

3805i/e Indoor Access Point

Enterprise-Grade Performance and Security Without the Premium Cost

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 accordance with business needs
- Seamless roaming across an entire multi-subnet 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 Control Center accelerates problem resolution, optimize network utilization, and automate management
- Adaptive architecture reduces complexity and optimizes information flow for each application
- Dynamic Radio Management when used for planning and monitoring ensures optimal spectrum coverage resulting in the best end-user quality of experience
- Flexible Client Access optimizes throughput for 802.11ac/n clients in today's mixed ac, n, and a/b/g client environments



Product Overview

The AP3805 is a feature rich 802.11ac and 802.11abgn indoor access point that delivers enterprise-grade performance and security without the premium cost. Designed to blend into the office, classroom or hotel environment, the AP3805 is ideal for providing secure 802.11ac and 802.11abgn connectivity for medium-density environments such as schools, hotels and conference centers.

The AP3805i comes with an integrated four antenna array for ease of installation. The AP3805e requires professional installation and includes four RP-SMA antenna connectors supporting both 2.4GHz and 5GHz band antennas. AP3805 uses 802.3af Power over Ethernet (PoE) without reducing its performance nor degrading its enterprise-grade capabilities. An optional external power supply is available for deployments that do not support Power over Ethernet.

The AP3805 is built on the latest Wi-Fi technology including 802.11ac, dynamic radio management, and spectrum analysis with interference classification, beam forming, self-forming and self-healing meshing, security, role-based authentication, authorization, and access control. The 2x2:2 platform is capable of delivering up to 1.17Gbps over-the-air-performance and up to 40,000 packets per second on the wire port. The AP3805 comes with brackets to be installed on to most drop ceiling and wall mounts. Multiple antenna offerings (e.g., omni, sector, and panel) ensure that the AP3805e deployment can be optimized to meet any unique coverage or capacity need.

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

Specifications

PRODUCT FEATURES	AP3805I/E
GENERAL	
High performance enterprise class AP	✓
Number of radios	2
MIMO implementation for high performance 11ac and 11n throughputs	2x2
Number of spatial streams	2
Maximum Throughput 2.4GHz Radio	300Mbps
Maximum Throughput 5GHz Radio	867Mbps
Maximum Throughput per AP	1.17Gbps
RFC2285 Wire/Wireless Forwarding Rate	40,000 packets per second
Number of SSIDs supported per radio/total	8 / 16
Simultaneous users per radio/total	312
Simultaneous users per AP	12 or greater
Mode of operation	Semi-autonomous
Plug and play operation/Zero touch deployment	✓
Security and Standards	WPA, WPA2 (AES), 802.11i, 802.1x, IPsec, IKEv2, PKCS #10, X509 DER / PKCS #12
MULTIPLE OPERATING MODES	
Intelligent thin AP	Encryption, Security, QoS and RF management done on AP
Distributed and centralized data paths within same SSID	✓
Application based distributed and centralized data paths within same user/device session	✓
Simultaneous RF monitoring and client services	✓
In-channel WIDS	✓
In-channel WIPS	✓
Dedicated multi-channel WIDS (Guardian mode)	✓
Dedicated multi-channel WIPS (Guardian mode)	✓
Dedicated multi-channel RF spectrum analysis and fingerprinting	✓
Locates devices and threats via RF triangulation	✓
Self-forming and self-healing meshing	✓
Remote access point	✓
Hardware-based, end-to-end data and control plane encryption	✓
Private and public cloud deployments	✓
HYBRID OPERATION	
Security scanning and serve clients on same radio	✓
Security scanning and spectrum analysis on same radio	✓
Spectrum analysis and serve clients on same radio	✓
Multi-channel dedicated security scanning and spectrum analysis	✓
MAX RADIATED POWER	
Radio 1 (5GHz)	26 dBm*
Radio 2 (2.4GHz)	25 dBm*
Max antenna gain (integrated antenna)	

* Actual available power would vary based on local regulatory requirement and actual channels used for operation

