

ELECTRONICS Factory Guide

Developing Global EMS (Electronics Manufacturing Service)

We provide a uniform level of high service at domestic and overseas factories in 9 countries and 12 different locations. Corresponding to changes in operation environments, we are able to smoothly handle production transfers with flexible support for country risks.

[Global production and procurement bases]



TAKAMATSU

JAPAN

Address

532-28, Asahi-machi 5-Chome, Takamatsu City, Kagawa,
760-0065, Japan

- 10 minutes by car from JR Takamatsu Station
- 40 minutes by car from Takamatsu Airport

- Establishment : March 1999
- Capital : 76million yen
- Employees : 250
- Floor space : 6,600m²

History

- 1983 Takamatsu factory established as a predecessor in Kita Town ; started assembly and manufacturing of electronic components
- 1989 Changed company name to Takamatsu factory of Katolec West corporation
- 1999 Established a new factory in Asahi-machi, Takamatsu city to assemble back light of car navigation system ,SMT and CRW finished product, etc.
- 2011 Started mass production of PCB-ASSY for warm water toilet seats
- 2013 Changed company name to Takamatsu factory of Katolec corporation

Strength

- ❖ A domestic pilot factory for establishing a smooth mass production system abroad.
- ❖ We have experiences in printed circuit board assembling of medical instruments such as endoscope video processors and image diagnostic devices
- ❖ It is possible to support printed circuit board assembling with a high degree of difficulty, with a large number of parts and man-hours.
- ❖ Production system that can cope with various types of small lots, from implementation to assembly, can be handled in as little as three days.
- ❖ It is the prefecture with the fewest disasters in Japan, and procurement logistics and transportation that makes use of the proximity to the airports, stations and expressways is possible.

Global Standard

© ISO 9001:2015

© ISO 14001:2015



Products

(Consumer products)

- ▶ Warm water toilet seats
- ▶ Medical imaging diagnostic equipment
- ▶ Endoscope video processor
- ▶ Emergency Stop Switches
- ▶ Amusement equipment
- ▶ Microphone preamplifiers
- ▶ Refrigerator for machine containers
- ▶ Data logger equipment
- ▶ Security device for lock sensors
- ▶ Receiving units
- ▶ Household gas alarms



MATSUYAMA

JAPAN

Address

15-6 Kuukodori 7-Chome Matsuyama, Ehime,
791-0054, Japan

- 10 minutes by car from JR Matsuyama-ekimae station
- 5 minutes by car from Matsuyama airport

- Establishment : November 1982
- Capital : 76million yen
- Employees : 170
- Floor space : 8,543m²

History

- 1982 Matsuyama factory established, production of video-PCBs started
- 1992 Started production of CD-ROM driver-PCBs
- 2001 Started production of television-PCBs
- 2003 Clean room 660 m² completed, LCD backlight assembly started
- 2004 Started production of plasma television power supply-PCBs and ETC
- 2008 Selected as a model base for KIPS activities
- 2011 Started production of tail lamp-PCBs for automotive applications
- 2015 Started production of commercial video equipment and fuel cell battery
- 2016 H3 rocket quality management system authorization
- 2017 IATF 16949 Certified

Strength

- ❖ As a domestic model factory of KIPS (Katolec Innovative Production System) activities, we will work to shorten L / T and improve work efficiency. We will improve profitability and human resource development.
- ❖ We will manufacture production and inspection equipment in house including FCT, automatic splitting machine and moisture proof coating. Currently, we are undertaking research on the development of hand soldering.

