

ALTITUDE 300™ WIRELESS



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The Altitude 300 wireless port from Extreme Networks® is the industry's most versatile solution for enterprise-class wireless local area networks. With security certified by the Wi-Fi Alliance and hardware-accelerated encryption, Altitude 300 wireless ports are essential ingredients for safe and scalable wireless solutions. Using AccessAdapt, Extreme's innovative software for centralized, switch-based management, tedious access point configuration challenges are eliminated. Antenna options and a dual-radio design that maximizes capacity combine to deliver a flexible and fast solution ready to meet any wireless networking challenge.

Increasingly, the network edge must be capable of supporting voice, simple devices, and wireless network connectivity. Extreme Networks has responded with innovative Unified Access, designed specifically to support the expanding universe of edge applications and devices. Altitude 300 wireless ports work in tandem with any of Extreme's Unified Access infrastructure products to deliver high performance, low hassle wireless LANs. The result is a versatile, no-compromise solution that sets the standard for security, manageability, performance, and ease of use.

Versatile

- Prepare for future expansion – Dual-radio design includes both 802.11a and 802.11b/g WLAN radios
- Tailor coverage, minimize unwanted transmissions – with full-diversity external gain antennas
- Install anywhere – Altitude 300 wireless ports are plenum-rated for safe installation in ceilings and easily blend in with any décor using optional case covers

Secure

- Certified Wi-Fi protected access – industry standard for enterprise-class protection and ready for 802.11i, the next generation in WLAN security
- Rogue Access Point control – find, isolate, and eliminate unauthorized wireless connections
- Theft deterrents – wireless port becomes useless when disconnected from Ethernet cable by erasing all keys, software, and configurations
- Physical lockdown – available cable slot for physical lock down of wireless ports

Scalable and Fast

- One-stop configuration – AccessAdapt technology provides centralized, system-wide configuration and software delivery to Altitude 300 wireless ports
- Extraordinary encryption performance – hardware acceleration of AES and RC4 encryption in each Altitude 300 wireless port for scalable, fast performance
- Highest available Wi-Fi certified radio data rate – each Altitude 300 wireless port supports concurrent 802.11a and 802.11b/g WLAN cells

PRODUCT SPECIFICATIONS

Wireless Interface

- Dual radio with concurrent support for WLAN cells in the 2.4 and 5
- Wi-Fi CERTIFIED 802.11a
- Wi-Fi CERTIFIED 802.11b/g
- Station to station bridging: Configurable (Enable/Disabled within each wireless port)
- Collision avoidance: Configurable RTS/CTS threshold (request to send handshake, clear to send handshake)
- Configurable transmission rate for broadcasting packets
- Configurable fragmentation threshold: Maximum length of 802.11 fragments
- Transmit power control for coverage area adjustment
- Long/short preamble support

Ethernet Interface

- Autosensing 10/100BASE-T Power over Ethernet (PoE)
- 802.3x Pause support

Operating Channels

5 GHz Band for 802.11a – non-overlapping:

- FCC: 12
- Europe: 11
- Japan: 4
- Singapore: 4
- Taiwan: 4

2.4 GHz Band for 802.11b/g – non-overlapping:

- FCC: 3
- Europe: 4
- Japan: 4
- Israel: 2
- MII: 3

Data Rates

- 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps
- 802.11b: 1, 2, 5.5, and 11 Mbps
- 802.11g: 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, and 54 Mbps

Receive Sensitivity

802.11a:

- 6 Mbps: -88 dBm
- 9 Mbps: -87 dBm
- 12 Mbps: -86 dBm
- 18 Mbps: -84 dBm
- 24 Mbps: -81 dBm
- 36 Mbps: -77 dBm
- 48 Mbps: -73 dBm
- 54 Mbps: -69 dBm

802.11b/g:

- 1 Mbps: -91 dBm
- 2 Mbps: -88 dBm
- 5.5 Mbps: -87 dBm
- 11 Mbps: -85 dBm
- 6 Mbps: -89 dBm
- 9 Mbps: -88 dBm
- 12 Mbps: -87 dBm
- 18 Mbps: -85 dBm
- 24 Mbps: -82 dBm
- 36 Mbps: -79 dBm
- 48 Mbps: -74 dBm
- 54 Mbps: -71 dBm

Maximum Transmit Power

802.11a:

- 5.15 to 5.25 GHz: 16 dBm
- 5.25 to 5.35 GHz: 19 dBm
- 5.725 to 5.850 GHz: 19 dBm

802.11b:

- 17 dBm

802.11g:

- 15 dBm

Note: Maximum power setting will vary according to individual country regulations.

