## Specifications

### Video

<table>
<thead>
<tr>
<th>Video Processing</th>
<th>4x4 (4:4:4/YPbPr), 10-bit</th>
<th>Auto Processing</th>
<th>Sampling Rate: 24-bit/48 kHz</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Input Connections</th>
<th>HDMI: Type A (19 pin) x 8 (Input 1 to 8)</th>
<th>HDCP supported</th>
<th>Input Connectors: Digital / HDMI Type A (19 pin) x 8</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Output Connectors</th>
<th>XS-82H</th>
<th>XS-83H</th>
<th>XS-84H</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDMI: Type A (19 pin) x 2 (Output 1 to 2)</td>
<td>HDMI: Type A (19 pin) x 3 (Output 1 to 3)</td>
<td>HDMI: Type A (19 pin) x 4 (Output 1 to 4)</td>
<td></td>
</tr>
<tr>
<td>HDCP supported</td>
<td>HDCP supported</td>
<td>HDCP supported</td>
<td></td>
</tr>
</tbody>
</table>

### Audio

<table>
<thead>
<tr>
<th>Audio Formats</th>
<th>HDMI, Linear PCM, 44.1kHz, 48kHz</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Input/Output Level and Impedance</th>
<th>Analog (RGB)</th>
<th>Digital (RGB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Level and Impedance</td>
<td>0.7 Vp-p (75 ohm), V/25 (Y)</td>
<td>1.0 Vp-p 75 ohms (Sync-Signal: Bi-level/Tri-level)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impedance</th>
<th>75 ohms</th>
</tr>
</thead>
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<table>
<thead>
<tr>
<th>Audio Effects</th>
<th>16 stereo inputs and 4 outputs digital audio mixer</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Power Supply</th>
<th>AC117V, AC220V, AC230V, AC240V, 50/60Hz</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Power Consumption</th>
<th>XS-82H: 70W/0.6A (117V), 70W/0.5A (220V, 230V, 240V)</th>
</tr>
</thead>
</table>

| XS-83H: 60W/0.6A (117V), 60W/0.4A (220V, 230V, 240V) |
| XS-84H: 55W/0.5A (117V), 55W/0.4A (220V, 230V, 240V) |

### Options

<table>
<thead>
<tr>
<th>HT-TX01</th>
<th>HDBaseT Transmitter</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>HT-RX01</th>
<th>HDBaseT Receiver</th>
</tr>
</thead>
</table>

### Display

<table>
<thead>
<tr>
<th>Display</th>
<th>Graphic LCD 128 x 64 dots</th>
</tr>
</thead>
</table>

### Others

<table>
<thead>
<tr>
<th>Others</th>
<th>4K UHD, 60Hz, 10-bit, 4:4:4 (Y/Pb/Pr)</th>
</tr>
</thead>
</table>

### Video Effects

<table>
<thead>
<tr>
<th>Transition</th>
<th>Queue-seamless switching, Sequence switching</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Mode</th>
<th>Multi, Mono (4 Windows), Span</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Others</th>
<th>Flip vertically, Flip horizontally, Output fade, Test pattern output (Colorbar, Fetch, etc.)</th>
</tr>
</thead>
</table>

### Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Unit: mm</th>
</tr>
</thead>
</table>

| Specifications | 372 x 212 |

![Image](image-url)
Digital and analog video and audio converted and distributed to digital outputs with wireless control from an iPad

**Version 3.0 New Features**
- Dedicated XS-80H RCS PC and Mac remote control and set-up software facilitates settings on-line or off-line
- Enhanced PGM/PST MODE and DISSOLVE MODE
- Output link function and double tap mode of transition operation which enables the ability to switch two output buses simultaneously
- Remote control of an external device via HDBaseT
- Capturing a still-image from a live video source and using it as an input source
- Bezel compensation function that improves the precision of displaying one picture across multiple screens
- Output freeze function that temporarily pauses the output video

**Product Overview**
- Support for maximum resolution of WUXGA and 1080p
- 8 digital inputs and 8 analog inputs
- 2, 3 or 4 outputs *according to the application
- Supports HDMI/HD component/RGB/composite/S-video and audio inputs
- Built-in scalers and video processor enable split-picture and compositing functions
- Dissolve transition and PGM/PST mode are ideal for live event switching
- 16ch stereo digital audio mixer with 8 HDMI inputs and 8 analog inputs
- Direct control via the iPad application XS-80H Remote

*Outputs configurable to HDMI or HDBaseT

**Powerful Video Processing**

The XS series provides a variety of video output modes for powerful video processing

- **MATRIX MODE**
  This mode lets you rotate the video picture 90 degrees either clockwise or counterclockwise. The rotated picture can be displayed across up to four screens.

- **ROTATION MODE**
  This mode lets you rotate the video picture 90 degrees either clockwise or counterclockwise. The rotated picture can be displayed across up to four screens.

