

Service Component Guide

- IBM Intelligent Cluster
- IBM Cluster 1350
- iDataPlex

10A Releasev1.0

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Introduction

This document is for use by service representatives and lists the main components for the current release of the IBM System Cluster 1350 and iDataPlex solutions.

For a component list for releases prior to 10A , Please see Instructions below on how to retrieve prior documentation:

1. Go to <http://www.ibm.com/support>
2. From the Choose support type menu, select System x and click the arrow button to the right.
3. From the Product family menu, select Cluster 1350 or iDataPlex Solution and click Go.
4. To display the documentation, click Documentation in the Support & downloads box.

1. Release Components for 10A

This chapter provides a list of core components supported IBM System Cluster 1350 and iDataPlex components for the 10A Release.

Nodes

This section provides a list of the node types supported by the IBM System Cluster 1350 and iDataPlex solutions.

Table 1 Cluster Nodes

Cluster Nodes	MT	Rack
IBM System x3550 M3 R2	7944	1410
IBM System x3650 M3 R2	7945	1410
IBM System x3755 server	7163	1410
IBM System x iDataPlex dx360 M2 (3 year warranty model)	7323	1410/7825 ¹
IBM System x iDataPlex dx360 M2 (4 year warranty model - special bid)	6380	1410/7825 ¹
IBM System x iDataPlex dx360 M3 – Special bid	6391	1410/7825 ¹
IBM System x iDataPlex 2U Flex chassis (3 year warranty model)	6385	1410/7825
IBM System x iDataPlex 2U Flex chassis (4 year warranty model - special bid)	6313	1410/7825
IBM System x iDataPlex 3U chassis (3 year warranty model)	6386	1410/7825
IBM BladeCenter HS22	7870	1410 ²
IBM BladeCenter LS22	7901	1410 ²
IBM BladeCenter LS42	7902	1410 ²
IBM BladeCenter JS23/JS43	7778	1410 ²

Footnotes:

1. iDataPlex nodes do not install directly into the rack. They are installed into an iDataPlex chassis which is then installed into the rack.
2. The BladeCenter blades do not install directly into the rack. They are installed into a BladeCenter chassis which is installed into the rack.

Table 2 Management Nodes

Management Nodes	MT	Rack
IBM System x3650 M3 R2	7944	1410
IBM System x3755	7163	1410

Table 3 BladeCenter Chassis

BladeCenter Chassis	MT	Rack
IBM BladeCenter H	8852	1410
IBM BladeCenter (S)	8886	1410

Server Adapters

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

Table 4 Storage Adapters for Servers

Storage Adapters for Servers	Option
IBM ServeRAID-8k SAS Controller	25R8064
ServeRAID-BR10il SAS/SATA Controller Kit	46M5557
ServeRAID-BR10i SAS/SATA Controller	44E8689
ServeRAID- BR10il SAS/SATA Controller v2	49Y4731
ServeRAID-MR10is VAULT SAS/SATA Controller	44E8695
ServeRAID-MR10i SAS/SATA Controller	43W4296
ServeRAID M5014 SAS/SATA Controller	46M0916
ServeRAID M5015 SAS/SATA Controller	46M0829
ServeRAID M1015 SAS/SATA Controller	46M0831
Brocade 8Gb FC Single-port HBA for IBM System x	46M6049
Brocade 8Gb FC Dual-port HBA for IBM System x	46M6050
Brocade 10Gb CNA for IBM System x	42C1820
Emulex 8GB FC Single-Port HBA for IBM System x	42D0485
Emulex 8GB FC Dual-Port HBA for IBM System x	42D0494
Emulex 10GbE Virtual Fabric Adapter for IBM System x	49Y4250
IBM SAS HBA Controller	25R8060
IBM 3Gb SAS HBA Controller v2	44E8700
IBM 6Gb SAS HBA	46M0907
IBM 320GB High IOPS MS Class SSD PCIe Adapter	46M0898
IBM 160GB High IOPS SS Class SSD PCIe Adapter	46M0877
QLogic 8Gb FC Single-port HBA for IBM System x	42D0501
QLogic 8Gb FC Dual-port HBA for IBM System x	42D0510
QLogic 10Gb CNA for IBM System x	42C1800
QLogic iSCSI Single Port PCIe HBA for IBM System x	39Y6146
QLogic iSCSI Dual Port PCIe HBA for IBM System x	42C1770

Table 5 Storage Expansion Cards for BladeCenter

Storage Expansion Cards for BladeCenter	Option/FC
SAS Expansion Card (CFFv) for IBM BladeCenter	39Y9190
SAS Expansion Card (CFFv) for IBM BladeCenter AAS	8250 ¹
SAS Connectivity Card (CFFv) for IBM BladeCenter	43W3974
SAS Connectivity Card (CIOv) for IBM BladeCenter	43W4068
Emulex 4Gb Fibre Channel Expansion Card (CFFv) for IBM BladeCenter	43W6859
Emulex 4GB Fibre Channel Expansion Card	8251 ¹
Emulex 8Gb Fibre Channel Expansion Card (CIOv)	8240 ¹
Emulex 8Gb Fibre Channel Expansion Card (CIOv) for IBM BladeCenter	46M6140

Emulex® 4Gb SFF Fibre Channel Expansion Card for IBM BladeCenter®	39Y9186
QLogic 4Gb Fibre Channel Expansion Card (CFFv) for IBM BladeCenter	41Y8527
QLogic 4GB 2 Port Fibre Channel Expansion Card (CFFv) for IBM BladeCenter	8248 ¹
QLogic 8Gb Fibre Channel Expansion Card (CIOv)	8242 ¹
Qlogic 8Gb Fibre Channnel Expansion Card (CIOV) for IBM BladeCenter	44X1945
QLogic Eth and 8Gb Fibre Channel Exp Card (CFFh) for IBM BladeCenter	<u>44X1940</u>
QLogic Ethernet and 4GB Fibre Channel Expansion Card (CFFh)	8252 ¹
Qlogic Ethernet and 4Gb Fibre Channel Exp Card (CFFh) for BladeCenter	39Y9306

Footnotes:

1. This PN is a feature code and not an option PN.

Table 6 Communication Exp. Cards for BladeCenter

Ethernet Expansion Card (CFFv) for IBM BladeCenter	39Y9310
2/4 Port Ethernet Expansion Card (CFFh) for IBM BladeCenter	44W4479

Table 7 High-speed Communication Adapters for Blade Servers

High-speed Communication Adapters for Blade Servers	Option/FC
2-port 40Gb InfiniBand Expansion Card (CFFh) for IBM BladeCenter	46M6001
Broadcom 10Gb 4-port Ethernet Exp Card (CFFh) for IBM BladeCenter	44W4465
Broadcom 10Gb Gen2 4-port Ethernet Exp Cd (CFFh) for IBM BladeCenter	46M6164
Broadcom 10Gb 2-port Ethernet Exp Card (CFFh) for IBM BladeCenter	44W4466
Broadcom 10Gb Gen2 2-port Ethernet Exp Cd (CFFh) for IBM BladeCenter	46M6168
Chelsio 10GbE Expansion Card (CFFh) for BladeCenter	46M1817
4X InfiniBand DDR Expansion Card (CFFh) for IBM BladeCenter	8258 ¹
Cisco 4X InfiniBand DDR Expansion Card (CFFh) for IBM BladeCenter	8297 ¹
Cisco 4X InfiniBand DDR Expansion Card (CFFh) for IBM BladeCenter	43W4421
Emulex Virtual Fabric Adapter (CFFh) for IBM BladeCenter	49Y4235
QLogic 2-pt 10Gb Converged Network Adapter(CFFh) for IBM BladeCenter	42C1830
Voltaire 4X InfiniBand DDR Expansion Card (CFFh) for IBM BladeCenter	8298 ¹

Footnotes:

1. This PN is a feature code and not an option PN.

Table 8 Communication Adapters for Servers

Communication Adapters for Servers	Option
NetXtreme 1000 S + Ethernet Adapter- PCI-X	39Y6088
NetXtreme 1000T+ Ethernet Adapter	39Y6079
NetXtreme 1000 T + Dual Port Ethernet Adapter- PCI-X	39Y6093
NetXtreme 1000 Express G Ethernet Adapter- PCIe	39Y6098
NetXtreme II 1000 Express Ethernet PCI-E Adapter	39Y6066
NetXtreme II 1000 Express Dual Port Ethernet Adapter	42C1780
PRO/1000 PF Server Adapter	42C1750
PRO/1000 PT Dual Port Server Adapter by Intel	39Y6126