Global Standard

© ISO 9001:2015

© ISO 14001:2015

© IATF 16949:2016



Products

(Consumer products)

- ▶ Rice cookers
- ▶ LED lights
- ▶ Electric bicycles
- ▶ Vending machine network infrastructure
- ▶ ENE-FARM inverters
- ▶ Digital isolation meters/
- ▶ Detection resistance meters
- ▶ Commercial video equipment

(Automotive products)

- ▶ Tail lamps
- ▶ Interior lights
- ▶ Meter panel for forklifts
- ▶ Telematics



INDONESIA

EJIP Industrial Park

Address

Ejip Industrial Park Plot 8F, Cikarang Selatan Bekasi 17550, Jawa Barat, Indonesia

-2 hours by car from Soekarno-Hatta International Airport

- Establishment : September 1993
- Employees : 1,050
- Capital : 3,500,000USD
- Floor space : 22,200m²

History

- 1994 Indonesia factory established
- 1996 2nd building factory started production
- 1998 3rd building factory started production
- 2005 Received an excellent vendor award from PT. INDONESIA EPSON INDUSTRY
- 2010 Started production of meter panel PCBs for 2 wheeled vehicles
(first stage of automotive product)
- 2014 Celebration of 20th anniversary of establishment
- 2015 Received the FY2014 excellent vendor award from PT. INDONESIA EPSON INDUSTRY
- 2018 Received the Best supplier award from Pioneer Manufacturing(Thailand) Co.,Ltd
- 2020 4rd building factory started production

Strength

- ❖ Assembly of audio equipment for automotive products
- ❖ Support exports to 13 countries including Asia, Europe and America
- ❖ Providing low-cost and high-quality services in both cases of direct and indirect exports with the benefits of tariff exemption

Global Standard

- ◎ ISO 9001:2015
- ◎ ISO 14001:2015
- ◎ IATF 16949:2016



Products

(Consumer products)

- ▶ Printers
- ▶ Electronic pianos
- ▶ Power supply (for Television/Adaptor)
- ▶ Electric blankets

(Automotive products)

- ▶ Switch for two-wheeled vehicles
- ▶ Audio equipment
- ▶ Switch for four-wheeled vehicles
- ▶ Meter panels for four-wheeled vehicles
- ▶ Panel shift levers for four-wheeled vehicles
- ▶ Head lights for two-wheeled vehicles
- ▶ Tail lamps for two-wheeled vehicles
- ▶ Acceleration sensors for two wheeled vehicles
- ▶ Automatic gain control sensors for two wheeled vehicles



PHILIPPINES

Laguna Technopark

Address

103 East Main Avenue Special Export Processing Zone Laguna Technopark, Binan, Laguna, Philippines
- 40 minutes by car from Ninoy Aquino International Airport

- Establishment : June 1996
- Employees : 1,060
- Capital : 4,777,079USD
- Floor space : 17,130m²

History

- 1996 Philippines factory established
- 1997 Started production of HDD PCBs
- 1998 Started production of telecommunication equipment PCBs
- 2000 Started production of car meter panel PCBs
2nd building factory completed for increased production
- 2006 Started production of car security system PCBs and finished goods
- 2009 Received an excellent supplier award from DENSO
- 2014 Warehouse extended
- 2015 Started production of laser printer PCBs
- 2018 Started efforts to make smart factories
- 2021 Received the Katolec Global KAIZEN Award (for 4 years in a row)
3rd building factory started production

Strength

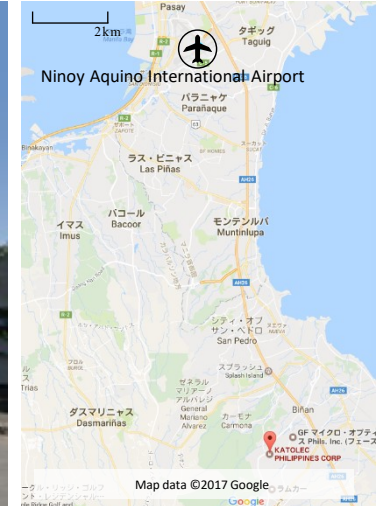
- ❖ A variety of experience in manufacturing from consumer electronics to automotive equipment and others.
- ❖ Within the bonded processing area, customs duty and consumption tax are exempted.
- ❖ Within an hour from the airport and port, so there are advantages with parts procurement and shipping goods.
- ❖ Operates a smart factory. Information can be centralized, updated in real time, and alarms can be sent in the event of an abnormality.

