



DWIN TECHNOLOGY



Official website



Alibaba



Linkedin



YouTube

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Headquarters

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Manufacturing & Service Base

No. 8, Venture Avenue, Zhangjiang Innovation Park, Taoyuan County, Hunan Province

Domestic Branches

Changsha Branch: Room 1203, Jinmao Building, Yuelu District, Changsha

Guangzhou Branch: Room 1703, Building A3, Times E-Park,
Hanxi Avenue East, Panyu District, Guangzhou

Shenzhen Branch: Room 915, Building A, Zhongguan Times Square, No.4168 Liuxian Avenue,
Taoyuan Sub-district, Nanshan District, Shenzhen

Suzhou Branch: Room 2215, 22nd Floor, Building A, Suzhou World Trade Center,
No. 1588 Suzhou Railway Station Road, Gusu District, Suzhou

Hangzhou Branch: Room 1015, Building 19, Huaxia Zhixin, Shidai Tianyuancheng,
Yuhang District, Hangzhou

Wuhan Branch: Room 1105, Building D, Zhongxing Times, No. 79 Xudong Avenue,
Hongshan District, Wuhan

Nanjing Branch: Room 407, Building D1, Intercity Space Station, South Square of
Nanjing South Railway Station, Jiangning District, Nanjing

Chengdu Branch: Room 810, Building B, China Resources Plaza, No. 8 Liuli Road,
Jinjiang District, Chengdu

Qingdao Branch: Room 202-6, Hongfu international Building, No. 270 Tai Liu Road,
Shibei District, Qingdao

Professional • Credible • Successful

Company Profile

DWIN Technology, established in 2003, is a high-tech enterprise dedicated to HMI products and solutions. DWIN, leveraging its solid foundation in IC design, has focused on innovative research and development of UART screen applications and has successfully achieved a high degree of integration across the entire industry chain.

DWIN's headquarters is located in Zhongguancun, Beijing. The company includes 2 core enterprises, 3 subsidiaries, 9 domestic branches and offices, and 39 international service centers. DWIN has served nearly 60,000 customers, with a service network that spans the globe.

Guided by our business philosophy of "Achieve Double Win, Grow Together", DWIN Technology constantly innovates, creating continuous value for our customers.

Honors



Corporate Culture

Professional Competence, Honesty and Trustworthiness, Pursuit of Excellence (Professional, Creditable, Successful)

Corporate Orientation

Utilize and create technology that is accepted by society, to change life through technology, and to create value.

Corporate Philosophy

Double WIN (DWIN = Double WIN); Achieve double win, grow together.

Corporate Goals

Enter the Fortune Global 500 and become a widely recognized comprehensive technology enterprise.

Innovation-driven Development

Data sourced from QYResearch
Global Serial Display Industry Report 2024: A Comprehensive Analysis of Market Size, Major Competitors' Market Share (Domestic and International), and Global Rankings

Nearly 60,000 customers worldwide
Over 70,000 developers
15 university-enterprise collaborations.

Approximately 30% of our workforce is engaged in research and development. We maintain complete control over our technology, from core chips and algorithms to key equipment and processes, through in-house development.

400,000 m² science and technology park. Deep integration of R&D and manufacturing. The bedrock of innovation. The assurance of quality.

ISO9001:2015 ISO14001:2015 TÜV Rheinland Certification

Our vast laboratory infrastructure serves all customer applications. Through closed-loop quality management from R&D to after-sales, we consistently achieve a corporate quality target of 200 PPM.

HMI ASICs

Our self-design, dedicated ASICs are utilized across numerous Human-Machine Interface (HMI) applications, such as UART screen solutions, touch control, and high-precision digital signal processing, etc. Thanks to their flexible integration and robust architecture, DWIN HMI ASICs serve as the foundation for high-performance and highly cost-effective all-in-one display control solutions.

We provide dedicated UI development platform paired with our ASICs to enable customers to create stunning HMI designs more rapidly and easily.