PRODUCT FEATURES	AP3805I/E
MAX ANTENNA GAIN (INTEGRATED ANTENNA)	
Radio 1 (5GHz)	5 dBi (AP3805i)
Radio 2 (2.4GHz)	3 dBi (AP3805i)
ADAPTIVE RADIO MANAGEMENT	
Dynamic Channel Control	802.11h: DFS and TPC support (ETSI)
Support for Protection Management Frame 802.11w	✓
Radio Resource Management (support for 802.11k)	✓
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	✓
Mitigates adjacent channel interference with optimized receive sensitivity	✓
Efficient reuse of channels at shorter intervals	✓
Mitigates non 802.11 interference without dedicated radios	✓
QOS FOR APPLICATIONS	
Quality of Service (WMM, 802.11e)	✓
Power Save (U-APSD)	✓
Fast secure roaming and handover between APs	✓
Support for 802.11r	✓
Pre-Authentication (Pre-Auth)	✓
Opportunistic Key Caching (OKC)	✓
Bonjour/LLMNR/UPnP identification, containment and control	✓
Supports voice, video and data using the same SSID	✓
Prioritizes 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 802.11ac: See 802.11ac Performance Table below Receiver Sensitivity 802.11a: • -92dBm @ 6Mbps • -77dBm @ 54Mbps 802.11g: • -91dBm @ 6Mbps • -78dBm @ 54Mbps 802.11n: See 802.11n Receiver Sensitivity Table below 802.11ac: See 802.11ac Receiver Sensitivity Table below

PRODUCT FEATURES	AP3805I/E
WIRELESS SERVICES	
Frequency Bands	802.11ac/a/n: <ul style="list-style-type: none"> • 5.15 to 5.25 GHz (FCC/IC/ETSI) • 5.25 to 5.35 GHz (FCC/IC/ETSI)* • 5.47 to 5.725 GHz (FCC/IC/ETSI)* • 5.725 to 5.850 GHz (FCC/IC) 802.11b/g/n: <ul style="list-style-type: none"> • 2.400 to 2.4720 GHz (FCC/IC) • 2.400 to 2.4835 GHz (ETSI) *FCC/IC DFS certification in progress
Wireless Modulation	802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM with OFDM 802.11ac Packet aggregation: A-MPDU, A-MSDU 802.11ac Very High-Throughput (VHT): VHT20/40/80 802.11ac Advanced Features: LDPC, STBC, Maximum Likelihood (ML) Detection 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 802.11n Advanced Features: LDPC, STBC and TxBF 802.11a: BPSK, QPSK, 16QAM, 64QAM with OFDM 802.11g: DSSS and OFDM 802.11b: DSSS
INTERFACES	
# 10/100/1000 Base T Ethernet autosensing link	1
MOUNTING	
Wall mounting (included)	✓
Flush and Protruded drop-ceiling mounting bracket (9/16" and 15/16" flat T-bar included)	✓
ENVIRONMENTAL	
Environmental	Plenum rated (UL 2043) Operating: Temperature 0° C to +45° C (+32° F to +113° F) Humidity 0%-95% (noncondensing) Storage: Temperature -50° C to +70° C (-58° F to +158° F) Transportation: Temperature -50° C to +70° C (-58° F to +158° F)
WIRELESS AND EMC	
Compliance	•FCC CFR 47 Part 15, Class B •ICES-003 Class B •FCC Subpart C 15.247 •FCC Subpart E 15.407 •RSS-210 •EN 301 893 •EN 300 328 •EN 301 489 1 and 17 •EN 62311 •EN 55022 (CISPR 22) •EN 60601-1-2 •AS/NZS4268 + CISPR22
Safety	•IEC 60950-1 •EN 60950-1 •UL 60950-1 •CSA 22.2 No.60950-1-03 •AS/NZS 60950.1
MECHANICAL	
Dimensions (Outer Diameter x Height)	6.18" x 1.63" - AP3805i 6.71" x 2.03" - AP3805e
Weight	0.75 lbs (0.34 kg) - AP3805i 0.84 lbs (0.38 kg) - AP3805e
Max power consumption	9.6W
Warranty	Lifetime

