



ZOHE PDLC Smart Glass / Film

智能调光玻璃应用方案

Application

I N T R O D U C E

Enjoy smart life, lead in future with intelligence



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Zhonghe science and technology

Zhonghe Science and Technology--the world-leading provider of intelligent PDLC smart glass (film) technology and products

Zhonghe Science and Technology (Changzhou) Co., Ltd.



Contents



Zhonghe Science and Technology (Changzhou) Co., Ltd.

Intelligent technology developer

National hi-tech enterprise

Zhonghe Science and Technology (Changzhou) Co., Ltd. (short for ZOHE) is a hi-tech enterprise that is founded by Jiangsu Chenguang Group and is engaged in the development and application of PDLC technology, electronics and energy-saving technology. With first-class scientific research and technical teams in PDLC, new materials, photoelectric technology and other fields, the company has established industry-university-research partnership with Tsinghua University, Peking University and other well-known universities and scientific research institutions in China.

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Company profile



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Innovation

Quality

Honest

Leading

ZOHE has the world-leading ability to research, develop and product construction in intelligent electrically controlled color-changing PDLC smart film, PDLC smart glass, smart tinting glass and LCD handwriting board.

In order to supply the best products and services, we have built a modern quality management system which is in strict accordance with international standards. Besides, because of large overseas markets, most of our products have got ISO9001, ISO14001, RoHS and China Compulsory Certification. Adhering to the business principle of mutual benefits, we cooperate with 2022Asian Games Command Center and major banks. We have exported to the UK, Germany, Singapore and other areas all over the world, and established a good reputation with customers because of our perfect services, quality products and competitive price.



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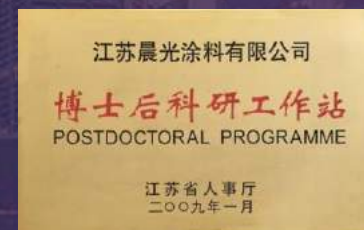
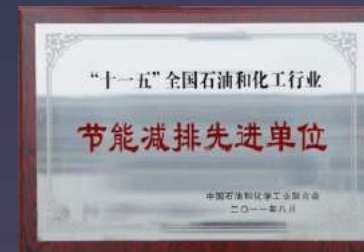
Certificates





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Qualification



Why choose ZOHE?



Class A

One of a few factories that can produce original PDLC smart film independently across the world.

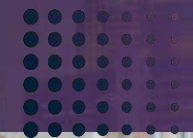


Leading

Our covering technology is industry-leading.

Innovation

Win 2th National Technology Innovation in 2015 with our special PDLC film preparation technology.



Recognition

ZOHE is the exclusive supplier of smart glass for China Merchants Bank .



Typical Case



2017

**China Merchants Bank,
China Minsheng Bank**

Becoming exclusive supplier for major banks in China .

2018

Hupan University

Suppling PDLC smart films for major university in China.

2018

Command center for 2012 Asian Games

Utilizing PDLC smart glass to interact with big screen.

2019

Police Service Center of Beijing Sub-center

The smart film is widely used for daily police affairs.

2019

Traffic smart windows of China Railway Rail Transit

Using smart glass to form bus projection system.

Factory

ZOHE



WORKSHOP



I N V I T A T I O N

Product



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Main Products

Zhonghe Science and Technology



Smart Film



Smart Glass



Smart
Writing Board



Features of PDL C smart glass / film

1.Privacy protection

Smart films/ glasses are used in home, office and bank widely, which can protect the privacy effectively.

2.Energy saving

The rated power is 3w.

3.Light/ Heat/ Sound insulation

Smart films/ glasses block 99% UV and effectively stop the noise.

4.Explosion-proof

Prevents glass from splashing after bursting.

5.Decoration

Adding fuel and drawing patterns to make films/ glasses decorative.

