Driven by a Professional Engine
That Fills Ultra-Large Screens with Detailed 3D Images.

Ultra-high-speed drive technology produces stunning 3D images
The new professional-quality engine redefines image quality
Advanced customization lets you create your own personal theatre room
Panasonic FULL HD 3D home theatres invite you to a new world of real-life 3D

Watching 3D images on a large-screen display now has all the power of viewing them in a cinema. Panasonic’s large-screen FULL HD 3D displays will create an entirely new visual space in your theatre room — letting you experience 3-dimensional scenes and the thrill of visual immersion. The professional-quality engine that was newly added to the VX200 Series reproduces source images so faithfully, you enjoy a whole new level of image quality. And it combines with unique Panasonic 3D technology to produce the kind of large, true-to-life 3D images that only a plasma display can achieve.
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Professional Picture Quality
for Your Theatre Room

103"-inch
TH-103VX200W

The 103-inch display produces a truly dynamic picture. Enjoy true-to-life 3D images on a screen that covers almost the entire wall.

85"-inch
TH-85VX200W

The 85-inch display's thin aluminum frame bezel leaves no reflections in the picture, and blends nicely with room furnishings.
Frame Sequential technology brings powerful FULL HD 3D images to your home theatre

FULL HD signals for each eye — Frame Sequential technology

The technology in which the left-eye and right-eye 3D images are sent to the viewer is the key to 3D image quality. For this, FULL HD 3D uses something called the Frame Sequential technology. The left and right images are alternately displayed at high speed 60 frames per second for each eye x 2 = 120 frames per second. When viewed with special glasses that open and close shutters in sync with the displayed frames, the brain creates the sensation of depth from the visual disparity to form 3D images.

Ultra-high-speed drive technology achieves clear 3D with minimal double image

3D images require a display speed of 120 frames per second (fps), which is twice the ordinary speed. A panel with slow response simply cannot keep up with the necessary image processing. As a result, a double image will appear when the images for the left and right eyes overlap on the screen (also called crosstalk). In addition to new short-decay-time phosphors that reduce the afterglow time to 1/3, a high-precision Motion Vector Prediction function helps to achieve highly precise illumination.

High-speed drive technology, which shortens the new luminous time to 1/4 compared to previous models, also minimizes double images even on large screens to produce clear and detailed 3D images.

High-speed illumination achieved with high-precision Motion Vector Prediction

The VX200 Series features the world's first high-precision Motion Vector Prediction function. Its precise luminous control predicts front/back movement as well as left-right and diagonal movement to increase the drive speed and produce clear 3D images even on a large screen.

High-precision 3D Eyewear enhances 3D image depth

High-precision timing control for the opening and closing of the shutters minimizes unwanted light leakage to enable clear 3D viewing. The remarkable beauty of the FULL HD 3D images is further ensured by employing only Panasonic components — both 3D plasma display and 3D Eyewear — to achieve precisely linked operation.
Frame Sequential technology brings powerful FULL HD 3D images to your home theatre

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**Ultra-high-speed drive technology**

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**High-speed illumination achieved with high-precision Motion Vector Prediction**

The VIERA Series features the world’s first high-precision Motion Vector Prediction function. Its precise luminous control predicts horizontal movement as well as left and right diagonal movement to increase the drive speed and produces clear 3D images even on a large screen.

**3D 24p Smooth Film enhances 3D image depth**

In order to show smooth 24-fps images, like those in film-based movies, the same images must be repeatedly alternated two or three times. However, because this sequence differs from nature vision, it was previously impossible to achieve complete smoothness. This is enhanced by the 24p Smooth Film function, which predicts movements and creates new frames between the original frames to achieve smoother 3D image reproduction. The technology is also applied to 3D images. New frames are created between the original frames for both left and right eyes, to produce exceptional three-dimensional depth.

