

# Touch Technology

TAILOR-MADE

**faytech**, nice touch.

**PYRAMID**

**OEM & ODM**

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Medium-sized companies and global players in more than 30 industries rely on touch monitors and touchscreen computers from our faytech® brand. For almost 20 years, faytech® has been melding German engineering skills in development with Chinese perfection in production.

This brochure introduces faytech® as a developer and manufacturer of OEM and ODM solutions.

Several use cases provide an overview of the brand's technological reach and comprehensive range of services. You will see: Just about anything is possible!

faytech® coordinates the development and production of your OEM and ODM solution from A to Z, so that you can concentrate fully on marketing and sales.

## ABOUT THE AUTHOR

**Dr. Christian Hartmeier...**

*...is the content creator for the Pyramid brands AKHET® (industrial computers and servers), faytech® (touch monitors and touchscreen computers) and Polytouch® (self-service terminals and paging and location systems).*





# 01. WE HAVE YOUR SOLUTION

FIBER LASER CUTTING MACHINE

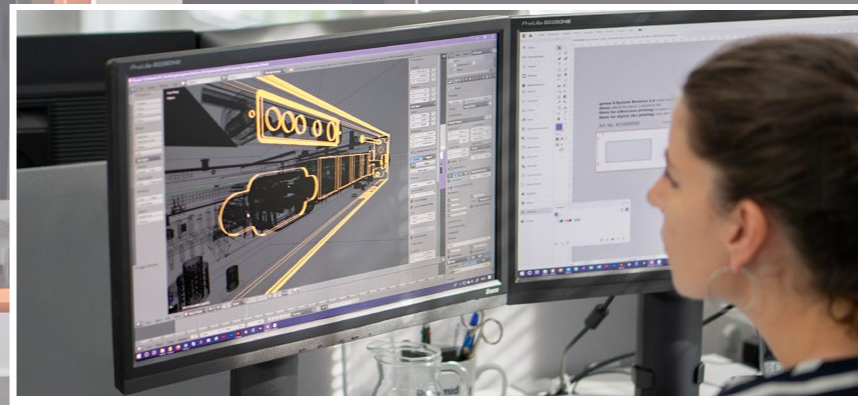


Laser cutter in our metal housing production in Suining.

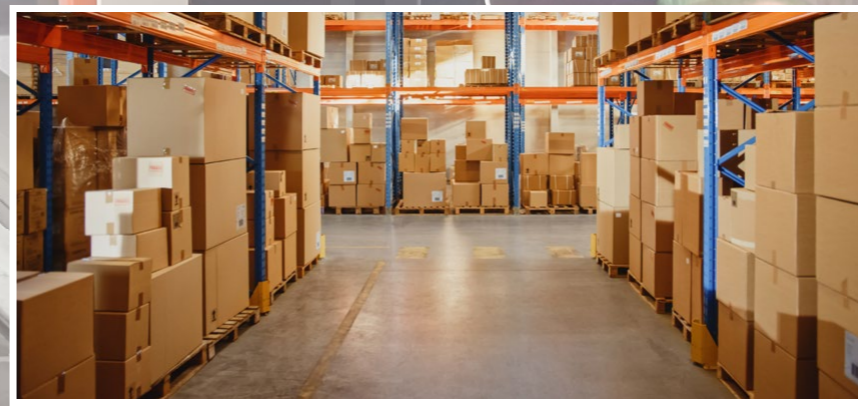
## EXPERIENCE

We have been developing and producing touch devices since 2006.

Experts with years of experience, streamlined processes and well-coordinated teams in development, procurement and production will support you in bringing your new product to market quickly.



## SUPPLY CHAIN



Proven suppliers in the country of production (China) guarantee high availability of parts and short transportation routes for components, low procurement costs, and a stable supply chain

## PRODUCTION



The optical bonding of our OEM & ODM products takes place in Huizhou, while the metal chassis are produced in Suining. The Suining facility is also responsible for assembling components to produce the finished product. Our production is completely in-house, therefore we have full control over quality.

