

MERU OAP380 RUGGED ACCESS POINT

The Meru OAP380 Rugged Access Point is designed specifically to meet the needs of harsh indoor and outdoor applications, delivering the tight security and high performance customers have come to expect of Meru virtualized wireless LAN solutions.



QUAD RADIO RUGGED ACCESS POINT

Robust wireless access point designed to overcome any obstacle in the harshest environments.



The OAP380 Rugged Access Point provides the incomparable user experience of Meru's Virtual Cell™ architecture while delivering a mesh network designed to withstand harsh environmental conditions.

PRODUCT OVERVIEW

The Meru OAP380 Rugged Access Point delivers secure, high performance wireless connectivity that enables enterprises to extend network deployments to outdoor locations like campuses, parking lots and pole tops, and harsh indoor environments including breweries, food processing plants and warehouses.

Comprised of four radios, two for mesh and two for user services, the OAP380 delivers increased performance and an improved customer experience for applications in outdoor environments. With its rugged design, the OAP380 performs flawlessly regardless of exposure to extreme heat, cold or rain.

- Meru EzRF-Mesh management software allows for quick and seamless deployment of large-scale networks.
- Meru Air Traffic Control™ provides high performance, high quality 802.11a/b/g/n for voice and data clients, allowing the WLAN to effectively meet bandwidth demands and support the demands of all mission critical applications.

PRODUCT BENEFITS

- Continuous wireless coverage for voice and/or data applications in outdoor environments
- Rugged design that withstands harsh environmental conditions
- Seamless deployment of mesh nodes using Meru EzRF-Mesh management software and centralized Meru Controller
- 99.99% wireless availability and toll-quality voice service
- Improved scalability through channel layering
- Virtualization eliminates complex RF channel planning

TECHNICAL SPECIFICATIONS

SECURITY, APPLICATION SUPPORT and QoS (USER SERVICES)

Authentication

Combination of captive portal, 802.1x and open authentication
Advanced security using WPA2
802.1X 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 with 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

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 and H.323
User-configurable static and dynamic QoS rules per application (user-defined) and per user (stations, users, and port numbers)
Configurable QoS rules for SIP, H323, Ascom, Avaya, Microsoft, Polycom, Siemens, ShoreTel, Vocera and Cisco SCCP
Call admissions control and call load balancing
WMM Support

SECURITY and QoS (BACKHAUL MESH)

Security

40 bit, 104 bit WEP keys
128 bit, 256 bit AES keys (WPA2, end-to-end data)
MAC address filtering
Digitally signed firmware files
Digital certificates on nodes
QoS
Quality of Service (QoS 802.1p)

MOBILITY

Zero-loss Handoffs

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

CENTRALIZED MANAGEMENT (USER SERVICES)

Zero-configuration

Automatically selects power and channel settings
Automatically discovers controllers and downloads 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 Meru EzRF 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 autopower selection for APs
Co-channel interference management

MESH MANAGEMENT SOFTWARE

Meru EzRF-Mesh management software

WIRELESS SPECIFICATIONS (USER SERVICES)

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

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

IEEE802.11n (USER SERVICES)

Frequency Ranges

2.402 to 2.485 GHz, 5.15 to 5.25 GHz, 5.725 to 5.825 GHz

Operating channels

1 through 11 for 2.4 GHz band
32 through 160 for 5 GHz band

Data Rates (Mbps)

20 MHz: 130, 117, 104, 78, 65, 58.5, 54, 52, 48, 39, 36, 26, 24, 19.5, 18, 13, 12, 11, 9, 6.5, 5.5, 2, 1 Mbps
40 MHz: 300, 270, 243, 216, 162, 135, 121.5, 108, 81.5, 81, 54, 48, 40.5, 36, 27.5, 27, 24, 18, 13.5, 12, 11, 9, 6.5, 5.5, 2, 1 Mbps with automatic rate adaptation

Average Transmit Power

2.4n (20 HT): 17 dBm, 2.4n (40 HT): 16 dBm
5.0n (20 HT): 18 dBm, 5.0n (40 HT): 16 dBm

Receive Sensitivity (for max data rates)

11a: -77 dBm, 11n (5 GHz): -72 dBm, 11g: -77 dBm, 11n (2.4 GHz): -74 dBm

IEEE802.11a (USER SERVICES)

Frequency Ranges

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 and 64), 5.745 -5.825 GHz; 5 channels (149, 153, 157, 161, and 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

Average Transmit Power

17 dBm
Receive Sensitivity -77 dBm at 54 Mbps and -89 dBm at 6 Mbps

IEEE802.11b/g (USER SERVICES)

Frequency Ranges

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 Japan
3 non-overlapping channels

Average Transmit Power

17 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, 11, 9, 6, 5.5, 2, 1 Mbps with automatic rate adaptation

802.11b/g Receive Sensitivity

-73 dBm at 54 Mbps and -84 dBm at 1 Mbps

WIRELESS SPECIFICATIONS (BACKHAUL MESH)

IEEE 802.11a/b/g/h/n ad hoc
3X3 MIMO with 2 streams
Transmit power up to 400 mW per stream
Frequency ranges: 2.412 to 2.483 GHz, 4.94 to 4.99 GHz (US public safety band), 5.15 to 5.25 GHz (indoor use only), 5.25 to 5.35 GHz, 5.470 to 5.725 GHz, 5.725 to 5.850 GHz
Receive sensitivity (typical)
2.4 GHz, DSSS, 1 Mbps: -95 dBm, 11 Mbps: -88 dBm
2.4 GHz, OFDM, 6 Mbps: -90 dBm, 54 Mbps: -73 dBm
5 GHz, OFDM, 6 Mbps: -90 dBm, 54 Mbps: -73 dBm
Ability to configure 5, 10, 20 and 40 Mhz (MIMO only) channel bandwidth
Dynamic frequency selection (DFS)
Transmit power control (TPC)

INCLUDED ACCESSORIES

Six antennas dual band 3 dBi 2.4 GHz and 5.8 GHz for backhaul mesh staging only
Six RP SMA Jack to Type N plug adaptors
Bracket for pole and wall mounting
External AC power cord (non-North America power cord is separate orderable item)
Three weatherized Ethernet connectors for watertight RJ-45 coupling

OPTIONAL ACCESSORIES

Antennas for backhaul mesh and user access
Lightning arrestors for antennas and Ethernet cables, adaptors
(Please contact your local Meru representative for more information)

PHYSICAL SPECIFICATIONS

Dimensions

13.4" width x 7.3" height x 8.9" depth
(34 cm width x 18.6 cm height x 22.6 cm depth)

Weight

22lbs (10 kgs)

Environmental

Operating temperature: -30° to 50° C (-22° to 122° F)
Operating humidity: 90% (non-condensing)
Storage temperature: -30° to +70° C ambient
Storage humidity: 95% (non-condensing)

Power

AC Input: 100–240 VAC, 50–60 Hz, 0.9 A
DC Input: 12 VDC ±15%, 4 A powering 2 PoE devices; 1.7 A without PoE
IEEE 802.3af compliant PoE (PSE) consumption

Interfaces

Twelve N-Type connectors for external antennas
Two GigE 10/100/1000 Mbps Ethernet ports with weatherproof connectors, including one 802.3af compliant Power over Ethernet (PoE) port
Dual-band Radios support any combination of 802.11n, 802.11a, 802.11b, 802.11g
LEDs for monitoring activity (power, status, mesh, Ethernet)

STANDARD WARRANTY

Hardware: one year limited warranty
Software: 90 day limited warranty

CERTIFICATIONS

Please contact your local Meru representative for regulatory information in your country.



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

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