**High-precision 3D Eyewear control technology**

Highly precise timing control for the opening and closing of the shutters minimizes unwanted light leakage to enable clear 3D viewing. The remarkable beauty of the FULL HD 3D images is further ensured by employing only Panasonic components — both 3D plasma display and 3D Eyewear — to achieve precisely linked operation.
Newly developed
Professional-quality engine doubles colour reproduction

The new professional-quality engine raises the colour processing of each pixel from the conventional 20-bit level to 30-bit processing. By faithfully reproducing all of the colour and luminance signals output by image sources, it produces smooth, vibrant colors across the entire screen.

Digital Cinema Colour reproduces cinema-like colours

The colour gamut of movies and other Blu-ray Disc™ images is carefully compressed by Hollywood colorists. This is why you don’t get the same natural Digital Cinema* colours from Blu-ray Discs on conventional displays as you do on a cinema screen. To overcome this, Panasonic applied the know-how that it has accumulated at its laboratory in Hollywood to create a Colour Profile based on colour expression technology that was converted into digital data. Using the Colour Profile, a process that is the opposite of the colour gamut compression designated by the colourist is applied to expand the colour gamut. This produces Digital Cinema Colour that approaches the colours of a cinema.

Native contrast of 5,000,000:1* gives you high-quality images with rich textures

A high native contrast of 5,000,000:1* clearly distinguishes light areas from dark areas in the images. Even the tiniest stars in a night sky are strikingly rendered, in images with stunning detail. Textures are meticulously reproduced, right down to the nuances in brightness and color.

8,192 equivalent steps of gradation boost detailed expression

The extremely high performance that makes it possible to display FULL HD 2D images also translates to a remarkably high level of performance when displaying 2D images. The colour expression that is achieved by 8,192 equivalent steps of gradation, and the smoothness with which it renders intermediate colours, combine to create tonal nuances that have never before been possible.

Superb motion picture image in sports and action movies

By shortening the display time (called the hold time) for each frame, these displays achieve a high, 1,280 lines of moving-picture resolution. This clearly shows detailed motion even in fast-action scenes, and lends greater beauty to the high-resolution images that are unique to 4K displays. Moving picture resolution is also constant for images that include both slow and fast motion, to produce uniform, finely detailed images.

*According to the method for measuring moving-picture resolution to indicate the clarity of the moving images on the full-HD displays. Moving-picture resolution is also constant for images that include both slow and fast motion, to clearly demonstrate detailed motion even in fast-action scenes, and lend greater beauty to the high-resolution images that are unique to 4K displays. Moving picture resolution is also constant for images that include both slow and fast motion, to produce uniform, finely detailed images.
**Digital Cinema Colour**

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How Digital Cinema Colour works

- Digital Cinema images
- Digital Cinema Colour
- Colour reproduction relative to the original image quality
- Vivid colours from Blu-ray Discs on conventional displays as you do on a cinema screen. To overcome this, Panasonic applied the know-how that it has accumulated at its laboratory in Hollywood to create a Colour Profile based on colour expression technology that was converted into digital data. Using the Colour Profile, a process that is the opposite of the colour gamut compression designated by the colourist is applied to expand the colour gamut. This produces Digital Cinema Colour that approaches the colours of a cinema.

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Moving picture resolution

<table>
<thead>
<tr>
<th>Scene</th>
<th>Landscape</th>
<th>Sports</th>
<th>Ticker</th>
<th>Walking man</th>
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</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>1080 lines</td>
<td>900 lines</td>
<td>600 lines</td>
<td>600 lines</td>
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<tr>
<td>600 lines</td>
<td>200</td>
<td>200</td>
<td>600</td>
<td>600</td>
</tr>
</tbody>
</table>

*According to the method for measuring moving-picture resolution to indicate motion-image display performance that was developed by the Advanced PDP Development Centre Corporation (APDC). For FULL HD images, the full and high-resolution images are unique to FULL HD displays.