Global Standard

◎ ISO 9001:2015

◎ ISO 14001:2015

◎ IATF 16949:2016



Products

(Consumer products)

- ▶ Printers
- ▶ Control panels for washers
- ▶ Control panels for dishwasher
- ▶ Amusement equipment
- ▶ Card readers
- ▶ Bar code printers

(Automotive products)

- ▶ Meter panels for four-wheeled vehicles
- ▶ Sensors for four-wheeled vehicles
- ▶ Switches for four-wheeled vehicles
- ▶ Seat heater for four-wheeled vehicles
- ▶ Power window for four-wheeled vehicles



THAILAND

A.Nakhon Luang Industrial Estate

Address

Nakhon Luang Industrial Estate 115/5 Moo 4, T.Bangprakroo, A.Nakhon Luang, Ayutthaya 13260 THAILAND
- 2 hours by car from Suvarnabhumi International Airport

- Establishment : July 1996
- Employees : 1,100
- Capital : 162,500,000THB
- Floor space : 17,400m²

History

- 1996 Thailand factory established
- 2012 Thailand factory restarted
- 2013 Started production of car audio equipment PCBs
- 2014 Received the Best Quality Award from MITSUBUSHI ELECTRIC CONSUMER PRODUCTS (THAILAND)CO.,LTD.
- 2015 Received the Best Supplier Award from MITSUBUSHI ELECTRIC CONSUMER PRODUCTS (THAILAND)CO.,LTD.
- 2017 Received the Best Quality Award from MITSUBISHI ELECTRIC THAI AUT-PARTS CO.,LTD.
- 2018 Received the Pioneer Best Supplier Award (four years in a row)
- 2019 Received the Best Collaboration Award from Canon Prachinburi (Thailand) Ltd.

Strength

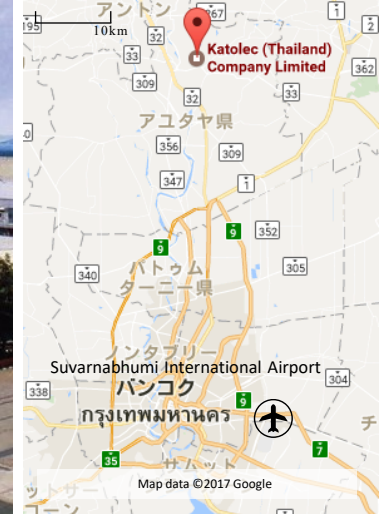
- ❖ Core point of southeast Asia, advantageous access from Bangkok and the “East-West and Southern” economic corridor
- ❖ Good point of supplier and logistics company, sustainable infrastructure and skillful workers contribute to customer service
- ❖ This is a factory with an excellent equipment operating ratio with planned investment in production facilities.
- ❖ Recently, entrusted with automotive equipment and delicate handling medical equipment, so has built up expertise in manufacturing technology and quality control
- ❖ Total supply chain proposals are possible through cooperation with KATOLEC Global Logistics (Thailand) Co., Ltd.

Global Standard

◎ ISO 9001 : 2015

◎ ISO 14001 : 2015

◎ IATF 16949 : 2016



Products

(Consumer products)

- ▶ Printers
- ▶ Air conditioner indoor / outdoor unit
- ▶ Single lens reflex cameras
- ▶ X-ray image processing
- ▶ Warm water toilet seats
- ▶ Optical communication module

(Automotive products)

- ▶ Car audio systems
- ▶ Car multimedia
- ▶ Sensors for four-wheeled vehicle ECUs
- ▶ Wireless battery charger for smartphones



S U Z H O U

CHINA, Suzhou Industrial Park

Address

Bldg.,D,No.58,Yang Dong Road,Suzhou Industrial Park,Suzhou,China

- 60 minutes by car from Sunan Shuofang International Airport
- 80 minutes by car from Shanghai Hongqiao International Airport
- 150 minutes by car from Shanghai Pudong International Airport

