Avio

CORPORATE PROFILE

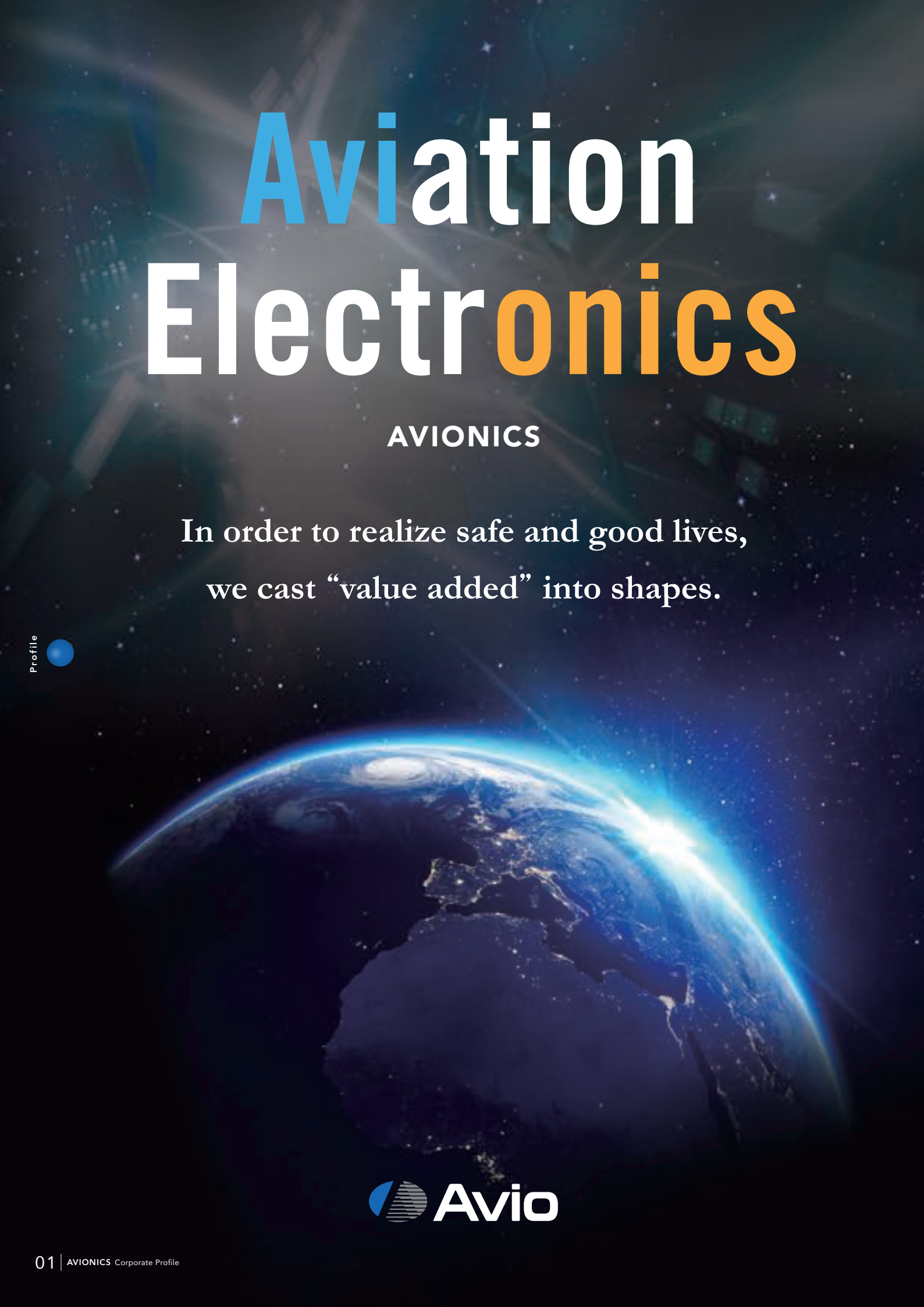
NIPPON AVIONICS CO.,LTD.

Aviation Electronics

AVIONICS

In order to realize safe and good lives,
we cast “value added” into shapes.

Profile



Avio

Management philosophy

Nippon Avionics Co., Ltd. (Avio) is determined to create new values based on its unique electronic technology and system technology, thus contribute in realizing a safe and wealthy society.

Customer value creation

Since its foundation in 1960, Avio has developed its business basis in the defense field building up customer confidence and business achievements based on its unique electronic technology and system technology. Avio then expanded its business coverage into unique industrial businesses.