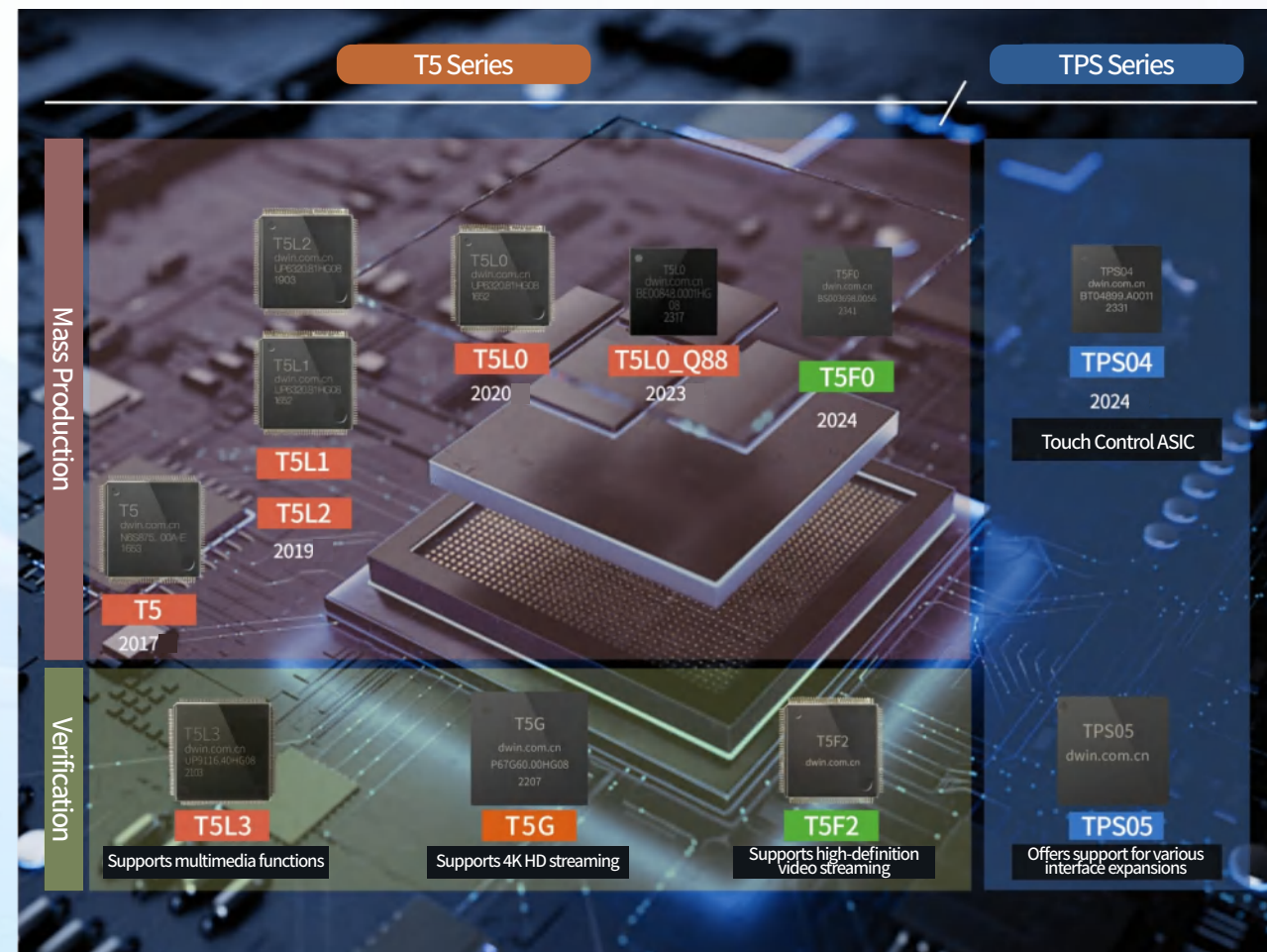
T5 Series

The T5 series features versatile chips supporting various resolutions and diverse UI functionalities. Incorporating high-speed graphics processing, JPEG hardware decoding, touch control, and audio playback. These chips offer easy integration, streamlined development, high performance, and a budget-friendly price, leading to their widespread adoption.

