

# 21:9 Solutions Guide



Meeting Agenda

1. Review key objectives for 2TT
2. Product roadmap review
3. Planning for partner engagement

Sale managers - Coordinate with your team to schedule recap

Product management - send roadmap deck to Sales

Revenue by Country

| Year | USA   | China | Japan | Germany | France |
|------|-------|-------|-------|---------|--------|
| 2014 | 5,334 | 2,182 | 2,277 | 4,572   | 2,648  |
| 2015 | 4,731 | 2,182 | 2,277 | 4,572   | 2,648  |
| 2016 | 5,943 | 2,182 | 2,277 | 4,572   | 2,648  |
| 2017 | 5,943 | 2,182 | 2,277 | 4,572   | 2,648  |

Sales by Category

| Category            | Sales (\$) |
|---------------------|------------|
| Computers           | 816        |
| Software            | 541        |
| Cell Phones         | 215        |
| Video Games         | 671        |
| Medical Instruments | 455        |

Website Visitors

| Month | Visitors |
|-------|----------|
| Jan   | 12,000   |
| Feb   | 10,000   |
| Mar   | 8,000    |
| Apr   | 6,000    |
| May   | 4,000    |
| Jun   | 2,000    |

Sales by Year

| Year | Sales (\$) |
|------|------------|
| 2014 | 15,000     |
| 2015 | 14,000     |
| 2016 | 17,000     |
| 2017 | 17,000     |

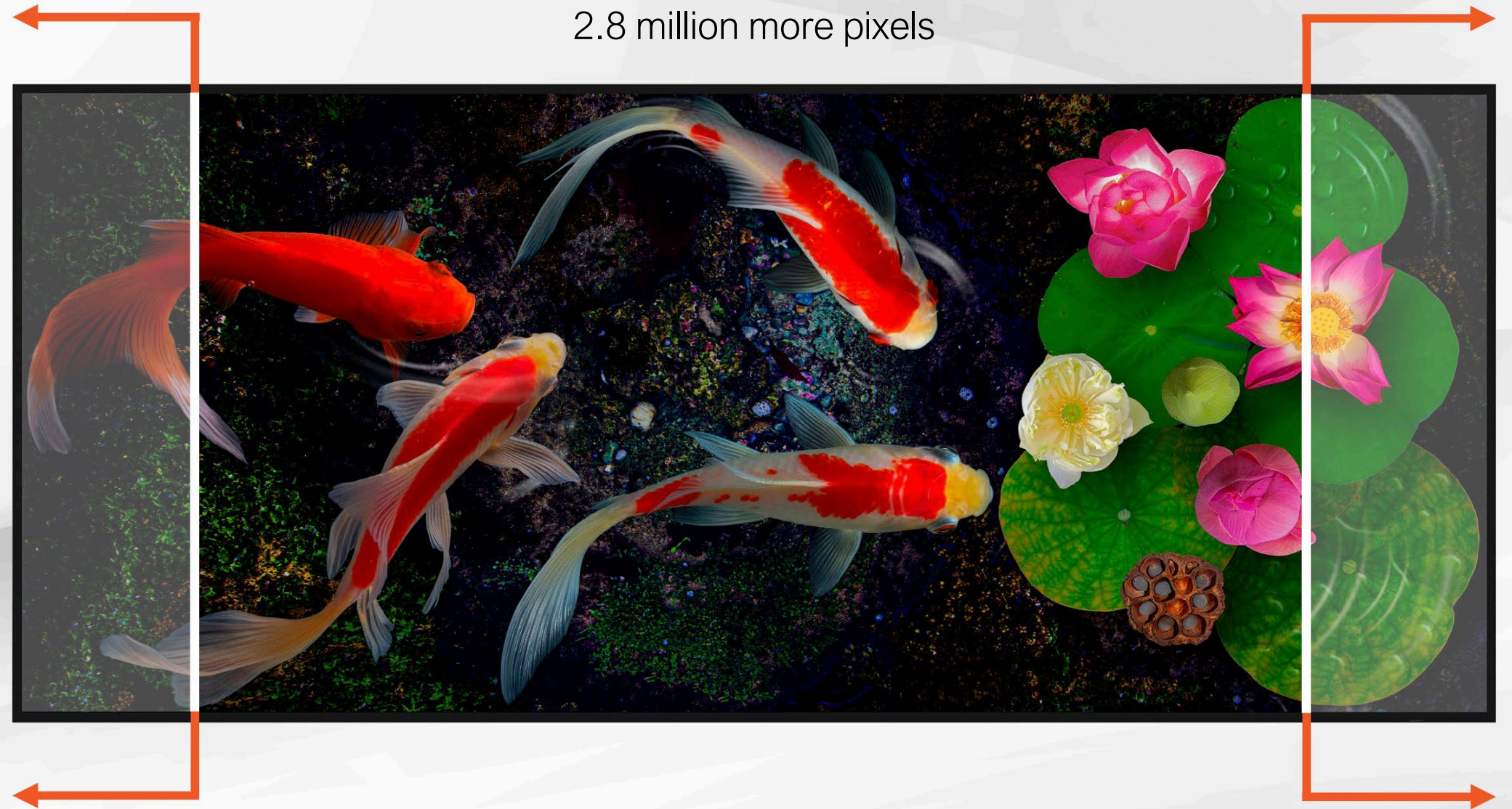


# Innovation that Matters

Jupiter's product solutions empower customers.

At the forefront of innovation, our **Pana** ultrawide 5K large LCD and **Zavus** Xtreme Pixel MicroLED displays are the only comprehensive 21:9 product line in the world.

33% more real estate  
2.8 million more pixels



There is no debate as to the value 21:9 ultrawide 5K LCDs bring to the market: particularly in the enterprise space. Our passion for 21:9 5K has seemingly infected the world over. We will continue to push engineering boundaries in this space, as we're dedicated to only the 21:9 form factor.

—Sidney Rittenberg Jr, CEO of Jupiter



# Ultrawide

The **21:9** aspect ratio of 2.37:1 is positioned between the classical CinemaScope of 2.35:1 and the modern anamorphic cinematic content of 2.39:1

Our eyes see far more horizontal than vertical

Field of view

← 200 - 220° →

↑  
130 - 135°  
↓

Naturally

Go beyond 16:9 and bring **cinematic** storytelling experiences to video walls, conferencing and hybrid workspace.



Since 2018, Jupiter engineering has been developing 5K 21:9

# 21:9 has more display real estate than 16:9



Same height as 16:9



more content, more inclusion with 21:9

Pana 81



Pana 81



Pana 105



Same height as 16:9



Standard 65"



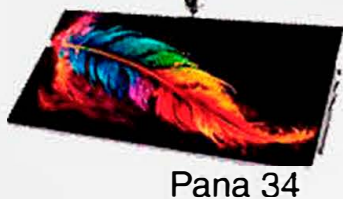
Standard 75"



Standard 85"



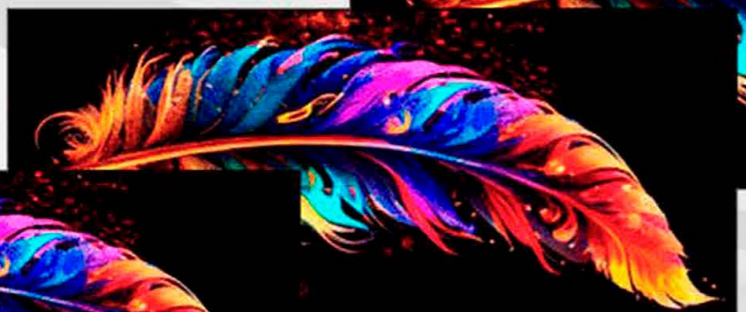
# End-to-end 21:9 sizes for every space



Pana 34



Pana 81, 81T



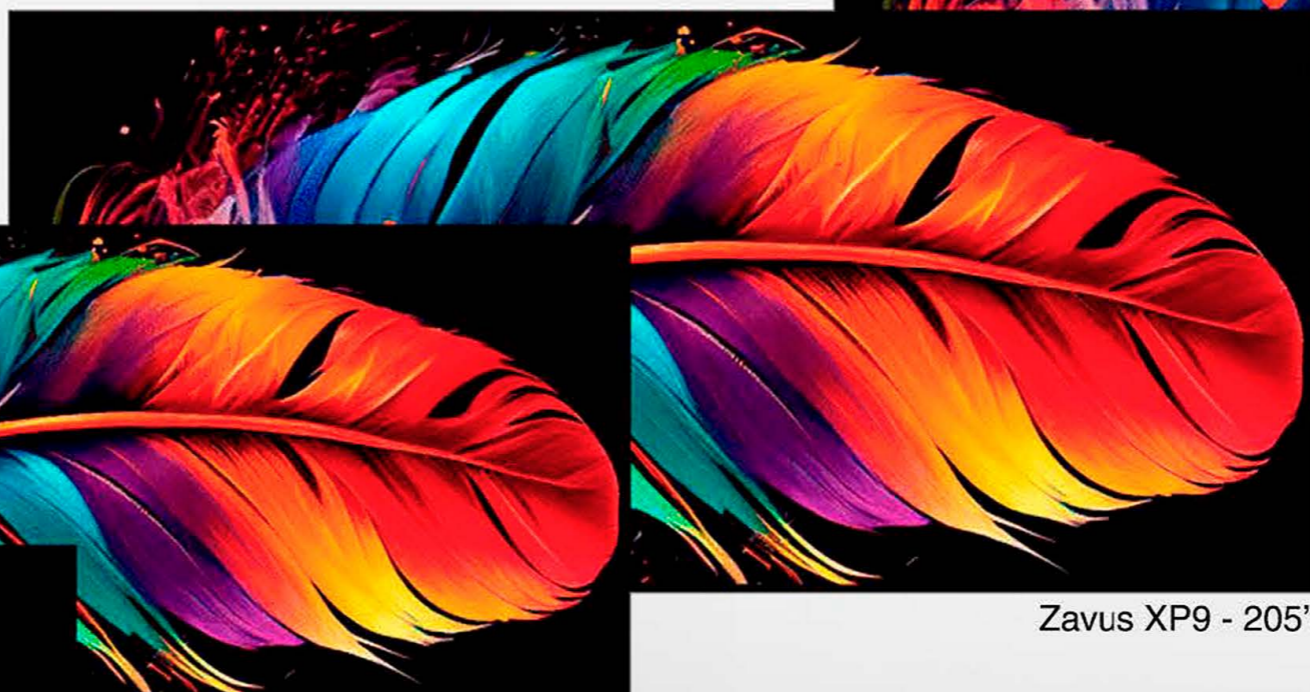
Pana 81X



Pana 105, 105T, 105X, 105XT



Zavus XP7 - 165"



Zavus XP9 - 205"



Zavus XP12 - 281"