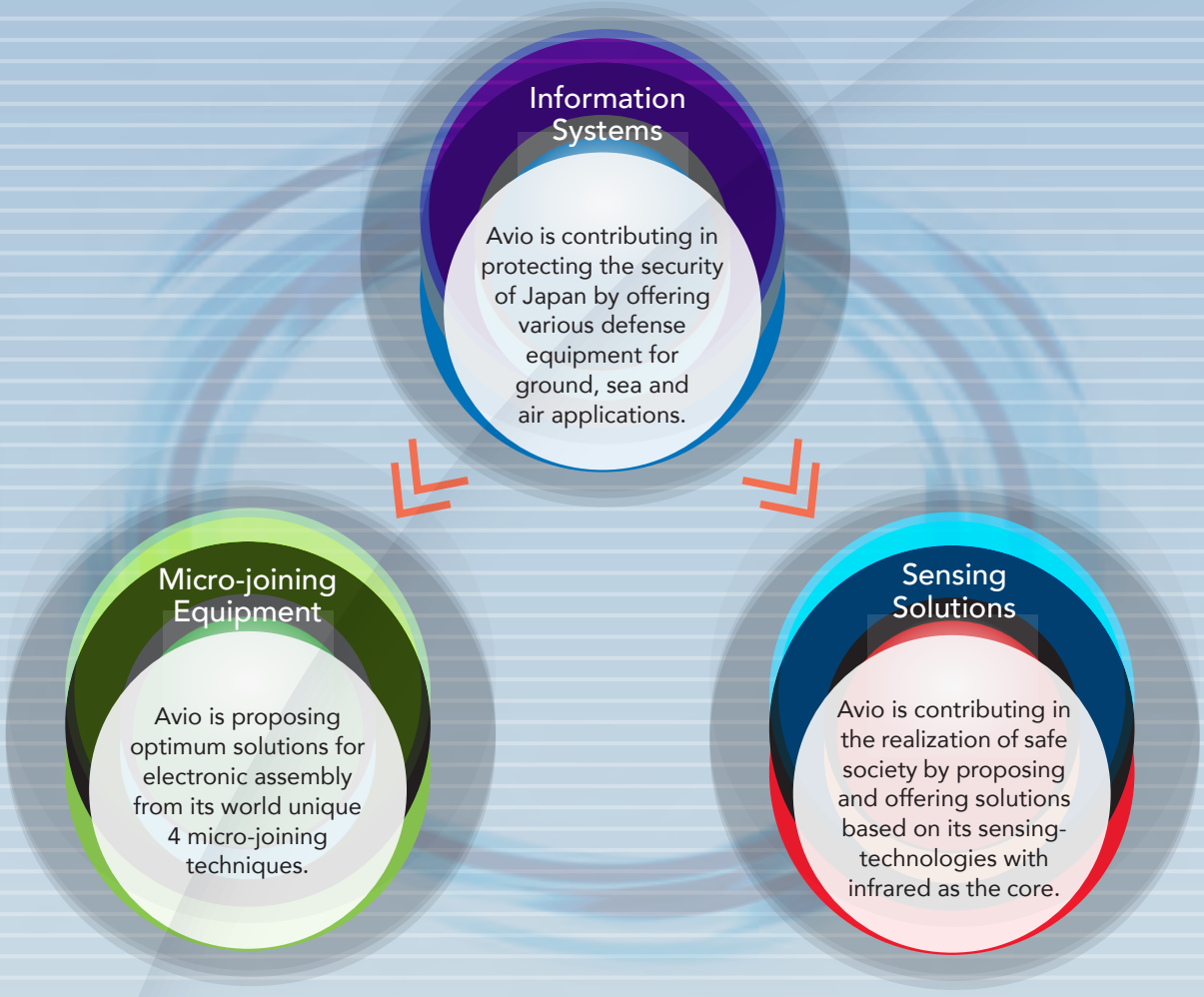
By identifying three business domains, namely “information system business”, “micro-joining equipment business” and “sensing solution business”, as the ones that Avio can contribute in the growth of the businesses of its customers, Avio will realize further growth of the company by creating innovation together with our customers and partners.

Avio will aim to improve its corporate value, meet our stakeholders’ expectation, and contribute in realization of safe and wealthy society by challenging for solutions to various problems in the society.

Masato TAKEUCHI (Mr.)
President

Everything started from the technologies to defend our country.

As the prime contractor to the Japanese Defense Agency (currently Ministry of Defense), Avio constructed and delivered the first-generation BADGE (Base Air Defense Ground Environment) system, the first nationwide online real-time network system in Japan.



Avio is deploying its businesses in three areas with the defense technology, which requires high reliability, as the core.

Since its foundation in 1960, Avio has been contributing in the safety of Japanese ground, sea and air by refining its unique electronic technology and system technology. Having the technologies to offer high quality products which function even under severe environment and systems which improve customer value as the basis, Avio is deploying its businesses in micro-joining equipment and sensing solution areas today, and challenging toward realization of safer and wealthier society.

6 focused markets

Defense

Space

Information equipment

Mobility

Infrastructure/ Energy

Healthcare

Avio offers high quality defense systems to protect the safety of Japanese land, sea and air.

