AIC tech Inc.

Company information

Corporate Vision

We, at AICtech, are committed to providing satisfaction to our customers with superior products and valuable services for the future society through innovative technologies.

Business Fields

Our capacitors have a strong presence in the power electronics applications, which are an essential part of realizing Society 5.0*.

*Society 5.0 is a concept for the future society proposed by Japan, which will be realized by incorporating innovative technologies such as AI, IoT, robots, and big data into all industries and society.

Power and energy
(Generation, transmission, and storage)

- Solar power (mega solar)
- Wind power generation (onshore, offshore)
- High voltage direct current transmission (HVDC)
- Energy storage system

Industry
(Industrial, Energy Saving)

- Industrial robots, machine tools, conveyors
- Semiconductor manufacturing equipment
- Heaters, welders, dryers machines, and drying equipment
- Pumps and compressors
- Cranes, fans, etc.

Transportation, transport, and urban facilities

- Rail vehicles (driving systems, air conditioners, door control, etc.)
- Electric vehicles and charging infrastructure
- Ports, ships
- Elevators, escalators, and automatic doors
- Lighting, air conditioning, power receiving equipment, water supply and drainage, firefighting equipment, etc.

ICT and IoT

- Datacenters (servers,uninterruptible power supplies, etc.)
- 4G and 5G communications base stations

Healthcare
(Treatment and testing)

- Radiotherapy systems
- X-ray systems (stationary, for rounds)
- Magnetic resonance imaging (MRI) systems
- Computed tomography (CT)
- Automated external defibrillators (AEDs)
- Various laser treatment devices

Lifestyle
(Society and daily life)

- Public water supply equipment (pumps)
- City gas (LNG compressors)
- Waste incineration (blowers)
- Air conditioners and household appliances
- Residential solar power systems

Our Products

Our products are capacitors for power electronics and metalized films for various applications.

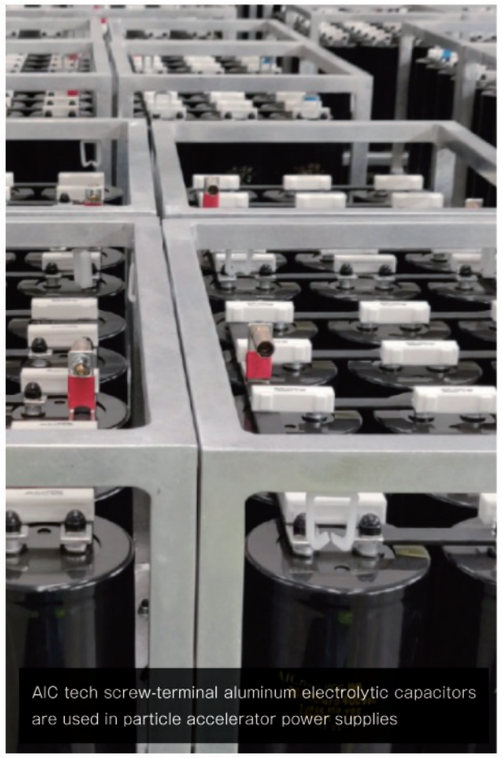
Aluminum electrolytic capacitors

Aluminum electrolytic capacitors are our flagship products with a history of 70 years. These are used in many power electronics devices such as inverters, DCDC converters, and various power supplies in Japan and overseas.

AIC tech aluminum electrolytic capacitors mounted in a solar power generation inverter

Film capacitors

Our film capacitors are specifically designed for high voltage and high current applications. DC and AC capacitors are available.



