# NEC LED Series

## LED-06AF1 (Indoor) & LED-15BF1 (Outdoor)

**Simple and easy tiling** for an unlimited amount of configurations to meet the needs of applications required for both indoor and outdoor locations

**IP65 protection rating on the LED-15BF1** ensures that outdoor elements do not become a factor

**Auto video wall setup** helps the installation move faster and easier, removing the hassle of predetermining the matrixing normally found in splitting the signal into its respective quadrant

**Long-life Nichia LED lamp** provides for one of the best total costs of ownership available for an LED video wall

**Serviceable from the front or back** makes for effortless repairs in the field

**High image quality**
- Color & brightness uniformity between modules enhances the video wall image using Nichia's LED
- 14-bit/16-bit color processing
- Dot-to-dot correction during production produces extremely high dot pitch accuracy
- Industry-leading contrast using black LED and improved shader (LED-06AF1), which reduces undesirable reflections

**Unrivaled brightness** eliminates concerns of the image being washed out from indoor lighting or sunlight

¤ **Video Processor**
- Adaptive Deinterlacing - Multi-field, motion-adaptive deinterlacing (480i, 576i, 1035i 1080i) with dynamic edge-detection and directional-interpolation, robust film mode detection and processing
- Broadcast-quality color processing created with full 10-bit, 4:4:4 color processing for greater color precision and dynamic range, resulting in unparalleled images. Internal calculations with up to 24-bit precision.
- Frame Rate Conversion - Tearless frame rate conversion to/from any refresh rate, enabling the connection of any source to any display
- Image Enhancement Algorithm allows selectable noise reduction without significant loss of detail and detail enhancement to sharpen incoming images that, in their original form, are soft.
- Low Latency Processing - the lowest-latency image processing on the market at < 2 frames latency and < 1 frame when timing is locked
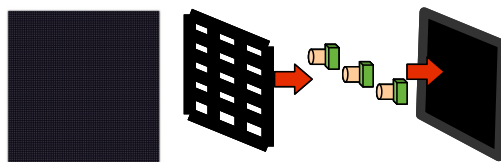
¤ **Control Software**
- Auto mapping for pixel allocation places the incoming pixels to their corresponding LED pixels
- Auto locating ensures that each module receives the correct image quadrant
- Dimming controls within the control software determines the brightness of each module in the unlikely event the white balance is perfect
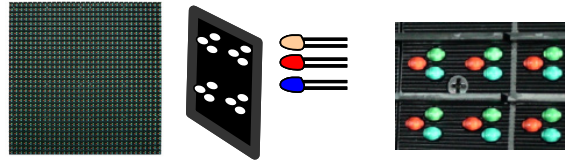
**PIXEL CONFIGURATIONS**

**LED-06AF1**
*3-in-1 black SMD*

**LED-15BF1**
*1R/1G/1B Throw-Hole*

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## Specifications for LED-06AF1/LED-15BF1

| MODEL | LED-06AF1 | LED-15BF1 |
|---|---|---|
| Pixel Pitch | 6.25mm | 15.625mm |
| Number of Pixels | 80 dot x 80 dot | 32 dot x 32 dot |
| Pixel Configuration | 3-in-1 black SMD | 1R/1G/1B Through-Hole |
| Brightness | 2000 cd/m² ± 5% (6500K) | 7500 cd/m² ± 5% (6500K) |
| Contrast Ratio | 3500:1 | 4500:1 |
| Dimming Capability | 64 Level | |
| Color Processing | 14-bit | 16-bit |
| Viewing Angle | Hor. ±75°, Vert. ±70° (1/2 brightness) | Hor. ±75°, Vert. +15°/-30° (1/2 brightness) |
| Refresh Rate | > 800 Hz | |
| Interface | DVI-D DualLink (For Video & Control) | |
| Power In/Out | In x 1, Out x 1 | |
| Power Source | 100 ~ 240V AC, 50/60Hz | |
| Power Consumption (Normal/Max) | 235W (Full White) | 135W (Full White) |
| Dimensions (WxHxD) | 19.7 x 19.7 x 6.7 in. / 500 x 500 x 170mm | 19.7 x 19.7 x 7.4 in. / 500 x 500 x 188mm |
| Weight | 28 lbs. / 12.7 kg | 30.9 lbs. / 14 kg |
| IP Level | Indoor Use Only | IP65 |
| Lifetime | > 100,000 hrs. (until 1/2 brightness) | |
| Operating Temperature | -4 ~ 104°F / -20 ~ 40°C | -4 ~ 122°F / -20 ~ 50°C |
| Storage Temperature | -22 ~ 140°F / -30 ~ 60°C | |
| Operating Humidity | 10 ~ 90% | |
| Storage Humidity | 10 ~ 90% | |
| Regulations | UL 60950-1, CAN/CSA-C22.2 No.60950-1, FCC CFR Title 47 Part 15 Subpart B, Class A, EN61000-3-3, IEC 61000-4-8 | |
| **ACCESSORIES** | | |
| Included | User manual, DualLink DVI-D cable, power cable for daisy chain, AC cable | |
| Optional | Video distributor (LED-VD1), Video processor (LED-VP1), LED Wall Manager (LWM), LED Content Manager (LCM), LED Frame (LED-FM-FRAME) | |
| **WARRANTY/SERVICE** | | |
| Limited Warranty | 3 years, parts and labor | |