After delivering the first-generation BADGE system as the prime contractor, Avio was involved in the development of the second generation BADGE system and the follow-on JADGE system. Furthermore, Avio is contributing to the security of Japan by offering devices and equipment using state-of-the-art technology for various command and control systems, display and sonar systems to protect the safety of Japanese land, sea and air.

Information display equipment built by Avio are installed on many ships owned and operated by the Japanese Maritime Self-Defense Forse.

By courtesy of the Japanese Air Self-Defense Force

By courtesy of the Japanese Maritime Self-Defense Force

By courtesy of the Japanese Ground Self-Defense Force

Strengths 1

Avio is involved in the heart of the national defense such as the command and control or warning and control.

In the field of ground defense, Avio developed anti-aircraft combat command system, command control display equipment, signal processing equipment, etc. In the field of maritime defense, Avio's technology is utilized in the information display equipment on-board Japanese destroyers, submarines and minesweepers. In the field of air defense, Avio is offering signal processing equipment, display equipment and operation software for warning and control/air traffic control radar systems, fighter equipped fire control radar system, and ground-based fire control systems.

Strengths 2

Avio offers total service from design/development, manufacture to maintenance.

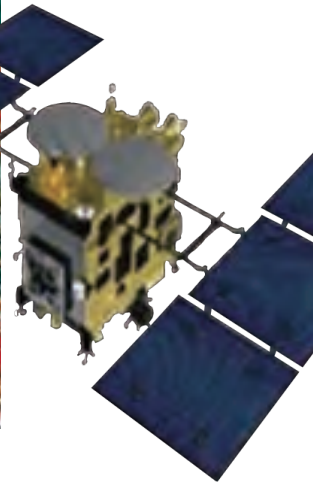
Avio is offering products by fusing operational know-how for land, sea and air systems with high level technology (signal processing, image processing, networking, environment resistance etc.), and by combining hardware and software in the optimum functional configuration.
Avio is offering services for these products consistently from development, manufacturing to maintenance.

Total system

Development → Manufacture → Inspection → Delivery → Support/ Maintenance

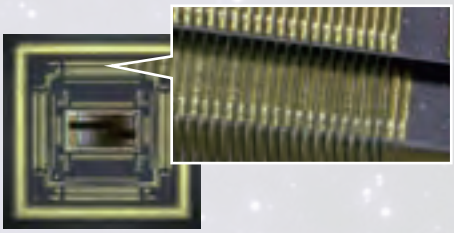
Avio is taking part in space development, and contributing in realization of safe and wealthy society from the space.

Electronic device technology of Avio is regarded highly in terms of quality, and Avio is involved in the space development projects. As the JAXA (Japan Aerospace Exploration Agency) qualified hybrid IC manufacturer, Avio is contributing in the reliability improvement of satellites and rockets. Furthermore, in order to expand the application fields for electronic device technology, Avio is developing hybrid IC's for high speed/high frequency applications and high power applications.



High reliability is important in the severe space environment.

Avio's hybrid IC's, manufactured with high temperature resistant thermal design, packaging technology (conductive cooling/distortion control), shock resistant design and mounting technology (fracture control), and high-density packaging enabling small and light weight package, are qualified by JAXA for space application and used in wide range of applications including aerospace, defense and industrial.



JAXA qualified space hybrid

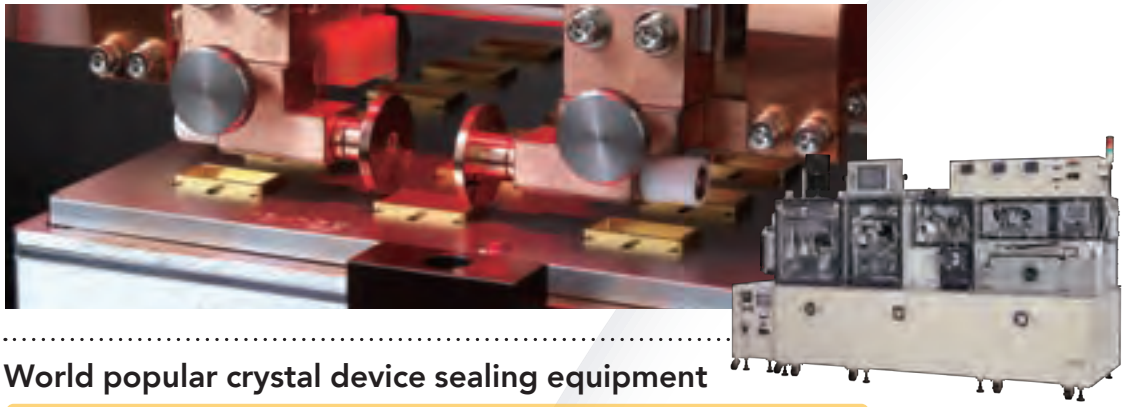
Avio developed and manufactured strategic component for Japanese space program in cooperation with JAXA.
Avio's hybrid IC manufacturing facility (Avionics Fukushima), qualified for quality control compliant to JAXA quality assurance program, is the only JAXA qualified space hybrid IC manufacturing plant in Japan.

