

DATACOM



DM-AP 920

ACCESS POINT OUTDOOR WIFI6 AX3000

PRODUCT DESCRIPTION

DM-AP 920

AP Wireless Outdoor WI-FI6 AX3000

AX3000 GIGABIT OUTDOOR WIRELESS AP FOR ENTERPRISE APPLICATIONS

The DM-AP product line is aimed exclusively at the corporate market, and is an ideal wireless broadband access network solution for small, medium and large companies, schools, hotels, hospitals, rural communities, digital cities, among others. The solution allows the deployment of wireless networks with multiple access points, ensuring coverage of large areas, including multiple sites and high traffic and user density.

The DM-AP 920 features built-in Wi-Fi6 AX3000 technology, optimizes the user experience by maximizing Wi-Fi utilization and substantially reducing competition for airtime among customers. It offers Orthogonal Frequency Division Multiple Access (OFDMA) and Multiple Inputs and Multiple Outputs for Multiple Users (MU-MIMO). With up to 4 spatial streams (4SS) and 160 MHz channel width (HE160), the DM-AP 920 achieves a data rate of up to 2402 Mbps in the 5 GHz band and 574Mbps in 2.4Ghz,

APs can be managed standalone (FAT mode) or managed AP (FIT or Cloud mode) remotely through a platform with cloud access. This management platform has advanced functionalities for the deployment of large wireless networks, with high scalability. The platform allows you to manage thousands of APs, and each AP allows up to 1024 users to connect simultaneously

The DM-AP 920 supports Wi-Fi Association (WFA) Hotspot 2.0 and automatic identity recognition, providing customers with a seamless transition from mobile to Wi-Fi.

Supports roaming between DM-APs through 802.11k/v/r standards, enabling users to have an uninterrupted connection experience when moving through corporate environments.

- Dual band WiFi 2.4GHz e 5.8GHz
- Up to 2976Mbps Rate: - 574Mbps on 2.4GHz - 2402Mbps on 5.8GHz
- Band Steering
- MU-MIMO 2x2 e *Beamforming*
- 4 Internal Antennas
- Roaming
- OFDMA
- Long-range WiFi
- Multiple SSIDs
- WAN Gigabit Ethernet
- Modo FIT / FAT
- IPv4/IPv6
- Web Management
- Cloud Controller (DmCloud)

In addition to having advanced wireless technology, the DM-AP920 has a 10/100/1000 Base-T Ethernet port (RJ45) with PoE-in and a 2.5Gb SFP port, for receiving the internet signal and a console port for local configuration.



The DM-AP product line is aimed exclusively at the corporate market, and it is not possible to use it in a residential environment.

FEATURES

WIRELESS (WI-FI)

Item	Feature
Operating Frequencies	Rádio 1, 802.11b/g/n/ax: - 2.400 GHz at 2.4835 GHz, ISM
	Rádio 2, 802.11a/n/ac/ax: - 5.150 GHz leaves 5.250 GHz, A-NII-1 - 5.250 GHz leaves 5.350 GHz, A-NII-2A - 5.470 GHz leaves 5.725 GHz, A-NII-2C - 5.725 GHz leaves 5.850 GHz, A-NII-3/ISM
Radio Mode	Radio 1: 2.4 GHz, two spatial streams, 2x2 MU-MIMO Radio 2: 5 GHz, two spatial streams, 2x2 MU-MIMO
Throughput	Maximum Combined Data Rate: 2.976 Gbps 2.4Ghz Radio: 574Mbps 5Ghz Radio: 2402Mbps
Data Rate	The following data rates in Mbps, which are compatible with the 802.11 standard, are supported: 2.4 GHz Radio: - 802.11b: 1, 2, 5, 5, 11 - 802.11g: 1, 2, 5, 5, 6, 9, 11, 12, 18, 24, 36, 48, 54 - 802.11n: 6,5 a 300 (MCS0 a MCS15) – 20 e 40Mhz - 802.11ax: 8.6 Mbps to 0.574 Gbps (MCS0 to MCS11) – 20 e 40Mhz 5 GHz Radio: - 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 - 802.11n: 6,5 a 300 (MCS0 to MCS31) - 20 e 40Mhz - 802.11ac: 6,5 Mbps to 1.732 Gbps (MCS0 to MCS9) – 20, 40, 80 e 160Mhz - 802.11ax: 8.6 Mbps to 2.402 Gbps (MCS0 to MCS11) – 20, 40, 80 e 160Mhz
Transmit power	2.4 GHz Radio: 28 dBm 5GHz Radio: 28 dBm Transmit power adjustment in percentage (recommended) and in 1 dBm increments.
Radio technology	802.11b: Direct-Sequence Spread-Spectrum (DSSS) 802.11a/g/n/ac: Orthogonal Frequency-Division Multiplexing (OFDM) 802.11ax: Orthogonal Frequency Division Multiple Access (OFDMA)

