EDITION 2026

DiBiS COMPANIES

Netherlands - Taiwan

Representing:

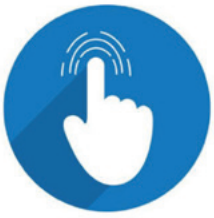
DISVUE®

The dedicated brand label for flat panel products!

Distribution Customization Total solutions Sourcing

Professionals behind the screens® since 2002

Contents



Introduction

DiBis Distribution & DiBis Assyst:
Our current customer base expanded over time from mainly Benelux to various areas in Europe. By means of our expertise in import and export, DiBis Distribution takes the logistics burden away from customers. Our main focus lies in buying and sourcing of components and systems, either standard or any form of customization.

DiBis Assyst was founded to serve customers with products that entail highly specialized sourcing or total solutions, including (sub)-assembly, operating at a higher level than standard industrial, e.g. very wide temperature.

Head office:
Zuiveringweg 78
NL-8243 PE Lelystad
The Netherlands

DiBis Technology:
The main focus of this office is to serve our Asian customers, who in turn do assembly for customers in the Benelux. Besides that, this office is concerned with unique product sourcing and total solutions, upon request fully assembled in Taiwan.
The local presence allow us to source more specifically for product and combine with regular shipments, keeping the competitive edge.

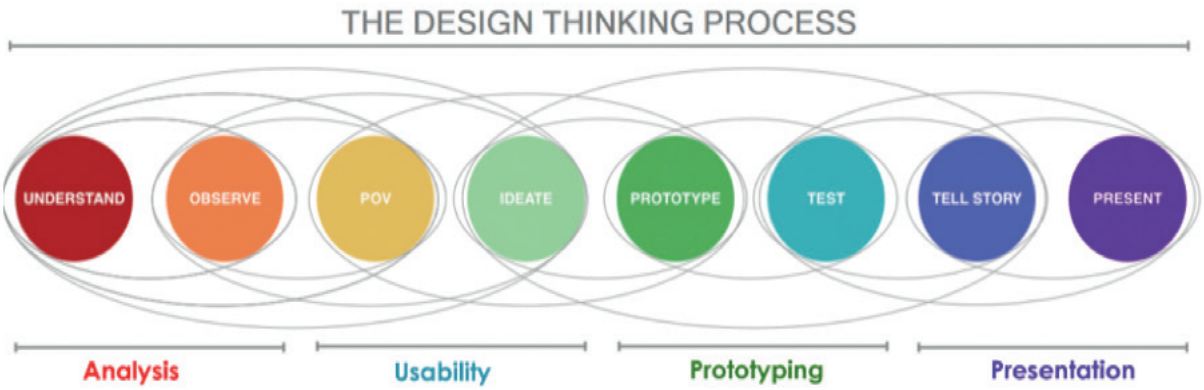
DiBis sourcing and logistics partner:
Our service from local suppliers in China is coordinated via our regional partner. This partner has proven to find requested products at good quality at lower prices than usually available via official channels in Europe.
This regional partner works closely together with our warehouse service provider. They are responsible for the best possible rates on airfreight and sea freight. They have the ability to stock the products ordered, perform an initial item check and repack, if necessary.

Values

Customer oriented:
It is our strong conviction that customer-based thinking is forward thinking. From the moment DiBis gets involved in the development or redesign, we commit to serving the customer with an affordable and innovative solution.

The supply-chain in general and specifically for customized products, is constantly monitored. Means of transportation; stock positions; quality assurance programs; packing method; future availability and other subjects are factored in to ensure customer satisfaction, now and in the future.

Continuous support:
Our team of professionals engage in all stages of the process, adding value in sharing knowledge, selecting the most suitable supplier and provide with engineering samples, before moving forward to the final stage of mass-production.



Values

Mission
By means our personal touch we enable professionals in the industry to achieve their goal to obtain display solutions, embedded products and systems at a minimum of effort, while maintaining constant quality and competitive pricing.

Vision
We constantly strive to be the most valued and inspiring display and additive product partner for customer and suppliers, souring the most optimized products and services from around the world.

Our products come with the value-add of on-time delivery, whilst maintaining a constant level of quality. The factories we work with implemented international quality standards in combination with detailed datasheets and work instructions. This resulted in our extensive track record of long-term cooperation based on mutual trust, benefit and continuity.

