IBM BNT RackSwitch G8264

10 Gb/40 Gb 64-port Ethernet Switch designed for the data center

Highlights

- Optimized for applications requiring high bandwidth and low latency
- Up to 64 1 Gb/10 Gb SFP+ ports in a 1U form factor
- Future-proofed with four 40 Gb QSFP+ ports
- 1.28 Tbps non-blocking throughput

The IBM BNT RackSwitch™ G8264 is a 10 and 40 Gigabit Ethernet (GbE) switch specifically designed for the data center, providing speed, intelligence and interoperability on a proven platform.

The RackSwitch G8264 offers up to 64x10 GbE and up to four 40 GbE ports—1.28 Tbps—in a 1U footprint. Designed with top performance in mind, the RackSwitch G8264 provides line-rate, high-bandwidth switching, filtering, and traffic queuing without delaying data. Large data-center grade buffers keep traffic moving. Redundant power and fans along with numerous high availability features enable the RackSwitch G8264 to be available for business-sensitive traffic.

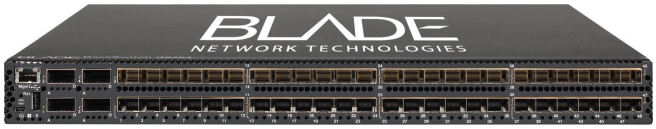
The low latency offered by the RackSwitch G8264 makes it ideal for latency-sensitive applications such as high performance computing clusters and financial applications. The G8264 supports the newest protocols—including Data Center Bridging/Converged Enhanced Ethernet (DCB/CEE) for support of Fibre Channel over Ethernet (FCoE).

BNT RackSwitch G8264 at a glance

Performance	100% line rate performance, less than 1uS latency 1280 Gbps non-blocking switching throughput (full duplex) 960 Mpps
Hardware features	
Models	IBM BNT RackSwitch G8264R (7309G64) IBM BNT RackSwitch G8264F (730964F)
Interface options	48 x 1 Gb/10 Gb SFP+ ports, 4 x 40 Gb QSFP+ ports Up to 64 x 1Gb/10 Gb SFP+ ports with optional breakout cables
Dimensions	17.3" wide, 19.0" deep, 1U high
Weight:	9.98 kg (22 lb)
Power	Dual load-sharing hot swap internal power modules, 50 - 60 Hz, 100 - 240 V ac auto-switching per module. Typical power consumption of 330 Watts
Warranty	3-year next business day replacement with phone support and software upgrades Service upgrades and extensions available
Environmental specifications	
Temperature	Ambient operating: 0º C to + 40º C
Relative humidity	Non-condensing, operating 10 to 90%
Altitude	Operating 3,050 m (10,000 feet)
Heat dissipation	1127 BTU/hour (typical)
Mean time between failures (MTBF)	165,990 hours @ 40° C[i]
Software features	
Security	RADIUS TACACS+ SCP Wire speed filtering: allow and deny SSH v1, v2 HTTPS Secure BBI Secure interface login and password MAC address move notification Shift B Boot menu (password recovery/factory default)
VLANs	Port-based VLANs 4096 VLAN IDs supported 1024 Active VLANs (802.1Q) 802.1x with Guest VLAN Private VLAN Edge
FCoE/Lossless Ethernet	802.1 Data Center Bridging Priority Based Flow Control (PFC) Enhanced Transmission Selection (ETS) Data Center Bridge Exchange protocol (DCBX) FIP Snooping Fibre Channel over Ethernet Converged Enhanced Ethernet
Trunking	LACP Static trunks (EtherChannel) Configurable trunk hash algorithm
Spanning tree	Multiple spanning tree (802.1s) Rapid spanning tree (802.1w) PVRST+ Fast uplink convergence BPDU guard

BNT RackSwitch G8264 at a glance

Quality of service	QoS 802.1p (Priority queues) DSCP remarking Metering
Routing protocols	RIP v1/v2 OSPF BGP
High availability	Layer 2 failover HotLinks Virtual Router Redundancy support (VRRP)
Multicast	IGMP Snooping v1, v2 and v3 with 2K IGMP groups Protocol Independent Multicast (PIM Sparse Mode/Dense Mode)
Monitoring	Port mirroring VLAN mirroring ACL-based mirroring version 5
Virtualization	VMready™ with VI API support vNIC MIB support for SNMP
Management features	Netboot USB boot
Clients	isCLI (Cisco-like) Scriptable CLI Browser-based client or telnet
Standard protocols	IPv6 SNMP v1, v2c and v3 RMON Secondary NTP support DHCP client DHCP relay LLDP 128K MAC table 9K Jumbo Frames 802.3X Flow Control
Associated Options	
QSFP+ Options	BNT QSFP+ 40GBASE-SR Transceiver (49Y7884) BNT 1M QSFP+ DAC Breakout Cable (49Y7886) BNT 3M QSFP+ DAC Breakout Cable (49Y7887) BNT 5M QSFP+ DAC Breakout Cable (49Y7888) BNT 1M QSFP+ to QSFP+ Cable (49Y7890) BNT 1M QSFP+ to QSFP+ Cable (49Y7891)
SFP, SFP+ Options	BNT SFP+ Transceiver (46C3447) BLADE 1000BASE-T (RJ-45) SFP Transceiver (81Y1618) BLADE 1000BASE-SX SFP Transceiver (81Y1622)
SFP+ Copper direct attach cables	0.5M Molex DAC SFP+ Cable (59Y1932) 1M Molex DAC SFP+ Cable (59Y1936) 3M Molex DAC SFP+ Cable (59Y1940) 7M Molex DAC SFP+ Cable (59Y1944)
Optical cables	1M LC-LC Fiber Cable (88Y6851) 10M LC-LC Fiber Cable (88Y6854) 25M LC-LC Fiber Cable (88Y6857)
Rack kit	BNT 19 inch Flexible 4 Post Rail Kit (49Y4284)



Why IBM?

IBM is your trusted source to provide you the right solutions as you design your data center network. Our experience in workload optimization, virtualization and network convergence will deliver a solution that meets your unique network needs. IBM is your single point of contact for consultation, product and service. IBM offers a broad choice of networking partners that leverages industry innovation, avoids costly vendor lock-in and helps you evolve your data center using your current supplier and management tools, avoiding a forced "rip and replace."

For more information

To learn more about the BNT RackSwitch G8264, visit: **ibm.com**/systems/x/hardware/options or contact your IBM marketing representative or IBM Business Partner.

IBM Systems and Technology Group
Route 100
Somers, New York 10589

February 2011

[i] MTBF is calculated using the Telcordia Technologies Reliability Prediction Procedure for Electronic Equipment, (SR-332 issue 2) Parts Count (method 1 case 1) failure rate data.

Please Recycle

XSD03108-USEN-00