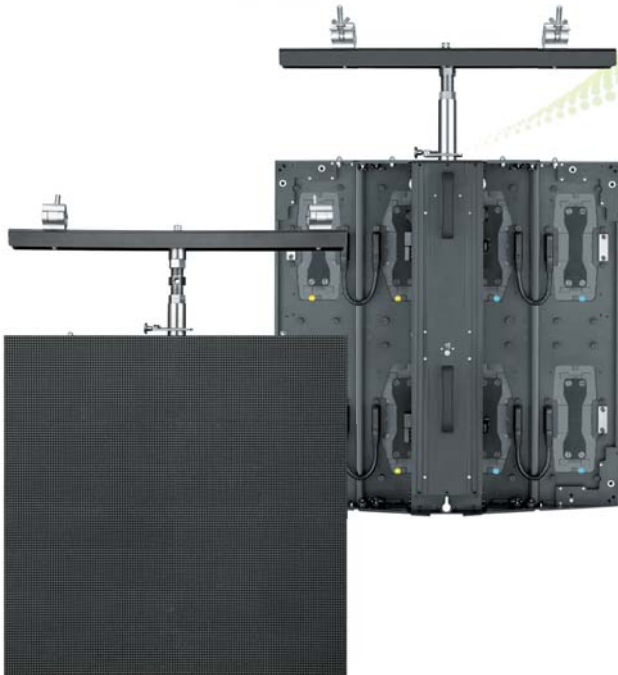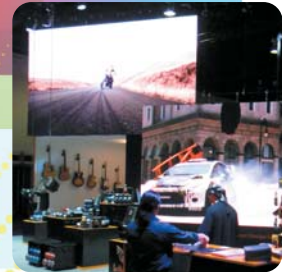# FOREGROUND
## SIMPLY BRILLIANT

™

# mamboLED™

**Strong, Compact & Smart Modular Display**
with KWIK-Connect™ Technology & Ultimate Rigging Flexibility

EMC COMPLIANT

INDOOR

OUTDOOR

RENTAL

# mamboLED™

## Strong, Compact & Smart Modular Display
### with KWIK-Connect™ System & Ultimate Rigging Flexibility

**CROSS-RENTABILITY ADVANTAGE**
MIX & MATCH FLEXIBILITY

Foreground **mamboLED**™ allows you to configure panels with various pixel pitch from 4mm indoor to 32mm** outdoor all in one screen! This means greater flexibility in rigging as well as a leaner inventory because you can use similar display structure, mechanism and share accessories.

**RIG & CLICK INSTALLATION**
QUICK & EASY

Foreground **mamboLED**™ is designed with the LED screen rental industry in mind. Its patented KWIK-Connect™ system includes a king pin and Allen key click prelock mechanism to make panel connection faster and more secure. The system also comes with an adjustable hanging bracket that makes panel height adjustment a breeze compared to the conventional way of rigging screens.

**SLIMLINE & LIGHTWEIGHT**
TOUGH & STRONG

Foreground **mamboLED**™ comes with slimline and lightweight cabinets that are made of heavy duty aluminum laser cut to precision. They are designed with easy and speedy rigging in mind. Seamless display coupled with robust circuitry and component assembly, these panels are built to withstand frequent handling and are ready to perform even in harsh environments.

**Pro-SMT II TECHNOLOGY**
HI-TECH COATING

Foreground **mamboLED**™ outdoor series come with Pro-SMT II, a technology utilizing a highly durable coating to protect surface mounted LEDs from moisture and UV harm. This high-tech coating not only makes a smoother and flatter surface protection possible, it also effectively reduces glare and enhances the LED's contrast.

**>1.2 kHz HI-REFRESH RATE**
STATIC & FLICKER-FREE

With high refresh rates of more than 1,200 Hz, Foreground **mamboLED**™ is a broadcast-ready display providing static and flicker-free video images for video recording and live video feeds.

