

# DATA SHEET - BLACKDIAMOND® 6800 CHASSIS SERIES



The BlackDiamond® 6800 chassis series provide world class Ethernet switching. With the flexibility to act as an aggregation point for a large number of edge switches and its carrier class reliability and security features, the BlackDiamond has been deployed with NEBS level 3 compliance in both large enterprise and carrier networks. Additionally the BlackDiamond 6800 series has an extensive offering of interfaces, so your investments in SONET, ATM, or other legacy technologies are fully protected. And with 3 sizes of BlackDiamond chassis, a wide range of needs can be met from the edge to the core, with all three chassis delivering cutting-edge performance, reliability, and scalability.

## BlackDiamond 6800 Series Features

### Advanced resiliency and fault tolerance for carrier class performance

- NEBS level 3 compliance
- Passive backplane supports redundant, load-sharing, hot-swappable switch fabric modules
- Hot-swappable I/O modules and fan trays
- Fully redundant, load-sharing, hot-swappable power supplies
- IEEE 802.3ad load sharing and redundant PHY
- Hitless Failover and Hitless Software Upgrade
- Dual switch configurations and ExtremeWare images
- Extreme Standby Router Protocol (ESRP) and Virtual Router Redundancy Protocol (VRRP)
- OSPF Equal Cost Multipath Routing (ECMP)
- Ethernet Automatic Protection Switching (EAPS)

### Advanced connectivity for scalability and network investment protection

- Wavelength Division Multiplexing (WDM) optical broadband networking
- OC-3 and OC-12 Packet-over-SONET (PoS)
- Multi-protocol Label Switching (MPLS)
- Asynchronous Transfer Mode (ATM)

### Extensive management capabilities

- Policy-based Quality of Service, including prioritization, bandwidth management and congestion control
- Wire-speed server load balancing, web cache redirection, VLAN switching and routing, DiffServ and IEEE 802.1p
- Management via local and remote (telnet) CLI, SNMP, RMON, and HTTP

### Comprehensive security features

- Access Control Lists (ACLs)
- Access profiles
- RADIUS
- SSH2
- Network Login

### Industry-leading performance

- Wire-speed IP/IPX routing
- Wire-speed switching
- 4,096 IEEE 802.1Q VLANs
- Switch and route jumbo frames

## BlackDiamond 6804

### 10 Gigabit Ethernet

Up to 4 ports when fully populated with the 10GX<sup>3</sup> module.

### Gigabit Ethernet

32 1000BASE-X ports when fully populated with the G8Xi module.  
32 100/1000BASE-T ports when fully populated with the G8Ti module.  
48 1000BASE-SX ports when fully populated with the G12Sxi module.  
64 1000BASE-X ports when fully populated with the G16X<sup>3</sup> module.  
96 10/100/1000BASE-T ports when fully populated with the G24T<sup>3</sup> module.

### Fast Ethernet

192 10/100BASE-TX ports when fully populated with the F48Ti module.  
384 10/100BASE-TX ports when fully populated with the F96Ti module.  
128 100BASE-FX ports when fully populated with the F32Fi module.

### PoS and ATM

OC-12: Up to 8 ports when fully populated with the P12cSi or P12cMi modules.  
OC-3: Up to 16 ports when fully populated with the P3cSi, P3cMi, A3cSi, or A3cMi modules.

## BlackDiamond 6808

### 10 Gigabit Ethernet

Up to 8 ports when fully populated with the 10GX<sup>3</sup> module.

### Gigabit Ethernet

64 1000BASE-X ports when fully populated with the G8Xi module.  
64 100/1000BASE-T ports when fully populated with the G8Ti module.  
96 1000BASE-SX ports when fully populated with the G12SXi module.  
128 1000BASE-X ports when fully populated with the G16X<sup>3</sup> module.  
168 10/100/1000BASE-T ports when fully populated with the G24T<sup>3</sup> module.

### Fast Ethernet

384 10/100BASE-TX ports when fully populated with the F48Ti module.  
672 10/100BASE-TX ports when fully populated with the F96Ti module.  
256 100BASE-FX ports when fully populated with the F32Fi module.

