

OUTDOOR P4 LED VIDEO WALL SYSTEM

POWERFUL VISUALS.
BUILT TO PERFORM.
ENGINEERED TO LAST.



4 mm
PIXEL PITCH



≥ 6,000 cd/m²*
BRIGHTNESS



7,680 Hz
REFRESH RATE



IP66
PROTECTION



≥ 100,000 h
LIFESPAN

OUTDOOR P4 LED DISPLAY

High-visibility outdoor display engineered for demanding environments.

PARAMETER	ZUPER LED SPECIFICATION
Pixel Pitch	4 mm
LED Technology	SMD 3-in-1 LED
Pixel Density	62,500 pixels/m²
Cabinet Size	960 x 960 mm
Brightness	Up to 7,500 nits/m²; ≥ 6,000 cd/m² class
Dimming	0-255 levels
Contrast Ratio	5,000:1
Refresh Rate	7,680 Hz
Colour Processing	16-bit
Colours	4 trillion or better
Viewing Angle	160° H / 160° V
Expected Lifespan	≥ 100,000 hours
Power Input	100-220 VAC / 50 Hz ± 10%
Maximum Power	500 W/m²
Average Power	250 W/m²

PARAMETER	ZUPER LED SPECIFICATION
Operating Temperature	-20°C to +60°C
Storage Temperature	-20°C to +60°C
Humidity	10-90% RH
Service Access	Front / Rear
Ingress Protection	IP66 front & back
Cabinet Material	Stainless steel / Die-cast aluminium
Mounting / Structural Provision	Anti-corrosive structural solution with engineered support and earthing provisions
Wind Withstand Capability	Up to 140 km/h
LED Calibration	Pre-supply / installation and periodic calibration supported
Auto Brightness	Integrated ambient-light sensor; outdoor-protected sensor
Certification / Quality References	BIS; CE LVD; CE EMC; CB IEC; UL; RoHS; EPR; ISO; CMMI Level 4

ZML 4000 SERIES – LED VIDEO CONTROLLER

High-capacity video processing, control and presentation platform.

PARAMETER	ZML 4000 SERIES
Processor	1.2 GHz, 8-core processor or better
Pixel Load Capacity	Up to 1.3 million pixels
Compatibility	Supports all pixel pitches; inputs up to 8K as applicable
Ethernet	Gigabit Ethernet
Input Ports	1x HDMI, 1x USB, 1x Ethernet; AUX / expansion
Output Ports	1x Audio, 1x USB, 1x Ethernet
Input Resolution	3840 x 2160 @ 60 Hz (4K); 1920 x 1080 @ 120 Hz
Video Formats	MPEG-1/2, MPEG-4, H.264/AVC, MVC, H.265/HEVC, VP8, H.263, VC-1
Image Formats	JPEG, BMP, GIF, PNG, WEBP
Audio Formats	MPEG, WMA, WAV, OGG, FLAC, AAC, AMR, MIDI
Operating System	Android / Linux
Memory / Storage	1 GB RAM / 32 GB
Power	5 V DC; ≤15 W
Operating Environment	0°C to +50°C; 0–80% RH
Auto Brightness	Ambient-light based automatic brightness adjustment
Mounting	1U rack-mountable / standalone
Processing	Seamless scaling, low latency, brightness/chroma calibration
Multi-layer	1 main layer + 2 PIP layers
Presets	Up to 10 user-defined presets
Backup	Hot backup for device, Ethernet ports and input sources

KEY FEATURES



HIGH BRIGHTNESS
Up to 7,500 nits/m²



ULTRA-HIGH REFRESH
7,680 Hz



WIDE VIEWING
160° H / 160° V



IP66 PROTECTION
Outdoor-rated enclosure



AUTO BRIGHTNESS
Ambient-light sensor



LONG LIFE
≥100,000 hours



SERVICEABLE
Front / rear access



CALIBRATION
Brightness & colour consistency

SYSTEM-LEVEL CAPABILITIES

- Centralized content presentation with synchronized playback.
- Ambient-light based automatic brightness adjustment.
- High-refresh performance for smooth motion content.
- IP66 outdoor enclosure for rain, dust and demanding environments.
- Front and rear service access for maintenance.
- LED calibration support for consistent brightness and colour.
- Video processing, scaling, multi-layer presentation and PIP/POP.
- Project-specific structural, electrical and control integration.

APPLICATIONS



Public Information
High-visibility information and announcements.



Corporate & Institutional
Campuses, command centres and large facilities.



Transportation
Airports, rail, bus terminals, highways and mobility hubs.



Advertising & Retail
Digital signage and commercial brand communication.



Sports & Events
Stadiums, arenas, live events and large audiences.



Government & Infrastructure
Large-area public messaging.

ENVIRONMENT & ENGINEERING



Protection
IP66 front and rear



Lifespan
≥100,000 hours



Temperature
-20°C to +60°C



Wind Resistance
Up to 140 km/h, subject to site engineering



Humidity
10–90% RH



Brightness Control
Automatic ambient-light adjustment



Serviceability
Front and rear access

TYPICAL SYSTEM FLOW

