

# EK-820U

WUXGA Large Class 1 chip DLP Projector

**EIKI**  
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## The Top-Level 1 chip DLP Laser Projector



### Outstanding Features

- High Brightness 10,000lm
- Digital Terminal  
(HDBaseT, HDMI IN/OUT, 3G-SDI IN, DVI-D IN)
- Flexible Installation
  - Flexible Installation up to 360-degree (vertically and horizontally) and Portrait Projection
  - Lens Shift H: +/- 15 %, V: +/- 50 %
  - Keystone Correction H: +/- 20 °, V: +/- 20 °, 4-Corner
  - Geometric Correction and Blending Function
  - 6 Optional Lenses including Ultra Short Throw Lens
- Sealed Optical Engine design (IP6X, No ingress of dust) without filters
- Quiet Operation: Fan Noise 32dB (Eco) / 35dB (Normal)
- High Color Reproduction  
It covers 98% of the color space for the Rec709 (HDTV primary color space) with blue and red laser diode.
- 20,000 Hours Light Source Life with Laser Technology

### ■ Portrait Projection



### ■ 360-degree Projection



### ■ 3G-SDI IN



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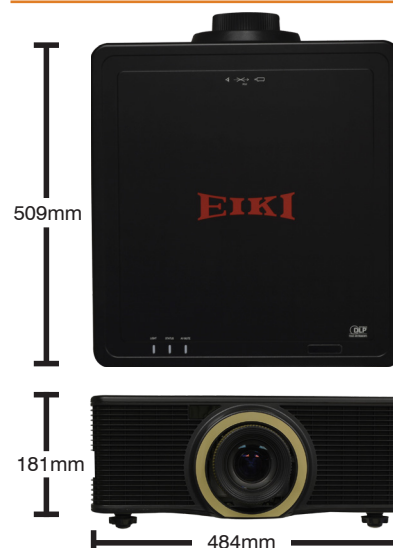
## Specifications

|                                          |                   |                                                                                                                                                      |
|------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model (EAN)                              |                   | EK-820U (4571194679175)                                                                                                                              |
| Display Type                             |                   | 0.67" 1 chip DMD                                                                                                                                     |
| Resolution                               |                   | WUXGA (1920 x 1200)                                                                                                                                  |
| Aspect Ratio                             |                   | 16:10                                                                                                                                                |
| Brightness (ANSI)                        |                   | 10,000 lm                                                                                                                                            |
| Contrast Ratio (with Extreme Black mode) |                   | 100,000:1                                                                                                                                            |
| Projection Light Source                  |                   | Laser (Blue and Red LD) + Phosphor                                                                                                                   |
| Light Source Life                        |                   | 20,000 hours                                                                                                                                         |
| Image Diagonal                           |                   | Depends on lens (See below table)                                                                                                                    |
| Zoom & Focus                             |                   | Powered                                                                                                                                              |
| Throw Ratio                              |                   | Depends on lens (See below table)                                                                                                                    |
| Lens Shift                               |                   | V: +/- 50 %, H: +/- 15% (Powered)                                                                                                                    |
| Keystone Correction                      |                   | V: +/- 20 degrees, H: +/- 20 degrees, 4-corner                                                                                                       |
| Projection Elevation Adjustment          |                   | Up to 5 degrees                                                                                                                                      |
| Scanning Frequency                       |                   | H Sync: 15, 31 - 91.4 kHz, V sync: 24 - 30, 47 - 120 Hz                                                                                              |
| Dot Clock                                |                   | 162 MHz                                                                                                                                              |
| Input Signals - Computer                 |                   | WUXGA (1920 x 1200) - VGA ( 640 x 480)                                                                                                               |
| Input Singals - Video                    |                   | 1080 i/p, 720p, 576i/p, 480i/p                                                                                                                       |
| Terminal                                 | 3G-SDI In         | BNC x 1                                                                                                                                              |
|                                          | HDBaseT In        | RJ45 x 1                                                                                                                                             |
|                                          | HDMI In           | HDMI (version 1.4) x 1                                                                                                                               |
|                                          | DVI In            | DVI-D x 1                                                                                                                                            |
|                                          | VGA In            | D-Sub 15 x 1                                                                                                                                         |
|                                          | LAN               | RJ45 x 1                                                                                                                                             |
|                                          | Monitor Out       | D-Sub 15 x 1, HDMI (version 1.4) x 1                                                                                                                 |
|                                          | Wi-Fi             | USB Type A x 1                                                                                                                                       |
|                                          | 3D SYNC In        | MINI DIN 3 pin x 1                                                                                                                                   |
|                                          | 3D SYNC Out       | MINI DIN 3 pin x 1                                                                                                                                   |
|                                          | Service           | MINI USB x 1                                                                                                                                         |
|                                          | RS232C            | D-sub 9 x 1                                                                                                                                          |
|                                          | Remote Control In | 3.5mm Mini Jack in x 1                                                                                                                               |
| Fan Noise (Eco / Normal)                 |                   | 32 dB / 35 dB                                                                                                                                        |
| Dimensions (W x H x D)                   |                   | 484 x 181 x 509 mm                                                                                                                                   |
| Weight (without Lens)                    |                   | 23.4 kg                                                                                                                                              |
| Power Requirements                       |                   | AC 100 - 240 V, 50/60 Hz                                                                                                                             |
| Power Consumption (Eco / Normal)         |                   | 480 W / 945 W                                                                                                                                        |
| Thermal Dissipation                      |                   | 3213 BTU / hour                                                                                                                                      |
| Standard Accessories                     |                   | AC Power Cord x 2 (U.S. A. & Euro),<br>VGA cable x 1, Lens Cover x 2,<br>Remote Control (with AAA batteries x 2),<br>Quick Start Guide, Safety Guide |