Available Transmit Power Settings (all bands)

- 100% (full)
- 50%
- 25%
- 12.5%
- 6.25% (minimum)

Security

- Certified Wi-Fi Protected Access (WPA)
- 802.11 WEP
- Software upgradeable to 802.11i
- Hardware accelerated encryption for Advanced Encryption Standard
- Hardware accelerated encryption for RC4
- Lockdown slot for use with Kensington or equivalent cable
- No persistent storage of keys, configuration information, or operating software
- Beacon frequency control with ability to send beacon with or without SSID
- Rogue wireless network scanning and detection
- Support for static and dynamic IEEE 802.11 WEP keys of 40 bits and 128 bits
- TKIP WEP enhancements: key hashing (per-packet keying), message integrity check (MIC), broadcast key rotation, per-VLAN broadcast key for VLAN isolation

Regulatory Standards Compliance

Safety:

- UL 60950 3rd Edition, Listed Accessory
- ULC listed to CSA22.2 #60950-00
- UL 2043 Plenum rated (without optional plastic covers)
- CB Scheme, IEC 60950: 1999 with all available country deviations
- GS mark, EN 60950:2000
- AS/NZS 3260
- NOM
- CSA 22.2 No. 950-95

Antenna Type	15700 – Altitude 300i Integrated	15701 – Altitude 300d Detachable
Frequency Range – 802.11a FCC and Americas Europe Japan, Singapore Taiwan	5.15 to 5.850 GHz 5.47 to 5.725 GHz 5.15 to 5.25 GHz 5.25 to 5.35 GHz	5.25 to 5.850 GHz 5.47 to 5.725 GHz N/A 5.25 to 5.35 GHz
Frequency Range – 802.11b Japan Rest of world	2.400 to 2.4835 GHz 2.400 to 2.497 GHz	2.400 to 2.4835 GHz 2.400 to 2.497 GHz
Typical Range – 802.11a	Indoor 60 ft (18.3 m) @ 54 Mbps 150 ft (45.7 m) @ 18 Mbps 210 ft (64 m) @ 6 Mbps Outdoor 100 ft (30.5 m) @ 54 Mbps 550 ft (167.6 m) @ 18 Mbps 1100 ft (335.3 m) @ 6 Mbps	Depends on antenna
Typical Range – 802.11b	Indoor 160 ft (48.8 m) @ 11 Mbps 240 ft (73.2 m) @ 5.5 Mbps 340 ft (103.6 m) @ 2 Mbps 500 ft (152.4 m) @ 1 Mbps Outdoor 450 ft (137.2 m) @ 11 Mbps 780 ft (237.7 m) @ 5.5 Mbps 1000 ft (304.8 m) @ 2 Mbps 1600 ft (487.7 m) @ 1 Mbps	Depends on antenna
Typical Range – 802.11g	Indoor 65 ft (19.8 m) @ 54 Mbps 150 ft (45.7 m) @ 18 Mbps 200 ft (61 m) @ 6 Mbps Outdoor 110 ft (33.5 m) @ 54 Mbps 340 ft (103.6 m) @ 18 Mbps 650 ft (198.1 m) @ 6 Mbps	Depends on antenna
Antenna Connectors	Integrated	RP-SMA for 5GHz RP-TNC for 2.4GHz

Regulatory Standards Compliance (con't)

Radio Approvals:

United States

- CFR 47 Part 15.247, Class C, 2.4GHz
- CFR 47 Part 15.407, Class C, 5.0GHz
- CFR 47 Part 15.205, 15.207, 15.209
- CFR 47 Part 2.1091, 2.1093

Canada

- RSS-210 (802.11a)
- RSS-139-1 (802.11b/g)

Europe

- R&TTE Directive 1999/5/EC
- ETSI/EN 300 328-2 2003-04 (2.4GHz)
- ETSI/EN 301 893-1 2002-07 (5.0GHz)
- ETSI/EN 301 489-1 2002-08
- ETSI/EN 301 489-17 2002-08

Japan

- ASTD-T66, 2.4GHz
- ARIB STD-33, 2.4GHz
- ARIB STD-T71, 5.0GHz

Other regions

- SRRC (China)
- RLL (Korea)
- DGT (Taiwan)
- AS/NZS 4268.2 (802.11a/b/g) (Australia and New Zealand)

EMI and Susceptibility:

- FCC CFR 47 Part 15 Class B
- EN55022: 1998 Class B
- CISPR22: 1997 Class B
- EN61000-3-2 and 3-3CF
- EN/ETSI 301 489-17 (9-2000)
- ICES-003 Class B
- AS/NZS 3548 Class B
- VCCI Class B
- MIC Mark
- CNS 13438: 1997 Class B
- EN55024: 1998 Class A, includes IEC 61000-4-2,3,4,5,6,11
- EN/ETSI 301.489-1 and -17

Environmental:

- EN/ETSI 300 019-2-1 v2.1.2 – Class 1.2 Storage
- EN/ETSI 300 019-2-2 v2.1.2 – Class 2.3 Transportation
- EN/ETSI 300 019-2-3 v2.1.2 – Class 3.1e Operational
- EN/ETSI 300 753 (1997-10) – Acoustic Noise
- ASTM D5276 Drop Packaged
- ASTM D3580 Random Vibration Packaged 1.5G

Other:

- Wi-Fi CERTIFIED 802.11a/b/g
- IEEE 802.3af
- FCC Bulletin OET-65C (RF Exposure)
- RSS-102 (RF Exposure)

Dimensions (with secured plastic cover)

- 8.4 in. (21.3 cm) wide; 6.3 in. (16 cm) deep; 1.6 in. (4 cm) high

- Mounting bracket adds 0.8 in. (2 cm) to the height

Weight (with cover)

- 22.4 oz (635g) add 0.71 oz (20g) for mounting bracket

Environmental

- Operational temperature: 32° to 131°F
- (0° to 55°C)
- Humidity: 5 to 95% non-condensing

Power Consumption

- 9 watts, when both 802.11a and 802.11g are at full power operation. Altitude 300 is powered by PoE.

LEDs

- Power (up-ON; fault-BLINKING)
- Ethernet (link-ON; activity-BLINKING)
- Radio 1 – 802.11a (working-ON; activity-BLINKING)
- Radio 2 – 802.11b/g (working-ON; activity-BLINKING)

Warranty

- One year

DATA SHEET - ALTITUDE 300™ WIRELESS PORT

Ordering Information

Part Number	Description	Description
15700	Altitude 300-2i North America	802.11a/b/g, dual radio, integrated 2.4 and 5 GHz antennas, AES, 10/100BASE-TX PoE port; mounting accessories (U.S., Canada only).
15701	Altitude 300-2d North America	802.11a/b/g, dual radio, detachable RP-TNC (2/4 GHz) and RP-SMA (5 GHz) antenna connectors, AES, 10/100BASE-TX PoE port; mounting accessories (U.S., Canada only).
15704	Altitude 300-2i Taiwan	802.11a/b/g, dual radio, integrated 2.4 and 5 GHz antennas, AES, 10/100BASE-TX PoE port; mounting accessories; Taiwan only.
15705	Altitude 300-2d Taiwan	802.11a/b/g, dual radio, detachable RP-TNC (2.4 GHz) and RP-SMA (5 GHz) antenna connectors, AES, 10/100BASE-TX PoE port; mounting accessories; Taiwan only.
15706	Altitude 300-2i EU and All Other Countries	802.11a/b/g, dual radio, integrated 2.4 and 5 GHz antennas, AES, 10/100BASE-TX PoE port; mounting accessories; meets regulatory certification for EU and all other countries excluding NA, Japan and Taiwan.
15707	Altitude 300-2d EU and All Other Countries	802.11a/b/g, dual radio, detachable RP-TNC (2.4 GHz) and RP-SMA (5 GHz) antenna connectors, AES, 10/100BASE-TX PoE port; mounting accessories; meets regulatory certification for EU and all other countries excluding NA, Japan and Taiwan.

Accessories

15901	In/Out Dual Band Directional Antenna	Indoor/outdoor integrated dual band 2.4 GHz and 5 GHz diverse directional antenna. Includes indoor mounting and 1m/3 foot cable.
15902	Antenna Outdoor Mounting Kit	Outdoor mounting kit for detachable antenna. Includes universal mounting bracket for wall, ceiling and pool installations, nuts, bolts and fasteners.
15922	Altitude 300 Translucent Covers	Includes Qty. 5 Altitude 300 Translucent paintable plastic covers (includes integrated antenna shrouds).
15923	Altitude 300 Grey Covers	Includes Qty. 5 Altitude 300 Cool Grey paintable plastic covers (includes integrated antenna shrouds).

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