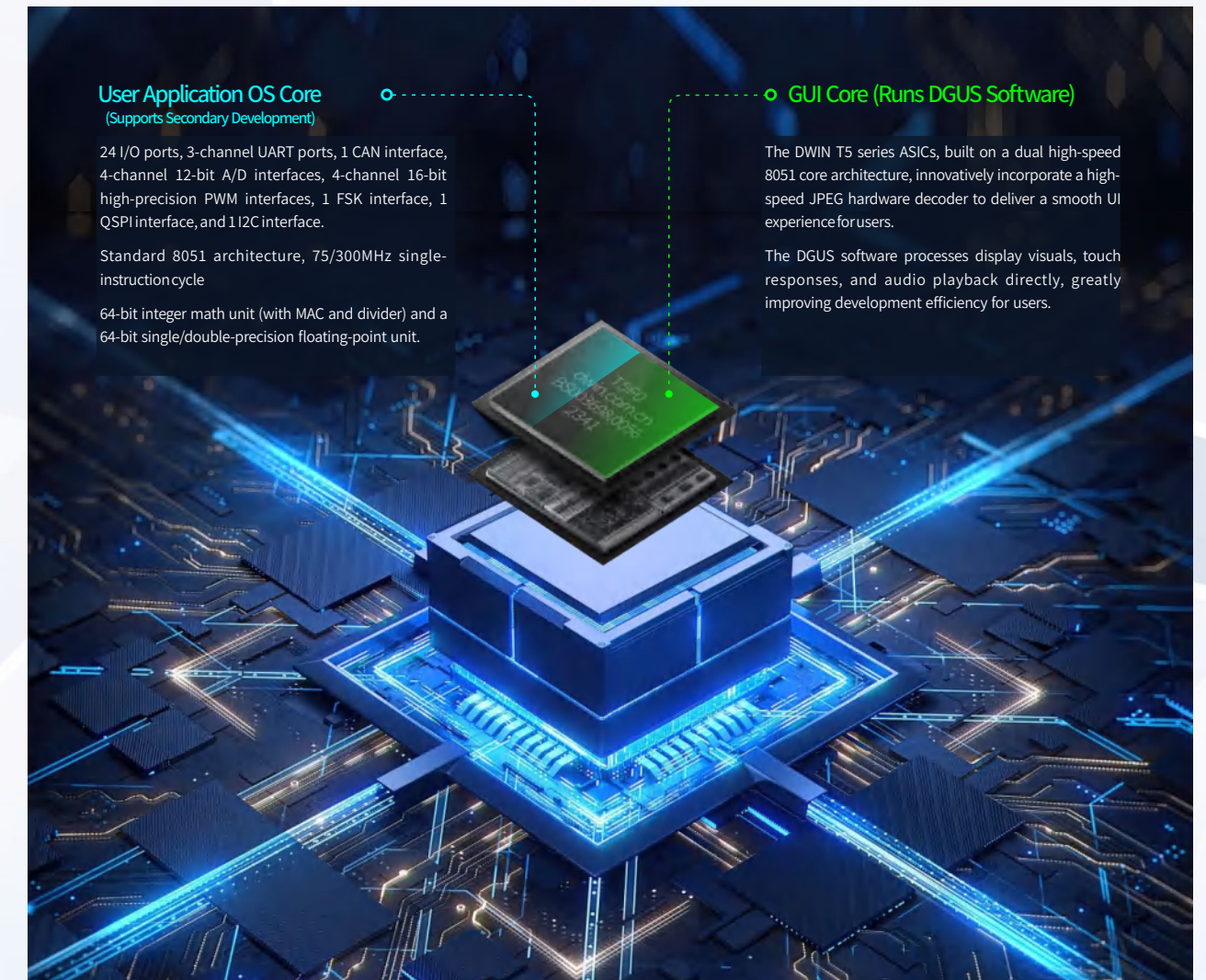
TPS Series

TPS series is a peripheral processor designed for high-precision digital signal and analog signal processing. It is well-suited for touch control interfaces, high-precision instrumentation, communication signal conversion, and similar functions.

DWIN ASIC Roadmap

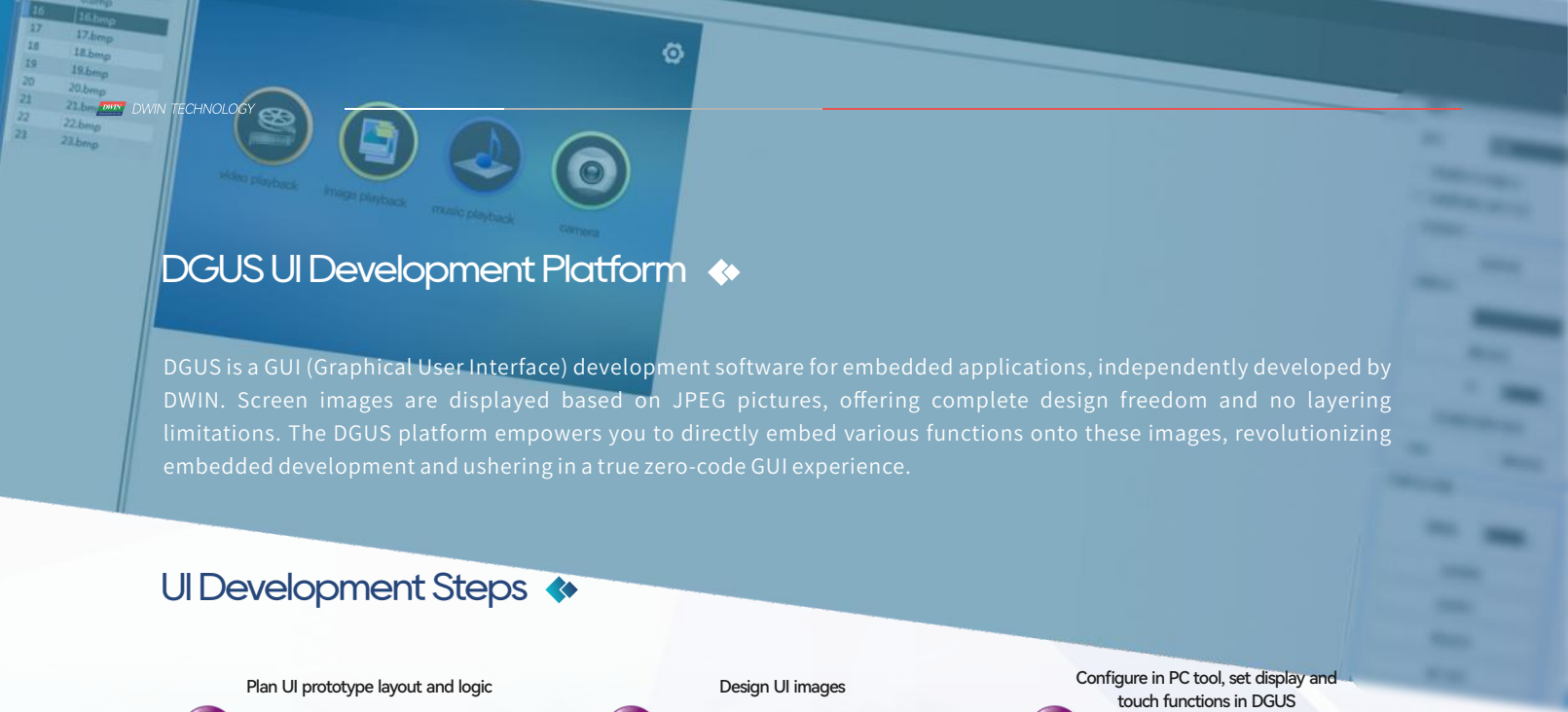


T5 Series ASIC



Universal Peripheral Interface





DGUS UI Development Platform

DGUS is a GUI (Graphical User Interface) development software for embedded applications, independently developed by DWIN. Screen images are displayed based on JPEG pictures, offering complete design freedom and no layering limitations. The DGUS platform empowers you to directly embed various functions onto these images, revolutionizing embedded development and ushering in a true zero-code GUI experience.