PRO/1000 GT Dual Port Server Adapter by Intel- PCI-X	73P5101
PRO/1000 PT Quad Port Server Adapter	39Y6136
PRO/1000 GT Quad Port Server Adapter by Intel- PCI-X	73P5201
PRO/1000 MT Server Ethernet Adapter by Intel	39Y6105
IBM iSCSI Server Adapter	73P3601
IBM iSCSI Server TX Adapter	30R5201
IBM iSCSI Server SX Adapter	30R5501
Dual port 1Gb Ethernet Daughter Card	46M1076

Table 9 High-speed Communication Adapters for Servers

High-speed Communication Adapters for Servers	Option
Mellanox ConnectX Dual-Port 4X QDR IB x8 PCI-E 2.0 HCA	46M2199
Mellanox ConnectX-2 EN Dual-port SFP+ 10GbE PCI-E 2.0 Adapter	81Y1539
Mellanox ConnectX-2 VPI Single-port QSFP QDR IB/10GbE PCI-E 2.0 HCA	81Y1531
Mellanox ConnectX-2 VPI Dual-port QSFP QDR IB/10GbE PCI-E 2.0 HCA	81Y1535
Chelsio S310E Single-port 10GbE PCI-E 2.0 x8 Adapter	59Y1952
Chelsio S320E Dual-port 10GbE PCI-E 2.0 x8 Adapter	59Y1956
IBM 10Gb Ethernet Adapter	30R5001
IBM 10GbE PCIe SR Server Adapter	42C1760
NetXtreme II 10 GigE Express Fiber SR Adapter	42C1790
NetXtreme II 1000 Express Quad Port Ethernet Adapter	49Y4220
QLogic QLE7340 single-port 4X QDR IB x8 PCI-E 2.0 HCA	59Y1888

BladeCenter I/O modules

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

Table 10 Storage Modules for BladeCenter

Storage Modules for BladeCenter	Option
Brocade 10-port 8Gb SAN Switch Module for IBM BladeCenter	44X1921
Brocade 20-port 8Gb SAN Switch Module for IBM BladeCenter	44X1920
IBM BladeCenter SAS Connectivity Module	39Y9195
IBM BladeCenter S SAS RAID Controller Module	43W3584
Qlogic 20-port 8Gb SAN Switch Module for IBM BladeCenter	44X1905

Table 11 Network Modules for BladeCenter

Network Modules for BladeCenter	Option
10GB Ethernet Pass-Thru Module for IBM BladeCenter	46M6181
4X InfiniBand Pass-thru HSSM for BladeCenter	43W4419
BNT 10-port 10GB Ethernet Switch Module for IBM BladeCenter	46C7191
Cisco Catalyst Switch Module 3012 for IBM BladeCenter	43W4395
Cisco Catalyst Switch Module 3110G for IBM BladeCenter	41Y8523
Cisco InfiniBand Switch Module for BladeCenter	32R1900
Cisco Catalyst Switch 3110X for IBM BladeCenter	41Y8522
Cisco Nexus 4001 Switch Module for IBM BladeCenter	46M6071
Intelligent Copper Pass-thru Module for IBM BladeCenter	44W4483
Nortel Networks L2/L3 Copper Gb Ethernet Switch Module for IBM BladeCenter	32R1860
Nortel 10Gb Ethernet HSSM for BladeCenter	39Y9267
Nortel 1/10Gb Uplink Ethernet Switch Module for IBM BladeCenter	44W4404
QLogic 4Gb Intelligent Pass-thru Module for BladeCenter	43W6723
Qlogic 8Gb Intelligent Pass-thru Module for IBM BladeCenter	44X1907
QLogic Virtual Fabric Extension Module for IBM BladeCenter	46M6172
Server Connectivity Module for BladeCenter	39Y9324
Voltaire 40Gb InfiniBand Switch Module for IBM BladeCenter	46M6005

OEM switches, switch options and other devices

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

Table 12 Avocent Service Processor Management Devices

Avocent Ethernet Switches	MTM/Option	Rack
Avocent MergePoint 5300 SP Manager Bundle	4369-010	7825

Table 13 BLADE Ethernet Switches

BLADE Ethernet Switches	MTM/Option	Rack
BNT RackSwitch G8000F 48-port GbE Switch Bundle	0446-014	7825
BNT RackSwitch G8000R 48-port GbE Switch Bundle	0446-013	1410
BLADE G8124F 24-port 10GbE Switch Bundle	0446-018	7825
BLADE G8124R 24-port 10GbE Switch Bundle	0446-017	1410
BNT RackSwitch G8000 Dual-port SFP+ XGE Uplink Module	46C3417	-
BNT RackSwitch G8000 Dual-port CX4 XGE Uplink Module	46C3421	-

Table 14 Brocade Ethernet Switches

Brocade Ethernet Switches	MTM/Option	Rack
IBM Ethernet Switch B24X Bundle	0563-012	7825
IBM Ethernet Switch B50C Bundle	0563-010	7825
IBM Ethernet Switch B08R Bundle	0563-013	1410
IBM Ethernet Switch B16R Bundle	0563-014	1410
IBM Ethernet Switch B48Y for iDPx Bundle	0563-023	iDPx
IBM Ethernet Switch B48Y for 1410 Bundle	0563-022	1410
FCX 210w (Intake) Power Supply	81Y1451	-
FCX 210w (Exhaust) Power Supply	81Y1453	-
512MB Mgmt Module (4/8/16-slot Chassis)	69Y0425	-
Switch Fabric Module (8/16-slot Chassis)	69Y0429	-
24-port 1GbE (RJ45) Line Module	69Y0431	-
48-port 1GbE (8 x MRJ21) Line Module	0563-017	-
4-port 10GbE (XFP) Line Module	0563-018	-
4-port 10GbE (SFP+) Uplink Module	81Y1455	-
16-port 10GbE (SFP+) Line Module	0563-019	-
1200w Power Supply (8/16-slot Chassis)	69Y0447	-

Table 15 Mellanox Ethernet Switches

Mellanox Switches	MTM/Option	Rack
Mellanox IS5030 for 1410 36-port Managed QDR IB Switch Bundle	0724-010	1410
Mellanox IS5030 for iDPx 36-port Managed QDR IB Switch Bundle	0724-011	iDPx
Mellanox IS5200 Switch Bundle	0724-012	1410
Mellanox IS5600 Switch Bundle	0724-013	1410
Mellanox IS5xxx PPC460EX Management Module	81Y1525	-
Mellanox IS5xxx 18-port QSFP QDR IB Leaf Module	81Y1527	-
Mellanox 450w Power Supply (Intake)	81Y1521	-
Mellanox 450w Power Supply (Exhaust)	81Y1523	-

Table 16 Cisco Ethernet Switches

Cisco Ethernet Switches	MTM/Option	Rack
Cisco HPC-E 2960G 48-port Ethernet Switch Bundle	4670-032	1410/7825
Cisco HPC-E 3750G-48TS Ethernet Switch bundle	4670-017	1410/7825
Cisco 4900M Ethernet Switch Bundle	4670045	1410
Cisco HPC-E 4948 48-port Ethernet Switch Bundle	4670-033	1410/7825
Cisco HPC-E 6509-E Ethernet Switch Enclosure Bundle	4670-035	1410
Cisco HPC-E Supervisor 720 Bundle	4670-037	-
Cisco HPC-E X6148A 48-port GbE Line Card Bundle	4670-038	-
Cisco HPC-E X6708 DFC3C 8-port 10GbE Line Card Bundle	4670-039	-
Cisco HPC-E X6748 DFC3C 48-port GbE Line Card Bundle	4670-041	-
Cisco X4904 4-port 10GbE Line Card Bundle	46M1833	-
Cisco X4908 8-port 10GbE Line Card Bundle	46M1829	-
Cisco X4920 20-port 1GbE Line Card Bundle	46M1825	-
Cisco X6716 16-port 10GbE DFC Line Card	4670-046	-
Cisco HPC-E 6748 (CFC) Fabric Enabled 48-port GbE Line Card	40K8914	-

