

# SGI 750 Periodic Table

## June 2001



Proprietary and Confidential

<b>Silicon Graphics 750</b> ATI GFX XPERT 2000 PRO AGP	<b>SGI 750</b> Itanium 733 ATI GFX 1GB / 18 GB SCSI/ \$15,500	<b>SGI 750</b> 2x Itanium 733 ATI GFX 1GB / 18 GB SCSI/ \$17,995 2GB / 18 GB SCSI/ \$18,995
	<b>Itanium 733 MHz 2MB Cache</b>	<b>Dual Itanium 733 MHz 2MB Cache</b>

### Standard Equipment: All Systems

52X CD-ROM  
 One 3.5" floppy drive  
 10/100 Base-T network interface  
 One 9-pin serial port  
 Four Universal Serial Bus (USB) ports  
 One PS/2 mouse port  
 One PS/2 keyboard port  
 Onboard audio  
 Ultra 3 SCSI Port (QLA12160)  
 7X 64bit PCI

Upgrade Options	
<b>Keyboard / Mouse / Cables</b>	\$69
<b>Operating Systems</b>	
Linux OS for SGI 750	\$495
<b>Display Options</b>	
19" Monitor	\$499
<b>Memory</b>	
(* 8 slots for Memory Expansion Card *)	
(* NOTE: The SGI 750 can hold 2 Memory Expan. Cards however an additional EMC at this time is not in the pricebook *)	
512MB (4x128 DIMMs)	\$695
1024MB (4x256 DIMMs)	\$1,800
<b>Storage</b> (*Drives Are At 10K RPM*)	
18 GB Ultra SCSI Disk	\$699

System Configuration	750 Workstation
Processor Support (2 MB Cache)	733Mhz Single or Dual Itanium
Maximum Memory	4GB PC100 SDRAM
Expansion Slots	PCI: 5x66MHz@3.3V & 2x33MHz@5V 1 AGP Pro 110 (4x)
Max. Internal Storage* *Drives are 18 GB	90 GB
Number Of Disk Slots	5x 1" internal or 3x 1.6" internal

# Desktop Periodic Table

## O2, Octane, Octane2

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**V12**  
48-bit RGBA db  
128 MB FB,  
104MB for Texture  
OpenGL on a Chip

**V10**  
48-bit RGBA  
32MB FB,  
8MB for Texture  
OpenGL on a Chip

**V8**  
48-bit RGBA db  
128 MB FB,  
104MB for Texture  
OpenGL on a Chip

**V6**  
48-bit RGBA  
32MB FB,  
8MB for Texture  
OpenGL on a Chip

**MXE**  
16,32, or 36 bit  
db color  
24 bit Z  
4 MB text.

**SE**  
16,32, or 36 bit  
db color  
24 bit Z  
text opt.

**O2 Graphics**  
32 bit db color  
24 bit Z

Upgrade Options	
<b>O2</b>	
400MHz R12000A Upgrade (2MB cache)	\$5,250
9GB Ultra-Fast-Wide SCSI, Internal	\$670
18GB Ultra-Fast-Wide SCSI, Internal	\$1,000
128MB Memory Upgrade*	\$535
256MB Memory Upgrade*	\$1,000
*Memory upgrade fills 1 of 4 banks	
<b>Octane</b>	
V6 Graphics Upgrade	\$6,000
4MB of texture upgrade for Octane/SE	\$2,000
9GB 3.5" Ultra SCSI Disk, 7200rpm, Internal	\$1,195
18GB 3.5" Ultra SCSI Disk, 7200rpm, Internal	\$1,355
<b>Octane2</b>	
9GB 3.5" Ultra SCSI Disk, 10,000rpm, Internal	\$670
18GB 3.5" Ultra SCSI Disk, 10,000rpm, Internal	\$1,000
Dual Channel Display Board for Octane2 V12	\$3,000
<b>Octane/Octane2</b>	
1x400MHz R12000 Upgrade (2MB cache)	\$5,500
2x400MHz R12000 Upgrade (2MB cache)	\$11,000
V8 Graphics Upgrade	\$8,000
V10 Graphics Upgrade w/ Xbow 1.4	\$9,500
V12 Graphics Upgrade w/ Xbow 1.4	\$11,500
256MB Memory Upgrade*	\$1,000
512MB Memory Upgrade*	\$2,000
2GB Memory Upgrade*	\$13,500
*Memory upgrade fills 1 of 4 banks	
40X SCSI CD-ROM Drive, External	\$795
20GB 4mm Tape Drive, Internal	\$1,600
<b>O2/Octane/Octane2</b>	
18GB Ultra-Fast-Wide 10,000rpm SCSI, Extern	\$1,800
20GB 4mm Tape Drive, External	\$2,500
3.5" Superdisk Floppy Drive, External	\$500

