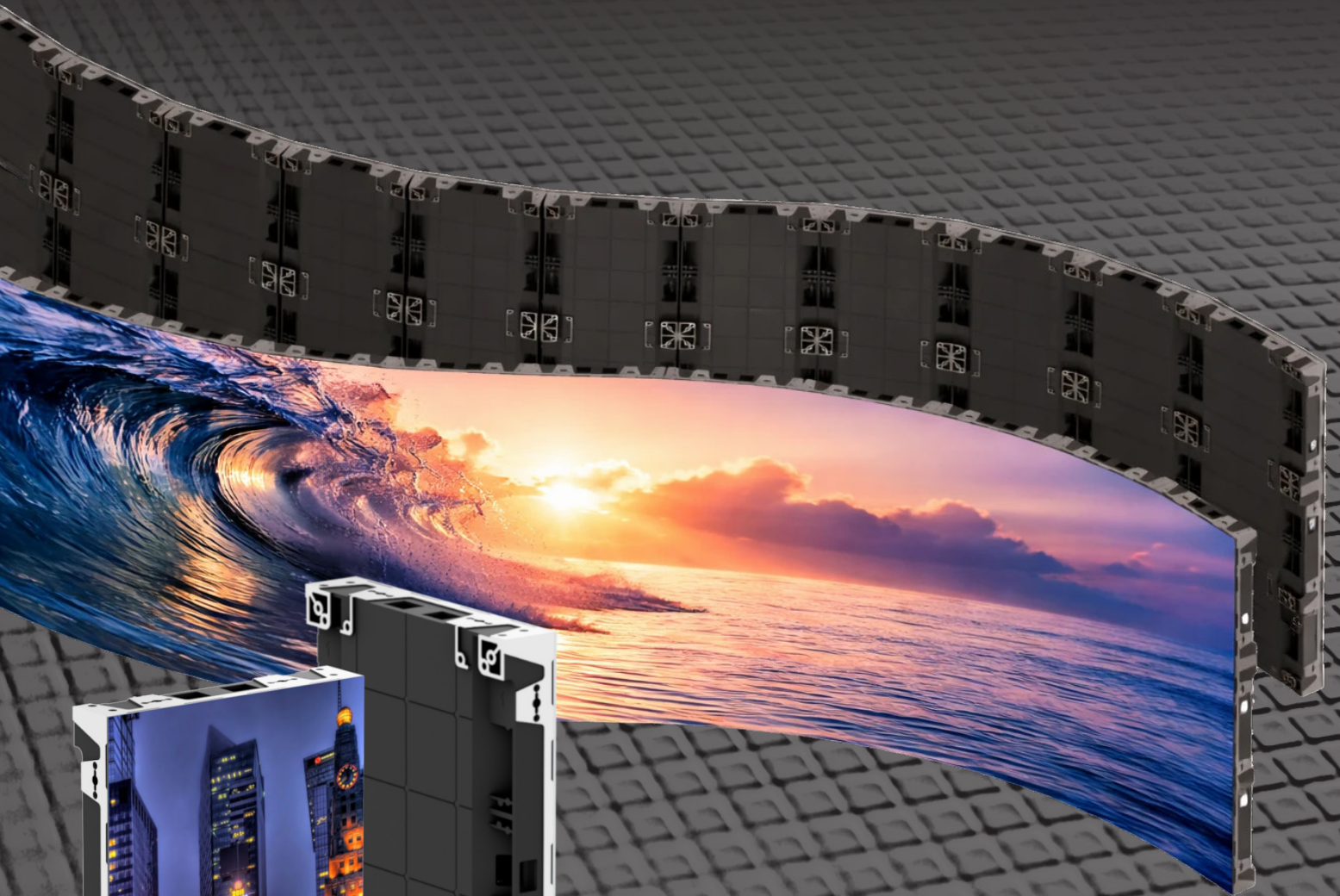




VANGUARD

LED DISPLAYS



Wave

Freeform

VANGUARD

LED DISPLAYS



FREEFORM

Indoor, fixed installation



Unique shapes
and aspect
ratios

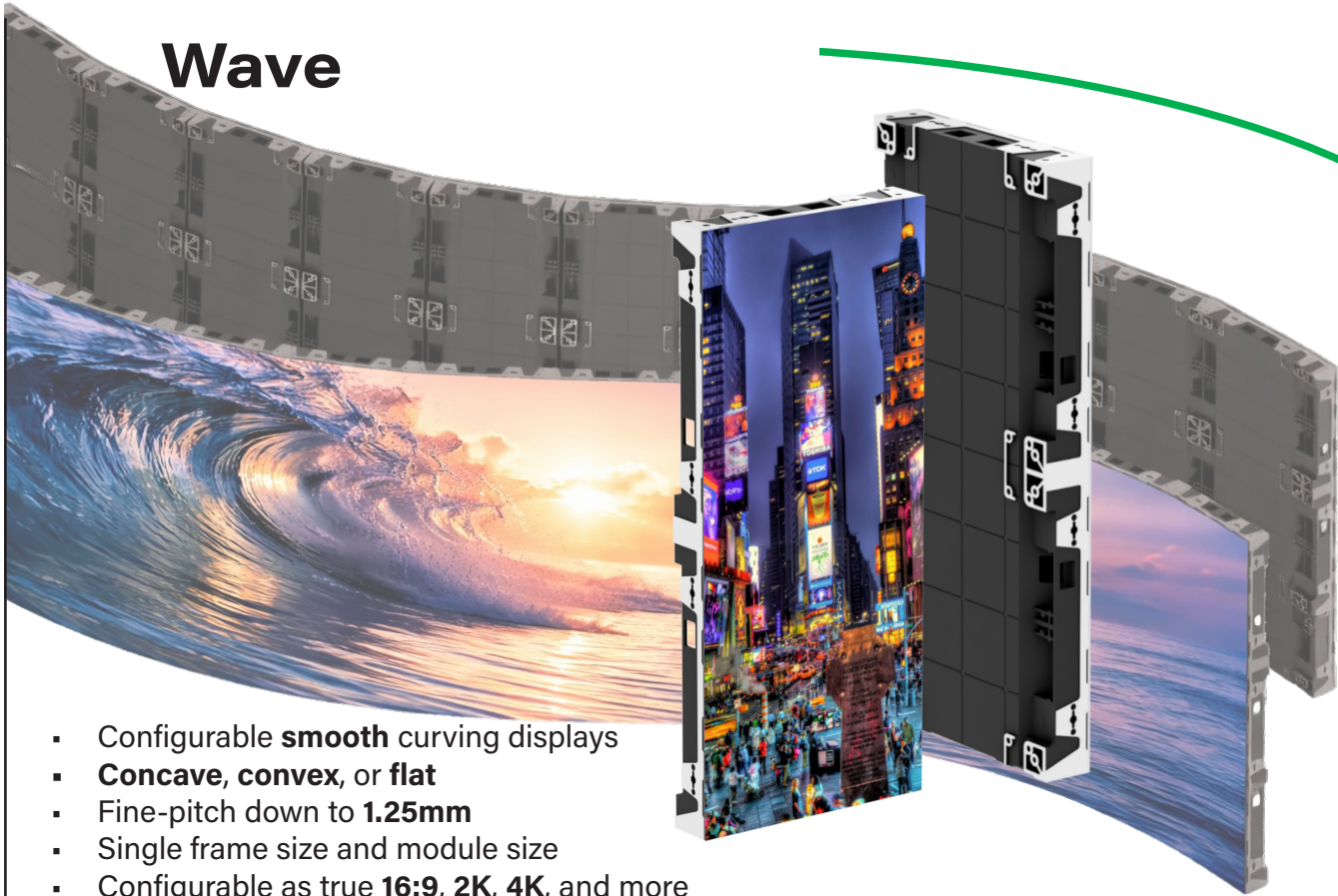


Non-flat
displays



Visit our site to
learn more!

Wave



- Configurable **smooth** curving displays
- **Concave, convex, or flat**
- Fine-pitch down to **1.25mm**
- Single frame size and module size
- Configurable as true **16:9, 2K, 4K, and more**

Zirconium



- Design in **250mm** units
- **1.9 - 5.2mm** pitch range
- **6** unique panel frame sizes
- **Universal modules** for all panel sizes