Table 17 Cyclades Terminal Servers

Cyclades Terminal Servers	MTM/Option	Rack
Cyclades ACS48 Terminal Server	0448-011	1410/7825
Cyclades Cyclades ACS32 Terminal Server	0448-012	1410

Table 18 Force10 Switches

Force10 Switches	MTM/Option	Rack
Force10 S50N 48-port Gb Ethernet Switch Bundle	4667-030	1410/7825
Force10 E1200i ExaScale Switch Enclosure Bundle	4667-039	1410
Force10 E600i ExaScale Switch Enclosure Bundle	4667-038	1410

Force10 S50N 2-port 10Gb XFP-based Uplink Kit	44R9938	-
Force10 S50N 2-port CX4-based 10Gb Uplink Module	46C3433	-
Force10 S50N 24Gb Stacking Kit	44R9948	-
Force10 ExaScale 10-port SFP+ 10GbE Line Card	4667-042	-
Force10 ExaScale 40-port SFP+ 10GbE Line Card	4667-043	-
Force10 ExaScale EH Route Processor Module	4667-040	-
Force10 ExaScale 90-port MRJ21 GbE Line Card	4667-041	-
Force10 E1200i-AC 2800w Power Supply	69Y0483	-

Table 19 QLogic Switches

QLogic Switches	MTM/Option	Rack
QLogic 12200 36-port QDR InfiniBand Switch Bundle	0449-019	1410
QLogic 12200 for 1410 36-port Red. Pwr QDR IB Switch Bundle	0449-028	1410
QLogic 12200 (iDPx) 36-port QDR InfiniBand Switch Bundle	0449-020	iDPx
QLogic 12200 for iDPx 36-port Red. Pwr QDR IB Switch Bundle	0449-029	iDPx
QLogic 12300 36-port QDR InfiniBand Switch Bundle	0449-021	1410
QLogic 12800-180 QDR InfiniBand Switch Bundle	0449-022	1410
QLogic 12800-360 QDR InfiniBand Switch Bundle	0449-023	1410
QLogic 12200 Management Module	68Y6995	-
QLogic 12800 Management Module	49Y8543	-
QLogic 12800 QDR Single Spine Module	0449-024	-
QLogic 12800 QDR Double Spine Module	0449-025	-
QLogic 12800 18-port 4X QDR Ultra-HP InfiniBand Leaf Module	0449-027	-
QLogic 12800 24-port 4X QDR Ultra-HD InfiniBand Leaf Module	0449-026	-
QLogic 12800 Hot-swap Power Supply	49Y8504	-

Table 20 SMC Switches

SMC Switches	MTM/Option	Rack
SMC 8848M Ethernet Switch Bundle	4668-015	1410/iDPx
SMC 8126L2 26-port GbE Switch Bundle	4668-017	1410/iDPx
SMC 8150L2 50-port GbE Switch Bundle	4668-018	1410/iDPx
SMC RPU14 Redundant Power Unit Bundle	4668-019	1410/iDPx
SMC Single-port 10Gb Uplink Module	40K9165	-
SMC Rack Mount Kit 7 (1410 Rack)	49Y8562	-
SMC Rack Mount Kit 8 (iDPx Rack)	49Y8566	-

Table 21 Tyco Patch Panel

Tyco Patch Panel	MTM/Option	Rack
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Tyco 48-port 1Gb Ethernet Angled Patch Panel	0564-010	1410
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Table 22 *Voltaire Switches*

Voltaire Switches	MTM/Option	Rack
Voltaire 4036 for 1410 36-port Managed QDR IB Switch Bundle	4669-032	1410
Voltaire 4036 for iDPx 36-port Managed QDR IB Switch Bundle	4669-033	iDPx
Voltaire 4700 for 1410 Switch Bundle	4669-034	1410
Voltaire 8500 for 1410 Switch Bundle	4669-037	1410
Voltaire sMB-E Management Module	4669-040	-
Voltaire sMB-CM Management Board	49Y0474	-
Voltaire sFB-4700 Switch Fabric Board	49Y0470	-
Voltaire sFB-4700-X2 Hyperscale Fabric Board	4669-036	-
Voltaire sFB-8500 Fabric Board	4669-039	-
Voltaire sLB-1024 24-Port 10GbE Line Board	4669-038	-
Voltaire sLB-4018 18-port QDR IB Line Board	4669-035	-
Voltaire sPSU Power Supply	40K9077	-
Voltaire 350w Power Supply	49Y0476	-
Voltaire 1400w sPSU-S Power Supply	49Y0478	-

External storage

This section provides a list of the supported storage servers, storage expansion units, storage switches and their part numbers.

Table 23 Storage Servers

Storage Servers	MTM	Rack
DS3200 SAS-SAS, Dual Controller	172622X	1410
DS3200 SAS-SAS, Single Controller	172621X	1410
DS3400 FC-SAS, Dual Controller	172642X	1410
DS3400 FC-SAS, Single Controller	172641X	1410
DS4200 Express Model	18147VH	1410
DS4700 Express Model 70	181470H	1410
DS4700 Express Model 70 - DC Model	181470H	1410
DS4700 Express Model 72	181472H	1410
DS4700 Express Model 72S - DC model	181472H	1410
DS5100 Storage Controller	181851A	1410
DS5300 Storage Controller	181853A	1410

Table 24 Storage Expansion Units

Storage Expansion Units	MTM	Rack
IBM System Storage EXP3000	172701X	1410
DS4000 EXP420 Storage Expansion Unit	18128VH	1410
DS4000 EXP810 Storage Expansion Unit	181281H	1410
EXP5000 Storage Expansion Unit	1818D1A	1410

Table 25 SAN Switches

SAN Switches	MTM	Rack
IBM System Storage SAN24B-4 Express	249824E	1410
IBM System Storage SAN40B-4	249840E	1410
IBM Converged Switch B32	375832E	1410
Brocade VA-40FC for iDPx San Switch Bundle	0563-025	iDPx
Brocade VA-40FC for 1410 San Switch Bundle	0563-024	1410

Cable connectivity

This section provides a list of the supported cables, transceivers and their part numbers.

Table 26 CAT5E Ethernet Cables

CAT5E Ethernet Cables	Option
0.6m Blue CAT5E Cable	40K5679
0.6m Green CAT5E Cable	40K5563
0.6m Yellow CAT5E Cable	40K8933
1.5m Blue CAT5E Cable	40K8785
1.5m Green CAT5E Cable	40K5643
1.5m Yellow CAT5E Cable	40K8951
3m Blue CAT5E Cable	40K5581
3m Green CAT5E Cable	40K5793
3m Yellow CAT5E Cable	40K8957
10m Blue CAT5E Cable	40K8927
10m Green CAT5E Cable	40K5794
10m Yellow CAT5E Cable	40K8801
25m Blue CAT5E Cable	40K8930
25m Green CAT5E Cable	40K8869
25m Yellow CAT5E Cable	40K8807

Table 27 Optical Cables (Ethernet and/or InfiniBand)

Optical Cables	Option
1m LC-LC Fibre Channel Cable (Networking)	39M5696
5m LC-LC Fibre Channel Cable (Networking)	39M5697
25m LC-LC Fibre Channel Cable (Networking)	39M5698
0.2m LC(female) - SC(male) Fiber Cable	44R8701
3m Emcore Connects/Intel Connects Optical Cable	46D0153
10m Emcore Connects/Intel Connects Optical Cable	46D0156
30m Emcore Connects/Intel Connects Optical Cable	46D0159
3m QLogic Optical QDR InfiniBand QSFP Cable	59Y1920
10m QLogic Optical QDR InfiniBand QSFP Cable	59Y1924
30m QLogic Optical QDR InfiniBand QSFP Cable	59Y1928
3m IBM Optical QDR InfiniBand QSFP Cable	49Y0488
10m IBM Optical QDR InfiniBand QSFP Cable	49Y0491
30m IBM Optical QDR InfiniBand QSFP Cable	49Y0494
10m Voltaire Optical 12X CXP-to-12X CXP Cable	68Y6955

10m Voltaire Optical 12X CXP-to-3 QSFP Breakout Cable	68Y6979
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Table 28 Copper InfiniBand and/or 10GbE Cables

