# IdentiFi<sup>™</sup> AP3600

Fully Featured, Enterprise-Grade Wi-Fi

#### BENEFITS

**BUSINESS ALIGNMENT** 

- Support for demanding voice/video/data applications to enhance mobile worker productivity and convenience
- Role-based grouping of users, devices, and applications to deliver priority, QoS, and security in accordiance with business needs
- Seamless roaming across an entire multisubnet campus without the need for cumbersome client software.
- Integrated management, security, and QoS features reduce operating cost and ensure a consistent user experience regardless of location.

**OPERATIONAL EFFICIENCY** 

- Centralized visibility and control from Extreme Networks Wireless Management Suite and Extreme Networks NMS accelerate problem resolution, optimize network utilization, and automate management
- Adaptive architecture reduces complexity and optimizes information flow for each application
- Dynamic Radio Management ensures optimal AP coverage and maximizes the availability and quality of wireless service across the enterprise
- Flexible Client Access optimizes throughput for 802.11n clients in today's mixed a/b/g and n client environments

SECURITY

- Authentication and authorization functions include role-based access control (using 802.1X, MAC, and captive portal) and authentication at the AP
- Wireless Intrusion Prevention (WIPS) functions provide continuous scanning, threat classification, rogue AP detection, and countermeasures against possible attacks
- Integration of security policies (NAC, IPS) across the wired/wireless networks enables quick diagnosing and resolution of security threats
- Integration of Policy Manager across the wired/ wireless networks dynamically oversees user access at the wireless network point of entry

SUPPORT AND SERVICE

- Industry-leading customer satisfaction and first call resolution rates
- Lifetime warranty for indoor access points
- Personalized services, including site surveys, network design, installation, and training





## Overview

The AP3600 series is the first 802.11abgn indoor access point in the industry to support 3x3 MIMO performance using existing 802.3af power investments. This access point is designed to operate in enterprise environments that require always-on connectivity. The AP3600 Series is equally adept at serving high-bandwidth video applications as well as low-latency voice applications. The AP3610 comes with an integrated six antenna array for ease of installation. The AP3620 includes three RP-SMA antenna connectors supporting dual-band antennas for RF complex environments.

The AP3600 platform supports dynamic radio management, spectrum analysis, self-forming and self-healing meshing, security, role-based authentication, authorization, and access control. The 3x3:2 platform is capable of delivering 600Mbps over-the-air-performance and up to 50,000 packets per second on the wire port. Multiple antenna offerings (e.g., omni, sector, panel) ensure that the AP3620 deployment can be optimized to meet any coverage or capacity need.