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Product Specification

Smart Film



Optical Properties				Electrical Properties		
Parallel light transmission	ON	≥85%		Operating Voltage	ON	35V-60V
	OFF	< 1.5%		- Min voltage	ON	< 25V
Visible light transmission	ON	≥83%		Frequency	ON	50/60 Hz
	OFF	≤70%		Switching time	ON-OFF	< 45ms
Visual angle	ON	160º			OFF-ON	< 45ms
UV blocking	ON/OFF	> 99%		Rated power	ON	3w / m²
Faze	ON	≤3%		Performance		
	OFF	≥92.5%		Insulation temperature	8-12℃	
Physical Parameter				Shading factor	0.2-0.8	
Thickness	0.4mm		Other parameters			
Max width- Self-adhesive	1.8m		Working Temperature	-30℃~90℃		
-Non-adhesive	2.0m		Preserve Temperature	-30℃~90℃		
Viscosity	100gf		Life time	ON≥80000h		

Product

Clear smart glass / film



Products

Painted smart glass / film

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Application



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Waiting hall

1. **Sunshade:** adjust the sun intensity indoor;
2. **Thermal insulation:** cut off 95% infrared ray and 99% ultraviolet ray;
3. **Energy-saving:** hinder direct sunlight in summer, prevent indoor heat loss in winter and reduce nearly 60% energy consumption;
4. **Convenient:** save the installation and use costs of abat vent, switch between sunshade and sunlight at will;
5. **Explosion protection:** improve the safety performance of ordinary tempered glass, prevent glass explosion and has high strike-resistance strength;
6. **Sound insulation:** the noise reduction is over 40%.





OFF



ON



Ticket window

1. Protect privacy and realize sound insulation and noise reduction;
2. Switch between light transmittance and atomization rapidly, take multiple intelligent control modes;
3. Unbreakable and durable;
4. Has a function of big screen display;

Market price: RMB 2,800 / m²



Dining hall

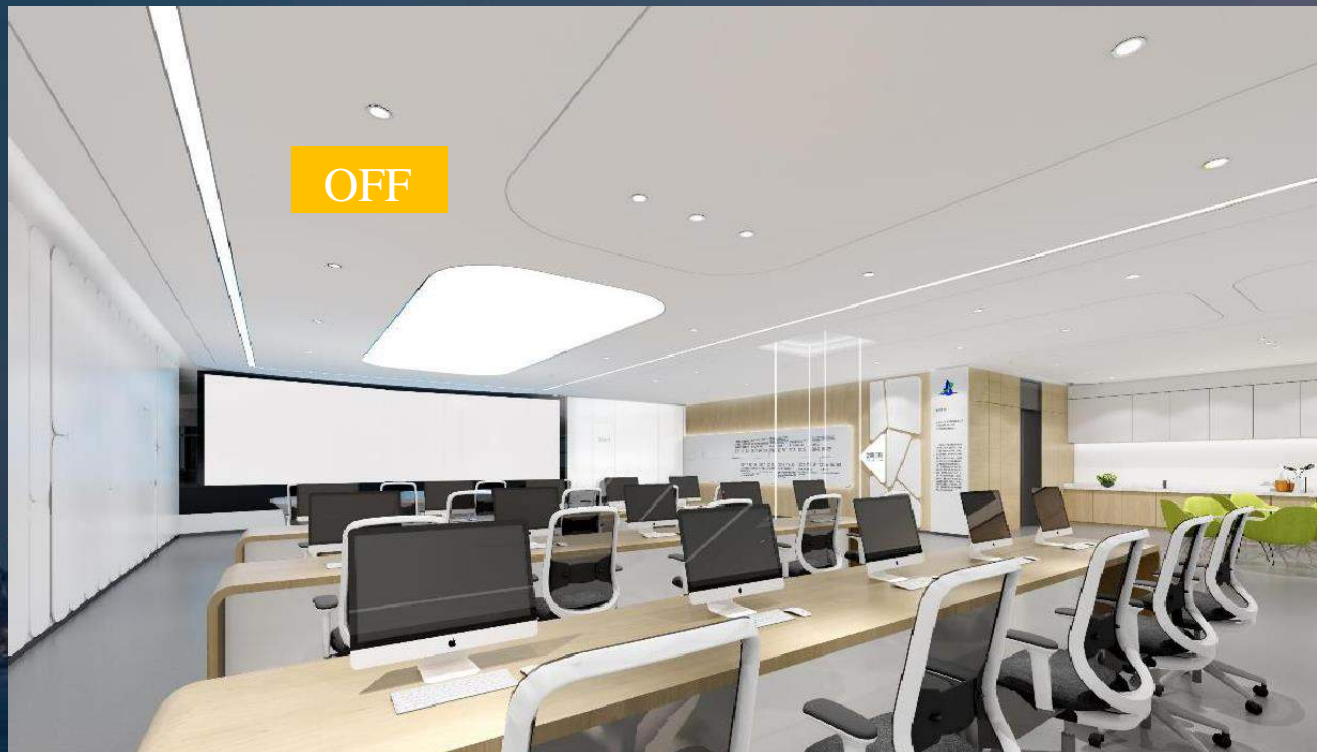
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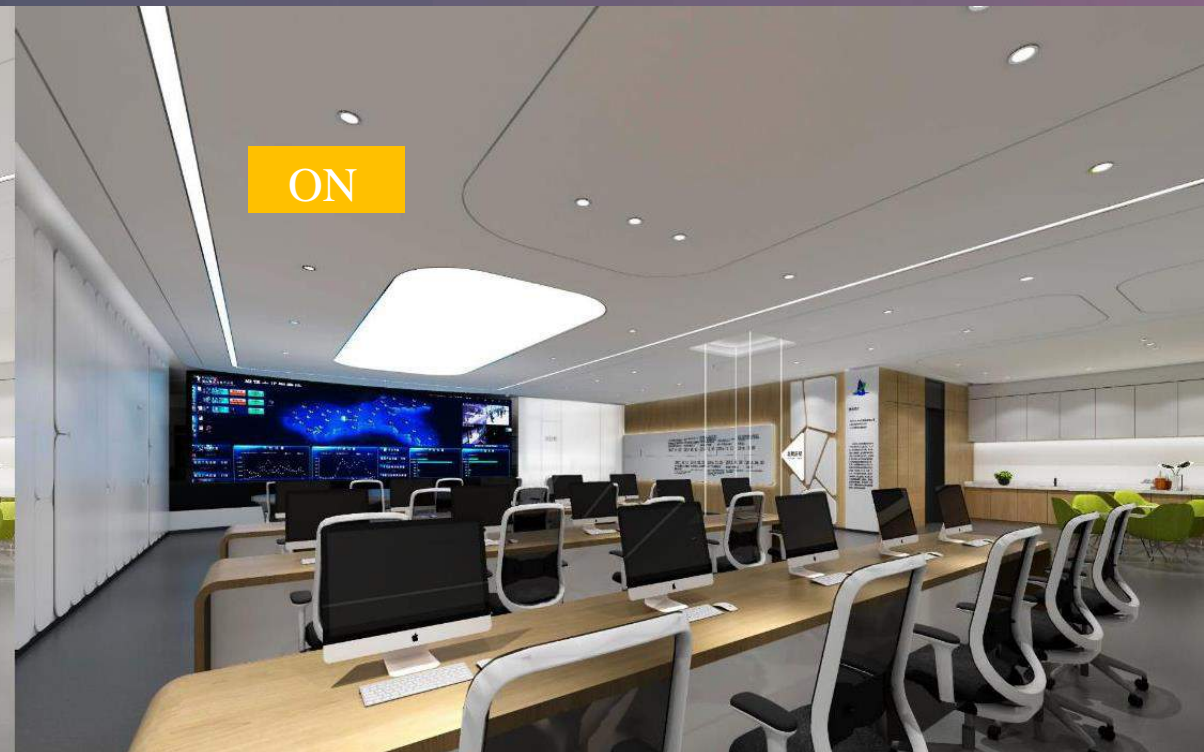
Command center

