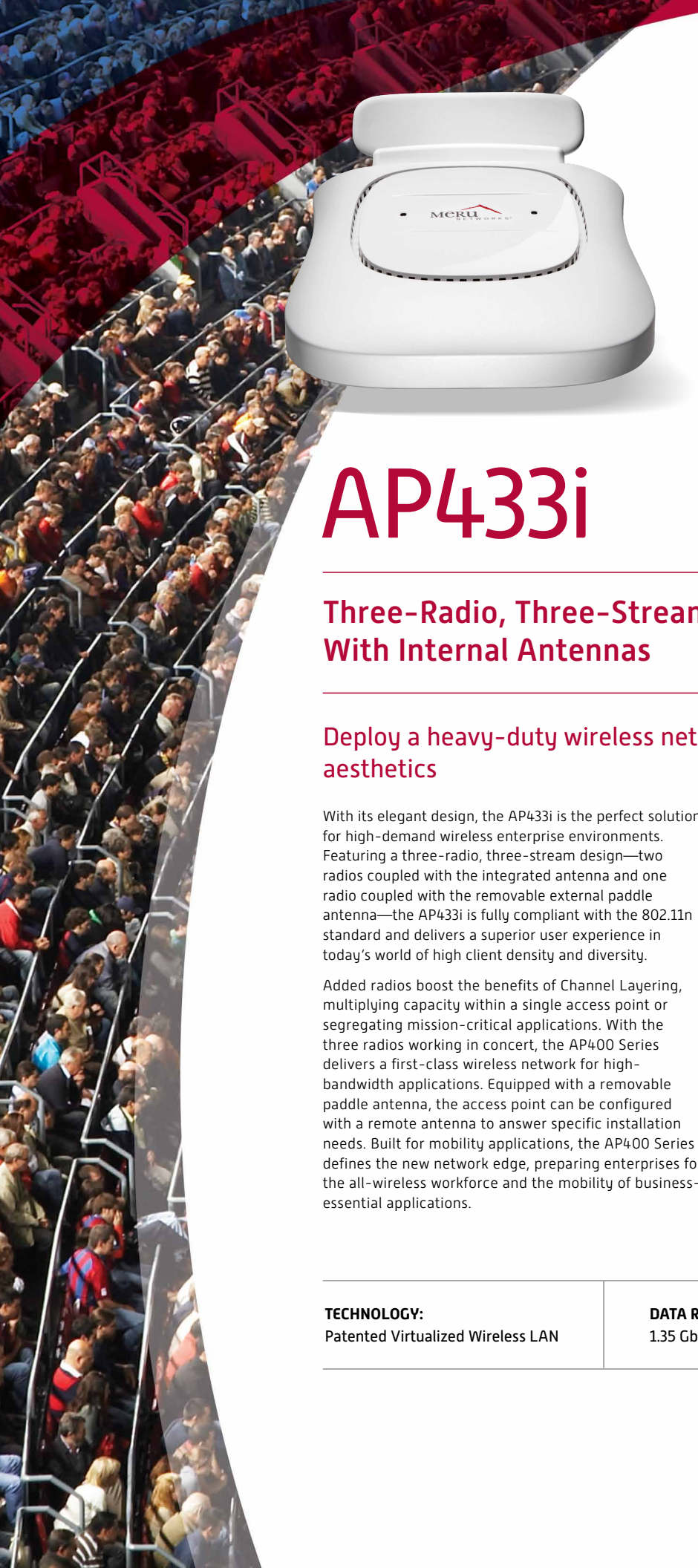

Meru Networks®

CAROLINA ADVANCED DIGITAL, INC
IT INFRASTRUCTURE | SECURITY | MANAGEMENT
www.cadinc.com
800.435.2212

AP433i

Three-Radio, Three-Stream 802.11N Access Point With Internal Antennas

Deploy a heavy-duty wireless network without sacrificing office aesthetics

With its elegant design, the AP433i is the perfect solution for high-demand wireless enterprise environments. Featuring a three-radio, three-stream design—two radios coupled with the integrated antenna and one radio coupled with the removable external paddle antenna—the AP433i is fully compliant with the 802.11n standard and delivers a superior user experience in today's world of high client density and diversity.

Added radios boost the benefits of Channel Layering, multiplying capacity within a single access point or segregating mission-critical applications. With the three radios working in concert, the AP400 Series delivers a first-class wireless network for high-bandwidth applications. Equipped with a removable paddle antenna, the access point can be configured with a remote antenna to answer specific installation needs. Built for mobility applications, the AP400 Series defines the new network edge, preparing enterprises for the all-wireless workforce and the mobility of business-essential applications.

Designed for multiple office configurations, the AP433i can be mounted with a security lock directly on a suspended ceiling or to a wall with a wall-mounting bracket.