## **Technical Specifications**

CELEDAL         CeleDate           High parformance insprise class AP         ('           Humber of notion         2           MMM Implementation for high parformance IIn throughputs         3.3.3           Marmer of sacel at strama         3           Marmer of sacel at strama         3           Marmer of sacel at strama         3           Marmer of sacel at strama         6.0.100           Simulateness uses per radie / total         6.0.16           Simulateness uses per radie / total         12           Mode of forestion         5emisheubonomosa           Fulg and park operation / total         6.0.12           Mode of severation         5emisheubonomosa           Fulg and park operation/Zero toch deployment         v           Security and Standards         WPA, WPA2 (AES), 80211, 8023, RPA, RPA, 2 PICS #0, XS09 DEF / PICS #10           Simulateness RF monitoring and clein Lervices         v           Marchaned WUBS         v           Interling and standards         V           Simulateness RF monitoring and selent services         v           Simulateness RF monitoring and selent services         v           Simulateness RF monitoring and selent services         v           Simulateness RF monitoring and clervices         v	PRODUCT FEATURES	AP37651/E	
Number of notions         2           NUM Implementation for high performance in throughputs         3.33           Master of patial streams         3.33           Master of patial streams         3.00Mpps / 600Mtps           Marter of streams         9.000Mtps / 600Mtps / 600Mtps           Marter of streams         9.000Mtps / 600Mtps /	GENERAL		
MMD implementation for high performance III throughouts         3x3           Number of spatial streams         3           Number of spatial streams         3000000000000000000000000000000000000	High performance enterprise class AP	√	
Number of soatial streams         3           Moximum Throughout for Radio / Total         300Mbs/ 600Mbps           Winde parfamanes in packate per second (pes)         8/16           Simultaneous users per radio / total         8/16           Simultaneous users per radio / total         8/16           Simultaneous users per radio / total         12/254           Simultaneous users per radio / total         8           Mod of operation         Semi-autonomous           Plug and ploy operation/Zen touch deployment         V           Security and Sendards:         WPA. WPA2 (AES), 80.211, 80.21, PECE, IKEV2, PICS #10, XS09 DER / PICS #12           Clients serving access points         V           Heatigent thin AP         Encryption, Security, DeS and RF management done on AP           Simultaneous WPS         V           Multi-channel WDS         V           Multi-channel WDS         V           Rantod access point         V           Rantod accettrific of thealing meshing         V	Number of radios	2	
Maximum Throughput Per Rodio / Total3000Hops / 600HopsWired andformace in podelst per second (pps)0.000 ppsNumber of SDS supported per radio / total127 / 254Simultaneous Voice calls GOZIIIs, C71, P>80)0.12Bonduraneous Yolice calls GOZIIIs, C71, P>80)0.12Plug and play coeration/Zaro touch deployment.vPlug and play coeration/Zaro touch deployment.vBeeuring access pointsvMULTPLE OPERATING MODESVClients serving access pointsvMultrichannel WIDSEncryption, Security, GoS and Firmangement done on APSimultaneous XIIIVMultrichannel WIDSvRendow access pointsvMultrichannel WIDSvRendow access pointvRendow access pointvMultrichannel WIDSvRendow access pointvRendow access point	MIMO implementation for high performance 11n throughputs	3x3	
Wind performance in packets per second (pps)60,000 ppsNumber of SSDs supported per raile / total8 / 16Simultaneous voice cals (80.211b, 671, R>80)12Mode of operationSemi-autonousPlay and larg vortex cals (80.211b, 671, R>80)WPA, WPA2 (AES), 80.211b, 60.21b, EFV, PMCS #10Mode of operationVSesurity and StandardsWPA, WPA2 (AES), 80.21b, 80.21b, EFV, PMCS #10, X509 DEF, PMCS #12Multi-channel WUSSVMulti-channel WUSSVMulti-channel WUSSVMulti-channel WUSSVRenda access pointVPri secturn analysisVPri secturn analysisVRenda access pointVRenda access pointStation (SG4/V)Renda access pointVRenda access pointVRenda access pointVRenda access pointVRenda (SG4/V)22 dBmRenda (SG4/V)23 dBmRenda (SG4/V)Station (SG4/V)Renda (SG4/V)Station (SG4/V)Renda access pointStation (SG4/V)Renda (SG4/V)Station (SG4	Number of spatial streams	3	
Number of SSIDs supported per radio / total         8 / 16           Simultaneous users per radio / total         172 / 254           Mode of genetion         2           Mode of genetion         Semilaneous voice calls (80211b, 6711, R>80)         Semilaneous Voice calls (80211b, 6711, R>80)           Plug and play operation/Zero touch deplayment         V         V           Security and Standards         VPA, WPA2 (4ES), 80211b, 8021b, 1892, REV2, PKCS RID, XS09 DER / P	Maximum Throughput Per Radio / Total	300Mbps / 600Mbps	
Simultaneous users per radio / total         127 / 254           Simultaneous users per radio / total         12           Mode of operation         12           Mode of operation         Semi-autonomous           Pug and play operation/Zero touch deployment         v           Security and Standards         WPA, WPA2 (AES), B021II, B023, IPSee, IKEV2, PKCS JID, X509 DER / PKCS JID           NultriPLE OPERATING MODES         v           Clients serving access points         v           MultriPLE OPERATING MODES         v           Simultaneous RF monitoring and client services         v           MultriPLE OPERATING MODES         v           MultriPLE OPERATING MODES         v           MultriPLE OPERATING MODES         v           Simultaneous RF monitoring and client services         v           MultriPLE OPERATING MODES         v           MultriPLE OPERATING MODES         v           MultriPLE OPERATING MODES         v           Simultaneous XP         v           Simultaneous XP         v           Simultaneous XP         v           MultriPLE OPERATING MODES         v           MultriPLE OPERATING MODES         v           Radio 16 (Simultaneous XP)         v           Radio 16 (Sitt)	Wired performance in packets per second (pps)	50,000 pps	