Ordering Information

PART NUMBER	DESCRIPTION
ACCESS POINTS	
WS-AP3805i	Dual Radio 802.11ac/abgn, 2x2:2 MIMO indoor access point with four internal antenna array (Requires V9.15.01 or higher)
WS-AP3805e	Dual Radio 802.11ac/abgn, 2x2:2 MIMO indoor access point with four reverse polarity SMA connectors for external antenna array (Requires V9.15.02 or higher, and antennas must be ordered separately)
ANTENNAS (REQUIRED FOR AP3805E)	
WS-ANT-2DIP-2	2.4GHz Indoor Dipole Antenna for 3805e only (2 pack)
WS-ANT-5DIP-2	5GHz Indoor Dipole Antenna for 3805e only (2 pack)
WS-AI-DD05120 (Only is ETSI regulatory domain countries)	Indoor, 2.4GHz/5GHz, Dual-feed, 5/5 dBi, 120 deg, Sector antenna (not available in the FCC/NAM regulatory domain)
WS-AI-DQ04360	Indoor, 2.4GHz/5GHz, Quad-feed, 4/4 dBi, Omni
ACCESSORIES	
WS-MBI-DCU01	Universal Mounting brackets for drop ceiling rails
WS-PSI12V-MR1	Multi-region 12V Indoor External Power Supply for the AP3805i/e
WS-MBI-WALL02	Indoor wall jack mounting bracket
MID-SPAN POE DEVICES	
PD-3501G-ENT	Single port, 1 Gigabit 802.3af PoE Midspan

802.11ac Performance

DATA RATES (MBPS)

	STREAMS	VHT20		VHT40		VHT80	
		NORMAL GI	SHORT GI	NORMAL GI	SHORT GI	NORMAL GI	SHORT GI
MCS0	1	6.5	7.2	13.5	15	29.3	32.5
MCS1	1	13	14.4	27	30	58.5	65.0
MCS2	1	19.5	21.7	40.5	45	87.8	97.5
MCS3	1	26	28.9	54	60	117.0	130.0
MCS4	1	39	43.3	81	90	175.5	195.0
MCS5	1	52	57.8	108	120	234.0	260.0
MCS6	1	58.5	65	121.5	135	263.3	292.5
MCS7	1	65	72.2	135	150	292.5	325.0
MCS8	1	78.0	86.7	162.0	180.0	351.0	390.0
MCS9	1	NA	NA	180.0	200.0	390.0	433.3
MCS0	2	13	14.4	27	30	58.5	65.0
MCS1	2	26	28.9	54	60	117.0	130.0
MCS2	2	39	43.3	81	90	175.5	195.0
MCS3	2	52	57.8	108	120	234.0	260.0
MCS4	2	78	86.7	162	180	351.0	390.0
MCS5	2	104	115.6	216	240	468.0	520.0
MCS6	2	117	130	243	270	526.5	585.0
MCS7	2	130	144.4	270	300	585.0	650.0
MCS8	2	156.0	173.3	324.0	360.0	702.0	780.0
MCS9	2	NA	NA	360.0	400.0	780.0	866.7

802.11n Performance

DATA RATES (MBPS)

		2.4GHZ		5GHZ	
	DATA STREAMS	HT20 NORMAL GI	HT20 SHORT GI	HT40 NORMAL GI	HT40 SHORT GI
MCS0	1	6.5	7.2	13.5	15
MCS1	1	13	14.4	27	30
MCS2	1	19.5	21.7	40.5	45
MCS3	1	26	28.9	54	60
MCS4	1	39	43.3	81	90
MCS5	1	52	57.8	108	120
MCS6	1	58.5	65	121.5	135
MCS7	1	65	72.2	135	150
MCS8	2	13	14.4	27	30
MCS9	2	26	28.9	54	60
MCS10	2	39	43.3	81	90
MCS11	2	52	57.8	108	120
MCS12	2	78	86.7	162	180
MCS13	2	104	115.6	216	240
MCS14	2	117	130	243	270
MCS15	2	130	144.4	270	300