**PIX-LEVEL CALIBRATION**
BRIGHT & COLORFUL

Corrects and configures the display to achieve the best possible visual appearance in terms of luminance (brightness) and colour uniformity, ensuring its performance level is maximized throughout the display life.
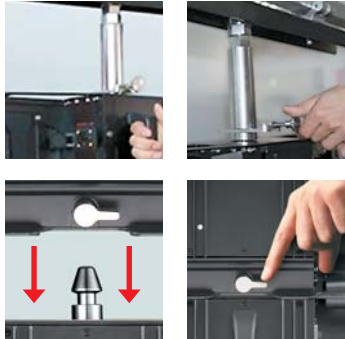
**HT+70™ HI-TEMPERATURE**
OPERABILITY & EFFICIENCY

Supported by an energy efficient system that is rated to withstand high operating temperatures up to +70°C and consumes less power. A 'green' feature that reduces impact on the environment whilst saving you money.
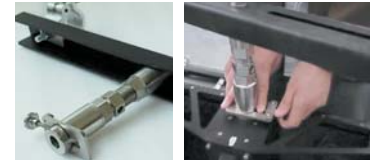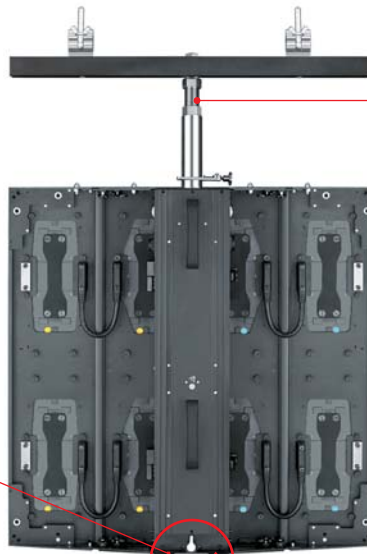
Designed and built with the rental industry in mind. Your Mambo advantages…

**Easy Top Mounting**
An adjustable hanging bracket with clamps facilitates secure and easy mounting to truss or structure
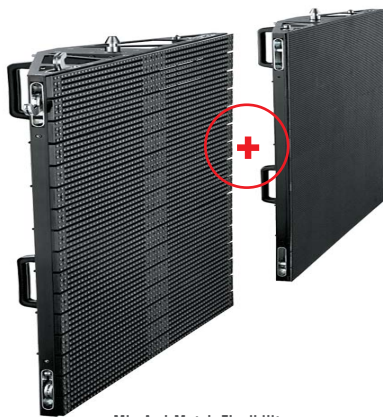
**"Rig and Click" Vertical Interconnect**
Our unique King Pin locking system allows fast and effortless vertical panel connection in a simple 3-step process: align, lift and click & lock

**Hassle-Free Alignment**
Adjustment of panels from top down is much easier and more accurate than aligning the panels from bottom