Simultaneous Voice calls (60211b, G71, R>80)IMode of operationSimultaneousPlug and play operation/Zero touch deploymentVSecurity and StandardsVPA, WPA2 (AES), B0211, B021s, IPSec, IREV2, PKCS #10, XS09 DER / PKCS #12MULTIPLE OPERATING MODESVClients serving access pointsVIntelligent thin APEncryption, Security, ados and RF management done on APSimultaneous RF monitoring and client servicesVMulti-channel WDSVMulti-channel WDSVMulti-channel WDSVRemote access pointVRemote access pointVRetarding dots traffic at AP and/or at controller simultaneouslyRetarding (SGH2)Call (APSRO)Radio 1(SGH2)SGH2Radio 1(SGH2) <td>Number of SSIDs supported per radio / total</td> <td>8 / 16</td>	Number of SSIDs supported per radio / total	8 / 16	
Mode of operation/Zero touch deployment         Semi-autonomous           Fug and play operation/Zero touch deployment         v           Security and Standards.         WA, WP2 (AES), 802111, 8021x, IPSec, IKEv2, PKCS #10, X509 DER / PKCS #12           Clients serving access points         v           Clients serving access points         v/           Intelligent thin AP         Encryption, Security, QOS and RF management done on AP           Simultancoux, RF monitoring and client services         v/           Multi-channel WIDS         v/           Multi-channel WIDS         v/           Remote access point         v/           RF spectrum analysis         0.           Self-forming and self-halling mething         v/           Remote access point         v/           Remote access point         v/           Remote access point         v/           Remote access point         v/           Radio 10 GH2         20           Radio 10 GH2         23 dBm           Radio 1 GH2         23 dBm           Radio 1 (GH2)         3 dBi (APSIG)           Self-forming and Self-hallor method         Self-(APSIG)           Self-forming and the channel architecture         v/           Radio 1 (GH2)         3 dBi (APSIG)	Simultaneous users per radio / total	127 / 254	
Plug and play operation/Zero touch disployment         VIPA:           Security and Standards         WPA:           Security and Standards         WPA:           UILTIPLE OPERATING MODES         Commentation           Clients serving access points         Intelligent thin AP           Simultaneous RF monitoring and client services         Pencryption, Security, QoS and RF management done on AP           Multi-channel WIDS         Intelligent thin AP           Multi-channel WIDS         V           Multi-channel WIDS         V           Remote access point         V           Refore the and self-healing meshing         V           Bridging data traffic at AP and/or at controller simultaneously         V           Redio 1(G6H2)         22 dBm           Redio 1(G6H2)         23 dBm           Redio 1(G6H2)         S elf-forming and self-healing reling           Dynamic Charlot         BO2111: DF5 & TPC Support (ETSI)           Redio 1 (G6H2)         S elf-healing with anulti-channel architect	Simultaneous Voice calls (802.11b, G711, R>80)	12	
Security and Standards         WPA, WPA2 (AES), 802.111, 802.1x, IPSace, IKEV2, PKCS #10, X509 DER / PKCS #10,           KULTPLE OPERATING MODES         I           Clients serving access points         I           Intelligent thin AP         Encryption, Security, GoS and AP management done on AP           Simultaneous RF monitoring and client services         V           Multi-channel WID5         V           Multi-channel WID5         V           Multi-channel WID5         V           Bernote access point         V           Renote access point         V           Relot 16 (GH2)         Z2 dBm           Readio 1 (GH2)         22 dBm           Readio 1 (GH2)         S dB (APSEQ)           Partice 2 (Z4GH2)         S dB (APSEQ)           Dynamic Channel Control	Mode of operation	Semi-autonomous	
MULTIPLE OPERATING MODES           Clients serving access points         ✓           Intelligent thin AP         Encryption, Security, QoS and RF management done on AP           Simultanceous RF monitoring and client services         ✓           Multi-channel WIDS         ✓           Multi-channel WIDS         ✓           Multi-channel WIDS         ✓           Remote access point         ✓           RF spectrum analysis         ✓           Self-forming and self-healing meshing         ✓           Self-forming and self-healing meshing         ✓           RADIO CHARACTERISTICS         ✓           Max transmit power         22 dBm           Radio 1(5GH2)         22 dBm           Radio 1(5GH2)         22 dBm           Radio 1(GGH2)         6 dBI (APS6IO)           Radio 1(GGH2)         3 dBi (APS6IO)           Radio 1(GGH2)         3 dBi (APS6IO)           Radio 1(GGH2)         3 dBi (APS6IO)           Radio 2(24 GHz)         3 dBi (APS6IO)           Self-forming channel control         5 dBi (APS6IO)           Self realing with courses gap addetion         4 dBi (APS6EO)           Self realing with courses gap addetion         √           Autornabi connel control         Self realing with anuti-channel	Plug and play operation/Zero touch deployment	√	
Clients serving access points✓Intelligent thin APEncryption, Security, GoS and RF management done on APSimultaneous RF montoring and client services✓Multi-channel WUDS✓Multi-channel WUDS✓Remote access point✓RF spectrum analysis✓Self-forming and self-healing meshing✓Self-forming and self-healing meshing✓Self-forming and self-healing meshing✓Ratio 1 (GGH2)Z dBmRadio 1 (GGH2)2 2 dBmRadio 1 (GGH2)2 2 dBmRadio 2 (2.4GH2)3 dBi (APS500)Radio 2 (2.4GH2)3 dBi (APS500)Radio 2 (2.4GH2)3 dBi (APS500)Self-forming hower and channel controlS dBi (APS500)Radio 2 (2.4GH2)3 dBi (APS500)Radio 1 (GGH2)S dBi (APS500)Self (APS500)S dBi (APS500) <tr<< td=""><td>Security and Standards</td><td>WPA, WPA2 (AES), 802.11i, 802.1x, IPSec, IKEv2, PKCS #10, X509 DER / PKCS #12</td></tr<<>	Security and Standards	WPA, WPA2 (AES), 802.11i, 802.1x, IPSec, IKEv2, PKCS #10, X509 DER / PKCS #12	
