IBM System Cluster 1350

**IBM**

# Components

IBM System Cluster 1350

# Components

# Contents

# Chapter 1. Introduction

This document is for use by service representatives. It lists the main components for each release of the IBM System Cluster 1350.

For a component list for releases prior to December 2007, see http://publib.boulder.ibm.com/cluster/index.htm.

# Chapter 2. June 2008 release components

This chapter provides a list of supported IBM System Cluster 1350 components for June 2008.

## Microprocessor

The core microprocessor is the IBM BladeCenter JS22 4-core 4.0 GHz microprocessor. The machine type model is 7998.

## Nodes

This section provides a list of the IBM System Cluster 1350 node components.

### Cluster nodes

This section provides a list of the IBM System Cluster 1350 cluster node components and their machine type.

*Table 1. Cluster nodes*

| Product | Machine type |
| --- | --- |
| IBM System x3550 server | 7978 |
| IBM System x3650 server | 7979 |
| IBM System x3655 server | 7985 |
| IBM System x3455 server | 7984 |
| IBM System x3755 server | 8877 |
| IBM BladeCenter HS21 | 8853 |
| IBM BladeCenter HS21 XM | 7995 |
| IBM BladeCenter LS21 | 7971 |
| IBM BladeCenter LS41 | 7972 |
| IBM BladeCenter JS21 | 7988 |
| IBM BladeCenter JS22 | 7998 |
| IBM BladeCenter QS21 | 0792 |

### Management nodes

This section provides a list of the IBM System Cluster 1350 management nodes and their machine type.

*Table 2. Management nodes*

| Product | Machine type |
| --- | --- |
| IBM System x3650 server | 7979 |
| IBM System x3655 server | 7985 |
| IBM System x3755 server | 8877 |
| IBM BladeCenter JS22 | 7998 |

## BladeCenter chassis

This section provides a list of the IBM System Cluster 1350 BladeCenter chassis and their machine type.

*Table 3. BladeCenter chassis*

| Product | Machine type |
|---|---|
| IBM BladeCenter | 8677 |
| IBM BladeCenter H | 8852 |
| IBM BladeCenter S | 8886 |

# Server adapters

This section provides a list of server adapters and their part numbers.

## Storage adapters for servers

This section provides a list of the IBM System Cluster 1350 storage adapters and their part numbers.

*Table 4. Storage adapters*

| Product | Part number |
|---|---|
| IBM ServeRAID-8k SAS Controller | 25R8064 |
| IBM ServeRAID-8k-l SAS Controller | N/A |
| IBM MegaRAID 8480 PCI-E Adapter | 39R8850 |
| IBM ServeRAID-MR10M SAS/SATA Controller | 43W4339 |
| IBM SAS HBA Controller | 25R8060 |
| Qlogic 4 Gb FC Single-Port PCI-E HBA | 39R6525 |
| Qlogic 4–Gbps FC Dual-Port PCI-E HBA | 39R6527 |
| DS4000 4 Gb Dual-Port Fibre Channel PCI-X HBA | 39M5895 |
| DS4000 4 Gb Single-Port Fibre Channel PCI-X HBA | 39M5894 |

## Storage expansion cards for BladeCenter

This section provides a list of the IBM System Cluster 1350 storage expansion cards and their part numbers.

*Table 5. Storage expansion cards for BladeCenter*

| Product | Part number |
|---|---|
| SAS Expansion Card (CFFv) for IBM BladeCenter | 39Y9190 |
| QLogic 4 Gb Fibre Channel Expansion Card (CFFv) for IBM BladeCenter | 41Y8527 |
| Emulex 4 Gb Fibre Channel Expansion Card (CFFv) for IBM BladeCenter | 43W6859 |
| Emulex Dual-Port 4 Gb Fibre Channel Daughter Card | 39Y9186 |

## Communication adapters for servers

This section provides a list of the IBM System Cluster 1350 communication adapters and their part numbers.

*Table 6. Communication adapters for servers*

| Product | Part number |
|---------|-------------|
| NetXtreme 1000 SX+ Ethernet PCI-X adapter | 39Y6088 |
| NetXtreme 1000 T+ Dual Port Ethernet PCI-X adapter | 39Y6093 |
| PRO/1000 GT Quad Port PCI-X 1 GbE | 73P5201 |
| NetXtreme II 1000 Express Ethernet PCI-E adapter | 39Y6066 |

# High-speed communication adapters for servers

This section provides a list of the IBM System Cluster 1350 high-speed communication adapters and their part numbers.

*Table 7. High-speed communication adapters for servers*

| Product | Part number |
|---------|-------------|
| Mellanox ConnectX Dual-Port 4x DDR IB PCI-E 2.0 HCA Bundle | 44R8728 |
| Mellanox Single-Port 4X DDR IB PCI-E HCA Bundle | 44R9976 |
| Myricom Myri-10G 2 MB PCI Express adapter with 10GBASE-CX4 port bundle | 40K9112 |
| Myricom Myri-10G 2 MB PCI Express adapter with XAUI-MTP port bundle | 40K9113 |
| Myricom Myri-10G PCI Express adapter with 10GBASE-SR port bundle | 40K9114 |

# High-speed communication adapters for BladeCenter

This section provides a list of the IBM System Cluster 1350 high-speed communication adapters for BladeCenter and their part numbers.

*Table 8. High-speed communication adapters for BladeCenter*

| Product | Part number |
|---------|-------------|
| 4X DDR InfiniBand CFFh Expansion Card for IBM BladeCenter | 43W4423 |
| Cisco 4X DDR InfiniBand CFFh Expansion Card for IBM BladeCenter | 43W4421 |
| Cisco 4X SDR InfiniBand HSDC for IBM BladeCenter | 32R1760 |
| NetXen High-Speed 10Gb Ethernet CFFh Expansion Card for IBM BladeCenter | 39Y9271 |
| QS20 Infiniband Card Kit | 42D1479 |
| Voltaire 4X DDR InfiniBand CFFh Expansion Card for IBM BladeCenter | 43W4420 |

# Clearspeed PCI-X adapter for servers

The Clearspeed PCI-X Accelerator board adapter for servers. The part number for the adapter is 25R8589.