**Mix And Match Flexibility**
Configure panels with various pixel pitch from 4mm indoor up to 32mm** outdoor all in one screen
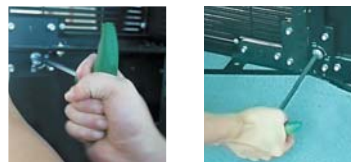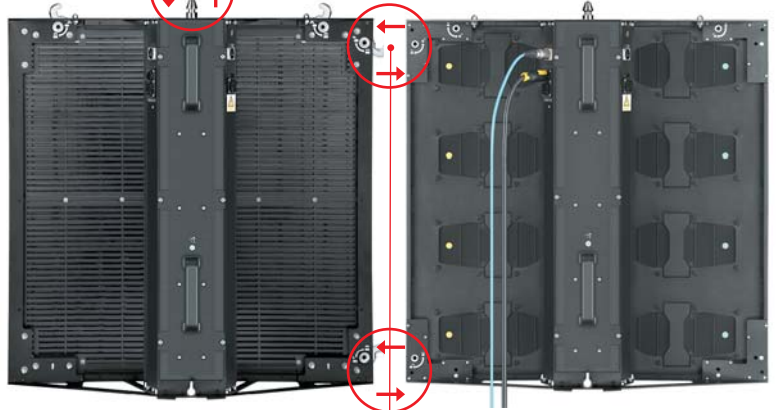
**Quick Horizontal Interconnect**
Align the panels and slightly push them into place until they snap before tightening them with an Allen key
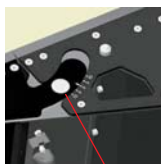
**Curve Set-Up**
Our unique Mambo Twist* mechanism coupled with KWIK-Connect™ lock assembly enables easy creation of convex or concave curved walls with various angles from 4m in diameter
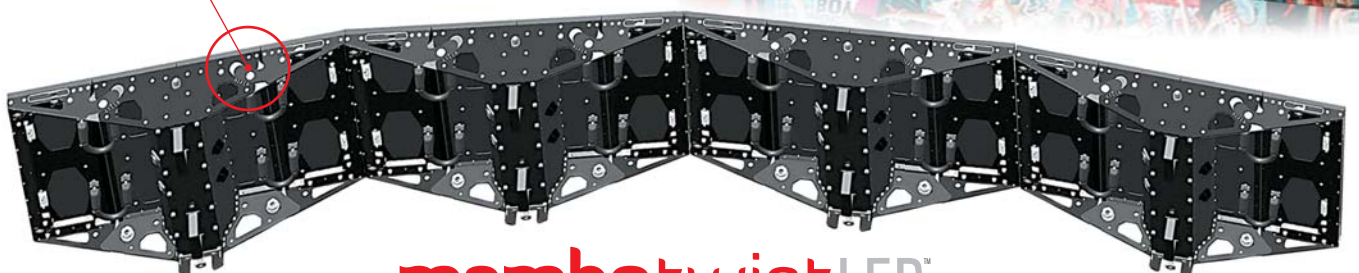
**mambotwistLED™**
Smart, Modular & Curved Display

**High Refresh Rates**
More than 1,200 Hz to provide static and flicker free display for TV camera recording

**Black LED**
Enhanced Contrast and Visual Performance

**Pix-Level Calibration**
Calibratable brightness and colour uniformity

**Stable Signal Transmission**
44 pins connector and bridge board are used instead of ribbon cable enabling more reliable and steadier signal transmission

**Pro-SMT II**
Hi-tech coating to serve as a smoother and flatter LED protection as well as glare reduction and contrast enhancement

**Aluminum Cabinet**
2.5mm thick metal Slim profile and lightweight

**Square Module**
Symmetric design can be used horizontally and vertically

**Advanced Image Processing Platform**
Foreground's powerful image control system includes a digitizer, receiver card and user-friendly Fore-G System Management Software for fast, trouble free set-up and configuration
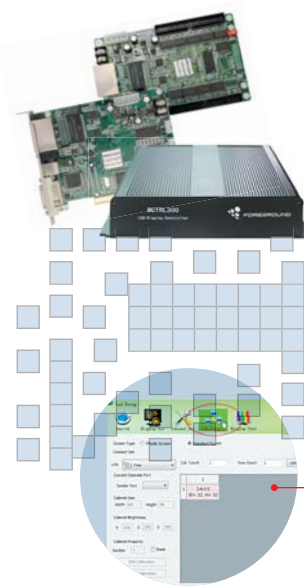
- Allowing total control of your display content at a simple mouse click
- Acceptance of a multitude of data and video sources
- Compatibility with all resolutions and aspect ratios
- Scaling/compressing capability

**Fore-G System Management Software**
Forward compatible Windows based set-up software provides easy to navigate environment and is packed with diagnostic features like Failure Notification, Thermostatic Monitoring, Data Transmission Verification, etc

- Seamless connection between panels
- Hot swappable panels
- Wide and optimized viewing angle
- Fanless design enables silent and maintenance-free operation

