DATACOM

DM-AP 620

ACCESS POINT WIRELESS INDOOR WIFI6 AX3000

DATASHEET

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DM-AP 620

AP Wireless Indoor WI-FI6 AX3000

AX3000 GIGABIT INDOOR WIRELESS AP FOR ENTERPRISE APPLICATIONS

Aimed at the corporate market, DATACOM Access Points (AP) are 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 620 features built-in Wi-Fi6 AX3000 technology, optimizes the user experience by maximizing Wi-Fi utilization and substantially reducing competition for airtime between 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 (HE160) channel width, the DM-AP 620 achieves a data rate of up to 2402 Mbps in the 5 GHz band and 574Mbps in 2.4 GHz,

APs can be managed on-premises (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 the simultaneous connection of up to 256 users

The DM-AP 620 supports Wi-Fi Association (WFA) Hotspot 2.0 and automatic identity recognition, providing customers with a seamless transition from cellular to Wi-Fi.

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

In addition to having advanced wireless technology, the DM-AP 620 has a 10/100/1000 Base-T Ethernet (RJ45) port with PoE-in and a 2.5Gb SFP port for receiving the internet signal and a console port for local configuration.

- Dual band WiFi 2.4GHz and 5.8GHz
- Rate up to 2976Mbps: - 574Mbps at 2.4GHz - 2402Mbps at 5.8GHz
- Band Steering
- 2x2 MU-MIMO and *Beamforming*
- 4 internal antennas
- Roaming
- OFDMA
- Long-range WiFi
- Multiple SSIDs
- WAN Gigabit Ethernet
- FIT/FAT mode
- IPv4/IPv6

  Web Management
- Cloud Controller (DmCLoud)

FEATURES

WIRELESS (WI-FI)

Item	Functionality
Operating Frequencies	Radio 1, 802.11b/g/n/ax: - 2.400 GHz to 2.4835 GHz, ISM Radio 2, 802.11a/n/ac wave 1 / ac wave 2/ax: - 5.150 GHz to 5.250 GHz, U-NII-1 - 5.250 GHz to 5.350 GHz, U-NII-2A - 5.470 GHz to 5.725 GHz, U-NII-2C - 5.725 GHz to 5.850 GHz, U-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: 574Mpbs 5Ghz Radio: 2402Mbps
Data Rate	The following data rates in Mbps, 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 to 300 (MCS0 to MCS15) – 20 and 40Mhz - 802.11ax: 8.6 Mbps to 0.574 Gbps (MCS0 to MCS11) – 20 and 40Mhz 5 GHz Radio: - 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 - 802.11n: 6.5 to 300 (MCS0 to MCS31) - 20 and 40Mhz - 802.11ac: 6.5 Mbps to 1.732 Gbps (MCS0 to MCS9) – 20, 40, 80 and 160Mhz - 802.11ax: 8.6 Mbps to 2.402 Gbps (MCS0 to MCS11) – 20, 40, 80 and 160Mhz
Transmit power	2.4 GHz radio: 26 dBm (23 dBm per channel) 5GHz radio: 26 dBm (23 dBm per channel) 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) A-MPDU and A-MSDU aggregation for 802.11n/ac/ax Dynamic Frequency Selection (DFS)
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

BLUETOOTH INTERFACE

Item	Functionality
Kind	Bluetooth 5.1
Antenna	1x onboard omnidirectional antenna with 2.4dBi gain
Transmit power	17 dBm (GFSK) 14 dBm (π /4-DQPSK, 8-DPSK)
Sensitivity	–95.5 dBm (DH5) –95 dBm (π /4-DQPSK)

	-87.5 dBm (8-DPSK)

INTERFACES

Item	Functionality
Interfaces WAN	1x RJ45 10/100/1000Base-T Ethernet port with auto-negotiation - Compliance with IEEE 802.3af (PoE) standard - MDI/MDIX automatic crossover - PoE-PD: 54 V DC (nominal) 802.3af/at/bt (Class 3 or higher) - 802.3az EEA 1x 2.5GE SFP port
Console	1x RJ45 console port
Led de Status	1 x Multi-color System Status LED - AP Power On Status - Software boot status and update status - Uplink service interface status - Wireless user online status - CAPWAP tunnel timeout - AP-specific location
Buttons	1x Reset Button