### Configurations for listed prices:

All O2's ship with 19" Monitors

- (A) 128 MB / 9 GB\*
- (B) 256 MB / 9 GB\*

\*Add \$850 for the video option

All Octanes ship with 21" Monitors

- (C) 256 MB / 9 GB
- (D) 512 MB / 18 GB
- (E) 2 GB / 18 GB

All Octane2's ship with 21" Monitors

- (F) 256 MB / 9 GB (10,000 rpm)
- (G) 512 MB / 18 GB (10,000 rpm)
- (H) 1 GB / 18 GB (10,000 rpm)
- (I) 2 GB / 18 GB (10,000 rpm)
- (J) 512 MB / 36 GB (10,000 rpm)

<b>Octane/MXE</b> 1 x 300	<b>Octane/MXE</b> 2 x 300	<b>Octane/MXE</b> 1 x 400	<b>Octane/MXE</b> 2 x 400
\$27,495(C) \$30,795(D)	\$32,495(C) \$35,795(D)	\$29,995(C) \$33,295(D)	\$39,995(C) \$43,295(D) \$48,295(E)
<b>Octane/SE</b> 1 x 300	<b>Octane/SE</b> 2 x 300		
\$17,495(C) \$20,795(D)	\$22,495(C) \$25,795(D)		

<b>Octane2/V12</b> 1 x 360	<b>Octane2/V12</b> 1 x 400	<b>Octane2/V12</b> 2 x 400
\$25,995 (F) \$30,295 (H)	\$28,495 (F) \$31,795 (G) \$32,395 (J)	\$38,495 (F) \$41,795 (G) \$46,795 (I) \$42,395 (J)
<b>Octane2/V10</b> 1 x 360	<b>Octane2/V10</b> 2 x 360	<b>Octane2/V10</b> 1X400
\$20,995 (F) \$24,295 (G)	\$25,995 (F)	\$23,495 (F) \$26,795 (G) \$27,395 (J)
<b>Octane2/V8</b> 1 x 360	<b>Octane2/V8</b> 2 x 360	<b>Octane2/V8</b> 1 x 400
\$22,495 (F) \$25,795 (G)	\$27,495 (F) \$30,795 (G)	\$24,995 (F) \$28,295 (G)
<b>Octane2/V6</b> 1 x 360	<b>Octane2/V6</b> 2 x 360	<b>Octane2/V6</b> 1 x 400
\$17,495 (F) \$20,795 (G)	\$22,495 (F) \$25,795 (G)	\$19,995 (F) \$23,295 (G) \$23,895 (J)
		<b>Octane2/V10</b> 2 x 400
		\$33,495 (F) \$36,795 (G) \$37,395 (J)
		<b>Octane2/V8</b> 2 x 400
		\$34,995 (F) \$38,295 (G)
		<b>Octane2/V6</b> 2 x 400
		\$29,995 (F) \$33,295 (G)

Octane / Octane2 Graphics Performance						
Graphics Performance	SE	MXE	V6	V8	V10	V12
Pixels	70	140	425	425	448	448
3DV	1.88	2.23	TBD	TBD	TBD	TBD
Triangle Mesh(T-Mesh)	1.0	2.19	7.4	7.4	15.3	15.3
Textured T-Mesh	TBD	1.42	TBD	TBD	TBD	TBD
Rates in Million/second						

**Primitive Definitions**

"3DV" = M 3D Vectors/sec (Gouraud, Z)  
 "TMesh" = M Triangle Mesh/sec(Lit, Gouraud, Z, Immediate Mode)  
 (Octane - 25 Pixel, Octane2 - 1 Pixel)  
 "T-TMesh" = M Textured Triangle Mesh/sec (Lit, Gouraud, 50 Pixel)

<b>O2</b> 1.15M 3DV 1.42M T-Mesh 401K T-TMesh	<b>O2</b> 1.24M 3DV 1.52M T-Mesh 531K T-TMesh	<b>O2</b> TBD 3DV TBD T-Mesh TBD T-TMesh
\$7,495 (A)	\$10,495 (B)	\$14,495 (B)
<b>RM5200</b> 300 MHz 1 MB SC	<b>R12000</b> 300 MHz 1 MB SC	<b>R12000A</b> 400 MHz 2 MB SC
SPECint95 8.1 SPECfp95 6.84	SPECint95 14.5 SPECfp95 10.4	SPECint95 19.3 SPECfp95 13.6