Intelligent thin AP         Encryption, Security, QoS and RF management done on AP           Simultaneous RF monitoring and client services         v           Multi-channel WIDS         v           Multi-channel WIDS         v/           Multi-channel WIDS         v/           Remote access point         v/           RF spectrum analysis         v/           Stelf-forming and self-healing meshing         v/           Bridging data traffic at AP and/or at controller simultaneously         v/           Radio 1 (SGH2)         22 dBm           Radio 1 (SGH2)         22 dBm           Radio 1 (SGH2)         23 dBm           Radio 1 (SGH2)         5 dBi (AP3610) 5 dBi (AP3610) 4 dBi (AP3610)           Radio 2 (2.4 GH2)         3 dBi (AP3610) 5 dBi (AP3610)           Radio 1 (SGH2)         3 dBi (AP3610)           Radio 1 (SGH2)         3 dBi (AP3610)           Radio 2 (2.4 GH2)         3 dBi (AP3610)           Bardio 1 (SGH2)         3 dBi (AP3610)           Radio 1 (SGH2)         3 dBi (AP3610)           Radio 2 (2.4 GH2)         4 dBi (AP3610)           Bardi datemana)         5 dBi (AP3610)           Bardi datemana)         5 dBi (AP3610)           Secture tababalancity of the securing modes         1	MULTIPLE OPERATING MODES		
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Multi-channel WIDS         V           Multi-channel WIPS         √           Remote access point         √           Remote access point         √           Remote access point         √           Self-forming and self-healing meshing         √           Self-forming and self-healing meshing         √           Bridging data traffic at AP and/or at controller simultaneously         √           Radio 1 (SGHz)         22 dBm           Max transmit power         22 dBm           Radio 1 (SGHz)         22 dBm           Max attenang sign (integrated antenna)         8           Max attenang sign (integrated antenna)         8 dBi (AP3500)           Radio 1 (SGHz)         \$ dBi (AP3500)           Radio 2 (24GHz)         \$ dBi (AP3500)           Radio 2 (24GHz)         \$ dBi (AP3620)           Radio 1 (SGHz)         \$ dBi (AP3620)           Radio 2 (24GHz)         \$ dBi (AP3620)           Radio 2 (24GHz)         \$ dDAPTIVE RADIO MANAGEMENT <t< td=""><td>Intelligent thin AP</td><td>Encryption, Security, QoS and RF management done on AP</td></t<>	Intelligent thin AP	Encryption, Security, QoS and RF management done on AP	
Multi-channel WIPS         V           Remote access point         V           Remote access point         V           Remote access point         V           Reforming and self-healing meshing         V           Self-forming and self-healing meshing         V           Bridging data traffic at AP and/or at controller simultaneously         V           Rabio CHARACTERISTICS         V           Max transmit power         22 dBm           Radio 1 (SGHz)         22 dBm           Radio 1 (SGHz)         22 dBm           Radio 1 (SGHz)         23 dBm           Radio 1 (SGHz)         6 dBi (AP3600) 5 dBi (AP3600)           Radio 2 (2 4 GHz)         3 dBi (AP3600)           Radio 2 (2 4 GHz)         3 dBi (AP3600)           Radio 2 (2 4 GHz)         3 dBi (AP3600)           Radio 2 (2 4 GHz)         8 dBi (AP3600)           Radio 2 (2 4 GHz)         8 dBi (AP3600)           Brot 2 (2 4 GHz)         9 dBi (AP3600)           Radio 2 (2 4 GHz)         1 dBi (AP3600)           Bardis C 1 (2 GHz)         9 dBi (AP3600)           Bardis C 2 (2 Hz)         9 dBi (AP3600)           Self-healing with coverage gap detection         V           Automatic transmit power and channel control         V	Simultaneous RF monitoring and client services	√	
Remote access point         Image: image	Multi-channel WIDS		
RF spectrum analysis       V         Self-forming and self-healing meshing       V         Bridging data traffic at AP and/or at controller simultaneously       V         RADIO CHARACTERISTICS       V         Max transmit power       22 dBm         Radio 1 (SGHz)       22 dBm         Radio 2 (2.4GHz)       23 dBm         Max antenna gain (integrated antenna)       6 dBi (AP3610)         Radio 1 (SGHz)       5 dBi (AP360)         Radio 2 (2.4GHz)       3 dBi (AP3610)         Pactor       3 dBi (AP3610)         Self-fount power       80211h: DFS & TPC support (ETS)         Pynamic Channel Control       80211h: DFS & TPC support (ETS)         Efficient use of the spectrum with a multi-channel architecture       √         Automatic transmit power and channel control       √         Self-fount in congested RF environments       √         Spectrum load balancing of clents       √         Autrime fairness       √         Quality of Service (WMM, 8021b)       √         Coall Admission Control (TSPEC)       √         Quality of Service (WMM, 8021b)       √	Multi-channel WIPS	√	
Self-forming and self-healing meshing       V         Bridging data traffic at AP and/or at controller simultaneously       V         RADIO CHARACTERISTICS       V         Max transmit power       22 dBm         Radio 1 (SGHz)       22 dBm         Radio 2 (2.4GHz)       23 dBm         Max antenna gain (integrated antenna)       6 dB (AP3610)         Radio 1 (SGHz)       6 dB (AP3610)         Radio 2 (2.4GHz)       3 dBi (AP3610)         Radio 1 (SGHz)       6 dB (AP3610)         Radio 2 (2.4GHz)       3 dBi (AP3610)         Radio 2 (2.4GHz)       3 dBi (AP3610)         Partice Channel Control       3 dBi (AP3610)         Lefticient use of the spectrum with a multi-channel architecture       V         Automatic transmit power and channel control       V         Self-healing with coverage gap detection       V         Band steering with multiple steering modes       V         Spectrum load balancing of clients       V         Aritime fairness       V         Performance protection in congested RF environments       V         Quality of Service (WMM, 8021b)       V         Quality of Service (WMM, 8021b)       V         Call Admission Control (TSFEC)       V         Power Save (U-APSD)	Remote access point	√	
