# VISUAL PRESENTER

**P100HD Speciﬁcations**

- **Power source:** DC12V (AC adapter: AC100 to 240V)
- **Power consumption:** 26.4W
- **Dimensions:** W 457 × D 519 × H 587 [mm] (Set up)
  - W 457 × D 567 × H 137 [mm] (Folded)
- **Weight:** Approx. 17.4 lbs (7.9kg) (Main unit only)
- **Input selection:** Main camera / External ×4
- **Output terminal:** RGB Mini Dsub 15P connector, female x1, HDMI Type A×1, Line φ3.5mm stereo mini jack ×2
- **Input terminal:** RGB Mini Dsub 15P connector, female ×2, HDMI Type A×2, Mic In/ Line In terminal (shared) φ3.5mm stereo mini jack ×1, Line φ3.5mm stereo mini jack ×2
- **Ext. control:** USB device (2.0 compliant) Type mini Breceptacle ×1, RS-232C Dsub9P connector male ×1, Ethernet RJ45 connector ×1
- **Memory interface:** SD card slot ×1, USB host (2.0 compliant) Type A receptacle ×1
- **Lens:** f = 4.9mm ~ 78.4mm (16x zoom) F2.7
- **Frame rate:** 30fps
- **Shooting area:**
  - 1080p: Max. 400mmx223mm, Min. 27mm15mm
  - 720p: Max. 400mmx223mm, Min. 27mm15mm
  - SXGA: Max. 400mmx320mm, Min. 27mm22mm
  - WXGA: Max. 400mmx248mm, Min. 27mm17mm
  - XGA: Max. 400mmx299mm, Min. 27mm20mm
- **Limit of focus adjustment:**
  - with Close-up lens
    - TELE: 250mm ~ 440mm from Close-up lens
    - WIDE: 90mm ~ 440mm from Close-up lens
  - without Close-up lens
    - TELE: 500mm ~ ∞ from surface of Zoom lens
    - WIDE: 100mm ~ ∞ from surface of Zoom lens
- **Optical zoom:** 16 x
- **Digital zoom:** 8 x
- **Focus:** Auto / Manual / Zoom Sync
- **Image pick-up device:** 1/2.8" CMOS
- **Total pixels:** Horizontal 2144, Vertical 1588
- **Effective pixels:** Horizontal 1920, Vertical 1536
- **Sync. system:** Internal
- **Resolution:** Analog RGB Horizontal 800TV lines or more, Vertical 800TV lines or more
- **Analog RGB output:**
  - SXGA: 1280 × 1024 @ 60Hz
  - Horizontal frequency: 63.981kHz
  - Vertical frequency: 60.020Hz
  - WXGA: 1280 × 800 @ 60Hz
  - Horizontal frequency: 49.306kHz
  - Vertical frequency: 59.910Hz
  - XGA: 1024 × 768 @ 60Hz
  - Horizontal frequency: 48.363kHz
  - Vertical frequency: 60.004Hz
  - 1080p: 1920 × 1080 @ 60Hz
  - Horizontal frequency: 67.50kHz
  - Vertical frequency: 60.00Hz
  - 720p: 1280 × 720 @ 60Hz
  - Horizontal frequency: 45.00kHz
  - Vertical frequency: 60.00Hz
- **HDMI output:**
  - Image output: 1080p 720p
  - Audio output: PCM 44.1kHz sampling
- **White balance:** Auto / One-Push / Manual
- **Brightness control:** Auto(with level adjustment)/ Manual
- **Positive / Negative conversion:** Provided
- **Color / B&W selection:** Provided
- **Image rotation:** 0° / 180°
- **Image mode:** Text1 / Text2 / Text3 / Graphics1 / Graphics2
- **Gamma setting:** Possible (only for Graphics1 mode)
- **Edge effect:** Provided (only for Graphics1 mode)
- **Pause:** Provided
- **Still image save:** Provided
- **Live image save:** Provided
- **Flicker correction:** 60Hz / 50Hz
- **Upper lighting unit, Base lighting unit:** White LED
- **Accessories:**
  - IR Wireless Remote Control, strap, RGB cable, USB cable, AC adapter, Power cord, AAA batteries, Image Mate instruction manual CD-ROM, LAN cable, ferrite core (for MIC IN cable and AUDIO OUT cable), important safeguards, Image Mate installation manual, Warranty card
- **Network:**
  - **Interface:** 10Base - T/100Base - TX (RJ-45)
  - **Supporting protocol:** IP (IPv4), ARP, ICMP, TCP, HTTP
  - **Recommended browser:**
    - Windows: Internet Explorer 6.0 or later (Windows)
    - Safari: 5.0 or later (Mac)
  - **Supporting OS:**
    - Windows XP (SP3) / Vista (SP2) / 7 (SP1) /8
    - Mac OS X 10.6.8 / 10.7.5 / 10.8.x
  - **Java:** JRE (Java Runtime Environment) 1.6.0_29 or later
  - **Connection port number:** HTTP : 80
  - **Language:** Japanese / English
  - **Image format:** Motion-JPEG
  - **Image size:**
    - 1080p Horizontal 1920, Vertical 1080
    - 720p Horizontal 1280, Vertical 720
    - SXGA Horizontal 1280, Vertical 1024
    - WXGA Horizontal 1280, Vertical 800
    - XGA Horizontal 1024, Vertical 768
  - **Frame rate:** Max. approx. 5fps
  - **Simultaneous connection at LIVE view:** 5 clients
  - **Still image format:** JPEG
  - **Remote controllable functions:** ZOOM, LAMP, BRIGHTNESS, FOCUS, TEXT/GRAPHICS, IMAGE ROTATION, POSI/NEGA, COLOR/B&W etc.