Copper InfiniBand and/or 10GbE Cables	Option
1m Mellanox Copper Cable for 4X IB and 10GbE	46D0162
3m Mellanox Copper Cable for 4X IB and 10GbE	46D0166
5m Mellanox Copper Cable for 4X IB and 10GbE	46D0170
8m Mellanox Copper Cable for 4X IB and 10GbE	46D0174
0.5m QLogic Copper QDR InfiniBand QSFP 30AWG Cable	59Y1892
1m QLogic Copper QDR InfiniBand QSFP 30AWG Cable	59Y1896
3m QLogic Copper QDR InfiniBand QSFP 28AWG Cable	59Y1900

Table 29 Direct Attach Copper (DAC) Cables (Ethernet)

DAC Ethernet Cables	Option
0.5m Molex Direct Attach Copper SFP+ Cable	59Y1932
1m Molex Direct Attach Copper SFP+ Cable	59Y1936
3m Molex Direct Attach Copper SFP+ Cable	59Y1940
7m Molex Direct Attach Copper SFP+ Cable	59Y1944
10m Molex Direct Attach Copper SFP+ Cable	59Y1948

Table 30 Fibre Storage Cables

Fibre Storage Cables	Option
1m LC-LC Fibre Channel Cable (Storage)	39M5696
5m LC-LC Fibre Channel Cable (Storage)	39M5697
25m LC-LC Fibre Channel Cable (Storage)	39M5698

Table 31 Other Networking Cables

Other Networking Cables	Option
Copper Pass-Through Module Cable for BladeCenter	39Y9170
3m Tyco Straight MRJ21-to-Angled MRJ21 Cable	44E9046
10m Tyco Straight MRJ21-to-Angled MRJ21 Cable	44E9051
30m Tyco Straight MRJ21-to-Angled MRJ21 Cable	44E9066

Table 32 SAS Cables

SAS Cables	Option
1m miniSAS x4 - miniSAS x4 Cable	39R6529
3m miniSAS x4 - miniSAS x4 Cable	39R6531

Table 33 Transceivers/Other

Transceivers/Other	Option
Force10 10Gb XFP SR Optics Module	40K8890
Force10 XFP-to-CX4 Transceiver	46C5043
BNT SFP+ Transceiver	46C3447
XFP Transceiver 850nm MMF (300m)	69Y0377
XFP-to-CX4 Transceiver (15m)	69Y0381
SFP+ Transceiver 10GbE SR 300m MMF	69Y0389
IBM 10GbE SW SFP+ Transceiver	49Y8578
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 options

This section provides the supported rack cabinet and a list of the supported keyboard, video and mouse (KVM) switches, front-end power distribution units (PDUs), rack cabinet PDUs and their part numbers.

Table 34 Rack Cabinets

Rack Cabinets	MTM
e1350 42U Rack Cabinet	14104RX
e1350 25U Rack Cabinet	14102RX
iDataPlex 100U Rack Cabinet	78251RX

Table 35 KVM Switches

KVM Switches	MTM
IBM Local 2x8 Console Manager	17351GX
IBM Global 2x16 Console Manager	17352GX
1x8 Console Switch	17353LX
2x16 Console Switch	17354LX

Table 36 Enterprise PDUs for the 1410 Rack

Enterprise PDUs for the 1410 Rack	Option
DPI C19 Enterprise PDU (WW)	39Y8948
DPI Single-phase 63A/230V C19 Enterprise PDU (International)	39Y8948
DPI Three-phase 32A/380-415V C19 Enterprise PDU (International)	39Y8948
DPI Single-phase 32A/230V C19 Enterprise PDU (Aus/NZ)	39Y8948

DPI Three-phase 60A/208V C19 Enterprise PDU (US)	39Y8923
DPI Single-phase 30A/208V C19 Enterprise PDU (US)	39Y8948
DPI Single-phase 30A/208V C13 Enterprise PDU (US)	39Y8941
DPI Single-phase 60A/208V C13 Enterprise PDU (US)	39Y8941
Ultra Density Enterprise C19/C13 PDU Module (WW) with 4.3m, 30A/208V, EPDU to NEMA L6-30P (US) Line Cord	71762NX
Ultra Density Enterprise C19/C13 PDU Module (WW) with 4.3m, 60A/208V, EPDU to IEC 309 2P+G (US) Line Cord	71762NX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 30A/208V, EPDU to NEMA L6-30P (US) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU 60A/208V/3ph (US)	71763NU
Ultra Density Enterprise C19/C13 PDU+ 60A/208V/3ph (US)	71763MU
Ultra Density Enterprise C19/C13 PDU Module (WW) with 4.3m, 32A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	71762NX
Ultra Density Enterprise C19/C13 PDU Module (WW) with 4.3m, 63A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	71762NX
Ultra Density Enterprise PDU Module (WW) with 4.3m, 32A/380-415V, EPDU/IEC 309 3P+N+G 3ph wye (non-US) Line Cord	71762NX
Ultra Density Enterprise PDU Module (WW) with 4.3m, 32A/230V, EPDU to AS/NZS 3112 (Aus/NZ) Line Cord	71762NX
Ultra Density Enterprise PDU Module (WW) with 4.3m, 30A/250V, EPDU to KSC 8305 (S. Korea) Line Cord	71762NX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 60A/208V, EPDU to IEC 309 2P+G (US) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 32A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 63A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 32A/380-415V, EPDU/IEC 309 3P+N+G 3ph wye (non-US) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 32A/230V, EPDU to AS/NZS 3112 (Aus/NZ) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 30A/250V, EPDU to KSC 8305 (S. Korea) Line Cord	71762MX
IBM Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 32A/380-415V, EPDU/IEC 309 3P+N+G 3ph wye (non-US) Line Cord	71762MX
Enterprise C13 PDU Module (WW)	39Y8941
DPI Single-phase 32A/230V C13 Enterprise PDU (International)	39Y8941
DPI Single-phase 63A/230V C13 Enterprise PDU (International)	39Y8941
DPI Three-phase 32A/380-415V C13 Enterprise PDU (International)	39Y8941
DPI Single-phase 32A/230V C13 Enterprise PDU (Aus/NZ)	39Y8941
DPI Single-phase 30A/250V C13 Enterprise PDU (S Korea)	39Y8941

Table 37 Front-End PDUs for the 1410 Rack

Front End PDUs	Option
DPI 30amp/250V Front-end PDU with NEMA L6-30P (208v) Line Cord	39Y8939
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
DPI Single-phase 30A/250V Front-end PDU (S Korea)	39Y8936
DPI Single-phase 32A/230V Front-end PDU (Aus/NZ)	39Y8937

Table 38 Rack PDUs for the 1410 Rack

Rack Cabinet PDUs	MTM/Option/FC
DPI Universal Rack PDU w/Nema L5-20P & L6-20P U.S. Line Cord	39Y8951
DPI Universal Rack PDU with GB 2099.1 (China line cord)	39Y8959
DPI Universal Rack PDU with SI32 (Israel line cord)	39Y8954
DPI Universal Rack PDU with 3112 (Australia/New Zealand line cord)	39Y8958
DPI Universal Rack PDU with IRAM 2073 (Argentina line cord)	39Y8962
DPI Universal Rack PDU with CEI 23-16 (Italy line cord)	39Y8955
DPI Universal Rack PDU with SABS 164 (South Africa line cord)	39Y8956
DPI Universal Rack PDU with BS 1363/A (UK line cord)	39Y8957
DPI Universal Rack PDU with IS 6538 (India line cord)	39Y8961
DPI Universal Rack PDU w/Nema L5-20P & L6-20P U.S. Line Cord	39Y8952
DPI Universal Rack PDU (Europe)	39Y8952
DPI Universal Rack PDU with IEC 309 2-pin and ground (Denmark line cord)	39Y8953
DPI Universal Rack PDU with C19/C20	41Y9221
DPI Universal Rack PDU (Japan HV)	5964
DPI Universal Rack PDU (S Korea)	5965
DPI Universal Rack PDU (Italy)	39Y8955

Table 39 Rack 7825 Cabinet PDUs

Rack 7825 Cabinet PDUs	Option
iDPx Single-phase 30A/208V Enterprise C13 PDU (US)	43V6061
iDPx Single-phase 30A/208V Enterprise C13 PDU+ (US)	43V6065
iDPx Three-phase 60A/208V Enterprise C13 PDU+ (US)	39M2817
iDPx Three-phase 32A/380-415V Enterprise C13 PDU (Int'l)	43V6062
iDPx Three-phase 32A/380-415V Enterprise C13 PDU+ (Int'l)	43V6066
iDPx Single-phase 32A/230V Enterprise C13 PDU (Aus/NZ)	43V6063
iDPx Single-phase 32A/230V Enterprise C13 PDU+ (Aus/NZ)	43V6067
iDPx Single-phase 30A/250V Enterprise C13 PDU (S Korea)	43V6064
iDPx Single-phase 30A/250V Enterprise C13 PDU+ (S Korea)	43V6068

2. Release Components for 9B

This chapter provides a list of core components supported IBM System Cluster 1350 and iDataPlex components for the 9B release.