**"Rig & Click" Prelock Mechanism and King Pin**
Easy and quick assembling

**Rear Accessibility**
Easy faulty module replacement from the rear even when the display is running

**Control Unit**
Cleaner design with fewer cables reduces failure rate and increases reliability as well as allowing it to be opened while the tile is operating

**Mambo Twist Curved Set-Up Mechanism***
Spice up your imaging landscape via convex or concave curved video walls with angles between 10° and -10° diameter: from 4m
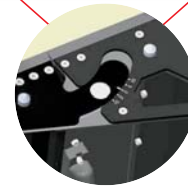
**Lockable Door with Hinges**
Control unit housing with hinged door enables easy access

**Test Button**
Allows RGBW preview testing without connecting to any PC or external data source

**Captive Panel Screw**
Screws are snapped into position by thumb pressure thus easy module replacement without complete removal of screws

**Knob Latch**
Easy turn and lock action allows faster vertical panel connection

**Tough And Rugged Flight Cases**
Ensures safe transportation and storage of your investment

**Ergonomically Placed Handle**
Easy setup by a single person

billboards
arenas
auditoriums
shopping malls
stadiums
squares &
concourses

MAMBO

# mamboLED™

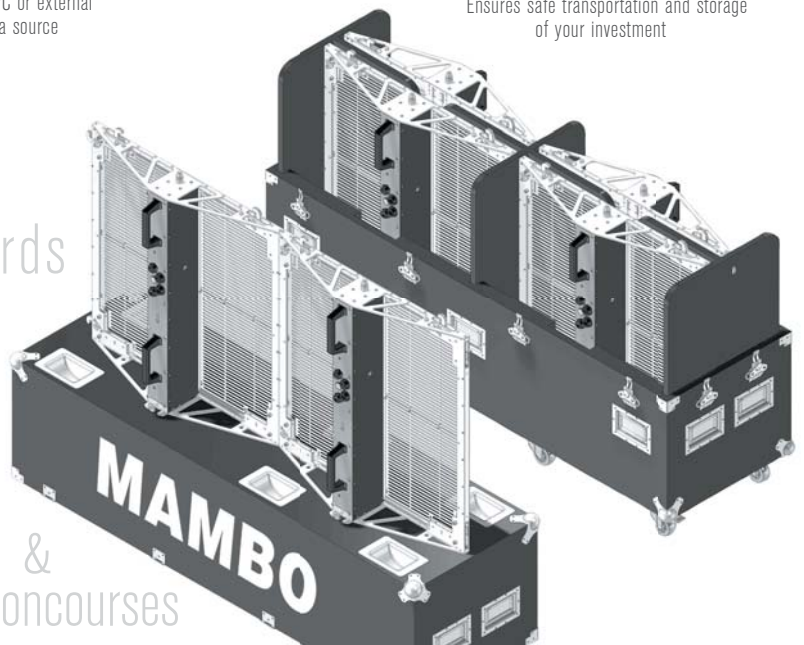| Material Parameters | Mambo-4 | Mambo-6 | Mambo-8 | Mambo-9.6 | Mambo-12 | Mambo-16 |
|---|---|---|---|---|---|---|
| Pixel Pitch | 4.8 mm | 6.0 mm | 8.0 mm | 9.6 mm | 12.0 mm | 16.0 mm |
| Pixel Matrix Per Tile | 80 x 40 | 64 x 32 | 48 x 24 | 40 x 20 | 32 x 16 | 24 x 12 |
| Pixels Per Tile | 3,200 | 2,048 | 1,152 | 800 | 512 | 288 |
| Pixel Density | 40,403 / m² | 27,777 / m² | 15,625 / m² | 10,851 / m² | 6,944 / m² | 3,906 / m² |
| Module Size (mm) | 384 x 192 | 384 x 192 | 384 x 192 | 384 x 192 | 384 x 192 | 384 x 192 |
| Recommended Minimum Viewing Distance | > 4.8 m | > 6 m | > 8 m | > 9.6 m | > 12 m | > 15 m |
| Brightness | ≥ 1,200 cd/m² | ≥ 1,200 cd/m² | ≥ 6,000 cd/m² | ≥ 6,000 cd/m² | ≥ 6,000 cd/m² | ≥ 5,500 cd/m² |
| Colour Temperature | 5,000° – 9,000° K | 5,000° – 9,000° K | 5,000° – 9,000° K | 5,000° – 9,000° K | 5,000° – 9,000° K | 5,000° – 9,000° K |
| Contrast Ratio | 3,000 : 1 | 3,000 : 1 | 2,200 : 1 | 2,200 : 1 | 2,200 : 1 | 2,200 : 1 |
| Viewing Angle Horizontal & Vertical (50% Brightness) | 140° (+20° / -20°) | 140° (+20° / -20°) | 140° (+20° / -20°) | 140° (+20° / -20°) | 140° (+20° / -20°) | 140° (+20° / -20°) |
| Panel Weight | 17.8 kg per panel | 17.8 kg per panel | 18.5 kg per panel | 18.5 kg per panel | 18 kg per panel | 18 kg per panel |
