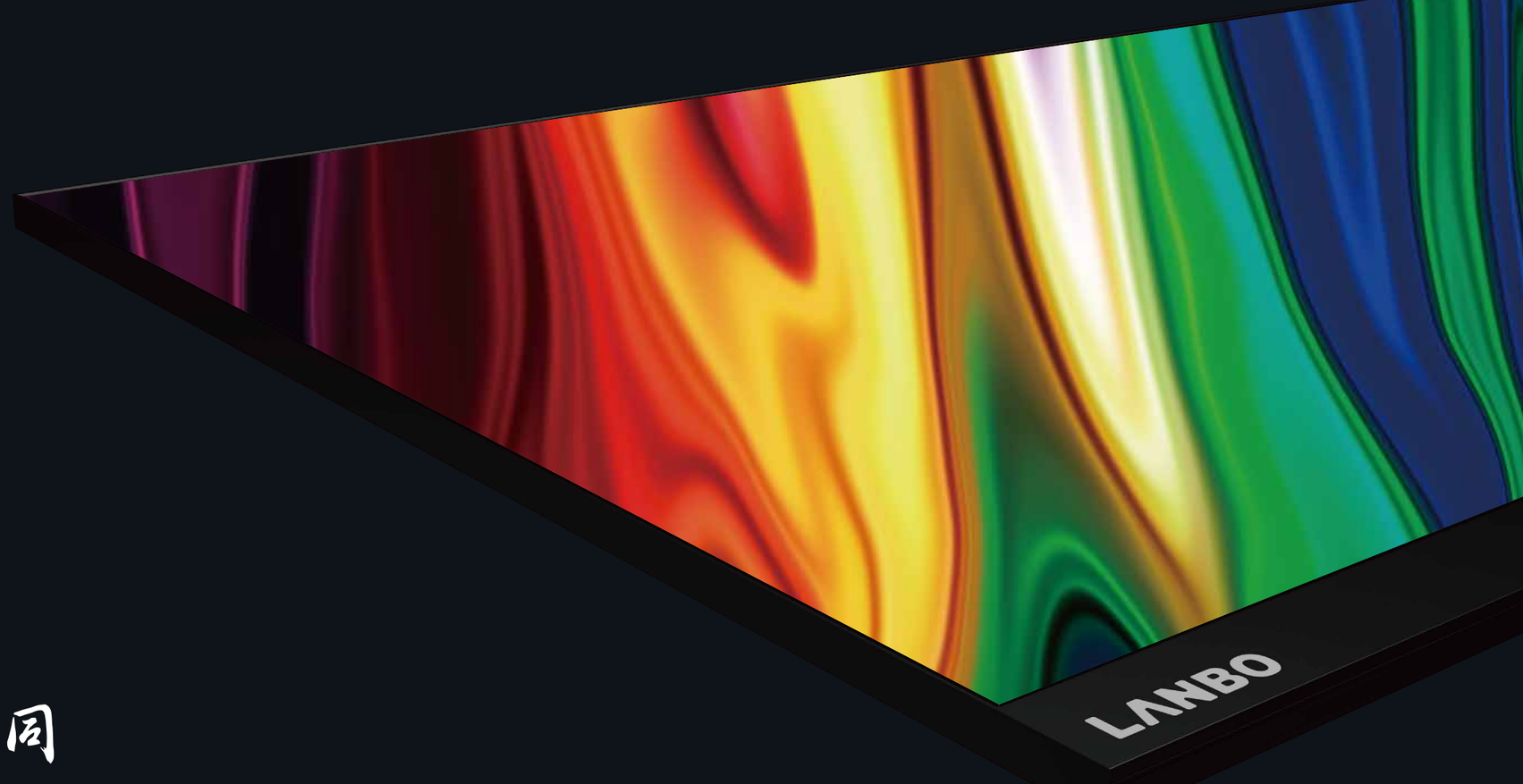

微距背投
让视界与众不同

LANBO MRP

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V6.042

Development History

2023 — For better display...