Manufacturing plant: Avionics Fukushima

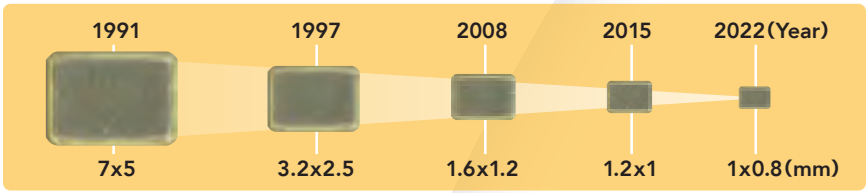
The only JAXA qualified space hybrid IC manufacturing plant in Japan. Avionics Fukushima is accommodating high-mix low-volume production of electronic devices and equipment for defense, micro-joining and infrared applications.

Avio is contributing in realization of convenient and wealthy society by casting “value added” into shapes with micro-joining solutions.

Avio, who is in a unique position in the world as a manufacturer having 4 micro-joining techniques, is contributing in the realization of convenient and wealthy society by adapting to evolving “MONOZUKURI (the art of manufacturing)” of hardware products with state-of-the-art technology and know-how as a leading company in micro-joining and offering optimum micro-joining solution satisfying customer needs.

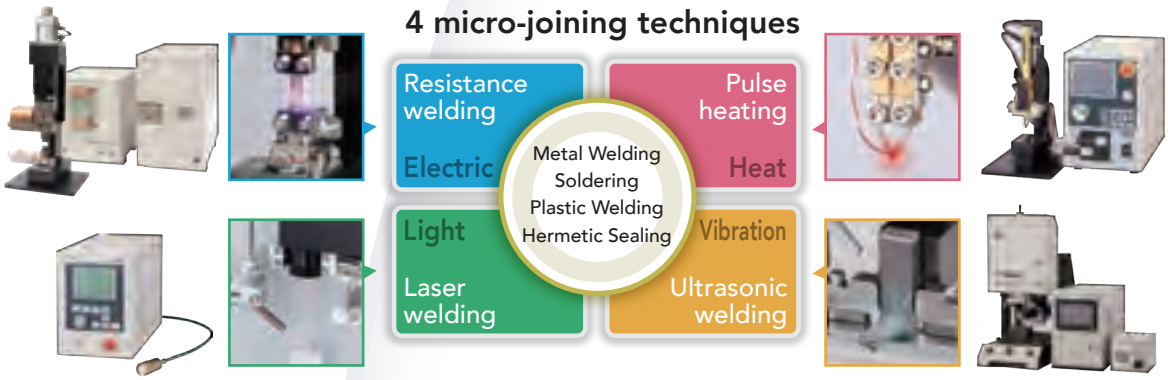


World popular crystal device sealing equipment



Over 20 billion pieces of crystal devices are manufactured annually for various information equipment including smartphones and wearable equipment. Avio has been leading the miniaturization of such devices for the last 30 years, and offering seam sealing equipment which realizes high reliability hermetic sealing utilizing image recognition, electro-mechanics and vacuum technology.

4 micro-joining techniques



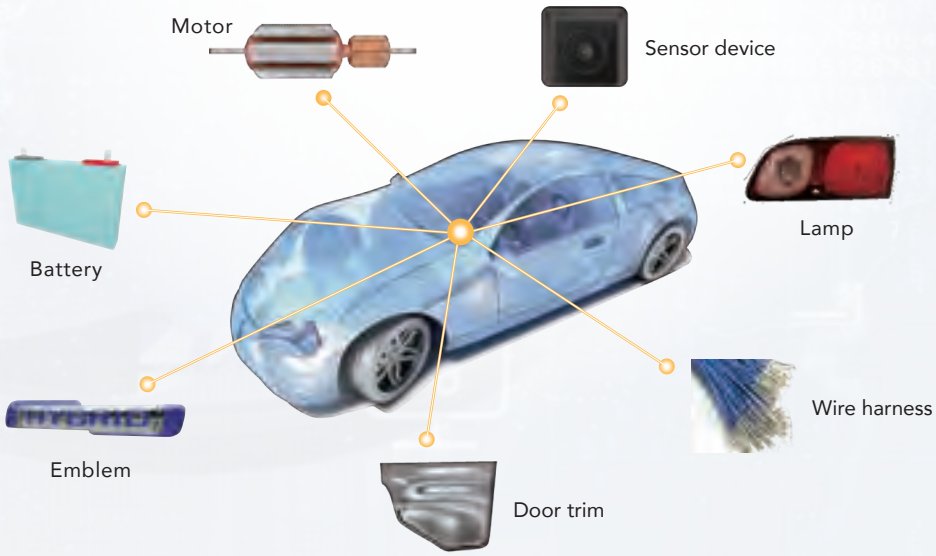
In addition to “micro-joining”, Avio offers optimum solutions satisfying various customer needs including quality, cost, and productivity.