1. Provide visibility at 140° ultra wide angle;
2. Compared with traditional projection screen, this PDLC smart glass can greatly improve the image definition and imaging quality;
3. In combination with HD projector, the product can display the richer and more delicate color;
4. Realize large-sized LED screen easily to offer heart-shaking image.

OFF

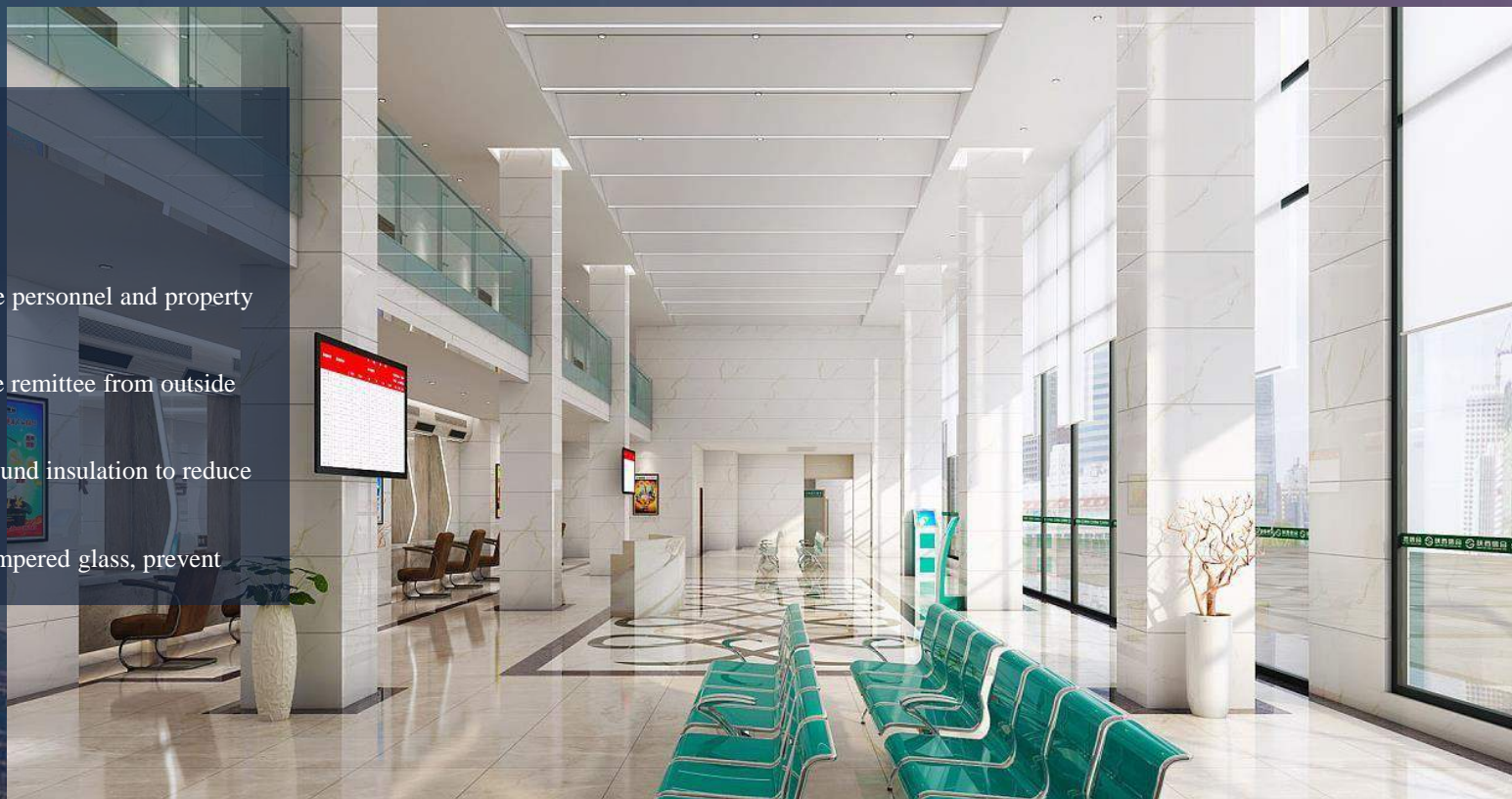


ON



Bank

1. **Bank counter:** control the safety window in remote manner, protect the personnel and property to an extreme in case of emergency;
2. **ATM self-protection module:** prevent peeping and trailing, separate remittee from outside world to protect him;
3. **VIP reception room and negotiating room:** has a function of sound insulation to reduce noise for over 40% and protect the privacy of honored guests.
4. **Explosion protection:** improve the safety performance of ordinary tempered glass, prevent glass explosion and has high strike-resistance strength.





Sunlight room

1. **Sunshade:** adjust the sun intensity indoor;
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Market price: RMB 2,800 / m²

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ON



OFF



PROJECTION

Shopping mall

1. Provide visibility at 140° ultra wide angle;
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3. In combination with HD projector, the product can display the richer and more delicate color;
4. Realize large-sized LED screen easily to offer heart-shaking image.

Market price: RMB 2,800 / m²



Railway station

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4. **Convenient:** save the installation and use costs of abat vent, switch between sunshade and sunlight at will;
5. **Explosion protection:** improve the safety performance of ordinary tempered glass, prevent glass explosion and has high strike-resistance strength;
6. **Sound insulation:** the noise reduction is over 40%.
7. **Color:** provide multiple alternative colors;
8. **Light transmission:** The transmission ratio of parallel light while being emergized is larger than 80%.



OFF

ON

Installation price: RMB 2,800 / m²

High-speed train

1. Switch between transparent and non-atomized state as needed;
2. Prevent direct sunshine and offer a comfortable environment;
3. Sunshade/privacy protection/advertising campaign/significantly improve the confort level.





