Altitude 4600 Series Access Points

Altitude™ 4610 and 4620 are high-performance, dual-radio access points that enable secure and cost-effective deployment and operation of 802.11n based Enterprise wireless LANs.

Superior Wireless Performance

- Up to six-fold increase in wireless performance
- Gigabit Ethernet connectivity to the wired network
- Greater and more reliable coverage

Easy Deployment and Operation

- Flexible mounting options with built-in ceiling and wall mounting brackets
- Fully compliant with existing 802.3af Power over Ethernet (PoE) infrastructure
- Centralized management and upgrades

Enterprise-Grade Wireless Services

- Supports WMM/UAPSD and Call Admission Control
- Location services
- Fast secure mobility
- Smart RF offers superior reliability for wireless coverage

Comprehensive Security

- IEEE 802.11i compliant security suite
- Multi-band sensor mode for rogue device detection
- Tamper-proof housing

Altitude 4610 and 4620 are concurrent dual-radio Access Points (APs) with unlocked bands. This provides the flexibility to assign one of the radios as a sensor to scan all the channels on both bands. The bands are unlocked on each radio. The APs are managed by the Summit® WM3000 series contollers. Altitude 4610/4620 delivers full 802.11n performance and reliability.

The Altitude 4610/4620 series APs provide flexible mounting options with built-in mounting bracket for wall or ceiling mount. Altitude 4610 comes with integrated omni-directional antennas. Altitude 4620 comes with six (6) detachable omni-directional antennas. Altitude 4620 is plenum rated and thus can be installed out-of-sight above the ceiling.

Altitude 4610/4620 APs deliver an easy-to-use, secure and high-performance wireless solution that is ideal for demanding enterprises. With the versatility to simultaneously support a wide variety of wireless needs—including video streaming, high speed data, location and voice services. Altitude 4610/4620 dramatically simplifies the installation and operation of enterprise wireless networks.

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Superior Wireless Performance

Altitude 4600 series APs deliver a six-fold increase in throughput over existing 802.11a/b/g legacy LANs. The 2x3 MIMO with dual spatial streams, along with Orthogonal Frequency-Division Multiplexing (OFDM) modulation, enables the AP to deliver full 802.11n performance. An Altitude 4600 AP and an 802.11n client can bond two adjacent 20 MHz channels to create a single 40 MHz wide channel. This potentially doubles the throughput from a standard 20 MHz channel. Gigabit Ethernet connectivity to the wired network enables full speed access to the wired network.

The powerful 24 dBm radio increases coverage, performance and obstruction penetration versus lower dBm radios. In addition, receiver sensitivity has been increased proportionally so users have an increased ability to maintain high-performance access through thick doors and walls to users even while on-the-move. The Altitude 4600 series APs 2x3 MIMO design ensures premium transmit and receive communications.

Ease of Deployment and Operation

Altitude 4600 series APs offer a superior return on investment when considering the total costs of upfront capital expenditure, network upgrades, installation, and operation. Flexible mounting options with built-in mounting brackets for wall or ceiling mount are available. The APs conform to the 802.3af PoE standard while delivering the full 802.11n performance. This preserves the investment in existing PoE infrastructure and eliminates the need to power each AP separately.

Altitude 4600 series APs require no configuration or manual firmware mainte-nance. The Summit WM3000 series controller discovers the access points on the network and automatically downloads all configuration parameters and firmware, greatly reducing installation, maintenance and troubleshooting costs for Layer 2 and Layer 3 deployments.

Locationing services over 802.11 net-works provide the ability to locate and track people or assets, and even to control access to the network or applica-tions. In addition, it is easy to provide hotspot and guest access and assure the user can only access authorized networks, sites or applications.

Enterprise-Grade Wireless Services

The Altitude 4600 series APs support over-the-air QoS protocol based on 802.11e/WMM specifications. The APs also support standards-based (802.11e) Unscheduled Automatic Power Save Delivery (UAPSD/WMM Power Save) that extends the battery life of hand-held client devices like VoWLAN handsets. It enables fast secure roaming using several mechanisms including pre-authentication, opportunistic key caching, and WPA2 based PMK caching.

The Altitude 4600 series APs provide low latency support for the industry-leading VoWLAN devices. The APs support over-the-air QoS protocols such as SpectraLink Voice Priority (SVP) and 802.11e based WMM specifications. Priorities can be set according to SSID, allowing critical real-time voice traffic to be assigned to a distinct high-priority queue. Interoperability with wired network traffic prioritization ensures end-to-end QoS as the traffic traverses the network.