Bridging data traffic at AP and/or at controller simultaneously       V         RADIO CHARACTERISTICS       V         Max transmit power       22 dBm         Radio 1 (SGHz)       22 dBm         Radio 2 (2.4 GHz)       23 dBm         Max attenna gain (integrated antenna)       6 dBi (AP3610) 5 dBi (AP3620)         Radio 1 (SGHz)       6 dBi (AP3610) 5 dBi (AP3620)         Radio 2 (2.4 GHz)       3 dBi (AP3620)         Radio 2 (2.4 GHz)       3 dBi (AP3620)         Radio 2 (2.4 GHz)       3 dBi (AP3610)         Padio 2 (2.4 GHz)       3 dBi (AP3610)         Radio 2 (2.4 GHz)       3 dBi (AP3610)         Badio 2 (2.4 GHz)       3 dBi (AP3610)         Radio 2 (2.4 GHz)       3 dBi (AP3620)         Radio 2 (2.4 GHz)       4 DAPTIVE RADIO MANAGEMENT         Dynamic Channel Control       √         Self-healing with coverage gap detection       √ <t< td=""><td>RF spectrum analysis</td><td>√</td></t<>	RF spectrum analysis	√	
RADIO CHARACTERISTICS         Max transmit power         Radio 1 (SGHz)         Radio 2 (2.4GHz)         Radio 2 (2.4GHz)         Radio 1 (SGHz)         Radio 1 (SGHz)         Radio 2 (2.4GHz)         Radio 1 (SGHz)         Radio 2 (2.4GHz)         Radio 2 (2.4GHz)         Radio 2 (2.4GHz)         Badio 2 (2.4GHz)         Call CAPSEQO)         Self (AP3610)         S dBi (AP3610)         A dBi (AP3620)         Radio 2 (2.4GHz)         Dynamic Channel Control         Dynamic Channel Control         Boy 211b: DFS & TPC support (ETSI)         Efficient use of the spectrum with a multi-channel architecture         V         Automatic transmit power and channel control         Self-healing with coverage gap detection         Self-healing with multiple steering modes         Seterum load balancing of clients         V         Airtime fairness         V         Ose FOR APPLICATIONS         Quality of Service (WMM, 802.11e)         Call Admission Control (TSPEC)         Power Save (U-APSD)	Self-forming and self-healing meshing	√	
Max transmit powerImage: constraint of the sector of the sect	Bridging data traffic at AP and/or at controller simultaneously	√	
Radio 1 (SGH2)         22 dBm           Radio 2 (2.4GH2)         23 dBm           Max antenna gain (integrated antenna)         6 dBi (AP3610)           Radio 1 (SGH2)         6 dBi (AP3610)           Radio 2 (2.4GH2)         3 dBi (AP3610)           Radio 2 (2.4GH2)         3 dBi (AP3610)           Padio 2 (2.4GH2)         3 dBi (AP3610)           AbAPTIVE RADIO MANAGEMENT         3 dBi (AP3610)           Dynamic Channel Control         802.11h: DFS & TPC support (ETS1)           Efficient use of the spectrum with a multi-channel architecture         √           Automatic transmit power and channel control         √           Self-healing with coverage gap detection         √           Sand steering with multiple steering modes         √           Spectrum load balancing of clients         √           Airtime fairness         √           Performance protection in congested RF environments         √           Mitigates co-channel interference with coordinated access         √           Quality of Service (WMM, 802.11e)         √           Quality of Service (WMM, 802.11e)         √           Call Admission Control (TSPEC)         √           Power Save (U-APSD)         √	RADIO CHARACTERISTICS		
Radio 2 (2.4GHz)         23 dBm           Max antenna gain (integrated antenna)         6 dBi (AP3610) 5 dBi (AP3610)           Radio 1 (5GHz)         6 dBi (AP3610) 5 dBi (AP3610)           Radio 2 (2.4GHz)         3 dBi (AP3610)           Radio 2 (2.4GHz)         3 dBi (AP3610)           Padio 2 (2.4GHz)         3 dBi (AP3610)           Septrum with a multi-channel architecture         √           Padio 2 depade dettion         √           Padio 2 depade dettion         √           Patromance protection in cong	Max transmit power		
Max antenna gain (integrated antenna)       6 dBi (AP3610)         Radio 1 (SGHz)       6 dBi (AP3620)         Radio 2 (2.4GHz)       3 dBi (AP3620)         ADAPTIVE RADIO MANAGEMENT       0         Dynamic Channel Control       802.11b: DFS & TPC support (ETSI)         Efficient use of the spectrum with a multi-channel architecture       √         Automatic transmit power and channel control       √         Self-healing with coverage gap detection       √         Band steering with multiple steering modes       √         Spectrum load balancing of clients       √         Airtime fairness       √         Performance protection in congested RF environments       √         Mitigates co-channel interference with coordinated access       √         Quality of Service (WMM, 802.11e)       √         Quality of Service (WMM, 802.11e)       √         Call Admission Control (TSPEC)       √         Power Save (U-APSD)       √	Radio 1 (5GHz)	22 dBm	
Radio 1 (5GHz)	Radio 2 (2.4GHz)	23 dBm	
Radio 1 (SGH2)       5 dBi (AP3620)         Radio 2 (2.4GHz)       3 dBi (AP3620)         ADAPTIVE RADIO MANAGEMENT       4 dBi (AP3620)         Dynamic Channel Control       802.11b: DFS & TPC support (ETSI)         Efficient use of the spectrum with a multi-channel architecture       √         Automatic transmit power and channel control       √         Self-healing with coverage gap detection       √         Band steering with multiple steering modes       √         Spectrum load balancing of clients       √         Airtime fairness       √         Performance protection in congested RF environments       √         Mitigates co-channel interference with coordinated access       √         Quality of Service (WMM, 802.11e)       ✓         Quality of Service (WMM, 802.11e)       √         Quality of Service (WAM, 802.11e)       √         Power Save (U-APSD)       √	Max antenna gain (integrated antenna)		