AIC tech screw-terminal aluminum electrolytic capacitors are used in particle accelerator power supplies

Metalized films

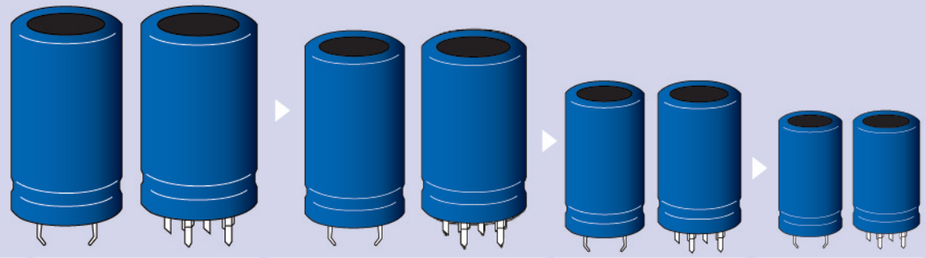
Metalized films are coated with a thin layer of metal on polymer films. Due to their reflective, light-shielding, thermal insulating, and lightweight properties, metalized films are widely used for agricultural purposes, heat insulation for houses, food packaging, etc.

Technologies

We provide solutions and innovations to our customers with our superior technologies.

Miniaturization of snap-mount aluminum electrolytic capacitors

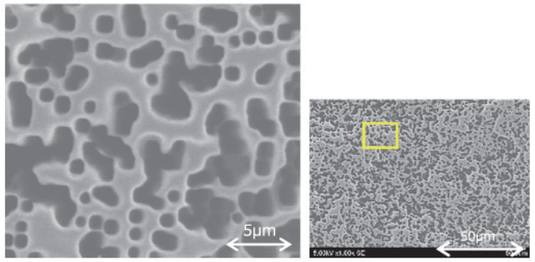
■ Over the past 30 years, we have successfully reduced the size of capacitors by 50% and have helped our customers reduce the size of their equipment.



Product volume	1990	2005	2015	2020
	48.1cm³ (100)	(70)	(60)	24.5cm³ (50)

*400V-560 μF (105°C specifications)

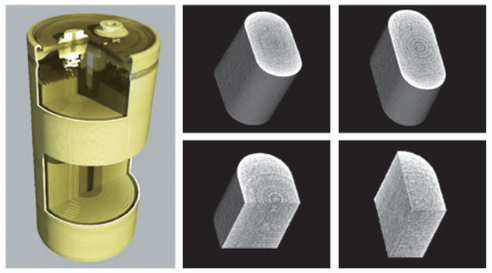
Our superior fundamental technologies



■ SEM* images of the aluminum capacitor's electrode

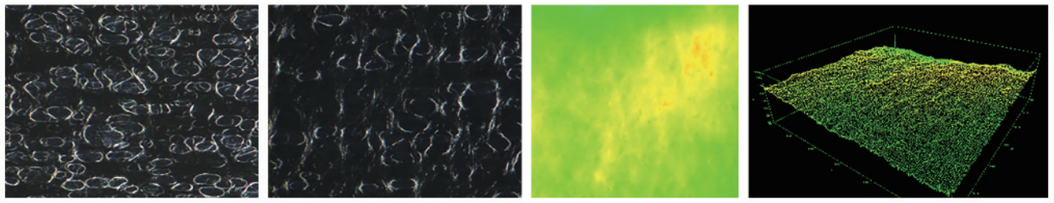
*SEM: Scanning Electron Microscope

It is an important fundamental technology to obtain larger capacitance by increasing the surface area of the electrode.



■ CT analysis

We are using the latest technology to improve quality from multiple perspectives.