# GOOBIG

Zavus™ Xtreme Pixel





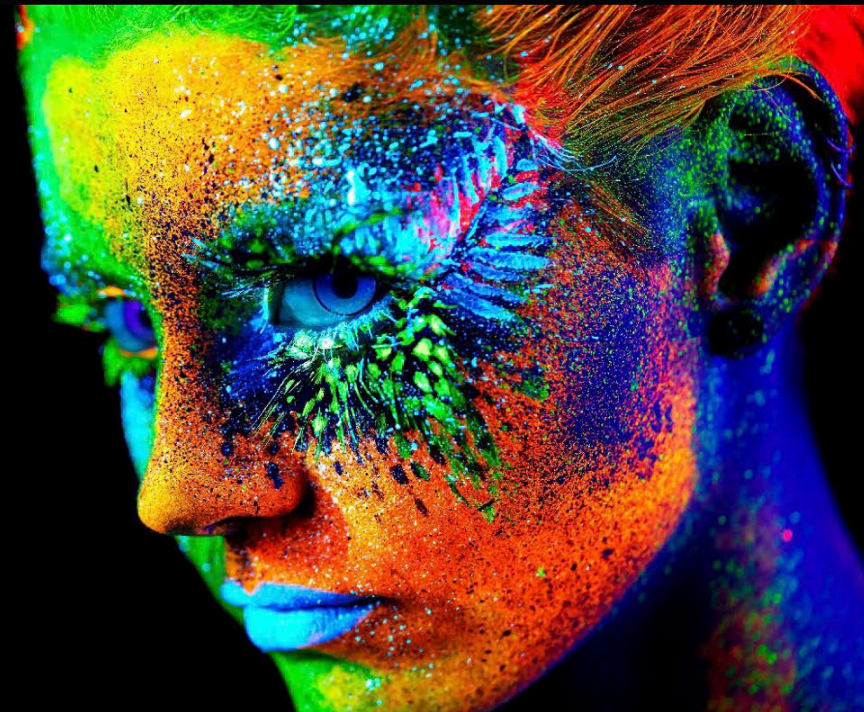
# Zavus™ Xtreme Pixel

Flip-Chip COB (Chip-on-Board)  
Ultra fine-pitch direct view MicroLED

Unmatched color and contrast



other brands



Zavus

Jupiter proprietary MicroLED driver-board engineering



- DCI-P3 color gamut
- Up to 16-bit color depth with true black
- 1000 nits sustained luminance
- Camera-friendly 3840 Hz scan rate
- ST 2110 standard



Our direct view MicroLED brings unprecedented control over the cabinet electronics. White point, color rendering and seam correction down to each individual LED module are available to control from a simple UI interface that is web-hosted and accessible from desktop or mobile end-points, with ultra-high bit-depth performance.

Easily access health monitoring from a web hosted interface that can encompass multiple LED wall locations for an entire building or campus. The Helios platform can be specified with the desired combination of modular inputs per project requirements.

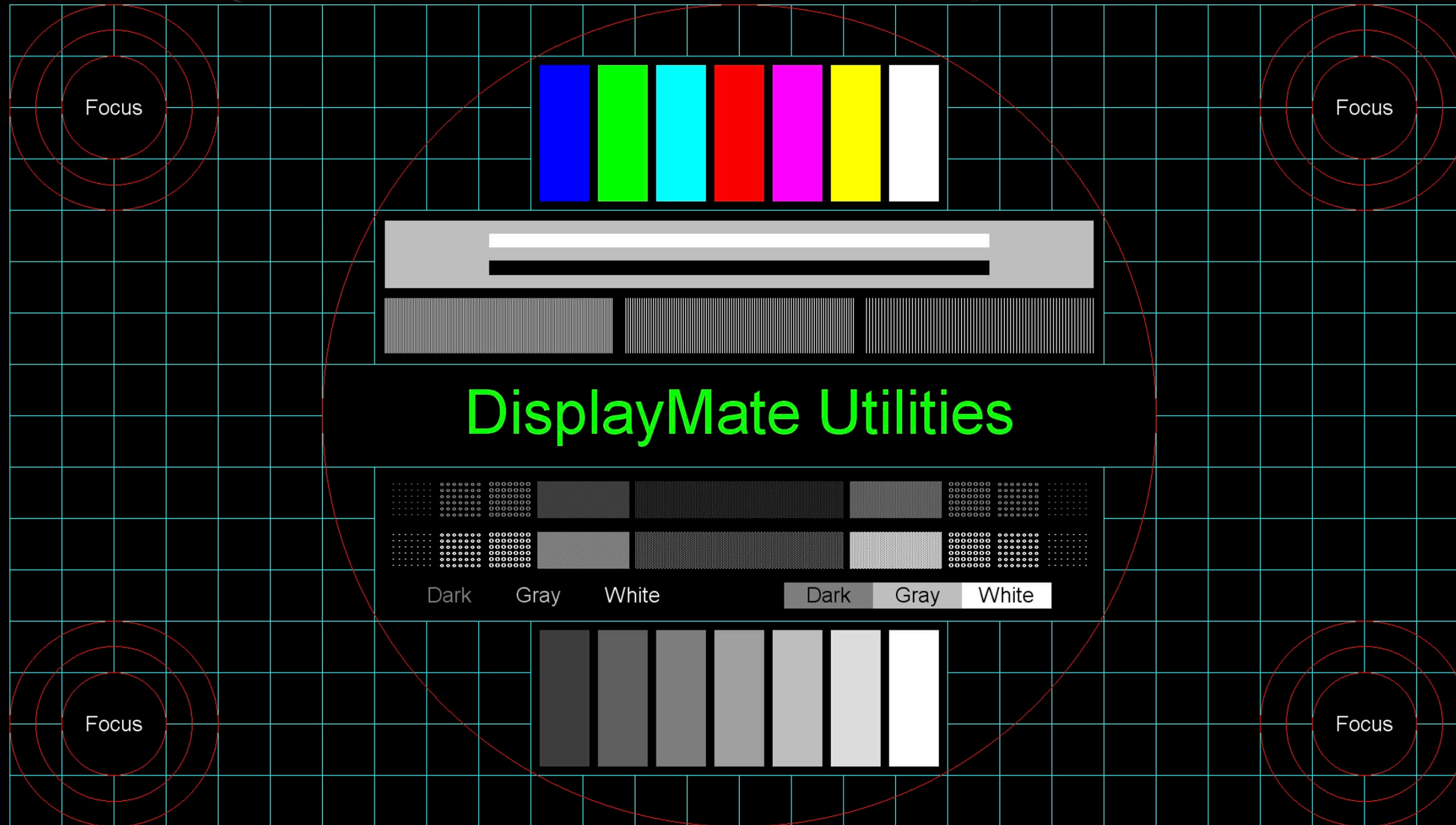


# At Jupiter, image quality is paramount.

Anyone can present a beautiful video with vivid colors but professional graphics applications is where true challenges lie. Zavus Xtreme Pixel was developed with the intent to satisfy not just digital signage, home theater, UC applications and broadcast, but critical eye viewing of CAD, data visualization, flight simulation and 3D modeling applications, on full white, true black, and the spectrum in between.

Part of our barometer was to engineer Zavus XP to excel against DisplayMate's tortuous test patterns.

## Seeing is believing.







Microsoft Teams

Pana 34

Zavus XP7

0.7mm pixel pitch

165" direct view MicroLED driven by MTR device

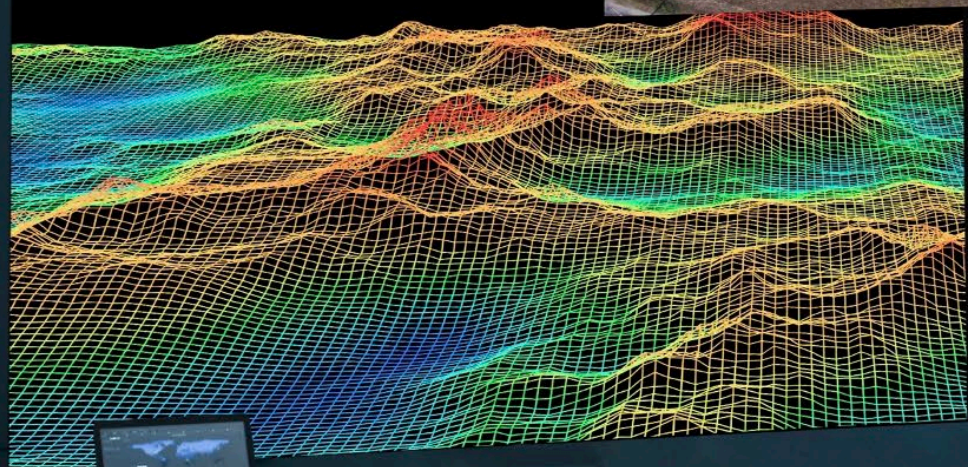
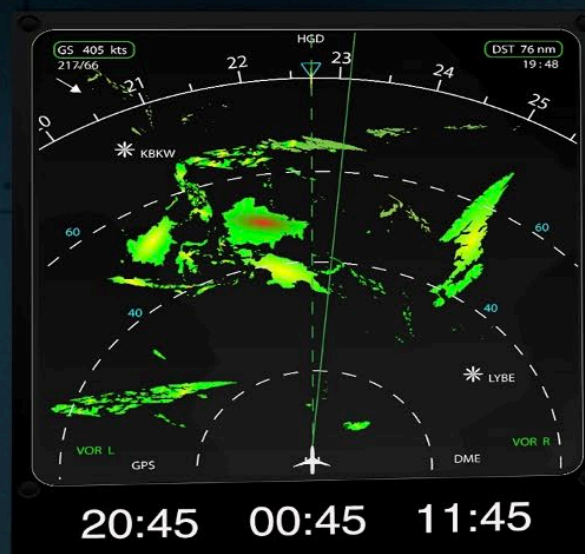
21:9 5K video wall dimensions: Width 151 inches, Height 64 inches, Depth 1.1 inches

Zavus **XP9**

0.9mm pixel pitch

205" direct view MicroLED  
driven by CRS-5K processor

21:9 5K video wall dimensions: Width 189 inches, Height 80 inches, Depth 1.1 inches



# Zavus XP12

1.2mm pixel pitch

281" direct view MicroLED driven by Catalyst processor

21:9 5K video wall dimensions: Width 260 inches, Height 106 inches, Depth 1.1 inches