AP433i Benefits:

- Combines an elegant design with the power of a 3-radio wireless solution
- Maximizes performance and gain, minimizes interference through Orthogonal Array Beam Forming antenna system
- Support for Meru's Service Assurance Application Suite including: E{z}RF™ Network Manager, WIPS, and PCI Compliance Manager
- Plug-and-play deployment using centralized Meru Controller
- Supports all 802.11 a/b/g/n devices
- Tool-free, tamper-proof installation
- All radios are three streams — 3x3:3 802.11n support in both 2.4 GHz and 5 GHz frequency bands

TECHNOLOGY:	**DATA RATE:**	**CONNECTIVITY:**
Patented Virtualized Wireless LAN	1.35 Gbps	380 clients

For more information about the AP433i, visit **www.merunetworks.com**

AP433i

TECHNICAL SPECIFICATIONS

APPLICATION SUPPORT AND OVER-THE-AIR QoS

SIP and H.323 Support
Dynamic out-of-the-box support for SIP and H.323 applications and codecs

QoS
Configurable dynamic QoS rules over-the-air resource reservation
Automatic, stateful flow detectors for SIP, H.323
Configurable QoS rules for SIP, H.323, Ascom, Avaya, Microsoft, Polycom, Siemens, Shoretel, Vocera, and Cisco SCCP
User-configurable static and dynamic QoS rules per application (user-defined) and per user (stations, users, and port numbers)
Call Admissions Control and Call Load Balancing
WMM support
WMM rate adaptation, optimized based on real-time network conditions

SECURITY

Authentication
Combination of captive portal, 802.1x and open authentication
Advanced security using WPA2802.1x with EAP-Transport Layer Security (EAP-TLS), Tunneled TLS (EAP-TTLS), Protected EAP (PEAP) MSCHAPv2, Smartcard/Certificate, Lightweight EAP (LEAP), EAP-FAST and EAP- MD5, with mutual authentication and dynamic, per user, per session unicast and broadcast keys
Secure HTTPS w/customizable Captive Portal utilizing RADIUS

Encryption Support
Static and dynamic 40-bit and 128-bit WEP keys, TKIP with MIC, AES

Security Policy
RADIUS-assisted, per user and per ESSID access control via MAC filtering; multiple ESSID/BSSID each with flexibility of separate and shared security policy

Rogue Detection and Suppression
All radios capable of scanning 802.11n, 802.11a, and 802.11b/g for rogue devices

MOBILITY

Zero-loss Handoffs
Infrastructure-controlled zero-loss handoff mechanism for standard Wi-Fi clients

CENTRALIZED MANAGEMENT

Zero-Configuration
Automatically selects power and channel settings
Automatically discovers controllers and download configuration settings
Zero touch, plug-and-play deployments

System Management
Centralized and remote management and software upgrades via System Director web-based GUI, SNMP, command-line interface (CLI) via serial port, SSH, Telnet, centrally managed via E(z)RF Management Suite
Centralized security policy for WLAN, Multiple ESSIDs and VLANs with their own administrative/security policies

Intelligent RF Management
Coordination of access points with load-balancing for predictable performance; centralized auto-discovery, auto-channel configuration, and auto-power selection for APs; co-channel interference management

WIRELESS SPECIFICATIONS

Wireless Standards
IEEE 802.11 a/b/g/n, IEEE 802.11i support (AES, WEP, WPA, WPA2), IEEE 802.11e, WMM

Power Management
Optimal power control in 1 dBm increments; ability to disable unused radios via software to lower power consumption

Antenna
Internal PIFA dual-band 3 x 3 MIMO: 4.0 dBi at 2.4 GHz and 5.0 dBi at 5 GHz (included), removable external paddle dipole dual-band 3x3 MIMO: 3.0 dBi at 2.4 GHz and 4.0 dBi at 5 GHz (included)

Client Support
Support for clients that perform active scanning and passive scanning
Support for clients that pre-authenticate
Support for clients that change to and from power save mode rapidly
Power save mode for clients in both QoS mode and non-QoS mode

IEEE 802.11n

Frequency Band
2.412 to 2.472 GHz, 5.18 to 5.32 GHz, 5.5 to 5.825 GHz (frequency range per country codes)

Operating Channels
1 through 11 for 2.4 GHz band (Americas, 1–13 all others)36 through 165 for 5 GHz band (per country codes)

Data Rates (800 nS GI Mbps/400 nS GI Mbps)
20 MHz: 195.0/216.7, 175.5/195.0, 156.0/173.3, 130.0/144.4, 117.0/130.0, 104.0/115.6, 78.0/86.7, 65.0/72.2, 58.5/65.0, 52.0/57.8, 39.0/43.3, 26.0/28.9, 19.5/21.7, 13.0/14.4, 6.5/7.2 Mbps
40 MHz: 405.0/450.0, 364.5/405.0, 324.0/360.0, 270.0/300.0, 243.0/270.0, 216.0/240.0, 162.0/180.0, 135.0/150.0, 121.5/135.0, 108.0/120.0, 81.0/90.0, 54.0/60.0, 40.5/45.0, 27.0/30.0,13.5/15.0 Mbps