● Establishment : September 2003

● Employees : 310

● Capital : 11,500,000USD

● Floor space : 11,864m²

History

- 2004 Operation started
- 2007 Added a factory building to increase production capacity
- 2015 Received the quality improvement progress award from Fujitsu General (Shanghai) Co., Ltd.
- 2019 production of automotive area (clean room) extension
- 2020 Started production of automotive equipment

Strength

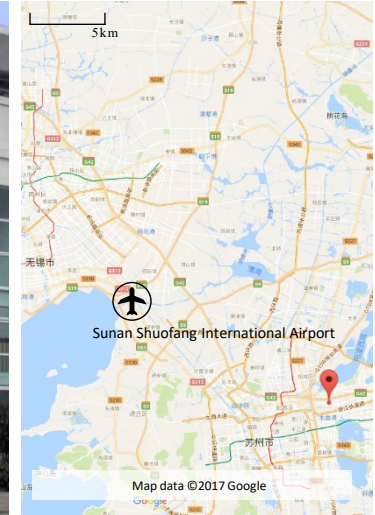
- ❖ Chinese market available facilities, parts at reasonable price and skillful workers
- ❖ Achieved process improvements including low cost and cost-effective automation.
- ❖ Located in the suburbs of Shanghai, it has strengths in every aspect of transportation of land, sea and air.

Global Standard

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© IATF 16949 : 2021



Products

(Consumer products)

- ▶ Air conditioners
- ▶ Warm water toilet seats
- ▶ Automatic faucets
- ▶ Urinal faucet sensors
- ▶ Sensor bathroom dryers
- ▶ Electronic musical instrument
- ▶ LED lights
- ▶ Medical dialysis machine

(Automotive products)

- ▶ Headlight controller



GUANGZHOU CHINA

Address

3 Xingda Road, Huangpu, Guangzhou, Guangdong, China
- 1 hour by car from Guangzhou Baiyun International Airport

- Establishment : July 2012
- Employees : 320
- Capital : 25,100,000USD
- Floor space : 13,958m²

History

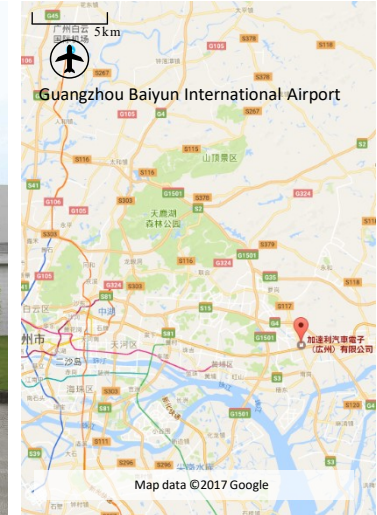
- 2012 KATOLEC AUTOMOTIVE SYSTEMS (GUANGZHOU) CO., LTD. established
- 2012 Started production of car navigation system PCBs
- 2014 SMT line for in-car device installed
- 2016 GE Appliances' Best Control Supplier for Quality 2015
- 2016 Acquired Nissan ASES certification
- 2017 Received the Katolec Global Kaizen Award (Excellent Prize)
Started production of Mobile information communication system unit
- 2018 Received the Excellent Supplier Award from Foster Electric Company, Limited Started production of Center display unit for Chinese EV vehicles
- 2019 Started production of Automatic parking control device for Chinese EV vehicles
- 2020 Started production of Stepping motor PCBs
- 2021 Started production of ECU for motorcycles PCBs

Strength

- ❖ Manufacturing area exclusively for in-vehicle products, and more severe protection against dust and static electricity are implemented.
- ❖ Part suppliers are concentrated, utilizing the benefits of the southern part of China, it is possible to respond quickly in terms of delivery time and quality.
- ❖ The quality system and service are highly evaluated, and we have a track record of dealing with emerging Chinese EV manufacturers.

