

# 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 : 280
- Floor space : 6,600m<sup>2</sup>

## History

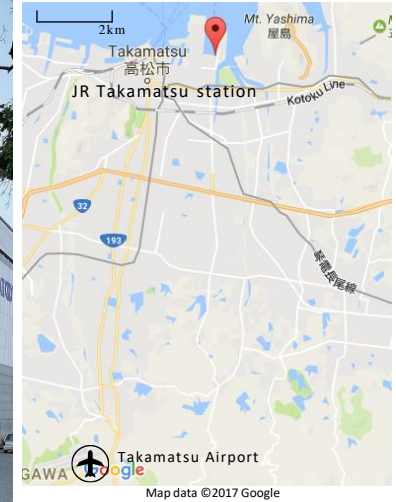
- 1983 Takamatsu factory established as a predecessor in Kita Town ; started assembly and manufacturing of electronic components
- 1989 Changed company name to Takamatsu factory of Katolec West corporation
- 1999 Established a new factory in Asahi-machi, Takamatsu city to assemble back light of car navigation 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

## Strengths

- ❖ 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.
- ❖ 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 ◎ ISO14001:2015



## 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 : Nov 1982
- Employees : 173
- Capital : 76million yen
- Floor space : 8,543m<sup>2</sup>

## 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 m<sup>3</sup> 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

## Strengths

- ❖ 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)

- ▶ Washing machine
- ▶ Motor
- ▶ Pump
- ▶ Water purifier
- ▶ Rice cookers
- ▶ LED lights
- ▶ Vending machine network infrastructure
- ▶ ENE-FARM inverters
- ▶ Digital isolation meters/

### (Automotive products)

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



# 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 : Sept 1993
- Employees : 1,115
- Capital : 3,500,000USD
- Floor space : 22,200m<sup>2</sup>

### History

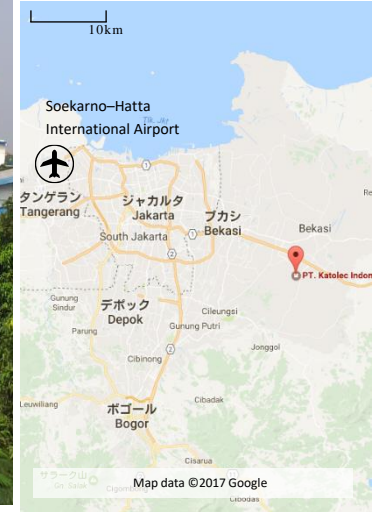
- 1994 Indonesia factory established
- 1996 2<sup>nd</sup> building factory started production
- 1998 3<sup>rd</sup> building factory started production
- 2005 Received an excellent vendor award from PT. INDONESIA EPSON INDUSTRY
- 2010 Started production of meter panel PCBs for 2 wheeled vehicles (first stage of automotive product)
- 2014 Celebration of 20<sup>th</sup> 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 4<sup>rd</sup> building factory started production

### Strengths

- ❖ 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
- ❖ Assembly is possible in the clean room of the 4<sup>rd</sup> building factory
- ❖ Installed solar power generation.

### Global Standard

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



### 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
- Capital : 4,777,079USD
- Employees : 685
- Floor space : 17,130 m<sup>2</sup>