2022 — The new SLED

2021 — The new Paris Pro
LANBO MRP is selected in the "Cities and Screens" program

2020 — LANBO MRP is applied in the field of education

2019 — Obtained Korean/Japanese/European invention patent
Production of LANBO MRP integrated-screen

2018 — Obtained Chinese invention patent
The new Ares series

2017 — Production of Athena series

2016 — Obtained American invention patent
Production of Apollo series

2015 — Self-developed MRP trial production in small batches

2014 — The world's first DLP curved screen MRP R&D project establishment

2013 — Gained three prizes of "Annual selection of Chinese large-screen display industry"

2012 — Pioneered no-gaps DLP spliced video wall units

2011 — Production of touchable LCD Marketing application already

2010 — Completed the first "DLP with LED light source" program in China

2009 — "DLP with LED light source" splicing screen

2008 — Selected by American DLP Professional technology R&D institutions into global manufacturer partner

2007 — LCD splicing screen

2006 — Undertake 326 projects of the National Energy Industry's display system

2005 — The first DLP production line

2004 — Completed 100 large-screen projects

2003 — Independent R&D team was established

2002 — Beijing Universal LANBO Technology Co., Ltd. was established

Company Introduction

Beijing Universal LANBO Technology Co., Ltd. (abbreviated as LANBO), established in 2002, is a high-tech enterprise engaged in the design, research and development, production, engineering installation, and after-sales service of large-screen display products. As a specialized supplier of high-end indoor large-screen display solutions, LANBO has obtained ISO9001 international certification, compulsory 3C certification in China, and copyright certification for its large-screen control software.

LANBO possesses strong technical research and development capabilities, extensive engineering experience, a team of professional technical talents, and a high-quality management team. Over the years, LANBO has been committed to providing customers and partners with professional comprehensive solutions and services, continuously improving customer experience, and creating maximum value for clients. Through many years of relentless effort and relying on professional technical strength and excellent after-sales service, LANBO has become a well-known brand in China. In the past 20 years, LANBO's product range has covered DLP, LCD, LED, Marco Rear Projection, and network multi-screen processors. Notably, in 2016, LANBO introduced its independently invented Marco Rear Projection (MRP) technology, which revolutionized traditional visual display techniques and obtained invention patents in China, the United States, Japan, South Korea, and the European Union. This achievement represents a breakthrough in China's independent intellectual property rights in the international display screen field (for screens larger than 100 inches), signifying LANBO's leadership and advancement in MRP technology worldwide.

LANBO's headquarters is located in Beijing Zhongguancun High-Tech Park, with an office area of over 1000 square meters, and equipped with an advanced product display showroom, providing customers with the most intuitive demonstration effects for their selection. The company has a research and development center and a modernized factory situated in Beijing Changping Science and Technology Park, covering a total area of over 7000 square meters, laying a solid foundation for LANBO's pursuit of continuous innovation and development philosophy.

Principles of MRP

“Macro Rear Projection” technology is a display imaging technology independently developed by Beijing Universal LANBO Technology Co., Ltd.

Rear Projection

Each tiny pixel is made up of RGB-LED and a spherical screen, which makes up a tiny rear-projection unit and a separate darkroom, ensure that the imaging is dark enough.

Macro

To guarantee that the projected image is homogeneous and soft, the projection distance of each pixel is less than 3mm.

Each pixel is contiguous

Each rear projection unit is closely connected, constitutes a continuous pixel display, so there are no visual gaps.

Surface luminescence

The pixel surface emits uniform light without significant brightness difference

LANBO MRP

Dot luminescence

The center of the pixel has high brightness and appears as a ray of light

Small pitch LED

未曾可知的惊艳，何必是下次

The breathtaking beauty is here or nowhere

一身才华

Full of talent

只为遇见更好的你

Just to meet a better you

Redefined Clarity of Images

The principle of MRP in backlighting enables an ultra-high contrast ratio of >100,000:1, ensuring that each pixel faithfully reproduces screen colors with distinct brightness and darkness.

Traditional display products often suffer from dim and glare-prone images, eye-straining brightness, and blurred text details. However, with MRP, these issues are comprehensively improved. Whether in a completely dark environment or a well-lit indoor setting, MRP display maintains its clarity and sharpness, providing an exceptional visual experience.

