Enterasys AP3705i Indoor Access Point

Enterprise-grade performance and security without the premium cost

Product Overview

The AP3705i is a feature-rich 802.11abgn access point leveraging the newest radio technology to reduce cost without sacrificing functionality. Designed to blend into office, classroom, or hotel environments, the AP3705i is ideal for providing secure 11abgn connectivity for high-density environments such as schools, hotels, and conference centers. The 3705i comes packed with the latest in WiFi technology including dynamic radio management, beamforming, spectrum analysis with interference classification, self-forming and self-healing meshing, security, role-based authentication, authorization, and access control. Optimized for drop ceiling deployments, the 2x2:2 platform is equipped with an integral four antenna array with beamforming, capable of supporting 600Mbps over-the-air-performance and up to 40,000 packets per second on the wire port. The 3705i comes with integral clips allowing the AP to be installed directly onto most drop ceilings right out-of-the-box. This green AP uses less than 9W of power fully loaded and includes the Enterasys Lifetime Warranty making it the best value in the industry!

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 Enterasys Wireless Management Suite and Enterasys 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

There is nothing more important than our customers.

Specifications

Product Features	3705i
General	
High performance enterprise class AP	✔
Number of radios	2
MIMO implementation for high performance 11n throughputs	2x2
Number of spatial streams	2
Maximum throughput per radio / total	300Mbps / 600Mbps
Wired performance in packets per second (pps)	40,000 pps
Number of SSIDs per radio / total	8 / 16
Simultaneous users per radio / total	127 / 254
Mode of operation	Semi-Autonomous
Plug and play operation/zero touch deployment	✔
AP and the controller run the same firmware versions	✔
Security and Standards	WPA, WPA2 (AES), 802.11i, 802.1x, IPSec, IKEv2, PKCS #10, X509 DER / PKCS #12
Multiple operating modes	
Clients serving access points	✔
Intelligent thin AP	Encryption, Security, QoS and RF management done on AP
Bridging data traffic at AP and/or at controller simultaneously	✔
Simultaneous RF monitoring and client services	✔
Integrated in-channel WIDS	V8.21
Integrated in-channel WIPS	V8.21
Integrated remote access point	✔
Integrated RF spectrum analysis and fingerprinting	V8.21
Integrated self-forming and self-healing meshing	✔
Hybrid operation	
Perform security scanning and serve clients on same radio	✔
Perform security scanning and spectrum analysis on same radio	V8.21
Perform spectrum analysis and serve clients on same radio	V8.21
Radio characteristics	
Max transmit power (dBm)	
Radio 1 (5GHz)	23 dBm
Radio 2 (2.4GHz)	23 dBm
Receive sensitivity (dBm)	See table below
Max Antenna gain (dBi)	
Radio 1 (5GHz)	3 dBi
Radio 2 (2.4GHz)	3 dBi
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	✔
Mitigate adjacent channel interference with optimized receive sensitivity	✔
Efficient reuse of channels at shorter intervals	✔
Mitigates non 802.11 inference without dedicated radios	V8.21
QoS for Applications	
Quality of Service (WMM, 802.11e)	✔
Call Admission Control (TSPEC)	✔
Power Save (U-APSD)	✔
Fast secure roaming and handover between APs	✔
Pre-Authentication (Pre-Auth)	✔
Opportunistic Key Caching (OKC)	✔
Multicast Rate Control	✔
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	✔
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) • 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: • 2.400 to 2.4835 GHz (FCC / IC / ETSI)
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 802.11n Advanced Features: LDCP, STBC and TxBF
Interfaces	
# 10/100/1000 Base-T Ethernet autosensing link	1
Console port for the ease of installation and management	✔
Mounting	
Tool-less drop ceiling rail (9/16, 15/16, 1.5") installation	✔
Integrated/built-in drop ceiling rail clips	✔

Environmental	Plenum rated 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: Temperature -40° C to +70° C (-40° F to +158° F)
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 & 17 •EN / UL 60601-1-2 •EN 50385 •EN 55011 (CISPR 11) Class B Group 1 ISM •EN 55022 (CISPR 22) •AS/NZS3548 (CISPR22) International (including China) •IEC 60950-1 •IEC 60825 Europe •EN 60950-1 •EN 60825 USA / Canada / Mexico (NAFTA) •UL 60950-1 •CSA 22.2 No.60950-1-03 •UL 2043 (Plenum rating) Australia •AS/NZS 60950.1
Mechanical	
Dimension (Outer Diameter x Height)	6.625" OD, 1.75" Height (168.275mm OD, 44.45mm Height)
Weight	24.692 oz (700 g)
Maximum Power Consumption	9W
Warranty	Lifetime

Ordering Information

| Part Number	Description
Access Point	
WS-AP3705i	Dual Radio 802.11a/b/g/n, 2x2:2, indoor access point with four internal antenna array (integrated clips for flushed rail drop ceiling mounting)
Accessories (Optional)	
WS-MB3705-01	Secure wall mounting bracket for AP3705
WS-MB3705-02	Protruded drop ceiling mounting bracket for AP3705
Mid-Span PoE Devices (Optional)	
PD-3501G-ENT	Single port, 1 Gigabit 802.3af PoE Midspan