<b>1xR12000</b> 300 MHz 2 MB SC	<b>2xR12000</b> 300 MHz 2 MB SC	<b>1xR12000A</b> 400 MHz 2 MB SC	<b>2xR12000A</b> 400 MHz 2 MB SC	<b>1xR12000A</b> 360 MHz 2 MB SC	<b>2xR12000A</b> 360 MHz 2 MB SC	<b>1xR12000A</b> 400 MHz 2 MB SC	<b>2xR12000A</b> 400 MHz 2 MB SC
SPECint95 17.3 SPECfp95 27.4	SPECint95 17.3 SPECfp95 34.3	SPECint95 22.9 SPECfp95 34.6 SPECint00 311 SPECfp00 295	SPECint95 22.9 SPECfp95 40.3 SPECint00 311 SPECfp00 295	SPECint95 20.7 SPECfp95 32.4 SPECint00 284 SPECfp00 280	SPECint95 20.7 SPECfp95 36.3 SPECint00 284 SPECfp00 280	SPECint95 22.9 SPECfp95 34.6 SPECint00 311 SPECfp00 295	SPECint95 22.9 SPECfp95 40.3 SPECint00 311 SPECfp00 295

# Advanced Graphics Periodic Table

## Onyx 2 May 2001



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RACK

**Onyx2 InfiniteReality3**  
R12000 at 400MHz/8MB Cache  
2 channels  
TM/Mem/disk/CD  
[2-pipe, 4RM capacity pipe 1,  
2RM capacity pipe 2]

**Onyx2 IR3 Rack**  
2 x R12000/400  
1xIR pipe  
256MB/256MB/9GB/CD  
\$217,000

**Onyx2 GroupStation**  
4 x R12000/400  
2xIR pipe, 1 rack  
256MB/512MB/9GB/CD  
\$362,000

**Onyx2 Reality Monster ER**  
8 x R12000/400  
2xIR pipe, 3 rack  
256MB/1GB/9GB/CD  
\$572,000

**Onyx2 Reality Monster GP**  
16 x R12000/400  
3xIR pipe, 4 rack  
256MB/2GB/9GB/CD  
\$965,000

**Onyx2 InfiniteReality3**  
R12000 at 300MHz/8MB Cache  
2 channels  
TM/Mem/disk/CD  
[2-pipe, 4RM capacity pipe 1,  
2RM capacity pipe 2]

**Onyx2 IR3 Rack**  
2 x R12000/300  
1xIR pipe  
256MB/256MB/9GB/CD  
\$202,000

**Onyx2 GroupStation**  
4 x R12000/300  
2xIR pipe, 1 rack  
256MB/512MB/9GB/CD  
\$332,000

**Onyx2 Reality Monster ER**  
8 x R12000/300  
2xIR pipe, 3 rack  
256MB/1GB/9GB/CD  
\$512,000

**Onyx2 Reality Monster GP**  
16 x R12000/300  
3xIR pipe, 4 rack  
256MB/2GB/9GB/CD  
\$845,000

DESKSIDE

**Onyx2 InfiniteReality3**  
R12000 at 400MHz/8MB Cache  
2 Channels  
TM/Mem/disk/CD  
[2RM capacity]

**Onyx2 IR3 Deskside**  
2 x R12000/400  
256MB/256MB/9GB/CD  
\$125,000

**Onyx2 IR3 Deskside**  
4 x R12000/400  
256MB/256MB/9GB/CD  
\$165,000

**Sample RealityMonster configurations only!**  
Virtually any combination of graphics and compute up to 16 pipes and 128 processors can be configured.