8,192 equivalent steps of gradation boost detailed expression

The extremely high performance that makes it possible to display FULL HD 3D images also translates to a remarkably high level of performance when displaying 2D images. The colour expression that is achieved by 8,192 equivalent steps of gradation, and the smoothness with which it renders intermediate colours, combine to create tonal nuances that have never before been possible.
COLOUR GAMUT
— Creating the images you want

In addition to reproducing the Digital Cinema Colour gamut, which approximates original movie colors, the display also covers the entire gamut of the HDTV standard for faithful colour reproduction. Further, a mode that lets you set the hue for each RGB color makes it possible to adjust the colours and preferences for each image. And you can display a simplified chroma diagram and use it to adjust the colours as you visually check the image.

Select from four setting types with COLOUR GAMUT

- DIGITAL CINEMA COLOUR
  This sets the display to the DIGITAL CINEMA COLOUR gamut, which approximates original movie colors.
- HDTV COLOUR (ITU-R BT.709)
  This sets the display to the HDTV standard gamut.
- NATIVE
  Expressing the natural colour gamut of the VX200 Series.
- CUSTOM
  This lets you set the hue for each RGB colour from the gamut of the initial settings. You can adjust the colours while viewing a simplified chroma diagram.

Easily save preferred settings with Picture Profile

The Picture Profile function lets you save images that you’ve customized with the colours and preferences you want for each type of content you want to watch on your home theatre. Enjoy movies, sports, games and more with custom image quality. You can create, name, and store up to 16 different combinations of user settings from the menu, and create unique displays by locking images and editing titles.

Process images with External Scaler Mode

With the advanced functions you can process images exactly the way you want them. It lets you convert the image with an external scaler instead of using the display’s built-in scaler.

Blue-Only Mode

A Blue-Only Mode, which is essential for monitor adjustment, is included. It allows the red and green signals to be cut, and displays only the blue signal as a monochrome image. This mode is used mainly for adjusting the colour density (chroma) and colour phase. By monitoring VTR noise, the signal level of each colour can be accurately set.

Customize your system SLOT 2.0

Greater display convenience and system flexibility are gained with standard equipped terminal and optional DVI-D and HD-SDI terminals fitted to the set.

Sophisticated design

The elegantly subtle design does not distract, so you can concentrate on the image.

Web Browser Control

A LAN connection lets you operate the display by remote control. Compatibility with the industry-wide PJLink standard allows efficient operation with existing infrastructures.

* Unified standards for a telecommunications protocol for operating and managing multiple projectors.

When using the network function, be sure to set “Control I/F Select” in “Network Setup” to “LAN.”

Applications for the PJLink trademark have been filed in Japan, the United States, and other countries and regions.

* The Colour Gamut screen is simulated. It may vary from actual specifications.
COLOUR GAMUT
— Creating the images you want

In addition to rendering the Digital Cinema Colour gamut, which approximates original movie colors, the display also covers the entire colour gamut of the HDTV standard for faithful colour reproduction. Further, a mode that lets you set the hue for each RGB color makes it possible to adjust the colours and preferences for each image. And you can display a simplified chroma diagram and use it to adjust the colours as you visually check the image.

Select from four setting types with COLOUR GAMUT

- DIGITAL CINEMA COLOUR: This sets the display to the DIGITAL CINEMA COLOUR gamut, which approaches original movie colors.
- HDTV COLOUR (ITU-R BT. 709): This sets the display to the HDTV standard colour gamut.
- NATIVE: Expressing the natural colour gamut of the VX200 Series.
- CUSTOM: This lets you set the hue for each RGB color from the colour gamut of the initial settings. You can adjust the colours while viewing a simplified chroma diagram.

The chroma diagram is displayed, so you can set the color tone for each RGB color.

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Commercial applications

Ultra-high-solution Panasonic displays light up and reproduce colours with their medical images accurately. And the almost same depth of field and depth of 3D is a remarkable level of realism. These displays are extremely effective for professional applications that support business activities.