Wave



pitch	1.2	1.5	1.8	2.5
pixel tech	SMD	SMD	SMD	SMD

ideal for

Smooth, curving displays

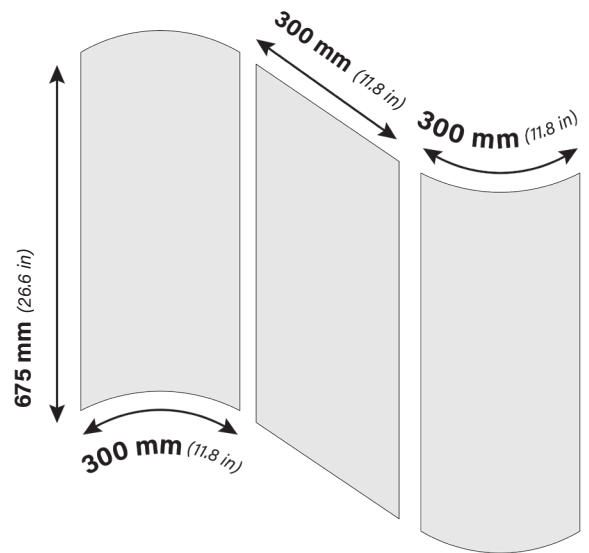
summary

Creating faceted curves with flat panels will soon be a thing of the past. Introducing the Wave series, a leap forward in the evolution of curving fine-pitch LED. Design, installation, and service are made easier with a single panel size and universal flexible modules.

Wave panels have a 4:9 aspect ratio enabling a true 16:9 aspect ratio, which can be configured to true FullHD 2K or UltraHD 4K resolutions.

- Axion Pro series, 1,920 x 1,080 px | 4x4, 1.2mm
- Wave series, 1,920 x 1,080 px | 8x2, 1.2mm

dimensions



aspect ratio

4:9

weight

7.7 kg (17 lbs)

max brightness

800 nits

IP rating

IP41

optional

- Epoxy masking or coating
- MIP - High-contrast pixels
- Cosmetic/protective edge trim
- Embeddable controller
- Mobile cart
- Flight cases
- Remote AC>DC power conversion

Wave

SERIES NAME

MAXIMUM BRIGHTNESS (NITS)

up to 800

DIMENSIONS

WIDTH 300 mm (11.8 in)

HEIGHT 675 mm (26.6 in)

DEPTH 58 mm (2.3 in)

PANEL ASPECT RATIO

0.4:1

PANEL WEIGHT

5.8 kg (12.8 lbs)

MODULES PER PANEL

4 per panel

VIEWING ANGLE

HORIZONTAL 160°

VERTICAL 160°

LED LIFETIME* (HRS)

100,000

CONTRAST

6,000:1

DRIVERS

ICN1065S, ICN1069 (depending on pitch)

SCAN RATE

1/27, 1/30, 1/60 (depending on pitch)

PROCESSING DEPTH (BITS)

14 default (8-16 range)

REFRESH RATE (HZ)

3,840 default (3,840 range)

FRAME RATE

60 default (50, 60 options)

COLOR TEMPERATURE

7,500 default (2000-12000 range)

COLOR GAMUT

2.8 (1.0-4.0)

BONDING WIRE

Copper

POWER COMMON

Anode, Cathode (depending on pitch)

WATTS PER PANEL

122-138W max (43-48W average)

WATTS PER SQ M

600-680W max (210-238W average)

MAX AMPS PER CASCADE

10

OPERATING VOLTAGE

100-240V AC, 50/60 Hz

OPERATING TEMPERATURE

-10°C - +40°C

MAXIMUM HEAT

415-471 BTU/hr (depending on pitch and panel size)

HUMIDITY

10% - 80%, non-condensing

IP RATING

IP41

FRAME MATERIAL

Die-cast Aluminium

HANGING AND STACKING

15 hanging max | 30 stacking max

REAR BOLT THREADING

M8

POWER CONNECTORS

C13/C14

DATA CONNECTORS

RJ45

SERVICE ACCESS

Front

WARRANTY

3 year (up to 5 available)

CERTIFICATIONS

EMC-A, CCC, FCC, ETL, LVD, CE, RoHS



Visit our site to learn more!



Zirconium

pitch	1.9	2.6	3.1	3.9	5.2
pixel tech	SMD	SMD	SMD	SMD	SMD

ideal for

Unique shapes and non-standard aspect ratios

summary

Zirconium is a freeform series that enables configuration in units of 250mm both vertically and horizontally. Zirconium has three panel widths and two heights. Panel sizes are used dynamically to get extremely close to any target dimensions. All panels use the same, interchangeable modules.

Zirconium panels can be edge-chamfered to 45 degrees on either the left side, right side, or both. This allows Zirconium to make faceted convex curves or outside 90-degree corners.