Efficient and Convenient

Every aspect of operation is designed to be efficient and convenient, saving you time during the 10 minutes before a meeting.

With one-touch power on/off, instant setup, seamless signal switching, wireless screen mirroring, and easy-to-use remote control, MRP simplifies over 90% of daily usage requirements, making screen operation as effortless as using a TV which has redefined user convenience

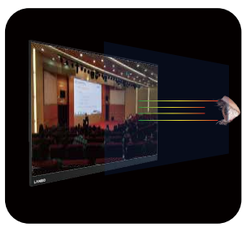
Scratch and Impact Resistance

The screen's surface is made from high-strength composite materials, providing protection against intentional or accidental impacts, effectively prolonging the screen's lifespan.

High Reliability

MRP technology has solved the problem of "smaller spacing, higher failure rate."

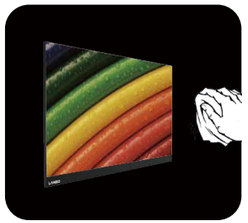
With a principle of backlighting, it achieves an impressive 96% brightness uniformity, ensuring a clear and even display without light bleeding between adjacent pixels. Compared to traditional displays, MRP products have significantly improved lifespan and stability, making them more reliable.



Leading Eye Protection，Redefined Viewing Comfort

With a visual comfort index of 1.95, MRP not only leads the way in large-screen eye protection standards but also maintains a comfortable viewing experience. With a brightness of 300cd/m²*, it accurately reproduces colors while ensuring comfortable viewing. Whether for a short class or a meeting lasting over two hours, MRP effortlessly meets these demands without causing noticeable eye strain. It no longer exhibits the common "flicker" issue with Word, Excel, web pages, or white-background PowerPoint files, making viewing a comfortable experience.

*Adjustable brightness range according to environmental requirements



Convenient Cleaning and Maintenance

Designed for indoor use, a simple cloth is enough to clean the entire screen, eliminating the need for special tools.

Its front-access maintenance design doesn't require reserved space at the back, optimizing on-site usage area to the maximum extent.

Low Temperature, Low Heat Dissipation

MRP is not called a "cool screen," but after turning on, the surface temperature remains cool.

Through internal energy-saving optimization, the screen's heat emission is minimized. No matter how long the screen is in use, you won't feel any "heat," avoiding the awkward situation of presenters sweating excessively.

MRP for Meeting Rooms

MRP offers a user-friendly interactive interface and clear eye-protective screen display technology, making your entire meeting easy and enjoyable, whether presenting files, writing on the board, or annotating documents. With a high-brightness and soft display, MRP can meet the requirements of over 99% of indoor environments. The images remain clear and are not affected by indoor lighting conditions, eliminating the need to turn off lights or draw curtains during meetings.

Instant Power on Remote Control Wireless Screen Mirroring 2048-level Pressure Sensing Technology

Bright and Soft Display, No Need to Turn Off Lights or Draw Curtains

With a brightness of 300cd/m^2, the screen can not only guarantee sufficient brightness but also ensure viewer comfort. The screen is no longer affected by indoor lighting, so there's no need to turn off lights or draw curtains during meetings.

Efficient and Convenient Operation Experience

MRP features a one-key power on design, making it as convenient as turning on a television. Additionally, it comes with a remote control for functions such as signal switching, color temperature adjustment, volume control, and brightness adjustment, making it incredibly easy to use.

One-key Screen Mirroring, No More "Wires"

MRP supports one-click screen mirroring and can be connected wirelessly with multiple devices. It allows quick screen mirroring from computers through wireless transmission or screen mirroring software. Mobile devices can easily connect through QR code scanning, enabling multiple devices to display content simultaneously for easy comparison.

Eye-friendly Characteristics

MRP provides eye-friendly features, ensuring that even after extended use for more than two hours, your eyes won't feel significant discomfort. When displaying white screens such as Word, Excel, or web pages, the viewing experience remains comfortable.