# Ultimate 21:9 video wall processor

Driving small to medium sized video walls at the highest resolution

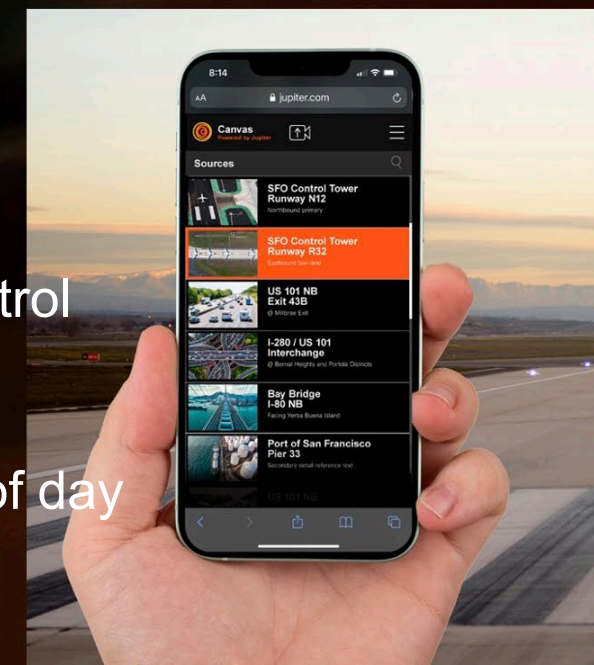
- Ultra quiet i9 running Windows 10
- Output up to 5K 60Hz for Zavus XP
- Up to 16 inputs / outputs
- HDCP compliant
- Web / VNC / Application support
- Raid and redundant power supplies



## Canvas™ software platform

Ultimate video wall management

- Web based, intuitive object-based, drag and drop interface
- Supports both Active Directory and Workgroup environments for user authentication
- Permission based access with identical views whether inside or outside of room
- Easily select streaming sources for sharing, annotate directly on live video and data, and control content from cameras, applications and web
- Arrange video and data windows anywhere on display wall at any size
- Save preset scenes in advance for quick recall for specific situations, specific users, or time of day
- Provides encrypted security and SSL authentication



NEXT

GEN

Pana X  
Premium Line





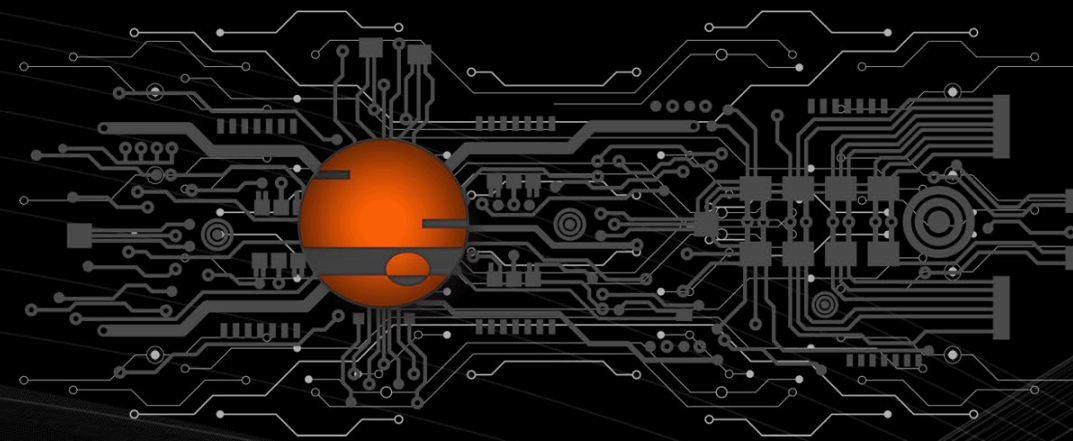
# Pana X Premium Line

Quantum Dot Mini-LED backlit LCD



World's only **120Hz** Native Refresh Rate at **5K**

Our Quantum Dot Mini-LED backlight on a massive panel was so intense we had to develop a separate driver board as its engine. We went far beyond any enterprise display has ever accomplished in visual quality, challenging high-end home TV specs.



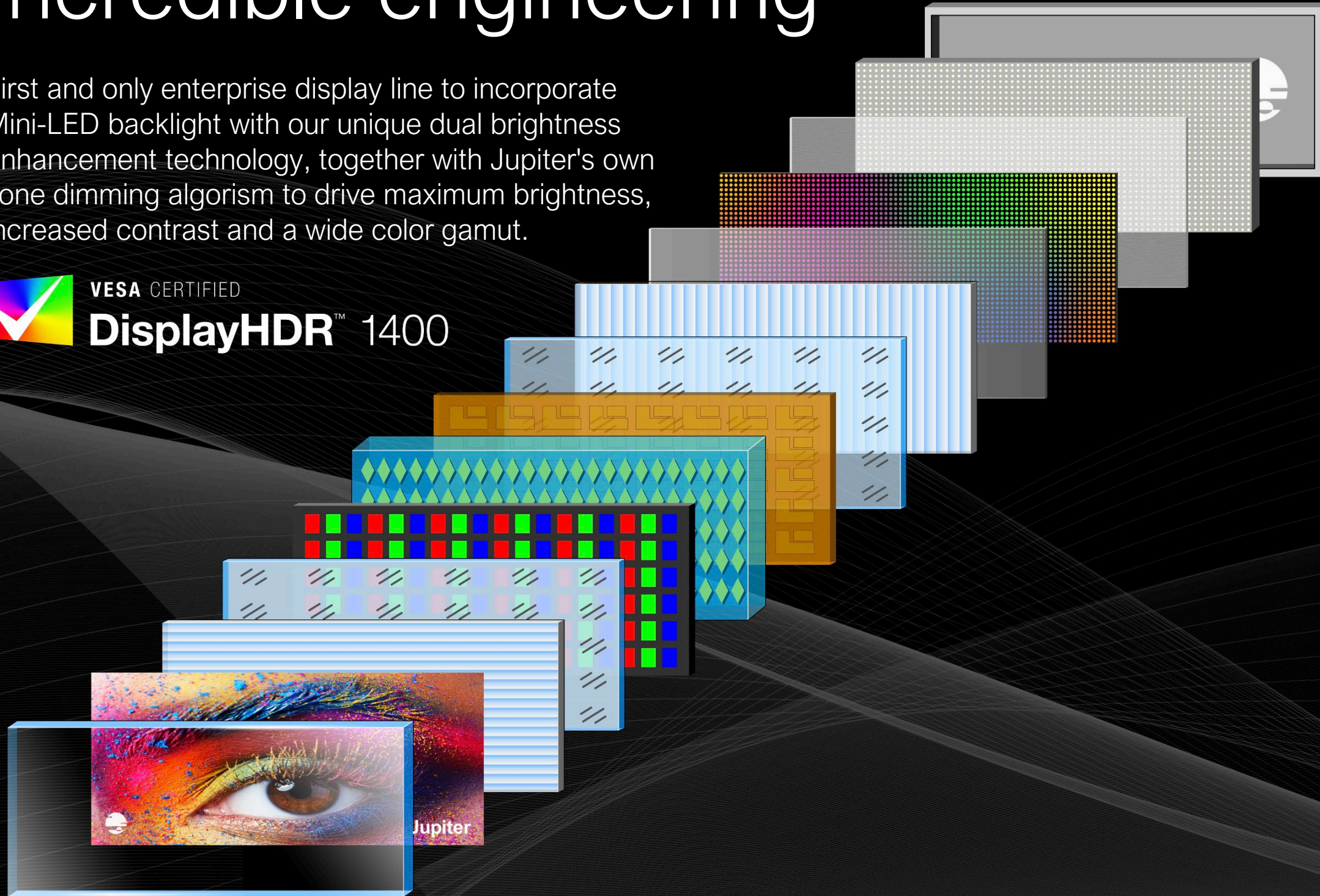
2300 Local dimming zones with Jupiter algorithm  
1,000,000:1 contrast  
Up to 1000 nits sustained brightness, 2200 peak  
DCI-P3 and Rec.2020 support  
InGlass touch for premium precision experience  
4+1 speaker system with woofer, 78w total power  
Built-in USB-C 100w power delivery



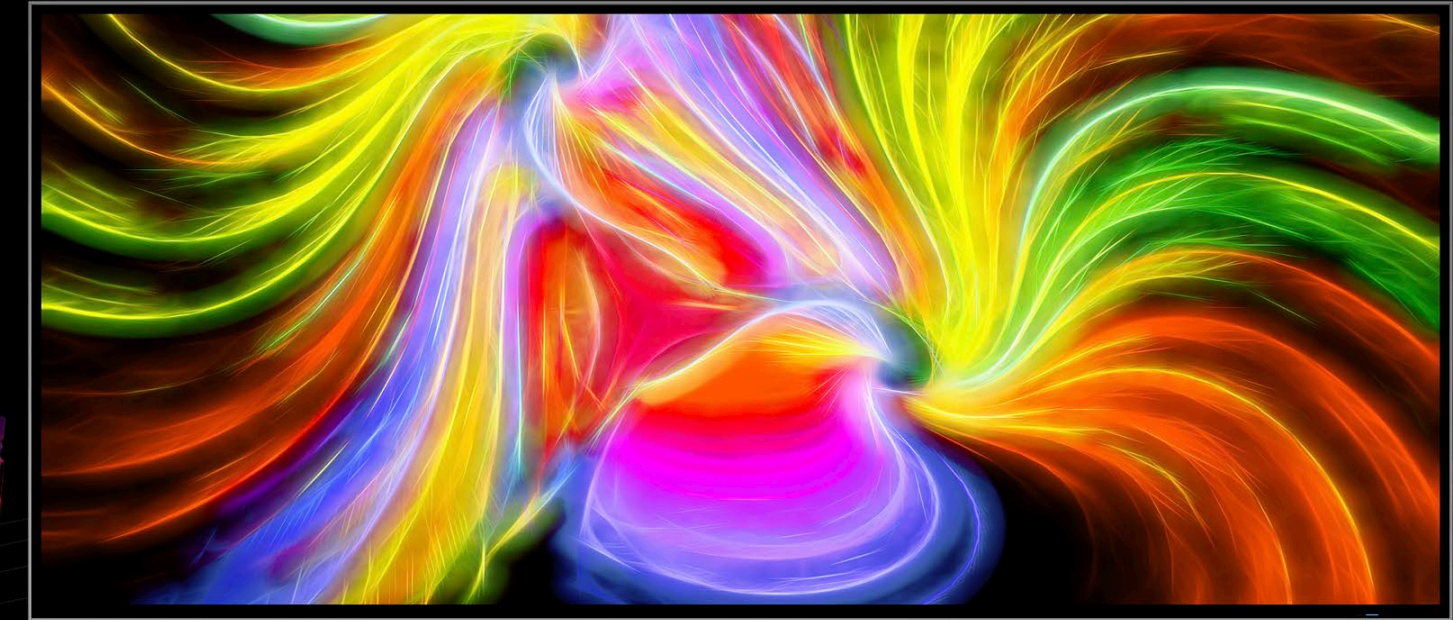
# Incredible engineering

First and only enterprise display line to incorporate Mini-LED backlight with our unique dual brightness enhancement technology, together with Jupiter's own zone dimming algorism to drive maximum brightness, increased contrast and a wide color gamut.