**Design and specifications are subject to change without prior notice. The images in this brochure are simulated.**

**ELMO’S Helping to Provide a Greener Future for Our Children**

This ELMO product complies with RoHS Directive 2002/95/EC (Restriction Of the use of certain Hazardous Substances in electronic equipment). This compliance helps to ensure a healthier and greener environment for all our children.

**ISO 9001**
**ISO 14001**

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This brochure is printed on recycled paper with environmentally friendly vegetable-based inks.
Vivid expression enhances the understanding of the audience. The P100HD is fully integrated with an LCD Touch Panel, ensuring easy operation in every situation.

In a lecture or a seminar
Displaying enlarged images of your teaching materials is the most popular application of the document camera.

In a video conference
Displaying enlarged images of your teaching materials is the most popular application of the document camera.

In an internal meeting
Displaying new product samples, confidential or restricted documents.

For introducing products and demonstrations
Demonstrate how to use a keyboard, a smartphone or a tablet by showing the finger movements.

For inspection or quality control in production lines
Display enlarged images of small parts, detailed wiring or fine print on a circuit board.

As a useful rental item for events and conferences
The document camera is a favorite item for presenters at seminars and conferences.

3.4 Megapixel CMOS Image Sensor & HDMI
The P100HD’s megapixel image sensor captures everything from fine print to three-dimensional objects in 1080p full HD.

Powerful Optical & Digital Zoom
16x Optical zoom x 8x Digital zoom = 128x Total zoom
The powerful Optical & Digital zoom ensure that all materials, such as detailed craftsmanship or artwork, tiny components on circuit boards, or small print in books are clearly displayed when enlarged.

Smooth Movement with Audio at 30fps
The P100HD can capture and reproduce movement with audio at 30fps (frames per second) for the display of truly smooth, natural-looking motion.

Flexible System Configuration
The P100HD is equipped with a built-in switcher function. It can handle different image signals such as RGB and HDMI and control multiple devices. By using the ELMO CRA-1 Wireless Tablet, you can annotate on live images captured by the P100HD while the image is displayed on a large screen. The CRA-1’s wireless adapter can be plugged directly into the P100HD, allowing direct annotation on live images from anywhere in the room without having to use a computer.

Network Server Function
By connecting the P100HD to a computer using a LAN cable, you can remotely control the P100HD and view or capture the live image via web browser.

Save Presentations on External Memory
Both video files (mp4) and still images (JPEG) can be saved on a USB flash drive or SD memory card for future use. The saved image files can be displayed as individual files or as slideshow without using a computer or other hardware. The audio from the built-in microphone and the external audio input can be output from the audio line output and the HDMI output.

Built-in Touch Panel LCD monitor
P100HD’s Touch Panel LCD monitor is intuitive and easy to use. It allows you to straighten out the position of your materials without turning around to look at the image on the screen behind you.

Simple Operation with Wireless Remote Control
The uniquely designed remote control allows users to control the P100HD from almost anywhere in the room.