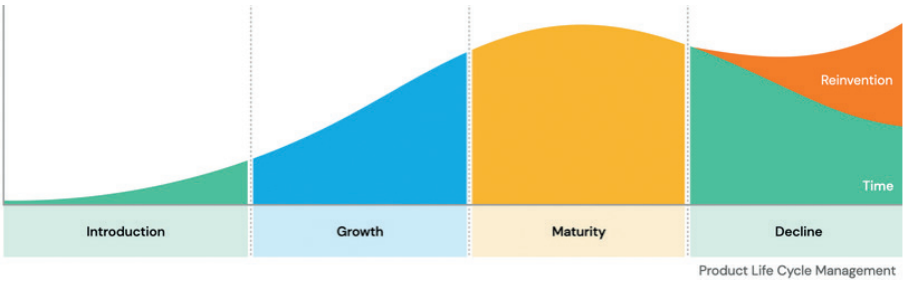
Trust is key when working closely together during the design phase. W have standard NDA-agreements with local and international partners, when applicable.
The NDA content can be amended on project base, depending on requirements.

The environmental changes have created awareness. By limiting our carbon footprint, we wish to pass on a better planet. Technology is an important factor in achieving these goals.
We carefully consider produced waste and selecting least fuel consuming transportation.

Approach

A product is never just a product:
The total of a product consists of the right combination of specifications, requirements, availability and of course the price. Our philosophy is that we start with carefully listing to the customer with emphasis on the wish list, combined with potential limitations.

Sourcing online potentially leads to disappointments and stress. DiBis has a strong presence in south-east Asia. Our network allows us to compare more and various products than others, therefore establishing long-term relationships with suppliers and customers.



Product Life Cycle Management

Product updates:
With new technologies emerging, existing product life cycles can be increased. Opting for a legacy product with some additional features, decreases development cost and design time. Our extensive knowledge base allows us to assist in the updating process.

Corporate Responsibility

Corporate responsibility:
The acknowledgement that our company has an impact on society, the environment and the economy, comes with responsibility. From our perspective, we limit the waste of packing material, select shipping methods that have the least impact and have reduced business trips via air.

RoHS (Restriction of Hazardous Substances):
The RoHS Directive aims to prevent the risks posed to human health and the environment related to the management of electronic and electrical waste.
By restricting the use of certain hazardous substances in EEE (electrical and electronic equipment) that can be substituted by safer alternatives. All of our suppliers supply products according to the latest RoHS directives.

Limiting waste:
We closely cooperate with our suppliers in order to limit the volume and weight of shipments as much as possible. Further, we reuse most of the packing material we receive. All other waste that can't be reused, iscollected by certified waste companies that aim to recycle most of the waste materials.

Energy saving:
By means of solar panels, we generate most of our own electrical power, while our energy supplier is committed to supply green energy.
When possible, we select sea freight from our overseas suppliers. This reduces our ecological footprint even further.

Capabilities

From concept to final product:
We support our customers with a mixed palette of standard products and customized solutions. The design focus is on current and future availability for stable and constant supply.
For legacy products, we have the experience ofrecreating the current design to a version from one of our trusted partners, toensure our customers can continue their manufacturing.

Our capabilities consists of:

- Semi-custom and Full-custom design
- Display kits
- Optical enhancement
- Very wide temperature solutions
- Product integration
- Software (SDK / Pre-installation)
- Sourcing and selection

Added value offered:
Dating back to the very first beginning of DiBis in 2002, we have supported customers with a unique combination of knowledge, skills and forward thinking. The world of electronics is a fast moving environment, where the inside view on technical innovations and developments are key for a final product that is ready for the years to come.

DiBis has proven itself to be a partner for the long term, for suppliers and customers, resulting in mutual understanding and profitability.

Sourcing

Customers resort to DiBis to find product that they have trouble finding themselves, or in cases where they prefer not to deal directly with Asian suppliers.
For this reason, customers assign DiBis as their one-stop-shop partner because of our versatility and our profound knowledge of the Asian market.
Especially for smaller volume (in turnover or quantity) products, it is easier to work with a local partner. This allows customers to focus on their own main activities.

We have provided our customers with many different products such as special design wireless chargers, unique adapters, flight cases, customized cable assemblies and full-custom panel PCs.

Our extensive knowledge of the Asian market and its suppliers, combined with local partners in China and Taiwan enable us to serve our customers with products that can't be found in other regions.

We further allow customers to design and configure special features and specifications on more standard products, with or without a display component.