Radio 2 (2.4GHZ)       4 dBi (AP3620)         ADAPTIVE RADIO MANAGEMENT          Dynamic Channel Control       802.11h: DFS & TPC support (ETSI)         Efficient use of the spectrum with a multi-channel architecture          Automatic transmit power and channel control          Self-healing with coverage gap detection          Band steering with multiple steering modes          Spectrum load balancing of clients          Airtime fairness          Performance protection in congested RF environments          Mitigates co-channel interference with coordinated access          Quality of Service (WMM, 802.11e)          Call Admission Control (TSPEC)          Power Save (U-APSD)	Radio 1 (5GHz)		
ADAPTIVE RADIO MANAGEMENT           Dynamic Channel Control         802.11h: DFS & TPC support (ETSI)           Efficient use of the spectrum with a multi-channel architecture         ✓           Automatic transmit power and channel control         ✓           Self-healing with coverage gap detection         ✓           Band steering with multiple steering modes         ✓           Spectrum load balancing of clients         ✓           Airtime fairness         ✓           Performance protection in congested RF environments         ✓           Mitigates co-channel interference with coordinated access         ✓           Quality of Service (WMM, 802.11e)         ✓           Call Admission Control (TSPEC)         ✓           Power Save (U-APSD)         ✓	Radio 2 (2.4GHz)		
Efficient use of the spectrum with a multi-channel architecture       ✓         Automatic transmit power and channel control       ✓         Self-healing with coverage gap detection       ✓         Band steering with multiple steering modes       ✓         Spectrum load balancing of clients       ✓         Airtime fairness       ✓         Performance protection in congested RF environments       ✓         Mitigates co-channel interference with coordinated access       ✓         Quality of Service (WMM, 802.11e)       ✓         Quality of Service (WMM, 802.11e)       ✓         Call Admission Control (TSPEC)       ✓         Were Save (U-APSD)       ✓	ADAPTIVE RADIO MANAGEMENT		
Automatic transmit power and channel control <ul> <li>Automatic transmit power and channel control</li> <li>Self-healing with coverage gap detection</li> <li>Sand steering with multiple steering modes</li> <li>Image: Comparison of Clients</li> <li>Image: Comparison of Clients</li></ul>	Dynamic Channel Control	802.11h: DFS & TPC support (ETSI)	
Self-healing with coverage gap detection       ✓         Band steering with multiple steering modes       ✓         Spectrum load balancing of clients       ✓         Airtime fairness       ✓         Performance protection in congested RF environments       ✓         Mitigates co-channel interference with coordinated access       ✓         Quality of Service (WMM, 802.11e)       ✓         Call Admission Control (TSPEC)       ✓         Power Save (U-APSD)       ✓	Efficient use of the spectrum with a multi-channel architecture		
Band steering with multiple steering modes       ✓         Spectrum load balancing of clients       ✓         Airtime fairness       ✓         Performance protection in congested RF environments       ✓         Mitigates co-channel interference with coordinated access       ✓         QOS FOR APPLICATIONS       ✓         Quality of Service (WMM, 802.1te)       ✓         Call Admission Control (TSPEC)       ✓         Power Save (U-APSD)       ✓	Automatic transmit power and channel control		
Spectrum load balancing of clients       ✓         Airtime fairness       ✓         Performance protection in congested RF environments       ✓         Mitigates co-channel interference with coordinated access       ✓         QOS FOR APPLICATIONS       ✓         Quality of Service (WMM, 802.1le)       ✓         Call Admission Control (TSPEC)       ✓         Power Save (U-APSD)       ✓	Self-healing with coverage gap detection		
Airtime fairness     ✓       Performance protection in congested RF environments     ✓       Mitigates co-channel interference with coordinated access     ✓       QOS FOR APPLICATIONS     ✓       Quality of Service (WMM, 802.1le)     ✓       Call Admission Control (TSPEC)     ✓       Power Save (U-APSD)     ✓			
Performance protection in congested RF environments       √         Mitigates co-channel interference with coordinated access       √         QOS FOR APPLICATIONS       √         Quality of Service (WMM, 802.1le)       √         Call Admission Control (TSPEC)       √         Power Save (U-APSD)       √	Spectrum load balancing of clients		
Mitigates co-channel interference with coordinated access     ✓       QOS FOR APPLICATIONS     ✓       Quality of Service (WMM, 802.1le)     ✓       Call Admission Control (TSPEC)     ✓       Power Save (U-APSD)     ✓			
Mitigates co-channel interference with coordinated access     ✓       QOS FOR APPLICATIONS     ✓       Quality of Service (WMM, 802.1le)     ✓       Call Admission Control (TSPEC)     ✓       Power Save (U-APSD)     ✓	Performance protection in congested RF environments	√	
Quality of Service (WMM, 802.11e)     √       Call Admission Control (TSPEC)     √       Power Save (U-APSD)     √	Mitigates co-channel interference with coordinated access	√	
Call Admission Control (TSPEC)     √       Power Save (U-APSD)     √	QOS FOR APPLICATIONS		
Call Admission Control (TSPEC)     √       Power Save (U-APSD)     √	Quality of Service (WMM, 802.11e)	√	
Power Save (U-APSD) v		√	
Fast secure roaming and handover between APs √	Power Save (U-APSD)	√	
	Fast secure roaming and handover between APs	√	