**Onyx2 InfiniteReality3**  
R12000 at 300 MHz/8MB Cache  
2 Channels  
TM/Mem/disk/CD  
[2RM capacity]

**Onyx2 IR3 Deskside**  
2 x R12000/300  
256MB/256MB/9GB/CD  
\$105,000

**Onyx2 IR3 Deskside**  
4 x R12000/300  
256MB/256MB/9GB/CD  
\$135,000

**Onyx2 Product Family Upgrades/Add-ons**

2 x 300 MHz R12K node board, 8MB cache	\$30,000
2 x 400 MHz R12K node board, 8MB cache	\$40,000
Compute insert modules with:	
2 x 300 MHz R12K, 8MB cache	\$120,000
2 x 400 MHz R12K, 8MB cache	\$130,000
Expansion Rack with:	
2 x 300 MHz R12K (8MB cache) Compute Insert Module	\$145,000
2 x 400 MHz R12K (8MB cache) Compute Insert Module	\$155,000
256 MB memory	\$2,048
512 MB memory	\$4,096
1 GB memory	\$8,192
RM for Reality Graphics (64MB Tex. Mem.)	\$12,000
RM for IR2 Graphics (64 MB Tex. Mem.)	\$55,000
RM for IR3 Graphics (256 MB Tex. Mem.)	\$55,000
Add'l InfiniteReality pipeline for IR2 or IR3	\$85,000
Graphics insert module for IR2 or IR3 (includes 1 pipe)	\$115,000
9GB R10k Ultra SCSI Disk	\$1,400
18GB R10k Ultra SCSI Disk	\$1,800
36GB R10k Ultra SCSI Disk	\$2,000
DG5-8 Channel Upgrade	\$20,000

\*Onyx2 InfiniteReality2 priced the same as comparable IR3 system

**Onyx2 Reality**  
R12000 at 400MHz/8MB Cache  
2 Channels  
TM/Mem/disk/CD  
[2RM capacity]

**Onyx2 RT Deskside**  
2 x R12000/400  
64MB/256MB/9GB/CD  
\$87,000

**Onyx2 RT Deskside**  
4 x R12000/400  
64MB/256MB/9GB/CD  
\$127,000

**Onyx2 Reality**  
R12000 at 300MHz/8MB Cache  
2 Channels  
TM/Mem/disk/CD  
[2RM capacity]

**Onyx2 RT Deskside**  
2 x R12000/300  
64MB/256MB/9GB/CD  
\$72,000

**Onyx2 RT Deskside**  
4 x R12000/300  
64MB/256MB/9GB/CD  
\$102,000

2 CPU

4 CPU

8 CPU

16 CPU

CPU Performance		
CPU/MHz	SPECint95/tp95	SPECint00/tp00
R12000/300	18.4/34.4	264/283
R12000/400	24.2/43.8	347/343

Model Form Capacities	Reality Deskside	IR2 or IR3 Deskside	IR2 or IR3 Rack Single Pipe	GroupStation*	Reality Monster**
<b>Max Disk (internal)</b>	1-5 9.1GB or 18.2GB	1-5 9.1GB or 18.2GB	1-11 9.1GB or 18.2GB	1-11 9.1GB or 18.2GB	1-11 9.1GB or 18.2GB
<b>Max CPUs</b>	1-4	1-4	2-128	4-128	4-128
<b>Max. Memory</b>	8GB	8GB	8GB	256GB	256GB
<b>Texture Memory</b>	64MB	64 or 256MB	64 or 256MB	64 or 256MB	64 or 256MB
<b>Anti-Aliased Vectors/s</b>	3.6M	8.6M (IR2)	8.6M (IR2)	138M (IR2)	138M (IR2)
<b>Triangles/s</b>	5.5M	13.3M (IR2)	13.3M (IR2)	13.3M (IR2)	13.3M (IR2)
<b>Cache</b>	8MB	8MB	8MB	8MB	8MB