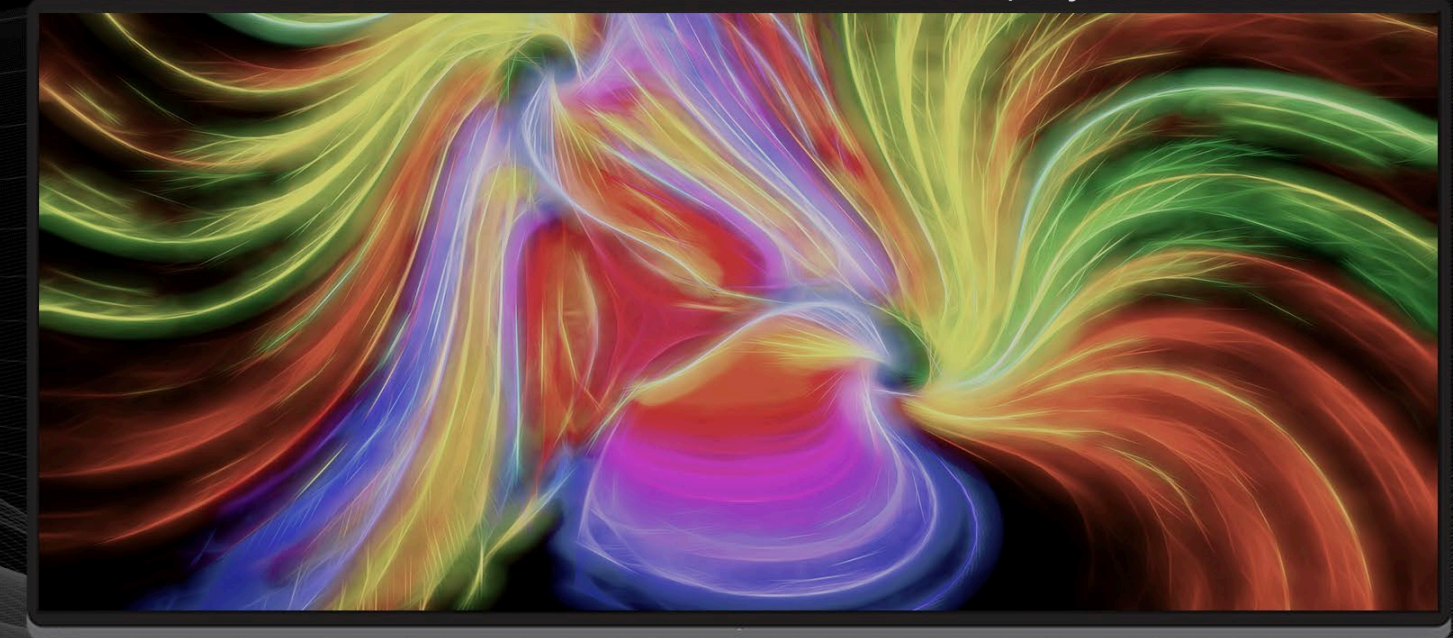
 VESA CERTIFIED  
**DisplayHDR™ 1400**



Jupiter's quantum-dot Mini-LED backlight with dual-brightness enhancement technology



Other run-of-the-mill 105" displays



# Pana X Lineup

# Pioneering 21:9

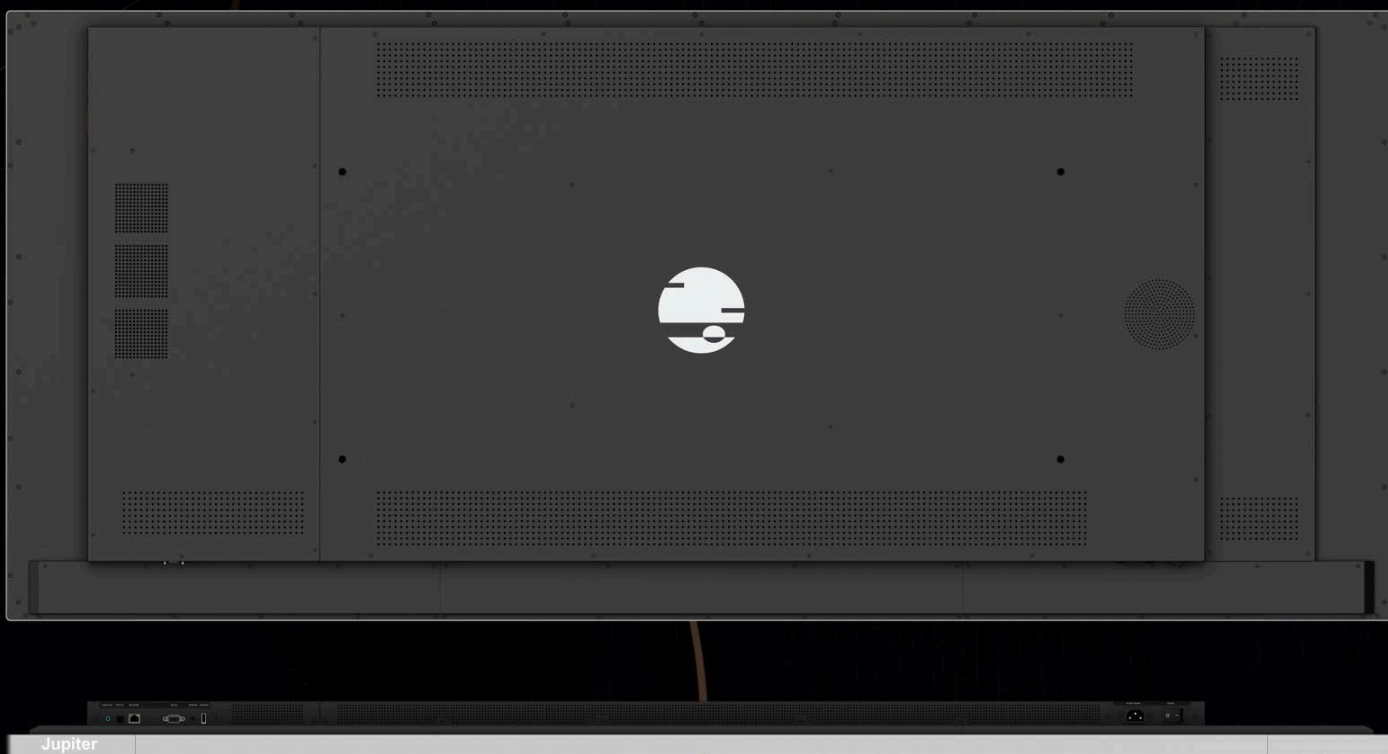


1937.2 mm  
76.3 inches



2493.9 mm  
98.2 inches

New metal-mesh capacitive conductivity for precision multi-touch. Low profile design.



Pana X models comprise a **range of sizes** in thin-profile touch or non-touch **120Hz 5K** LCDs, **each** with optically bonded, tempered, anti-glare edge to edge glass, **identical** frame-less design, **identical** back, identical depth dimension, **identical** ports at **identical** locations.

Know one, know all.



No embedded (or hidden) Android system. No on-board computer or system to drive the 5K display  
**Meeting the most stringent IT requirement**

No built-in system  
No vulnerability risk  
**Fully secure display**



**Jupiter Engineering**

Our name is on every key component inside

We own our Pana X electrical, optical and mechanical engineering



Pana 105XT  
Pana 34



optional Jupiter proprietary  
5K 120Hz onboard computer



Glass edge-to-edge, thin profile 105-inch with InGlass touch at 78mm total depth.

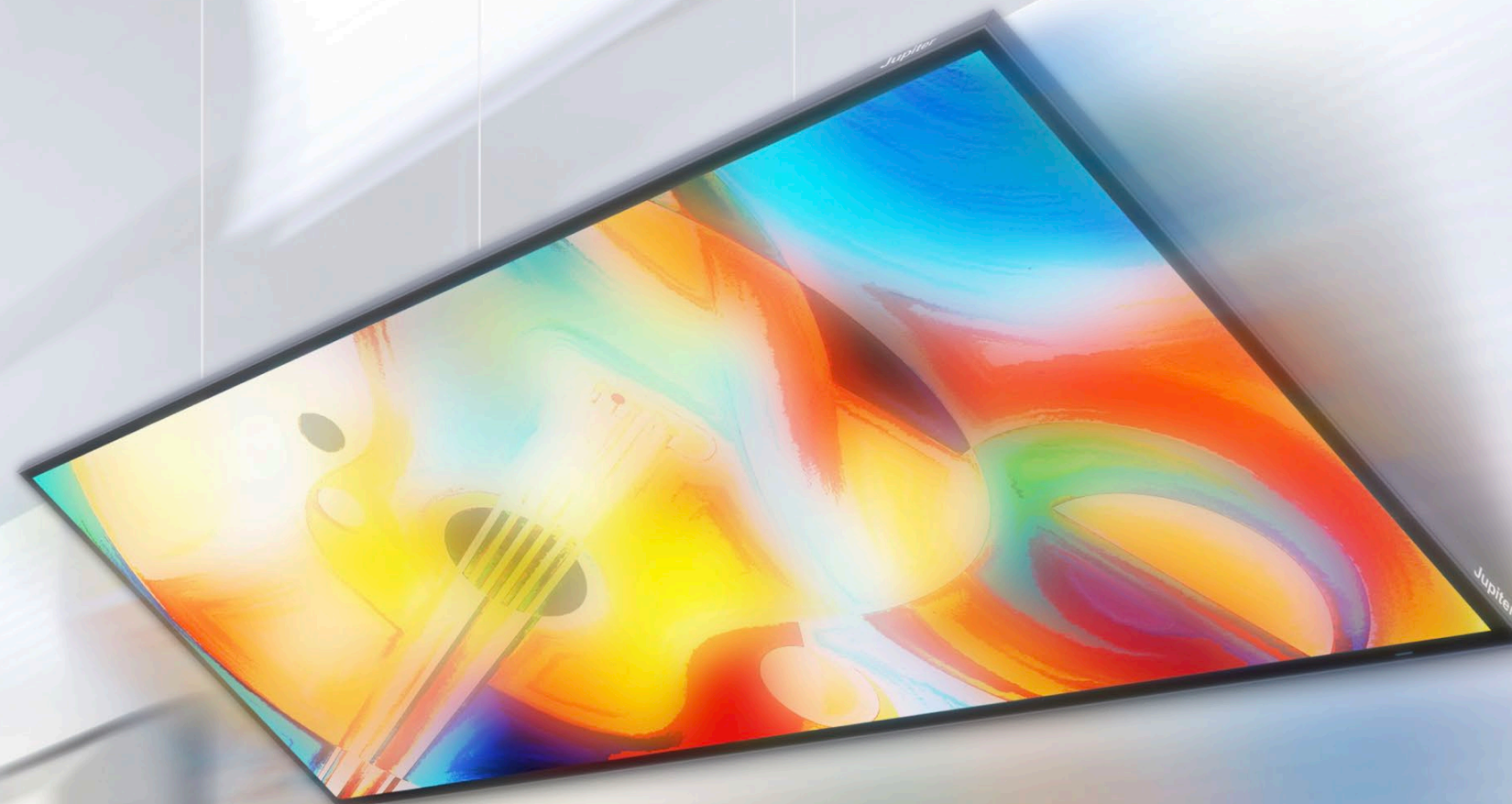


Pana 105X touch or non-touch models do not require furniture nor build-out under display.  
Clean and elegant.

