



**HQW15**

**HD/SD quad split to WXGA converter on VGA and DVI  
with full-screen display capabilities**

**A Synapse® product**

The logo for Synapse, written in a light blue, cursive script font.

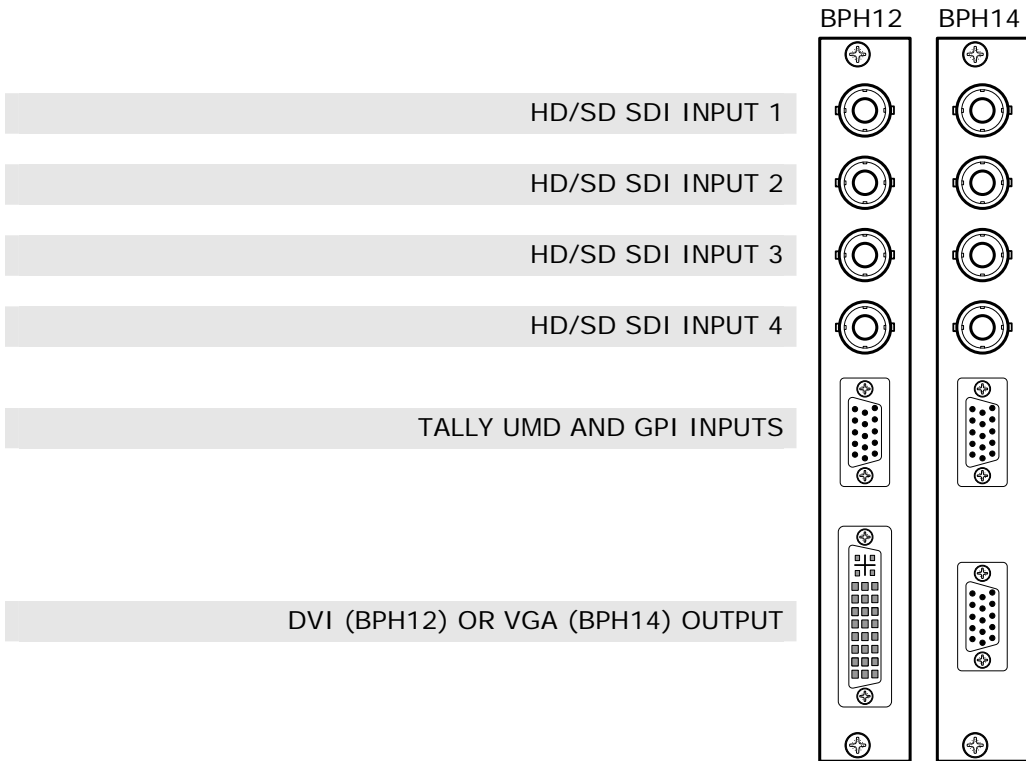
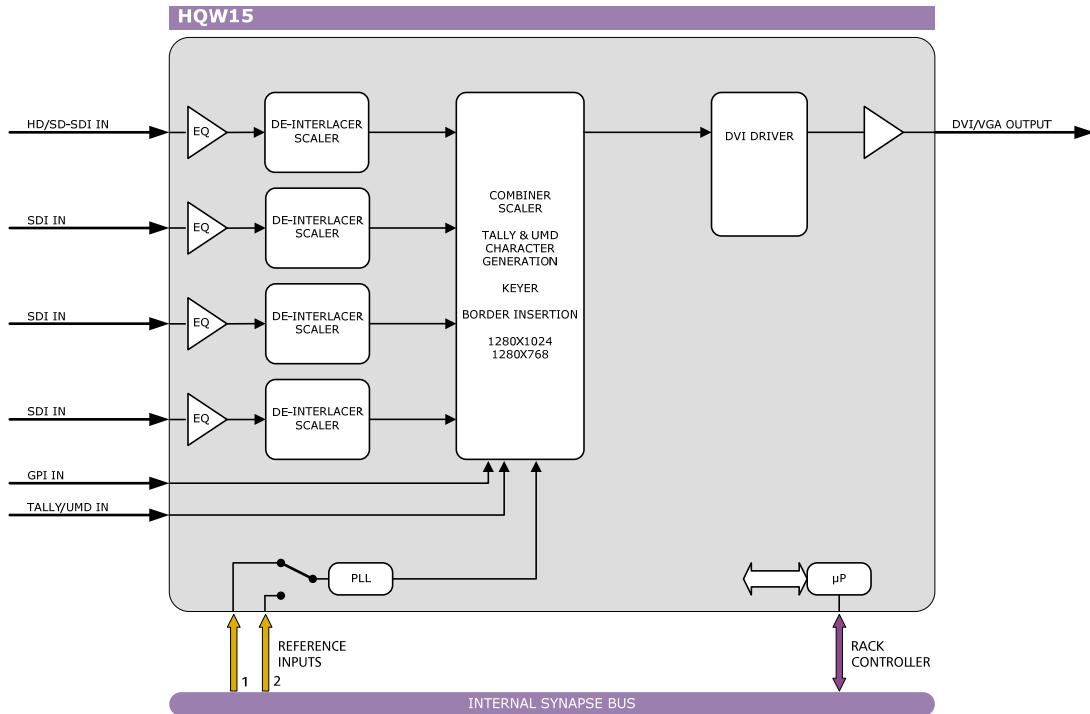


