

# IBM POWER7™ Systems Family Quick Reference Guide

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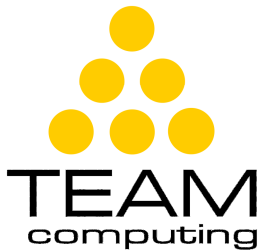


**BladeCenter® PS700 Express**    **BladeCenter® PS701 Express**    **BladeCenter® PS702 Express**    **Power 750 Express**    **Power 755 Express**    **Power 770 Express**    **Power 780**

|  |  |  |  |  |                                    |  |  |
|--|--|--|--|--|------------------------------------|--|--|
| No. of cores<br>Speed (GHz)<br>POWER7™ | 4<br>3.0 GHz   | 8<br>3.0 GHz   | 16<br>3.0 GHz  | 8, 16, 24, 32<br><u>3.0/3.3 GHz</u><br>6, 12, 18, 24<br><u>3.3 GHz</u><br>32<br>3.55 GHz             | 32<br>3.3 GHz                      | 16, 32, 48, 64<br>3.1 GHz<br><br>12, 24, 36, 48<br>3.5 GHz               | 2 to 16<br>3.5 / 4.4 GHz   |
| Min – Max<br>Memory (RAM)              | 8 to 64 GB   | 8 to 128 GB  | 16 to 128 GB   | 8 to 512 GB  | 128 to 256 GB                      | 32 GB to 2 TB  | 32 GB to 2 TB  |
| Max CEC disk<br>bays                   | 2  | 1  | 2  | 8  | 8                                  | 6 per node.<br>Max per sys 24  | 6 per node.<br>Max per sys 24  |
| Max internal<br>sys storage            | 1.2 TB   | 600 GB   | 1.2 TB   | 2.4 TB   | 2.4 TB                             | 7.2 TB   | 7.2 TB   |
| Max CEC PCI<br>slots                   | <u>Expansion Cards</u><br>1 PCIe CIOv<br>1 PCIe CFFh | <u>Expansion Cards</u><br>1 PCIe CIOv<br>1 PCIe CFFh | <u>Expansion Cards</u><br>1 PCIe CIOv<br>1 PCIe CFFh | 3 PCIe and<br>2 PCI-X DDR  | 3 PCIe and<br>2 PCI-X DDR          | 6 PCIe per node<br>24 per system   | 6 PCIe per node<br>24 per system   |
| Max partitions<br>(10/core)            | 40   | 80   | 160  | 160-240/320 <sup>4</sup>   | 32 (DLPAR<br>Only)                 | 160 – 480/640 <sup>4</sup>   | 160 - 640 <sup>4</sup>   |
| IBM i CPW<br>Ranges                    | 21,100   | 42,100   | 76,300   | <u>3.0 GHz:</u><br>44600 - 158300<br><u>3.3 GHz:</u><br>37200 - 168800<br><u>3.55 GHz:</u><br>181000 | N/A                                | <u>3.1 GHz:</u><br>88800 - 292700<br><u>3.5 GHz:</u><br>73100 -248550    | <u>3.8 GHz:</u><br>105200 - 343050<br><u>4.1 GHz:</u><br>57450 - 229650 <sup>3</sup> |
| AIX rPerf                              | 45.13  | 81.24  | 154.36   | <u>3.0 GHz:</u><br>81.24 - 292.47<br><u>3.3 GHz:</u><br>70.07 - 313.15<br><u>3.55 GHz:</u><br>331.06 | N/A                                | <u>3.1 GHz:</u><br>165.30 – 579.39<br><u>3.5 GHz:</u><br>140.75 – 493.37 | <u>3.8 GHz:</u><br>195.45 – 685.09<br><u>4.1 GHz:</u><br>115.86 – 425.50             |
| IBM i Release<br>Software Group        | 6.1.1 7.1<br>Small P05                               | 6.1.1 7.1<br>Small P10                               | 6.1.1 7.1<br>Small P10                               | 6.1.1 7.1<br>Small P20   | N/A                                | 6.1.1 7.1<br>Medium P30  | 6.1.1 7.1<br>Large P50   |
| AIX Level<br>Group                     | 5.3 6.1<br>Small                                     | 5.3 6.1<br>Small                                     | 5.3 6.1<br>Small                                     | 5.3 6.1<br>Small   | 5.3 6.1<br>Small                   | 5.3 6.1<br>Medium  | 5.3 6.1<br>Large   |
| Linux Support                          | SLES 10 SP3<br>SLES 11<br>RHEL 5.5                   | SLES 10 SP3<br>SLES 11<br>RHEL 5.5                   | SLES 10 SP3<br>SLES 11<br>RHEL 5.5                   | SLES 10 SP3<br>SLES 11<br>RHEL 5.5   | SLES 10 SP3<br>SLES 11<br>RHEL 5.5 | SLES 10 SP3<br>SLES 11<br>RHEL 5.5                                       | SLES 10 SP3<br>SLES 11<br>RHEL 5.5   |

- IBM BladeCenter PS700, PS701 and PS702 Express are the premier blades for 64-bit applications.
- IBM Power 750 Express – An ideal consolidation, database or multi-application server.
- IBM Power 755 Express – Optimised for running highly parallel computationally intensive workloads and algorithms such as weather and climate modeling, computational chemistry, and physics.
- IBM Power 770 Express – For server consolidation across UNIX, IBM i, and Linux workloads. Mid to large database serving, transaction processing such as ERP and CRM applications.
- IBM Power 780 – For large-scale server consolidation across UNIX, IBM i, and Linux workloads. Large database serving, transaction processing – a complete business system combining all aspects of a company's IT infrastructure.