# BladeCenter I/O modules

This section provides a list of supported BladeCenter input/output (I/O) modules and their part numbers.

## Storage modules

This section provides a list of storage I/O modules and their part numbers.

*Table 9. Storage modules*

| Product | Part number |
| --- | --- |
| IBM BladeCenter SAS Connectivity Module | 39Y9195 |
| Brocade 20-port 4 Gigabit SAN Switch Module for IBM BladeCenter | 32R1812 |
| Qlogic 10-port 4 Gigabit SAN Switch Module for IBM BladeCenter | 43W6724 |
| QLogic 20-port 4 Gigabit Fibre Channel Switch Module for IBM BladeCenter | 26R0881 |
| Qlogic 20-port 4 Gigabit SAN Switch Module for IBM BladeCenter | 43W6725 |
| IBM BladeCenter S 6–Disk Storage Module | 43W3581 |

## Network modules

This section provides a list of network I/O modules and their part numbers.

*Table 10. Network modules*

| Product | Part number |
| --- | --- |
| Optical Pass-through Module (OPM) for IBM BladeCenter | 39Y9316 |
| Copper Pass-Through Module (CPM) for IBM BladeCenter | 39Y9320 |
| BladeCenter S Serial Pass-thru Module | 43W3583 |
| QLogic 4 Gigabit Intelligent Pass-thru Module for IBM BladeCenter | 43W6723 |
| 4X InfiniBand Pass-thru HSSM for IBM BladeCenter | 43W4419 |
| Cisco 4X InfiniBand HSSM for IBM BladeCenter | 32R1756 |
| Cisco Gigabit Ethernet Switch Module for IBM BladeCenter | 32R1892 |
| Cisco L 2/3 4 port Gb ESM 3012 for BladeCenter | 43W4395 |
| Cisco Catalyst Switch Module 3110G for IBM BladeCenter | 41Y8523 |
| Cisco Catalyst Switch Module 3110X for IBM BladeCenter | 41Y8522 |
| Nortel L2/L3 Copper Gigabit Ethernet Switch Module for IBM BladeCenter | 32R1860 |
| Server Connectivity Module for IBM BladeCenter | 39Y9324 |
| Nortel 1 Gigabit through 10 Gigabit Uplink Ethernet switch modules for IBM BladeCenter | 32R1783 |
| Nortel 10 Gigabit Ethernet HSSM for IBM BladeCenter | 39Y9267 |

# OEM switches and switch options

This section provides a list of OEM switches, switch enclosures, line cards, a patch panel, terminal servers, and their part numbers.

## OEM switches, switch enclosures, line cards

This section provides a list of OEM switches, switch enclosures, line cards, and their part numbers.

*Table 11. OEM switches, switch enclosures, line cards*

| Product | Part number |
| --- | --- |
| BNT RackSwitch G8000R 48–port GbE Switch Bundle | 0446013 |
| BNT RackSwitch G8100R 24–port 10 GbE Switch Bundle | 0446015 |
| BNT RackSwitch G8000R Dual-port SFP + XGE Uplink Module | 46C3417 |
| BNT RackSwitch G8000R Dual-port CX4 XGE Uplink Module | 46C3421 |
| Cisco HPC-E 2960G 24-port Ethernet Switch Bundle | 4670030 |
| Cisco HPC-E 4948-10 GbE 48-port Ethernet Switch Bundle | 4670031 |
| Cisco HPC-E 3750G-48TS Ethernet Switch Bundle | 4670017 |
| Cisco SFS 7000D 24-port DDR InfiniBand Switch Bundle | 4670025 |
| Cisco HPC-E 2960G 48–port Ethernet Switch Bundle | 4670032 |
| Cisco HPC-E 4948 48–port Ethernet Switch Bundle | 4670033 |
| Cisco HPC-E 6503–E Ethernet Switch Enclosure Bundle | 4670034 |
| Cisco HPC-E 6509–E Ethernet Switch Enclosure Bundle | 4670035 |
| Cisco SFS 7012D 144–port DDR IB Switch Bundle | 4670042 |
| Cisco SFS 7024D 288–port DDR IB Switch Bundle | 4670043 |
| Cisco HPC-E 6704 (CFC) 4-port 10 Gb Ethernet Line Card | 4670020 |
| Cisco SFS 7012P/7024D 12–port 4X DDR IB Line Card | 4670028 |
| Cisco 7012D/7024D DDR Switch Fabric Module - with Mgmt | 4670029 |
| Cisco HPC-E Supervisor 32 Bundle | 4670036 |
| Cisco HPC-E Supervisor 720 Bundle | 4670037 |
| Cisco HPC-E X6148A 48–port GbE Line Card Bundle | 4670038 |
| Cisco HPC-E X6708 DFC3C 8–port 10 GbE Line Card Bundle | 4670039 |
| Cisco HPC-E X6704 DFC3C 4–port 10 GbE Line Card Bundle | 4670040 |
| Cisco 7012D/7024D DDR SFM - without Mgmt Bundle | 4670044 |
| Cisco HPC-E X6748 DFC3C 48–port GbE Line Card Bundle | 4670041 |
| Cisco HPC-E 6748 (CFC) Fabric Enabled 48-port Gigabit Ethernet Line Card | 40K8914 |
| Force10 E600i Switch enclosure Bundle | 4667029 |
| Force10 S50N 48-port Gigabit Ethernet Switch Bundle | 4667030 |
| Force10 E1200 Switch Enclosure Bundle | 4667010 |
| Force10 S2410CP 24–port 10 GbE Switch Bundle | 4667031 |
| Force10 C300 Ethernet Switch Bundle | 4667032 |
| Force10 C150 Ethernet Switch Bundle | 4667033 |
| Force10 5-slot AC Rectifier Chassis Bundle | 4667013 |