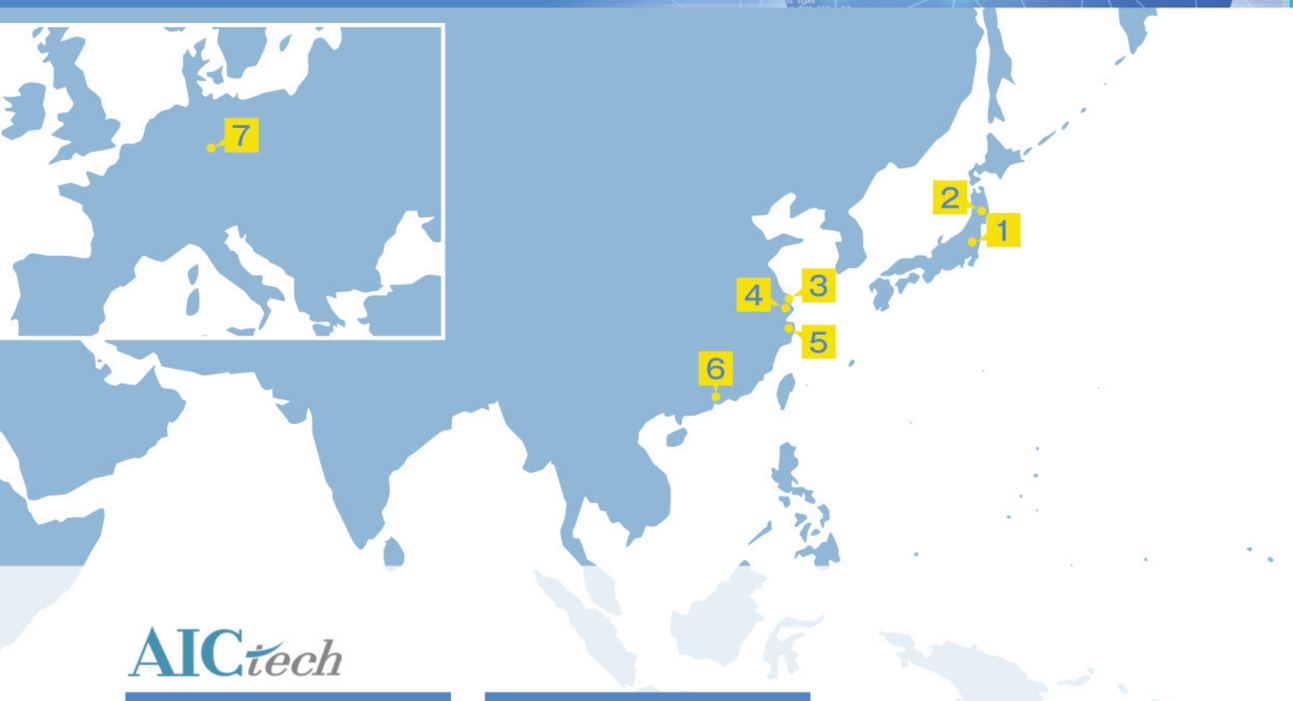


■ Surface analysis of capacitor films

It is very difficult to observe the surface of an ultra-thin and transparent capacitor film, which is only a few microns thick, but we have made this possible with our unique technology.

Network

We deliver our products from two facilities in Japan and five facilities overseas.