**ADA Compliant**

Total depth from wall to front of mounted display is less than 4 inches or 100mm

Pana 105X  
45° down

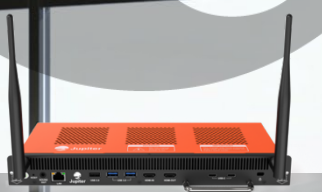


Pana 105X was engineered, tested and verified as a 45° downward mounted display





Pana 81X



optional Jupiter proprietary  
5K 120Hz onboard computer



Glass edge-to-edge, thin profile 81-inch at 76mm total depth, ADA compliant.

Pana 81  
table



Pana 81 interactive-touch was engineered, tested and verified as a face-up collaboration table

Pana 81X



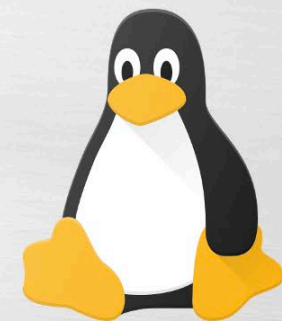
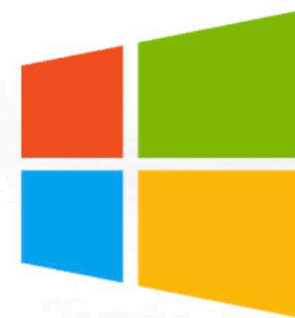
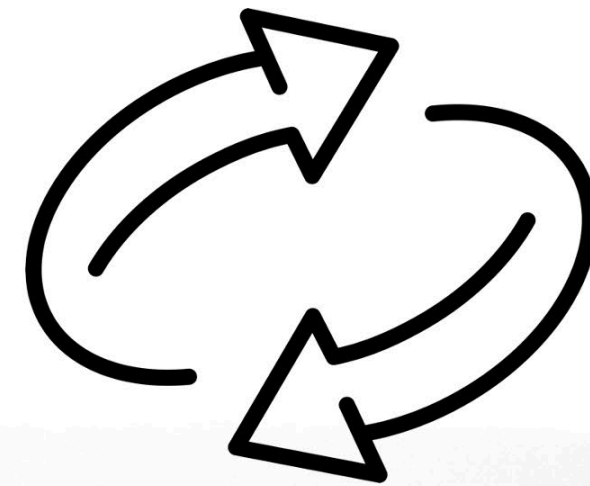
Improve the work environment with the beauty of Pana 81X





5K with Jupiter confidence

Jupiter's Pana proprietary firmware  
natively supports plug-and-play **reverse touch**  
with Windows, MacOS, Android, and Linux systems.





# Jupiter Proprietary Computer Module

Unique dimensions with unparalleled features

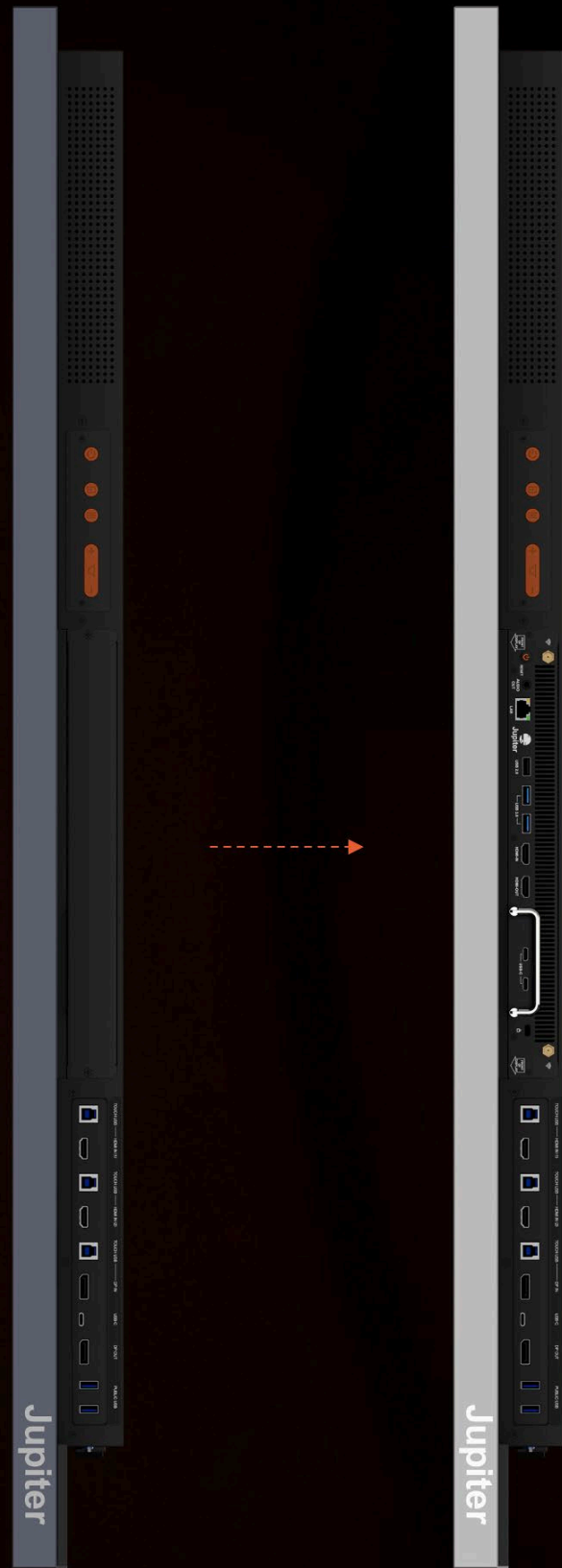
Blazing fast 5K **120Hz** refresh (Jupiter exclusive)

Intel i7 12700H Gen12 desktop processor with Trusted Platform Module technology (TPM2.0), 12-core, 16GB dual SODIMM DDR4 3200MHz, compatible with Gen13

Nvidia RTX3050 graphics card on a PCIe Gen4 x16 slot with 8GB GDDR6 and 75-130W power consumption (discrete GPU)  
256G SSD (upgradable)

Fits into Jupiter-specific slot on back of each Pana X display





optional  
JPCM



## Jupiter Proprietary Computer Module

Unique form factor  
Proprietary design  
Powerful





5K 120Hz

Convert into a powerful mobile workstation

# Jupiter Proprietary Computer Module Desktop Chassis



Jupiter-color backlit power button



DisplayPort output 5K@120Hz



# Pana

Uniquely developed and tooled accessories



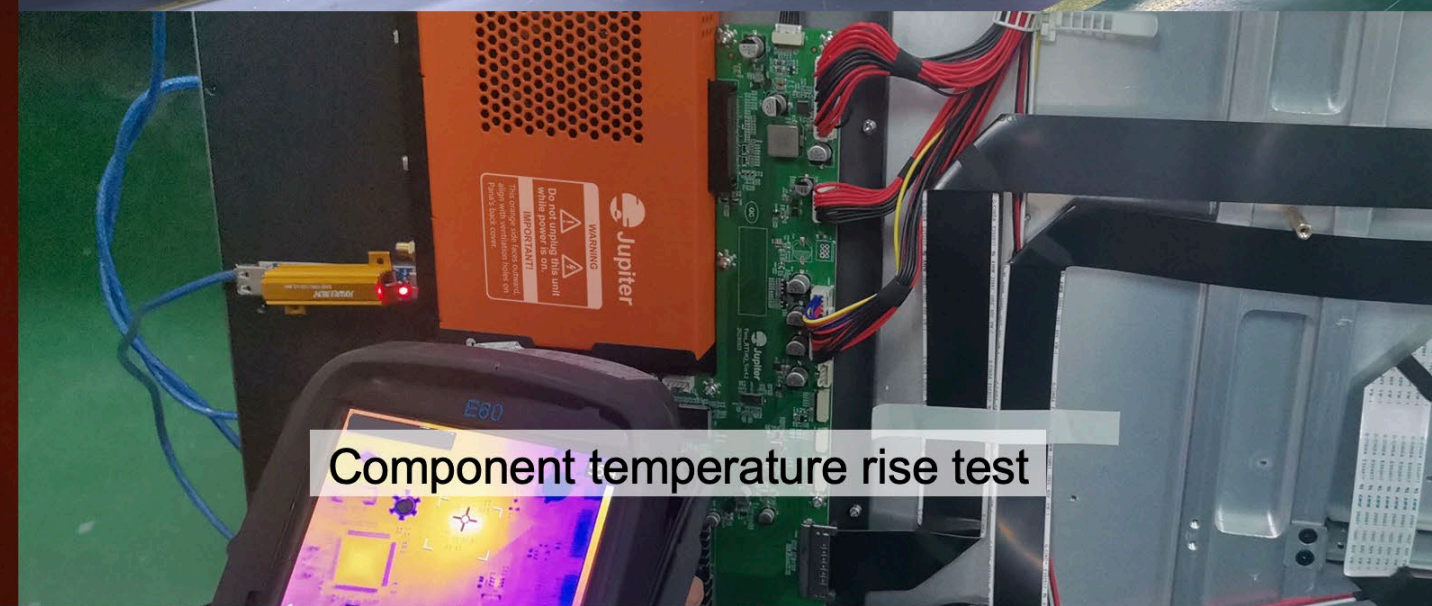


At Jupiter, we designed our own 120Hz 5K main board with a newly launched chipset, blueprinted our own FPGA board, our own power board, our own Mini-LED hub board with proprietary local dimming algorithms.