| Panel Dimensions (Width x Height X Depth) | 768 mm x 768 mm x 114 mm | 768 mm x 768 mm x 114 mm | 768 mm x 768 mm x 114 mm | 768 mm x 768 mm x 114 mm | 768 mm x 768 mm x 114 mm | 768 mm x 768 mm x 114 mm |
| Panel Area | 0.589 sq.m. | 0.589 sq.m. | 0.589 sq.m. | 0.589 sq.m. | 0.589 sq.m. | 0.589 sq.m. |
| Panel Material | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum |
| Ingress Protection (Front/Rear) | IP 40 / IP 65 | IP 40 / IP 65 | IP 65 / IP 65 | IP 65 / IP 65 | IP 65 / IP 65 | IP 65 / IP 65 |
| Operating Temperature Range | -10°C to + 70°C | -10°C to + 70°C | -20°C to + 70°C | -20°C to + 70°C | -20°C to + 70°C | -20°C to + 70°C |
| Operating Humidity Range | 20% to 90% RH | 20% to 90% RH | 20% to 90% RH | 20% to 90% RH | 20% to 90% RH | 20% to 90% RH |
| Pixel Type and Configuration (R/G/B) | SMD 3 in 1 3528 | SMD 3 in 1 3528 | SMD 3 in 1 3535 | SMD 3 in 1 3535 | SMD 3 in 1 3535 | SMD 3 in 1 3535 |
| Colours | 281 trillion | 281 trillion | 281 trillion | 281 trillion | 281 trillion | 281 trillion |
| Grey Scale (Linear) | 16 bits x RGB | 16 bits x RGB | 16 bits x RGB | 16 bits x RGB | 16 bits x RGB | 16 bits x RGB |
| Brightness Control | 100 levels | 100 levels | 100 levels | 100 levels | 100 levels | 100 levels |
| Processing Depth | 16 bits (65,536 levels) | 16 bits (65,536 levels) | 16 bits (65,536 levels) | 16 bits (65,536 levels) | 16 bits (65,536 levels) | 16 bits (65,536 levels) |
| Video Frame Rate | 50 Hertz – 85 Hertz | 50 Hertz – 85 Hertz | 50 Hertz – 85 Hertz | 50 Hertz – 85 Hertz | 50 Hertz – 85 Hertz | 50 Hertz – 85 Hertz |
| Display Refresh Rate | >1,200 Hertz | >1,200 Hertz | >1,200 Hertz | >1,200 Hertz | >1,200 Hertz | >1,200 Hertz |
| Drive Mode | 1:16 multiplex | 1:8 multiplex | 1:4 multiplex | 1:4 multiplex | Static Drive | Static Drive |
| Input Voltage (Nominal) | 110 VAC / 220 VAC ± 10% | 110 VAC / 220 VAC ± 10% | 110 VAC / 220 VAC ± 10% | 110 VAC / 220 VAC ± 10% | 110 VAC / 220 VAC ± 10% | 110 VAC / 220 VAC ± 10% |
| Input Power Frequency | 47 Hertz / 63 Hertz | 47 Hertz / 63 Hertz | 47 Hertz / 63 Hertz | 47 Hertz / 63 Hertz | 47 Hertz / 63 Hertz | 47 Hertz / 63 Hertz |
| Input Power (Max) | ≤ 480 Watts/panel | ≤ 480 Watts/panel | ≤ 400 Watts/panel | ≤ 400 Watts/panel | ≤ 550 Watts/panel | ≤ 550 Watts/panel |
| Input Power (Ave.) | ≤ 120 Watts/panel | ≤ 120 Watts/panel | ≤ 170 Watts/panel | ≤ 170 Watts/panel | ≤ 170 Watts/panel | ≤ 170 Watts/panel |
| Lifetime (50% Brightness) | ≥ 100,000 Hours | ≥ 100,000 Hours | ≥ 100,000 Hours | ≥ 100,000 Hours | ≥ 100,000 Hours | ≥ 100,000 Hours |
| Application | Indoor | Indoor | Indoor / Outdoor | Indoor / Outdoor | Indoor / Outdoor Mesh | Indoor / Outdoor Mesh |
| Compliance | | | | | | CE  ETL  UL |

