



POWER CHALLENGE Compute Servers Periodic Table

June, 1996

POWER CHALLENGE XL R10000
Processor/Speed
Peak GFLOPS
Product Code

POWER CHALLENGE XL
2xR10000
>0.76 Pk GFLOPS
R-95802-S2-PWR

POWER CHALLENGE XL
4xR10000
>1.52 Pk GFLOPS
R-95804-S2-PWR

POWER CHALLENGE XL
6xR10000
>2.28 Pk GFLOPS

POWER CHALLENGE XL
8xR10000
>3.04 Pk GFLOPS
R-95808-S2-PWR

POWER CHALLENGE XL
12xR10000
>4.56 Pk GFLOPS

POWER CHALLENGE XL
16xR10000
>6.08 Pk GFLOPS
R-95816-S2-PWR

POWER CHALLENGE XL
18xR10000
>6.84 Pk GFLOPS

POWER CHALLENGE XL
24xR10000
>9.12 Pk GFLOPS

POWER CHALLENGE XL
36xR10000
>13.68 Pk GFLOPS
R-95836-S2-PWR

POWER CHALLENGE XL R8000
Processor/Speed
Peak GFLOPS
Product Code
DP Linpack A/B1
SPECrate A/B2

POWER CHALLENGE XL
2xR8000/90
0.72 Pk GFLOPS
R-79802-S2-1
/ 569
6613/18682

POWER CHALLENGE XL
4xR8000/90
1.44 Pk GFLOPS
/ 1124
13072/37224

POWER CHALLENGE XL
6xR8000/90
2.16 Pk GFLOPS

POWER CHALLENGE XL
8xR8000/90
2.88 Pk GFLOPS
/ 2045
25476/74037

POWER CHALLENGE XL
12xR8000/90
4.32 Pk GFLOPS

POWER CHALLENGE XL
16xR8000/90
5.76 Pk GFLOPS
/ 3240
47131/148900

POWER CHALLENGE XL
18xR8000/90
6.48 Pk GFLOPS
R-79818-S2-1

POWER CHALLENGE GR R10000
Processor/Speed
Peak GFLOPS
Product Code
DP Linpack A/B1
SPECrate A/B2

POWER CHALLENGE GR
2xR10000
>0.76 Pk GFLOPS
R-95802-GR-B

POWER CHALLENGE GR
4xR10000
>1.52 Pk GFLOPS
R-95804-S2-GR-B

POWER CHALLENGE GR
6xR10000
>2.28 Pk GFLOPS

POWER CHALLENGE GR
8xR10000
>3.04 Pk GFLOPS
R-95808-S2-GR-B

POWER CHALLENGE GR
12xR10000
>4.56 Pk GFLOPS

POWER CHALLENGE GR
16xR10000
>6.08 Pk GFLOPS
R-95816-S2-GR-B

POWER CHALLENGE GR
18xR10000
>6.84 Pk GFLOPS

POWER CHALLENGE GR
24xR10000
>9.12 Pk GFLOPS
R-95824-S2-GR-B

POWER CHALLENGE GR R8000
Processor/Speed
Peak GLOPS
Product Code
DP Linpack A/B1
SPECrate A/B2

POWER CHALLENGE GR
2xR8000/90
0.72 Pk GFLOPS
/ 569
6613/18682 *

POWER CHALLENGE GR
4xR8000/90
1.44 Pk GFLOPS
/ 1124
13072/37224 *

POWER CHALLENGE GR
6xR8000/90
2.16 Pk GFLOPS

POWER CHALLENGE GR
8xR8000/90
2.88 Pk GFLOPS
/ 2045
25476/74037

POWER CHALLENGE GR
12xR8000/90
4.32 Pk GFLOPS

POWER CHALLENGE Memory Options

	Add Memory	Leaves
FTO-64UP256-D1**	64 MB	1
FTO-64UP512-D2**	512 MB	2
FTO-64UP1GB-D2**	1 GB	2
FTO-64UP2GB-D2**	2 GB	2
FTO-64UP2GB-D4**	2 GB	4
FTO-64UP2GB-D8**	2 GB	8
FTO-64UP4GB-D8**	4 GB	8
FTO-64UP512-4**	512 MB	4
FTO-64UP1GB-4**	1 GB	4
FTO-64UP2GB-8**	2 GB	8
FTO-64UP256-2**	256 MB	2
FTO-64NC**	64 MB	1
FTO-64UP512-2**	512 MB	2