Nodes

This section provides a list of the node types supported by the IBM System Cluster 1350 and iDataPlex solutions.

Table 1 Cluster Nodes

Cluster Nodes	MT	Rack
IBM System x3550 M2 server	7946	1410
IBM System x3650 M2 server	7947	1410
IBM System x3755 server	7163	1410
IBM System x iDataPlex dx360 M2 server (3 year warranty model)	7323	1410/7825 ¹
IBM System x iDataPlex dx360 M2 server (4 year warranty model - special bid)	6380	1410/7825 ¹
IBM System x iDataPlex 2U Flex chassis (3 year warranty model)	6385	1410/7825
IBM System x iDataPlex 2U Flex chassis (4 year warranty model - special bid)	6313	1410/7825
IBM System x iDataPlex 3U chassis (3 year warranty model)	6386	1410/7825
IBM BladeCenter HS22	7870	1410 ²
IBM BladeCenter LS22	7901	1410 ²
IBM BladeCenter LS42	7902	1410 ²
IBM BladeCenter JS23/JS43	7778	1410 ²

Footnotes:

1. iDataPlex nodes do not install directly into the rack. They are installed into an iDataPlex chassis which is then installed into the rack.
2. The BladeCenter blades do not install directly into the rack. They are installed into a BladeCenter chassis which is installed into the rack.

Table 2 Management Nodes

Management Nodes	MT	Rack
IBM System x3650 M2 server	7947	1410
IBM System x3755 server	7163	1410

Table 3 BladeCenter Chassis

BladeCenter Chassis	MT	Rack
IBM BladeCenter H	8852	1410
IBM BladeCenter (S)	8886	1410

Server Adapters

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

Table 4 Storage Adapters for Servers

Storage Adapters for Servers	Option
IBM ServeRAID-8k SAS Controller	25R8064
ServeRAID-BR10i SAS/SATA Controller Kit	46M5557
ServeRAID-MR10i SAS/SATA Controller	44E8695
ServeRAID M5015 SAS/SATA Controller	46M0829
ServeRAID M1015 SAS/SATA Controller	46M0831
Brocade 8Gb FC Single-port HBA for IBM System x	46M6049
Brocade 8Gb FC Dual-port HBA for IBM System x	46M6050
Brocade 10Gb CNA for IBM System x	42C1820
Emulex 8GB FC Single-Port HBA for IBM System x	42D0485
Emulex 8GB FC Dual-Port HBA for IBM System x	42D0494
IBM SAS HBA Controller	25R8060
IBM 3Gb SAS HBA v2	44E8700
IBM 320GB High IOPS MS Class SSD PCIe Adapter	46M0898
QLogic 8Gb FC Single-port HBA for IBM System x	42D0501
QLogic 8Gb FC Dual-port HBA for IBM System x	42D0510
QLogic 10Gb CNA for IBM System x	42C1800

Table 5 Storage Expansion Cards for BladeCenter

Storage Expansion Cards for BladeCenter	Option/FC
SAS Expansion Card (CFFv) for IBM BladeCenter	39Y9190
SAS Expansion Card (CFFv) for IBM BladeCenter AAS	8250 ¹
SAS Connectivity Card (CFFv) for IBM BladeCenter	43W3974
Ethernet Expansion Card (CFFv) for IBM BladeCenter	39Y9310
2/4 Port Ethernet Expansion Card (CFFh) for IBM BladeCenter	44W4479
Emulex 4Gb Fibre Channel Expansion Card (CFFv) for IBM BladeCenter	43W6859
Emulex 4 GB Fibre Channel Expansion Card	8251 ¹
Emulex 8Gb Fibre Channel Expansion Card (CIOv)	8240 ¹
Emulex 8Gb Fibre Channel Expansion Card (CIOv) for IBM BladeCenter	46M6140
Emulex® 4Gb SFF Fibre Channel Expansion Card for IBM BladeCenter®	39Y9186
QLogic 4Gb Fibre Channel Expansion Card (CFFv) for IBM BladeCenter	41Y8527
QLogic 4 GB 2 Port Fibre Channel Expansion Card (CFFv) for IBM BladeCenter	8248 ¹
QLogic 8Gb Fibre Channel Expansion Card (CIOv)	8242 ¹
Qlogic 8Gb Fibre Channnel Expansion Card (CIOV) for IBM BladeCenter	44X1945
QLogic Eth and 8Gb Fibre Channel Exp Card (CFFh) for IBM BladeCenter	44X1940
QLogic Ethernet and 4 GB Fibre Channel Expansion Card (CFFh)	8252 ¹
Qlogic Ethernet & 4Gb Fibre Channel Exp Card (CFFh) for BladeCenter	39Y9306

Footnotes:

1. This PN is a feature code and not an option PN.

Table 6 Communication Adapters for Servers

Communication Adapters for Servers	Option
NetXtreme 1000 S + Ethernet Adapter- PCI-X	39Y6088
NetXtreme 1000T+ Ethernet Adapter	39Y6079
NetXtreme 1000 T + Dual Port Ethernet Adapter- PCI-X	39Y6093
NetXtreme 1000 Express G Ethernet Adapter- PCIe	39Y6098
NetXtreme II 1000 Express Ethernet PCI-E Adapter	39Y6066
NetXtreme II 1000 Express Dual Port Ethernet Adapter	42C1780
PRO/1000 PF Server Adapter	42C1750
PRO/1000 PT Dual Port Server Adapter by Intel	39Y6126
PRO/1000 GT Dual Port Server Adapter by Intel- PCI-X	73P5101
PRO/1000 PT Quad Port Server Adapter	39Y6136
PRO/1000 GT Quad Port Server Adapter by Intel- PCI-X	73P5201
PRO/1000 MT Server Ethernet Adapter by Intel	39Y6105
IBM iSCSI Server Adapter	73P3601
IBM iSCSI Server TX Adapter	30R5201
IBM iSCSI Server SX Adapter	30R5501
Dual port 1Gb Ethernet Daughter Card	46M1076

Table 7 High-speed Communication Adapters for Servers

High-speed Communication Adapters for Servers	Option
Mellanox Single-Port 4X DDR IB x8PCI-E x8 HCA	44R9976
Mellanox ConnectX Single-Port 4X QDR IB x8 PCI-E 2.0 HCA	46M2203
Mellanox ConnectX Dual-Port 4X DDR IB x8 PCI-E 2.0 HCA	44R8728
Mellanox ConnectX Dual-Port 4X QDR IB x8 PCI-E 2.0 HCA	46M2199
Mellanox ConnectX EN Dual-port 10GbE x8 PCI-E 2.0 Adapter	59Y1904
Chelsio Single-port, SFP+, 10GbE, PCI-E x8 Adapter	46M1809
Chelsio Single-port, CX4, 10GbE, PCI-E x8 Adapter	46M1813
Chelsio S310E Single-port 10GbE PCI-E 2.0 x8 Adapter	59Y1952
Chelsio S320E Dual-port 10GbE PCI-E 2.0 x8 Adapter	59Y1956
IBM 10 Gb Ethernet Adapter	30R5001
IBM 10 GbE PCIe SR Server Adapter	42C1760
NetXtreme II 10 GigE Express Fiber SR Adapter	42C1790
QLogic QLE7340 single-port 4X QDR IB x8 PCI-E 2.0 HCA	59Y1888