## VIDEO DISTRIBUTOR (LED-VD1)

| | | Spec | Remarks |
|---|---|---|---|
| Support VideoTiming | | 1024 x 768 @ 60Hz | with EDID |
| Video Input | | DVI-D x 1 (w/ HDCP) | w/ HDCP 1024x768@60Hz |
| Video Out | | DVI-D x 8 | For LED Module (w/ RS-422 DualLink) |
| | | DVI-D x 1 | For Distributor cascade connection or Sub monitor |
| Control In | | RJ45 (RS-485) | from PC/Server (Half-duplex 38400bps) |
| Control Out | | RJ45 (RS-485) | for another Distributor cascade (Half-duplex 38400bps) |
| | | DVI-D x 8 (RS-422) | for LED Module (DualLink) |
| Power Source | | AC 100 ~ 240V, 50/60Hz | |
| Power Consumption | | 15W | |
| Dimension (WxDxH) | (Net) | 18.9 x 12.8 x 3.9 in. / 479.2 x 325.1 x 98.2mm | |
| | (Gross) | 23 x 16.6 x 8 in. / 583 x 421 x 202mm | |
| Weight | (Net) | 10.1 lbs. / 4.6 kg | |
| | (Gross) | 14.8 lbs. / 6.7 kg | |
| Temperature (Operation/Storage) | | -20 ~ 40°C / -30 ~ 60°C | |
| Humidity (Operation/Storage) | | 10 ~ 90% / 10 ~ 90% | |
| Certification / Regulation | | UL/C-UL, VCCI, FCC class A, Canadian DOC, CE, TUV-GS, RoHS (EU), US Mercury | |

## VIDEO PROCESSOR (LED-VP1)

| | | Spec | Remarks |
|---|---|---|---|
| Video Input | | 5RCA x 1 | RGB or Component |
| | | 5BNC x 1 | RGB or Component |
| | | Mini D-SUB 15pin x 1 | RGB or Component |
| | | HDMI x 2 | |
| | | RCA x 1 | Composite Video |
| | | Mini DIN 4pin x 1 | S-Video |
| Video Out | | DVI-D x 1 (w/ HDCP) | for Video Distributor (1024x768@60Hz) |
| Control In | | D-SUB 9pin (RS-232) | from PC/Server (19200bps) |
| User Interface | | PWR/MENU/SELECT/INPUT/ RATIO/ PATTERN | On Front Panel |
| Indicators | | STAND-BY/ ISSUE/RUN | LED Lamp |
| Power Source | | AC 100 ~ 240V, 50/60Hz | |
| Power Consumption | | 16W | |
| Dimension (WxDxH) | (Net) | 18.9 x 13.4 x 3.7 in. / 480 x 340 x 94.1mm | |
| | (Gross) | 23 x 16.6 x 8 in. / 583 x 421 x 202mm | |
| Weight | (Net) | 7.1 lbs. / 3.2 kg | |
| | (Gross) | 11.7 lbs. / 5.3 kg | |
| Temperature (Operation/Storage) | | 5 ~ 35°C / 0 ~ 50°C | |
| Humidity (Operation/Storage) | | 10 ~ 90% / 10 ~ 90% | |
| Certification / Regulation | | UL/C-UL, VCCI, FCC class A, Canadian DOC, CE, TUV-GS RoHS(EU), US Mercury | |

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