Avio is offering micro-joining equipment needed for MONOZUKURI (art of manufacturing) of various products around you including smartphones and automobile.

Avio will contribute in realization of convenient and wealthy society by offering optimum micro-joining solutions for assembly of smartphones, which is becoming highly functional, and environment-conscious products such as the growing EV's.

Smartphone

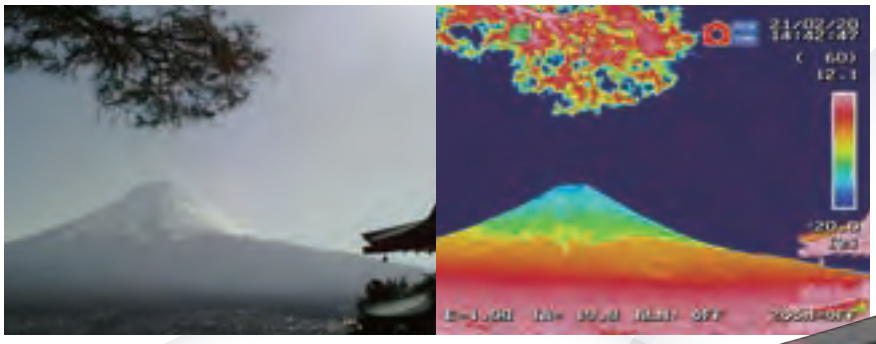
Automobile



Avio contributes to safe and secure society through sensing technology with thermography as a core

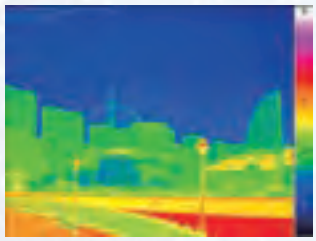
“See” what human eyes cannot see for safer society.

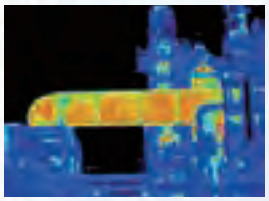
Thermography, which measures and displays temperature of a wide area in real-time and non-contact, enables early detection of a problem by recognizing temperature change or temperature difference that human eyes cannot see and contributes in prevention of a possible accident.

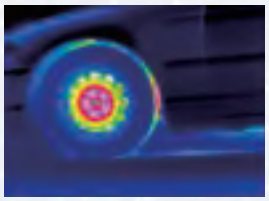


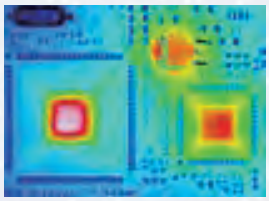
Avio realizes a new society through sensing solutions.

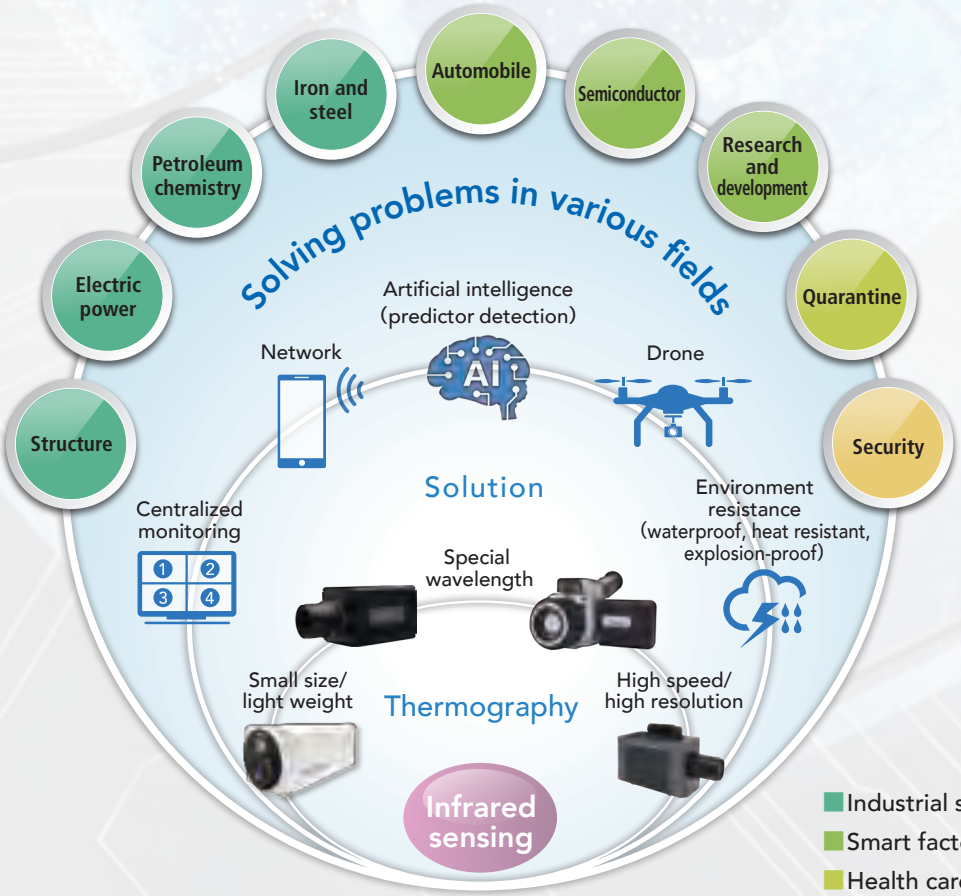
Avio contributes in solving social problems and achieving economic development at the same time, and aims for realization of a new society by providing sensing solutions in various occasions including inspection and maintenance of infrastructure and facilities, manufacturing line monitoring, inspection, test, research and development, quarantine at airport, natural disaster monitoring and security monitoring.