# mambo LED™

**FOREGROUND** SIMPLY BRILLIANT | **specifications**

EMC COMPLIANT | INDOOR | OUTDOOR | RENTAL

| Material Parameters | Mambo-4 | Mambo-6 | Mambo-6 Plus |
|---|---|---|---|
| Pixel Pitch | 4 mm | 6 mm | 6.85 mm |
| Pixel Matrix Per Tile | 96x48 | 64x32 | 56x28 |
| Pixels Per Tile | 4,608 | 2,048 | 1,568 |
| Pixel Density | 62,270/m$^2$ | 27,676/m$^2$ | 21,289/m$^2$ |
| Module Size (mm) | 384 x 192 | 384 x 192 | 384 x 192 |
| Recommended Minimum Viewing Distance | >4 m | >6 m | >7 m |
| Brightness | ≥6,000 cd/m$^2$ | ≥6,000 cd/m$^2$ | ≥6,000 cd/m$^2$ |
| Colour Temperature | 5,000° — 9,000° K | 5,000° — 9,000° K | 5,000° — 9,000° K |
| Contrast Ratio | 2,200 : 1 | 2,200 : 1 | 2,200 : 1 |
| Viewing Angle Horizontal & Vertical (50% Brightness) | 140° (+20° / -20°) | 140° (+20° / -20°) | 140° (+20° / -20°) |
| Panel Weight (per m$^2$) | 31kg/m$^2$ | 31kg/m$^2$ | 31kg/m$^2$ |
| Panel Dimensions (Width x Height X Depth) | 768 mm x 768 mm x 114 mm | 768 mm x 768 mm x 114 mm | 768 mm x 768 mm x 114 mm |
| Panel Area | 0.589 sq.m. | 0.589 sq.m. | 0.589 sq.m. |
| Panel Material | Aluminum | Aluminum | Aluminum |
| Ingress Protection (Front/Rear) | IP 65 / IP 54 | IP 65 / IP 54 | IP 65 / IP 54 |
| Operating Temperature Range | -20°C to + 50°C | -20°C to + 50°C | -20°C to + 50°C |
| Operating Humidity Range | 20% to 90% RH | 20% to 90% RH | 20% to 90% RH |
| Pixel Type and Configuration (R/G/B) | Water Proof SMT LEDs | Water Proof SMT LEDs | Water Proof SMT LEDs |
| Colours | 281 trillion | 281 trillion | 281 trillion |
| Grey Scale (Linear) | 12-16bits x RGB | 12-16bits x RGB | 12-16bits x RGB |
| Brightness Control | 100 levels | 100 levels | 100 levels |
| Processing Depth | 16 bits (65,536 levels) | 16 bits (65,536 levels) | 16 bits (65,536 levels) |
| Video Frame Rate | 50 Hertz — 85 Hertz | 50 Hertz — 85 Hertz | 50 Hertz — 85 Hertz |
| Display Refresh Rate | >1,200 Hertz | >1,200 Hertz | >1,200 Hertz |
| Drive Mode | 1:8 multiplex | 1:8 multiplex | 1:8 multiplex |
| Input Voltage (Nominal) | 110 VAC / 220 VAC ± 10% | 110 VAC / 220 VAC ± 10% | 110 VAC / 220 VAC ± 10% |
| Input Power Frequency | 47 Hertz / 63 Hertz | 47 Hertz / 63 Hertz | 47 Hertz / 63 Hertz |
| Input Power (Max) | ≤400 Watts/panel | ≤400 Watts/panel | ≤400 Watts/panel |
| Input Power (Ave.) | ≤170 Watts/panel | ≤170 Watts/panel | ≤170 Watts/panel |
| Lifetime (50% Brightness) | ≥100,000 Hours | ≥100,000 Hours | ≥100,000 Hours |
| Application | Indoor / Outdoor | Indoor / Outdoor | Indoor / Outdoor |
| Compliance | | | |

