DATACOM

DM956 5GT 1800
WIFI6 ROUTER

DATASHEET

DM956
Dual Band Wireless AX1800 Gigabit Router

WIRELESS GIGABIT ROUTER AX1800 WITH 4 HIGH PERFORMANCE ANTENNAS FOR LONG REACH WI-FI

DM956 features the latest generation of 802.11ax Wi-Fi technology, providing an extremely fast, reliable and greater capacity network. In addition, it has backwards compatibility with previous Wi-Fi versions like 802.11a/b/g/n/ac.

On Wifi 6 AX1800, the 2.4GHz band provides a throughput of up to 574Mbps, while the 5GHz band provides throughput of up to 1201Mbps.

Datacom's AX1800 wireless router has four external antennas that broadcast Wi-Fi signals for all end-customer environments. The DM956 eliminates signal shadow zones and keeps the user connected by taking advantage of fast Wi-Fi access, whether it's in the living room, kitchen, bedroom or any room in your home or office.

It uses 1024-QAM modulation, which allows each symbol to carry 10 bits instead of 8 bits. Therefore, it is possible to have a 25% increase in bandwidth compared to 802.11ac that uses 256-QAM modulation.

Making use of OFDMA and multi-antenna MU-MIMO technologies, DM956 operates simultaneously with multiple devices. OFDMA can split a single spectrum into multiple units, allowing devices to share the transmission stream, increasing efficiency, reducing congestion and latency These features ensure that all connected devices gain access to data faster, making the experience user connectivity much more efficiently than traditional wireless networks.

It supports a mesh network solution through the EasyMesh standard, expanding the network coverage. In this solution, the DM956 routers connect and distribute the signal forming a single network, providing a high quality signal throughout the environment.
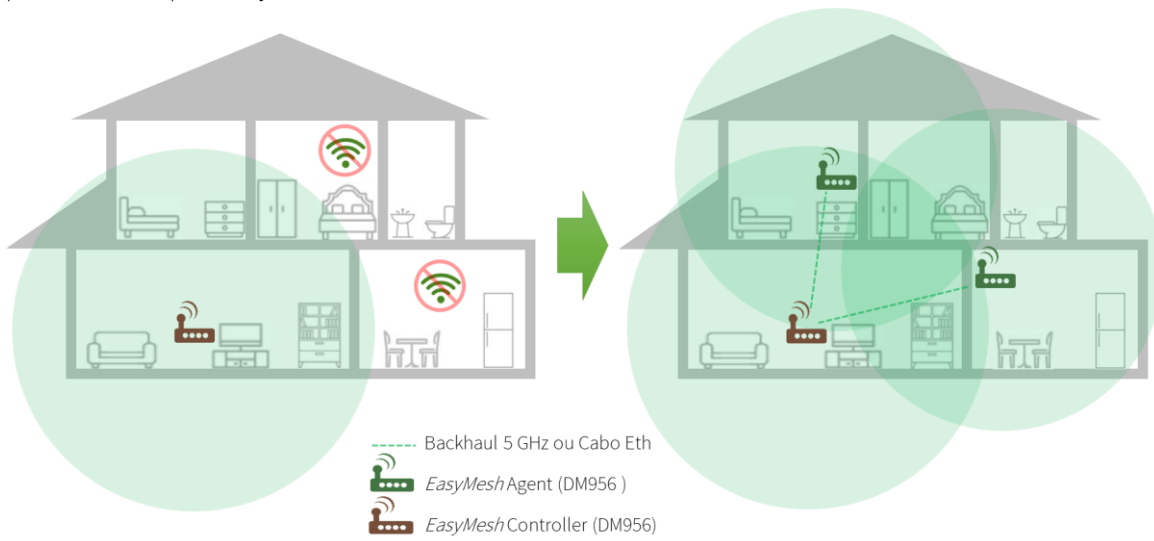
In addition to having advanced wireless technology, the DM956 has a Gigabit Ethernet WAN port for receiving the internet signal, and four Gigabit Ethernet LAN ports, allowing the users to directly connect their wired devices and obtain maximum network performance.