R  
A  
C  
K

<b>SGI 2x00</b> R12000 at 400 MHz CFP/CINT 2000 Rate SPECint95/00 24.2/347 SPECfp95/00 43.8/343 8MB SC
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<b>SGI 2x00</b> R12000 at 300 MHz SPECint95/00 18.4/264 SPECfp95/00 34.4/283 8MB SC
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<b>SGI 2100</b> R12000 at 350 MHz SPECint95 15.3 SPECfp95 25.2 4MB SC
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<b>SGI 2200</b> R12000 at 400 MHz SPECint95/00 24.2/347 SPECfp95/00 43.8/343 8MB SC
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<b>SGI 2200</b> R12000 at 300 MHz SPECint95/00 18.4/264 SPECfp95/00 34.4/283 8MB SC
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<b>SGI 2100</b> R12000 at 350 MHz SPECint95 15.3 SPECfp95 25.2 4MB SC
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<b>Origin 200 QC Tower</b> R12000 at 360 MHz SPECint95/00 21.7/288 SPECfp95/00 32.6/291 4MB SC (* with GIGACHannel)
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<b>Origin 200 QC Tower</b> R12000 at 270 MHz SPECint95 15.8 SPECfp95 25.2 4MB SC (* with GIGACHannel)
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<b>SGI 2400</b> 2 x R12000/400 6.70 / 7.79 256MB/18GB/CD \$167,448
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<b>SGI 2400</b> 2 x R12000/300 256MB/18GB/CD \$157,448
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<b>SGI 2100</b> 2 x R12000/350 256MB/18GB/CD \$32,448
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<b>SGI 2200</b> 2 x R12000/400 256MB/18GB/CD \$52,448
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<b>SGI 2200</b> 2 x R12000/300 256MB/18GB/CD \$42,448
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<b>SGI 2100</b> 2 x R12000/350 256MB/18GB/CD \$32,448
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<b>Origin 200</b> 2 x R12000/360 256MB/9GB \$24,043 \$29,043*
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<b>Origin 200</b> 1 x R12000/270 256MB/9GB \$17,043 \$23,043*
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<b>SGI 2400</b> 4 x R12000/400 13.19 / 15.38 512MB/18GB/CD \$209,496
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<b>SGI 2400</b> 4 x R12000/300 512MB/18GB/CD \$189,496
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<b>SGI 2100</b> 4 x R12000/350 512MB/18GB/CD \$46,996
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<b>SGI 2200</b> 4 x R12000/400 512MB/18GB/CD \$94,496
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<b>SGI 2200</b> 4 x R12000/300 512MB/18GB/CD \$74,496
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<b>SGI 2100</b> 4 x R12000/350 512MB/18GB/CD \$46,996
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<b>Origin 200 Dual Tower</b> 4 x R12000/360 512MB/2x 9GB \$45,091 \$50,091*
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<b>Origin 200 Dual Tower</b> 4 x R12000/270 512MB/2x 9GB \$41,091 \$46,091*
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<b>SGI 2400</b> 8 x R12000/400 26.19 / 30.51 1024MB/18GB/CD \$293,592
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<b>SGI 2400</b> 8 x R12000/300 1024MB/18GB/CD \$253,592
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<b>SGI 2100</b> 8 x R12000/350 1024MB/18GB/CD \$91,092
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<b>SGI 2200</b> 8 x R12000/400 1024MB/18GB/CD \$178,592
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<b>SGI 2200</b> 8 x R12000/300 1024MB/18GB/CD \$138,592
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<b>SGI 2100</b> 8 x R12000/350 1024MB/18GB/CD \$91,092
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<b>SGI 2400</b> 16 x R12000/400 2GB/18GB/CD \$526,784
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<b>SGI 2400</b> 16 x R12000/300 2GB/18GB/CD \$446,784
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<b>SGI 2100</b> 8 x R12000/350 1024MB/18GB/CD \$91,092
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<b>SGI 2200</b> 8 x R12000/400 1024MB/18GB/CD \$178,592
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<b>SGI 2200</b> 8 x R12000/300 1024MB/18GB/CD \$138,592
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<b>SGI 2100</b> 8 x R12000/350 1024MB/18GB/CD \$91,092
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<b>SGI 2400</b> 32 x R12000/400 105.52 / 124.51 4GB/18GB/CD \$1,068,168
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<b>SGI 2400</b> 32 x R12000/300 4GB/18GB/CD \$908,168
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<b>SGI 2100</b> 8 x R12000/350 1024MB/18GB/CD \$91,092
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<b>SGI 2200</b> 8 x R12000/400 1024MB/18GB/CD \$178,592
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<b>SGI 2200</b> 8 x R12000/300 1024MB/18GB/CD \$138,592
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<b>SGI 2100</b> 8 x R12000/350 1024MB/18GB/CD \$91,092
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<b>SGI 2x00</b> 64 x R12000/400 8GB/18GB/CD 2400 \$2,200,936 2800 \$2,350,536
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<b>SGI 2x00</b> 64 x R12000/300 8GB/18GB/CD 2400 \$1,880,936 2800 \$2,030,536
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<b>SGI 2100</b> 8 x R12000/350 1024MB/18GB/CD \$91,092
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<b>SGI 2200</b> 8 x R12000/400 1024MB/18GB/CD \$178,592
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<b>SGI 2200</b> 8 x R12000/300 1024MB/18GB/CD \$138,592
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<b>SGI 2100</b> 8 x R12000/350 1024MB/18GB/CD \$91,092
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<b>SGI 2800</b> 128 x R12000/400 406.63 / 476.71 16GB/36GB/CD \$4,541,672
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<b>SGI 2800</b> 128 x R12000/300 16GB/36GB/CD \$3,901,672
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SYSTEM CAPACITIES: ORIGIN SERVER FAMILY