*Table 11. OEM switches, switch enclosures, line cards (continued)*

| Product | Part number |
|---------|-------------|
| Force10 90-port Gb mini-RJ21 Line Card | 4667014 |
| Force10 48-port Non-blocking Gigabit Ethernet Line Card | 4667020 |
| Force10 4-port Non-blocking 10 Gigabit Ethernet Line Card | 4667021 |
| Force10 E600/E1200 Route Processor Module | 4667022 |
| Force10 E600/E1200 48-port Blocking Gigabit Ethernet Line Card | 4667023 |
| Force10 16-port Blocking 10 Gigabit Ethernet Line Card | 4667027 |
| Force10 C150/C300 Switch Fabric and Route Processor Module | 4667034 |
| Force10 C150/C300 48–port Gb Ethernet Line Card | 4667035 |
| Force10 C150/C300 4–port 10 Gb Ethernet Line Card | 4667036 |
| Force10 C150/C300 8–port 10 Gb Ethernet Line Card | 4667037 |
| Force10 S50N 2-port 10 Gigabit XFP-based Uplink Kit | 44R9938 |
| Force10 S50N 24 Gigabit Stacking Kit | 44R9948 |
| Force10 S50N 2–port CX4–based 10 Gb Uplink Module | 46C3433 |
| Force10 C150/C300 1200w Power Supply | 46C4971 |
| Myricom Myri-10G Clos128 Enclosure Bundle | 0445019 |
| Myricom Myri-10G 8-port 10GBASE-CX4 Line Card | 40K9115 |
| Myricom Myri-10G 8-port XAUI Fiber Ribbon Line Card | 40K9116 |
| SMC 8024L2 24-port Gigabit Ethernet Switch Bundle | 4668016 |
| SMC 8848M Ethernet Switch Bundle | 4668015 |
| SMC 8708L2 8-port 10 Gigabit Ethernet Switch | 4668012 |
| SMC Single-port 10 Gigabit Uplink Module | 40K9165 |
| Voltaire 9024D-M 24-port DDR Switch Bundle | 4669017 |
| Voltaire 9024D 24–port Externally Managed DDR IB Switch Bundle | 4669022 |
| Voltaire 2004 InfiniBand Switch Bundle | 4669023 |
| Voltaire 2012 InfiniBand Switch Bundle | 4669024 |
| Voltaire sFB-2004 Switch Fabric Board | 4669025 |
| Voltaire sFB-2012 Switch Fabric Board | 4669026 |
| Voltaire sLB-2024 24–port 4X DDR InfiniBand Line Card | 4669027 |
| Voltaire sMB-HM Hi-Memory Management Board Bundle | 4669028 |

## Patch panel

The IBM Systems Cluster 1350 is supported by the Tyco 48-port 1 Gb Ethernet Angled patch panel. The patch panel part number is 0564010.

## Terminal servers

This section provides a list of terminal servers and their part numbers.

*Table 12. Terminal servers*

| Product | Part number |
|---------|-------------|
| Cyclades ACS48 Terminal Server | 0448011 |
| Cyclades Cyclades ACS32 Terminal Server | 0448012 |

# External storage

The IBM System Cluster 1350 supports the following units:

## Storage Servers

This section provides a list of storage servers and their part numbers.

*Table 13. Storage servers*

| Product | Part number |
|---------|-------------|
| DS3200 SAS-SAS, Dual Controller | 172622X |
| DS3200 SAS-SAS, Single Controller | 172621X |
| DS3400 FC-SAS, Dual Controller | 172642X |
| DS3400 FC-SAS, Single Controller | 172641X |
| DS4200 Express Model | 18147VH |
| DS4700 Express Model 70 | 181470H |
| DS4700 Express Model 72 | 181472H |
| DS4800 Model 82 Midrange Disk System | 181582H |
| DS4800 Model 84 Midrange Disk System | 181584H |
| DS4800 Model 88 Midrange Disk System | 181588H |

## Storage expansion units

This section provides a list of Storage expansion units and their part numbers.

*Table 14. Storage expansion units*

| Product | Part number |
|---------|-------------|
| IBM System Storage EXP3000 | 172701X |
| DS4000 EXP420 Storage Expansion Unit | 18128VH |
| DS4000 EXP810 Storage Expansion Unit | 181281H |

## Storage switches

The IBM Systems Cluster 1350 is supported by the IBM TotalStorage SAN 16B-2 Storage switch. The storage switch part number is 200516B.

# Cable connectivity

This section provides a description of the various supported cables and transceivers and their part numbers.

## Cables

This section provides a description of the various supported cables and their part numbers.

*Table 15. Cables*

| Cables | Part number |
|--------|-------------|
| CAT5e, 0.6 m, blue | 40K5679 |
| CAT5e, 0.6 m, green | 40K5563 |
| CAT5e, 0.6 m, yellow | 40K8933 |