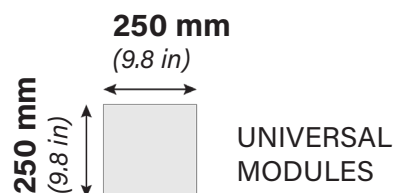
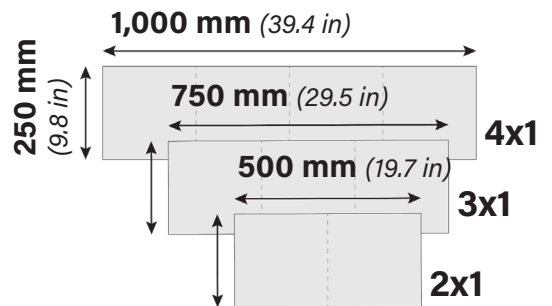
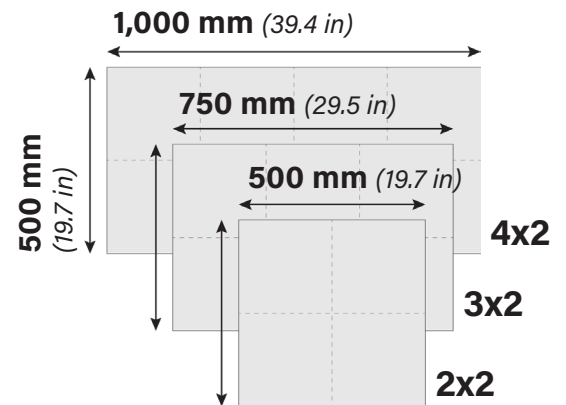
special configurations



optional

- Protective edge trim
- 45-degree edges for corners
- Connecting plates
- Reduced magnets for transit stations
- Dual receiving cards for data redundancy
- Hydrophobic treatment
- Flight cases

panel dimensions



IP rating
IP30

max brightness
1,000 nits

Zirconium

SERIES NAME

MAXIMUM BRIGHTNESS (NITS)	up to 1,000	
DIMENSIONS	WIDTH	up to 1000 mm (39.4 in)
	HEIGHT	up to 500 mm (19.7 in)
	DEPTH	42 mm (1.7 in)
PANEL ASPECT RATIO	1.5:1, 1:1, 2:1, 3:1, 4:1	
PANEL WEIGHT	up to 11 kg (24.3 lbs)	
MODULES PER PANEL	up to 8 per panel	
VIEWING ANGLE	HORIZONTAL	160°
	VERTICAL	160°
LED LIFETIME* (HRS)	50,000	
CONTRAST	8,000:1	
DRIVERS	ICN2055, ICN2150, ICN2165 (depending on pitch)	
SCAN RATE	1/16, 1/32, 1/64 (depending on pitch)	
PROCESSING DEPTH (BITS)	14 default (8-16 range)	
REFRESH RATE (HZ)	3,840 default (3,840 range)	
FRAME RATE	60 default (60 options)	
COLOR TEMPERATURE	8,500 default (2000-9300 range)	
COLOR GAMUT	1.0 - 4.0	
BONDING WIRE	Copper	
POWER COMMON	Anode	
WATTS PER PANEL	59-290W max (21-102W average)	
WATTS PER SQ M	475-580W max (166-203W average)	
MAX AMPS PER CASCADE	20	
OPERATING VOLTAGE	100-240V AC, 50/60 Hz	
OPERATING TEMPERATURE	-20°C - +50°C	
MAXIMUM HEAT	203-991 BTU/hr (depending on pitch and panel size)	
HUMIDITY	10% - 90%, non-condensing	
IP RATING	IP30	
FRAME MATERIAL	Die-cast Aluminium	
HANGING AND STACKING	no hanging no stacking	
REAR BOLT THREADING	M6	
POWER CONNECTORS	C13/C14	
DATA CONNECTORS	RJ45	
SERVICE ACCESS	Front	
WARRANTY	3 year (up to 5 available)	
CERTIFICATIONS	EMC-B, CCC, FCC, ETL, LVD, CE, RoHS, UKCA, CB, BIS, KC, PSE	



Scan to
contact us!

Vanguard LED Displays summation

A leader in innovative digital LED display solutions, Vanguard offers an unrivaled range of products, technologies, and support.

Vanguard is an American-owned company, headquartered in Lakeland, Florida. Our mission statement - Complete customer satisfaction, defined by our core values of expertise, integrity, responsiveness, service, and value.

Our core values take many practical forms including Industry leading new technology, expert design advice at the outset of a project, timely quotes, the quickest lead times in the industry, helpful CADs and electrical drawings, professional commissioning, proficient on-site training, and stellar after-sales services.

VANGUARD
LED DISPLAYS