CAD/CAM design previews
- Maintained for design confirmation
  - Use for CAD/CAM and architectural designing and for revising complicated designs.
  - Reproduction 3D models with high-definition images on large 3D monitors.
  - Create design review accurately.

Medical previews
- Maintained for medical education
  - Use the 3D display to display images such as medical images which cannot be properly visualized from a 2D image.
  - Visualize images that are difficult to understand in real life.
  - Provide medical training on a large screen to increase diagnostic accuracy.

Military simulations
- Mainly for vehicle simulations
  - Use for military parameter training.
  - Conduct real-time virtual simulations.
  - Visualize images to conduct a wide range of simulations.
  - Conduct realistic military simulations including scenarios with large numbers of troops, tanks and fighter planes.

Video screening
- Mainly for screening/reference applications
  - Mirrored images on a large-screen 3D display together with a group of people.
  - Instantly display images following adjustments.
  - Makes it easy to supply data for screen images.
  - Check images with the same characteristics that exist in the original images.

Analytical surveys
- Mainly for mining and environmental research
  - For surveying surface results.
  - 3D depth helps to gain accurate spatial knowledge of things like measurements for maps and geological formations.
  - Display clear details of background data for easy information sharing among a large number of people.

New museum services
- Maintained for presenting collections to visitors
  - Display object collections that aren't visible to the naked eye.
  - Easily provide virtual experiences using 3D photographs or virtual environments.
  - Enables visitors to move through virtual environments for easier and more enjoyable experiences.
Commercial applications

Ultra-large screen Panasonic 10m display offer Birds Eye™
explosive colours with their molecule image quality. And the
amazing dimension (height and depth of 3D) and a remarkable
level of realism. These displays are extremely effective for
professional applications that support business activities.

**CAD/CAM design previews**
- Maintained for design confirmation
  - Use for CAD/CAM and architectural designing and for
    receiving feedback.
  - Reprojects Bearcat objects in relief.
  - Enlarge design review accuracy.

**Medical previews**
- Maintained for medical education
  - Use the 10m 3D to display images such as human
    anatomy, which can be properly displayed from a 3D image.
  - Virtual experiences coupled with real life.
  - Customize simulations on a large scale to enhance
evaluation accuracy.

**Military simulations**
- Maintained for vehicle simulations
  - Use for military scenarios training.
  - Conduct the necessary 3D simulations.
  - Conduct realistic military simulations including
    scenarios with large numbers of troops, tanks and fighter planes.

**Video screening**
- Maintained for screening/reference applications
  - Monitor images of large-screen 3D display together
    with a group of people.
  - Instantly display images following adjustments.
  - Enable to use numerous fixed terminals.
  - Check images with the asks routines that
    match the original materials.

**Analytical surveys**
- Maintained for mining and
  - Environmental research
  - For mine survey results.
  - 3D depth helps to gain accurate visual information
    for mining and geological formations.
  - Display clear details of background data for
    easy information sharing among a large number of people.

**New museum services**
- Maintained for presenting collections to visitors
  - Display high-definition images that aren’t
    visible to the naked eye.
  - Early provide virtual experiences using
    photography images or virtual projections.
  - Network with other facilities, and offer a wide range
    of replaced services.
### Specification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL HD 3D Plasma Display</td>
<td>TH-102X020W</td>
<td>102&quot;</td>
</tr>
</tbody>
</table>

#### Technical Specifications

- **Input/Output**
  - Video Input: 34 input connectors, including Component Video, HDMI, and DVI-D (TH-102X020W)
  - Audio Input: 34 audio connectors, including Optical, Analog, and HDMI Audio (TH-102X020W)
- **Display**
  - 102" Full HD 3D Plasma Display
  - Resolution: 1920 x 1080
- **Audio**
  - Built-in Speakers: 2 x 100W, 2 x 10W
  - Pre-outs: 2 x 250W (TH-102X020W)
- **Connectivity**
  - Network: LAN (TH-102X020W)
  - Inputs: HDMI x 8, Component Video x 3, DVI-D x 2, USB x 2, Optical x 2, Analog x 2, Composite x 3
- **Control**
  - RS-232C, LAN, IR, Remote Control