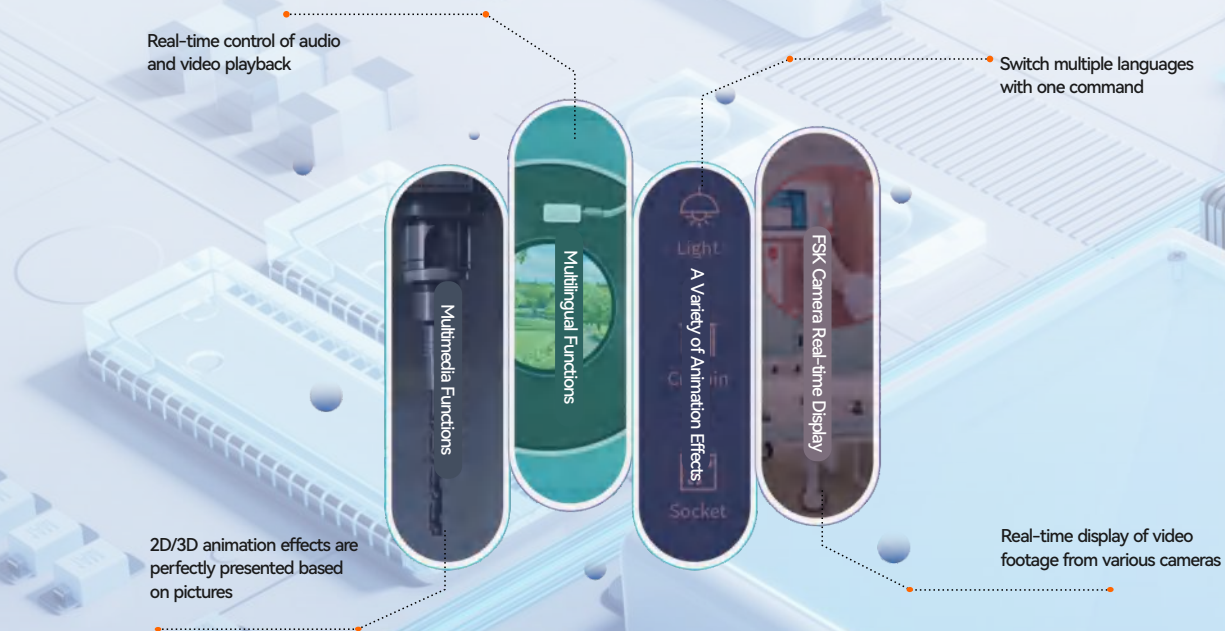
UI Development Steps



Stable and Reliable, Shortening the UI Development Cycle

The DGUS platform integrates built-in display and touch control for diverse functions. Developers can easily create UI by layering elements and selecting pre-configured controls. With screen effect images already designed by UI specialists in the early phase, R&D engineers can skip the steps of drawing screen from scratch or coding UI effects.

Realize Rich UI Functions with Zero-code



An Extensive Portfolio of Intelligent Screens



◆ 1.3-21.5 inch, 240x240 to 1920x1080 pixel resolution

◆ Circular screen, square screen, bar screen

Adaptable to Various Application Environments(Customizable)



Diverse Structures



DGUS UART Screen Size Selection

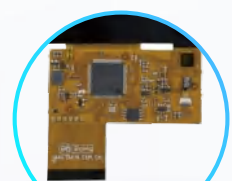
● Circular Screen ■ Square Screen ■ Bar Screen

1.3 240*240	1.4 240*240	1.5 240*240	1.6 400*400	1.66 428*142	2.0 320*240	2.1 480*480	2.2 240*320	2.3 320*240	2.4 320*240	2.7 960*240
2.8 320*240	3.0 360*640	3.2 376*960	3.3 320*320	3.4 1920*1080	3.5 320*240	3.6 544*506	3.7 960*240	4.0 480*480	4.1 720*720	4.3 480*272
480*480					240*320			720*720		800*480
					320*480			800*480		1920*1080
					480*640			960*400		
					640*480			1920*1080		
					480*800					
4.5 1920*1080	4.6 960*320	4.7 480*270	5.0 480*272	5.5 720*1080	5.6 640*480	5.7 320*240	6.0 1920*1080	6.5 640*480	6.8 1280*480	6.9 1424*280
			640*480	1920*1080		640*480				
			800*480							
			854*480							
			1280*720							
			1080*1080							
			1920*1080							
7.0 800*480	7.4 1280*400	7.8 1280*400	8.0 800*480	8.4 800*600	8.8 1920*480	9.7 1024*768	10.1 1024*600	10.4 800*600	11.3 1920*440	11.6 1920*1080
800*600			800*600				1280*720	1024*768		
1024*600			1024*600				1280*800	1600*720		
1280*800			1024*768				1200*1920			
800*1280			1280*720				1920*1080			
280*1424			1280*800							
1920*1200										
12.1 800*600	12.3 1920*720	13.3 1920*1080	14.0 1920*1080	15.0 1024*768	15.6 1366*768	17.0 1280*1024	17.3 1920*1080	18.5 1366*768	19.0 1280*1024	21.3 1600*1200
1024*768				1600*1200	1920*1080			1920*1080		
1280*800										
21.5 1920*1080										

COF UART Screens

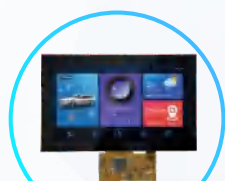


Product Features



Highly Integrated Minimalist Structure

The core circuit of the UART screen is integrated on the LCD module's FPC, enabling a lightweight, slim, and space-saving design.



Cost-Effective

The automated LCD bonding line enables high-speed mass production, eliminating the manual assembly process, ensuring high production efficiency and high yield.



Easy for Secondary Development

By exposing interfaces like user core I/O, UART, CAN, AD, and PWM through the FPC, custom development becomes very effortless.