DM956 also has the remote management feature through the TR-069 protocol. With this feature, the ISP can manage, through the cloud, all the routers installed at its subscribers. Management by TR-069 allows the ISP to perform diagnostics and tests remotely, reducing operational costs.
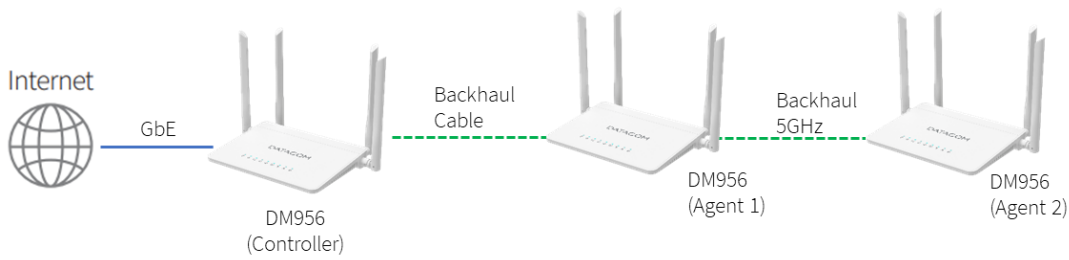
- Dual band WiFi 2.4GHz and 5GHz
- Rates up to1800Mbps:
    - 574Mbps at 2.4GHz
    - 1201Mbps at 5GHz
- Four 5dBi external antennas
- EasyMesh
- 2x2 UM-MIMO and *Beamforming*
- Band Steering
- OFDMA
- Long reach Wi-fi
- Multiple SSIDs
- Gigabit Ethernet WAN
- 4 Gigabit Ethernet LAN ports
- IPv4/IPv6
- Firewall
- DMZ
- Web Management
- TR-069 Remote Management

EasyMesh Applicatio

The mesh network solution through the EasyMesh standard extends network coverage, providing a single network with quality signal in places that were previously shadow areas.

- - - - Backhaul 5 GHz ou Cabo Eth
EasyMesh Agent (DM956)
EasyMesh Controller (DM956)

MESH TOPOLOGY WITH DM956 AS CONTROLLER

Internet

GbE

DM956
(Controller)

Backhaul
Cable

DM956
(Agent 1)

Backhaul
5GHz

DM956
(Agent 2)

FEATURES

WIRELESS (WI-FI)

Item	Feature
Operating Frequencies	Dual band: 2.4GHz and 5GHz
Radio Mode	2.4GHz – MIMO 2x2 (two external antenas with 5dBi gain) 5GHz – *Beamforming MU*-MIMO 2x2 (two external antenas with 5dBi gain) OFDMA Band Steering
Standards	2.4GHz - IEEE 802.11 b/g/n/ax 5GHz - IEEE 802.11 a/n/ac/ax
Bandwidth	2.4GHz - 20, 40 MHz with 20/40 MHz coexistence 5GHz - 20, 40, 80 MHz
WiFi Channels	2.4GHz – 1 to 13 and auto mode 5GHz – 36, 40, 44, 48, 52, 56, 60,64, 149, 153 , 157, 161 and auto mode
Transmission Rate	2.4GHz – up to 574 Mbps (802.11ax) 5GHz – up to 1201 Mbps (802.11ax)
Transmission Power	**For 2.4 GHz:** 21,0dBm , +-128mW (802.11b) 19,0dBm , +-80mW (802.11g) 18,0dBm , +-64mW (802.11n) 16,0dBm, +- 40 mW(802.11ax) **For 5GHz:** 20,0dBm, +-100mW (802.11a) 19,0dBm, +- 80mW (802.11n) 18,0dBm, +– 64mW (802.11ac) 18,0dBm, +- 64 mW(802.11ax)
Receiver Sensitivity	**For 2.4Ghz:** 11g 54M: -72dBm 11n HT20 MCS7: -70dBm 11n HT40 MCS7: -66dBm 11ax HESU40 MCS11: -60dBm **For 5Ghz:** 11a 54Mbps:-72dBm 11ac HT20 MCS7: -64dBm 11ac HT40 MCS7: -62dBm 11ac HT80 MCS9: -57dBm 11ax HESU80 MCS11: -54dBm
Connected Devices	Up to 64 devices connected simultaneously (32 at 2.4Ghz and 32 at 5Ghz)
Security	WPA-PSK/WPA2-PSK e WPA/WPA2 TKIP/AES de 64/128 bit WPS - Wi-Fi Protected Setup
Access Control	MAC (permission/Block) Access Control
QoS	WMM - Wi-Fi Multimídia
Operation Mode	Router

WAN INTERFACE

Item	Feature
Quantity	1
Standard	10/100/1000 Base-T (RJ-45)
IPv4 Connections	DHCP Client, PPPoE Client, Static IP
IPv6 Connections	SLAAC/DHCPv6 Client, PPPoE Client, Static IPv6