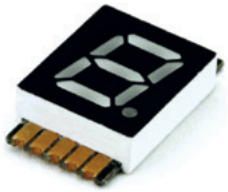
Apart from the physical products, we further extend our services to logistic solutions, lowering the price per unit.

Our sales team is experienced in supporting customized products, MCOTS (Modified Commercial Off-The-Shelf) and full-custom component and systems.

LED solutions

LED products are commonly known for their incredible reliability, usage in very wide temperature environments and rugged applications.

Most of the LED products are available in either SMD or SMT types. The selection of **LED lamps** offer many options, either with single; dual or multi-color, several diameters, color or clear lenses, diverse viewing angles, either round or rectangular.

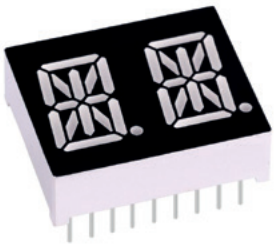


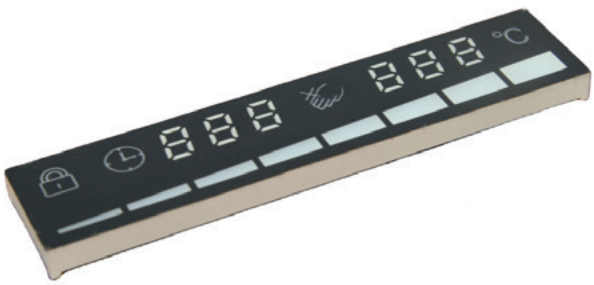
LED displays are available in:

- 7 segment LED display;
- Alphanumeric LED display;
- Bar graph LED display;
- Dot matrix LED display;
- Single, dual and multi-color types and
- Semi-custom and Full-custom design.

Less commonly known is that the special LED display types are **available with projected capacitive touch option.**

The excellent optical performance in combination with bright lights and ultra-fast response time, the LED product solutions will increase the looks and performance of many applications. The constant power requirement narrows the potential suitable applications.





OLED products

OLED (Organic Light Emitting Diodes) is a flat light emitting technology, made by placing a series of organic thin films between two conductors. When electrical current is applied, a bright light is emitted.

In the more recent years, the technology has evolved, much related to the consumer products like foldable mobile phones, smart watches and tablets, resulting in:

- Monochrome dot matrix and segment;
- Round displays;
- Multi-color passive matrix;
- Full-color active matrix;
- Bendable displays;
- Touch integrated displays;
- Displays integrated in PCB assembly.

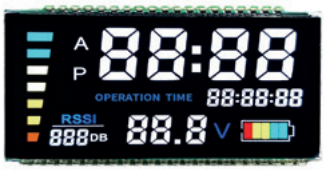
PMOLED vs AMOLED

PMOLED (passive matrix) OLED, is a passive matrix display with an organic material layer, using an external semiconductor chip to control pixels. This limits the display resolution to circa 320 by 160 pixels. Most PMOLEDs are monochrome.

AMOLED (active-matrix), featuring an active electronics layer underneath the OLED layer, acting as a memory, controlling which pixels are turned on or off and how bright. The signals can be tuned to achieve different levels of color at each pixel.

LCD displays

LCD displays are divided in passive matrix (mostly monochrome and smaller size) and active matrix, commonly known as TFT displays.

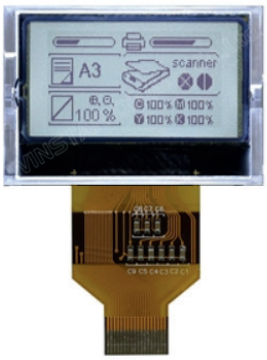


The commercialization of LCD technology dates back to the early 1970s. Since the rise of TFT displays, monochrome LCD have experienced a decrease in available sizes, but the technology is still very much alive.

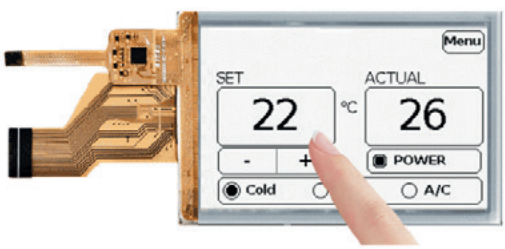
LCD panels and modules have a strong appeal to electronics designers for their **versatility**, **long-term availability** and **cost effectiveness**, especially when it comes to **custom design**.