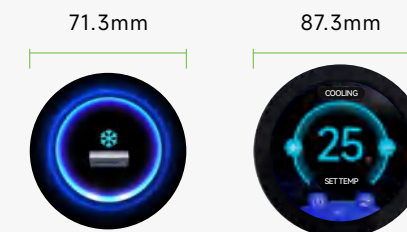


Compatible with any TP (Touch Panel)

Special-shaped UART Screens



COF Structure



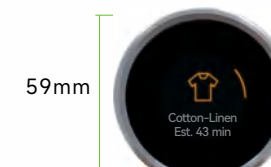
2.1 Inch

2.8 Inch

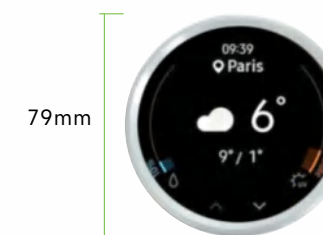
COB Structure



1.3 Inch



1.6 Inch

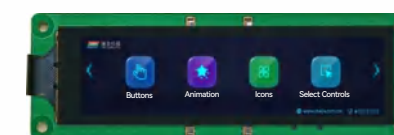


2.1 Inch

Knob Structure



4.0 Inch



3.7 Inch



1.6 Inch

Bar Structure

- ◆ IPS wide-viewing angle, clear and delicate display.
- ◆ Exquisite and compact design, suitable various product appearance.

UART Screen for Severe Outdoor Applications

This product series is specifically designed for severe environments, supporting wide-temperature operation from -40°C to +85°C. Built with domestically sourced components, it features a 1000nit high-brightness screen (1500nit optional) to ensure excellent readability under direct sunlight.



- ◆ Domestically sourced materials.
- ◆ Multiple LCD sizes available (7"-15").
- ◆ Ultra-wide operating temperature: -40 to 85°C.
- ◆ IP67 waterproof rating for the entire unit, with all interfaces using waterproof aviation sockets.
- ◆ Features a die-cast pure metal casing with an IK08 rating for impact and drop resistance. The entire device is triple-proofed to withstand harsh outdoor environments.
- ◆ Our capacitive touch screen, powered by the TPS04 touch control chip, delivers stable, reliable performance with superior anti-interference capabilities and supports operation even with water on the surface.
- ◆ 4.0mm explosion-proof tempered glass cover featuring UV protection, an anti-glare (AG) coating, and an anti-fingerprint layer to effectively block ultraviolet rays.

Integrated Display & Control Terminal



Wall-mounted Panel Solutions

With a standard 86 box installation and a range of stylish designs, the sleek and refined body is aesthetically pleasing. Our advanced built-in algorithm provides a perfect solution to data inaccuracies and inconsistencies caused by screen heating.



Application Scenarios



HVAC



Fresh Air



Smart Home



Smart Buildings

Ultrasonic Application Solutions

1 Fat Thickness Meter

Powered by our self-designed chip and algorithm, this fat thickness meter provides a fast and accurate solution. With a millisecond response and $\pm 1\text{mm}$ accuracy, it delivers a precise, non-invasive measurement of fat thickness.



2 Surface Acoustic Wave (SAW) Touchscreen

The SAW touchscreen supports extra-thick covers (over 10mm) and is well-suited for use in environments requiring protection from explosions and strong electromagnetic interference.



Elevator Control Panel

Medical Aesthetics Application Solution

Scalp Health Analysis

The solution uses high-definition image capture for AI-powered scalp analysis, providing data on hair color, hair density, and other relevant factors.



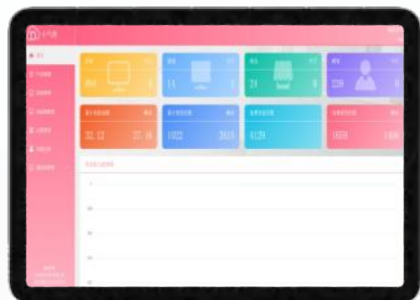
Skin Analysis Solution

The skin analysis solution all-in-on software and hardware smart solution with AI facial recognition and skin analysis functions.



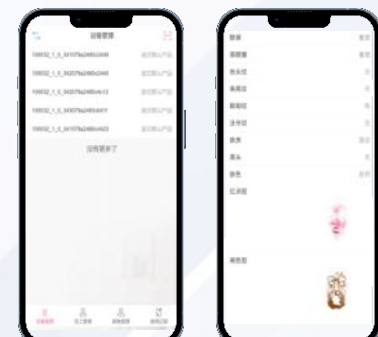
Management Backend

Main functions: device management, store management, operations management, product management, and skin analysis results.



Mini Program

Allows users to conveniently view their skin analysis results.