802.11n Performance

Data Rates (Mbps)

	2.4GHz/5GHz				
	Spatial Streams	HT20 Normal GI	HT20 Short GI	HT40 Normal GI	HT40 Short GI
MCS0	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

Receive Sensitivity (dBm)

		2.4GHz		5GHz	
	Spatial Streams	HT20 (20MHz)	HT40 (40MHz)	HT20 (20MHz)	HT40 (40 MHz)
MCS0	1	-94	-92	-95	-92
MCS1	1	-93	-91	-94	-91
MCS2	1	-91	-88	-93	-88
MCS3	1	-88	-86	-87	-86
MCS4	1	-84	-82	-83	-82
MCS5	1	-80	-78	-81	-77
MCS6	1	-78	-76	-78	-76
MCS7	1	-77	-74	-76	-73
MCS8	2	-93	-91	-94	-91
MCS9	2	-92	-90	-93	-90
MCS10	2	-91	-88	-93	-88
MCS11	2	-88	-86	-87	-86
MCS12	2	-84	-82	-83	-82
MCS13	2	-80	-78	-81	-77
MCS14	2	-78	-76	-78	-76
MCS15	2	-73	-70	-72	-67

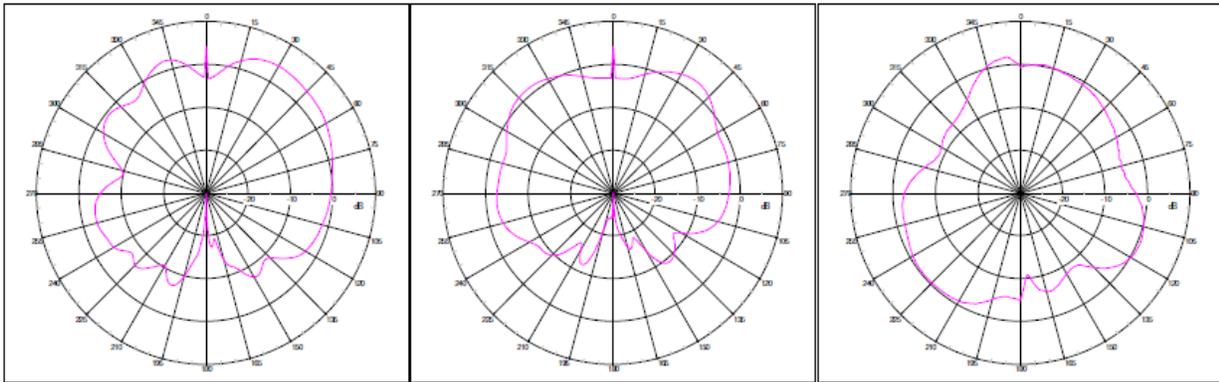# 3705i Antenna Patterns
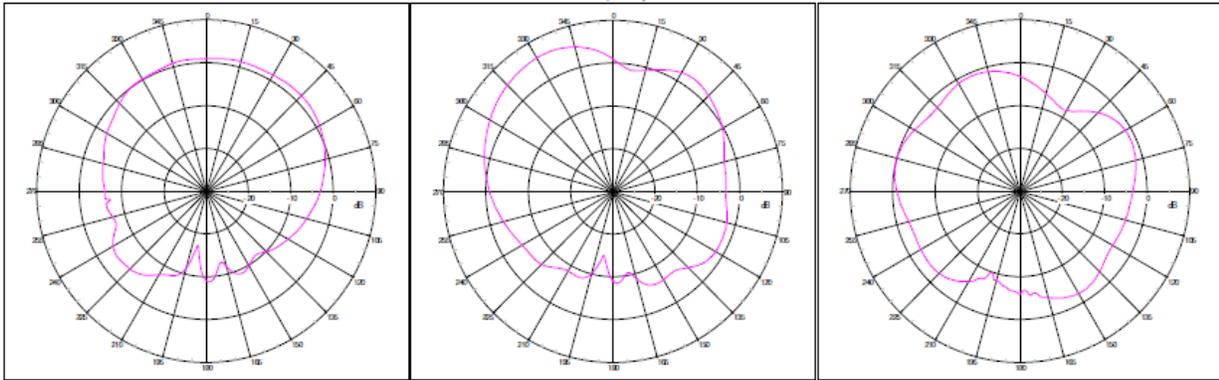
2.4GHz   X-Z plane   Y-Z plane   X-Y plane
