3com

Enterprise-Class 3Com® Wireless LAN Access Points 7250/8250/8750

DATA SHEET

- 11g radio supports speeds up to 54 Mbps at distances up to 100 meters (328 feet); 11a radio supports speeds up to 54 Mbps at distances up to 50 meters (164 feet).

- 11a and 11g Turbo mode provides even higher throughput capability, up to 108 Mbps.

- 40/64- and 128-/154-bit WEP and WPA 256-bit AES encryption protect the privacy of data transmitted over the wireless LAN.

- Virtual Access Point and Wireless Distribution System (WDS) bridging expand your deployment options.

Key Benefits

Full Standards Support
With 3Com, the freedom of wireless networking includes the freedom of choice. The 3Com® Wireless LAN Access Points 8250 and 8750 offer a dual-mode architecture that supports 802.11-standard 11a, 11b, and 11g wireless users on a single device. The 3Com Wireless LAN Access Point 7250 features a single 11g radio design that provides real value with advanced enterprise features at an economical price.

Flexible Deployment Options
Powerful new features allow use of 3Com enterprise access points (APs) to provide secure, high-bandwidth connections in more configurations than ever before. With WDS bridging you can provide an AES-encrypted bridge link to a remote building. Because 3Com APs have dual radios, organizations can provide local wireless service in a remote building. And Virtual Access Points can provide simultaneous Internet access for guests and secure, authenticated service to local network users.

Modular and Upgradeable
Designed for configuration flexibility and investment protection, the Wireless LAN Access Points 8250 and 8750 offer mix and match radio bands to meet various coverage and bandwidth requirements within a single area. Along with the Access Point 7250, they are software upgradeable to support 3Com wireless switch and controller systems.

Tough Security
3Com delivers one of the most robust suites of standards-based security on the market today on all of its enterprise-class access points. To protect the wireless LAN, 3Com supports Wireless Equivalent Privacy (WEP) RC4 40/64-bit, 128-bit, and 154-bit shared-key encryption. 3Com strengthens this basic security mechanism with additional security features, including local MAC authentication, 802.1x RADIUS server authentication, and Temporal Key Integrity Protocol (TKIP) and

Wireless Protected Access (WPA) Extensible Authentication Protocol (EAP) user authentication. Wireless links receive robust protection with WPA Advanced Encryption Service (AES) encryption.

Performance and Reliability
3Com wireless access point performance features ensure reliable and seamless connections for users wherever they roam. Clear Channel Select automatically finds the least loaded channel for interference-free communication. Auto network connect and dynamic rate shifting keep users connected through a wide variety of conditions by changing to the optimum connection speed while moving through the network.

Manageability
3Com offers a wide range of standards-based management support, from SNMP to 3Com Network Supervisor (3NS) for seamless integration with wired networks. Wireless Infrastructure Device Manager and wireless LAN device discovery tools let system administrators configure parameters, run diagnostics, and monitor performance from anywhere on the network with an embedded web server browser. They can also replicate wireless device configurations from one access point to another. Using the save and load feature to simplify and reduce network administration, wireless device configurations can be replicated from one access point to another.

Power over Ethernet (PoE) Flexibility
PoE support makes it easier than ever to overcome installation problems with difficult-to-wire or hard-to-reach locations. The same Category 5 cable that connects the access point to the wired network also provides its power, so AC power outlet locations are no longer an issue. Power can be obtained from an 802.af-compliant PoE switch or with an included power injector or adapter.*

* 802.3af-compliant power injector included with the AP 8250 and 8750; the AP 7250 ships with an AC power adapter.