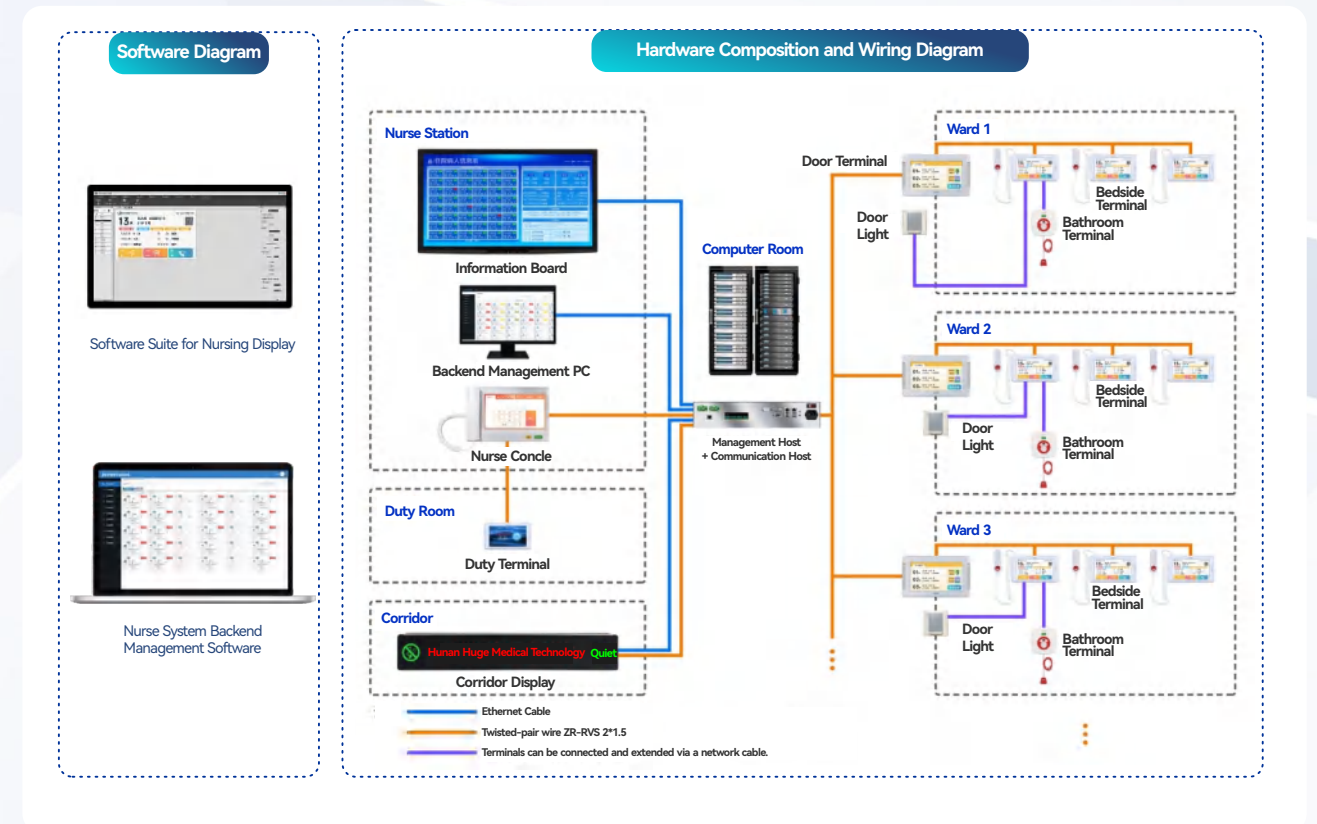
Bus Networking Solution

Smart Nursing Call System Solution

This smart nursing call system is an all-in-one hardware and software solution, providing intelligent intercom services for medical staff in hospital wards.

The system includes: nurse console, bedside terminal, door terminal, duty room, bathroom terminal, corridor display, information board and the accompanying software.

It connects directly with the HIS system, enabling instant information exchange and streamlined management.



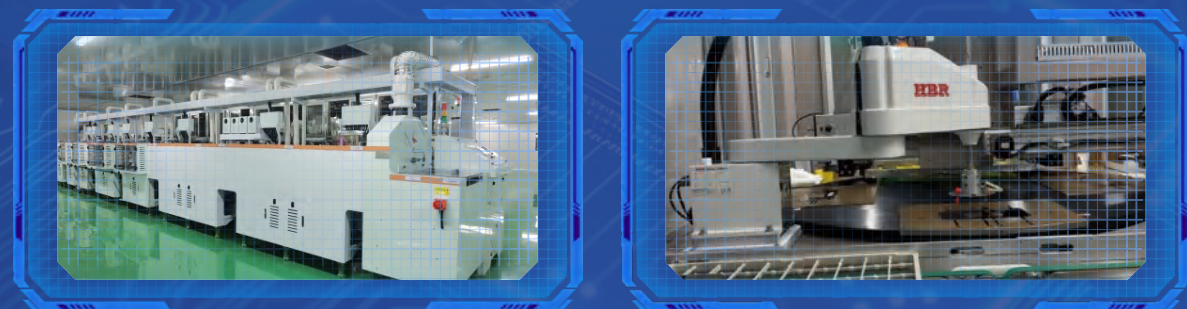
Application Cases



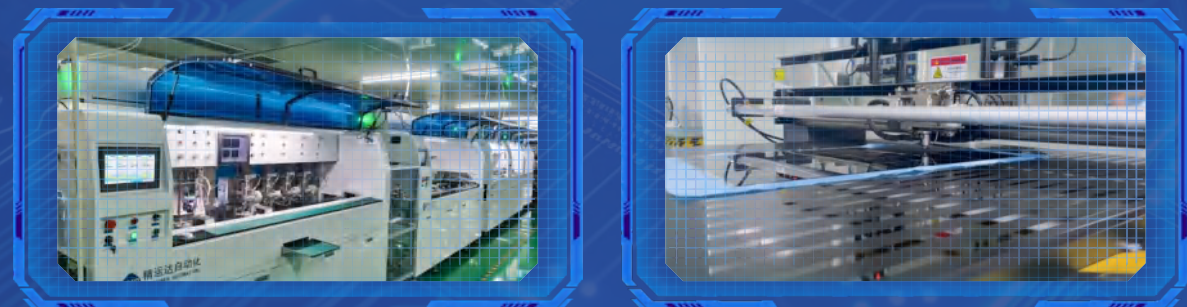
Customized Services for Cover Glass and Capacitive Touch Screen

With a 20,000-square-meter, dust-free and highly automated cover glass and CTP production line, we are able to manage the entire process on-site. This includes everything from glass cutting and tempering to screen printing, bonding, and lamination, all within the DWIN Science and Technology Park. This integrated approach reduces transit time, leading to higher yields and greater overall efficiency.