Model Form Capacities	SGI 200 Single/Dual Tower 225/270/360 MHz	SGI 2100 Deskside 350 MHz	SGI 2200 Deskside 400/300 MHz	SGI 2400 Single Rack 400/300 MHz	SGI 2400 Multi-Rack 400/300 MHz	SGI 2800 Multi-Rack 400/300 MHz
Max I/O BW (sustained)	1.15GBs/2.3GBs	5.0 GB/s	5.0 GB/s	5.0 GB/s	40.0 GB/s	160.0 GB/s
Max Bisectonal BW** Reg/Xpress Lnk.	576MBs/1.15GBs***	1.25GB/s	1.25/na GB/s	1.25/2.5 GB/s	10/na GB/s	80/na GB/s
MAX Disk*		8.6TB	8.6TB	8.6TB	8.6TB	8.6TB
SCSI	2 TB	-	-	-	-	-
SCSI RAID	16TB	43.6TB	43.6TB	43.6TB	43.6TB	43.6TB
Fiber Channel	20TB	171.8TB	171.8TB	171.8TB	171.8TB	171.8TB
F. C. RAID	-	-	-	-	-	-
Min/Max CPUs	1/2 Single - 2/4 Dual	2/8	2/8	2/16	2/64	2/512
Max. Memory	2GB Single-4GB Dual	16GB	16GB	16GB	128GB	1024GB
Cache	2/4/4 MB	4 MB	8MB	8MB	8MB	8MB

\* Specs are on a 'per module' basis for the SGI 2x00  
 \*\*For the SGI 2x00 systems, the Maximum Sustained bisectonal bandwidth is 1.25 per Module, with a module having 8 CPUs  
 \*\*\* With GIGACHannel Upgrade

Origin 200 Upgrades

2 x 270 R12K, 4MB Cache, IRIX for 2 CPUs	\$15,000
2 x 360 R12K, 4MB Cache, IRIX for 2 CPUs	\$17,000
Internal 32x SCSI CD-ROM	\$295

SGI 2100 Upgrades\*

2 x 350 R12K, 4MB Cache	\$30,000
Rack-2x00*	\$7,500

\*Rack-Mountable SGI 2100's do not come with a rack

SGI 2x00 Upgrades

2 x 300 R12K node board, 8MB Cache	\$30,000
2 x 400 R12K node board, 8MB Cache	\$40,000
Insert Module (no node board)	\$90,000
Expansion Rack (1 Insert Module, no node board)	\$115,000

Memory Pricing

256MB (1 bank, 64MBit)	\$2,048
512MB (1 bank, 64MBit)	\$4,096
1GB (2 or 4 banks, 64MBit)	\$8,192
2GB (8 banks, 64MBit)	\$16,384
4GB (4 or 8 banks, 64MBit)	\$32,768
16GB (32 banks, 64MBit)	\$131,072
32GB (64 banks, 64MBit)	\$262,144

Directory DIMM for 16MBit Memory	\$640
Directory DIMM for 64MBit Memory	\$2,560
Advanced Server Environment	\$1000

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Model Form Capacities	3200 Deskside/Rack*	3400 Single/Multi Rack	3800 Multi Rack
Min/Max CPUs	2/8	4/32	16/512
Cache	8 MB	8MB	8MB
Max. Memory	16GB	64GB	1TB
Max Bandwidth	11.2GB/s	44.8GB/s	716GB/s
Max PCI BW	3.96GB/s	22.9GB/s	403GB/s
Max PCI Slots**	17	89	1,529
Max IR3 Pipes***	1x4RM, 1x2RM	8x4RM	16x4RM

\*Because of the size of the G-Brick required for an Onyx 3x00 system, the Onyx 3200 system is required to be housed in a full size rack.  
 \*\*A P-Brick has 12 slots (2 per bus), and a bus is capable of either 33 or 66 MHz at 3.3 volts  
 An I-Brick can house 3x33MHz cards and 2x66MHz cards (1x66MHz used by system disk controller)  
 \*\*\*Applies only to Onyx 3x00 Systems

Restart Memory Latency	Max CPUs	Origin 3000	Origin 2000
Local	2	190	297
Local	4	190	630
No Router	8	230	735
Same Router	16	300	860
2 Routers	32	340	985
3 Routers	64	370	1090
4 Routers	128	430	1210