- **SPAN MODE**
  This displays a single video picture across multiple screens. Video sources can also be switched while in span mode.

- **4K MODE**
  This mode can switch a 4k video by switching four full HD video sources simultaneously.

- **DISSOLVE MODE**
  Dissolve mode switches the video seamlessly. PGM/PST mode allows the operator to preview a video before outputting it.

- **MULTI MODE**
  This combines video sources into composited output. You can change the position and size of the sources displayed in the same screen.

- **Examples**
  - Display three different pictures
  - Display one picture in two large screens
  - Display identical pictures in two screens
  - Display four different pictures

*Pad is not included.
**Digital Audio Mixer with Sound Processing**

- The internal 16ch stereo digital audio mixer enables sophisticated sound processing. Along with eight stereo HDMI audio inputs, the series can also accept eight stereo analog audio inputs. Each of the inputs can be mixed separately.
- Each audio input has an internal high-pass filter, 4-band equalizer, noise gate and compressor. Audio follows video capabilities are also available enabling audio switching coordinated with video switching.
- Each audio output has a 4-band equalizer, gate, compressor and delay for proper lip-sync. It also features down-mixing function which makes output to a ceiling speaker possible.
- The XS series accommodates mic level audio inputs. An internal ducking function enables the ability to have the mic level automatically muted above any other audio input.
- Using the XS-80H RCS you can make audio settings from a PC using the graphic user interface.
The XS series is ideal for the constantly changing input source and output destination needs of live events with high-quality performance and the flexibility to input all kinds of signals.

**KEY FEATURES**

- Each HDMI/RGB input is equipped with a scaler which enables the video from a PC to be input with the same HD video quality.
- The internal EDID emulators can set a default resolution.
- High speed switching of HDCP protected HDMI signals is possible.
- Output link function switches two or more outputs simultaneously.
- Built-in audio mixer allows for mixing of the operator’s voice and background music.
- Video mixer enables video switching and compositing with support for PGM/PST style operation.
- All of the video and audio settings can be saved as presets. You can recall them by just one press of the button in Preset mode.
- HDBaseT can transmit the signals up to 100 meters.
- Freeze function in version 3.0 temporarily pauses the incoming video.
- Version 3.0 introduces the ability to capture a still image from a video source.

**Real Time Operation**

**PGM/PST Mode**
You can preview the video to be output next and then output it with a cross dissolve transition by pressing the OFF button. Version 3.0 offers two programs/two previews and three program/one preview option for the XS-84H and XS-83H.

**Top Panel when in PGM/PST Mode**

- **OUTPUT1 ROW:** PGM
- **OUTPUT2 ROW:** PST
- **OFF BUTTON:** Functions as TAKE Button

**Guide Function**
You can display a guide on the preview output picture to confirm the position and size of the video to be output next. The width and color of the border can be changed. The guide can also be set to be inside or outside the viewable area to suit the operator's preferences.

**Switch multiple outputs at the same time**
This can be done by two ways.

**Output Link Function**
You can match any two output buses together and switch them simultaneously.

**Double Tap Transition**
You can also use the double tap mode for the transition operation to pre-select the next source and switch multiple outputs at the same time.

**4K Mode**
The XS-84H is capable of switching four video lines as a group, which enables configuration of a 4K system. Switching a mixture of video feeds that includes 4K, HD, and SD sizes as well as up to WUXGA and other computer video formats is also possible.

**Application Examples**

**Events and Conventions**

The XS series is equipped with eight ports each for HDMI and RGB/Component/S-video/Composite feeds in addition to HDMI and RGB, making it ideal for event halls equipped with sources in various media formats. Multi-screen productions become possible with the different video modes. The horizontal mirroring and cropping functions enable the creation of laterally symmetrical video output while still sending a wideshot to the lobby.

**Event Halls and Churches**

The XS series supports component, S-video, and composite feeds in addition to HDMI and RGB, making it ideal for event halls equipped with sources in various media formats. Multi-screen productions become possible with the different video modes. The horizontal mirroring and cropping functions enable the creation of laterally symmetrical video output while still sending a wideshot to the lobby.
Make Settings Graphically on PC

Set-up and Switching from a PC using XS-80H RCS
The XS-80H RCS dedicated software for the XS series is able to remotely control the unit from a PC or Mac. With the help of the software, you can make detailed settings of the advanced audio mixer and adjust video parameters easily. By connecting the XS series to a PC installed with the XS-80H RCS via a LAN cable, you can control the unit on-line. You can also make all the settings off-line for later upload to the unit via USB flash drive.

The XS-80H RCS is available as a free download from Roland’s website.

Live Switching Control
This is a function enables the ability to make the settings of the XS series directly. Not only can you make the adjust settings during setup, You can also use the RCS to control the switching functions during an event.

Events and Conventions
In addition to the computer software, you can also use an iPad installed with the dedicated application XS-80H to control the unit wirelessly. The application can be used to directly make the settings of video and audio, and recall presets. The tab names, displayed items, background picture and wallpaper can be changed.