Average Transmit Power
2.4n (20 HT) MCS0/8/16: 21 dBm, 2.4n (40 HT) MCS0/8/16: 20 dBm
2.4n (20 HT) MCS7/15/23: 17 dBm, 2.4n (40 HT) MCS7/15/23: 16 dBm
5.0n (20 HT) MCS0/8/16: 18 dBm, 5.0n (40 HT) MCS0/8/16: 17 dBm
5.0n (20 HT) MCS7/15/23: 15 dBm, 5.0n (40 HT) MCS7/15/23: 14 dBm

Receive Sensitivity (for max data rates)
2.4n (20 HT) MCS0/8/16: -92 dBm, 2.4n (40 HT) MCS0/8/16: -93 dBm
2.4n (20 HT) MCS7/15/23: -76 dBm,2.4n (40 HT) MCS7/15/23: -74 dBm
5.0n (20 HT) MCS0/8/16: -93 dBm, 5.0n (40 HT) MCS0/8/16: -92 dBm
5.0n (20 HT) MCS7/15/23: -75 dBm,5.0n (40 HT) MCS7/15/23: -71 dBm

IEEE 802.11a

Frequency Band
5.180–5.240 GHz; 8 Channels (34, 36, 38, 40, 42, 44, 46, 48), 5.280–5.320 GHz; 4 Channels (52, 56, 60, 64), 5.745–5.825 GHz; 5 Channels (149, 153, 157, 161, 165), 5500–5700: 11 channels (100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140)

Operating Channels
Configurable based on country regulations

Data Rates
54, 48, 36, 24, 18, 12, 9, and 6 Mbps with automatic rate adaptation

Transmit Power
19 dBm at 6 Mbps and 16 dBm at 54 Mbps

Receive Sensitivity
-81 dBm at 54 Mbps and -93 dBm at 6 Mbps

IEEE 802.11b/g

Frequency Band
Hardware supports 2.40–2.50 GHz: 2.4 GHz–2.4835 GHz (US, Europe), 2.4 GHz–2.497 GHz (Japan only)

Operating Channels
1–11 US/Canada, 1–13 Europe, and 1–14 Japan3 non-overlapping channels

Transmit Power
17–21 dBm

802.11b Data Rates
11, 5.5, 2, and 1 Mbps with automatic rate adaptation

802.11g Data Rates
54, 48, 36, 24, 18, 12, 9, and 6 Mbps with automatic rate adaptation

802.11b/g Receive Sensitivity
-80 dBm at 54 Mbps, -90 at 11 Mbps, -90 at 6 Mbps and -92 dBm at 1 Mbps

AP433i Part Numbers

Contact your representative

Certifications

Wi-Fi Certified a/b/g/n

Radio
FCC Part 15.247;
FCC Part 15.407 (US);
RSS-210 (Canada);
EN 300 328; ARIB STD-T66; IDA RCR STD-33; ARIB STD-T71 (Japan);
EN 301 893(EU)

Safety
UL 60950-1; IEC 60950-1;
EN 60950-1; CAN/CSA-C22.2 No. 60950-1

Emissions
EN 55022 Class B; EN 55024;
EN 60601-1-2; EN 301 489-1;
EN 301 489-17; ICES-003 Class B;
FCC Part 15, Class B

Physical Specifications

Dimensions
9.75" length × 8.75" width × 2.15" depth (without paddle antenna), 3.85" depth (with paddle antenna folded); 24.7 cm length × 22.3 cm width × 5.4 cm depth (without paddle antenna), 9.8 cm depth (with paddle antenna folded)

Weight
3 lbs 4 oz (1.47 kgs)

Power
802.3at PoE for 3-radio operation and 802.3af for 2-radio operation
Draws 12.95W to 18W depending on configuration

Environmental
Operating Temperature: 0° to 50° C (32° F to 122° F)
Operating Humidity: 90% (non-condensing)
Storage Temperature: -10° to +70° C ambient
Storage Humidity: 95% (non-condensing)

Interfaces
One auto sensing 10/100/1000 Base-TX Ethernet (RJ-45)
Three dual-band radios support any combination of 802.11a/b/g/n, including two radios coupled with the internal antenna, and one radio coupled with the external paddle antenna. Paddle antenna removable for external antenna setup.
USB port

Mounting Options
Suspended ceiling and wall-mounting bracket with security lock (included), recessed ceiling bracket (option), interlude ceiling bracket (option)

For more information about Meru AP433i, visit www.merunetworks.com or email your questions to: info@merunetworks.com

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