## Optional Lenses

| Model #        | AH-A25010                                                                           | AH-A22010A                                                                          | AH-A22020                                                                           | AH-A22050                                                                            | AH-A21010                                                                             | AH-A23010                                                                             |
|----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Image          |  |  |  |  |  |  |
| Throw Ratio    | 0.36:1                                                                              | 0.75 - 0.95:1                                                                       | 0.95 - 1.22:1                                                                       | 1.22 - 1.53:1                                                                        | 1.52 - 2.92:1                                                                         | 2.90 - 5.50:1                                                                         |
| Throw Distance | 0.96 - 2.65 m                                                                       | 0.79 - 6.21 m                                                                       | 1.01 - 7.98 m                                                                       | 1.29 - 9.93 m                                                                        | 1.61 - 19.00 m                                                                        | 3.18 - 34.77 m                                                                        |
| Zoom Ratio     | -                                                                                   | x 1.26                                                                              | x 1.28                                                                              | x 1.25                                                                               | x 1.9                                                                                 | x 1.9                                                                                 |
| Screen Size    | 120" - 350"                                                                         | 50" - 300"                                                                          |                                                                                     |                                                                                      |                                                                                       |                                                                                       |
| Focal Length   | 9.49 - 9.55 mm                                                                      | 11.11 - 14.06 mm                                                                    | 14.03 - 17.96 mm                                                                    | 18.07 - 22.59 mm                                                                     | 22.56 - 42.87 mm                                                                      | 42.60 - 80.90 mm                                                                      |
| F Number       | 2.4                                                                                 | 2.30 - 2.53                                                                         | 2.30 - 2.57                                                                         | 2.00 - 2.32                                                                          | 2.30 - 3.39                                                                           | 2.30 - 2.74                                                                           |

## Dimensions



## Remote Control



## Terminals



- ① 3G-SDI IN ② DVI-D ③ VGA IN ④ VGA OUT  
 ⑤ HDMI OUT ⑥ HDMI IN ⑦ 3D SYNC OUT ⑧ HDBaseT  
 ⑨ LAN ⑩ RS-232C ⑪ REMOTE IN ⑫ 3D SYNC IN  
 ⑬ USB Type A (for Wireless LAN) ⑭ MINI USB (for SERVICE)

## Keypad



## Optional Wi-Fi Dongle



AH-B34020