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Block schematic & I/O panel



## Features

The HQW15 is a high-quality 4x HD/SD-SDI to WXGA converter on DVI or VGA. The unit supports 2 output resolutions: 1280x768 and 1280x1024. A Tally and UMD OSD is included. This will enable a very compact monitor solution with the UMD and Tally as part of the set. High-quality in-house developed de-interlacing and scaling algorithms ensure crisp picture quality with a very low 1 Field internal propagation delay

- Quad-split function or full-screen mode for each input
- Low latency (1 Field)
- 1280x1024 and 1280x768 resolution on DVI (BPH12)
- 1280x1024 and 1280x768 resolution on DVI with extended DVI cable length (BPH13)
- 1280x1024 and 1280x768 on VGA (BPH14)
- All inputs compatible with (mixing is allowed within equal framerates):
  - 1080i and 720p 50 and 59.95 Hz
  - 1080p (sf) and 720p 29.97/25/24
  - 1035i 60
  - SD 625 and 525
- 15 pins sub-D connector for serial UMD, Tally protocols (TSL and ASCII) and GPI triggers
- 8 and 16 character UMD capability
- Lock to input, reference or free running
- Color corrector
- UMD colors:
  - White
  - Green
  - Red
  - Amber
- Border, UMD and tally brightness adjustment
- Safe area:
  - Action
  - Graphics
  - Action + Graphics
  - Shoot and protect 4:3
  - Shoot and protect Action
  - Shoot and protect Graphics
  - Shoot and protect Action + Graphics
- Automatic 4:3 and 16:9 modes through VI or WSS triggers
- GPI control for:
  - Aspect ratio (4:3 or 16:9)
  - Full screen or quad mode
  - Tally
- Full control and status monitoring through the front panel of the SFR04/SFR08/SFR18 frame and the Ethernet port (ACP)

## Applications

- High resolution monitor walls
- Truck preview monitoring and shading
- Compact Sony LMD-170/171/172 and 230W control unit (replaces MEU-WX1) 18 channels in 4 RU (72 HD/SD SDI inputs)

## Ordering information

### Module:

- **HQW15:** HD/SD quad split to WXGA converter on VGA and DVI with full screen capabilities

### Standard I/O:

- **BPH12\_HQW15:** I/O-panel for HQW15 with DVI output
- **BPH14\_HQW15:** I/O-panel for HQW15 with VGA output

## Specifications

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### HD/SD Serial Video Input

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<b>Standard</b>	625/50 or 525/59.94 SMPTE 259M-C (270Mb/s) with SMPTE 272M embedded audio SMPTE 292M (1.5Gb/s), SMPTE 260M, SMPTE 274M, SMPTE 296M, SMPTE 349M 1080i/59.94, 1080i/50, 720p/59.94, 720p/50
<b>Number of Inputs</b>	4
<b>Equalization</b>	Automatic to 100m @ 1.5Gb/s with Belden 1694A or equivalent cable.
<b>Return Loss</b>	> 15dB up to 1.5GHz

### Reference Video Input

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<b>Standard</b>	PAL (ITU624-4), NTSC (SMPTE 170M)
<b>Number of Inputs</b>	2 on SFR18, 2 on SFR08, 1 on SFR04
<b>Connector</b>	BNC
<b>Signal Level</b>	1V nominal
<b>Impedance</b>	High impedance, with loop for termination
<b>Return Loss</b>	> 25dB to 10MHz

### DVI output (BPH10)

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<b>Standard</b>	DVI digital single link
<b>Connector</b>	DVI-D (single link)
<b>Number of Outputs</b>	1
<b>Cable driver</b>	Up to 10 meter of high quality DVI cable (Gefen)

### VGA output (BPH11)

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<b>Standard</b>	VGA
<b>Connector</b>	15 pins female sub-D
<b>Number of Outputs</b>	1
<b>Cable driver</b>	Up to 10 meter of high quality VGA cable

### Miscellaneous

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<b>Weight</b>	Approx. 250g
<b>Operating Temperature</b>	0 °C to +50 °C
<b>Dimensions</b>	137 x 296 x 20 mm (HxWxD)

### Electrical

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<b>Voltage</b>	+24V to +30V
<b>Power</b>	11 Watts