Types of modulation	802.11b: BPSK, QPSK, CCK 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM 802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM
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INTERFACE BLUETOOTH

Item	Feature
Guy	Bluetooth 5.1
Antenna	1x omnidirectional onboard antenna with 5dBi gain
Transmit power	17 dBm (GFSK) 14 dBm
Sensitivity	-95.5 dBm (DH5) -95 dBm -87.5 dBm

INTERFACES

Item	Feature
Interfaces WAN	1x RJ45 10/100/1000Base-T Ethernet port with auto-negotiation - Compliance with IEEE 802.3af (PoE) standard - MDI/MDIX Auto Crossover - PoE-PD: 54 V CC (nominal) 802.3af/at/bt (Classe 3 ou superior) - 802.3az EEE 1x porta 2.5GE SFP
Console	1x RJ45 console port
Led de Status	1 x Multi-color System Status LED - AP Status On - Software Launch Status and Update Status - Uplink service interface status - Wireless user online status - CAPWAP tunnel timeout - AP Specific Location
Buttons	1x Reset Button

WLAN

Item	Feature
Connected Devices (STA)	Up to 1024 devices (512 per radio)
BSSIDs	Up to 32 (16 per radio)
STA Management	SSID hiding Band steering Each SSID can be configured with authentication mode, encryption mechanism, and VLAN attributes. Remote Intelligent Perception Technology (RIPT) Intelligent client identification technology Intelligent load balancing based on the amount of STA or traffic.
STA limitation	STA throttling based on SSID Radio-based STA throttling
Bandwidth Limitation	STA/SSID/AP-based rate limiting
CAPWAP	IPv4/IPv6 CAPWAP CAPWAP through NAT

	Encryption over CAPWAP data channels Encryption over CAPWAP control channels
Wireless Roaming	Roaming L2 e L3

SAFETY

Item	Feature
Authentication and Encryption	Remote Authentication Dial-In User Service (RADIUS) PSK ,PPSK, UPPSK, PEAP and web authentication QR code-based guest authentication, SMS authentication, and MAC address bypass (MAB) authentication Data encryption: WEP (64/128 bits), WPA-TKIP, WPA-PSK, WPA2-AES
Data frame filtering	Allowlist, static blocklist, e dynamic blocklist
WIDS	WIDS (Wireless Intrusion Detection System) User isolation Rogue AP Detection and Containment
ACL	IP standard ACL, MAC extended ACL, IP extended ACL, and expert-level ACL IPv6 ACL Time range-based ACL ACL based on a Layer 2 interface ACL based on a Layer 3 interface Ingress ACL based on a wireless interface ACL Remark Dynamic ACL assignment based on 802.1X authentication (controladora cloud)
CPP	Supported
NFPP	Supported

ROUTING AND SWITCHING

Item	Feature
MAC	Static and filtered MAC addresses MAC address table size: 1,024 Max. number of static MAC addresses: 1,024 Max. number of filtered MAC addresses: 1,024
Ethernet	MTU: 1518 bytes Ethernet II frame format 1000M SFP ports 2.5GE interfaces
VLAN	Interface-based VLAN assignment Maximum number of SVIs (IPv4): 191 Maximum number of SVIs (IPv6): 191 Maximum number of VLANs: 4,094 VLAN ID range: 1-4,094
ARP	ARP entry aging, gratuitous ARP learning, e proxy ARP Maximum number of ARP entries: 1,024 ARP check
IPv4 Services	Static and DHCP-assigned IPv4 addresses Maximum number of IPv4 addresses configured on each Layer 3 interface: 200 NAT, FTP ALG e DNS ALG
IPv6 Services	IPv6 addressing, Neighbor Discovery (ND), ICMPv6, IPv6 ping, IPv6 tracet Cliente DHCP IPv6 Maximum number of IPv6 addresses configured on each Layer 3 interface: 400 Maximum number of ND entries: 4,096

IP Routing	IPv4/IPv6 static route Maximum number of static IPv4 routes: 1,024 Maximum number of static IPv6 routes: 1,000
Multicast	Multicast-to-unicast conversion
VPN	PPPoE Client IPsec VPN, up to five IPsec tunnels

MANAGEMENT

Item	Feature
Network Management	SNMP v1/v2c/v3 Syslog Debugging Fault detection and alarm Information statistics and event logging
User access control	Console, SSH, and Telnet-based management, FTP Client e TFTP Client
Switchover between Fat, Fit, and cloud modes	When the AP is in Fit mode, it can be switched to Fat mode via an AC controller. When the AP is in Fat mode, it can be switched to Fit mode via the console port or in Telnet mode. When the AP is in cloud mode, it can be managed through DmCloud.