Receiver Sensitivity (dBm)

RECEIVER SENSITIVITY			
RATE	20 MHZ (dBm)	40 MHZ (dBm)	80 MHZ (dBm)
(MCS0, 1)	-92	-89	-86
(MCS1, 1)	-91	-88	-85
(MCS2, 1)	-88	-85	-82*
(MCS3, 1)	-84	-81	-78
(MCS4, 1)	-81	-78	-75
(MCS5, 1)	-77	-74	-71
(MCS7, 1)	-75	-72	-69
(MCS6, 1)	-74	-71	-68
(MCS8, 1)	-70	-67	-64
(MCS9, 1)	NA	-65	-62
(MCS0, 2)	-89	-86	-83
(MCS1, 2)	-88	-85	-82
(MCS2, 2)	-85	-82	-79
(MCS3, 2)	-81	-78	-75
(MCS4, 2)	-78	-75	-72
(MCS5, 2)	-74	-71	-68
(MCS6, 2)	-72	-69	-66
(MCS7, 2)	-71	-68	-65
(MCS8, 2)	-67	-64	-61
(MCS9, 2)	NA	-62	-59

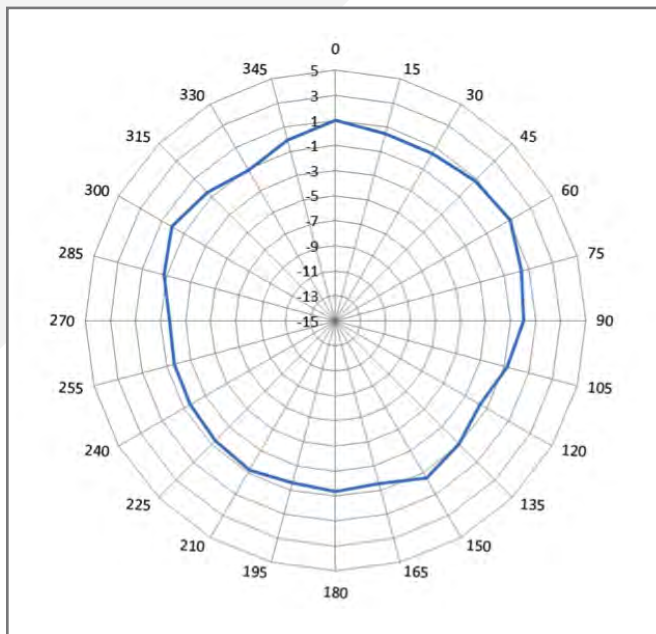
RATE	dBm
54Mbps	-77
48Mbps	-80
36Mbps	-83
24Mbps	-85
18Mbps	-88
11Mbps	-91
9Mbps	-92
6Mbps	-92

RECEIVER SENSITIVITY		
RATE	20 MHZ (dBm)	40MHZ (dBm)
MCS0	-91	-88
MCS1	-91	-88
MCS2	-90	-87
MCS3	-86	-83
MCS4	-83	-80
MCS5	-79	-76
MCS6	-77	-74
MCS7	-76	-73
MCS8	-88	-85
MCS9	-88	-85
MCS10	-87	-84
MCS11	-83	-80
MCS12	-80	-77
MCS13	-76	-73
MCS14	-74	-71
MCS15	-73	-70