CE | ETL LISTED | UL

Features and specifications are subject to change without prior notice. * Please specify when placing order. *

Complies with the essential standard/requirements of: UL

**FOREGROUND D ISPLAY LIMITED**

Block A, 2nd Floor, Fenda Hi -Tech Zone, Sanwei Xixiang, Baoan, Shenzhen, China. 518126

Tel: +86 755 2748 6628 ·
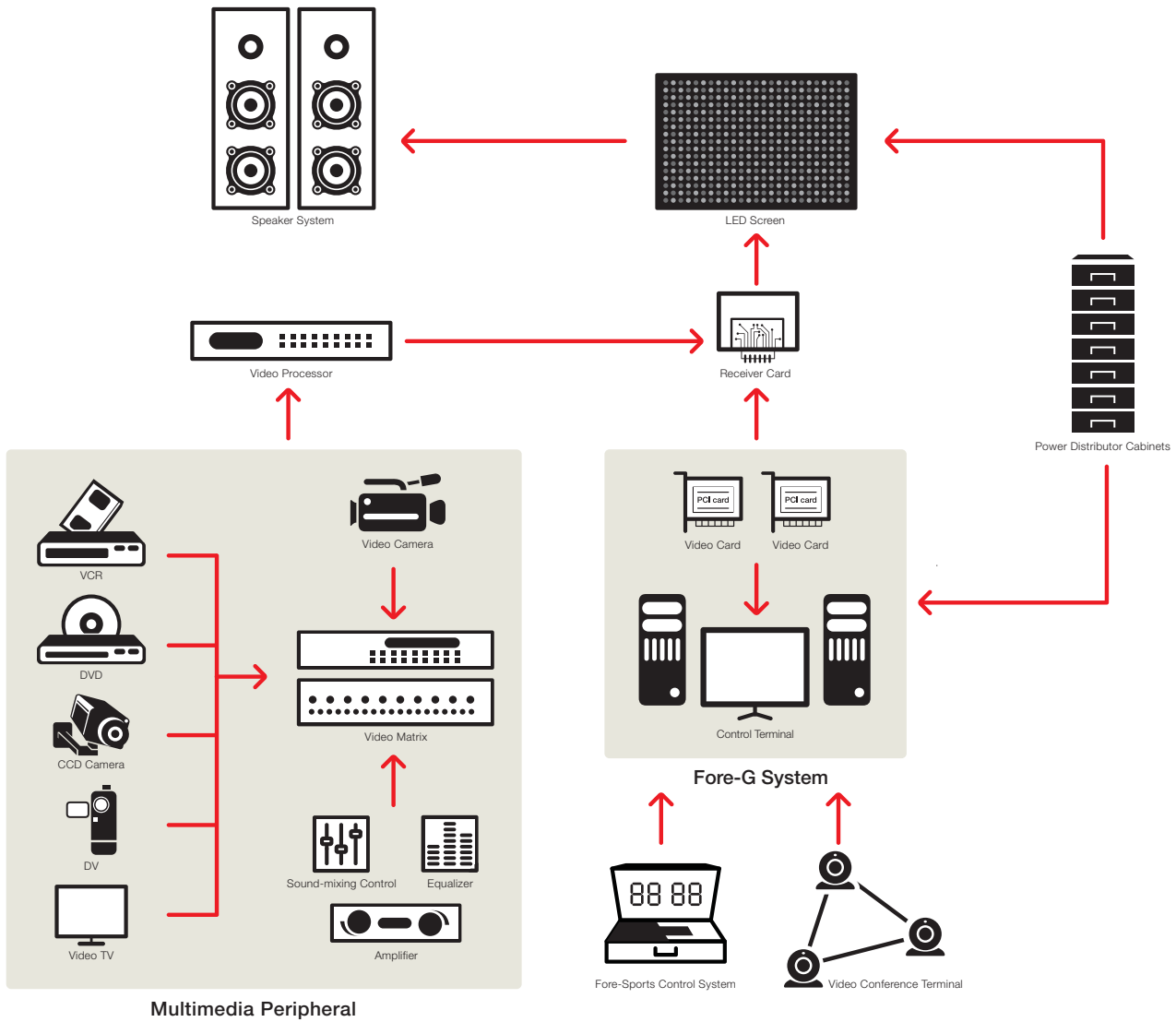
Fax: +86 755 2748 6328 ·