Panel design displays can be driven in static or multi-plex signals, resulting in wide viewing angles.

The displays most commonly come with an integrated driver IC, making the displays easy to interface.



Special focus is on **E-paper displays**, that have proven their excellence in **ultra-low power** applications. The latest models have a unique driving interface, where smaller changes on the display do not require the whole display to change, thus avoiding flickering. Also E-paper come with (standard) integrated touch technology.



TFT displays

In the last decade, TFT-display development has reached a peak. The large diversity in small and very big sizes, round; rectangular, wide screen and stretched versions, result in virtually unlimited options for virtually all applications.

TFT displays are suitable for indoor and outdoor applications, due to the high brightness and the very wide temperature options.

In general the product range is divided in 4 major groups:

- Small size: ≤ 1 inch ≥ 7 inch
- Medium size: ≤ 8 inch ≥ 20 inch
- Large size: ≤ 21 inch ≥ 42 inch
- Oversized: ≤ 42 inch ≥ 100+ inch

To further the functionality of TFT displays, the characteristics have broadened to enable wider use.

An overview of market adopted features:

- Standard; wide screen, portrait mode; round; rectangular shaped;
- Wide and Very Wide viewing angles;
- Touch enabled or Cover glass option;
- Long life backlight;
- Optical bonding (air-bonding; OCA; OCR);
- High brightness;
- Very wide temperature;
- Narrow frame display design;
- Transflective;
- Single; dual or multi-input interface;
- FALD (dimming) LED backlight;
- UV-protection.

TFT displays

Wearable: Small size TFT displays for smart watch and other low power and low profile applications.

Portable: Small and medium size displays to be used in battery operated products with low power consumption, e.g. (rugged) tablet.

Industrial: Rugged design and wide temperature, suitable for the more demanding applications.

Desk and Table top: Standard, very wide screen and curved solutions for general indoor communication.

Advertising: In all ranges of display sizes, both indoor and outdoor, touch enabled and brightness.

Outdoor: The most durable displays, rugged design, wide temperature, UV and cover glass protection.

Medical: Standard and special designed small and medium size displays, indoor and outdoor, battery and regular power operated.

Military: For the most demanding and harsh environments, additional features like heating foil and very high brightness incl. auto dimming.

Touch solutions

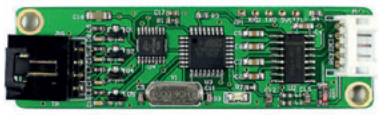
Touch screens are far more intuitive, language-free, space-saving and usually more durable than a traditional keyboard or mouse while navigating a graphical user interface (GUI).

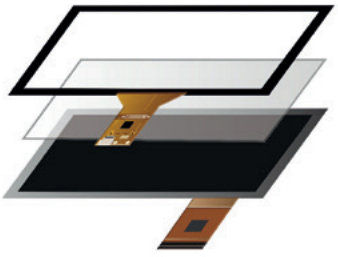
A touch screen is a glass substrate with electronic touch sensing as an input device. Users interacts with the computer, tablet, smartphone or touch-controlled appliance by using fingertip (movements) or stylus to tap pictures, moving elements or typing. The screens detect a change in resistance, or capacitance or blocking of light (in case of Infra-Red touch).

The market demands are nowadays mostly limited to resistive touch or projected capacitive. Other techniques are available upon request and depending on the final application.

Summary table: capacitive vs. resistive touch screens - general specifications -

Touch technology	Resistive 4-Wire	Resistive 5-Wire	Surface Capacitive	Projected Capacitive
Suitable for	1 inch ~ 10 inch	6 inch ~ 20 inch	5 inch ~ 20 inch	3 inch ~ 100 inch
Activation type	Pressure activated	Pressure activated	Slight touch	Slight touch or proximity
Cost	Lowest	Moderate	Moderate	Highest
Light transmittance	70%	75%-88%	88%-93%	>88%
Resolution	Analog, moderate	Analog, high	Analog, high	Analog, high
Durability	1 ~ 5 million, front surface affected	Up to 30 million, front surface affected	Up to 50 million, no ware on surface	100 million or more, no ware on surface
Outdoor usage	Limited, temperature sensitive, no effect by water or dust, easy to be damaged	Limited, no effect by water or dust, easy to be damaged	Good, top surface can be scratched or chipped	Good, no direct influence by damage of top surface
Operation method	Finger, glove, any non-sharp object	Finger, glove, any non-sharp object	Finger or conductive stylus, surgical glove	Finger or conductive stylus, surgical and worker glove
Multi-Touch	Not available	Available, yet more complex	Limited	Yes, up to 10 contacts
Customizable	Yes, low cost	Yes, medium cost	Yes, higher cost	Yes, higher cost
Interface	Simple A/D converter	Simple A/D converter or controller board	Controller board	Integrated touch controller IC or controller board
Cover glass	Not available	Not available	Not available	Optional, highly customizable (printing, color etc.)