*Table 15. Cables  (continued)*

| Cables | Part number |
|---|---|
| CAT5e, 1.5 m, blue | 40K8785 |
| CAT5e, 1.5 m, green | 40K5643 |
| CAT5e, 1.5 m, yellow | 40K8951 |
| CAT5e, 10 m, blue | 40K8927 |
| CAT5e, 10 m, green | 40K5794 |
| CAT5e, 10 m, yellow | 40K8801 |
| CAT5e, 25 m, blue | 40K8930 |
| CAT5e, 25 m, green | 40K8869 |
| CAT5e, 25 m, yellow | 40K8807 |
| CAT5e, 3 m, blue | 40K5581 |
| CAT5e, 3 m, green | 40K5793 |
| CAT5e, 3 m, yellow | 40K8957 |
| LC-LC, 1 m, Fibre Channel (Networking) | 39M5696 |
| LC-LC, 25 m, Fibre Channel (Networking) | 39M5698 |
| LC-LC, 5 m, Fibre Channel (Networking) | 39M5697 |
| LC (female) - SC (male) Fiber, 0.2 m | 44R8701 |
| 4X SDR InfiniBand, 3 m | 26R0813 |
| 4X SDR InfiniBand, 8 m | 26R0847 |
| 4X SDR InfiniBand, 10 m | 43W4377 |
| 12X-to-3, 4X SDR InfiniBand, 3 m | 26R0816 |
| 12X-to-3, 4X SDR Infiniband, 8 m | 26R0849 |
| 12X-to-3, 4X SDR InfiniBand, 11 m | 43W4379 |
| Voltaire 4X DDR InfiniBand, 3 m | 42D1463 |
| Voltaire 4X DDR InfiniBand, 8 m | 42D1464 |
| Cisco 4X DDR InfiniBand SuperFlex, 3m | 44E9062 |
| Cisco 4X DDR InfiniBand, 8 m | 44E9070 |
| Mellanox 3 M Copper Cable for 4X IB and 10 GbE | 46D0166 |
| Mellanox 1 M Copper Cable for 4X IB and 10 GbE | 46D0162 |
| Mellanox 5 M Copper Cable for 4X IB and 10 GbE | 46D0170 |
| Mellanox 8 M Copper Cable for 4X IB and 10 GbE | 46D0174 |
| Intel 3 M Connects Optical Cable | 46D0153 |
| Intel 10 M Connects Optical Cable | 46D0156 |
| Intel 30 M Connects Optical Cable | 46D0159 |
| Myricom MTP Quad Fiber, 1 m | 40K5546 |
| Myricom MTP Quad Fiber, 3 m | 40K5547 |
| Myricom MTP Quad Fiber, 10 m | 40K5548 |
| 10GBASE-CX4 Copper, 1 m | 40K9181 |
| 10GBASE-CX4 Copper, 3 m | 40K9182 |
| 10GBASE-CX4 Copper, 10 m | 40K9183 |

*Table 15. Cables  (continued)*

| Cables | Part number |
|---|---|
| Copper Pass-Through Module Cable for IBM BladeCenter | 39Y9170 |
| SC Optical Pass-through Module Cable for IBM BladeCenter, 1.5 m | 39Y9171 |
| LC Optical Pass-through Module Cable for IBM BladeCenter, 1.5 m | 39Y9172 |
| Tyco Straight MRJ21-to-Angled MRJ21, 3 m | 44E9046 |
| Tyco Straight MRJ21-to-Angled MRJ21, 10 m | 44E9051 |
| Tyco Straight MRJ21-to-Angled MRJ21, 30 m | 44E9066 |
| miniSAS X4 - miniSAS X4, 1 m | 39R6529 |
| miniSAS X4 - miniSAS X4, 3 m | 39R6531 |
| MegaRAID SAS, 3 m | 39R6471 |

## Transceivers

This section provides a description of the various supported transceiver options and their part numbers.

*Table 16. Transceivers*

| Product | Part number |
|---|---|
| Force10 10 Gigabit XFP SR Optics Module | 40K8890 |
| Force10 XFP-to-CX4 Transceiver | 46C5043 |
| BNT SFP + Transceiver | 46C3447 |
| Cisco 10GBASE-SR X2 Module | 44E9078 |
| Cisco 10GBASE-SR XENPAK Module | 40K5598 |
| Cisco 1000BASE-SX SFP Module | 44E9088 |
| Cisco 1000BASE-T GBIC Module | 40K5607 |
| Cisco 1000BASE-SX GBIC Module | 40K5603 |
| Cyclades RJ45-to-DB9 Serial Cable Adapter | 40K5798 |
| Cyclades RJ45-to-DB9 Serial Cable Adapter for BladeCenter | 42D1363 |

# Rack cabinet options

This section provides a description of the various supported rack cabinet options and their part numbers.

# KVM switches

This section provides a description of the various supported keyboard, video, mouse (KVM) switches and their part numbers.

*Table 17. KVM switches*

| Product | Part number |
|---|---|
| IBM Global 2 x 16 Console Manager | 17352GX |
| IBM Global 4 x 16 Console Manager | 17354GX |

*Table 17. KVM switches  (continued)*

| Product | Part number |
|---------|-------------|
| IBM Local 2 x 8 Console Manager | 17351GX |

## Front-end PDUs

This section provides a description of the various supported front-end power distribution units (PDU) and their part numbers.

*Table 18. Front-end PDUs*

| Product | Part number |
|---------|-------------|
| IBM DPI C19 Enterprise PDU (WW) | 39Y8948 |
| DPI Three-phase 60A/208V C19 Enterprise PDU (US) | 39Y8923 |
| DPI 30amp/250V Front-end PDU with NEMA L6-30P (208v) Line Cord | 39Y8939 |
| DPI Single-phase 30A/208V C19 Enterprise PDU (US) | 39Y8948 |
| DPI Single-phase 60A/208V C19 Enterprise PDU (US) | 39Y8948 |
| DPI 63amp/250V Front-end PDU with IEC 309 2-pin and ground line cord (International) | 39Y8935 |
| DPI 60amp/250V Front-end PDU with IEC 309 2-pin and ground line cord | 39Y8940 |
| DPI 32amp/250V Front-end PDU with IEC 309 2-pin and ground line cord (International) | 39Y8934 |

## Rack cabinet PDUs

This section provides a description of the various supported rack cabinet PDUs and their part numbers.