WLAN

Item	Functionality
Connected Devices (STA)	Up to 256 devices (128 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. Intelligent Remote Sensing Technology (RIPT) Intelligent Customer Identification Technology Intelligent load balancing based on the amount of STA or traffic.
STA Limitation	SSID-based STA throttling Radio-based STA limitation
Bandwidth Throttling	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	L2 and L3 Roaming

SAFETY

Item	Functionality
Authentication and Encryption	Remote Authentication Dial-In User Service (RADIUS) PSK, PPSK, web, 802.1X, MSCHAPv2, PEAP, EAP-SIM, EAP-AKA, EAP-PEAP, EAP-TLS, EAP-TTLS, WPA, WPA2, and WPA3 authentication Data encryption: WEP (64/128-bit), WPA-TKIP, WPA-PSK, WPA2-AES, WPA3 Captive Portal
Data frame filtering	Allowlist, static blocklist, and dynamic blocklist

WIDS	WIDS (Wireless Intrusion Detection System) User isolation Detection and Containment of Rogue Access Points
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 (DmCloud controller)
CPP	Supported
NFPP	Supported

ROUTING AND SWITCHING

Item	Functionality
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): 200 Maximum number of SVIs (IPv6): 200 Maximum number of VLANs: 4,094 VLAN ID Range: 1-4,094
ARP	ARP entry aging, gratuitous ARP learning, and ARP proxy 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, and DNS ALG
IPv6 Services	IPv6 addressing, Neighbor Discovery (ND), ICMPv6, IPv6 ping, IPv6 tracert IPv6 DHCP Client 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	Functionality
Network Management	SNMP v1/v2c/v3 Syslog Debugging

	Fault detection and alarm Information Statistics and Event Log
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 Telnet mode. When the AP is in cloud mode, it can be managed through DmCloud.

PHYSICAL CHARACTERISTICS

Item	Functionality	Specification
Dimensions	Height	49 mm
	Width	220 mm
	Depth	220 mm
	Weight	Device: 0.6kg Mounting bracket: 0.2kg
Mounting	Wall or Ceiling (A mounting kit is shipped along with the device) Kensington lock and safety lock	
Operating Conditions	Temperature range	-10°C to 50°C
	Relative humidity	5% to 95%, non-condensing
Power Input	The AP supports the following two power supply modes: - 48V DC/0.6A power input via DC connector: The DC connector accepts a 2.1mm/5.5mm center-positive circular plug. A DC power adapter needs to be purchased separately. - PoE input via PoE-in port: The power source equipment (PSE) complies with the IEEE 802.3af/at/bt standard (PoE/PoE+/PoE++). Observation: - If both DC power and PoE are available, DC power is preferred.	
Power Consumption	Maximum power consumption: 12.95 W - DC powered: 12.95W - Powered by PoE (802.3af): 12.95W - Powered by PoE+ (802.3at): 12.95W - Powered by PoE++ (802.3bt): 12.95W - Standby mode: 6 W	
MTBF	200,000 hours (22 years) at an operating temperature of 25°C.	
Interfaces	WAN	1x 10/100/1000 Base-T (RJ45) port 1x 2.5GbE SFP port
	Internal Antennas	2 x 2.4GHz antennas with 5dBi gain and 2 x 5GHz antennas with 5.7dBi gain

STANDARDS

Group	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 capacity up to 54 Mbps IEEE 802.11n: Wi-Fi standard for 2.4 GHz and/or 5 GHz frequency capability up to 150 to 600 Mbps IEEE 802.11ac: Wi-Fi standard for 5 GHz frequency capacity up to 1300 Mpbs IEEE 802.11ax: Wi-Fi standard for 2.4Ghz frequency and 5 GHz capacity up to 3000 Mpbs 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

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

ORDERING INFORMATION

Model	Description	Photo
DM-AP 620 *825.8033.xx*	DM-AP 620 – AX3000 dual-band Wi-Fi 6 (802.11ax) indoor wireless AP with up to four spatial streams. Up to 2.976 Gbps data rate, 1x PoE-compatible 10/100/1000Base-T port, 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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