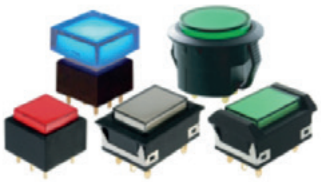




Disclaimer: *above information is a general comparison and non-binding. For more details, contact our sales department.*

Buttons & Membrane foils

Push button switch: long travel distance operation with illumination or non-illumination, lock or non-lock.



Tactile switch: low profile switch body integrated LED backlight, no latching veraion.

Rotary switch: multi contact position, operation by rotation can be selector or encoder.

Display / touch rotary switch: operation by rotation can with display feedback and touch option for menu.

Navigation module: combination multil switches in single module, easy to set-up, save develop time and money, such as 5-way button switches, 3-key push button switch.

Electronic switches: not mechanical contact, electronic signal output, it can be Capacitive touch switch, infrared non-contact push button switch(IR sensor switch), Piezo switch.

Alarm Buzzer / Indicator: 3-in-1 Emergency-stop, water-proof piezoelecric effect alarm buzzer, ring indicator for rotary potentiometer.

Non-tactile membrane switches lack physical feedback or a “click” sensation when pressed. Typically used in applications where a gentle touch is preferred, providing a smoother user experience.

Tactile membrane switches are engineered to offer feedback to the user when pressed. These usually feature a dome or protrusion on the bottom membrane layer that collapses or clicks, providing a distinct tactile sensation and confirming the button press.

Monitors

Monitors are found all around us, either as desktop or as an industrial user interface. Most of the monitors are still based upon the TFT-technology, however, OLED monitors will soon experience a more final breakthrough due to the unrivaled image quality and fast response time.

Many of our customers prefer a monitor in combination with a touch option, either resistive, (projected) capacitive or even infra-red.

The latest models of monitors show more flexibility, allowing images to pivot with the screen itself. Some monitors have an ambient light strip integrated for even higher image experience.
Monitors are available in many forms and shapes:

- Application driven:
  Desktop, Industrial, Vehicle, CCTV;
- Flat or Curved;
- Touch integrated;
- Standard or wide temperature;
- Plastic or metal housing;
- Portable wireless;
- Custom design.

Tablets

Tablets are all around and widely available. Depending on the final usage, the selection requires different specifications.

- Windows, Android OS;
- Wireless and non-wireless connectivity;
- Various screen sizes with touch;
- Audio, camera, buttons,
- SIM card and memory card slot

Consumer: While the well-known brands focus on large volume and “products-as-is”, DiBis is able to source suppliers that offer customized solutions, e.g. logo, color, and various other options.

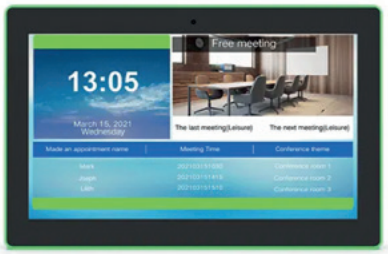
Desktop: Although the general features will resemble consumer tablet, the shape and orientation will be different.

Rugged tablets for logistics and vehicle: Mostly in the range of 4 inch to 8 inch, these tablets often come with a barcode or RFID reader and NFC/BT/Wifi connection.

Rugged tablets for industry: The size range will be around 7 inch to 13 inch. All tablets are suited for harsh environments, wide ambient temperature and wet or dusty conditions.
The high brightness and long life battery allow continuous operation.