*Table 19. Rack cabinet PDUs*

| Product | Part number |
|---------|-------------|
| DPI C13 Enterprise Module (WW) | 39Y8941 |
| DPI Single-phase 30A/208V C13 Enterprise PDU (US) | 39Y8948 |
| DPI Single-phase 60A/208V C13 Enterprise PDU (US) | 39Y8948 |
| DPI Universal Rack PDU w/Nema L5-20P & L6-20P (U.S. line cord) | 39Y8951 |
| DPI Universal Rack PDU with NBR 6147 (Brazil line cord) | 39Y8960 |
| DPI Universal Rack PDU with GB 2099.1 (China line cord) | 39Y8959 |
| DPI Universal Rack PDU with SI32 (Israel line cord) DPI | 39Y8954 |
| Universal Rack PDU with 3112 (Australia/New Zealand line cord) DPI | 39Y8958 |
| Universal Rack PDU with IRAM 2073 (Argentina line cord) DPI | 39Y8962 |
| Universal Rack PDU with CEI 23-16 (Italy line cord) DPI | 39Y8955 |

*Table 19. Rack cabinet PDUs (continued)*

| Product | Part number |
|---|---|
| Universal Rack PDU with SABS 164 (South Africa line cord) DPI | 39Y8956 |
| Universal Rack PDU with BS 1363/A (UK line cord) DPI | 39Y8957 |
| Universal Rack PDU with IS 6538 (India line cord) DPI | 39Y8961 |
| Universal Rack PDU w/Nema L5-20P & L6-20P (U.S. line cord) DPI | 39Y8952 |
| Universal Rack PDU with IEC 309 2-pin and ground (Denmark line cord) | 39Y8953 |

# Chapter 3. December 2007, January and April 2008 release components

This chapter provides a list of supported IBM System Cluster 1350 components for December 2007, January and April 2008.

## Microprocessor

The core microprocessor is the IBM BladeCenter JS22 4-core 4.0 GHz microprocessor. The machine type model is 7998.

## Nodes

This section provides a list of the IBM System Cluster 1350 node components.

### Cluster nodes

This section provides a list of the IBM System Cluster 1350 cluster node components and their machine type.

*Table 20. Cluster nodes*

| Product | Machine type |
| --- | --- |
| IBM System x3550 server | 7979 |
| IBM System x3650 server | 7978 |
| IBM System x3655 server | 7985 |
| IBM System x3455 server | 7984 |
| IBM System x3755 server | 8877 |
| IBM BladeCenter HS21 | 8853 |
| IBM BladeCenter HS21 XM | 7995 |
| IBM BladeCenter LS21 | 7971 |
| IBM BladeCenter LS41 | 7972 |
| IBM BladeCenter JS21 | 7988 |
| IBM BladeCenter JS22 | 7998 |
| IBM BladeCenter QS20 | 0200 |
| IBM BladeCenter QS21 | 0792 |

### Management nodes

This section provides a list of the IBM System Cluster 1350 management nodes and their machine type.

*Table 21. Management nodes*

| Product | Machine type |
| --- | --- |
| IBM System x3650 server | 7979 |
| IBM System x3655 server | 7985 |
| IBM System x3755 server | 8877 |

## BladeCenter chassis

This section provides a list of the IBM System Cluster 1350 BladeCenter chassis and their machine type.

*Table 22. BladeCenter chassis*

| Product | Machine type |
|---|---|
| IBM BladeCenter | 8677 |
| IBM BladeCenter H | 8852 |

# Server adapters

This section provides a list of server adapters and their part numbers.

## Storage adapters for servers

This section provides a list of the IBM System Cluster 1350 storage adapters and their part numbers.

*Table 23. Storage adapters*

| Product | Part number |
|---|---|
| IBM ServeRAID-8k SAS Controller | 25R8064 |
| IBM ServeRAID-8k-l SAS Controller | N/A |
| IBM MegaRAID 8480 PCI-E Adapter | 39R8850 |
| IBM DS3200 SAS, single controller | 172621X |
| IBM DS3200 SAS, dual controller | 172622X |
| IBM DS3400 Fibre Channel, SAS, single controller | 172641X |
| IBM DS3400 Fibre Channel, SAS, dual controller | 172642X |
| IBM DS4200 Express | 18147VH |
| IBM DS4700 Express Model 70 | 18147OH |
| IBM DS4700 Express Model 72 | 181472H |
| IBM DS4800 Model 82 Midrange Disk System | 181582H |
| IBM DS4800 Model 84 Midrange Disk System | 181584H |
| IBM DS4800 Model 88 Midrange Disk System | 181588H |

## Communication adapters for servers

This section provides a list of the IBM System Cluster 1350 communication adapters and their part numbers.

*Table 24. Communication adapters for servers*

| Product | Part number |
|---|---|
| NetXtreme 1000 SX+ Ethernet PCI-X adapter | 39Y6088 |
| NetXtreme 1000 T+ Dual Port Ethernet PCI-X adapter | 39Y6093 |

*Table 24. Communication adapters for servers (continued)*

| Product | Part number |
|---|---|
| PRO/1000 GT Quad Port PCI-X 1 Gigabit Ethernet | 73P5201 |
| NetXtreme II 1000 Express Ethernet PCI-E adapter | 39Y6066 |

## High-speed communication adapters for servers

This section provides a list of the IBM System Cluster 1350 high-speed communication adapters and their part numbers.

*Table 25. High-speed communication adapters for servers*

| Product | Part number |
|---|---|
| Myricom Myri-10G 2 MB PCI Express adapter with 10GBASE-CX4 port bundle | 40K9112 |
| Myricom Myri-10G 2 MB PCI Express adapter with XAUI-MTP port bundle | 40K9113 |
| Myricom Myri-10G PCI Express adapter with 10GBASE-SR port bundle | 40K9114 |
| Voltaire Dual-port 4X SDR InfiniBand PCI-E host control adapter | 40K8902 |
| Voltaire Dual-Port 4X DDR InfiniBand PCI-E host control adapter | 42D3702 |
| Cisco Dual-port SDR 4X InfiniBand PCI-E host control adapter | 41Y4577 |
| Cisco Single-port 4X SDR InfiniBand PCI-E host control adapter (memory free) | 44E9030 |
| Cisco Single-port 4X DDR InfiniBand PCI-E host control adapter (memory free) | 44E9034 |

## High-speed communication adapters for BladeCenter

This section provides a list of the IBM System Cluster 1350 high-speed communication adapters for BladeCenter and their part numbers.

