

# OMNISCALE 200

## VIDEO/GRAPHICS SCALER FOR PROFESSIONAL APPLICATIONS



OmniScale is a professional quality Scaler product intended for use in converting real time video input to high resolution digital output displays. Applications include: Professional Video Broadcast monitors, LED signs, Digital Cinema alternative content processing systems, Display Walls and high quality projection systems for high-end viewing rooms.

OmniScale accepts a wide range of input resolutions from a variety of input signals. Analog RGB, Analog television, DVI, HDMI and HD-SDI (optional) are all supported on input. Input resolutions range from NTSC to 2048 x 1080 (Digital Cinema). Supported Output signals include DVI, HDMI and analog RGB. Output resolutions range from 640 x 480 (VGA) to 2048 x 1080 (Digital Cinema).

The industry's highest quality scaling algorithms enable both Up-Scaling - for the best viewing of legacy NTSC content on broadcast monitors, and Down-Scaling - for the best presentation of HD live video on highly visible, but low resolution LED signs. Scaling is continuously adjustable in both X and Y. Both Full Screen and Cropped Window scaling is provided. Crop Windows are also continuously adjustable.

Image Rotation (i.e. right angle rotation of 90 degrees and 270 degrees) can be applied simultaneously with all scaling operations, enabling the construction of display walls with rotated 16:9 displays.

OmniScale includes precise color and gamma compensation features. A full 3 x 3 color matrixing system provides for conversion between common, or even custom, color primary systems. 10 bit RGB LUTs on both input and output compensate for any display device Gamma factor and Color Temperature characteristics.

OmniScale's powerful video processing features include advanced De-Interlacing, Noise Reduction and Cadence Correction. Video signal processing is accomplished by OmniScale's embedded 3 Tera Operations per second SIMD processor.

GenLocking capability (only available with the HD-SDI option) enables output on the DVI, HDMI and RGB inputs to be synchronized to house synchronization.

OmniScale offers multiple control options for installers. RS-232, USB and Ethernet are all simultaneously active and use an ASCII control set. Precise control of OmniScale is easily achieved from any popular controller. A multi-threaded scripting utility enables precisely synchronized control from any PC.

OmniScale-200 is available in a compact desktop package with optional rack mount installation brackets.

### APPLICATIONS

- LED Signs
- Professional Video Broadcast Monitor Systems
- Display Walls
- Alternative Content for Digital Cinema Systems
- High-End Viewing Rooms

### PHYSICAL AND ENVIRONMENTAL

- Dimensions: 17" x 8.5" x 1.75"
- Weight: 3kg
- Power: 100 – 250 V, 47 – 63 Hz., 35W
- RoHS Compliant

## FEATURES / SPECIFICATIONS

Advanced Functionality	
Pixel Accurate, High Quality Scaling, Up and Down	<b>all versions</b>
Up-Scale Factor of up to 32X Horizontally and Vertically (i.e: scale from a cropped window of 32 x 24 to a full screen of 1024 x 768)	<b>all versions</b>
Down-Scale Factor of up to 32X Horizontally and Vertically (i.e: scale from a full screen of 1920 x 1080 to a window of 60 x 34; display window anywhere in active video of any of the supported output resolutions)	<b>all versions</b>
Analog RGB, HDMI and DVI inputs	<b>all versions</b>
Composite, S-Video and Component Video inputs	<b>all versions</b>
HD-SDI input	<b>OS-200_SDI only</b>
Analog RGB, HDMI, DVI outputs	<b>all versions</b>
Frame Lock to Input	<b>all versions</b>
GenLock to House Sync	<b>OS-200_SDI only</b>
Input Resolutions up to 1080P, 1900 x 1200 and 2048 x 1080	<b>all versions</b>
Input Resolutions include all Popular Vesa Modes (VGA, SVGA, XGA, SXGA, SXGA+, etc.)	<b>all versions</b>
Input Resolutions include all Popular Analog and Digital TV Modes (NTSC, PAL, 720P, 1080i, 1080p)	<b>all versions</b>
Output Resolutions up to 1080P, 1920 x 1200 and 2048 x 1080	<b>all versions</b>
Output Resolutions include all Popular Vesa Modes (VGA, SVGA, XGA, SXGA, SXGA+, etc.)	<b>all versions</b>
Outputs include all Popular Digital TV Modes	<b>all versions</b>
Image Rotation (90 degrees and 270 degrees) (up to SXGA+ input)	<b>all versions</b>
3 x 3 Input and Output Color Matrices for Color Primary Conversion	<b>all versions</b>
10 Bit Input / Output LUTs for Gamma Conversion and Color Temperature Compensation	<b>all versions</b>
Advanced De-Interlacing, Noise Reduction and Cadence Correction	<b>all versions</b>
Control Interfaces for USB, RS-232 and Ethernet	<b>all versions</b>
<b>Flexibility and Ease of Use</b>	
ASCII Control (all scaling and other features) Protocol over RS-232, USB and Ethernet	<b>all versions</b>
<b>Sophisticated Software (included)</b>	
Color Compensator (enables Color Temperature and Gamma Factor correction)	<b>all versions</b>
Control Utility (Script Utility test environment for ASCII Control)	<b>all versions</b>
Scriptex (multi-threaded for synchronizing control of several units)	<b>all versions</b>
Updater (firmware update utility)	<b>all versions</b>

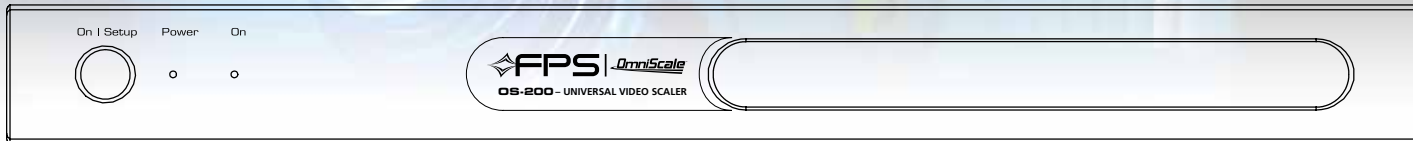


**OmniScale™**

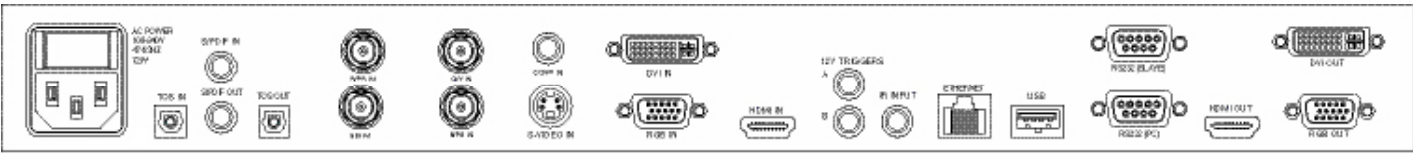
# OMNISCALE 200

VIDEO/GRAPHICS SCALER FOR PROFESSIONAL APPLICATIONS

## OMNISCALE 200 FRONT PANEL



## OMNISCALE 200 BACK PANEL



## ADVANCED OMNISCALE 200 APPLICATION



16:9 display

### DOWNSCALING



4:3 display

### UPSCALING WITH SIMULTANEOUS CROPPING AND ROTATION



16:9 displays

## ORDERING OPTIONS

Name	Part Number	Description
OmniScale-200	OS-200	Professional Video/Graphics Scaler
OmniScale-200 with HD-SDI	OS-200_SD1	Professional Video/Graphics Scaler with HD-SDI input