POWER CHALLENGE L R10000
Processor/Speed
Peak GFLOPS
Product Code
DP Linpack A/B1
SPECrate A/B2

POWER CHALLENGE L
2xR10000
>0.76 Pk GFLOPS
D-95602-S2-PWR

POWER CHALLENGE L
4xR10000
>1.52 Pk GFLOPS
D-95604-S2-PWR

POWER CHALLENGE L
6xR10000
>2.28 Pk GFLOPS

POWER CHALLENGE L
8xR10000
>3.04 Pk GFLOPS
D-95608-S2-PWR

POWER CHALLENGE L
12xR10000
>4.56 Pk GFLOPS

POWER CHALLENGE Configurations

	Standard	Base Memory	Base Disk
POWER CHALLENGE L	64 Mb	2 Gb	
POWER CHALLENGE GR	64 Mb	2 Gb	
POWER CHALLENGE XL	64 Mb	2 Gb	

POWER CHALLENGE L R8000
Processor/Speed
Peak GFLOPS
Product Code
DP Linpack A/B1
SPECrate A/B2
SPECint92/fp923

POWER CHALLENGE L
1xR8000/90
0.36 Pk GFLOPS
D-79601-S2-1
125.6/308
3314/9373
132.2/396.1

POWER CHALLENGE L
2xR8000/90
0.72 Pk GFLOPS
D-79602-S2-1
/ 569
6613/18682

POWER CHALLENGE L
4xR8000/90
1.44 Pk GFLOPS
/ 1124
13072/37224

POWER CHALLENGE L
6xR8000/90
2.16 Pk GFLOPS

POWER CHALLENGE Processor Upgrade Options

System	Processor Type
HU-275	L, XL
HU-275G	GR
HU-290	L, XL
HU-290G	GR
HU-295-PWR	L, GR, XL
HU-495-PWR	L, GR, XL
	2 - R8000/75Mhz
	2 - R8000/90Mhz
	2 - R8000/90Mhz
	2 - R10000
	4 - R10000

Performance

1: DP Linpack A/B = Double Precision Linpack 100x100 (1 on N) / Double Precision Linpack 1000x1000 (1 on N)

- R8000/75MHz: DP Linpack 100x100 = 105.9; 1000x1000 = 260
- R8000/90MHz: DP Linpack 100x100 = 125.6; 1000x1000 = 308

2: SPECrate A/B = SPECrate_int92 / SPECrate_fp92

- R8000/75MHz: SPECrate_int92=2760, SPECrate_fp92=6658
- R8000/90MHz: SPECrate_int92=3314, SPECrate_fp92=9373

3: SPECint92/ SPECfp92

- R8000/75MHz: SPECint92 = 111.5, SPECfp92 = 310.8
- R8000/90MHz: SPECint92=132.2, SPECfp92=396.1

* Rack based systems
** Only one FTO Option for each system ordered

POWER CHALLENGE GR GRAPHICS OPTIONS

OPTION	CONFIGURATION
Extreme Graphics	EX-VCONS
RealityEngine2	HU-RE2PIPE
	HU-RE2PIPE-RM5
InfinteReality	HU-IRPIPE-16-2
	HU-IRPIPE-16-8
	HU-IRPIPE-64-2
	HU-IRPIPE-64-8

POWER CHALLENGE Viz Console

Extreme Graphics EX-VCONS

- 1 CPU
- 2 CPUs
- 4 CPUs
- 6 CPUs
- 8 CPUs
- 12 CPUs
- 16 CPUs
- 18 CPUs
- 24 CPUs
- 36 CPUs

Performance numbers for R10K are preliminary