*Table 26. High-speed communication adapters for BladeCenter*

| Product | Part number |
|---|---|
| 4X DDR InfiniBand CFFh Expansion Card for IBM BladeCenter | 43W4421 |
| Cisco 4X DDR InfiniBand CFFh Expansion Card for IBM BladeCenter | 43W4423 |
| Cisco 4X SDR InfiniBand HSDC for IBM BladeCenter | 32R1760 |
| NetXen High-Speed 10Gb Ethernet CFFh Expansion Card for IBM BladeCenter | 39Y9271 |
| QS20 Infiniband Card Kit | 42D1479 |
| Voltaire 4X SDR IB HSDC for IBM BladeCenter | 40K8917 |
| Voltaire 4X DDR IB HSDC Daughter Card for IBM BladeCenter | 42D1462 |
| Voltaire 4X DDR InfiniBand CFFh Expansion Card for IBM BladeCenter | 43W4420 |

## Clearspeed PCI-X adapter for servers

The Clearspeed PCI-X Accelerator board supports servers. The part number for the adapter is 25R8589.

## BladeCenter I/O modules

This section provides a list of supported BladeCenter input/output (I/O) modules and their part numbers.

## Storage modules

This section provides a list of storage I/O modules and their part numbers.

*Table 27. Storage modules*

| Product | Part number |
|---|---|
| IBM BladeCenter SAS Connectivity Module | 39Y9195 |
| Brocade 20-port 4 Gigabit SAN Switch Module for IBM BladeCenter | 32R1812 |
| Qlogic 10-port 4 Gigabit SAN Switch Module for IBM BladeCenter | 43W6724 |
| QLogic 20-port 4 Gigabit Fibre Channel Switch Module for IBM BladeCenter | 26R0881 |
| Qlogic 20-port 4 Gigabit SAN Switch Module for IBM BladeCenter | 43W6725 |

## Network modules

This section provides a list of network I/O modules and their part numbers.

*Table 28. Network modules*

| Product | Part number |
|---|---|
| Optical Pass-through Module (OPM) for IBM BladeCenter | 39Y9316 |
| Copper Pass-Through Module (CPM) for IBM BladeCenter | 39Y9320 |
| Voltaire High Performance InfiniBand Pass-Through Module for IBM BladeCenter | 40K8922 |
| QLogic 4 Gigabit Intelligent Pass-thru Module for IBM BladeCenter | 43W6723 |
| 4X InfiniBand Pass-thru HSSM for IBM BladeCenter | 43W4419 |
| Cisco 4X InfiniBand HSSM for IBM BladeCenter | 32R1756 |
| Cisco Gigabit Ethernet Switch Module for IBM BladeCenter | 32R1892 |
| Nortel L2/L3 Copper Gigabit Ethernet Switch Module for IBM BladeCenter | 32R1860 |
| Server Connectivity Module for IBM BladeCenter | 39Y9324 |
| Nortel 1 Gigabit through 10 Gigabit Uplink Ethernet switch modules for IBM BladeCenter | 32R1783 |
| Nortel 10 Gigabit Ethernet HSSM for IBM BladeCenter | 39Y9267 |

# OEM switches and switch options

This section provides a list of OEM switches, switch enclosures, line cards, a patch panel, terminal servers, and their part numbers.

## OEM switches, switch enclosures, line cards

This section provides a list of OEM switches, switch enclosures, line cards, and their part numbers.

*Table 29. OEM switches, switch enclosures, line cards*

| Product | Part number |
|---|---|
| Cisco HPC-E 2960G 24-port Ethernet Switch Bundle | 4670030 |
| Cisco HPC-E 4948-10 Gigabit Ethernet 48-port Ethernet Switch Bundle | 4670031 |
| Cisco HPC-E 3750G-48TS Ethernet Switch Bundle | 4670017 |
| Cisco HPC-E 4506 Enclosure Bundle | 4670016 |
| Cisco HPC-E 6503-E Switch Enclosure Bundle | 4670021 |
| Cisco HPC-E 6509-E Switch Enclosure Bundle | 4670018 |
| Cisco SFS 7000P 24-Port InfiniBand Switch Bundle | 4670024 |
| Cisco SFS 7000D 24-port DDR InfiniBand Switch Bundle | 4670025 |
| Cisco SFS 7012D 144-port DDR InfiniBand Switch Bundle | 4670026 |
| Cisco SFS 7024D 288-port DDR InfiniBand Switch Bundle | 4670027 |
| Cisco HPC-E 4548 48-port Gigabit Ethernet Line Card | 40K9117 |
| Cisco HPC-E 6548 Fabric Enabled 48-port Gigabit Ethernet Line Card | 40K8908 |
| Cisco HPC-E 6748 (CFC) Fabric Enabled 48-port Gigabit Ethernet Line Card | 40K8914 |
| Cisco HPC-E 6704 (CFC) 4-port 10 Gb Ethernet Line Card | 4670020 |
| Cisco 7012D/7024D DDR Switch Fabric Module - with management | 4670029 |
| Cisco SFS 7012P/7024D 12-port 4X DDR InfiniBand Line Card | 4670028 |
| Emulex 4 Gb Fibre Channel daughter card (CFFv) for IBM BladeCenter (dual port) | 39Y9186 |
| Emulex 4 Gb Fibre Channel Expansion Card (CFFv) for IBM BladeCenter | 43W6859 |
| Force10 S50 48-port Gigabit Ethernet Switch | 4667015 |
| Force10 S50N 48-port Gigabit Ethernet Switch Bundle | 4667030 |
| Force10 E300 Switch Enclosure Bundle | 4667012 |
| Force10 E600i Switch Enclosure Bundle | 4667029 |
| Force10 E1200 Switch Enclosure Bundle | 4667010 |
| Force10 5-slot AC Rectifier Chassis Bundle | 4667013 |
| Force10 24 Gigabit Stacking Kit | 44R9948 |