### Dimensions

#### TH-102X020W

- Width: 2815 mm
- Height: 1988 mm
- Depth: 400 mm

### Options

#### Accessories

- Remote Control Transmitter
- Remote Control Transmitter

#### Parts included:

- Remote Control Transmitter
- Remote Control Transmitter

#### Additional Features:

- 3D Eyewear
- 3D Eyewear

#### Compatibility

- RS-232C Terminal Board
- RS-232C Terminal Board

*The below option(s) are the part of the set for the TH-102X020W.

*Please consult the manual for detailed setup and operation instructions.
Product specification (design and specification subject to change without notice)

**DISPLAY PANEL**
- Screen Size(Diagonal): 85-inch (2,167 mm)
- Aspect ratio: 16:9
- Effective Display Area(W x H): 1,889 x 1,062 mm
- Number of pixels (H x V): 1,920 x 1,080 pixels (1 pixel=3 cells for R, G, and B)
- Pixel pitch (H x V): 0.984 x 0.984 mm
- Native contrast: 5,000,000:1
- Gradation: 8,192 steps (equivalent)
- Panel Life*: approx. 100,000 hours
- Full HD 3D: Yes

*1: Guideline operating hours before the panel brightness is reduced to half when the panel is used to display motion pictures in the Standard mode. Afterimages (burned-in images) and malfunctions are not taken into consideration.

**CONNECTION TERMINAL**
- COMPONENT/RGB IN: RCA x 3 (with sync 1.0 V(p-p) (75Ω))
  - RCA x 1 set
  - 0.5 V [rms]
- HDMI IN: HDMI TYPE A connector x 4 (Ver.1.4a (Compatible with Deep color))
- PC IN: MINI D-SUB 15PIN x 1 (female)
  - Plug & Play (VESA DDC 2B)
  - Y/G: with sync 1.0 V (p-p) (75Ω)
  - Ps/Cs/B, Ps/Cs/R: 0.7 V [p-p] (75Ω)
- AUDIO IN (L/R): M3 Jack x 1
  - OUTPUT LEVEL: VARIABLE (±0 to 0 dB) [INPUT 1 KHZ/0 dB, 10KΩ Load]
  - 0.5 V [rms]
- AUDIO LINK OUT (L/R): RCA x 1 set
- FUNCTION SLOT: SLOT 2.0 (Vacant)

**CONTROL TERMINAL**
- SERIAL: D-SUB 9PIN x 1 (EXTERNAL CONTROL TERMINAL), RS-232C COMPATIBLE
- LAN: RJ45 10BASE-T / 100BASE-TX, compatible with P4LINK™
- 3D SHUTTER OUT: M3 Jack x 1 (for Optional 3D IR Transmitter)

**ELECTRICAL**
- Power Requirements: 200-240 V AC, 50Hz/60Hz
- Power Consumption: 1,200 W
- On Mode Average Power Consumption*: 799 W
- Power off condition: 0.3 W
- Stand-by condition: 0.5 W

*Based on IEC 62087 Ed.2 measurement method.

**MECHANICAL**
- Dimensions(WxHxD): 2,015 x 1,195 x 99 mm
- Weight: approx. 117.0 kg
- Cabinet Dimensions(WxHxD): 2,194 x 1,480 x 549 mm
- Gross weight: approx. 146.0 kg
- Cabinet Color: Black (Aluminum Harline Finish)

**ENVIRONMENTAL**
- Operating environment:
  - Temperature: 0 °C to 40 °C
  - Humidity: 20% to 80% (Non condensation)
- Altitude*: 0 to 2,400 m

- Storage environment:
  - Temperature: -20°C to 60°C
  - Humidity: 20% to 90% (Non condensation)
- Altitude*: 0 to 3,300 m