Touchscreen Capability (Optional)

The touchscreen feature (optional) uses 2048-level pressure sensing technology, allowing you to write with various pen strokes, replicating real handwriting and providing a seamless writing experience on the large screen. It supports both touch and pen input, with a priority on pen input to avoid awkward touchscreen misoperation. Additionally, the touchscreen pen allows for quick switching between different colors for annotation, each color representing different meanings.

Some examples

Chengdu Airport	National of Surveying and Mapping	Troops	Company in Beijing
	Health Commission	Zhejiang Government	

MRP for Education

MRP features a unique technology that eliminates harmful blue light, ensuring constant protection for the user's eye health. With its large screen size and high clarity, even students seated at the back of the room can easily see the screen's contents.

VICO1.95　Blue Light-Free　Impact Protection　Large Size　Bright and Soft

Leading the New Standard for Eye Protection on Large Screens

Through special technological processing, MRP achieves a Visual Comfort Index (VICO) of 1.95, not only setting the industry standard for eye protection on large screens, but ensures practical and safe viewing comfort during applications.

Large Screen Size for Exceptional Viewing Experience

While ensuring a seamless screen without optical gaps, MRP's size exceeds 110 inches, and it supports user-customizable sizes. With this feature, even students sitting in the middle or back rows can easily view the screen's content.

Safety and Impact Resistance

The screen's surface is made from composite materials, effectively preventing damage caused by external forces and significantly increasing the screen's lifespan.

Optional Optical Touchscreen for Seamless Interaction

MRP with optical touchscreen option provides a smooth touch experience and incorporates advanced anti-misoperation technology. With 2048 levels of pressure sensitivity, writing on the screen becomes effortless, allowing for easy handling of board writing and brush strokes.

High Brightness and Softness for Optimal Viewing Experience

Whether in brightly lit traditional classrooms or large auditoriums, MRP eliminates worries about indoor lighting affecting the display. Its high brightness and soft characteristics offer a comfortable viewing experience regardless of the viewer's seating distance.

Some examples

Tsinghua University | UESTC | Yunnan University | Tomorrow Advancing Life

MRP for Command Center

With MRP's surface luminescence allows for such small pixel spacing that the screen appears as a single, seamless display with no visual gaps. The 43mm ultra-thin front maintenance design saves installation space while making maintenance incredibly simple. Its 7x24h high reliability ensures every meeting or screen usage is crucial, eliminating worries about partial screen damage.

Customizable Size High Reliability and 24/7 Operation energy saving over30% Multi-window display

No Visual Gaps Over the Whole Screen

得With the benefit of surface luminescence imaging characteristics and minimal pixel spacing, the screen displays visuals seamlessly integrated across the entire surface, eliminating any visual gaps.

Picture-in-Picture Multitasking

Supporting multiple signal sources simultaneously displayed, enabling multi-window and roaming display on the same screen for more efficient and convenient work.

Low Power Consumption for Enhanced Energy Efficiency

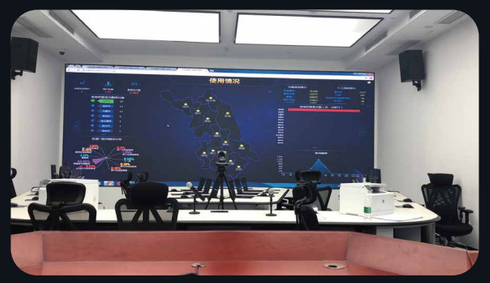
经Through internal power optimization and tuning, MRP achieves more than 30% energy savings compared to screens of the same specifications. The display efficiency is significantly improved, and the screen's surface generates very little heat. Even after extended periods of standing in front of the screen, users won't experience any discomfort due to excessive heat.