*Table 29. OEM switches, switch enclosures, line cards  (continued)*

| Product | Part number |
|---|---|
| Force10 2-port 10 Gigabit XFP-based Uplink Kit | 44R9938 |
| Force10 S50 10 Gigabit Uplink Kit | 40K8882 |
| Force10 8-port Blocking 10 Gigabit Ethernet Line Card | 4667028 |
| Force10 E300 Route Processor Module | 4667016 |
| Force10 E300 48-port Blocking Gigabit Ethernet Line Card | 4667024 |
| Force10 16-port Blocking 10 Gigabit Ethernet Line Card | 4667027 |
| Force10 90-port Gb mini-RJ21 Line Card | 4667014 |
| Force10 48-port Non-blocking Gigabit Ethernet Line Card | 4667020 |
| Force10 E600/E1200 Route Processor Module | 4667022 |
| Force10 E600/E1200 48-port Blocking Gigabit Ethernet Line Card | 4667023 |
| Force10 4-port Non-blocking 10 Gigabit Ethernet Line Card | 4667021 |
| Myricom M3 E32 Switch Enclosure | 0445015 |
| Myricom M3 E64 Switch Enclosure | 0445016 |
| Myricom M3 E128 Switch Enclosure | 0445021 |
| Myricom M3 Clos256 Switch Enclosure Bundle | 0445011 |
| Myricom M3 Clos256 Spine Enclosure Bundle | 0445012 |
| Myricom Myri-10G Clos128 Enclosure Bundle | 0445019 |
| Myricom Myri-10G 8-port 10GBASE-CX4 Line Card | 40K9115 |
| Myricom Myri-10G 8-port XAUI Fiber Ribbon Line Card | 40K9116 |
| Myricom M3 16 Quad-port Spine Line Card | 0445013 |
| Myricom M3 Dual SW32 Line Card | 40K8884 |
| Myricom M3 SW32 Line Card | 40K8883 |
| Myricom M3 Clos256 Air Dam | 40K8885 |
| Myricom M3 16 Quad-port Thru Line Card | 0445014 |
| SMC 8024L2 24-port Gigabit Ethernet Switch Bundle | 4668016 |
| SMC 8848M Ethernet Switch Bundle | 4668015 |
| SMC 8708L2 8-port 10 Gigabit Ethernet Switch | 4668012 |
| SMC Single-port 10 Gigabit Uplink Module | 40K9165 |
| Voltaire 9024S 24-port Externally Managed SDR InfiniBand Switch Bundle | 4669021 |
| Voltaire 9024S-M 24-port SDR Switch Bundle | 4669018 |
| Voltaire 9024D-M 24-port DDR Switch Bundle | 4669017 |
| Voltaire 9096 Switch Enclosure Bundle | 4669015 |
| Voltaire 9288 Switch Enclosure Bundle | 4669012 |
| Voltaire 9096 sFB-4 Fabric Board | 40K9052 |
| Voltaire 9096/9288 - sLB-24, 24-port 4X SDR InfiniBand Line Card | 4669016 |

*Table 29. OEM switches, switch enclosures, line cards  (continued)*

| Product | Part number |
|---------|-------------|
| Voltaire 9288 sLB-12 Switch Fabric Board | 4669013 |

## Patch panel

The IBM Systems Cluster 1350 is supported by the Tyco 48-port 1 Gb Ethernet angled patch panel. The patch panel part number is 0564010.

## Terminal servers

This section provides a list of terminal servers and their part numbers.

*Table 30. Terminal servers*

| Product | Part number |
|---------|-------------|
| Cyclades ACS48 Terminal Server | 0448011 |
| Cyclades Cyclades ACS32 Terminal Server | 0448012 |

# External storage

The IBM System Cluster 1350 supports the following units:

*Table 31.*

| Product | Part number |
|---------|-------------|
| IBM System EXP3000 storage expansion unit | 172701X |
| IBM System DS4000 EXP420 storage expansion unit | 18128VH |
| IBM System DS4000 EXP810 storage expansion unit | 181281H |

- 

IBM System Storage EXP3000 expansion unit. The part number for the disk enclosure is 172701X.

# Cable connectivity

This section provides a description of the various supported cables and transceivers and their part numbers.

## Cables

This section provides a description of the various supported cables and their part numbers.

*Table 32. Cables*

| Cables | Part number |
|--------|-------------|
| CAT5e, 0.6 m, blue | 40K5679 |
| CAT5e, 0.6 m, green | 40K5563 |
| CAT5e, 0.6 m, yellow | 40K8933 |
| CAT5e, 1.5 m, blue | 40K8785 |
| CAT5e, 1.5 m, green | 40K5643 |