Subway

1. Become transparent when trains stop on the platform;
2. Start to project the advertisement automatically when trains leave the platform;
3. The PDLC smart glass screen door is big and can render good visual effects when there is large stream of people.

When trains leave and passengers wait, the creen door will display dynamic advertising again.

Cooperation



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Agency

The company headquarters is in
Changzhou City, Jiangsu Province.

Its agents spread over America,
Japan, Thailand, Laos,
Cambodia...

Provincial (association level) agents

Develop agents across the state
and carry out regional cooperation
with intelligent home and
decorative companies at home.

The company trains agents at all
levels in professional
knowledge.





Cooperative brand



Technology makes life
more intelligent.

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Hong Kong
Central Plaza



ZOHE

Zhonghe Science and Technology (Changzhou) Co., Ltd.

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**Cooperative
brand**

Case show THE KEY CASE

China Merchants Bank



Technology+life | China Merchants Bank 3.0
banking offices construction and transformation
project



Decorative materials of banking offices 3.0 of China Merchants Bank---Zhonghe Technology (Changzhou) Co., Ltd., the centralized purchasing supplier of PDLC smart glass, can provide PDLC smart glass for the third-generation banking office construction and transformation engineering of China Merchants Bank, and offer all-round services, including design, deepening, construction, operation training and after-sales service. In summary, this company will help China Merchants Bank to build a new operation and office space for its 3.0 banking offices with its brand-new space and visual effects.



Case show

THE KEY CASE

China Merchants Bank



Technology+life | National exclusive supplier of
China Merchants Bank

Now, intelligent PDLC smart glass of Zhonghe Science and Technology has been widely adopted by China Merchants Bank, China CITIC Bank, Bank of Nanjing, China Everbright Bank in Wuhan and other multiple financial institutions. To satisfy user's demands in a even better fashion, this company developed a glass production line at the begining of this year. Thanks to the reduction of production intermediates and costs, the intelligent PDLC smart glass per 1 square meter is reduced from RMB 10,000 to RMB 1,000. Meanwhile, PDLC smart glass with different patterns has also be developed by this company, in this way, clients have more choices and can enjoy the personalized customization.

Cases across
the state

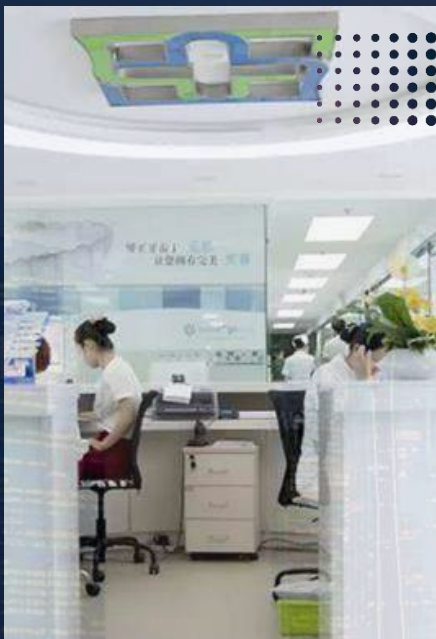


Case show

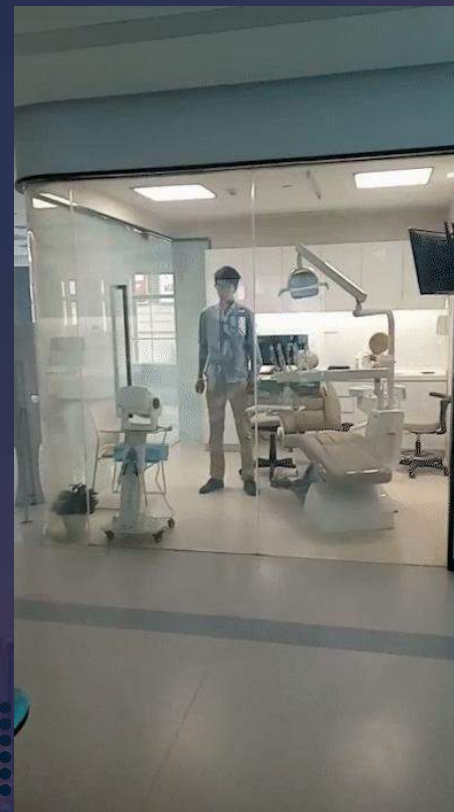
THE KEY CASE

Shanghai Qimei Dental Hospital

Technology+life |
The decoration engineering is a second-generation clinic prototype project under the guidance of smart diagnosis and treatment concept introduced by Qimei Dental Hospital. The main purpose is to build a model for technology-based dental hospital in the future.