Design  
Engineer  
Test  
Manufacture



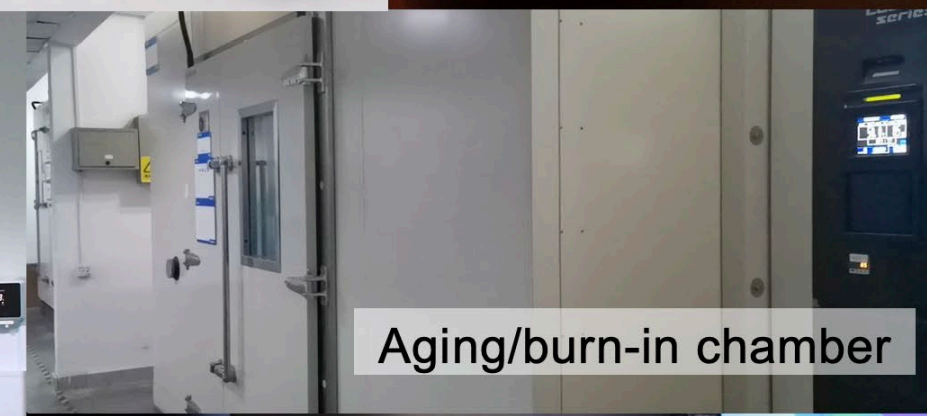
Pana 105XT in 45° downward aging test, with 50kg weights solely on glass 24/7



Component temperature rise test



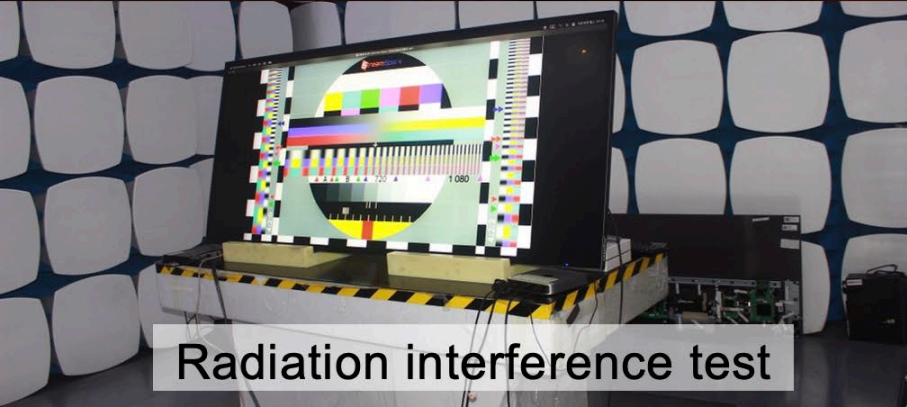
Drop test for logistics



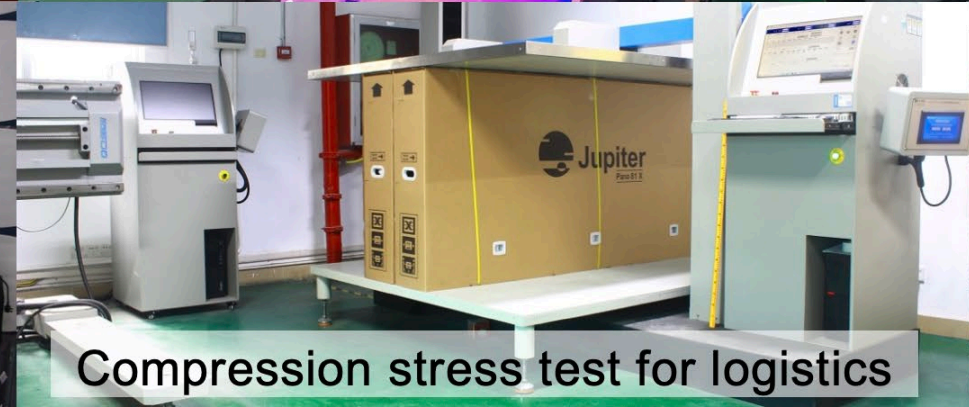
Aging/burn-in chamber



Pana 81XT flat face-up aging test



Radiation interference test



Compression stress test for logistics



Vibration test

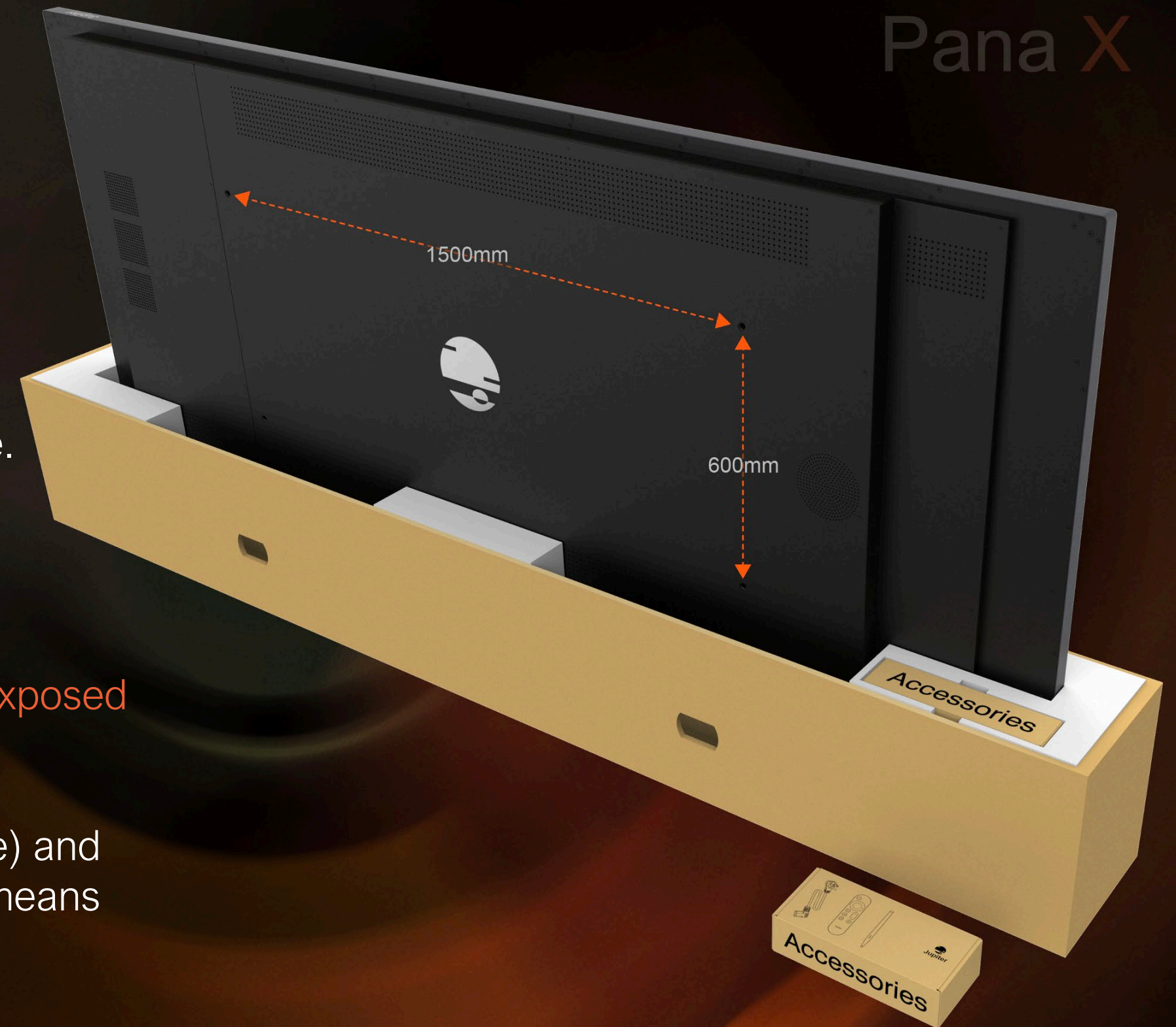
# Designing the details

Pana 105's VESA pattern is **1500 x 600mm**, developed so a mount can firmly support our large ultrawide dimension especially during touch usage.

Our X models' VESA pattern is perfectly **centered** when mounted in either landscape or portrait mode.

Jupiter's Pana packaging was designed to have the mounting holes fully **exposed** while the large display still rests in the box.

Pana X cardboard packaging has a burst strength of 30kgf (kilogram force) and edge crush resistance of 14kN/m (kilonewtons per meter), more durable means less prone to impact damage.



# Pana standard series

Best in class enterprise collaboration  
and data visualization

Award winning LCD 5K ultrawide displays

Portrait or landscape

Interactive touch or non-touch

RoHS 2 / Energy Star certified

USB-C hub with power delivery

Global certifications



VESA CERTIFIED

DisplayHDR™ 400

Microsoft  
Microsoft Teams Room

Steelcase

Pana 105D



Microsoft Teams Signature Room  
in partnership with Steelcase

# Pana 105 Bundle



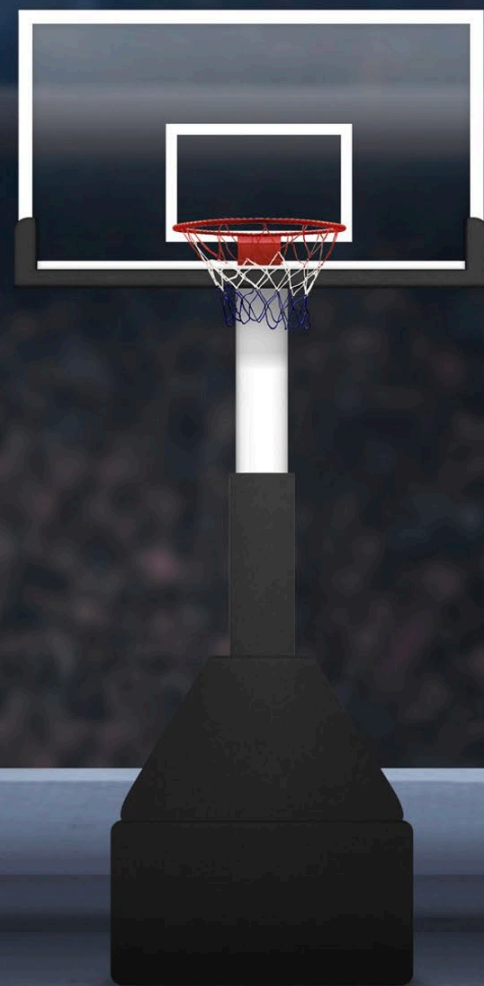
Microsoft Teams Signature room bundle  
with Crestron MTR kit and Salamander furniture

 **legrand** AV

**forum**<sup>TM</sup>  
COLLABORATION SUITE

Microsoft Teams Room in partnership with Middle Atlantic

8 Feet



Pana 105  
portrait mode

Covering the height of giants

Entire Pana 5K line can be used landscape or portrait



# 21:9 makes elevator sense

Turned vertically, traditional 98" 16:9 LCD is approx 50 inches wide, 86" 16:9 is approx 45 inches wide, while