Global Standard

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Products

(Consumer products)

- ▶ Ovens/Ranges
- ▶ Printers
- ▶ Air conditioners
- ▶ of Stepping motor PCBs

(Automotive products)

- ▶ Battery sensors
- ▶ Steering locks
- ▶ Automatic parking control device
- ▶ Telematics Box
- ▶ Center display unit
- ▶ ECU for motorcycles PCBs



VIETNAM

Quang Minh Industrial Zone

Address

Lot 41A-B, Quang Minh Industrial Zone, Me Linh District, Hanoi, Vietnam
- 15 minutes by car from Noi Bai International Airport

- Establishment : May 2005
- Capital : 7,700,000USD
- Employees : 1,450
- Floor space : 36,157m²

History

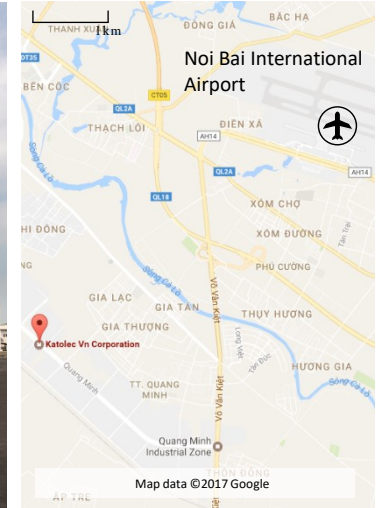
- 2005 Katolec Vietnam Factory established
- 2007 Operation started
- 2011 Started production of automotive equipment
- 2011 1st building Expansion
- 2014 Started production of finished goods
- 2015 Received a excellent prize from Hanoi City labor union
- 2017 Received the Best supplier prize from Kyocera group
- 2018 Authorized by the Canon partners authorization company
- 2020 2nd building factory started production

Strength

- ❖ Among ASEAN countries, closest to the South China District and Hong Kong which is the supply area of electronic parts, and has high convenience in parts procurement and product export.
- ❖ Registered as an EPE (export processing type) company, exempt from tariffs, it is possible to offer low cost and high quality service.

Global Standard

- © ISO 9001 : 2015
- © ISO 14001 : 2015
- © IATF 16949 : 2016



Products

(Consumer products)

- ▶ Printers
- ▶ Bar code printers
- ▶ Scanners
- ▶ Handy phone
- ▶ Refrigerators
- ▶ Microphone for smartphones
- ▶ Earphones
- ▶ Camera units
- ▶ Printer units
- ▶ Remote control equipment
- ▶ Electric assist bicycle

(Automotive products)

- ▶ Steering angle sensors



MALAYSIA

Bayan Lepas Free Industrial Zone

Address

150-C, Jalan Kampung Jawa, Bayan Lepas, Free Industrial Zone Phase III,
Bayan Lepas, Penang, Malaysia
- 10 minutes by car from Penang International Airport

- Establishment : April 2011
- Employees : 290
- Capital : 4,500,000USD
- Floor space : 11,000m²

History

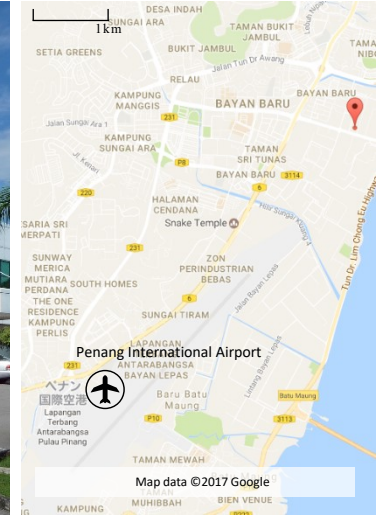
- 2011 Operation started
- 2011 Started production of air conditioner operation panel assembly for construction machines
- 2011 Started assembly of in-vehicle thermostat units
- 2014 Started production of LED light PCBs in vehicle
- 2014 Started production of in-vehicle audio unit PCBs
- 2015 Started production of SW-PCBs in vehicle
- 2014 Started production of microphone PCBs for taxis and buses
- 2016 Received the Best Supplier Award from TOTO MALAYSIA SDN.BHD.
- 2017 Received the Best Supplier Award from Foster Electric Company, Limited
- 2018 Received the Best Delivery Award from Tanashin Denki Co., Ltd.