## QUALITY



We are IATF 16949 (quality standard for suppliers to the automotive industry) and ISO 9001:2015 certified.

Do you need a touch monitor or touchscreen computer with your logo, your colors, your nameplate for your product portfolio? With UL and CCC labels and individually labeled I/O ports?

Your R&D team has worked up a finished product design and you are looking for a white-label manufacturer to take it from paper to pallet?

Are you pursuing a promising project idea and wondering who can take on the planning, design and production of your solution?

As you know - large manufacturers have difficulties implementing customer-specific requirements, especially for orders that do not run into the hundreds of thousands. Customized products ranging from 200 to 2000 units tend to be like sand in the gears for a triple-A brand manufacturer.

So how will your company obtain the touch monitor or touchscreen computer it wants? Who can and wants to build the OEM or ODM product for you?

This is the time to call Pyramid, to find out more about our faytech brand!

Curious? Then read on!



Cost efficiency, speed, customization expertise and quality of the hardware are the critical advantages of OEM and ODM.

faytech® is an expert in optical bonding, on which the quality of a display largely depends. In this sophisticated manufacturing process, the space between the LCD and the touch panel is filled with a liquid adhesive. The advantage for touch monitors and touchscreen computers: it delivers vibrant colors and crisp details.

In addition, optical bonding guarantees excellent readability and visibility of the screen content under difficult environmental conditions. It prevents light reflections on the front glass and stops dust and moisture.

For its optical bonding, faytech relies on a formulation developed in-house: CLEAR-BOND. This patented liquid adhesive produces the desired qualitative results. OEM and ODM solutions developed and manufactured for customers by faytech® incorporate this benefit.

The front-kit (touch displays) and back-kit (industrial computers) systems by faytech® enable both the cost-efficient implementation of customer requirements and a fast time-to-market. Regardless of whether the design calls for a rubber, open or aluminum frame – x64 or ARM architecture – standard or high brightness: you choose from a wide range of components, which we assemble into your product in the shortest time possible.

Of course, we will also implement even extensive customizations: additional or rare I/O ports, display coatings, operating elements or operating features, such as operating the screen with gloves. We manufacture OEM or ODM solutions that are exposed to outdoor or indoor emissions in the appropriate protection class, entirely according to your requirements.

faytech's® customization expertise continues with the visual design. We give your OEM or ODM system your or your customer's corporate design. Digital-direct and screen printing for photorealistic and high-resolution images in millions of colors are powerful tools at our disposal.

The list on the right contains a comprehensive overview of the range of our customization options.

As you can see: Every customer receives exactly what best meets their use case and requirements. This keeps the end product close to the original idea. Indeed, it is often possible to implement solutions without compromises. faytech® turns your solutions into the best brand ambassador for you or your customers.

### OPTICAL BONDING

- Development & production up to 86" displays
- State-of-the-art in-house technologies
- Class 100, 1,000 and 10,000 cleanrooms
- Proprietary optical bonding formula CLEAR-BOND

### DISPLAY COATINGS

- Antimicrobial coating
- UV coating
- IR coating
- Anti-fingerprint
- Anti-glare

### PLATFORM PRINCIPLE

- Front-kit systems: rubber Frame, open Frame and more
- Back-kit systems: mainboards, CPUs, operating systems and more
- More than 2 million SKU combinations

### IMMISSION CONTROL

- Sealed housing (protection up to IP68)
- Active cooling systems for outdoor solutions with sealed housing
- Marine connections for I/O ports
- Vandalism protection up to IK10

### TECHNICAL DESIGN

- LCD display up to 2500 nits (cd/m2) and 100,000 hours operating time
- Customized mainboard layout and firmware
- Legacy I/O ports (RS-232, firewire and more)
- Bluetooth
- 3G, 4G & Wi-Fi
- RFID, fingerprint and laser scanners
- Large selection of peripheral modules (thermal camera and more)
- Various fastening systems: wall mount, desk mount, stand, in-wall and more

### OPTICAL DESIGN

- Logos
- Colors
- Labels

## 02. CUSTOMIZATION

Scan the QR code to watch the video





# 03. ATTRACTIVE PRODUCT-RELATED SERVICES

As original equipment and original design manufacturer, faytech's® numerous services include project management, during which we provide you with a dedicated contact person for your project.