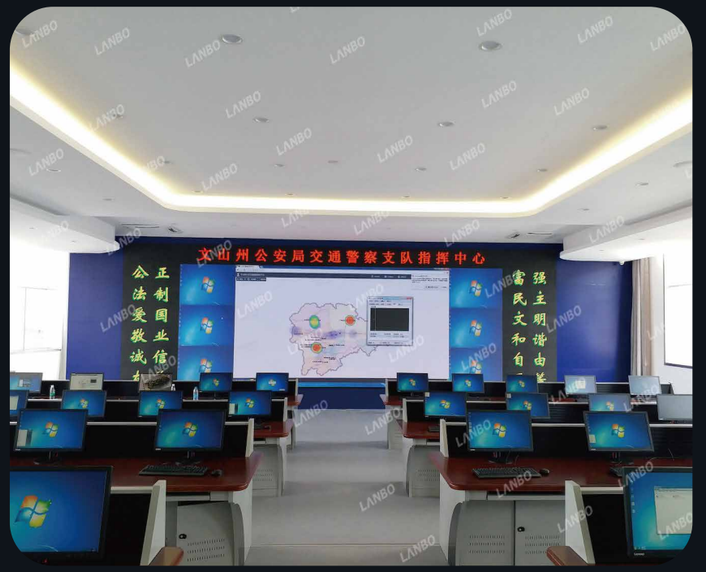
Ultra-Long Lifespan

MRP is designed to support 24/7 continuous operation, effortlessly handling various harsh indoor environments, ensuring uninterrupted performance. With an extraordinary lifespan of 100,000 hours, users no longer need to worry about the screen's durability and can rely on its resilience throughout its extended usage.

Eye Comfortable and Protection

While meeting the brightness requirements for indoor large-screen usage, the display on MRP is even more gentle, clear, and comfortable. With a Visual Comfort (VICO) score of 1.95, it currently leads the industry in eye comfort. Its 24/7 operation ensures continuous protection for users' eye health.





Some examples

Guiyang convergence media

Hebei Electricity Authority

Jiangsu Discipline Commission

Yunnan police station

MRP for Broadcast and Filming

The moiré pattern has been a challenging issue in the broadcasting industry. High reliability and low brightness with high color reproduction are rigid requirements for screens in the broadcasting industry. However, MRP's unique display im aging technology perfectly addresses this series of industry challenges.

No moiré pattern Low brightness with soft and realistic colors No mirror effect Safe and Reliable

No Moiré Pattern

During program recording, there is no need to frequently change camera angles due to moiré patterns

With MRP's surface-luminescence technology and advanced physical imaging technology, the entire screen appears crystal clear like a painting, effectively reducing over 80% of screen capture moiré patterns

Low Brightness and True Colors

MRP's imaging technology ensures that even at a brightness as low as 150cd/m², the screen's colors are still faithfully reproduced, making it easier to set up stage lighting and scenes in a theater (or studio) environment

Matte Design, No Mirror Effect

The screen surface is designed with a matte, diffuse reflection finish, effectively eliminating any mirror effect. This design allows the screen to be unaffected by lighting arrangements and makes scene setup easier

Safe and Reliable

Solved the "Smaller Spacing, Higher Failure Rate" Issue

MRP addresses the problem of higher failure rates with smaller pixel spacing. It achieves this through internal redundancy backup with dual power sources and dual signals (optional), ensuring that the screen always maintains an online signal. Additionally, the surface-luminescence principle of MRP results in an impressive 96% brightness uniformity, eliminating light bleeding between adjacent pixels. This significantly improves the utilization efficiency of pixels over traditional display products, leading to enhanced lifespan and stability

Some examples

2023CCTV Spring Festival Gala

Program in Guiyang

CCTV 2

Beijing Sport University

Invention patents

Obtained invention patent authorization in many countries, represents MRP' s leading position in the industry

CHN

USA

EU

KR

JPN

Cooperatives (part)

Good co-ops always have similarities

国家电网 STATE GRID

清華大學 Tsinghua University

CCTV 2

国家药品监督管理局 National Medical Products Administration

中国航天 CASC

中国矿业大学 CHINA UNIVERSITY OF MINING AND TECHNOLOGY

中国科学技术大学

北京理工大学 BEIJING INSTITUTE OF TECHNOLOGY

中国新闻社

国家税务总局

同煤集团 DATONG COAL MINE GROUP

北京体育大学 BEIJING SPORT UNIVERSITY

中华人民共和国国家卫生健康委员会 National Health Commission of the People's Republic of China

国家测绘总局

国药集团山西有限公司 SINOPHARM GROUP SHANXI CO.,LTD.