Intelligent PDLC smart glass produced by **Zhonghe Technology (Changzhou) Co., Ltd.** is used for partition wall in all clinics, instead of curtain, louver and other traditional sunshade and shielding facilities. Privacy and openness are switched only by pressing a key. As a result, the medical environment becomes transparent, cleaning, sci-fi and fantastic.



Case show

THE KEY CASE

Command center of the Asian Games

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With intelligent PDLC smart glass, it can interact with big screen. This is a kind of new and special photoelectric glass that is mixed by different nanoparticle prepolymers in two layers of glasses through high-temperature and pressure bonding; meanwhile, it is also featured by energy-saving, sunshade, explosion protection, privacy, decoration, sound insulation and thermal insulation.

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Case show

THE KEY CASE

Bank of Rizhao

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Zhonghe Science and Technology·PDLC smart glass www.zhkj-cn.com



Zhonghe Science and Technology/Zaozhuang Road Sub-branch of Bank of Rizhao



Case show

THE KEY CASE

Bank of Communications

Technology+life |



Zhonghe Science and Technology|Wuxi Liangxi Sub-branch of Bank of Communications



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Case

THE KEY CASE

show

Zhejiang Provincial Rural Credit Cooperatives and Longquan Agriculture and Commerce Bank

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Case show

THE KEY CASE

Changzhou Modern Media Center

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Case show

THE KEY CASE

Changzhou Technician College Jiangsu Province

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Changzhou Technician College Jiangsu Province

Intelligent PDLC smart glass Project in Chinese Training Base of World Skills Competition Cloud Computing Project



Changzhou Technician College Jiangsu Province

Intelligent PDLC smart glass Project in Chinese Training Base of World Skills Competition Cloud Computing Project

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Case show

THE KEY CASE

GREEN+ Talent Sharing Space in (Wujin) Green Building Area under Ministry of Housing and Urban- rural Development

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The Green Building Area GEEN+ will take “green” development path on the basis of excellent “talent ecology” construction through considering high-quality development as target. The formal operation of Zhonghe Science and Technology's intelligent PDLC smart glass GREEN+ Talent Sharing Space indicates that this company has turned a new page in its development of green building and intelligent home decoration and the construction of innovative “ecosphere”.



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Case show

THE KEY CASE

Police Service Center of Beijing Sub-center

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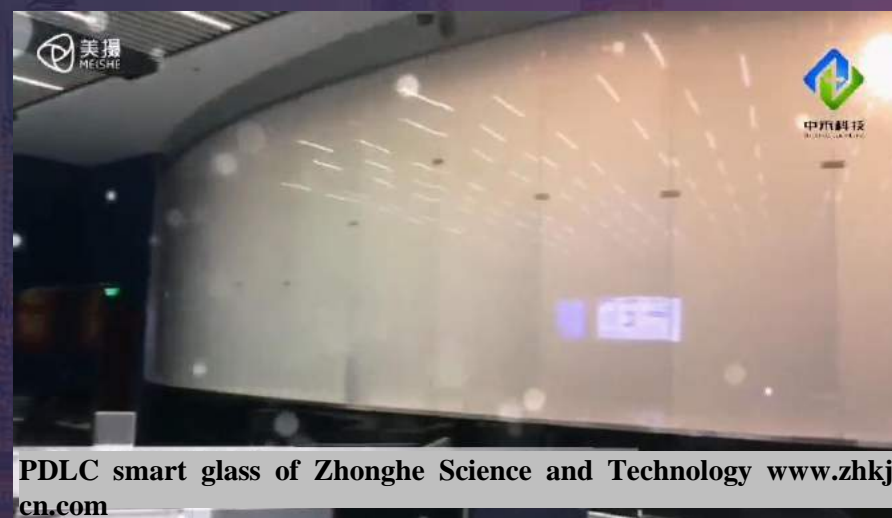
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Case show

THE KEY CASE

COMAC

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Case show

THE KEY CASE

Changzhou
CCcaocao

Technology+life |



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CAOCAO
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Thanks!

Zhonghe Science and Technology (Changzhou) Co., Ltd.

CONTACT US

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Mail: tracy.wang1107@Hotmail.com

**ZOHE welcome your
inquiry and visiting.**

A leading enterprise in PDLC smart glass / film series and application

Aspire to be the most powerful supplier of intelligent film and products in the world.

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THANK

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