This will be an expert in your industry who will support you from the initial kick-off to the roll-out and beyond. The project manager will work with you to determine the exact requirements, such as:

What will be the tasks that the future touch monitor or touchscreen computer has to perform? In which environment will it operate? What are the resulting technical specifications? Do you need specific laboratory tests, national or international certifications? Which services will maximize your commercial success once the solution has been produced?

With the support of faytech's supply chain and lifecycle management, your touch monitor or touchscreen computer's technology will be kept up to date. Your contact person will ensure that your product is always available according to your specifications.

In addition, your contact person will inform you proactively when an installed component reaches its end of life and will let you know which follow-up item can replace it. This guarantees a high version stability over a long period of time.

We also offer comprehensive product certifications – both national and international (UL, CCC, CSA, ETL and more, as well as E-Mark, IATF 16949 and EN 60601-1 Medical) – and individual laboratory tests.

Once an OEM or ODM product has been completed, we add it to the faytech customer portal. With your personal access, you can order the solution here – around the clock and without any messy communication effort in the form of e-mails, fax messages or phone calls. Of course, you can also manage your order online. If you have a question about any product or would like to return it if worst comes to worst, our ticket system will be at your disposal.

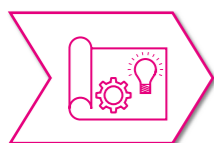
Have we forgotten anything? Ah, yes: You will also receive a 2-year warranty on all OEM & ODM products that we realize together with you. Longer warranty periods can also be arranged. And of course we are happy about every order we receive from you, be it for 20, 200, 2000 or 20,000 units.

As you can see: With innovative technologies, designs and services, we will be your competent partners.

Nothing will stand in the way of your successful market entry with faytech®!

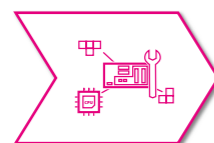
## FAYTECH®: COMPLETE BENEFITS FOR YOU AT A GLANCE

### Design & Development



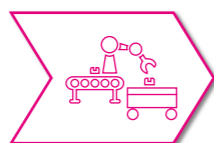
Environment  
Purpose  
Temperature  
Function  
Performance  
Certifications  
Region  
CI

### Prototyping & Testing



Construction  
Configuration  
Prototype  
Field Testing  
Benchmarks  
Materials Testing  
Design Testing  
EMV Testing

### Production & Delivery



Deployment Plan  
Production  
Quality Assurance  
Image Installation  
Market Introduction  
All batch sizes

### Logistics & Customer Service



Warehousing  
Consignment Warehouse  
Drop Shipments  
Packaging  
Supply Chain Management

### RMA & Aftersales



Warranty Extension  
SLA  
Replacement Parts  
Hotline  
Customer Portal  
Preventive Replacement





**BECHTLE**

**BOSCH**



**DELL**  
Technologies

**KOMATSU**



# 04. OEM

for DRB Systems

# Outdoor terminal

for car washes & car wash systems



DRB is part of the Vontier Group, a global industrial technology company for mobility solutions. DRB has been selling software and hardware for car washes and car wash systems for more than three decades.

DRB Systems supplies car washes and car wash systems in the USA with 15" and 21.5" outdoor touch terminals (OTT). Customers in the parking lot or employees at the wash tunnel use them to select the desired cleaning program. The OTTs are exposed to the weather as well as the chemical-laden wash water.

High-brightness touchscreen computers from faytech® are ideal for outdoor and indoor areas with demanding environmental conditions. This made these devices DRB's first choice.

To ensure trouble-free continuous operation, we designed the powder-coated aluminum chassis of the touchscreen

computers with complete IP65 protection, including the power button and the I/O ports for peripheral devices.

Since there was a high risk of a plastic seal degrading due to the effects of the chemical additives in the water, we sealed the front and rear of the solution by gluing.