Table 8 High-speed Communication Adapters for Blade Servers

High-speed Communication Adapters for Blade Servers	Option/FC
2-port 40Gb InfiniBand Expansion Card (CFFh) for IBM BladeCenter	46M6001
Broadcom 10Gb 4-port Ethernet Exp Card (CFFh) for IBM BladeCenter	44W4465

Broadcom 10Gb 2-port Ethernet Exp Card (CFFh) for IBM BladeCenter	44W4466
4X DDR InfiniBand CFFh Expansion Card for BladeCenter	43W4423
Chelsio 10GbE Expansion Card (CFFh) for BladeCenter	46M1817
4X InfiniBand DDR Expansion Card (CFFh) for IBM BladeCenter	8258 ¹
Cisco 4X InfiniBand DDR Expansion Card (CFFh) for IBM BladeCenter	8297 ¹
Cisco 4X InfiniBand DDR Expansion Card (CFFh) for IBM BladeCenter	43W4421
QLogic 2-pt 10Gb Converged Network Adapter(CFFh) for IBM BladeCenter	42C1830
Voltaire 4X InfiniBand DDR Expansion Card (CFFh) for IBM BladeCenter	8298 ¹
Voltaire 4X InfiniBand DDR Expansion Card (CFFh) for IBM BladeCenter	43W4420

Footnotes:

1. This PN is a feature code and not an option PN.

BladeCenter I/O modules

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

Table 9 Storage Modules for BladeCenter

Storage Modules for BladeCenter	Option
Brocade 10-port 8Gb SAN Switch Module for IBM BladeCenter	44X1921
Brocade 20-port 8Gb SAN Switch Module for IBM BladeCenter	44X1920
IBM BladeCenter SAS Connectivity Module	39Y9195
IBM BladeCenter S SAS RAID Controller Module	43W3584
Qlogic 20-port 8Gb SAN Switch Module for IBM BladeCenter	44X1905

Table 10 Network Modules for BladeCenter

Network Modules for BladeCenter	Option
10GB Ethernet Pass-Thru Module for IBM BladeCenter	46M6181
4X InfiniBand Pass-thru HSSM for BladeCenter	43W4419
BNT 10-port 10GB Ethernet Switch Module for IBM BladeCenter	46C7191
Cisco Catalyst Switch Module 3012 for IBM BladeCenter	43W4395
Cisco Catalyst Switch Module 3110G for IBM BladeCenter	41Y8523
Cisco InfiniBand Switch Module for BladeCenter	32R1900
Cisco Catalyst Switch 3110X for IBM BladeCenter	41Y8522
Intelligent Copper Pass-thru Module for IBM BladeCenter	44W4483
Nortel Networks L2/L3 Copper Gb Ethernet Switch Module for IBM BladeCenter	32R1860
Nortel 10Gb Ethernet HSSM for BladeCenter	39Y9267
Nortel 1/10Gb Uplink Ethernet Switch Module for IBM BladeCenter	44W4404
QLogic 4Gb Intelligent Pass-thru Module for BladeCenter	43W6723
Qlogic 8Gb Intelligent Pass-thru Module for IBM BladeCenter	44X1907
Server Connectivity Module for BladeCenter	39Y9324
Voltaire 40Gb InfiniBand Switch Module for IBM BladeCenter	46M6005

OEM switches, switch options and other devices

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

Table 11 Avocent Service Processor Management Devices

Avocent Ethernet Switches	MTM/Option	Rack
Avocent MergePoint 5300 SP Manager Bundle	4369-010	7825

Table 12 BLADE Ethernet Switches

BLADE Ethernet Switches	MTM/Option	Rack
BNT RackSwitch G8000F 48-port GbE Switch Bundle	0446-014	7825
BNT RackSwitch G8000R 48-port GbE Switch Bundle	0446-013	1410
BNT RackSwitch G8100F 24-port 10GbE Switch Bundle	0446-016	7825
BNT RackSwitch G8100R 24-port 10GbE Switch Bundle	0446-015	1410
BLADE G8124F 24-port 10GbE Switch Bundle	0446-018	7825
BLADE G8124R 24-port 10GbE Switch Bundle	0446-017	1410
BNT RackSwitch G8000 Dual-port SFP+ XGE Uplink Module	46C3417	-
BNT RackSwitch G8000 Dual-port CX4 XGE Uplink Module	46C3421	-

Table 13 Brocade Ethernet Switches

Brocade Ethernet Switches	MTM/Option	Rack
IBM Ethernet Switch B24X Bundle	0563-012	7825
IBM Ethernet Switch B50C Bundle	0563-010	7825
IBM Ethernet Switch B08R Bundle	0563-013	1410
IBM Ethernet Switch B16R Bundle	0563-014	1410
512MB Mgmt Module (4/8/16-slot Chassis)	69Y0425	-
Switch Fabric Module (8/16-slot Chassis)	69Y0429	-
24-port 1GbE (RJ45) Line Module	69Y0431	-
48-port 1GbE (8 x MRJ21) Line Module	0563-017	-
4-port 10GbE (XFP) Line Module	0563-018	-
16-port 10GbE (SFP+) Line Module	0563-019	-
1200w Power Supply (8/16-slot Chassis)	69Y0447	-

Table 14 Cisco Ethernet Switches

Cisco Ethernet Switches	MTM/Option	Rack
Cisco HPC-E 2960G 48-port Ethernet Switch Bundle	4670-032	1410/7825
Cisco 3560-E 48-port Ethernet Switch Bundle	4670-048	1410/7825
Cisco HPC-E 3750G-48TS Ethernet Switch bundle	4670-017	1410/7825
Cisco 4900M Ethernet Switch Bundle	4670045	1410

Cisco HPC-E 4948 48-port Ethernet Switch Bundle	4670-033	1410/7825
Cisco HPC-E 6509-E Ethernet Switch Enclosure Bundle	4670-035	1410
Cisco HPC-E Supervisor 720 Bundle	4670-037	-
Cisco HPC-E X6148A 48-port GbE Line Card Bundle	4670-038	-
Cisco HPC-E X6708 DFC3C 8-port 10GbE Line Card Bundle	4670-039	-
Cisco HPC-E X6748 DFC3C 48-port GbE Line Card Bundle	4670-041	-
Cisco X4904 4-port 10GbE Line Card Bundle	46M1833	-
Cisco X4908 8-port 10GbE Line Card Bundle	46M1829	-
Cisco X4920 20-port 1GbE Line Card Bundle	46M1825	-
Cisco X6716 16-port 10GbE DFC Line Card	4670-046	-
Cisco HPC-E 6748 (CFC) Fabric Enabled 48-port GbE Line Card	40K8914	-

Table 15 Cyclades Terminal Servers

Cyclades Terminal Servers	MTM/Option	Rack
Cyclades ACS48 Terminal Server	0448-011	1410/7825
Cyclades Cyclades ACS32 Terminal Server	0448-012	1410

Table 16 Force10 Switches

Force10 Switches	MTM/Option	Rack
Force10 S2410CP 24-port 10GbE Switch Bundle	4667-031	1410
Force10 C300 Ethernet Switch Bundle	4667-032	1410
Force10 C150 Ethernet Switch Bundle	4667-033	1410
Force10 S50N 48-port Gb Ethernet Switch Bundle	4667-030	1410/7825
Force10 C150/C300 8-port 10Gb Ethernet Line Card	4667-037	-
Force10 C150/C300 4-port 10Gb Ethernet Line Card	4667-036	-
Force10 C150/C300 48-port Gb Ethernet Line Card	4667-035	-
Force10 C150/C300 Switch Fabric and Route Processor Module	4667-034	-
Force10 S50N 2-port 10Gb XFP-based Uplink Kit	44R9938	-
Force10 S50N 2-port CX4-based 10Gb Uplink Module	46C3433	-
Force10 C150/C300 1200w Power Supply	46C4971	-
Force10 S50N 24Gb Stacking Kit	44R9948	-

Table 17 QLogic Switches

QLogic Switches	MTM/Option	Rack
QLogic 9240 288-port DDR InfiniBand Switch Bundle	0449-015	1410
QLogic 9120 144-port DDR InfiniBand Switch Bundle	0449-014	1410
QLogic 9080 96-port DDR InfiniBand Switch Bundle	0449-013	1410
QLogic 9024CU Managed 24-port DDR InfiniBand Switch Bundle	0449-010	1410
QLogic 9024FC Externally Managed 24-port DDR IB Switch Bundle	0449-011	1410