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# IBM POWER6™ Systems Family Quick Reference Guide

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**BladeCenter® JS12 Express**



**BladeCenter® JS22 Express**



**BladeCenter® JS23/JS43 Express**



**Power 520 Express**



**Power 550 Express**



**Power 560 Express**



**Power 570**



**Power 595**

|  |                          |                          |  |   |   |                                |   |   |
|--|--------------------------|--------------------------|--|---|---|--------------------------------|---|---|
| No. of cores<br>Speed (GHz)<br>Processor | 2<br>3.8 GHz<br>POWER6™  | 4<br>4.0 GHz<br>POWER6™  | <b>JS23:</b><br>4, 4.2 GHz<br>POWER6+<br><br><b>JS43:</b><br>8, 4.2 GHz<br>POWER6+ | 1, 2, 4<br>4.2 GHz<br>POWER6+<br><br>2, 4<br>4.7 GHz<br>POWER6+ | 2, 4, 6, 8<br>3.5 / 4.2 GHz<br>POWER6<br><br>2, 4, 6, 8<br>5.0 GHz<br>POWER6+ | 4, 8, 16<br>3.6 GHz<br>POWER6+ | 2 to 16<br>3.5 / 4.4 GHz<br>POWER6<br><br>5.0 GHz<br>POWER6+<br><br>4 to 32<br>4.2 GHz<br>POWER6+ | 8 to 64<br>4.2 GHz<br>POWER6<br><br>16 TO 64<br>5.0 GHz<br>POWER6 |
| Min – Max<br>Memory (RAM)                | 4 to 64 GB               | 4 to 32 GB               | <b>JS23:</b><br>4 to 64 GB<br><br><b>JS43:</b><br>8 to 128 GB                      | 2 to 64 GB  | 4 to 256 GB   | 8 to 384 GB                    | 2 to 768 GB   | 16 to 4096 GB   |
| Max internal<br>sys storage TB           | 0.29                     | 0.14                     | JS23: 0.14<br>JS43: 0.29   | 2.7   | 2.7   | 5.4                            | 10.8  | 3.8 per PCIe<br>I/O drawer  |
| Max CEC PCI<br>slots                     | 1 PCIe+<br>1 PCI-X       | 1 PCIe+<br>1 PCI-X       | ¼ PCIe+<br>¼ PCI-X   | 3 PCIe+<br>2 PCI-X DDR  | 3 PCIe+<br>2 PCI-X DDR  | 8 PCIe+<br>4 PCI-X DDR         | 16 PCIe+<br>8 PCI-X DDR   | 20 slots per<br>24" I/O drawer                                    |
| Max partitions                           | 20                       | 40                       | 80   | 40  | 80  | 160                            | 160   | 254   |
| IBM i CPW                                | 7,100                    | 13,800                   | JS23: 14,100<br>JS43: 26,590   | up to 18,300  | up to 37,950  | up to 48,500                   | up to 104,800   | up to 294,700   |
| AIX rPerf                                | 14.71                    | 30.26                    | JS23: 36.28<br>JS43: 68.20   | up to 39.73   | up to 78.6  | up to 100.3                    | up to 193.25  | up to 553.01  |
| IBM i Release<br>Software<br>Group       | 6.1<br>P05               | 6.1<br>P10               | 6.1<br>P10   | 5.4 6.1<br>P05 / P10  | 5.4 6.1<br>P20  | 6.1<br>P20                     | 5.4 6.1<br>P30  | 5.4 6.1<br>P50  |
| AIX Level<br>Group                       | 5.3 6.1<br>C5            | 5.3 6.1<br>C5            | 5.3 6.1<br>C5  | 5.3 6.1<br>D5   | 5.3 6.1<br>E5   | 5.3 6.1<br>E5                  | 5.2 5.3 6.1<br>F5   | 5.3 6.1<br>H5   |
| Linux Support                            | RHEL4.6 5.1<br>SLES10/11 | RHEL4.6 5.1<br>SLES10/11 | RHEL4.6 5.1<br>SLES10/11   | RHEL4.5 5.1<br>SLES10/11  | RHEL4.5 5.1<br>SLES10/11  | RHEL4.5 5.1<br>SLES10/11       | RHEL4.5 5.1<br>SLES10/11  | RHEL4.6<br>5.2<br>SLES10/11                                       |

**Power 520 Express:**

Perfect for branch office applications and small databases.

**Power 560 Express:**

Ideal consolidation, database or application server for mid-sized business.

**Power 595:**

For large businesses. Ideal for running mixed mode with IBMi, AIX and Linux.

**IBM BladeCenter JS22 Express:**

The premier SMB (Small and Medium business) blade for HPC, x86 Infrastructure consolidation and smaller database, OLTP and Business Intelligence.

**Power 550 Express:**

Ideal solution as an application, mid-sized database or Linux consolidation server.

**Power 570:**

Ideal for organizations seeking a datacenter solution that delivers lightning-fast performance and the ability to accommodate future growth.

**IBM BladeCenter JS12 Express:**

For a complete business system with an integrated database & application server

**IBM BladeCenter JS23/JS43:**

Ideal for infrastructure consolidation, virtualization, and applications that require scalable performance and high memory capacity.

**Performance Ratings**

IBM's Power Systems performance ratings are based on the type of operating system installed. CPW and rPerf values are based on maximum configurations and are estimated. Actual performance may vary based on application and configuration details. **CPW:** Commercial Processing Workload for IBM i based systems. **rPerf:** Relative Performance for AIX based systems.

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