The optical bonding between the touchscreen and the LCD panel contributes significantly to perfect IP65 protection. It effectively prevents splash water from entering the housing, as well as the formation of condensation. The optical bonding process also benefits the crispness and color brilliance of the display.

As one of the world's leading display specialists, faytech® operates a state-of-the-art production facility for optical bonding in Huizhou, China. We use CLEAR-BOND, a patented formula developed in-house, to bond the panels.

The OTT's LCD display has a luminance of 1000 nits (cd/m<sup>2</sup>), so that the screen content is easy to read even in bright sunlight. A 2.2 mm thick safety glass covers the display, which also helps to additionally protect the surface from the effects of the weather and splash water.

But that's not all: the glass, with a hardness grade of 7, has a special coating that minimizes fingerprints and light reflections. A particularly important feature for DRB's

customers and employees: the device can be operated with gloves, and so-called ghost touches, which are caused by water droplets on standard capacitive-projective touchscreens, are ignored.

You can see the DRB solution in action in the video. Further technical details on the touchscreen computer can be found in the data sheet.

Scan the QR code to download the data sheet



Scan the QR code to watch the video





## 05. ODM for the Grocery Retail Trade

From the shelf into the cart, from the cart onto the belt, from the belt into the bag? The world's most advanced shopping cart puts an end to moving groceries back and forth! Every day, 7000 EASY Shoppers – made by faytech® – delight both the customers and employees of Germany's largest food retailer.

Customers can already tour the store with the EASY Shopper in 170 stores. This smart shopping cart saves shoppers long waiting times at cash registers, as well as the need to load and unload groceries three times.

The EASY Shopper is equipped with an 11.6" full-HD touch display and a scanner. Shoppers use the scanner to scan the barcode, confirm the result on the screen, and then put the item straight into their bag or basket on the shopping cart.

Checkout, either in cash or by credit card, occurs at an EASY Shopper checkout station or with the EASY Shopper smartphone app. A green light on the shopping cart indicates successful payment, and the customer can leave the store without having to bother staff. No need to place purchases on the checkout belt, no scanning by staff, no repacking for transportation home.

The smartphone app can be used to create a shopping list at home, which then appears on the cart display. Once the item has been scanned, it automatically disappears from the shopping list. After each scan, the EASY Shopper calculates the subtotal and shows it on the display. This means that customers always have the value of their shopping basket in view.

Another of the intelligent shopping cart's advantages is appreciated especially by those customers who do not shop regularly or who go to several different stores: Based on the shopping list, the Shopper guides them precisely to the items they are looking for. Shoppers who have redeemed empties can scan the receipt on the Shopper, which deducts the amount from their total immediately.

More information on the EASY Shopper can be found in the GALILEO test report (German language) on PRO7, and on the website of our sales and software partner Pentland Firth ([www.easy-shopper.com](http://www.easy-shopper.com)), for whom we make this high-tech shopping cart.



The metal chassis of the Easy Shopper is assembled 100% manually in our factory in Suining. The assembly of the entire finished ODM product also takes place in Suining.

## EASY Shopper

Self-Checkout

Scan the QR code to  
watch the video





# 06.ODM

for ButterflyMX

faytech's® broad know-how and project experience in building automation guarantee flexibility in the technological and optical design of customized hardware solutions.

The Smart Intercom access management system is the sales driver of the US company ButterflyMX. This state-of-the-art multimedia intercom system for managing indoor and outdoor access is available with a 7" and 11.6" display.

Access requests are received as a video call on the resident's smartphone, who then decides how to proceed based on the audio-visual data: grant access, deny access, and so on. The Smart Intercom can also send temporary or permanent virtual keys to friends and service providers (e.g., cleaning staff). These are just two of the many features with which the access management system pampers its users.

The impressive breadth of this solution is made possible by the smooth interaction between ButterflyMX's powerful software and customized hardware from faytech®. The technical and visual design was matched to the client's software down to the last detail.

The heart of this ODM solution is the touch panel. It is manufactured by faytech® in-house, with optical bonding

and a brightness of 1000 nits (cd/m<sup>2</sup>) for high readability in bright environments.