E-Mail: sales@foreground.cc

www.foreground.cc

™ **FOREGROUND**

# Network Multimedia System Connections

Speaker System

LED Screen

Video Processor

Receiver Card

Power Distributor Cabinets

VCR

Video Camera

DVD

Video Matrix

CCD Camera

PCI card
Video Card

PCI card
Video Card

DV

Sound-mixing Control

Equalizer

Control Terminal

Video TV

Amplifier

**Fore-G System**

**Multimedia Peripheral**

Fore-Sports Control System

Video Conference Terminal

## ACCESSORIES

**Main Data Cable**
• Length: 15 m

**Data Interconnect Cable**
• Length: 1.0 m

**Main Power Cable**
• Length: 15 m
• Support up to 10 cabinets

**Power Interconnect Cable**
• Length: 1.0 m

**LED External Sending Box**

760mm

35mm

**T-shaped Hex Wrench**

**Adjustable Hanging Bracket***
• 2mm heavy-duty gauge aluminum bar
• Support up to 14 cabinets
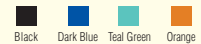• 7mm slot for adjusting the shackle and hex nut

1,670mm

990mm

480mm

495mm

**Flight Case**
• Capacity: 0.8 m³
  (Holds up to 4 cabinets)
• Weight: 185 KG
  (Flight case + 4 cabinets)
• Available in 4 colour choices

Black    Dark Blue    Teal Green    Orange

**Adjustable Floor Mounting***
• Lightweight, strong and sturdy floor stand
• 576mm X 550mm X 3,222mm
• Holds up to 4 cabinets vertically

*Non-standard accessories are available as separately orderable items to complement our LED display solutions*

Complies with the essential standard/requirements of:

CE    ETL LISTED    UL

## FOREGROUND DISPLAY LIMITED

Block A, 2nd Floor, Fenda Hi-Tech Zone, Sanwei Xixiang, Baoan, Shenzhen, China. 518126
Tel: +86 755 2748 6628  •  Fax: +86 755 2748 6328  •  E-Mail: sales@foreground.cc

**www.foreground.cc**

™

**FOREGROUND**