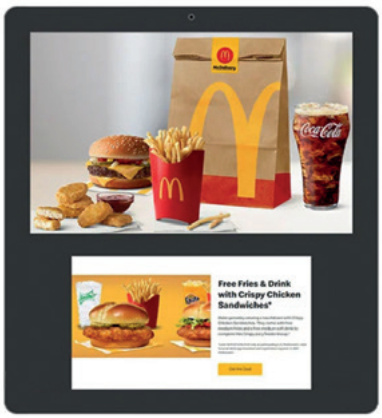
Digital Signage

Digital signage refers to displays that showcase dynamic material, including text, graphics, video, interactive media, and live-streaming content via software that facilitates it all. These versatile displays are a common sight in outdoor public spaces, serving as high impact billboards in public locations.
Indoor applications are equally diverse, enhancing customer experience and communication in retail spaces, restaurants, modern office buildings, healthcare facilities, transport hubs, and general locations like museums.



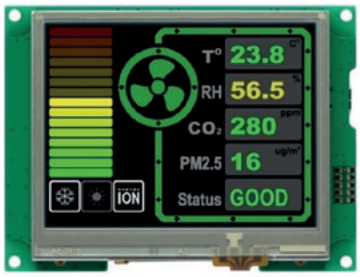
Considerations while **choosing the digital signage** configuration are:

- Display size
- Display type; LCD, LED or (Transparent) OLED
- Brightness
- Resolution
- Enclosure (for weatherproofing like IP65 standards)
- CMS (Content Management Software)
- UV protection
- Cooling or heating components



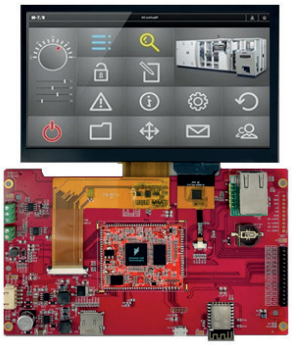
Smart display / HMI

HMI (Human Machine Interface) products come in different forms and shapes, ranging from bare PCB display units to complete interface units with strengthened housing including standard or customized mounting. All Smart TFT and HMI units come with touch option, all suitable for industrial applications.



The key feature of a **Smart TFT display** is the integration of intelligence (MPU / CPU), memory and communication functions, resulting in the more basic types of HMI.

Smart TFT displays contain additional hardware and (dedicated) software (GUI) that allow these products to operate as a stand-alone unit.



Micro-processor HMIs, come with housing, power supply and more advanced functionality compared to smart TFT. Compared to panelPC products, these HMIs are **cost-effective** and intended to suit for more local dedicated solutions.

The OS depends on the model of choice, either specific designed software from manufacturer, or Android / Linux / Yocto OS.

The newer models are developed with Industrial Internet of Things in mind, combining digital connectivity to a network of higher and lower echelon processing units.

Embedded PC

The embedded product range starts with ARM based boards, supporting basic OS systems like Android, Linux and Yocto. Additionally, we offer full functional Intel® CPU boards with Windows OS.

For the industrial market, we support the complete system with housing, power supply and a full range of I/O functionality. This can either be for industrial applications, but also for desktop-alike systems, e.g. for POI / POS and other solutions.

For those applications that need a full integration of functionality, including display and touch, we provide wide range of panelPC systems, either with ARM CPU or an Intel® CPU.

Using the standard OS or a more dedicated OS, these panelPCs allow users to control the application in an easy to use and intuitive way.

The mix of industrial and desktop systems enable customers to configure their systems according to the necessary specifications.

The more demanding applications are supported with a complete system including IP65 front or full IP65/IP69K enclosure with matching cable set, being able to function in environments, encountering wet and dusty conditions at a wide ambient temperature.

Full Sealed IP65/IP67

Power Products

DIN Rail Power Supplies are designed for industrial applications, such as industrial control, building management and factory automation. The compact and easy to mount design, creates the optimal combination.

Providing industrial customers with top-notch **open frame power products**, there is an abundance industrial-grade industrial power supplies to meet divers industrial applications.

When insisting on maintaining the consistent high quality, high stability, and high-performance characteristics, these electronic power products will serve customers well.
The range covers:

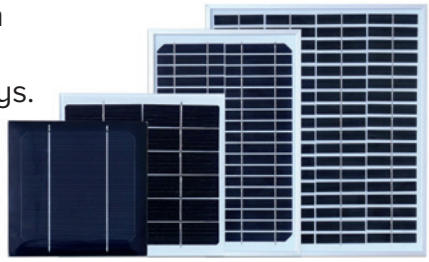
- DC/DC Power Supply,
- AC/DC Power Supply,
- Dual Energy and I/P Power Supply

For customers looking for a European brand with flexibity and European made products, we recommend the products from Italtras. This company has made a lasting impression with custom design and a dedicated R&D team to help out for specific transformers for a wide range of applications.
The main product range is:

- Resinized transformers;
- Toroidal transformers;
- Ferrite transformers;
- 3 phase transformers.