High-quality industrial-grade components are grouped around the screen: camera, brightness sensor, microphone, loudspeaker, RFID and card reader and more. A Braille field and a headphone connection make it easy for visitors with impaired vision or hearing to use the system.

The beautifully designed waterproof aluminum chassis was also specially designed and manufactured for ButterflyMX.

Since its market launch in 2015, the Smart Intercom has been installed in over 1,000,000 units in approximately 10,000 buildings. With more than 20,000 5-star ratings on renowned comparison portals, ButterflyMX is one of the highest-rated providers of access management systems in the USA.

The Smart Intercom is yet another example of successful joint project development by faytech® and its customers.

# Smart Intercom

Building automation



*ButterflyMX was founded in the USA in 2014 with the aim of leveraging the advantages of modern smartphone technology for intercom systems. The company employs more than 300 people. It has four facilities worldwide. Corporate headquarters are located in New York City.*

Scan the QR code to watch the video





# 07. ODM for NEC

# Interactive display

Public transportation

# NEC

NEC Corporation is a globally active Japanese corporation headquartered in Tokyo. Its 120,000 employees develop and manufacture information technology and consumer electronics. NEC's annual turnover is approximately 21 billion US dollars.

The Japanese electronics corporation NEC supports a wide range of technology projects worldwide.

When customers in Saudi Arabia, Mexico and Azerbaijan requested a solution to digitize their bus fleets, NEC started looking for a suitable hardware partner and found one in faytech®.

The project kick-off took place in the fourth quarter of 2017. The pilot phase was completed in 2018, and the rollout of the touchscreen computers, which meet NEC's specific requirements in every way, began in over 2,500 buses in 2019.

In record time, the engineers from both companies created a robust interactive visualization and control system based on a faytech® DDU touch monitor.

The solution clearly displays the map, stops, route and other important information on a small 10.1" display. For the driver, this solution is also an interactive communication interface that can be used, for example, to report anomalies in traffic volume to the control center.

Other features of the device, which has E-Mark certification for vehicle components, include a control logic for automatically adjusting the display's brightness to ambient

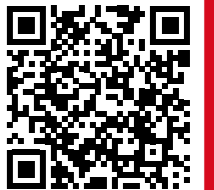
light, a remote control, and an RFID reader that bus drivers use to clock in and out.

It was a bit of a challenge for our engineers to design the device so that it would survive the harsh operating conditions without damage. Since the interior of the buses is regularly cleaned with steam jets, the touchscreen computer has full IP65 splash protection.

The considerable vibrations that occur when driving on bumpy roads are absorbed by an anti-shock system that prevents disconnection from the on-board electronics.

Would you like to know more? You'll find details about the features and benefits of the NEC solution in the case study.

Scan the QR code to  
download the case  
study





# 08. ODM

for meso International GmbH



## • MESO

The German company MESO has been on the market for 30 years and is a pioneer in the field of medical image archiving and reporting. Its solutions are characterized by innovation, quality and ease of use. They are used by healthcare facilities in Spain, Hungary, Saudi Arabia, Belgium, Germany, the UK and Switzerland.

faytech® and meso have been working together for ten years. The IBOX Touch is the center of this collaboration. It is used for video recording in endoscopy.

The device is a touchscreen computer that is connected to the hospital information system (HIS) or radiology information system (RIS) via DICOM interface.

The images and image sequences generated during an endoscopic examination are transferred to the PACS archiving and communication system for storage and further processing.

With a fanless mainboard and the elimination of mechanically moving parts, the development teams at faytech® and meso created a noiseless, shock-resistant and compact control system for the medical sector.

Numerous video interfaces allow the connection to the diagnostic imaging system. The connection to the HIS or RIS is via LAN or WLAN. If the network connection goes down, the data is stored securely on an industrial SSD.

The front of the IBOX is water-proof (IP65). The capacitive-projective touchscreen has been calibrated so that it can be operated reliably even when wearing gloves.