Strength

- ❖ Geographical advantage -about 30 minutes from Penang port container yard and about 10 minutes from Penang International Airport by car
- ❖ Incentives for export and import in the free factory area (FIZ)

Global Standard

- © ISO 9001 : 2015
- © ISO 14001 : 2015
- © IATF 16949 : 2016



Products

(Consumer products)

- ▶ Warm water toilet seats
- ▶ Blue-rays for home theaters
- ▶ LEDs for signboards

(Automotive products)

- ▶ LED lamps
- ▶ Automotive optional switches
- ▶ Audio units
- ▶ Microphones for taxis and buses



TIJUANA

MEXICO, Tijuana Area

Address

Boulevard Insurgentes #19208-5 Colonia Cerro Colorado, C.P. 22223 Tijuana,
Baja California, Mexico
- 20 minutes by car from Tijuana International Airport

- Establishment : August 2006
- Employees : 210
- Capital : 5,000,000USD
- Floor space : 5,000m²

History

- 2006 Started production of plasma TV substrates
- 2007 Started mass production
- 2012 Started mass production of in-vehicle parts

Strength

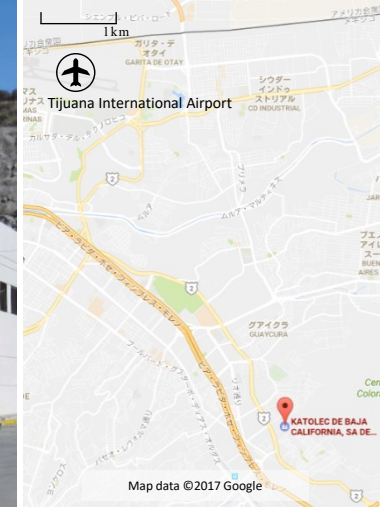
- ❖ Tijuana Stable development of management by local staff. is the northernmost city of Mexico. Located near the border with California State, USA, it is a good location as a production base for products for North America.
- ❖ It supports various products ranging from consumer electronics, such as home appliances, to automotive electronic devices.
- ❖ The factory slogan is “Chiquito pero Picoso” (Translation; pepper is a small grain and spicy)
- The customer develops a stimulating operation in a good sense.

Global Standard

© ISO 9001 : 2015

© ISO 14001 : 2015

© IATF 16949 : 2016



Products

(Consumer products)

- ▶ Wine cellar control
- ▶ Refrigerators
- ▶ LCD TVs

(Automotive products)

- ▶ Steering switches
- ▶ 4 wheel door lock sensors
- ▶ Lead battery condition detection sensors
- ▶ Air conditioning modules





GUANAJUATO

MEXICO, Marabis Abasolo Industry Zone

Address

Avenida Miguel Hidalgo 100, Parque Industrial Marabis Abasolo, Abasolo,
Guanajuato 36987, Mexico
- 1 hour by car from Guanajuato International Airport

- Establishment : November 2014
- Capital : 10,000,000USD
- Employees : 90
- Floor space : 5,187m²

History

- 2014 KAGT established
- 2016 Transferred some manufacturing process from KATOLEC DE BAJA CALIFORNIA, S.A. DE C.V. (KABC)
- 2016 Started production

Strength

- ❖ This factory is located in the Central Mexican Plateau – an area where the automobile industry has gathered.
- ❖ This area is blessed with a distance and location within a four-hour delivery period to all automobile set manufacturers in the Central Plateau.
- ❖ The factory provides high-quality services at low cost with direct and indirect exports by using the benefits of tariff exemption possessed by its customs bond status.
- ❖ This is a new factory which began operations in 2016. This facility supports the North America area in a two-base structure together with Tijuana Factory in Mexico