- Pana 105 is 41 inches wide
- Pana 81 is 33 inches wide



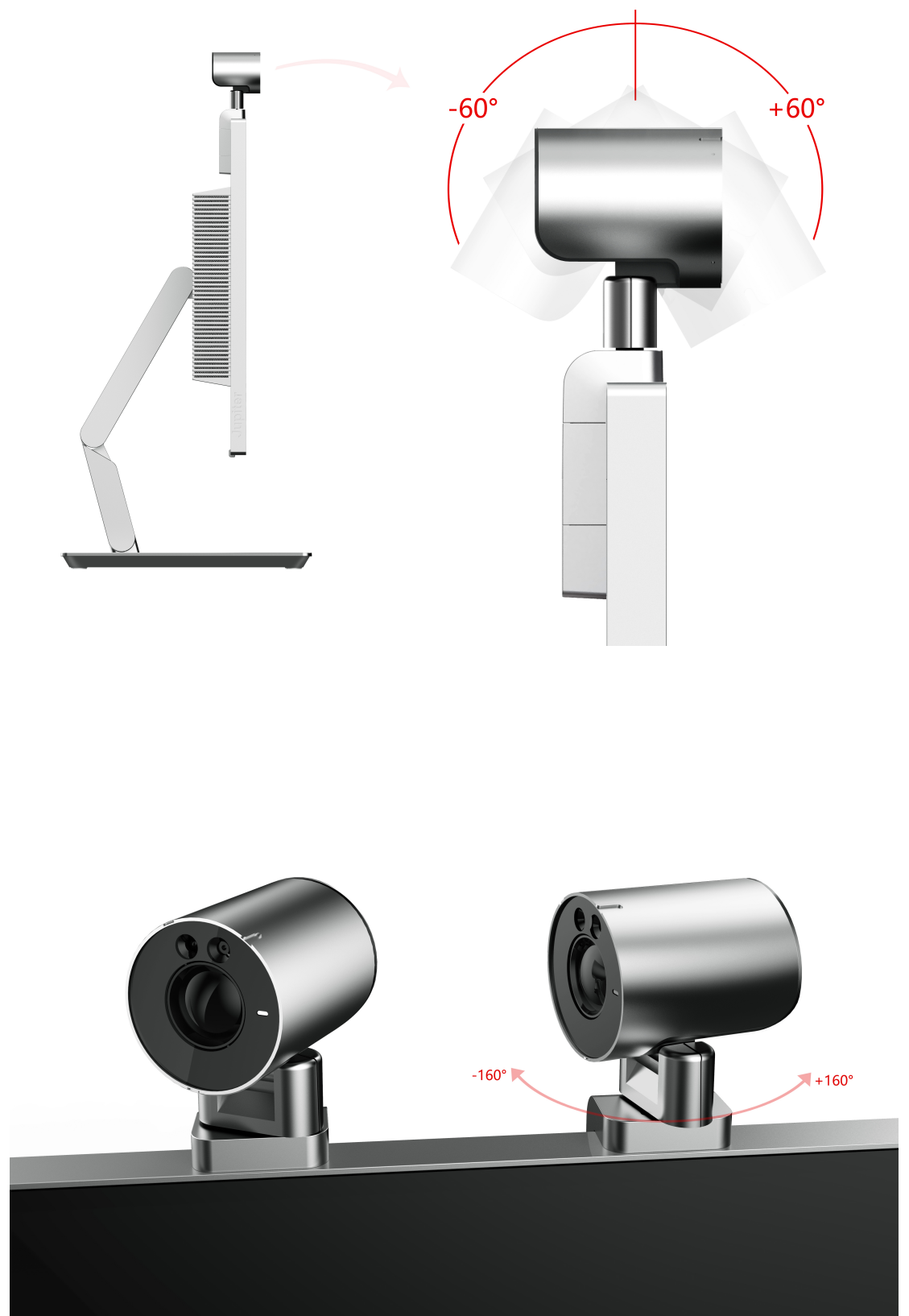


Pana 81T

81" diagonal  
76" wide, 33" tall  
Metal-mesh capacitive touch



Pana 34  
BYOD all-in-one  
hot-desk solution



Pana 34

zoom

Certified

- Bezel-Less Display with 10 Point Precision OGM Multi-Touch
- 4K Camera with Microsoft Hello Face Authentication,  $\pm 160^\circ$  Swivel,  $\pm 60^\circ$  Tilt,  $124^\circ$  Ultra-wide Field of View @ F/1.8
- 8 Microphone Array
- 24-watt speaker system
- Active Pen with 4,096 Levels of Pressure Sensitivity
- Reverse touch Windows, Mac OS, Android devices
- Drafting Flex-Stand with  $\pm 40^\circ$  swivel base
- Responsible packaging: Certified FSC (Forrest Stewardship Council) 100% recycled responsible forestry paperboard material, printed with soy-based ink

1ms

Response Time

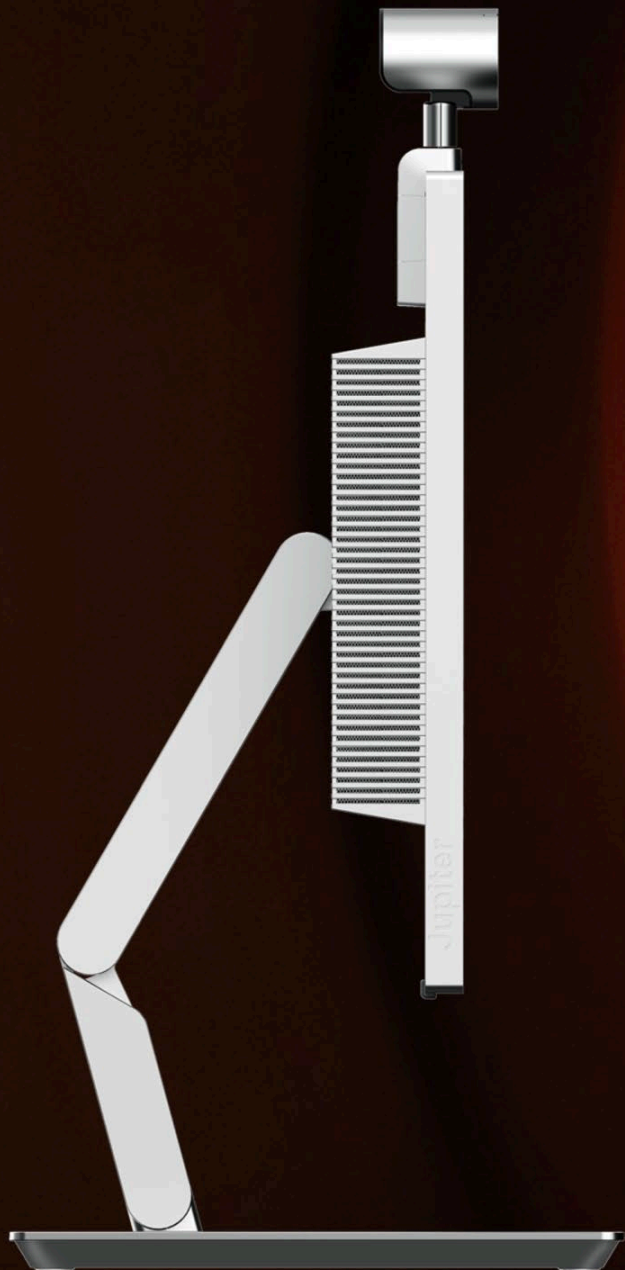
165Hz

Refresh Rate

VESA CERTIFIED  
DisplayHDR™ 400

HDMI®  
HIGH DEFINITION MULTIMEDIA INTERFACE

AMD  
FreeSync  
Premium



Pana 105 & 81

Pana 34

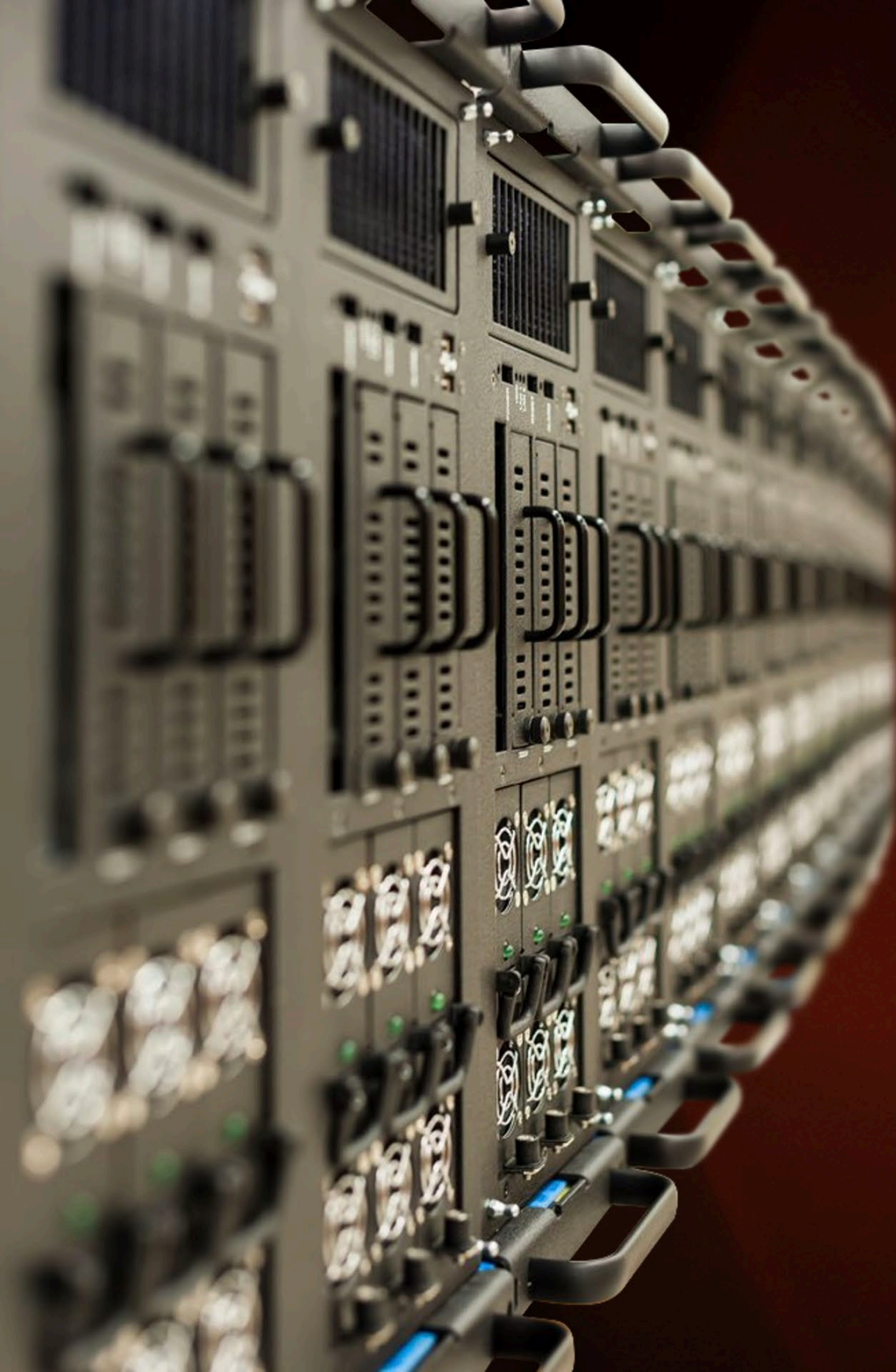
# Jupiter Pana comprehensive global certifications