**STANDARD (CERTIFICATIONS)**
- SAFETY REGULATIONS: UL60065, CAN/CSA-22.2 No60065-03, Saso, IEC60065, EN60065, A5 / NZS60065, IEC60065 / SS IEC60065 / PAI, GOST, NOM approval
- RADIATION REGULATIONS: CISPR22 Class-B, EN55022 Class-B, EN55024, EN61000-3-2, EN61000-3-3

**REMOTE CONTROL TRANSMITTER**
- Power Requirements: DC 3V (2 x AA Size batteries)
- Operation distance: approx. 7m in front of plasma display
- Weight: approx. 160 g (batteries included)

**INCLUDED ACCESSORIES**
- Operating instruction book
- Remote control transmitter
- Batteries
- Fixing Band (2)
- Clamper
- 3D Eyewear (TY-EW3D10)
- Screwdriver (for 3D Eyewear)
- Eyebolt cap
- Eyebolt
- Allen wrench
**MAIN FEATURE**

- **24p Smooth film:** Yes
- **Color Gamut:** Yes (DIGITAL CINEMA COLOR/HDTV/CUSTOM/NATIVE)
- **Network Function:** Yes
- **Web Browser Control:** Yes
- **EXT_SCALER Function:** Yes
- **isf Mode:** Day / Night
- **Picture Profiles:** Yes (16 memories)
- **Blue Only Mode:** Yes
- **1:1 Pixel Mode:** Yes
- **Display Size Setting:** Yes
- **Automatic Picture Positioning:** Yes
- **Screen Savers:** Negative Image, Overlay Scrolling Bar, Scrolling Bar only, White Screen
- **NANODRIFT saver:** Yes
- **Side Panel Adjustment:** Yes
- **Peak Limit Mode:** Yes
- **Power Save Mode:** Yes
- **Auto Power Off:** Yes
- **Customizing the On-Screen:** Yes (3 different type)
- **Off Timer:** Yes

**OPTIONAL ACCESSORIES**

- **Pedestal:** TY-STB5P12
- **Wall hanging bracket:** TY-WK85PV12
- **Floor stand:** TY-STB5PF12
- **HD-SDI w/Audio Terminal Board:** TY-FB10HD
- **Dual HD-SDI Terminal Board:** TY-FB11HD
- **BNC Dual Video Terminal Board:** TY-FB9BD
- **DVI-D Terminal Board:** TY-FB11DD
- **AV Terminal Box:** TY-TB10AV
- **3D IR TRANSMITTER:** TY-3DTRW
- **3D Eyewear:** TY-EW3D10, TY-EW3D2S, TY-EW3D2M, TY-EW3D2L

_cautions: This drawing is not a scale_  
_Units : mm_

**DIMENSIONS**

- **Infrared transmitter for 3D Eyewear**

**CONNECTION TERMINAL**

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### Preset Input Signals for 2D Input

<table>
<thead>
<tr>
<th>Component Video</th>
<th>Fixed Terminal</th>
<th>Optional Board</th>
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</thead>
<tbody>
<tr>
<td>HD/SDI (Y-B-Y/4:2:2)</td>
<td></td>
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<tr>
<td>DVI-D (480i)</td>
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<td>DVI-D (576i)</td>
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<td>DVI-D (1080i)</td>
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<td>YPbPr</td>
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<td>Component Y</td>
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### Pin assignments and signal names

**Serial RS232C : D-sub 9-Pin (Male)**

<table>
<thead>
<tr>
<th>No.</th>
<th>Descriptions</th>
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<tbody>
<tr>
<td>2</td>
<td>Receive Data</td>
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<tr>
<td>3</td>
<td>Transmit Data</td>
</tr>
<tr>
<td>5</td>
<td>Ground</td>
</tr>
<tr>
<td>4 &amp; 6</td>
<td>Not used</td>
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<tr>
<td>7</td>
<td>Short Circuit</td>
</tr>
<tr>
<td>1 &amp; 9</td>
<td>NC</td>
</tr>
</tbody>
</table>