Global Standard

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Products

- (Automotive products)
- ▶ Outside door handles
 - ▶ Heater controls
 - ▶ 4 wheel door lock sensors
 - ▶ Tailgate switch





I N D I A

Pune, Maharashtra

Address

Gat.No.427/5&427/10,Chakan-Talegaon Road, Village.Mahalunge,Tal.Khed,
Dist.Pune-410501,Maharashtra, India
- Southeastern 140km of Mumbai City

- Establishment : April 2017
- Employees : 260
- Capital : 350,700,000INR
- Floor space : 4,000m²

History

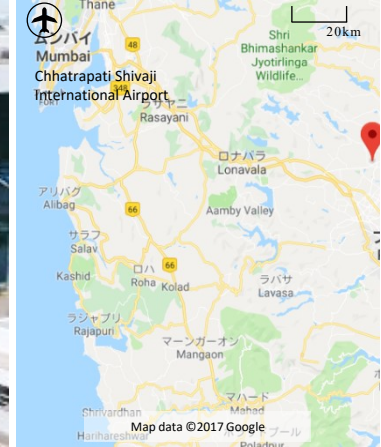
- 2017 Joint venture contract Minda Industries Limited.
- 2017 MINDA KATOLEC ELECTRONICS SERVICES Pvt. Ltd. Established
- 2018 Started production

Strength

- ❖ Located in the Indian core base of 140km from India's greatest commercial city Mumbai and copes with the wide needs of the customers of India.
- ❖ Established the production area of the level for vehicle installation and carry out severer protection against dust, electrostatic measures.
- ❖ Minda Industries Ltd. is the Tier2 supplier who supplies electronic equipment to the maker of a car and the motorcycle.
- ❖ We show synergistic effect in development of products of the electronic equipment for vehicle installation and a technical area and can produce the in-vehicle electronic equipment of high quality in India.

Global Standard

© IATF 16949 : 2016



Products

(Automotive products)

- ▶ Power Window Switch
- ▶ Floor Lamp
- ▶ License Plate Lamp
- ▶ Blinkers
- ▶ Tail Lamp
- ▶ Front Position Lamp



HONG KONG

International part procurement and sales, International logistics base

Address

Unit B and C, 13/F, Roxy Industrial Centre, 58-66 Tai Lin Pai Road, Kwai Chung, New Territories, Hong Kong

- 5 minutes walk from MTR Aoi Ko Station
- 28 km by car from Hong Kong International Airport

● Establishment : March 2002

● Capital : 37,000,000HKD

History

- 2002 Established KATOLEC (HK) Co., Ltd. to procure components from China and other countries for overseas markets.
- 2021 Office relocation and expansion.

Strength

- ❖ International part procurement and sales base
 - Items handled : Electrical and electronic parts, boards, molded parts, pressed parts, harnesses and foreign company semiconductors, etc.
- ❖ International logistics base
 - International cargo transportation, import/export customs clearance agency work, warehousing and buyer's consolidation, etc.



GLOBAL EMS Center <JAPAN>

Sales, Material procurement, Design, Quality Assurance etc..

Address

532-28, Asahi-machi 5-Chome, Takamatsu City, Kagawa,
760-0065, Japan

- 10 minutes by car from JR Takamatsu Station
- 40 minutes by car from Takamatsu Airport

● Establishment : April 1997

● Employees : 100

History

- 1996 Opened Materials Center to reinforce the domestic procurement of components.
- 2002 Established EMS Promotion Center (Formerly Materials Center).
Reinforced the design department.
- 2014 Renamed to GLOBAL EMS Center.

Strength

- ❖ We are a manufacturing company that handles everything from design, material procurement, mounting of printed circuit boards to assembly of finished products.
- ❖ We have two domestic production bases and ten overseas production bases, all of which are operated in-house. KATOLEC global platform allows us to flexibly respond to our customers' BCP (Business Continuity Plan) needs.