QLogic 9024FC for iDPx Externally Managed 24-port DDR IB Switch Bundle	0449-012	7825
QLogic 12200 36-port QDR InfiniBand Switch Bundle	0449-019	1410
QLogic 12200 (iDPx) 36-port QDR InfiniBand Switch Bundle	0449-020	7825
QLogic 12300 36-port QDR InfiniBand Switch Bundle	0449-021	1410
QLogic 12800-180 QDR InfiniBand Switch Bundle	0449-022	1410
QLogic 12800-360 QDR InfiniBand Switch Bundle	0449-023	1410
QLogic 12800 Management Module	49Y8543	-
QLogic 9XXX DDR Spine Module - Unmanaged	0449-016	-
QLogic 9XXX DDR Spine Module - Managed	0449-017	-
QLogic 12800 QDR Single Spine Module	0449-024	-
QLogic 12800 QDR Double Spine Module	0449-025	-
QLogic 9XXX 12-port 4X DDR InfiniBand Switch Leaf Module	0449-018	-
QLogic 12800 24-port 4X QDR Ultra-HD InfiniBand Leaf Module	0449-026	-
QLogic 12800 18-port 4X QDR Ultra-HP InfiniBand Leaf Module	0449-027	-
QLogic 9XXX Hot-swap Power Supply	46D0241	-
QLogic 12800 Hot-swap Power Supply	49Y8504	-

Table 18 SMC Switches

SMC Switches	MTM/Option	Rack
SMC 8708L2 8-port 10Gb Ethernet Switch	4668-012	1410/7825
SMC 8848M Ethernet Switch Bundle	4668-015	1410/7825
SMC 8126L2 26-port GbE Switch Bundle	4668-017	1410/7825
SMC Single-port 10Gb Uplink Module	40K9165	-

Table 19 Tyco Patch Panel

Tyco Patch Panel	MTM/Option	Rack
Tyco 48-port 1Gb Ethernet Angled Patch Panel	0564-010	1410

Table 20 Voltaire Switches

Voltaire Switches	MTM/Option	Rack
Voltaire 2012 InfiniBand Switch Bundle	4669-024	1410
Voltaire 2004 InfiniBand Switch Bundle	4669-023	1410
Voltaire 2036 36-port Managed DDR IB Switch Bundle	4669-030	1410
Voltaire 2036 (iDPx) 36-port Managed DDR IB Switch Bundle	4669-031	7825
Voltaire 4036 for 1410 36-port Managed QDR IB Switch Bundle	4669-032	1410
Voltaire 4036 for iDPx 36-port Managed QDR IB Switch Bundle	4669-033	7825
Voltaire 4700 for 1410 Switch Bundle	4669-034	1410
Voltaire 8500 for 1410 Switch Bundle	4669-037	1410

Voltaire sMB-E Management Module	4669-040	-
Voltaire sMB-CM Management Board	49Y0474	-
Voltaire sMB-HM Hi-Memory Management Board Bundle	4669-028	-
Voltaire sFB-2004 Switch Fabric Board	4669-025	-
Voltaire sFB-2012 Switch Fabric Board	4669-026	-
Voltaire sFB-4700 Switch Fabric Board	49Y0470	1410
Voltaire sFB-4700-X2 Hyperscale Fabric Board	4669-036	-
Voltaire sFB-8500 Fabric Board	4669-039	1410
Voltaire sLB-2024 24-port 4X DDR InfiniBand Line Card	4669-027	1410
Voltaire sRB-20210G 10GbE/DDR InfiniBand Line Board	4669-029	-
Voltaire sLB-1024 24-Port 10GbE Line Board	4669-038	-
Voltaire sLB-4018 18-port QDR IB Line Board	4669-035	-
Voltaire sPSU Power Supply	40K9077	-
Voltaire 350w Power Supply	49Y0476	-
Voltaire 1400w sPSU-S Power Supply	49Y0478	-

External storage

This section provides a list of the supported storage servers, storage expansion units, storage switches and their part numbers. These items can only be installed in a 1410 rack.

Table 21 Storage Servers

Storage Servers	MTM
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 70 - DC Model	181470H
DS4700 Express Model 72	181472H
DS4700 Express Model 72S - DC model	181472H
DS5100 Storage Controller	181851A
DS5300 Storage Controller	181853A

Table 22 Storage Expansion Units

Storage Expansion Units	MTM
IBM System Storage EXP3000	172701X
DS4000 EXP420 Storage Expansion Unit	18128VH
DS4000 EXP810 Storage Expansion Unit	181281H
EXP5000 Storage Expansion Unit	1818D1A

Table 23 SAN Switches

SAN Switches	MTM
IBM System Storage SAN24B-4 Express	249824E
IBM System Storage SAN40B-4	249840E
IBM Converged Switch B32	375832E

Cable connectivity

This section provides a list of the supported cables, transceivers and their part numbers.

Table 24 CAT5E Ethernet Cables

CAT5E Ethernet Cables	Option
0.6m Blue CAT5E Cable	40K5679
0.6m Green CAT5E Cable	40K5563
0.6m Yellow CAT5E Cable	40K8933
1.5m Blue CAT5E Cable	40K8785
1.5m Green CAT5E Cable	40K5643
1.5m Yellow CAT5E Cable	40K8951
3m Blue CAT5E Cable	40K5581
3m Green CAT5E Cable	40K5793
3m Yellow CAT5E Cable	40K8957
10m Blue CAT5E Cable	40K8927
10m Green CAT5E Cable	40K5794
10m Yellow CAT5E Cable	40K8801
25m Blue CAT5E Cable	40K8930
25m Green CAT5E Cable	40K8869
25m Yellow CAT5E Cable	40K8807

Table 25 Optical Cables (Ethernet and/or InfiniBand)

Optical Cables	Option
1m LC-LC Fibre Channel Cable (Networking)	39M5696
5m LC-LC Fibre Channel Cable (Networking)	39M5697
25m LC-LC Fibre Channel Cable (Networking)	39M5698
0.2m LC(female) - SC(male) Fiber Cable	44R8701
3m Emcore Connects/Intel Connects Optical Cable	46D0153
10m Emcore Connects/Intel Connects Optical Cable	46D0156
30m Emcore Connects/Intel Connects Optical Cable	46D0159
3m QLogic Optical DDR InfiniBand QSFP-to-CX4 Cable	59Y1908
10m QLogic Optical DDR InfiniBand QSFP-to-CX4 Cable	59Y1912
30m QLogic Optical DDR InfiniBand QSFP-to-CX4 Cable	59Y1916
3m QLogic Optical QDR InfiniBand QSFP Cable	59Y1920
10m QLogic Optical QDR InfiniBand QSFP Cable	59Y1924
30m QLogic Optical QDR InfiniBand QSFP Cable	59Y1928
10m Voltaire Optical 12X CXP-to-12X CXP Cable	68Y6955
10m Voltaire Optical 12X CXP-to-3 QSFP Breakout Cable	68Y6979

Table 26 Copper InfiniBand and/or 10GbE Cables

Copper InfiniBand and/or 10GbE Cables	Option
1m Mellanox Copper Cable for 4X IB and 10GbE	46D0162
3m Mellanox Copper Cable for 4X IB and 10GbE	46D0166
5m Mellanox Copper Cable for 4X IB and 10GbE	46D0170
8m Mellanox Copper Cable for 4X IB and 10GbE	46D0174
0.5m QLogic Copper DDR InfiniBand QSFP-to-CX4 30AWG Cable	59Y1876
1m QLogic Copper DDR InfiniBand QSFP-to-CX4 30AWG Cable	59Y1880
3m QLogic Copper DDR InfiniBand QSFP-to-CX4 28AWG Cable	59Y1884
0.5m QLogic Copper QDR InfiniBand QSFP 30AWG Cable	59Y1892
1m QLogic Copper QDR InfiniBand QSFP 30AWG Cable	59Y1896
3m QLogic Copper QDR InfiniBand QSFP 28AWG Cable	59Y1900

Table 27 Direct Attach Copper (DAC) Cables (Ethernet)