1 Head Office Plant
Moka-shi, Tochigi Prefecture

2 Kitakami Plant
Kitakami-shi, Iwate Prefecture

3 Nantong Hicon Electronics Co.,Ltd.
Jiangsu, China
Aluminum electrolytic capacitors *1

4 Nantong HQC Electronics Co.,Ltd.
Jiangsu, China
Aluminum electrolytic capacitors *2

5 Ningbo Shine Electrical Technologies Co.,Ltd.
Zhejiang, China
Film capacitors

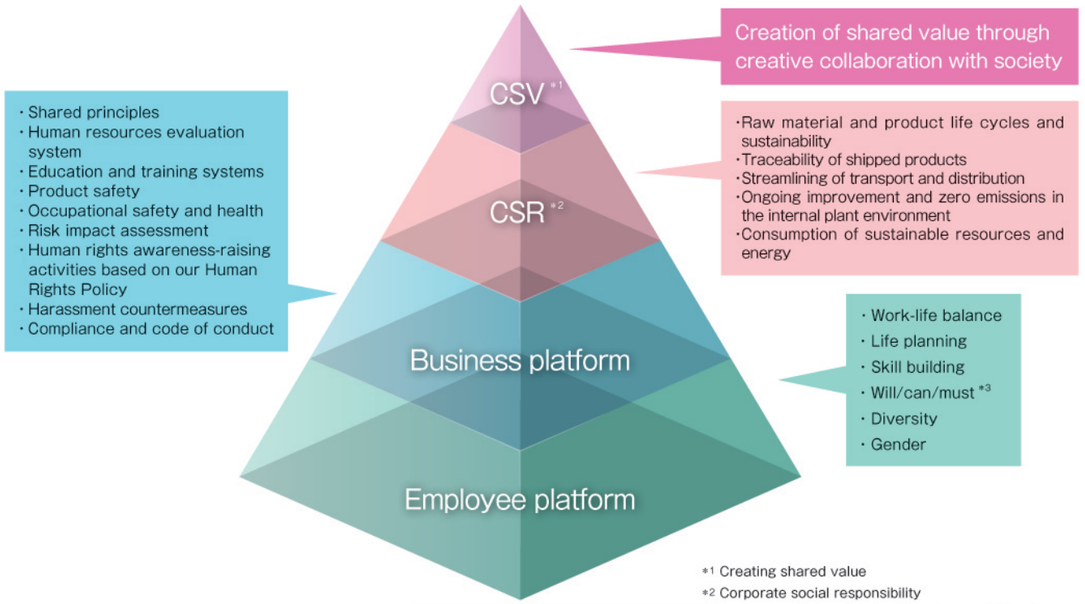
6 King Nichi Technology Guangzhou Co.,Ltd.
Guangdong, China
Aluminum electrolytic capacitors *3

7 ELECTRONICON Kondensatoren GmbH
Thuringia, Germany
Film capacitors

*1 Screw-terminal aluminum electrolytic capacitors
*2 Snap-mount aluminum electrolytic capacitors
*3 Snap-mount aluminum electrolytic capacitors, radial aluminum electrolytic capacitors

Environment and corporate social responsibility

We will operate our business responsibly as a member of society with respect to local communities, stakeholders, and the environment. We will also aim to enhance our corporate and social value that can be shared through collaborative creation with society.



*1 Creating shared value
*2 Corporate social responsibility
*3 An approach to understanding value and direction through the perspectives of "will," "can," and "must"

History

Our products have a history of more than 70 years and have their origins in technological development in Japan.

1945-1946
Research into evaporative paper capacitors and aluminum electrolytic capacitors starts at Hitachi.

1949
Anritsu Corporation's capacitor unit is spun off to form Annaka Denki Co., Ltd.

1960
Hitachi Kako Co., Ltd., starts producing aluminum electrolytic capacitors at its Kanagawa Plant.

1962
Annaka Denki Co., Ltd., merges with Anritsu Seiki Co., Ltd., and changes its name to Annaka Denki Seiki Co., Ltd.

1963
Hitachi Kako Co., Ltd., merges with Hitachi Chemical Co., Ltd.

1964
Hitachi Chemical Co., Ltd., and Annaka Denki Seiki Co., Ltd., enter into a business alliance.

1965
Hitachi Capacitor Co., Ltd., is established and merges with Annaka Denki Seiki Co., Ltd.

1990
The company changes its name to Hitachi AIC Inc.

2001
Hitachi AIC Inc. becomes a wholly owned subsidiary of Hitachi Chemical Co., Ltd.

2009
Hitachi AIC Inc. becomes a subsidiary of Shin-Kobe Electric Machinery Co., Ltd.

2016
Shin-Kobe Electric Machinery Co., Ltd., and Hitachi AIC Inc. become wholly owned subsidiaries of Hitachi Chemical Co., Ltd.

2020
The company becomes part of the Nantong Jianghai Capacitor Group, whose capacitor and evaporative film business it operates.

AIC tech Inc.

Website ▶ www.aictech-inc.com/

VEGETABLE OIL INK

ver.1 (2021)