**Communication parameters**

<table>
<thead>
<tr>
<th>Signal level</th>
<th>RS-232C compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anynchronous</td>
<td></td>
</tr>
</tbody>
</table>

### PC Input : D-Sub 15-Pin (Female)

**HDMI Terminal**

### HDMI Terminal

**No.** | **Signal name** | **No.** | **Signal name**
---|---|---|---
1 | R (P+G) | 9 | +5V DC |
2 | G (Y) | 10 | GND (Ground) |
3 | B (P+G) | 11 | NC (not connected) |
4 | NC (Not connected) | 12 | SDA |
5 | GND (Ground) | 13 | HD/SYNC |
6 | GND (Ground) | 14 | VD |
7 | GND (Ground) | 15 | SCL |
8 | GND (Ground) |  | |

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*1: When selected the RGB format and 525p signal input, it is recognized as VGA 60 Hz signal. *2: Based on SMPTE 274M standard. *3: Based on SMPTE RP211 standard. *4: Based on SMPTE 295M standard. *5: Based on SMPTE 295M and 372M standards. *6: When inputted VGA 60 Hz format signal, it is recognized as 525p signal. *7: Recognized as 1,125(1,080)/60p signal. Note: Signals without above specification may not be displayed properly.
## Preset Input Signals for 3D Input

| 3D Format                  | 525i(480i)/60i | 525i(480i)/50i | 625i(575i)/50i | 625i(576i)/50i | 625i(576i)/60i | 750i(720)/60i | 750i(720)/50i | 1125i(1080)/60i | 1125i(1080)/50i | 1125i(1080)/24p | 640×480@60Hz | 852×480@60Hz | 1024×768@60Hz | 1152×864@60Hz | 1280×768@60Hz | 1280×1024@60Hz | 1400×1050@60Hz | 1600×1200@60Hz | 1920×1200@60Hz |
|----------------------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| horizontal frequency (kHz) | 15.73          | 15.63          | 15.63          | 15.63          | 15.75          | 15.00         | 15.00         | 15.75          | 15.75          | 27.00          | 31.47          | 31.47          | 48.36          | 53.70          | 47.70          | 63.98          | 65.22          | 75.00          | 74.04          |
| vertical frequency (Hz)    | 59.94          | 50.00          | 50.00          | 50.00          | 50.00          | 60.00         | 60.00         | 60.00          | 60.00          | 24.00          | 31.47          | 31.47          | 60.00         | 60.00         | 60.00         | 60.00         | 60.00         | 60.00          |
| Component Video            | Y              | Y              | Y              | Y              | Y              | Y             | Y             | Y              | Y              | Y              | Y              | Y              | Y              | Y              | Y              | Y              | Y              | Y              |
| IEEE1394 (D-sub 15-pin)    |                 |                 |                 |                 |                 |               |               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| HDMI                       |                 |                 |                 |                 |                 |               |               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| PC IN (D-sub 15-pin)       |                 |                 |                 |                 |                 |               |               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| HDB3A with Audio (TY-810HD) |                 |                 |                 |                 |                 |               |               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Dual Link HD-SDI (TY-810HD) |                 |                 |                 |                 |                 |               |               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Side By Side Top and Bottom|                 |                 |                 |                 |                 |               |               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Side By Side Top and Bottom|                 |                 |                 |                 |                 |               |               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Frame Sequential           |                 |                 |                 |                 |                 |               |               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |

*1: When selected the RGB format and 525p signal input, it is recognized as VGA 60Hz signal.

*2: Based on SMPTE 274M standard.

*3: Compatible with Side-by-Side Full and Side-by-Side Half, the others are compatible with only Side-by-Side Half.

Note: Signals without above specification may not be displayed properly.