Datasheet

SGI™ Reality Center™ 2000D

Immersive Visualization Desk for Scientists, Engineers, and Researchers

Features

- Fakespace ImmersaDesk R2
- Footprint 78" x 85" (198 cm x 216 cm)
- 82.5" (210 cm) screen size
- Adjustable screen angles and variable height
- Electrohome Marquee stereoscopic CRT projector, 1280x1024
- Five pairs of StereoGraphics CrystalEyes active stereo shutter glasses, including one pair with integrated tracker
- Two StereoGraphics emitters
- Handheld, 6-degrees-of-freedom wand input controller with integrated tracker
- Ability to serve workgroups of 1–5 persons, plus observers
- Folding, transportable design
- Head and hand tracking
- With an Onyx2 workstation, provides unsurpassed stereoscopic resolution and performance

The Cost-Effective Group Virtual Reality Solution

Collaborating effectively in small workgroups is key to success in today's demanding scientific, manufacturing, and government projects. To increase productivity and expedite insight to complex problems, SGI offers complete Reality Center desk solutions, including the popular Fakespace ImmersaDesk™ R2. The ImmersaDesk R2, designed for solo use and small workgroups, suits interactive stereoscopic application development and implementation as well as presentation display. The SGI/Fakespace solution provides a sophisticated, fully integrated, and immersive group user interface solution that enables real-time modeling and simulations while fitting easily into your workspace or event location.

Silicon Graphics® Onyx2™ Performance and High Resolution

SGI Reality Center desks are based on the powerful Onyx2 visualization workstation. The only off-the-shelf UNIX® supercomputer designed to drive virtual environments, Onyx2 simultaneously computes and processes 3D graphics, imaging, and video data in real time. Its industry-leading feature set includes clip-mapping, texture-paging, volume rendering, anti-aliased full-frame HDTV display, multiple visual display channels, and a variety of tools for managing video, audio, and advanced user interface devices.

The Fakespace ImmersaDesk R2

Based on groundbreaking research by the Electronic Visualization Lab at the University of Illinois, Chicago, the ImmersaDesk R2 is a leading choice for visual supercomputing applications in scientific visualization, engineering analysis, and other high-performance, real-time graphics projects. This stand-alone, transportable system includes a rear-projected, adjustable-angled screen that provides an ideal drafting-table work environment. A tracked handheld wand allows intuitive and direct data manipulation, while a pair of StereoGraphics® CrystalEyes® active shutter glasses, with integrated tracker, enables continuously corrected stereo image perspectives in real time. Four additional pairs of CrystalEyes glasses are provided for stereoscopic group viewing.

Industry-Leading Applications

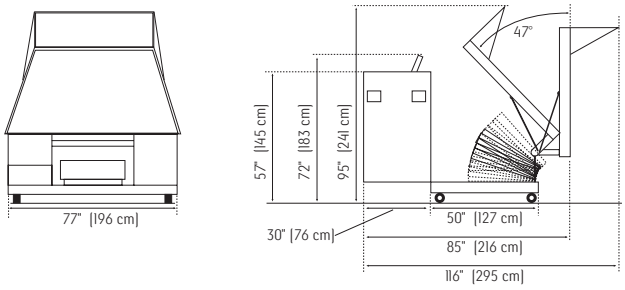
SGI works closely with the world's leading software companies to deliver fully integrated, optimized software for its Reality Center solutions. As a result of these strong partnerships, proven industry applications for scientific visualization, engineering analysis, digital prototyping, and training simulation—as well as standard software packages—are available to leverage the unique capabilities of this immersive visualization environment.

For custom applications and code optimization, including remote collaborative visualization over high-bandwidth networks, the SGI Global Consulting Services team is available to offer expertise and experience.

Supporting Your Transition to New Work Processes

With 15 years of experience developing and supporting virtual reality applications, SGI understands the complex issues involved in making the transition to immersive visualization and can help your organization accomplish the transition with ease. SGI solutions and services enable new opportunities for taking the lead within your field, complementing and dramatically improving your work processes to achieve vital strategic advantage.

Fakespace ImmersaDesk R2 Technical Specifications



Display	
• Screen size	82.5" (210 cm) diagonal display area
• Viewing angle	43°–89° (no projector recalibration required)
• Projection system	One Electrohome Marquee® custom 8000 series with P43 stereoscopic CRT
• Resolution	1280x1024 (typical) 1500x1100 (ANSI pixels) 2500x2000 (addressable)
• Frequency	120 MHz bandwidth (–3 dB) accommodating 4 ns pixels and digital clock rates over 250 MHz
• Brightness	225 ANSI lumens
• Projector control features	Infrared remote control plug-in wired control for field service
Interactive Devices	
• Input	One Fakespace wand (for interacting with data); magnetically tracked; two buttons plus one thumb-activated joystick and one trigger; comes with all associated hardware and cabling
• Tracking	Ascension magnetic trackers for wand and eyewear
Eyewear	
• Stereoscopic glasses	Five pairs StereoGraphics CrystalEyes VR eyewear (one pair is head tracked); active-shuttered; comes with all associated hardware (including two emitters and cabling)
General	
• Footprint	*Operational:* W: 78" (198 cm) H: 82"–105" (208 cm–267 cm) (adjustable) D: 85" (216 cm) *Transport mode:* W: 78" (198 cm) H: 34" (86 cm) D: 63" (160 cm)
• Drivers	Compatible with CAVE lib API
• Power	90 to 264 VAC for projection system; 1,250 W maximum including height and tilt mechanism, 650 W maximum for projector only
• Weight	950 lb (432 kg) (maximum)
• Inputs	13W3-RGB from SGI 15-pin HD from tracking PC 2 x RS232 from wand sensors and tracking data
• Cables	All necessary cabling, including 25-foot SGI input to projector and projector output to SGI monitor, 25-foot serial cables between SGI and PC, 15-pin HD to projector for tracking calibration from PC
• Other	Heavy duty casters

Onyx2 Technical Specifications

	Onyx2 InfiniteReality2™ Deskside	Onyx2 InfiniteReality2 Rack
• Frame buffer size/pipeline	80MB to 160MB	80MB to 320MB
• Display channels/pipeline	2 or 8	2 or 8
• Display capability	VGA to HDTV	VGA to HDTV
• Standard monitor size and resolution	24" 1920x1200	24" 1920x1200
• CPU	MIPS® R12000™	MIPS R12000
• Number of CPUs	2 to 4	2 to 128
• RAM memory	256MB to 8GB	256MB to 256GB
• Disk storage (internal)	1 to 5 9.1GB/18.2GB Ultra SCSI	1 to 11 9.1GB/18.2GB Ultra SCSI or 10 3.5" Fibre Channel
• Expansion slots	4 XIO slots standard and 3-slot PCI optional	9 XIO slots standard and 3-slot PCI optional
• Dimensions	W: 20" (51 cm) H: 26.5" (67 cm) D: 24" (61 cm)	W: 29" (74 cm) H: 73" (185 cm) D: 39" (99 cm) (per rack)
• Weight (maximum configuration)	215 lb (98 kg)	800 lb (364 kg) per rack
• Standard monitor weight	90.2 lb (41 kg)	90.2 lb (41 kg)

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