Pre-Authentication (Pre-Auth)	√		
Opportunistic Key Caching (OKC)	√		
Support voice, video and data using the same SSID	√		
Prioritize voice over data for both tagged and untagged traffic	√		
Rate limiting (rule and user-based)	√		
Rule and role based QoS processing	√		
MULTICAST RATE CONTROL			
Multicast to Unicast Conversion	√		
Adaptable rate multicast	√		
Power save mode optimization for multicast	√		
WIRELESS SERVICES			
Media Access Protocol	CSMA/CA with ACK		
Data Rates	802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54 Mbps 802.11n: See 802.11n Performance table below		
Frequency Bands	802.11a/n: • 5.15 to 5.25 GHz (FCC / IC / ETSI) - Indoor • 5.25 to 5.35 GHz (FCC / IC / ETSI) - Indoor/Outdoor • 5.47 to 5.725 GHz (FCC / IC / ETSI) - Indoor • 5.725 to 5.850 GHz (FCC / IC) - Indoor/Outdoor 802.11b/g/n: • 2.400 to 2.4835 GHz (FCC / IC / ETSI) - Indoor/Outdoor		
Wireless Modulation	802.11a: OFDM 802.11b: DSSS 802.11g: DSSS and OFDM 802.11n: BPSK, QPSK, 16QAM, 64QAM with OFDM 802.11n High-throughput (HT) support: HT 20/40 802.11n Packet aggregation: A-MPDU, A-MSDU		
INTERFACES			
# 10/100/1000 Base T Ethernet autosensing link	1		
Console port for the ease of installation and management	$\checkmark$		
MOUNTING			
Wall mounting bracket	√		
Drop-ceiling mounting bracket	Optional		
Environmental	Operating: Temperature 0° C to +50° C (+32° F to +122° F) Humidity 0% 95% (noncondensing) Storage: Temperature -5° C to +50° C (+23° F to +122° F) Transportation:		
Environmental	Temperature 0° C to +50° C (+32° F to +122° F) Humidity 0% 95% (noncondensing) Storage: Temperature -5° C to +50° C (+23° F to +122° F)		
Environmental Safety	Temperature 0° C to +50° C (+32° F to +122° F) Humidity 0% 95% (noncondensing) Storage: Temperature -5° C to +50° C (+23° F to +122° F) Transportation:		
	Temperature 0° C to +50° C (+32° F to +122° F)         Humidity 0% 95% (noncondensing)         Storage:         Temperature -5° C to +50° C (+23° F to +122° F)         Transportation:         Temperature -40° C to +70° C (-40° F to +158° F)         UL / IEC / EN 60950-1; CAN/CSA 22.2 # 60950-1-03 UL         2043 Plenum Rating (Indoor Access Points)         European 2006/95/EC		
Safety	Temperature 0° C to +50° C (+32° F to +122° F)         Humidity 0% 95% (noncondensing)         Storage:         Temperature -5° C to +50° C (+23° F to +122° F)         Transportation:         Temperature -40° C to +70° C (-40° F to +158° F)         UL / IEC / EN 60950-1; CAN/CSA 22.2 # 60950-1-03 UL         2043 Plenum Rating (Indoor Access Points)         European 2006/95/EC         Low Voltage Directive         • FCC CFR 47 Part 15.107 and 15.109 Class B (FCC 47 CFR, Part 15.205, 15.207, 15.209, FCC 47 CFR, Part 2.109, 2.1093, FCC OET No. 65)         • ICES-003 Class B         • RSS-210, RSS-102 (RF Exposure)         • R&TTE Directive 1999/5/EC         • EN 301 893         • EN 301 893         • EN 300 328         • 2004/108/EC EMC Directive         • ENS5011/CISPR 11 Class B, Group 1 ISM         • EN55022/CISPR 22 Class B         • EN55022/CISPR 22 Class B         • EN55022/CISPR 24		
Safety Compliance	Temperature 0° C to +50° C (+32° F to +122° F)         Humidity 0% 95% (noncondensing)         Storage:         Temperature -5° C to +50° C (+23° F to +122° F)         Transportation:         Temperature -40° C to +70° C (-40° F to +158° F)         UL / IEC / EN 60950-1; CAN/CSA 22.2 # 60950-1-03 UL         2043 Plenum Rating (Indoor Access Points)         European 2006/95/EC         Low Voltage Directive         • FCC CFR 47 Part 15.107 and 15.109 Class B (FCC 47 CFR, Part 15.205, 15.207, 15.209, FCC 47 CFR, Part 2.109, 2.1093, FCC OET No. 65)         • ICES-003 Class B         • RSS-210, RSS-102 (RF Exposure)         • R&TTE Directive 1999/5/EC         • EN 301 893         • EN 301 893         • EN 301 489 -1 & 17         • ENS5011/CISPR 11 Class B, Group 1 ISM         • EN55022/CISPR 22 Class B         • EN55022/CISPR 22 Class B         • EN55022/CISPR 24		
Safety Compliance MECHANICAL	Temperature 0° C to +50° C (+32° F to +122° F)         Humidity 0% 95% (noncondensing)         Storage:         Temperature -5° C to +50° C (+23° F to +122° F)         Transportation:         Temperature -40° C to +70° C (-40° F to +158° F)         UL / IEC / EN 60950-1; CAN/CSA 22.2 # 60950-1-03 UL 2043 Plenum Rating (Indoor Access Points)         European 2006/95/EC         Low Voltage Directive         • FCC CFR 47 Part 15.107 and 15.109 Class B (FCC 47 CFR, Part 15.205, 15.207, 15.209, FCC 47 CFR, Part 2.109, 2.1093, FCC OET No. 65)         • ICES-003 Class B         • RST=210, RSS-102 (RF Exposure)         • R&TTE Directive 1999/5/EC         • EN 301 893         • EN 301 489 -1 & 17         • EN55012/CISPR 12 Class B, Group 1 ISM         • EN55024/CISPR 24         • EN / UL 60601-1-2         • EN 50385		
Safety Compliance MECHANICAL Dimensions (W x H x L)	Temperature 0° C to +50° C (+32° F to +122° F) Humidity 0% 95% (noncondensing) <b>Storage:</b> Temperature -5° C to +50° C (+23° F to +122° F) <b>Transportation:</b> Temperature -40° C to +70° C (-40° F to +158° F) UL / IEC / EN 60950-1; CAN/CSA 22.2 # 60950-1-03 UL 2043 Plenum Rating (Indoor Access Points) European 2006/95/EC Low Voltage Directive • FCC CFR 47 Part 15.107 and 15.109 Class B (FCC 47 CFR, Part 15.205, 15.207, 15.209, FCC 47 CFR, Part 2.109, 2.1093, FCC OET No. 65) • ICES-003 Class B RSS-210, RSS-102 (RF Exposure) • R&TTE Directive 1999/5/EC • EN 301 893 • EN 300 328 • 2004/108/EC EMC Directive • EN 301 489 -1 & 17 • ENS501/CISPR 11 Class B, Group 1 ISM • ENS5022/CISPR 22 Class B • ENS5022/CISPR 24 • EN / UL 60601-1-2 • EN 50385 (8.4" x 2.2" x 7.1") - AP3610 / (8.4" x 2.2" x 7.1") - AP3620		