| Geographic Region | Type                                                       | Standard(s)                                                                              |
|-------------------|------------------------------------------------------------|------------------------------------------------------------------------------------------|
| USA               | CA65                                                       | California Proposition 65                                                                |
|                   | Energy Star                                                | ENERGY STAR® Program Requirements Product Specification for Displays                     |
|                   | cULus (UL+cUL)                                             | CB 62368-1 3rd, CB 62368-1 2ED, CB 60950-1, UL/cUL 62368-1 3rd and complementary 60950-1 |
|                   | CB                                                         |                                                                                          |
|                   | CEC (California Energy Efficiency) less than 5 models      | CEC-140-2019-002                                                                         |
|                   | FCC SDOC                                                   | Part 15B                                                                                 |
| Japan             | 円形PSE (Product Safety of Electrical Appliance & Materials) | Technical Requirements Appendix 12: J62368-1(2020) IEC 62368:2014                        |
| Australia         | SAA                                                        | 62368-1 3rd                                                                              |
|                   | C-Tick                                                     | CISPR 32                                                                                 |
|                   | Gems (Australia Energy Efficiency)                         | AS/NZS 62087                                                                             |
|                   | Gems Registration                                          |                                                                                          |
|                   | RCM                                                        | AusRCM                                                                                   |
| UK                | UKCA                                                       | BS EN 62368-1:2014+A11:2017                                                              |
| Europe            | CE (EMC+LVD+RoHS)                                          | EN 62368-1:2014+A11:2017, EN55032,EN55035, EN61000-3-2, EN61000-3-3 EN 61000-4-8:2010    |
|                   | ERP (energy related products)                              | EC NO 1275/2008                                                                          |
|                   | ROHS                                                       | 2011/65/EU                                                                               |
|                   | REACH                                                      | SVHC 219                                                                                 |
|                   | WEEE                                                       | 2002/96/EC                                                                               |
| Singapore         | PSB COC                                                    | Based On CB                                                                              |
| Brazil            | INMETRO                                                    | IEC 60950, CISPR22, CISPR24                                                              |
| Saudi Arabia      | IECEE                                                      | Based On CB                                                                              |
| UAE               | ECAS (ROHS report)                                         | CB standards                                                                             |
| India             | BIS 1 sample 105T&D                                        | TC-6563                                                                                  |
| Global            | MSDS (Material Safety Data Sheet)                          | N/A                                                                                      |
| Global            | VESA DisplayHDR                                            | VESA DisplayHDR400 certified (HDMI, Pana 105D)                                           |
| Italy             | Each verified against EU CE standards                      | CE                                                                                       |
| Norway            |                                                            |                                                                                          |
| Poland            |                                                            |                                                                                          |
| Netherlands       |                                                            |                                                                                          |
| France            |                                                            |                                                                                          |

| Geographic Region                          | Type                                                  | Standard(s)                                                                              |
|--------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------|
| USA                                        | CA65                                                  | California Proposition 65                                                                |
|                                            | Energy Star                                           | ENERGY STAR® Program Requirements Product Specification for Displays                     |
|                                            | cULus (UL+cUL)                                        | CB 62368-1 3rd, CB 62368-1 2ED, CB 60950-1, UL/cUL 62368-1 3rd and complementary 60950-1 |
|                                            | CB                                                    |                                                                                          |
|                                            | CEC (California Energy Efficiency) less than 5 models | CEC-140-2019-002                                                                         |
|                                            | FCC SDOC                                              | Part 15B                                                                                 |
|                                            | UK                                                    | UKCA                                                                                     |
| Europe                                     | CE (EMC+LVD+RoHS)                                     | EN 62368:2018, EN55032, EN55035, EN61000-3-2, EN61000-3-3 EN 61000-4-8:2010              |
|                                            | ERP                                                   | EC NO 1275/2008                                                                          |
|                                            | ROHS                                                  | 2011/65/EU                                                                               |
|                                            | REACH                                                 | SVHC 219                                                                                 |
|                                            | WEEE                                                  | 2002/96 / EC                                                                             |
|                                            | Australia                                             | C-TICK                                                                                   |
| SAA                                        |                                                       | 62368-1 3rd                                                                              |
| Gems (Australia Energy Efficiency)         |                                                       | AS/NZS 62087                                                                             |
| Gems Registration                          |                                                       |                                                                                          |
| RCM                                        |                                                       | AusRCM                                                                                   |
| Brazil                                     | INMETRO                                               | IEC 60950, CISPR22, CISPR24                                                              |
| Japan                                      | PSE                                                   | Technical Requirements Appendix 12:J62368-1(2020) IEC 62368:2014                         |
| Global                                     | MSDS (Material Safety Data Sheet)                     | N/A                                                                                      |
| Global                                     | VESA DisplayPort / USB Type-C                         | DP & USB Type-C certified                                                                |
| Global                                     | VESA DisplayHDR                                       | VESA DisplayHDR400 certified (DP+USB Type-C)                                             |
| Global                                     | AMD FreeSync                                          | AMD FreeSync Premium certified                                                           |
| Global                                     | HDMI                                                  | HDMI 2.1a                                                                                |
| Global                                     | Zoom                                                  | Zoom certified                                                                           |
| Italy, Norway, Poland, Netherlands, France | Each verified against EU CE standards                 | CE                                                                                       |



Jupiter's proprietary 21:9 5K collaboration gateway  
bundled with all Pana displays



Jupiter's processors are made in our California headquarters facility. Our factory space is ISO 9001:2015 certified for the design, development, manufacture, marketing, sales, order fulfillment, and call center support of visualization products. Our video wall processors support the 21:9 5K form factor.

Canvas, our powerful collaborative visualization software, along with SimpleShare, were designed and developed in the USA.



JITC **Certified**  
JOINT INTEROPERABILITY TEST COMMAND



# Video Wall in a Box™

- CRS-5K processor
- Canvas software
- Pana 105 or 81 display
- SimpleShare software

TAA bundle



Manage up to 32 windows with flexible layout on a single Pana ultrawide display

# A complete range of 21:9 displays



| Product Name | 21:9 Size (Diagonal) | 5K        | Display Type                                       | Backlight              | Local Dimming Zones | Contrast    | Refresh Rate | Response Time | Brightness cd/m2 | Touch Technology                                                                     | Product Depth | ADA Compliant (with mount) |
|--------------|----------------------|-----------|----------------------------------------------------|------------------------|---------------------|-------------|--------------|---------------|------------------|--------------------------------------------------------------------------------------|---------------|----------------------------|
| Zavus XP12   | 281"                 | ✓         | COB dvMicroLED with black resin, 1.2mm pixel pitch | NA                     | NA                  | 1,000,000:1 | 60 Hz        | <1 microsec   | 1000             | NA                                                                                   | 28 mm         | ✓                          |
| Zavus XP9    | 205"                 | ✓         | COB dvMicroLED with black resin, 0.9mm pixel pitch | NA                     | NA                  | 1,000,000:1 | 60 Hz        | <1 microsec   | 1000             | NA                                                                                   | 28mm          | ✓                          |
| Zavus XP7    | 165"                 | ✓         | COB dvMicroLED with black resin, 0.7mm pixel pitch | NA                     | NA                  | 1,000,000:1 | 60 Hz        | <1 microsec   | 1000             | NA                                                                                   | 28 mm         | ✓                          |
| Pana 105X    | 105"                 | ✓         | IPS LCD                                            | Quantum Dot Mini-LED   | 2304                | 1,000,000:1 | 120 Hz       | 4 ms          | 2200             | NA                                                                                   | 78 mm         | ✓                          |
| Pana 105XT   | 105"                 | ✓         | IPS LCD                                            | Quantum Dot Mini-LED   | 2304                | 1,000,000:1 | 120 Hz       | 4 ms          | 2200             | Bezel-less metal-mesh capacitive with 20 simultaneous touch points                   | 78 mm         | ✓                          |
| Pana 81X     | 81"                  | ✓         | IPS LCD                                            | Quantum Dot Mini-LED   | 2048                | 1,000,000:1 | 120 Hz       | 4 ms          | 1900             | NA                                                                                   | 76 mm         | ✓                          |
| Pana 105D    | 105"                 | ✓         | IPS LCD                                            | LED with local dimming | 192                 | 10,000:1    | 60 Hz        | 8 ms          | 700              | NA                                                                                   | 99 mm         |                            |
| Pana 105T    | 105"                 | ✓         | IPS LCD                                            | LED with local dimming | 192                 | 10,000:1    | 60 Hz        | 8 ms          | 700              | Direct-bonding IR with 20 simultaneous touch points                                  | 110 mm        |                            |
| Pana 92T     | 92"                  | ✓         |                                                    |                        |                     |             |              |               |                  |                                                                                      |               |                            |
| Pana 81D     | 81"                  | ✓         | IPS LCD                                            | LED with local dimming | 192                 | 10,000:1    | 60 Hz        | 8 ms          | 700              | NA                                                                                   | 83 mm         |                            |
| Pana 81T     | 81"                  | ✓         | IPS LCD                                            | LED with local dimming | 192                 | 10,000:1    | 60 Hz        | 8 ms          | 700              | Direct-bonding IR with 20 simultaneous touch points                                  | 85 mm         |                            |
| Pana 34      | 34"                  | 3440x1440 | VA LCD                                             | Edge lit LED           | NA                  | 4,000:1     | 165 Hz       | 1 ms          | 400              | OGM mutual capacitive with 10 simultaneous touch points, 4096 levels of Pen pressure | 59 mm         | ✓                          |



# Responsible manufacturing

## Eco conscious packaging

Jupiter's Pana manufacturing facilities are certified to these environmental and social standards

- ISO 9001 Quality Management System
- ISO 14001 Environment Management System
- ISO 45001 Occupational Health and Safety Management Systems
- SA 8000 Social Responsibility Standard

Pana packaging uses certified FSC (Forrest Stewardship Council) responsible forestry paperboard and recycled pulp. Printing on packaging uses soy-based ink.

Jupiter's Pana displays are MSDS compliant throughout supply chain and manufacturing. Material Safety Data Sheet assures components and parts that make up the finished product to abide by strict chemical and raw material standards.





Jupiter.com