The simple, secure way to network without wires

Feature	Benefit
POWERFUL	
High-speed and wide coverage	11g radio supports speeds up to 54 Mbps at distances up to 100 meters (328 feet); 11a radio supports speeds up to 54 Mbps at distances up to 50 meters (164 feet); 11a not supported by the AP 7250.
11a and 11g Turbo mode	Even higher throughput capability, up to 108 Mbps, is enabled.
User support	Each access point supports up to 253 simultaneous users, allowing plenty of room for growth.
WDS bridging	When used with 3Com wireless accessories, network access to remote on-campus buildings is economically enabled.
Virtual AP	Two different client groups can be served as if there were two physical APs; all settings from SSID, encryption, and authentication can be customized on each Virtual AP.
SECURE	
40/64 and 128/154-bit WEP, WPA, TKIP, TIP and AES encryption	Basic and advanced encryption protect the privacy of data transmitted over the wireless LAN.
Secure remote management	SSH and https enable remote management of the access point with strong encryption.
802.1x supplicant	Port-based authentication to an 802.1x-enabled switch port is supported for device authentication and rogue AP prevention.
Dynamic session key management and TKIP	Dynamic key assignment improves security and simplifies deployment.
802.1x RADIUS server authentication	Network access only by authorized users is fostered and centralized across the network.
Access control lists	Access to network resources is controlled.
Client-to-client and uplink filtering	Direct communications is blocked between other wireless users associated to the access points.
MAC address filtering	Allows only specific WLAN cards to connect to the access point.
Dynamic VLAN assignment	Used with RADIUS authentication, users are assigned to an appropriate VLAN, further protecting access to network resources.
COMPATIBLE AND FLEXIBLE	
Modular, dual-mode radio architecture (8250 and 8750)	Interchangeable radio slots support more wireless clients within the same coverage area with optional Mini PCI upgrade kits.
Simultaneous standard support (8250 and 8750)	802.11a and 802.11g in same access point provide concurrent wireless connectivity for all 802.11 a/b/g clients.
802.11g-802.11b backward-compatibility	11g radio supports both11g and 11b wireless users, preserving existing wireless investments.
Wi-Fi certification	Interoperability with Wi-Fi certified products from other vendors is ensured.
Power over Ethernet (PoE)	Hard-to-wire location problems can be solved; Ethernet cable supplies connectivity and electrical power; 802.3af-compliant power injector included with the Access Point 8250 and 8750; the AP 7250 ships with an AC power adapter.
Virtual AP	A single AP can serve as two separate access points with completely configurable radio and security settings, enabling open Internet access to guests while simultaneously providing secure, authenticated access to the local network.
Managed AP-capable (Fit or Fat)	Operation can occur as an individual, full-featured enterprise-class AP or as a secure "Fit" Managed Access Point (MAP) when deployed with the 3Com Wireless LAN Controller WX4400 or Wireless LAN Switch WX1200 mobility systems.
EASY TO USE MANAGEMENT	
Simple installation	Network can be set up without drilling holes or running Ethernet cabling.
Integrated RSSI monitor	The RF spectrum in the vicinity of the physical AP can be remotely managed from any location that has a network connection to the AP; occupied channels can be determined and appropriate adjustments made to detect new friendly or rogue APs in the vicinity.
Wireless Infrastructure Device Manager and wireless LAN device discovery tools	Identifying and configuring network devices, running diagnostics, and monitoring performance can be done automatically.
Web-based administration	Network devices can be configured and managed from any location with any browser that supports HTML and Java Script.
Save and load feature	Settings can be copied to wireless devices on the network, simplifying and speeding LAN setup.
3NS support	Powerful yet simple-to-use network management is designed for small businesses.
SNMP support	Popular third-party network management programs can be used for remote, centralized management.
RADIUS accounting support	Billing by usage for hotspot and other commercial deployments is enabled.
RELIABLE	
Dynamic rate shifting and auto network connect	Responds to physical conditions and RF interference by automatically moving between connection speeds.
Clear Channel Select	Problem-free connections are facilitated by selection of channels with the least traffic.

*Range depends on physical conditions, building construction, electrical devices in the area, and other environmental factors.