Digital and Analog Inputs
The XS series has eight video inputs. In addition to the HDMI port which can pass DVI signals, the series also enables switching for all analog signal formats including RGB, component, composite and S-video.

The internal scales enable the XS series to scale individual HDMI, HD component, RGB, composite and S-video inputs and mix inputs of different resolutions to a common output. Each output can be in their respective format and display.

Bezel compensation function in Version 3.0 changes the zoom and position of the output picture to make the picture look more continuous across multiple screens.

Setting Items
- Title
- Tab Names
- Enable/Disable Tab Display
- Input Device Name and Icon
- Wallpaper
- Password

Controllable Functions
- Preset Change
- Video Switching
- Audio Volume Adjusting
- Title
- Tab Names
- Enable/Disable Tab Display
- Input Device Name and Icon
- Wallpaper
- Password

Still-images/Capture
Up to four BMP images can be imported into the unit from a USB flash drive and assigned to an input channel. This is ideal for displaying a school or company logo while in standby with no inputs connected.

In Version 3.0, still-images can be captured directly from a live video source.

HDBaseT Outputs
The XS series includes both HDMI and HDBaseT outputs. When using a LAN cable, up to WUXGA/1080p video signal can be transmitted up to 100meters.

HDBaseT is a connectivity technology established by the HDBaseT Alliance. HDBaseT enables uncompressed HD video, digital audio signal and RS-232 command to be transmitted over a LAN cable.

The XS series can switch HDCP protected video at an extremely fast speed of less than 0.2 seconds thanks to the XS series advanced HDCP key management.

Key lock mode to prevent unintended operation
This mode renders inoperable buttons and knobs when you don’t want the settings to be changed or want to prevent an operation by mistake. This includes the ability to disable switching to input cross-point selection buttons where no signal is present.

Input/output status viewing function that is convenient for trouble shooting
This displays information about the currently selected video input channels and output buses.

Control of Power ON/OF
Sending a RS-232 command via HDBaseT can turn an external device’s power on or off.

HDCP
Copyright-protected HDCP video is supported. It is possible to enable and disable HDCP individually for each input and output video.

Resolutions up to WUXGA/1080p are supported for both input and output. Deinterlacing interlaced video for output as a progressive signal is also possible.

Copyright-protected HDCP video is supported. It is possible to enable and disable HDCP individually for each input and output video.

Bezel compensation function in Version 3.0 changes the zoom and position of the output picture to make the picture look more continuous across multiple screens.

Control of Power ON/OF
Sending a RS-232 command via HDBaseT can turn an external device’s power on or off.

When Using a Wireless LAN Adapter
When Using a Wireless Access Point

Still-Images/Capture

Key Lock mode to prevent unintended operation

Input/output status viewing function that is convenient for trouble shooting

Control of Power ON/OF

Still-Images/Capture
Panels and Functions

Front Panel

Switching Mode
This selects whether the matrix switches just video, just audio, combined audio/video, or preset.

Input Signal LEDs
These provide a color-coded indication of the presence of an input signal, what type it is, and its HDCP status.

LCD Panel
An LCD screen features a backlit display for menu control and easy visibility in dark settings.

USB Memory Port
A USB flash drive can be inserted for backing up settings or importing still pictures.

USB Wireless LAN Adaptor Port
Connecting the wireless adapter enables direct control of the XS from an iPad.

Matrix Switches
These set the input channels as well as ON/OFF for each output.

Audio Level
These display the audio output level on each channel.

Rear Panel

LAN Port
Enables control over a network connection.

HDMI Audio
Embedding HDMI input into other outputs as well as de-embedding to analog audio outputs. Internal delay settings enable alignment of audio to video for perfect lip-sync.

6 Line Audio Inputs
The unit has six stereo audio inputs that support line levels. Support for audio follow enables audio switching coordinated with video switching.

2 Mic and Line Inputs
Two audio inputs with support for both mic levels and line levels are provided. An internal ducking function enables the ability to have the mic level automatically mixed above any other audio input.

Block Diagram

HDMI/DVI Inputs x 8
Each output block provides an HDBaseT connector for transmitting digital signals via Cat5e/6 cable over distances of up to 100 meters.

HDMI/RGB Inputs
Resolutions up to WUXGA/1080p are supported. A built-in EDID emulator copies the EDID info of the display receiving output, achieving input and output of highest quality.

RS-232C Port
Serial connection enables control by external devices such as wall panels, remote buttons, etc.

HDMI/HDBaseT Outputs
Resolutions up to WUXGA/1080p are supported. Each output block provides an HDBaseT connector for transmitting digital signals via Cat5e/6 cable over distances of up to 100 meters.

USB Wireless LAN Adaptor Port
Connecting the wireless adapter enables direct control of the XS from an iPad.