Products with limited access to the power grid or only need very low power, are very suitable for small / medium size(customized) solar panels.
The advantages offered are:

- **Waterproof** - IP65 enclosure and connectors.
- **Corrosion resistant** - Tempered glass and anti-corrosion aluminum frame.
- **High output** – Power generation on sunny and rainy days.
- **Ultra-light** - ideal for use in portable and space saving applications.
- **Long life** - Up to 25 years of power generating.



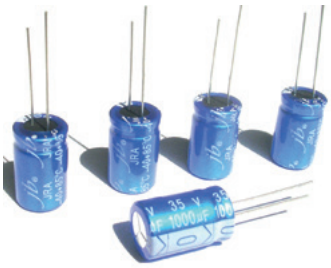
Capacitors

The main feature of a capacitor is to store energy. One of its many applications would be supplying that energy to a circuit, just like a battery. However, capacitors have a much lower energy density than batteries; although the gap is narrowing.

The upside of capacitors is the longer life and capable of delivering energy much faster than a battery, which makes them good for applications which need a short, but high burst of power.

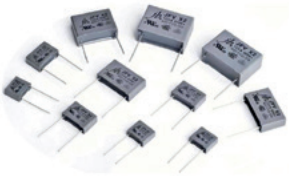
Types of Capacitors
Electrolytic and ceramic caps cover about 80% of the capacitor types in the widest kinds of applications, commercially, industrial, rugged solutions, medical and military.

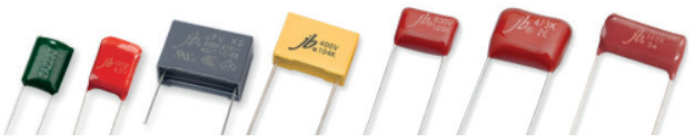
Ceramic Capacitors: The most commonly used and produced capacitor out there is the ceramic capacitor. Named after the material from which their dielectric is made.



Aluminum and Tantalum Electrolytic: Electrolytics can pack much capacitance into a relatively small volume. Especially well-suited to high-voltage applications because of relative high maximum voltage ratings.

Film capacitor: featuring very low parasitic losses (ESR), making them very suitable for dealing with very high currents.





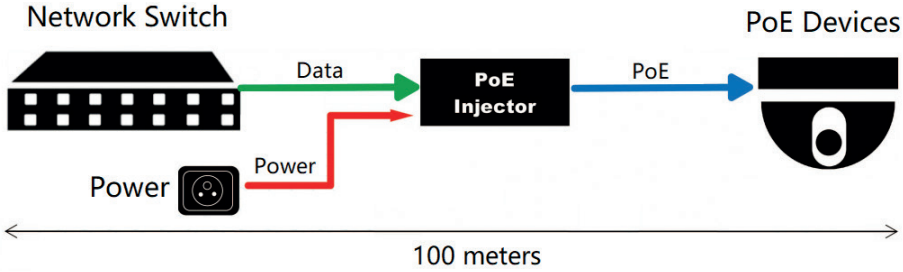
Power over Internet

Power over Ethernet (PoE):
Power over Ethernet (PoE) enables one RJ45 cable to provide both data connection and electric power to PDs instead of having a separate cable for each.

PoE, PoE+ and Ultra PoE
The amount of power that can be sent over Ethernet cable has increased. IEEE-compliant PoE switches and Injectors can output anywhere from 12 watts to over 70 watts of power per port.

Powered Device (PD)
Any network device that is powered by PoE is referred to as a powered device, or PD. The rise of the more powerful IEEE 802.3bt standard has paved the way for more power-consuming applications.

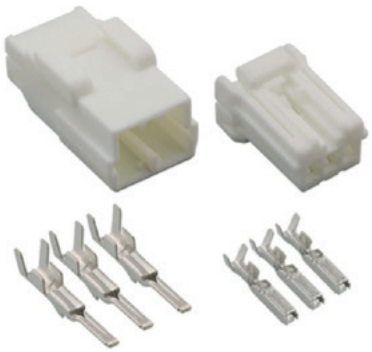
Power Sourcing Equipment (PSE)
PSE devices send power and data over the Ethernet cable to a connected PD. PSE devices are classified as either “midspan” or “endspan.”