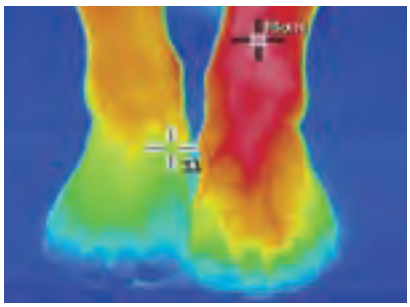






Avio challenges healthcare field with state-of-the-art technology.

Under the current circumstance where health is becoming more important as the percentage of elder people gets high, Avio challenges the healthcare field with sensing technology accumulated through support of medical examination and screening of high fever people.
Avio will develop a solution which will help various medical examination with easy operation and which will enable to see examination result in a short period of time.



Foot blood flow examination

Avio's initiative in sustainability.

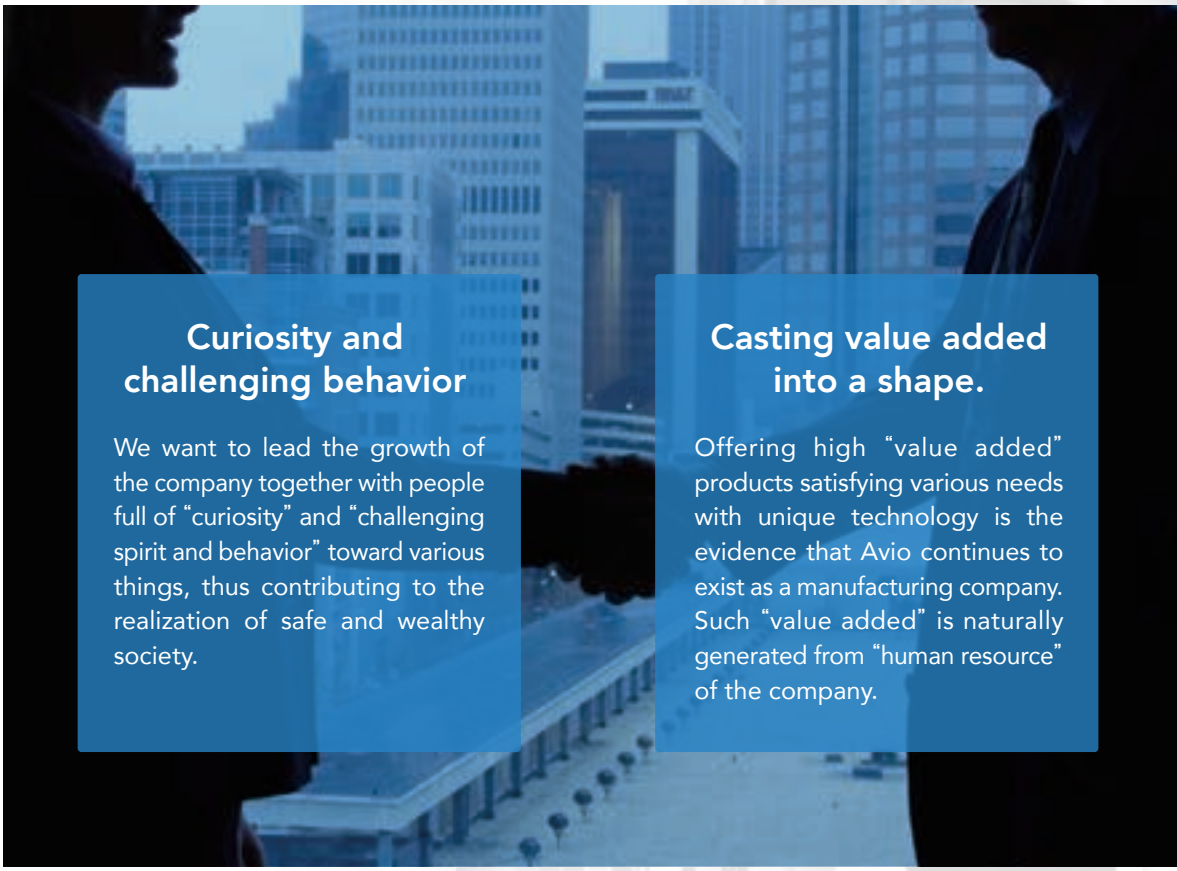
While promoting various activities toward solution of various sustainability issues including CO_2 reduction and other global warming countermeasures, Avio will contribute in realization of sustainable society focusing on two specific subjects.

