drive recorders. Markets AVN in Europe under the ECLIPSE brand.

2006 Jointly develops with Toyota Boshoku Corporation a Headliner Speaker System that creates sound by car roof vibration

Markets AVN under the ECLIPSE brand in Australia. Starts supplying Toyota Motor Corp. with 76 GHz millimeter wave radar for a pre-crash safety

company.

2007 Markets ECLIPSE 2007 summer model that can download online information to car navigation

systems via mobile phone.

Markets AVN with built-in

system developed by that

Markets detachable navigation system that fits into an audio unit in the U.S., Europe and Australia. Starts supplying Toyota Motor Corp.

with ECUs for use in hybrid vehicles

terrestrial television digital tuner and B-CAS slot.

2008 Develops a next-generation acoustical space control system that is adopted for the Toyota Premium Sound System of the New

Crown model of Toyota Motor Corp. · Markets navigation system with memory, AVN Lite. Supplies Honda Motor Co., Ltd. with display car audio systems for

Honda's new Life model.

2009

 Supplies Toyota Motor Corp. with 76 GHz millimeter wave radar for a front-side pre-crash safety system developed by that company.

2010

 Starts supplying Toyota Motor Corp. with Multi-Angle Vision™ a peripheral monitoring system displaying a three-dimensional bird's eye view from various perspectives around the vehicle



Receives Contribution Prize at

46th Ichimura Prizes in Industry from the New Technology Development Foundation for "Application of a Wraparound-view 3D Monitor Technology for Driver Safety and



Markets the EP001 portable navigation unit.

Unveils Vivid View Processor™ 3 an LSI with direct sunlight color correction for vehicle-mounted displays

2012

•Apple is a trademark of Apple Inc. •Proper names such as product names are trademarks or registered trademarks of their respective companies. •Future Link is a registered trademark of DENSO TEN Limited in Japan.

2011

Develops the Tokyomusen version of Sugukuru Taxi ("Soon-Arriving Taxi"), a system that allows calls to taxis via smartphone and is in operation by Tokyomusen Cooperative.

Markets 2012 summer model ECLIPSE car navigation system, featuring industry-largest 9.0-inch wide screen and support for in-car Nintendo DS play (Kurumade DS).

2013

Launches 2013 autumn model ECLIPSE car navigation system equipped with a Wi-Fi® connection.

· Releases interactive agent application CarafL that enables searches for destinations as if by normal conversation with the

2014 Markets 2014 autumn model FCLIPSE car navigation system

driver.

with automatic national map updating feature. 2015 Markets the Cloud-Based Taxi Dispatch System, a system with

both digital wireless and IP wireless compatibility. Markets the G500 drive recorder for commercial vehicles with cloud connectivity and a feature to

automatically extract near miss

video.

2016 Markets ROKUNAVI, a car navigation system with a built-in drive recorder



2018

 The Next-generation Premium Sound System is chosen for use in the redesigned Toyota Crown.



using artificial intelligence (AI) is