Common problems such as building attenuation, electronic interference or sub-optimal access point placement are minimized as the SMART RF feature automatically optimizes power and channel selection so that each user gets always-on high-quality access and mobility.

Comprehensive Security

Altitude 4600 series APs offer a high level of security features for wired and wireless connectivity. The APs supports stan-dards-based, over-the-air encryption schemes to protect the integrity of user

data. The APs participate in wireless client authentication using 802.11i standards-based WPA or WPA2 mechanisms. The APs also participate in its own authentication with the wired switch port using 802.1X. They can support several security profiles based on application. On-board hardware accelerated encryption engine supports WEP, TKIP and AES standards. Unique security profiles can be configured on a per SSID basis.

Product Specifications

	Altitude 4610 Indoor Access Point	Altitude 4620 Indoor Access Point
Physical Specifications		
Unit Dimensions	9.5 in L x 7.5 in W x 1.7 in H 241.3 mm L x 190.5 mm W x 43.2 mm H	8.5 in L x 5.6 in W x 1.5 in H 215.9 mm L x 142.2 mm W x 38.1 mm H
Unit Weight	2.0 lbs/.91 kg	2.5 lbs/1.14 kg
Mounting Options	Ceiling-mount (to suspended ceiling T-bars, below tile); wall mount	Ceiling-mount (above tile); wall-mount. Comes with LED light pipe
Plenum Rated	No	Yes – certified to UL2043
LEDs	2 LED indicators with multiple modes indicating 2.4GHz/5 GHz Activity, Power, Adoption and Errors	
Ports	1x Auto-sensing 10/100/1000 Base-T PoE – fully compliant with 802.3af	
Power Specifications		
Input Voltage	802.3af supply: 48 VDC @ 12.95W (typical), 36 VDC to 57 VDC (range)	
Operating Current	270 mA (typical)	
Integrated PoE Support	Standards-based IEEE 802.3af	
Radio Specifications		
Number of Radios	2 – concurrent – dual band (2.4GHz/5GHz), Band unlocked	
Number of SSIDs	16	
Antenna Configuration	2x3 MIMO (transmit on two and receive on all three antennas)	
Wireless Standards	802.11a, 802.11b, 802.11g, 802.11n	
Wireless Modulation	Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency-Division Multiplexing (OFDM), and Spatial Multiplexing (MIMO)	
Operating Bands	FCC/EU 2.412 to 2.462 GHz 2.412 to 2.472 GHz 5.150 to 5.250 (UNII -1) 5.150 to 5.250 GHz 5.725 to 5.825 (UNII -3) 5.150 to 5.350 GHz 5.725 to 5.850 (ISM) 5.470 to 5.725 GHz (Country Specific) Japan 2.412 to 2.484GHz 4.900 to 5.000 GHz 5.150 to 5.250 GHz	
Data Rates Supported	**802.11b/g:** 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, and 54Mbps **802.11a:** 6, 9, 12, 18, 24, 36, 48, and 54Mbps **802.11n:** MCS 0-15 up to 300Mbps	
Operating Channels	**5GHz:** All channels from 4920 MHz to 5825 MHz **2.4GHz:** Chan 1-13 (2412-2472 MHz), Chan 14 (2484 MHz) Japan only Actual operating frequencies depend on national regulatory limits	
Data Rates (Mbps)	**802.11b/g:** 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, and 54Mbps **802.11a:** 6, 9, 12, 18, 24, 36, 48, and 54Mbps **802.11n:** MCS 0-15 up to 300Mbps	
Available Transmit Power Settings	24 dBm	
Transmit Power Adjustment	1 dB increments	
Maximum Radio Transmit Power		

	Single Antenna Composite Transmit Power	Dual Antenna Composite Transmit Power
2400 MHz	+21 dBm	+24 dBm
5200 MHz	+19 dBm	+ 22 dBm

Typical RMS Power Consumption

Option	DC Voltage	DC Amps	DC Power Consumption
1	48V	270mA	12.95W
2	48V	209mA	10.00W

Antenna Specifications

	Altitude 4610	Altitude 4620
Type	Integrated 2.4 GHz and 5.2 GHz Dual-Antenna Elements	6x External Dipole detachable antennas
Band	2.4 GHz to 2.5 GHz; 4.9 GHz to 5.850 GHz (actual operating frequencies depend on regulatory rules and certification agency)	
VSWR	<2.1	Antenna specific
Gain	2.0 dBi (2.4GHz), 4.8dBi (5GHz)	Antenna specific