PHYSICAL CHARACTERISTICS

Item	Functionality	Specification
Dimensions	Height	64 mm
	Width	251 mm
	Depth	168 mm
	Weight	Device: 1.0kg Mounting bracket: 0.9kg
Mounting	Wall, Ceiling, or Pole (A mounting kit is shipped with the device) Kensington lock and safety lock	
Degree of Protection	IP68	
Operating Conditions	Temperature range	-40°C to 65°C
	Relative humidity	5% to 95%, non-condensing
Power Input	<p>The AP supports the following two power supply modes:</p> <ul style="list-style-type: none"> - 48 V DC/0.35 A power input via DC connector: The DC connector accepts a circular plug with a 2.1 mm/5.5 mm center positive. A DC power adapter needs to be purchased separately. - PoE input by PoE-in port: The power source equipment (PSE) complies with the IEEE 802.3af/at/bt standard (PoE/PoE+/PoE++). <p>Observation:</p> <ul style="list-style-type: none"> - If both DC and PoE power are available, DC power is preferred. 	
Power Consumption	<p>Maximum power consumption: 12.95 W</p> <ul style="list-style-type: none"> - DC powered: 12.95 W - PoE powered (802.3af): 12.95W - PoE+ Powered (802.3at): 12.95W - PoE++ powered (802.3bt): 12.95W - Modo de repouso: 6 W 	
MTBF	200,000 hours (22 years) at an operating temperature of 25°C.	
Interfaces	WAN	1x porta 10/100/1000 Base-T (RJ45)

	1x 2.5GbE SFP port
Internal Antennas	2 x 2.4GHz antennas with 4dBi gain and 2 x 5GHz antennas with 6dBi gain

NORMS AND STANDARDS

Group	Norms and Standards
IEEE	IEEE 802.11a: Wi-Fi standard for 5 GHz frequency with a capacity of up to 54 Mbps.
	IEEE 802.11b: Wi-Fi standard for 2.4 GHz frequency with a capacity of up to 11 Mbps.
	IEEE 802.11g: Wi-Fi standard for 2.4 GHz frequency with up to 54 Mbps capacity
	IEEE 802.11n: Wi-Fi standard for 2.4 GHz and/or 5 GHz frequency capacity up to 150 to 600 Mbps
	IEEE 802.11ac: Wi-Fi standard for 5 GHz frequency capacity up to 1300 Mbps
	IEEE 802.11ax: Wi-Fi standard for 2.4GHz frequency and 5 GHz capacity up to 3000 Mbps
	IEEE 802.11i: 802.11 Protocol Security Standard – WEP/WPA/WPA2 (TKIP/AES)
	IEEE 802.1D MAC bridges
	IEEE 802.3i 10BASE-T 10Mbit/s (1.25 MB/s) over twisted pair
	IEEE 802.3u 100BASE-TX Fast Ethernet at 100 Mbit/s (12.5 MB/s) w/auto negotiation
IEEE 802.3ab 1000BASE-T Gbit/s Ethernet over twisted pair at 1 Gbit/s (125 MB/s)	
IEC	EN 300 328
	EN 301 489-1
	EN 301 489-17
	EN 301 893
	EN 55032
	EN 55035
	IEC EN 62311
	IEC 62368-1
	EN 62368-1
	GB 4943.1, GB/T 17618, GB/T 19286

Compliant

- Wi-Fi Alliance:
- 2.4 GHz, 5 GHz Spectrum Capabilities
 - Wi-Fi CERTIFIED a, b, g, n, ac, ax (6)
 - WPA2™-Enterprise 2018-04
 - WPA2™-Personal 2021-01
 - WPA3™-Enterprise 2020-02
 - WPA3™-Personal 2020-12
 - WPA™-Enterprise
 - WPA™-Personal
 - WMM®, Wi-Fi Agile Multiband™

ANATEL

ANATEL – Act 1120 - Technical Requirements for Electromagnetic Compatibility for the Evaluation of Telecommunication Product Conformity


ANATEL – Act 950 - Requirements for the Evaluation of the Conformity of Telecommunications Equipment with respect to the Aspects of Electrical Safety

Observations:

- 1) This equipment is not entitled to protection against harmful interference and may not cause interference with properly authorized systems
- 2) This product is not suitable for use in domestic environments, as it may cause electromagnetic interference that forces the user to take necessary measures to minimize such interference.
- 3) Product for professional use and should be used by a qualified professional

For information on the approved product, visit the website: <https://sistemas.anatel.gov.br/sch>

ORDERING INFORMATION

Model	Description	Photograph
DM-AP 920 825.8041.xx	DM-AP 920 – AX3000 dual-band Wi-Fi 6 (802.11ax) outdoor wireless AP with up to four spatial streams. Up to 2.976Gbps data rate, 1x 10/100/1000Base-T port with PoE support, 1x 2.5GbE SFP port, and DC power. The PoE injector is sold separately and can be purchased from Datacom. The DC power adapter must be purchased separately from a third-party vendor if necessary).	

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