Maximum Brick Configuration	Rack Space Requirement (U)	Max per Deskside Rack (17U)	Max per Full Rack (39U)
C Brick	3	5	13
R Brick	2	0	2
I Brick	4	4	9
P Brick	4	4	9
X Brick	4	4	9
D Brick	4	5	11
G Brick	18	0*	2
Power Bay	3	1	2

\*A full rack is required for a G Brick

**SGI 3800**  
 R12000 at 400 MHz  
 R14000 at 500 MHz

**Single Processor Benchmarks**  
 R12000 at 400 MHz with 8MB Cache  
 R14000 at 500 MHz with 8MB Cache

SPECint95 24.5	SPECint00 427
SPECfp95 47.9	SPECfp00 463
SPECint00 353	
SPECfp00 407	

**System Notes:**  
 -Each IR pipeline requires one C-Brick & 1 of either I-Brick or X-Brick.  
 -Onyx 3200 Systems come with one full rack and one G-Brick.  
 -Onyx 3400 Systems come bundled with one CPU and one Graphics rack, as well as one G-Brick.  
 -Onyx 3800 Systems come bundled with one CPU, one I/O, and one Graphics rack, as well as one G-Brick.

**SGI 3800**  
 A: 16 x R12000/400  
 B: 16 x R14000/500  
 2GB/18GB/CD  
 A: \$522,384  
 B: \$582,384

**SGI 3800**  
 A: 32 x R12000/400  
 B: 32 x R14000/500  
 4GB/18GB/CD  
 A: \$818,768  
 B: \$938,768

**SGI 3800**  
 A: 64 x R12000/400  
 B: 64 x R14000/500  
 8GB/18GB/CD  
 A: \$1.6M  
 B: \$1.8M

**SGI 3800**  
 A: 128 x R12000/400  
 B: 128 x R14000/500  
 16GB/18GB/CD  
 A: \$3.1M  
 B: \$3.6M

**SGI 3800**  
 A: 512 x R12000/400  
 B: 512 x R14000/500  
 64GB/18GB/CD  
 A: \$13M  
 B: \$15M

**Onyx 3800**  
 R12000 at 400 MHz  
 R14000 at 500 MHz  
 1 InfiniteReality3 Pipe

**Onyx 3800**  
 A: 16 x R12000/400  
 B: 16 x R14000/500  
 1 x 1RM IR3 Pipe  
 2GB/18GB/CD  
 A: \$656,684  
 B: \$716,684

**Onyx 3800**  
 A: 32 x R12000/400  
 B: 32 x R14000/500  
 1 x 1RM IR3 Pipe  
 4GB/18GB/CD  
 A: \$953,068  
 B: \$1,073,068

**Onyx 3800**  
 A: 64 x R12000/400  
 B: 64 x R14000/500  
 1 x 1RM IR3 Pipe  
 8GB/18GB/CD  
 A: \$1.7M  
 B: \$1.9M

**Onyx 3800**  
 A: 128 x R12000/400  
 B: 128 x R14000/500  
 1 x 1RM IR3 Pipe  
 16GB/18GB/CD  
 A: \$3.3M  
 B: \$3.8M

**Onyx 3800**  
 A: 512 x R12000/400  
 B: 512 x R14000/500  
 1 x 1RM IR3 Pipe  
 64GB/18GB/CD  
 A: \$13.8M  
 B: \$15.8M

**SGI 3400**  
 R12000 at 400 MHz  
 R14000 at 500 MHz

**SGI 3400**  
 A: 4 x R12000/400  
 B: 4 x R14000/500  
 512MB/18GB/CD  
 A: \$150,096  
 B: \$165,096

**SGI 3400**  
 A: 8 x R12000/400  
 B: 8 x R14000/500  
 1GB/18GB/CD  
 A: \$224,192  
 B: \$225,192

**SGI 3400**  
 A: 16 x R12000/400  
 B: 16 x R14000/500  
 2GB/18GB/CD  
 A: \$372,384  
 B: \$432,384

**SGI 3400**  
 A: 32 x R12000/400  
 B: 32 x R14000/500  
 4GB/18GB/CD  
 A: \$688,768  
 B: \$808,768

**Onyx 3400**  
 R12000 at 400 MHz  
 R14000 at 500 MHz  
 1 InfiniteReality3 Pipe

**Onyx 3400**  
 A: 4 x R12000/400  
 B: 4 x R14000/500  
 1 x 1RM IR3 Pipe  
 512MB/18GB/CD  
 A: \$284,396  
 B: \$299,396