Product Specifications

Receiver Sensitivity (Altitude 4610 Indoor Access Point and Altitude 4620 Indoor Access Point)					
2400 MHz Band			**5200 MHz Band**		
Rate/MCS	**Mode**	Average (dBm)	Rate/MCS	**Mode**	Average (dBm)
1	Legacy	-95	6	Legacy	-93
2	Legacy	-94	9	Legacy	-93
5.5	Legacy	-93	12	Legacy	-93
11	Legacy	-90	18	Legacy	-92
6	Legacy	-94	24	Legacy	-89
9	Legacy	-94	36	Legacy	-86
12	Legacy	-94	48	Legacy	-82
18	Legacy	-94	54	Legacy	-81
24	Legacy	-90	MCS0	HT20	-93
36	Legacy	-87	MCS1	HT20	-92
48	Legacy	-83	MCS2	HT20	-90
54	Legacy	-82	MCS3	HT20	-86
MCS0	HT20	-94	MCS4	HT20	-83
MCS1	HT20	-93	MCS5	HT20	-79
MCS2	HT20	-91	MCS6	HT20	-78
MCS3	HT20	-87	MCS7	HT20	-76
MCS4	HT20	-84	MCS8	HT20	-93
MCS5	HT20	-80	MCS9	HT20	-90
MCS6	HT20	-79	MCS10	HT20	-87
MCS7	HT20	-77	MCS11	HT20	-84
MCS8	HT20	-94	MCS12	HT20	-81
MCS9	HT20	-91	MCS13	HT20	-77
MCS10	HT20	-88	MCS14	HT20	-75
MCS11	HT20	-85	MCS15	HT20	-74
MCS12	HT20	-82	MCS0	HT40	-90
MCS13	HT20	-78	MCS1	HT40	-88
MCS14	HT20	-77	MCS2	HT40	-86
MCS15	HT20	-75	MCS3	HT40	-83
MCS0	HT40	-88	MCS4	HT40	-80
MCS1	HT40	-88	MCS5	HT40	-76
MCS2	HT40	-87	MCS6	HT40	-74
MCS3	HT40	-84	MCS7	HT40	-73
MCS4	HT40	-82	MCS8	HT40	-89
MCS5	HT40	-77	MCS9	HT40	-86
MCS6	HT40	-76	MCS10	HT40	-84
MCS7	HT40	-74	MCS11	HT40	-81
MCS8	HT40	-88	MCS12	HT40	-78
MCS9	HT40	-87	MCS13	HT40	-74
MCS10	HT40	-85	MCS14	HT40	-72
MCS11	HT40	-82	MCS15	HT40	-71
MCS12	HT40	-79			
MCS13	HT40	-75			
MCS14	HT40	-73			
MCS15	HT40	-71			

Product Specifications

Altitude 4610 Indoor Access Point and Altitude 4620 Indoor Access Point	
Regulatory	
Product Safety Certifications	UL 60950, cUL, EU EN 60950, TUV and UL 2043 (external antenna)
Radio Approvals	FCC (USA), Industry Canada, CE (Europe) and TELEC (Japan)
Environmental	
Operating Temperature	0° C to 50° C (4° F to 122° F)
Storage Temperature	-40° C to 70° C (-40° F to 158° F)
Operating Humidity	5% to 95%, non-condensing
Operating Altitude	8,000 ft (2438 m)
Storage Altitude	15,000 ft (4572 m)
Electrostatic Discharge	+/- 15 kV (Air), +/- 8 kV (Contact)

Warranty

- Limited one year
- For warranty details, visit www.extremenetworks.com/go/warranty

Ordering Information

Part Number	Description
15724	Altitude 4610-US 802.11a/b/g/n Dual Radio Indoor Access Point with integrated omni-directional antennas. For operation in U.S. Regulatory Domain
15725	Altitude 4610-ROW 802.11a/b/g/n Dual Radio Indoor Access Point with integrated omni-directional antennas. For operation in Rest of the World Regulatory Domain except Israel
15730	Altitude 4620-US: 802.11a/b/g/n Dual Radio Indoor Access Point with six detachable omni-directional external antennas. For operation in U.S. Regulatory Domain
15731	Altitude 4620-ROW: 802.11a/b/g/n Dual Radio Indoor Access Point with six detachable omni-directional external antennas. For operation in Rest of the World Regulatory Domain, except Israel

For a list of additional external antennas recommended for use with the Altitude 4620 AP, please refer to the Antenna Selection Guide.

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