## History

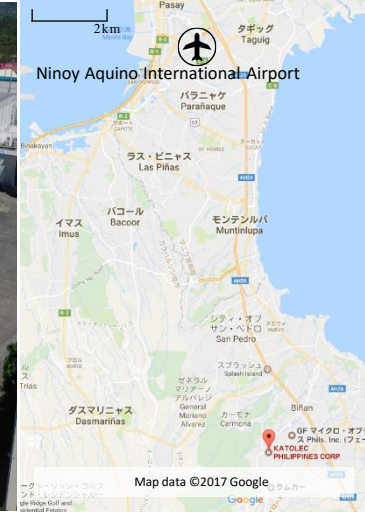
- 1996 Philippines factory established
- 1997 Started production of HDD PCBs
- 1998 Started production of telecommunication equipment PCBs
- 2000 Started production of car meter panel PCBs  
2<sup>nd</sup> building factory completed for increased production
- 2006 Started production of car security system PCBs and finished goods
- 2009 Received an excellent supplier award from DENSO PHILIPPINES CORPORATION
- 2014 Warehouse extended
- 2015 Started production of laser printer PCBs
- 2018 Started efforts to make smart factories
- 2021 3rd building factory started production
- 2022 Received an Outstanding Supplier award from DENSO PHILIPPINES CORPORATION
- 2023 Received an Outstanding Supplier award from DENSO PHILIPPINES CORPORATION  
Received the ASIA DENSO Group Best Supplier award from DENSO International Asia CO.,LTD

## Strengths

- ❖ 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 dishwasher
- ▶ Oven range panel
- ▶ Bar code printers
- ▶ Indoor air conditioner

### (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
- ▶ Smart keys 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
- Capital : 162,500,000THB
- Employees : 1,316
- Floor space : 17,400m<sup>2</sup>

### History

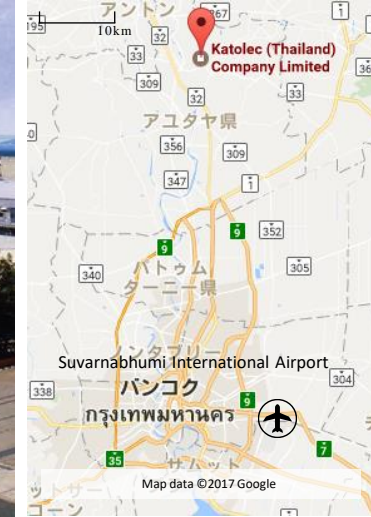
- 1996 Thailand factory established
- 2012 Thailand factory restarted
- 2013 Started production of car audio equipment PCBs
- 2014 Received the Best Quality Award from MITSUBUSHI ELECTRIC CONSUMER PRODUCTS (THAILAND)CO.,LTD.
- 2015 Received the Best Quality Award from MITSUBISHI ELECTRIC THAI AUT-PARTS 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.
- 2021 Received the Best Supplier Award PIONEER MANUFACTURING(TAHILAND)CO.,LTD.
- 2022 Received the MELCO Award MITSUBISHI ELECTRIC CONSUMER PRODUCTS(THAILAND)CO.,LTD.

### Strengths

- ❖ 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 : Sept 2003
- Employees : 205
- Capital : 115,000,000USD
- Floor space : 11,864m<sup>2</sup>

## History

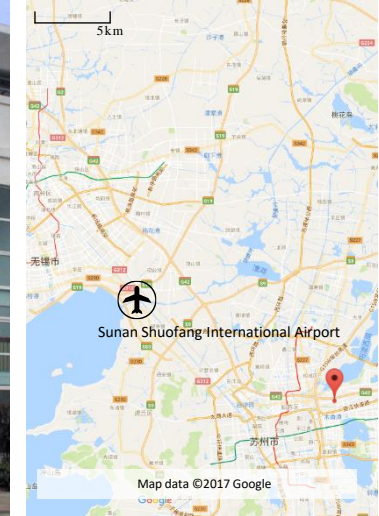
- 2004 Operation started
- 2007 Added a factory building to increase production capacity
- 2015 Received the quality improvement progress award from Fujitsu General (Shanghai) Co., Ltd.
- 2019 production of automotive area (clean room) extension
- 2020 Started production of automotive equipment

## Strengths

- ❖ 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

- ◎ ISO 9001:2015
- ◎ ISO 14001:2015
- ◎ 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
- Capital : 25,100,000USD
- Employees : 240
- Floor space : 13,958m<sup>2</sup>