**Onyx 3400**  
 A: 8 x R12000/400  
 B: 8 x R14000/500  
 1 x 1RM IR3 Pipe  
 1GB/18GB/CD  
 A: \$358,492  
 B: \$388,492

**Onyx 3400**  
 A: 16 x R12000/400  
 B: 16 x R14000/500  
 1 x 1RM IR3 Pipe  
 2GB/18GB/CD  
 A: \$566,684  
 B: \$566,684

**Onyx 3400**  
 A: 32 x R12000/400  
 B: 32 x R14000/500  
 1 x 1RM IR3 Pipe  
 4GB/18GB/CD  
 A: \$803,068  
 B: \$923,068

**SGI 3200**  
 R12000 at 400 MHz  
 R14000 at 500 MHz

**SGI 3200**  
 A: 2 x R12000/400  
 B: 2 x R14000/500  
 512MB/18 GB/CD  
 A: \$50,096  
 B: \$56,096

**SGI 3200**  
 A: 4 x R12000/400  
 B: 4 x R14000/500  
 512MB/18GB/CD  
 A: \$80,096  
 B: \$92,096

**SGI 3200**  
 A: 8 x R12000/400  
 B: 8 x R14000/500  
 1GB/18GB/CD  
 A: \$154,192  
 B: \$181,192

**Onyx 3200**  
 R12000 at 400 MHz  
 R14000 at 500 MHz  
 1 InfiniteReality3 Pipe

**Onyx 3200**  
 A: 2 x R12000/400  
 B: 2 x R14000/500  
 1 x 1RM IR3 Pipe  
 512MB/18GB/CD  
 A: \$174,396  
 B: \$180,396

**Onyx 3200**  
 A: 4 x R12000/400  
 B: 4 x R14000/500  
 1 x 1RM IR3 Pipe  
 512MB/18GB/CD  
 A: \$204,396  
 B: \$216,396

**Onyx 3200**  
 A: 8 x R12000/400  
 B: 8 x R14000/500  
 1 x 1RM IR3 Pipe  
 1GB/18GB/CD  
 A: \$278,492  
 B: \$305,492

**SGI 3000 Upgrades**

**CPU**  
 C-Brick 4x400MHz/8MB R12Ks \$70,000  
 C-Brick 4x500MHz/8MB R14Ks \$85,000  
 CPU Rack (2x8-port routers, L2, no Pwr., no CPU) \$175,000  
 Full 32x400Mhz CPU Rack, 8 C-bricks, 2 routers \$735,000  
 Full 32x500Mhz CPU Rack, 8 C-bricks, 2 routers \$855,000

**I/O (Each I/O Brick requires one C-Brick.)**  
 I-Brick (18GB disk, 4PCI, 10/100BT Ethernet)\* \$10,000  
 \*The 18GB system disks fills 1 of 2 drive bays in the I-Brick  
 P-Brick (12x64bit 3.3V PCI slots at 66MHz) \$20,000  
 X-Brick (4 XIO Slots) \$20,000  
 I/O Rack (Empty) \$4,900  
 NUMALink 1m intra-rack connection Cable \$2,000  
 NUMALink 2m intra-rack connection Cable \$2,500  
 NUMALink 3m intra-rack connection Cable \$3,500

**Graphics**  
 G-Brick (Empty, can have 1x2RM & 1x4RM) \$30,000  
 Graphics Rack (Empty) \$10,000  
 InfiniteReality3 Pipeline\* \$85,000  
 \*Each IR pipeline requires 1 C-Brick & 1 of either I-Brick or X-Brick.  
 Additional Raster Mgr. (256 MB Texture Mem.) \$55,000  
 Upgrade from 2-Ch DG to 8-Ch DG \$30,000

**Storage**  
 D-Brick (no drives) \$7,000  
 36 GB Fibre Channel Drive (10,000 rpm) \$1,555  
 18 GB Fibre Channel Drive (10,000 rpm) \$1,000  
 72 GB Fibre Channel Drive (10,000 rpm) \$2,650

**Memory - 8 slots per C-Brick**  
 512MB RAM - 2 DIMMs \$4,096  
 1GB RAM - 2 DIMMs \$8,192  
 1GB RAM - 2 DIMMs\* \$9,216  
 \*Includes Directory Memory