Specifications

Security

Secure Management:
Secure remote management via https or SSH

Authentication:
802.1x supplicant
802.1x Remote Access Dial-In Service (RADIUS)
Server- and MAC-based address authentication
Authentication using 802.1x: EAP-MD5, EAP-TLS,
EAP-TTLS and PEAP protocols

Encryption:
Advanced WPA encryption (AES), 40/64-bit, 128-bit
and 154-bit, WEP shared key encryption,
3Com proprietary 128-bit Dynamic Security Link
encryption, Dynamic session key management

Access Control:
MAC address filtering, sever access control lists.

Performance

253 simultaneous user support
Dynamic rate shifting
Auto network connect
Clear channel select
802.11a and 802.11g turbo mode
DHCP pass through

Network Management

3NS network management utility
Integrated RSSI Monitor
Site Survey tool
Wireless Infrastructure Device Manager
Embedded web server
SNMP compliant management
RADIUS accounting

Standards Conformance

Wi-Fi certified, WEP, WPA
IEEE 802.11b, IEEE 802.11a, IEEE 802.11g
IEEE 802.3af (PoE)
CSMA/CA

Radio Operation

Data Rates:
802.11a: 54, 48, 36, 24, 18, 12, 9, 6 Mbps
(not supported by AP 7250)
802.11g: 54, 48, 36, 24, 18, 12, 9, 6, 11, 5.5, 2, 1 Mbps

Frequency Band:
802.11a: 5 GHz; 802.11g: 2.4 GHz

Wireless Medium:
802.11a: OFDM, 802.11g: OFDM and DSSS (with
Barker coding and CCK for backward compatibility
with 802.11b)

Operating Channels:
802.11a: 36-64 (8 non-overlapping total), 802.11g:
1-11 (U.S. and Canada), 1-13 (Worldwide; channel
availability depends on local regulations)

Operating Range (indoor):
802.11a: up to 50 meters (164 feet) transmit and
receive
802.11g: up to 100 meters (328 feet) transmit and
receive

Transmit Power Settings:
802.11a: 17 dBm low band depending on bitrate,
20dBm midband depending on the bitrate; 802.11g:
17 dBm depending on bitrate

Receive Sensitivity: Access Point 8250 and 8750
802.11a:
6 Mbps: -84 dBm, +/- 2 dBm (depending on band)
12 Mbps: -82 dBm
36 Mbps: -73 dBm
54 Mbps: -66 dBm
802.11g:
1 Mbps: -96 dBm
2 Mbps: -94 dBm
5.5 Mbps: -92dBm
11 Mbps: -88 dBm
12 Mbps: -86dBm
24 Mbps: -85 dBm
36 Mbps: -80dBm
54 Mbps: -73 dBm

Receive Sensitivity: Access Point 7250
802.11g:
1 Mbps: -91 dBm
2 Mbps: -89 dBm
5.5 Mbps: -87 dBm
11 Mbps: -83 dBm
12 Mbps: -81 dBm
24 Mbps: -80 dBm
36 Mbps: -75 dBm
54 Mbps: -68 dBm

Antenna Options:
802.11a: Integrated antenna only; 802.11g: External
antenna options are available, see "Accessories" under
Ordering Information for detail

Product Chipsets

	Mfr	7250	8250	8750
MAC/ Baseband	Atheros	5212	5212	5212
Radio	Atheros	2111	2111	2111/5111
CPU (MHz)	Motorola PowerPC	166	266	266
Memory MB (Flash/Ram)	-	4/8	8/16	8/16

Power Consumption

Access Point 8250: 7.1W average, 8.4W max
Access Point 8750: 9.2W average, 11.2W max
Access Point 7250: 4.6W average, 4.7W max; PoE
average 7.0W, PoE max 7.2W

Safety, RF, and Electromagnetic Conformance

Safety:
IEC & EN 60950, UL / CSA 60950, NOM 019

RF:
FCC Part 15.247, Part 15.205, Part 15.209, & Part
15.407, RSS-210, EN 300 328-2, EN 301 893, TELEC
RCR STD 33 & T66