DAC Ethernet Cables	Option
0.5m Molex Direct Attach Copper SFP+ Cable	59Y1932
1m Molex Direct Attach Copper SFP+ Cable	59Y1936
3m Molex Direct Attach Copper SFP+ Cable	59Y1940
7m Molex Direct Attach Copper SFP+ Cable	59Y1944
10m Molex Direct Attach Copper SFP+ Cable	59Y1948

Table 28 Fibre Storage Cables

Fibre Storage Cables	Option
1m LC-LC Fibre Channel Cable (Storage)	39M5696
5m LC-LC Fibre Channel Cable (Storage)	39M5697
25m LC-LC Fibre Channel Cable (Storage)	39M5698

Table 29 Other Networking Cables

Other Networking Cables	Option
Copper Pass-Through Module Cable for BladeCenter	39Y9170
3m Tyco Straight MRJ21-to-Angled MRJ21 Cable	44E9046
10m Tyco Straight MRJ21-to-Angled MRJ21 Cable	44E9051
30m Tyco Straight MRJ21-to-Angled MRJ21 Cable	44E9066

Table 30 SAS Cables

SAS Cables	Option
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1m miniSAS x4 - miniSAS x4 Cable	39R6529
3m miniSAS x4 - miniSAS x4 Cable	39R6531

Table 31 Transceivers/Other

Transceivers/Other	Option
Force10 10Gb XFP SR Optics Module	40K8890
Force10 XFP-to-CX4 Transceiver	46C5043
BNT SFP+ Transceiver	46C3447
XFP Transceiver 850nm MMF (300m)	69Y0377
XFP-to-CX4 Transceiver (15m)	69Y0381
SFP+ Transceiver 10GbE SR 300m MMF	69Y0389
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 options

This section provides the supported rack cabinet and a list of the supported keyboard, video and mouse (KVM) switches, front-end power distribution units (PDUs), rack cabinet PDUs and their part numbers.

Table 32 Rack Cabinets

Rack Cabinets	MTM
e1350 42U Rack Cabinet	14104RX
e1350 25U Rack Cabinet	14102RX
iDataPlex 100U Rack Cabinet	78251RX

Table 33 KVM Switches

KVM Switches	MTM
IBM Local 2x8 Console Manager	17351GX
IBM Global 2x16 Console Manager	17352GX
1x8 Console Switch	17353LX
2x16 Console Switch	17354LX

Table 34 Enterprise PDUs for the 1410 Rack

Enterprise PDUs for the 1410 Rack	Option
DPI C19 Enterprise PDU (WW)	39Y8948
DPI Single-phase 63A/230V C19 Enterprise PDU (International)	39Y8948
DPI Three-phase 32A/380-415V C19 Enterprise PDU (International)	39Y8948
DPI Single-phase 32A/230V C19 Enterprise PDU (Aus/NZ)	39Y8948
DPI Three-phase 60A/208V C19 Enterprise PDU (US)	39Y8923
DPI Single-phase 30A/208V C19 Enterprise PDU (US)	39Y8948
DPI Single-phase 60A/208V C19 Enterprise PDU (US)	39Y8949
DPI Single-phase 32A/230V C19 Enterprise PDU (International)	39Y8950
DPI Single-phase 30A/208V C13 Enterprise PDU (US)	39Y8941
DPI Single-phase 60A/208V C13 Enterprise PDU (US)	39Y8941
Ultra Density Enterprise C19/C13 PDU Module (WW) with 4.3m, 30A/208V, EPDU to NEMA L6-30P (US) Line Cord	71762NX
Ultra Density Enterprise C19/C13 PDU Module (WW) with 4.3m, 60A/208V, EPDU to IEC 309 2P+G (US) Line Cord	71762NX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 30A/208V, EPDU to NEMA L6-30P (US) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU 60A/208V/3ph (US)	71763NU
Ultra Density Enterprise C19/C13 PDU+ 60A/208V/3ph (US)	71763MU
Ultra Density Enterprise C19/C13 PDU Module (WW) with 4.3m, 32A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	71762NX
Ultra Density Enterprise C19/C13 PDU Module (WW) with 4.3m, 63A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	71762NX
Ultra Density Enterprise PDU Module (WW) with 4.3m, 32A/380-415V, EPDU/IEC 309 3P+N+G 3ph wye (non-US) Line Cord	71762NX

Ultra Density Enterprise PDU Module (WW) with 4.3m, 32A/230V, EPDU to AS/NZS 3112 (Aus/NZ) Line Cord	71762NX
Ultra Density Enterprise PDU Module (WW) with 4.3m, 30A/250V, EPDU to KSC 8305 (S. Korea) Line Cord	71762NX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 60A/208V, EPDU to IEC 309 2P+G (US) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 32A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 63A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 32A/380-415V, EPDU/ IEC 309 3P+N+G 3ph wye (non-US) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 32A/230V, EPDU to AS/ NZS 3112 (Aus/NZ) Line Cord	71762MX
Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 30A/250V, EPDU to KSC 8305 (S. Korea) Line Cord	71762MX
IBM Ultra Density Enterprise C19/C13 PDU+ Module (WW) with 4.3m, 32A/380-415V, EPDU/IEC 309 3P+N+G 3ph wye (non-US) Line Cord	71762MX
Enterprise C13 PDU Module (WW)	39Y8941
DPI Single-phase 32A/230V C13 Enterprise PDU (International)	39Y8941
DPI Single-phase 63A/230V C13 Enterprise PDU (International)	39Y8941
DPI Three-phase 32A/380-415V C13 Enterprise PDU (International)	39Y8941
DPI Single-phase 32A/230V C13 Enterprise PDU (Aus/NZ)	39Y8941
DPI Single-phase 30A/250V C13 Enterprise PDU (S Korea)	39Y8941

Table 35 Front-End PDUs for the 1410 Rack

Front End PDUs	Option
DPI 30amp/250V Front-end PDU with NEMA L6-30P (208v) Line Cord	39Y8939
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
DPI Single-phase 30A/250V Front-end PDU (S Korea)	39Y8936
DPI Single-phase 32A/230V Front-end PDU (Aus/NZ)	39Y8937

Table 36 Rack PDUs for the 1410 Rack

Rack Cabinet PDUs	MTM/Option/FC
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)	39Y8954
DPI Universal Rack PDU with 3112 (Australia/New Zealand line cord)	39Y8958
DPI Universal Rack PDU with IRAM 2073 (Argentina line cord)	39Y8962
DPI Universal Rack PDU with CEI 23-16 (Italy line cord)	39Y8955
DPI Universal Rack PDU with SABS 164 (South Africa line cord)	39Y8956

DPI Universal Rack PDU with BS 1363/A (UK line cord)	39Y8957
DPI Universal Rack PDU with IS 6538 (India line cord)	39Y8961
DPI Universal Rack PDU w/Nema L5-20P & L6-20P U.S. Line Cord	39Y8952
DPI Universal Rack PDU (Europe)	39Y8952
DPI Universal Rack PDU with IEC 309 2-pin and ground (Denmark line cord)	39Y8953
DPI Universal Rack PDU with C19/C20	41Y9221
DPI Universal Rack PDU (Japan LV)	5963
DPI Universal Rack PDU (Japan HV)	5964
DPI Universal Rack PDU (S Korea)	5965
DPI Universal Rack PDU (Taiwan LV)	5966
DPI Universal Rack PDU (Taiwan HV)	39Y8955

Table 37 Rack 7825 Cabinet PDUs

Rack 7825 Cabinet PDUs	Option
iDPx Single-phase 30A/208V Enterprise C13 PDU (US)	43V6061
iDPx Single-phase 30A/208V Enterprise C13 PDU+ (US)	43V6065
iDPx Three-phase 60A/208V Enterprise C13 PDU+ (US)	39M2817
iDPx Three-phase 32A/380-415V Enterprise C13 PDU (Int'l)	43V6062
iDPx Three-phase 32A/380-415V Enterprise C13 PDU+ (Int'l)	43V6066
iDPx Single-phase 32A/230V Enterprise C13 PDU (Aus/NZ)	43V6063
iDPx Single-phase 32A/230V Enterprise C13 PDU+ (Aus/NZ)	43V6067
iDPx Single-phase 30A/250V Enterprise C13 PDU (S Korea)	43V6064
iDPx Single-phase 30A/250V Enterprise C13 PDU+ (S Korea)	43V6068