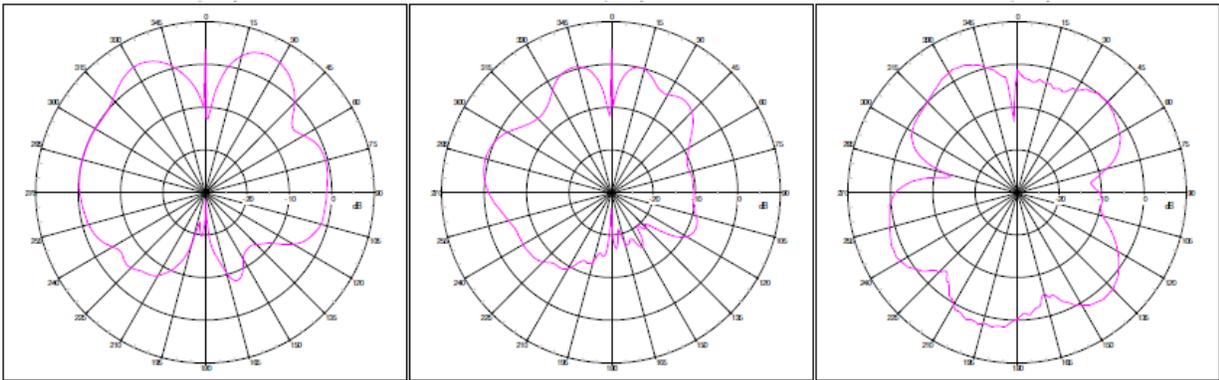
5.15GHz   X-Z plane   Y-Z plane   X-Y plane
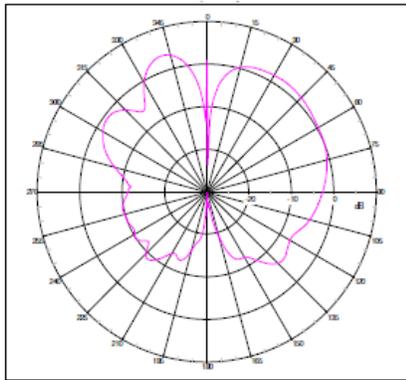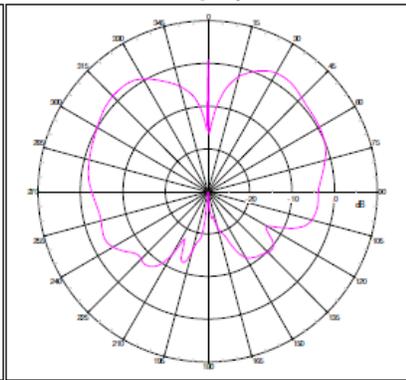
5.35GHz   X-Z plane   Y-Z plane   X-Y plane
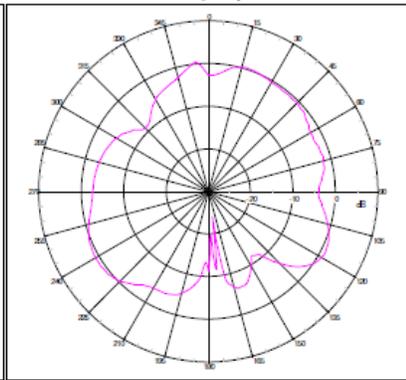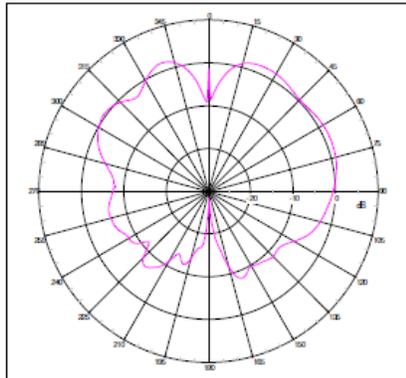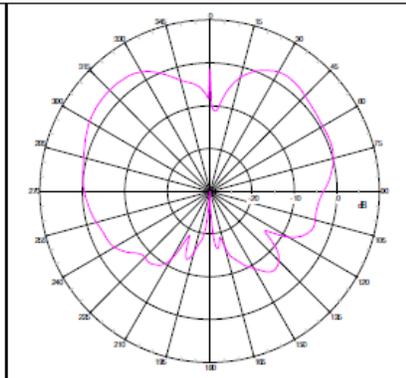
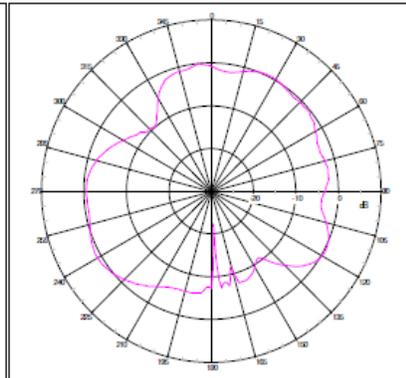5.65GHz   X-Z plane   Y-Z plane   X-Y plane

5.825GHz   X-Z plane   Y-Z plane   X-Y plane

Warranty

As a customer-centric company, Enterasys 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://www.enterasys.com/support/warranty.aspx.

Contact Us

For more information, call Enterasys Networks toll free at 1-877-801-7082, or +1-978-684-1000 and visit us on the Web at enterasys.com

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Delivering on our promises. On-time. On-budget.