Connectors

Connectors are an indispensable component of electronic devices. Connectors are diverse in form and structure.

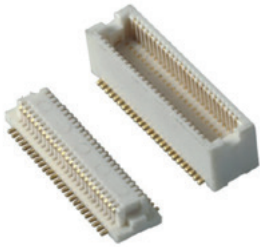
Different frequencies, power, and application environmentswill require different forms of connectors. Always consider the mechanical electrical and environmental properties of a connector before deciding on a certain type.



The main focus is on 4 different connector types:

Backplane connector: Connects a daughter card and a backplane in a 90° vertical structure. Can transmit high-speed differential signals or single-end signals and large currents.

Header and wire housing: Headers and wire housings, most of which are arranged in rows, so they are generally known as pin headers and female headers.



FFC/FPC connectors: These connectors provide flexible, high-density solutions that can be used in applications in industries across the board. Due to their thin and compact form, these connectors are very often used in sleek, digital applications.

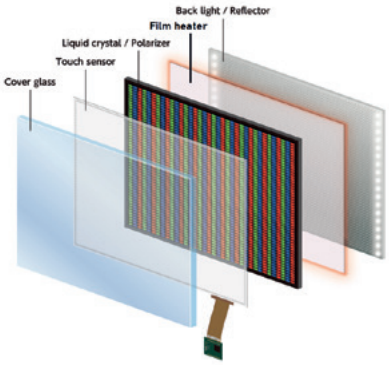
Board-to-board (BTB) connectors: They are indispensable miniature coupling plugs and sockets, and the power supply and signal between printed circuit boards (PCB) can be connected through pins of these connectors.

Custom solutions and cable assembly: On project base semi-custom and full-custom solutions were offered. This goes for the physical connector as well as connectors with wires. This involves connector type, wire thickness and color and the wiring scheme. Optionally, we provide harnessing services to reduce EMC / EMI.

Customized

Display customization:
The configuration of displays can be adjusted to customer's needs. Adjustments can be the change in viewing angle, backlight color and brightness.

Additionally, we support touch integration, cover glass customization and backlight or frame adjustments for easy assembly.

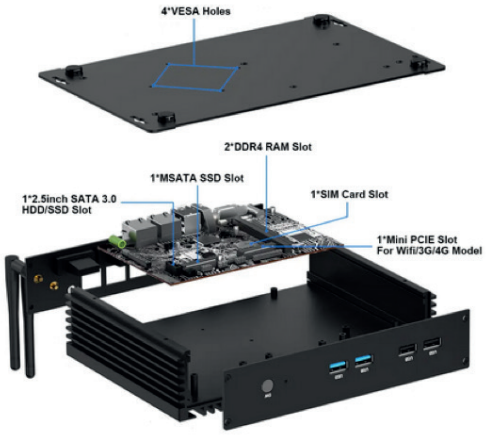


Mounting options:
Complete display or embedded systems solutions may come with mounting brackets. Furter, DiBis is capable of providing metal front panels for easy mounting techniques.

We serve our customers with complete metal work, either from factory or by custom design via our Taiwan office.

Metal housing:
Embedded boards are vulnerable to external factors and direct contact. We support custom design housing, maintaining rugged and compact outlines.

For outdoor applications, we offer various **conformal coatings** to avoid out of specifications conditions to affect the operating life span of the system.



Projects

Design Win:
For a German customer we helped to develop a custom design TFT display with a special touchscreen. The application is an mobile air purification system with cooling capabilities.

DiBis was able to demonstrate its added value by sourcing a long life backlight display with a cost-effective resistive touchscreen. Throughout the entire project DiBis actively supported the development up to the market introduction.

Design Win:
For a Dutch customer our company was able to find a full-custom designed TFT display with a special designed capacitive touchscreen. This particular customer designed a whole new platform for their latest indoor temperature management system. Our expertise was called upon for reaching an optimized optical performance.

Additionally, to convice the customer of the entire quality structure, DiBis arranged - in close cooperation with the display factory - a shock & vibration test, to avoid future defects.plugs and sockets, and the power supply and signal between printed circuit boards (PCB) can be connected through pins of these connectors.

Design Win:
Several years ago we were asked by one of our long term customers to helpreduce suppliers. The main product is a very high end military grade monitor.

DiBis has set up a strong relationship with several US-based suppliers, securingfuture delivery, committing to the highest standard of technology and quality.

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