## History

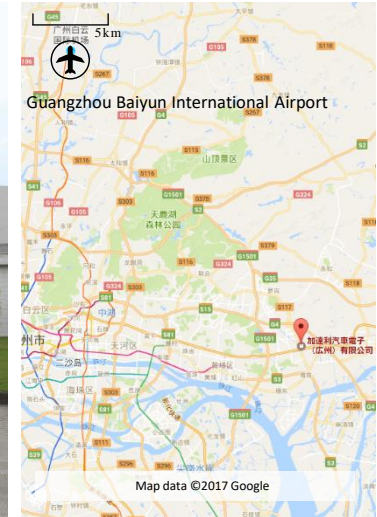
- 2012 KATOLEC AUTOMOTIVE SYSTEMS (GUANGZHOU) CO., LTD. established
- 2012 Started production of car navigation system PCBs
- 2014 SMT line for in-car device installed
- 2016 GE Appliances' Best Control Supplier for Quality 2015
- 2016 Acquired Nissan ASES certification
- 2017 Received the Katolec Global 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  
Received the Best Quality Award from Guangzhou Imasen Electric Industrial Co.,Ltd.  
Received the Improvement Award from ZHUHAI BROTHER INDUSTRIES, CO., LTD.
- 2022 Started manufacturing boards for CANON. Received the highest quality VVV award.

## Strengths

- ❖ 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

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



## 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
- Employees : 1,077
- Capital : 7,700,000USD
- Floor space : 36,157m<sup>2</sup>

### History

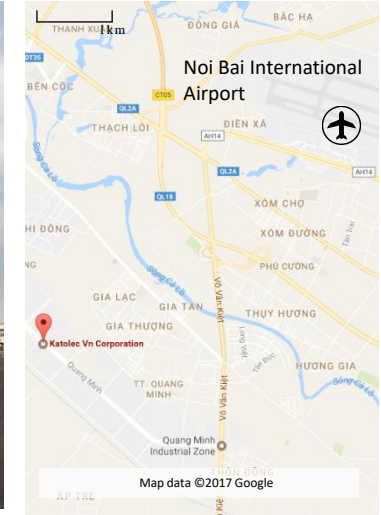
- 2005 Katolec Vietnam Factory established
- 2007 Operation started
- 2011 Started production of automotive equipment
- 2011 1st building Expansion
- 2014 Started production of finished goods
- 2015 Received a excellent prize from Hanoi City labor union
- 2017 Received the Best supplier prize from Kyocera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

### Strengths

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



### 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 minuted by car from Penang International Airport

- Establishment : April 2011
- Capital : 4,500,000USD
- Employees : 347
- Floor space : 11,000m<sup>2</sup>

## History

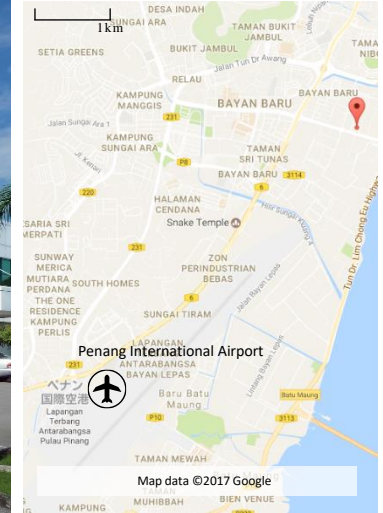
- 2011 Operation started
- 2011 Started production of air conditioner operation panel assembly for construction machines
- 2011 Started assembly of in-vehicle thermostat units
- 2014 Started production of LED light PCBs in vehicle
- 2014 Started production of in-vehicle audio unit PCBs
- 2015 Started 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.
- 2019 Started production of Dryer unit
- 2022 Started production of Photocatalytic deodorization and sterilization system units

## Strengths

- ❖ 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
- ▶ Dryer unit
- ▶ Photocatalytic deodorization and sterilization system