Avio will contribute in realization of sustainable society through provision of products and services which will contribute to the reduction of environmental burden.

Based on the recognition that "human resource" is the most important wellhead for the company, Avio will promote human capital-based management.

The type of person we want to be.

We want to become a person improving ourselves day by day with unique idea and solid technology basis.



Curiosity and challenging behavior

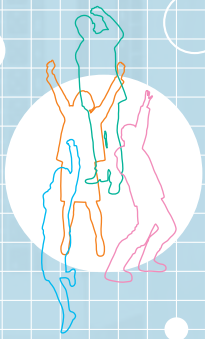
We want to lead the growth of the company together with people full of "curiosity" and "challenging spirit and behavior" toward various things, thus contributing to the realization of safe and wealthy society.

Casting value added into a shape.

Offering high "value added" products satisfying various needs with unique technology is the evidence that Avio continues to exist as a manufacturing company. Such "value added" is naturally generated from "human resource" of the company.

Engagement / job satisfaction

- To constantly create innovation and contribute in the realization of safe and wealthy society.
- To offer products of high performance and high quality based on solid technology basis.
- To deploy business on a world-wide basis.
- To recognize that people is the most important asset of the company and to promote well-being of the people.
- To aim to become a company loved and felt proud of by everybody.



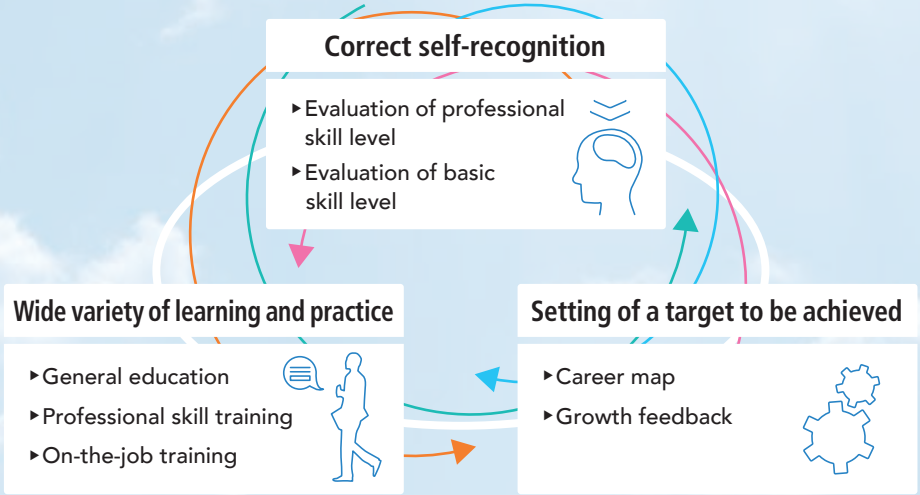
Avio vision for human resource development

To think proactively and autonomously, and to grow together.

Our action guideline "5 + 1 C"

Our growth plan

- Set a target based on correct self-recognition
- The entire team to grow with autonomous learning cycle



Company profile

■Company history

1960 Nippon Avionics Co., Ltd. (Avio) (then Nippon Aviotronics Co., Ltd.) was established as a joint venture company between Hughes Aircraft Company in USA and NEC Corporation in Japan.
First business for the company related to defense electronic equipment

61 Yokohama Plant was constructed in Seya District of Yokohama City.

63 Manufacturing and selling of resistance welding equipment started.

64 Osaka Sales Office was opened (currently West Japan Branch Office).
Contract for the licensed production of BADGE (Base Air Defense Ground Environment) system was concluded with the Japanese Defense Agency.

65 The first ZD (zero defect) initiative in Japan started.

72 Manufacturing and sales of hybrid IC's started.

75 Manufacturing and sales of soldering equipment started.

78 Nagoya Sales Office was opened (currently Central Japan Branch Office).

79 Manufacturing and sales of infrared image processing equipment started.

80 The first component hardware for F-15 fire-control radar system was delivered.
Pulse heat type reflow soldering equipment was patented.