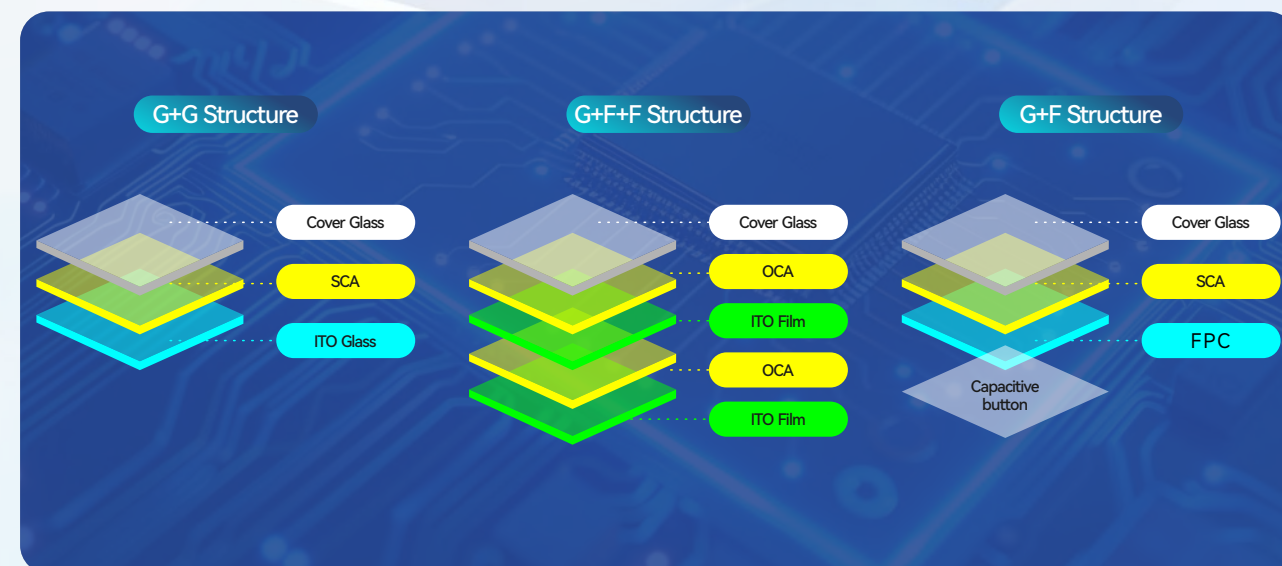
Cover Glass Production Line



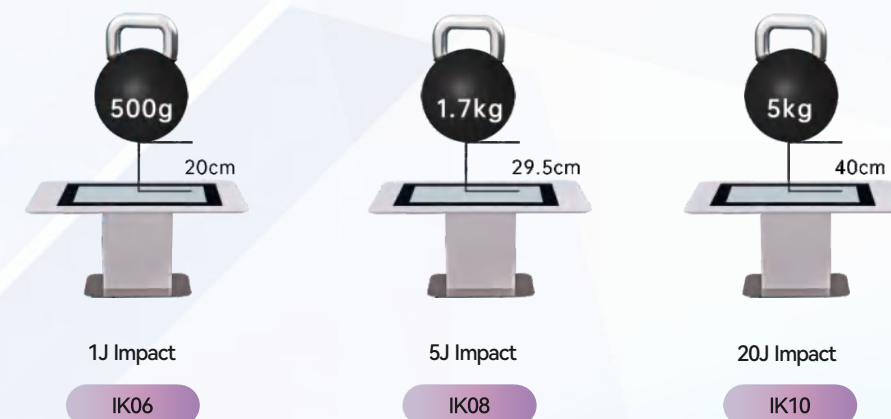
CTP Backend Line



1 Structure Customization



2 Anti-explosion Rating



3 Appearance Customization



4 Protection Customization

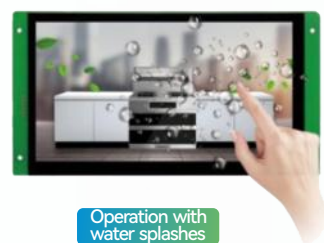


TPS04 Capacitive Touch Screen ASIC

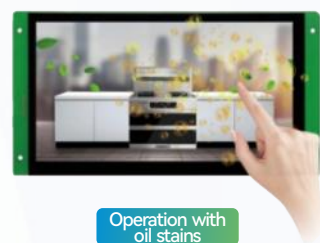
The TPS04 ASIC adopts a unique architecture and algorithm different from conventional capacitive touch screen driver solutions. It eliminates the need for debugging, providing capacitive touch screens with reliability and anti-interference capabilities that rival traditional resistive screens. This breakthrough allows for the broad application of capacitive touch screens in industrial and medical settings.

Features

- Supports various capacitive touch screen structures such as GG, GFF, GF, FF, and single F.
- Supports 15.6-inch and other larger-sized capacitive touch screens.
- Superior anti-interference capability.



Operation with water splashes



Operation with oil stains



Operation with gloves

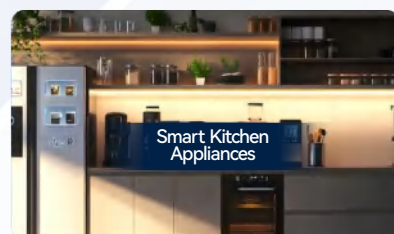
Application Cases



Charging Pile



Medical Aesthetics Equipment



Smart Kitchen Appliances

Embedded System Screens

Android Screens



- Based on the RK3566 chip solution.
- Supports Android 11, optional Google Service Trial Version.

Linux Screens



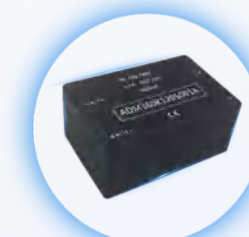
- Optional chip solutions: RK3566/T113-S/A40i/R11.
- System versions: Linux 4.19/5.4/3.10/3.4.