It also has a germ-free protective coating that eliminates 99.99% of all bacteria and viruses. This baked-on Kastus® coating lasts the entire life cycle of the product and is active around the clock.

The solution is being further developed in continuous collaboration with meso. The current version is the IBox Touch Compact, which was introduced in 2019, with the 3rd revision released in 2021.

## IBOX Touch

Medical diagnostics

Scan the QR code to download the case study



Scan the QR code to watch the video





# 09. OEM

for ROTTE Group Kft



Sameday operates an extensive network of parcel stations in Romania, Bulgaria and Hungary. These are used exclusively by customers of the online retailer eMAG to pick up or return orders.

In Romania alone, there are approximately 3500 easybox terminals in use. To date, more than 3,000,000 packages have reached their recipients via these terminals.

The easybox, developed and produced by Rotte for Sameday, is a semi-outdoor solution. It includes a 15" touch monitor by faytech® as the control panel.

Its complete water and dust protection (IP65) make this touch monitor ideal for outdoor and semi-outdoor solutions that have to operate in all seasons and under demanding environmental conditions.

The advantages of the faytech® hardware include an optically bonded touch panel and a high-brightness display. These guarantee excellent readability of the screen content, both in bright artificial light and daylight.

The ease of integrating the touch monitor into the easybox's operating console was also one of the reasons for Rotte to choose faytech® as its vendor.

**easybox**

Parcel station

**ROTTE**  
GROUP

*Rotte was founded in 1991. The medium-sized company develops and produces metal business solutions, among others. With approximately 300 employees at sites in Hungary, Romania, Albania and Slovakia, the company generates an annual turnover of more than EUR 40 million.*



# 10.ODM

for V-Cube, Inc.

Natural disasters are not uncommon in Japan. For many years, the available information was compiled in crisis papers and distributed to the various emergency services. They then used telephone and video conferences to coordinate relief efforts.

This procedure had many disadvantages: The crisis documents often did not reflect the current situation on the ground, as the latest information was not included. Images and videos of events could only be incorporated into the decision-making process with considerable effort.

With this in mind, emergency response officials decided to fundamentally modernize the communication infrastructure. The new system is called V-Cube Collaboration, and hardware from faytech® is a central component.

Large-format video walls and video tables, so-called V-Cube Boards, are now used to connect police and fire departments, evacuation and emergency supply centers, and the disaster control center.

An open-frame faytech monitor with 4K resolution and optical bonding serves as the touch device for the boards. On the board's 65" screen, the participating emergency services always see up-to-date map information and

damage reports at the same time. Important facts in images, videos and electronic reports can be highlighted and written notes added for better understanding.

As there are usually several people working on one board, faytech® has modified the touchscreen so that up to 40 simultaneous operating gestures are possible.

Since excellent legibility of the screen content is particularly important for the emergency services in their briefings, the contrast ratio of the touch panel is 6000:1 and the brightness of its LED backlight is 1,000 nits (cd/m²).

The service life of the LCD panel is 100,000 hours. This corresponds to a service life of 12 years - in 24/7 continuous operation!

Curious about the V-Cube Board? The video (Japanese language) shows you its fascinating features in live operation!

# V-Cube Board

Communication platform for emergency services



Founded in 1998 and headquartered in Tokyo, the company is dedicated to the development and distribution of visual communication solutions for trade, industry and non-profit organizations. V-Cube employs approximately 500 people.

Scan the QR code to watch the video





# AKHET®

## YOUR TAILOR-MADE HARDWARE SOLUTION

High quality computer systems for  
industrial automation, retail, network & security  
for medium-sized businesses and large enterprises.



## YOUR TOUCH SOLUTIONS SPECIALIST

Specialized in design, development, manufacturing and  
marketing of touch screen monitors and touch screen PCs.



# POLYTOUCH®

## ULTIMATE TOUCHSCREEN SOLUTIONS FOR TODAY AND TOMORROW

Interactive self-service kiosks, info terminals,  
paging and real-time locating systems.



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PYRAMID**

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**PYRAMID**  
agile. creative. reliable.