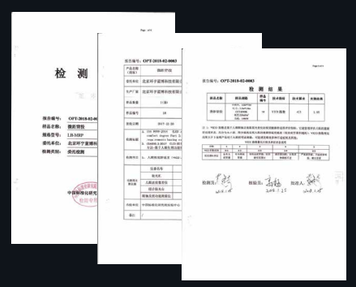
Attention: Ranking in no particular order

Eye protection

Redefine the comfort of indoor large-screen eye protection

Blue light radiation brightness

The blue light radiation brightness at 160nm is 7.12E-03W/(m².sr.nm), 1/89 of LCD



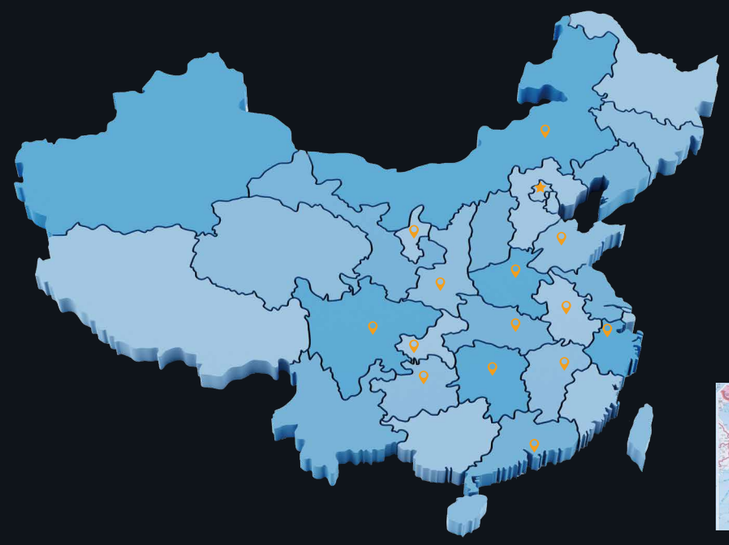
VICO

With an amazing Visual Comfort (VICO) score of 1.95, maybe MRP is the most comfortable for the eyes in screen industry

Experience Center

With our professional display showrooms all over the country

+86 400 855 7177



Technical Parameter

Standard size

产品系列 Product series	伊莱卡 Pro系列 Electra Pro series	雅典娜 Pro 系列 Athena Pro series		阿瑞斯 Pro 系列 Ares Pro series			帕里斯 Pro 系列 Paris Pro series
对角线 Diagonal	173”	145”	216”	110”	137”	165”	145”
显示尺寸mm Active area (mm)	3840×2160	3200×1800	4800×2700	2432×1368	3040×1710	3648×2052	3200×1800
外形尺寸mm Unit size (mm)	3862×2295×53	3222×1935×45	4822×2835×45	2454×1503×47	3062×1845×47	3670×2187×47	3222×1935×45
平均功耗 Avg. power consumption	1,540W	1,730W	3,890W	1152W	2,020W	2,600W	1,920W
典型亮度 Typical brightness	450cd/㎡ (可调 Adjustable 150cd/㎡-500cd/㎡)	300cd/㎡ (可调 Adjustable 150cd/㎡-350cd/㎡)					
显示比例 Aspect ratio	16 : 9						
技术 Technology	微距背投™ Macro Rear-Projection						
显示分辨率 Display resolution	1920×1080 向下兼容 Backward compatible						
对比度 Contrast ratio	100,000 :1						
色域覆盖率 Color gamut	＞114%						
均匀性 Uniformity	＞96%						
可视角度 Viewing angle	108°(亮度降到中心亮度的50%时的角度) (The brightness less than center brightness 50%)						
反射比 Reflectance ratio	6.5%						
使用寿命 Lifetime	＞100,000 h						
安装方式 Installation method	立式 / 吊装 / 壁挂 / 嵌入 Floor standing / Hoisting / Wall mounting / Embed						
信号输入 Input interface	HDMI×2、DP×1						
输入分辨率 Input resolution	Max 1920×1080						
控制 Control method	遥控器 Remote、RJ45、RS232						
电力要求 Power	AC200-240V　50/60 Hz						
工作环境 Working condition	温度 Temperature：-10 ~ 50°C / 14-122°F 湿度 Humidity：10-60%　无凝露 No condensation						
标准配件 Standard accessories	3米电源线 Power cable (3m)						
扩展功能 (选配) Additional function (optional)	无线传输 Wireless transmission： 支持PC、笔记本、移动终端无线投屏，高效协作　Support display PC desk, laptop, mobile to the screen, efficient collaboration						
	智能控制系统 Intelligent control system： 可使用移动终端便捷管理室内大多数设备　Use mobile / iPad to manage indoor device						
	音柱 Sound column： 全方位立体声扩声，满足视频会议、公司娱乐的音频需求　Stereo sound to meet video conference, and company entertainment’s demands.						
	录播 Recording and broadcasting： 无纸化办公，会议笔记随时电子版保存，并支持Email给与会人　Paperless work, save digital meeting record anytime, and send to the participants by email.						
	视频会议 Video conference： 让您的视频会议画面拥有多视窗真人般大小　Make video conference has multiple windows with real size						
	网络电视 IPTV (Internet Protocol TV)： 支持助理的网络电视、直播　Support IPTV, and live TV						