*Table 32. Cables  (continued)*

| Cables | Part number |
|---|---|
| CAT5e, 1.5 m, yellow | 40K8951 |
| CAT5e, 10 m, blue | 40K8927 |
| CAT5e, 10 m, green | 40K5794 |
| CAT5e, 10 m, yellow | 40K8801 |
| CAT5e, 25 m, blue | 40K8930 |
| CAT5e, 25 m, green | 40K8869 |
| CAT5e, 25 m, yellow | 40K8807 |
| CAT5e, 3 m, blue | 40K5581 |
| CAT5e, 3 m, green | 40K5793 |
| CAT5e, 3 m, yellow | 40K8957 |
| LC-LC, 1 m, Fibre Channel (Networking) | 39M5696 |
| LC-LC, 25 m, Fibre Channel (Networking) | 39M5698 |
| LC-LC, 5 m, Fibre Channel (Networking) | 39M5697 |
| LC (female) - SC (male) Fiber, 0.2 m | 44R8701 |
| 4X SDR InfiniBand, 3 m | 26R0813 |
| 4X SDR InfiniBand, 8 m | 26R0847 |
| 4X SDR InfiniBand, 10 m | 43W4377 |
| 12X-to-3, 4X SDR InfiniBand, 3 m | 26R0816 |
| 12X-to-3, 4X SDR Infiniband, 8 m | 26R0849 |
| 12X-to-3, 4X SDR InfiniBand, 11 m | 43W4379 |
| Voltaire 4X DDR InfiniBand, 3 m | 42D1463 |
| Voltaire 4X DDR InfiniBand, 8 m | 42D1464 |
| Cisco 4X DDR InfiniBand SuperFlex, 3m | 44E9062 |
| Cisco 4X DDR InfiniBand, 8 m | 44E9070 |
| Myricom MTP Quad Fiber, 1 m | 40K5546 |
| Myricom MTP Quad Fiber, 3 m | 40K5547 |
| Myricom MTP Quad Fiber, 10 m | 40K5548 |
| 10GBASE-CX4 Copper, 1 m | 40K9181 |
| 10GBASE-CX4 Copper, 3 m | 40K9182 |
| 10GBASE-CX4 Copper, 10 m | 40K9183 |
| Copper Pass-Through Module Cable for IBM BladeCenter | 39Y9170 |
| SC Optical Pass-through Module Cable for IBM BladeCenter, 1.5 m | 39Y9171 |
| LC Optical Pass-through Module Cable for IBM BladeCenter, 1.5 m | 39Y9172 |
| Tyco Straight MRJ21-to-Angled MRJ21, 3 m | 44E9046 |
| Tyco Straight MRJ21-to-Angled MRJ21, 10 m | 44E9051 |
| Tyco Straight MRJ21-to-Angled MRJ21, 30 m | 44E9066 |
| miniSAS X4 - miniSAS X4, 1 m | 39R6529 |
| miniSAS X4 - miniSAS X4, 3 m | 39R6531 |

*Table 32. Cables  (continued)*

| Cables | Part number |
|---|---|
| MegaRAID SAS, 3 m | 39R6471 |

# Transceivers

This section provides a description of the various supported transceiver options and their part numbers.

*Table 33. Transceivers*

| Product | Part number |
|---|---|
| Force10 10 Gigabit XFP SR Optics Module | 40K8890 |
| Cisco 10GBASE-SR X2 Module | 44E9078 |
| Cisco 10GBASE-SR XENPAK Module | 40K5598 |
| Cisco 1000BASE-SX SFP Module | 44E9088 |
| Cisco 1000BASE-T GBIC Module | 40K5607 |
| Cisco 1000BASE-SX GBIC Module | 40K5603 |
| Cyclades RJ45-to-DB9 Serial Cable Adapter | 40K5798 |
| Cyclades RJ45-to-DB9 Serial Cable Adapter for BladeCenter | 42D1363 |

# Rack cabinet options

This section provides a description of the various supported rack cabinet options and their part numbers.

## KVM switches

This section provides a description of the various supported keyboard, video, mouse (KVM) switches and their part numbers.

*Table 34. KVM switches*

| Product | Part number |
|---|---|
| IBM Global 2 x 16 Console Manager | 17352GX |
| IBM Global 4 x 16 Console Manager | 17354GX |
| IBM Local 2 x 8 Console Manager | 17351GX |

## Front-end PDUs

This section provides a description of the various supported front-end power distribution units (PDU) and their part numbers.

*Table 35. Front-end PDUs*

| Product | Part number |
|---|---|
| IBM DPI C19 Enterprise PDU (WW) | 39Y8948 |
| DPI Three-phase 60A/208V C19 Enterprise PDU (US) | 39Y8923 |
| DPI 30amp/250V Front-end PDU with NEMA L6-30P (208v) Line Cord | 39Y8939 |
| DPI Single-phase 30A/208V C19 Enterprise PDU (US) | 39Y8948 |

*Table 35. Front-end PDUs  (continued)*

| Product | Part number |
|---------|-------------|
| DPI Single-phase 60A/208V C19 Enterprise PDU (US) | 39Y8948 |
| DPI 63amp/250V Front-end PDU with IEC 309 2-pin and ground line cord (International) | 39Y8935 |
| DPI 60amp/250V Front-end PDU with IEC 309 2-pin and ground line cord | 39Y8940 |
| DPI 32amp/250V Front-end PDU with IEC 309 2-pin and ground line cord (International) | 39Y8934 |

## Rack cabinet PDUs

This section provides a description of the various supported rack cabinet PDUs and their part numbers.

*Table 36. Rack cabinet PDUs*

| Product | Part number |
|---------|-------------|
| DPI C13 Enterprise Module (WW) | 39Y8941 |
| DPI Single-phase 30A/208V C13 Enterprise PDU (US) | 39Y8948 |
| DPI Single-phase 60A/208V C13 Enterprise PDU (US) | 39Y8948 |
| DPI Universal Rack PDU w/Nema L5-20P & L6-20P (U.S. line cord) | 39Y8951 |
| DPI Universal Rack PDU with NBR 6147 (Brazil line cord) | 39Y8960 |
| DPI Universal Rack PDU with GB 2099.1 (China line cord) | 39Y8959 |
| DPI Universal Rack PDU with SI32 (Israel line cord) DPI | 39Y8954 |
| Universal Rack PDU with 3112 (Australia/New Zealand line cord) DPI | 39Y8958 |
| Universal Rack PDU with IRAM 2073 (Argentina line cord) DPI | 39Y8962 |
| Universal Rack PDU with CEI 23-16 (Italy line cord) DPI | 39Y8955 |
| Universal Rack PDU with SABS 164 (South Africa line cord) DPI | 39Y8956 |
| Universal Rack PDU with BS 1363/A (UK line cord) DPI | 39Y8957 |
| Universal Rack PDU with IS 6538 (India line cord) DPI | 39Y8961 |
| Universal Rack PDU w/Nema L5-20P & L6-20P (U.S. line cord) DPI | 39Y8952 |
| Universal Rack PDU with IEC 309 2-pin and ground (Denmark line cord) | 39Y8953 |

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