Touch All-in-one Machine with HDMI Interface



Medical-grade Switching Power Supply

We offer a versatile lineup of power supplies designed for a wide range of applications. Available in 10-96W power and 5-48V voltage options, our products come in three convenient form factors: power modules, desktop adapters, and wall-mount adapters. Count on our products for their outstanding reliability, compact design, and superior energy efficiency.



Power Module

Compliant with EN60601 CLASS II Safety 2xMOPP Insulation Protection, CE Certified.



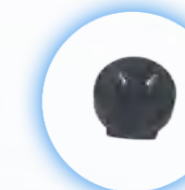
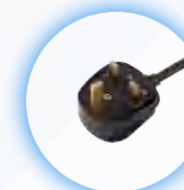
Desktop Power Adapter

Isolation voltage up to 4000VAC, with an extremely low leakage current of 0.1mA.



Wall-mount Power Adapter

The wall-mounted power adapter is available with five interchangeable plugs: UK, Australian, European, US, and Chinese.



DWIN Ecosystem

Developer Forum

DWIN created a developer forum that has attracted over 70,000 registered users. Through the open-source sharing of many practical examples, the forum facilitates communication and helps users uncover more creative product applications.



DWIN University Plan

Create a collaborative internship base: DWIN Hunan Science and Technology Park provides a dynamic learning and hands-on platform for college students by organically integrating and optimizing corporate resources.

Customized industry-academia collaboration: based on practical needs and the specific characteristics of each university, we leverage customized collaborations to advance curriculum partnership projects and talent development initiatives.

Competition support: We explore innovative project topics by bridging university expertise, DWIN product applications, and market-driven industry research.

Collaborative textbook development: DWIN partners with universities to create custom textbooks that blend our product technology with their specific academic strengths, yielding unique and compelling courses.



Some Partner Universities



Beijing Institute of Technology



Nankai University



China Agricultural University



Central South University



Hunan University



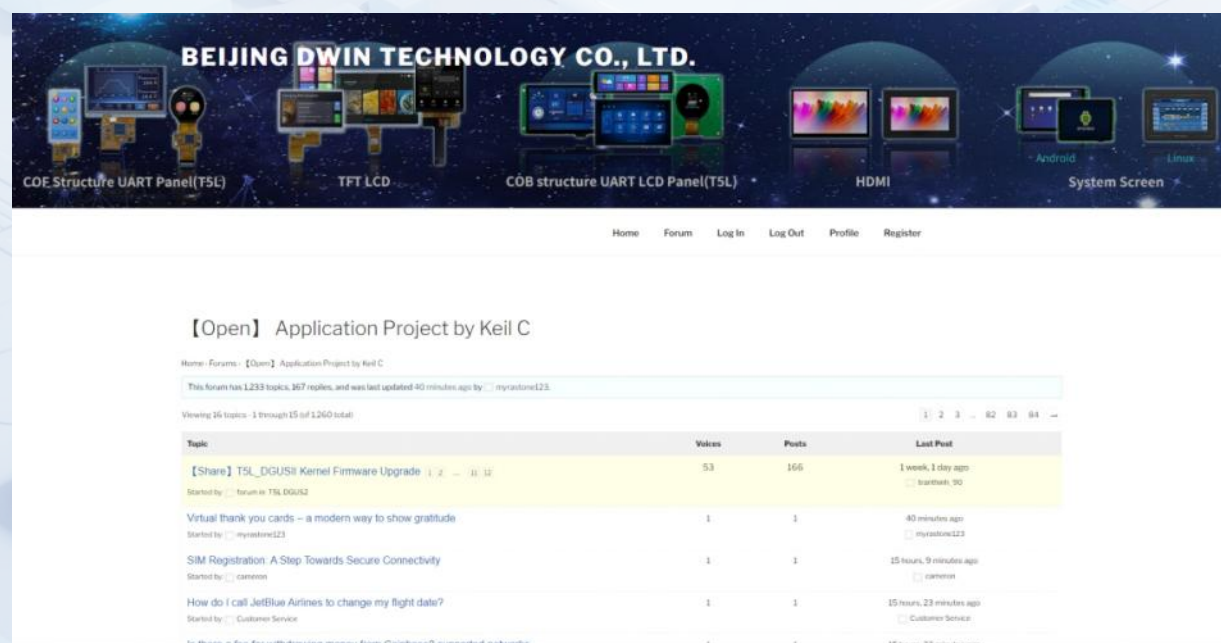
Hunan Normal University



University of South China



Hunan Agricultural University



Global Service Centers



Domestic and International Exhibitions



Seminars



DWIN Hunan Science and Technology Park

 Hunan Provincial HMI Industry Cluster

Intelligent Manufacturing



Stamping & Sheet Metal



Molds and Injection Molding



Cables and Packaging



FPC Manufacturing



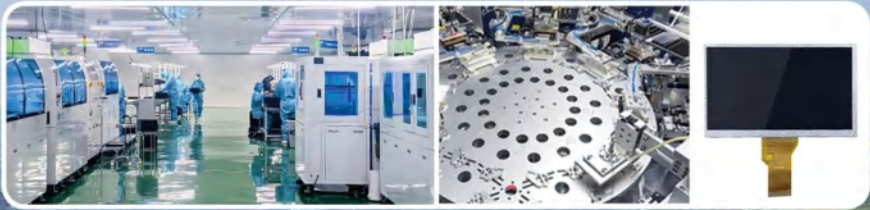
SMT



RTP (Resistive Touch Screen) Manufacturing



Cover Glass and CTP (Capacitive Touch Screen) Manufacturing



LCM (Liquid Crystal Module) Manufacturing



Finished Product Assembly



Aging

Partnership with OEMs of Renowned Brands