支持用户自定义显示尺寸，具体要求请与销售经理联系确认。
Support user-defined display size, please contact the sales manager for specific requirements.

Standard size Touch

产品系列 Product series	雅典娜 Pro Touch系列 Athena Pro Touch series	阿瑞斯 Pro Touch系列 Ares Pro Touch series		帕里斯 Pro Touch系列 Paris Pro Touch series	塔罗斯 Pro Touch系列 Talos Pro Touch series
显示尺寸 mmActive area (mm)	3200×1800	2432×1368	3040×1710	3200×1800	2880×1620
外形尺寸mm Unit size (mm)	3280×1983×57	2512×1551×57	3120×1893×57	3280×1983×57	2960×1803×57
平均功耗 Avg.power consumption	1,735W	1,157W	2,025W	1,925W	2,160W
典型亮度 Typical brightness	300cd/㎡ (可调 Adjustable 150cd/㎡-350cd/㎡)				
显示比例 Aspect ratio	16:9				
技术 Technology	微距背投™ Macro Rear-Projection				
显示分辨率 Display resolution	1920×1080 向下兼容 Backward compatible				
对比度 Contrast ratio	100,000： 1				
色域覆盖率 Color gamut	＞114%				
使用寿命 Lifetime	＞100,000 h				
安装方式 Installation method	立式 / 吊装 / 壁挂 / 嵌入 Floor standing / Hoisting / Wall mounting / Embed				
信号输入 Input interface	HDMI×2、DP×1				
控制 Control method	RS232、遥控(选配)				
电力要求 Power	AC200-240V　50 Hz				
工作环境 Working condition	温度Temperature：-10 ~ 50°C / 14-122°F 湿度Humidity：10-60%　无凝露 No condensation				
智能笔 Smart pen					
传输协议 Transport protocol	蓝牙4.0 Bluetooth 4.0				
原笔迹压感等级 Pressure level	2048级 Grade 2048				
供电类型 Power supply type	锂电池 Lithium battery				
重量 Weight	< 30g				
按钮功能 Button function	WIN10快捷按钮、橡皮按钮、多功能按钮 PPT演示功能按钮（激光指针、播放PPT、上一页、下一页、白屏） Win10demonstration function shortcut button, button (laser rubber pointer,screen) button, multifunction play PPT, previous button page,				
笔尖颜色 Tip color	7种 7 species				
无线传屏器（选配） Wireless screen transmitter (optional)					
接口类型 Interface type	HDMI、USB				
即插即用 Plug and play	支持 support				
传输类型 Transmission type	视频、音频、触摸 Video, Audio,Touch				
音、视频传输协议 AV transport protocol	Wireless HD \ 4G bps/s				

注： 以上参数仅供参考，产品以实物为准
Remark : All the parameters are reference only