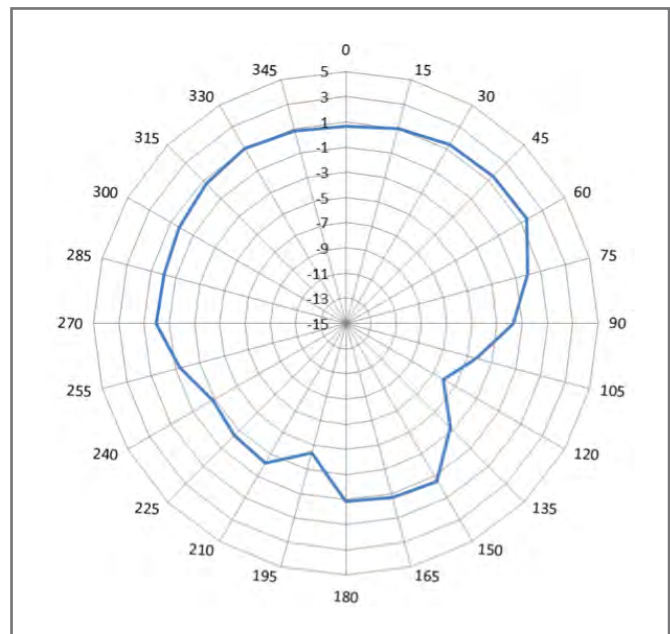
RATE	dBm
54Mbps	-78
48Mbps	-80
36Mbps	-83
24Mbps	-86
18Mbps	-88
12Mbps	-90
9Mbps	-91
6Mbps	-91

3805i Antenna Radiation Patterns

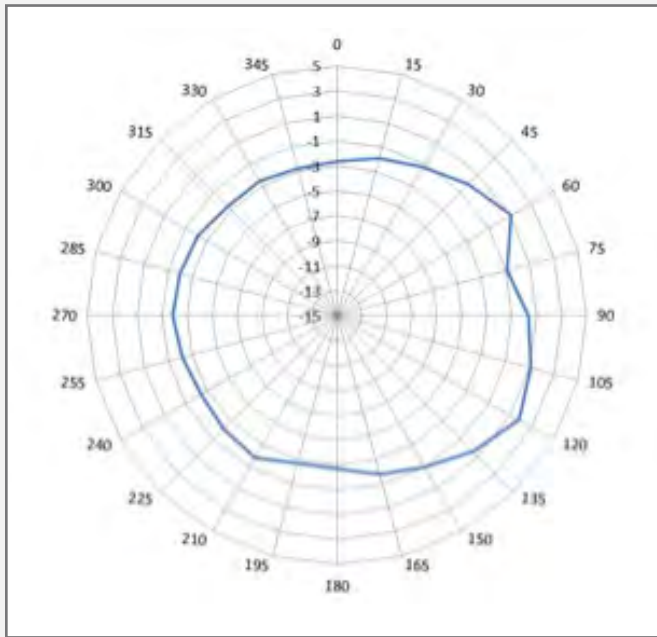
HORIZONTAL RADIATION PATTERN 2.4GHZ



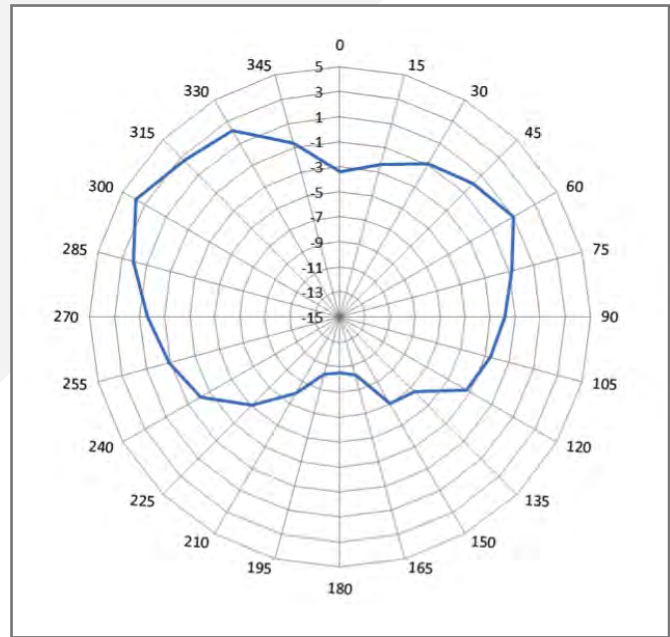
VERTICAL RADIATION PATTERN 2.4GHZ



HORIZONTAL RADIATION PATTERN 5GHZ



VERTICAL RADIATION PATTERN 5GHZ



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:
<http://support.extremenetworks.com>

Service and Support

Extreme Networks provides comprehensive service offerings that range from Professional Services to design, deploy and optimization of 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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