## **Ordering Information**

PART NUMBER	DESCRIPTION
ACCESS POINTS	
WS-AP3610	Dual Radio 802.11a/b/g/n, 3x3:2, indoor access point with six internal antenna array
WS-AP3610-IL	Dual Radio 802.11a/b/g/n, 3x3:2, indoor access point with six internal antenna array - Israel Only
WS-AP3620	Dual Radio 802.11a/b/g/n, 3x3:2, indoor access point with three reverse polarity SMA connectors for external antennas
WS-AP3620-IL	Dual Radio 802.11a/b/g/n, 3x3:2, indoor access point with three reverse polarity SMA connectors for external antennas - Israel Only
ANTENNAS (OPTIONAL FOR AP3620)	
WS-AI-DT04360	Indoor, 2.4GHz / 5GHz, Triple-feed, 3/4 dBi, Omni, Ceiling
WS-AI-DT05120	Indoor, 2.4GHz / 5GHz, Triple-feed, 5 dBi, 120 deg, Sector
WS-AO-5D16060	Outdoor, 5.15-5.875 GHz, Dual-polarization 16 dBi, 60 deg, sector antenna with reverse polarity type-N jack connector
WS-AO-5D23009	Outdoor, 5.15-5.875 GHz, Dual-polarization, 23 dBi, 9 deg, panel antenna with reverse polarity type-N jack connector
WS-AO-DS05360	Outdoor, 2.4-2.5/5.15-5.875 GHz, 5 dBi, omnidirectional, baton antenna with reverse polarity type-N jack connector
CABLES	
WS-CAB-PT20P	20 inch pigtail with reverse polarity type-N plug used to connect AP to lightning protector or directly to an antenna
WS-CAB-PT20J	20 inch pigtail with reverse polarity type-N jack used to connect AP to the LMR cables
WS-CAB-LPM	Dual-band lightning protector with reverse polarity type-N jack on both ends
WS-CAB-6DBATTN	6db attenuator with RSMA connectors
WS-CAB-10DBATTN	10db attenuator with RSMA connectors
WS-CAB-L200C20	20 foot LMR200 cable with reverse polarity type-N plugs on both ends
WS-CAB-L400C06	6 foot LMR400 cable with reverse polarity type-N plugs on both ends
WS-CAB-L400C50	50 foot LMR400 cable with reverse polarity type-N plugs on both ends
ACCESSORIES (OPTIONAL)	
WS-MB361020-01	Secure mounting Kit with Kensington lock slot and integrated cable routing for AP36xx
WS-MB361020-12	Drop ceiling mounting bracket for indoor AP36xx (9/16 or 15/16 rail)
WS-MB361020-13	Drop ceiling mounting bracket for indoor AP36xx (1 1/2 inch rail)
WS-MB361020-21	Drop ceiling rail adjustable bracket for 1/2", 15/16" and 1 1/2 rails" (requires WS-MB361020-01 to be ordered seperately)
WS-MBUNIVERSAL-01	Universal mounting bracket adapter for existing installs (Cisco, Aruba, Trapeze, RoamAbout) - Refer to manual for specific access point model support
WS-PS361020-MR	AP36xx AC Power Supply - Multi-Region (not available in the EU)
WS-PS3X48-MR	AP3000 Series AC Power Supply - Multi-Region
MID-SPAN POE DEVICES (OPTIONAL)	
PD-3501G-ENT	Single port, 1 Gigabit 802.3af PoE Midspan



## 802.11n Performance Data Rates (Mbps)

	SPATIAL STREAMS	HT20 NORMAL GI	HT20 SHORT GI	HT40 NORMAL GI	HT40 SHORT O
MCSO	1	6.5	NA	13.5	15
MCS1	1	13	NA	27	30
MCS2	1	19.5	NA	40.5	45
MCS3	1	26	NA	54	60
MCS4	1	39	NA	81	90
MCS5	1	52	NA	108	120
MCS6	1	58.5	NA	121.5	135
MCS7	1	65	72.2	135	150
MCS8	2	13	NA	27	30
MCS9	2	26	NA	54	60
MCS10	2	39	NA	81	120
MCS11	2	52	NA	108	150
MCS12	2	78	NA	162	180
MCS13	2	104	NA	216	240
MCS14	2	117	NA	243	270
MCS15	2	130	144.4	270	300
MCS16	3	19.5	NA	40.5	45
MCS17	3	39	NA	81	90
MCS18	3	58.5	NA	121.5	135
MCS19	3	78	NA	162	180
MCS20	3	117	NA	243	270
MCS21	3	156	173.3	324	360
MCS22	3	175.5	195	364.5	405
MCS23	3	195	216.7	405	450



### **Receive Sensitivity (dBm)**

2.4GHZ/5GHZ					
	SPATIAL STREAMS	HT20 NORMAL GI	HT40 NORMAL GI	HT40 SHORT GI	
MCSO	1	6.5	13.5	15	
MCS1	1	13	27	30	
MCS2	1	19.5	40.5	45	
MCS3	1	26	54	60	
MCS4	1	39	81	90	
MCS5	1	52	108	120	
MCS6	1	58.5	121.5	135	
MCS7	1	65	135	150	
MCS8	2	13	27	30	
MCS9	2	26	54	60	
MCS10	2	39	81	120	
MCS11	2	52	108	150	
MCS12	2	78	162	180	
MCS13	2	104	216	240	
MCS14	2	117	243	270	
MCS15	2	130	270	300	

#### Warranty

As a customer-centric company, Extreme Networks is committed to providing quality products and solutions. In the event that one of our products fails due to a defect, we have developed a comprehensive warranty that protects you and provides a simple way to get your products repaired or media replaced as soon as possible. For full warranty terms and conditions please go to:

www.extremenetworks.com/support/warranty.aspx.

#### **Service & Support**

Extreme Networks Networks provides comprehensive service offerings that range from Professional Services to design, deploy and optimize customer networks, customized technical training, to service and support tailored to individual customer needs. Please contact your Extreme Networks account executive for more information about Extreme Networks Service and Support.



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