82 Manufacturing and sales of TVS series thermography equipment started.

84 Subcontract was awarded for the manufacture of component hardware for BADGE-X (second generation BADGE) system.

88 The stock of Nippon Avionics Co., Ltd. was listed on the second section of Tokyo Stock Exchange (later moved to the Standard Market section in April 2022).
Manufacturing and sales of seam sealing equipment started.

89 Avionics Fukushima Co., Ltd. was established as a subsidiary of Avio.

91 Manufacturing and sales of full-automatic seam sealing equipment started.

93 Manufacturing and sales of laser welding equipment started.

2000 License agreement was concluded with Lockheed Martin Corporation for the manufacture of standard display system for navy ships.

02 Thermography cameras were introduced in various airports around the world for detection of SARS infected patients.

05 Manufacturing of component equipment for JADGE (Japan Aerospace Defense Ground Environment =third generation BADGE) started.

06 NEC Sanei Co., Ltd. (infrared equipment) became a wholly owned subsidiary of Avio.

10 The New Yokohama Plant (NF Bldg) was opened.

11 Thermography camera was donated to the Japanese Ministry of Defense for monitoring of nuclear reactor temperature at the occasion of the Great East Japan Earthquake.

12 Nippon Future Co., Ltd. (ultrasonic welding equipment) became a wholly owned subsidiary of Avio.

18 Fukuoka Sales Office (Kyushu) was opened.

20 Avio became independent from the NEC group.
Avio's headquarters was moved to Tsuzuki District of Yokohama City.

22 Thai Representative Office was opened.
Solution Center was opened in the Yokohama Plant.

Trade name: Nippon Avionics Co., Ltd.
Established on: April 8, 1960
Paid-in capital: ¥5,895 million

Business items

- Development, design and sales of information processing systems
- Information processing equipment, aerospace equipment, communication equipment, imaging equipment, micro-joining equipment, medical equipment
- Manufacturing and sales of electronic components for electric measurement equipment
- Manufacturing and sales of electronic components including hybrid IC's
- Development and sales of software for information processing systems and computer systems
- Design, management and subcontracting of electric construction work and electric communication construction work
- Manufacturing and sales of various equipment and components associated with or related to above listed items

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Locations of headquarters and branch offices

■Headquarters
4475 Ikonobe-cho, Tsuzuki-ku, Yokohama-shi,
Kanagawa, Japan 224-0053
Tel: 81-45-287-0300 (main phone number)

Plants

■Yokohama Plant
28-2 Hongo 2-chome, Seya-ku,
Yokohama-shi, Kanagawa, Japan 246-0015
(Registered headquarters address)

■Solution Center
(inside Yokohama Plant)

■New Yokohama Plant
4206 Ikonobe-cho, Tsuzuki-ku, Yokohama-shi,
Kanagawa, Japan 224-0053

Branch offices, sales offices

■Central Japan Branch Office
Nakatou Marunouchi Bldg.
17-6, Marunouchi 3-chome, Naka-ku, Nagoya-shi, Aichi, Japan 460-0002

■West Japan Branch Office
Shin-Osaka CSP Bldg.
11-16, Nishi-Nakajima 1-chome, Yodogawa-ku, Osaka-shi, Osaka,
Japan 532-0011

■Fukuoka Sales Office
#606 2-24 Hiemachi, Hakata-ku, Fukuoka, Japan 812-0014

Representative Office

■Thailand Resident Representative Office
Level 2, Summer Point Building 7, Sukhumvit 69 Road
Phrakhanong Nua, Wattana, Bangkok, Thailand 10110

Subsidiary company

■Avionics Fukushima Co., Ltd.
20, Machi-ike-dai 1-chome, Koriyama-shi, Fukushima, Japan 963-0215

Business item
Manufacturing of hybrid IC's and electronic equipment

Business items

Guidance and airborne systems
- Electronic equipment for fire control radar system
- Missile control equipment related items
- Various equipment related to airborne systems
- Environment resistant vehicle mounted equipment
- Various test equipment and simulators

Display and sonar systems
- Various information display equipment for surface ships
- Information display equipment for submarines
- Computers for navy ships
- Display equipment for various command and control systems
- Various display equipment for air traffic control
- Airborne and heliborne display equipment
- Sonar related signal processing equipment/ information processing equipment

Command and control systems
- Anti-aircraft combat command system for surface-to-air missiles (TSQ-51)
- Various radar signal processing equipment
- Various communication control equipment
- Base Air Defense Ground Environment (BADGE) system
- Software for various command and control systems

Microelectronics
- High reliability hybrid IC's (for space applications)
- Hybrid IC's (for defense and industrial applications)
- High density mounting module

Micro-joining equipment
- Precision resistance welder
- Pulse heat unit (thermocompression bonding)
- Laser welder
- Ultra-sonic welder
- High frequency induction heating equipment
- Seam welder
- Application equipment

Infrared equipment
- Infrared thermography cameras
- Infrared thermography systems

NIPPON AVIONICS CO.,LTD.

www.avio.co.jp

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