EMC:
EN 301 489-17, EN 301 489-01

Environmental Operating Ranges

Temperature: 0º C to 40º C (32º F to 104º F); with
external antennas 15º C to 40º C (59º F to 105º F)
Humidity: 5-95% non-condensing

Physical Dimensions

Access Point 8250 and 8750
Height: 32 cm (12.5 in)
Width: 20 cm (8.1 in)
Depth: 7 cm (2.8 in

Access Point 7250
Height: 20.5 cm (8 in)
Width: 28 cm (11 in)
Depth: 8 cm (3 in)

Package Contents

Access point
Inline PoE power injector with local power cord
(Access Point 8250 and 8750)
AC power adapter (Access Point 7250)
CD ROM with management utilities
10-meter (33-foot) Category 5 Ethernet cable
Mounting bracket and hardware
User guide

Warranty

One-year hardware warranty, 90-day software
warranty

Ordering Information

3Com Wireless LAN Access Points are available in the U.S./Canada, Latin America, Asia-Pacific countries, and Europe.

Access Points

PRODUCT NAME	ORDER NUMBER	PRODUCT DESCRIPTION
3Com Wireless LAN Access Point 7250	3CRWE725075A	Ships with one 802.11g radio
3Com Wireless LAN Access Point 8250	3CRWE825075A	Ships with one 802.11g radio and one open radio slot
3Com Wireless LAN Access Point 8750	3CRWE875075A	Ships with one 802.11a radio and one 802.11g radio

Upgrade Kits

PRODUCT NAME	ORDER NUMBER	PRODUCTS SUPPORTED
3Com 802.11g Wireless LAN Upgrade Kit	3CRWEGMOD75A	• Upgrades the earlier model Access Point 8200 to an Access Point 8250; replace the 11b module with the 11g module and update the firmware with the 11g module CD-ROM. • Upgrades the earlier model Access Point 8700 to an Access Point 8750; replace the 11b module with the 11g module and update the firmware with the 11g module CD-ROM.

Accessories

Important:

Due to possible RF emissions outside of the allowed spectrum, the 3Com Wireless LAN Access Point 8250 (3CRWE825075A), Wireless LAN Access Point 8750 (3CRWE875075A), and 802.11g Wireless LAN Access Point Upgrade Kit (3CRWEGMOD75A) may only be used with external antennas under the following conditions:

• In the United States, Canada, and other countries governed by FCC guidelines, external antennas can only be used in an access point operating temperature range of 15° C - 40° C (59° F - 104° F). In these countries only external antennas with a gain of up to 8 dBi may be used. This includes the antennas listed in the table below.

• In the European Community, the antennas listed in the table may be used.

• To use the access point with an external antenna, an antenna cable must also be purchased. Use of the shortest possible antenna cable will maximize efficiency. Antenna cables induce signal loss, which will limit the radiated power output and range of the access point. Of the options available, the 3Com Ultra Low Loss 6-Foot Antenna Cable (3CWE580) is recommended.

PRODUCT NAME	ORDER NUMBER	PRODUCTS SUPPORTED
3Com SuperStack® 3 Switch 4400 PWR	3C17205-US	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com Network Jack Multiport Power over Ethernet Midspan Solution	3CNJPSE24	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com Power over Ethernet Single-Port Midspan Solution	3CNJPSE	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com Ultra Low Loss 6-Foot Antenna Cable	3CWE580	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com 6/8dBi Dual-Band Omni Antenna	3CWE591	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com 3/4dBi Dual-Band Ceiling Mount Antenna	3CWE592	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com 18/20dBi Dual-Band Panel Antenna	3CWE596	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com 4/6dBi Dual-Band Hallway Antenna	3CWE597	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com 8/10dBi Dual-Band Panel Antenna	3CWE598	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com Ultra Low Loss 6-Foot Antenna Cable	3CWE580	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com Ultra Low Loss 20-Foot Antenna Cable	3CWE581	3Com Wireless LAN Access Point 7250, 8250, and 8750