### (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
- Capital : 5,000,000USD
- Employees : 138
- Floor space : 5,000m<sup>2</sup>

## History

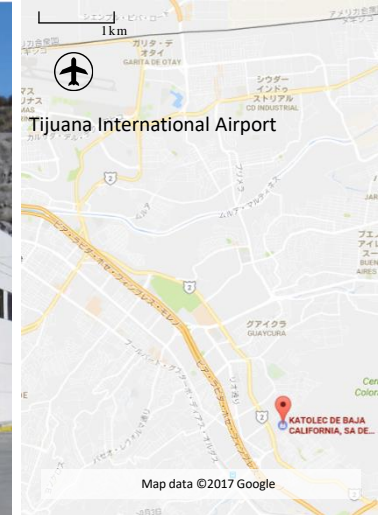
- 2006 Started production of plasma TV substrates
- 2007 Started mass production
- 2012 Started mass production of in-vehicle parts

## Strengths

- ❖ 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
- Employees : 90
- Capital : 10,000,000USD
- Floor space : 5,187m<sup>2</sup>

## History

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

## Strengths

- ❖ 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

◎ ISO 9001:2015    ◎ ISO 14001:2015    ◎ IATF 16949:2021



## 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 : 460
- Capital : 350,700,000INR
- Floor space : 4,000m<sup>2</sup>

## History

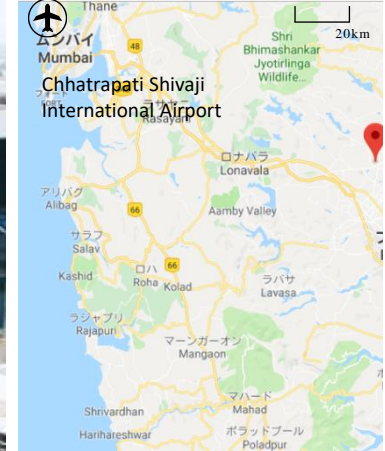
- 2017 Joint venture contract UNO MINDA LIMITED.
- 2017 MINDA KATOLEC ELECTRONICS SERVICES Pvt. Ltd. Established
- 2018 Started production

## Strengths

- ❖ 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.
- ❖ UNO MINDA LIMITED is the Tier1 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



Map data ©2017 Google

## 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

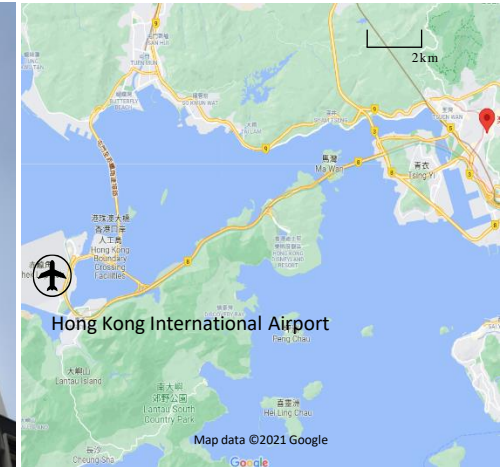
- Establishment : March 2002
- Capital : 37,000,000HKD
- Employees : 6

## History

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

## Strengths

- ❖ 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

- Global EMS Center  
532-28, Asahi-machi 5-Chome, Takamatsu City, Kagawa,760-0065, Japan
- Global EMS Center Second Office  
2F Takamatsu building A, 2-2-22 Asahimachi Takamatsu-shi, Kagawa, 760-0065, Japan
- Global EMS Center Osaka Office  
Facade Esaka Bldg. 10F, 1-23-43 Esaka, Suita-shi, Osaka 564-0063, Japan
- Global EMS CenterTottori Development Office  
7-5-1 Wakabadai-minami, Tottori-shi, Tottori, 689-1112, Japan

- 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.

## Strengths

- ❖ 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.

## Global Standard

© ISO 9001:2015 ( Global EMS Center , Global EMS Center Second Office )