### PoS and ATM

OC-12: Up to 16 ports when fully populated with the P12cSi or P12cMi modules.  
OC-3: Up to 32 ports when fully populated with the P3cSi, P3cMi, A3cSi, or A3cMi modules.

## BlackDiamond 6816

### 10 Gigabit Ethernet

Up to 16 ports when fully populated with the 10GLX<sup>3</sup> module.

### Gigabit Ethernet

128 1000BASE-X ports when fully populated with the G8Xi module.  
128 100/1000BASE-T ports when fully populated with the G8Ti module.  
192 1000BASE-SX ports when fully populated with the G12SXi module.  
256 1000BASE-X ports when fully populated with the G16X<sup>3</sup> module.  
360 10/100/1000BASE-T ports when fully populated with the G24T<sup>3</sup> module.

### Fast Ethernet

768 10/100BASE-TX ports when fully populated with the F48Ti module.  
1440 10/100BASE-TX ports when fully populated with the F96Ti module.  
512 100BASE-FX ports when fully populated with the F32Fi module.

### PoS and ATM

OC-12: Up to 32 ports when fully populated with the P12cSi or P12cMi modules.  
OC-3: Up to 64 ports when fully populated with the P3cSi, P3cMi, A3cSi, or A3cMi modules.

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## Ordering Information

Part Number	Name	Description
50051		BlackDiamond 6804 4-slot chassis (Includes Fan Tray)
50011		BlackDiamond 6808 10-slot chassis (Includes Fan Tray)
53011		BlackDiamond 6816 20-slot chassis (Includes Fan Tray)
50005		BlackDiamond 6800 Series Blank Front Panel
50053		BlackDiamond 6804 Spare Fan Tray
50013		BlackDiamond 6808 Spare Fan Tray
53013		BlackDiamond 6816 Spare Fan Tray
50015	MSM64i	BlackDiamond 6800 64 Gbps Management Switch Fabric Module
50017	MSM-3	BlackDiamond 6800 Management Switch Fabric Module 3
50020		BlackDiamond 6800 iPower Dual-Input 110VAC Power Supply (Includes two L5-20P Power Cords)
50021		BlackDiamond 6800 iPower Single-Input 220VAC Power Supply (Includes L6-20P Power Cord)
50022		BlackDiamond 6800 iPower -48VDC Power Supply
51032	G8Xi	BlackDiamond 6800 8-port 1000BASE-X GBIC Module
51033	G8Ti	BlackDiamond 6800 8-port 100/1000BASE-T RJ-45 Module
51040	G12SXi	BlackDiamond 6800 12-port 1000BASE-SX MT-RJ Module
51051	G16X <sup>3</sup>	BlackDiamond 6800 16-port 1000BASE-X SFP (mini-GBIC) Module
51052	G24T <sup>3</sup>	BlackDiamond 6800 24-port 10/100/1000BASE-T RJ-45 Module
52011	F48Ti	BlackDiamond 6800 48-port 10/100BASE-TX RJ-45 Module
52012	F96Ti	BlackDiamond 6800 96-port 10/100BASE-TX RJ-21 (Telco) Module
52021	F32Fi	BlackDiamond 6800 32-port 100BASE-FX MMF MT-RJ Module
53010	P3cMi	BlackDiamond 6800 4-port SONET/SDH OC-3c/STM-1 PoS MMF Module
53012	P3cSi	BlackDiamond 6800 4-port SONET/SDH OC-3c/STM-1 PoS SMF Module
53020	P12cMi	BlackDiamond 6800 2-port SONET/SDH OC-12c/STM-4 PoS MMF Module
53021	P12cSi	BlackDiamond 6800 2-port SONET/SDH OC-12c/STM-4 PoS SMF Module
53040	ARM	BlackDiamond 6800 Accounting and Routing Module (Destination Sensitive Accounting)
53041	MPLS	BlackDiamond 6800 Multi-Protocol Label Switching (MPLS) Module
53110	A3cMi	BlackDiamond 6800 4-port OC-3/STM-1 MMF ATM Module
53111	A3cSi	BlackDiamond 6800 4-port OC-3/STM-1 SMF ATM Module
54005	10GX <sup>3</sup>	BlackDiamond 6800 1-port 10GBASE-X XENPAK Module

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