LAN INTERFACES

Item	Feature
Quantity	4
Standard	10/100/1000 Base-T (RJ-45)
IPv4 Connections	DHCP Server, Static IPv4
IPv6 Connections	DHCPv6 Server, SLAAC+Stateless DHCP and Static IPv6
DNS	DNS Proxy

SOFTWARE

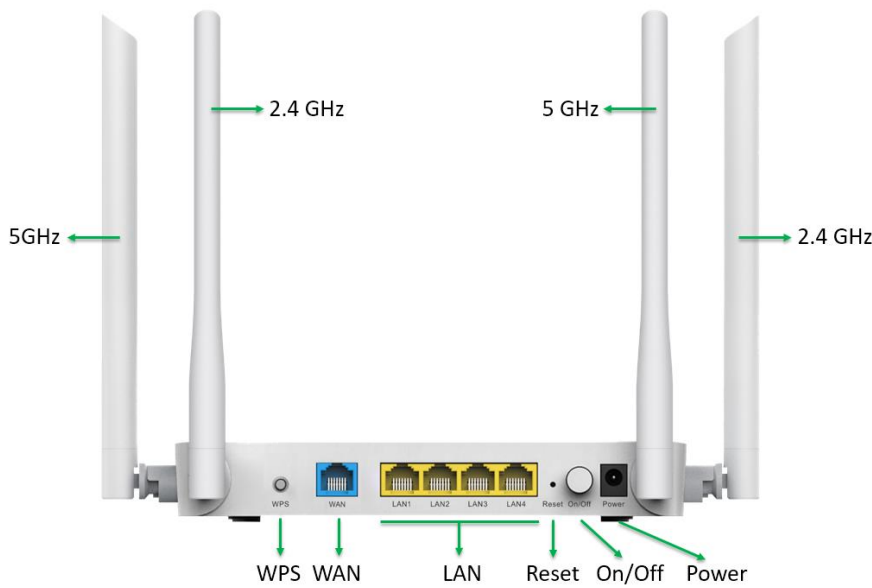| Item	Feature
Security	Port Forwarding MAC Filtering URL Filtering IP Filtering DMZ
Mesh	EasyMesh standard support Controller and Agent mode Backhaul EasyMesh through Wi-Fi and / or Cable (hybrid mode) EasyMesh Routes Agent compatibility: DM956 EasyMesh Controller devices compatibility: DM956
Management	IPv4 Management via WEB interface (HTTP) TR-069 Remote Management Two levels of access to the WEB interface Save and Load via configuration file Factory configuration restore Configuration Preset NTP Syslog
Troubleshooting	Ping IPv4/IPv6 Traceroute IPv4/IPv6 Nslookup Loopback Detection
Routing	NAT

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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 a capacity of up to 54 Mbps 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 5.8GHz frequency capacity up to1800 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))
IETF	RFC2131 – Dynamic Host Configuration Protocol RFC3315 – Dynamic Host Configuration Protocol for IPv6 (DHCPv6) RFC 2516 – A Method for Transmitting PPP Over Ethernet (PPPoE) RFC 5072 – IP Version 6 over PPP RFC 4862 – IPv6 Stateless Address Autoconfiguration RFC 3633 – IPv6 Prefix Options for Dynamic Host Configuration Protocol (DHCP) version 6 RFC2030 – Simple Network Time Protocol (SNTP) Version 4 for IPv4, IPv6 and OSI RFC2929 – Domain Name System (DNS) IANA Considerations RFC3022 – Traditional IP Network Address Translator (Traditional NAT) RFC6296 – IPv6-to-IPv6 Network Prefix Translation RFC6970 - Universal Plug and Play (UPnP)
Broadband Forum	TR-069: CPE WAN Management Protocol v1.1 TR-098: Internet Gateway Device version 1
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

PHYSICAL CHARACTERISTICS

Hardware		DM956 5GT 1800
Dimensions	Height	27 mm
	Width	184 mm
	Depth	134,5 mm
Operational Conditions	Temperature Range	0⁰C a 40⁰C
	Relative Humidity	10% to 95%, non-condensing
Power Supply	Input	100 Vac to 240 Vac, 50 to 60Hz
	Output	12 Vdc, 1000mA
	Average Consumption	< 12 W
	Polarity	⊖—⦿—⊕
Interfaces	WAN	1x 10/100/1000 Base-T port
	LAN	4x 10/100/1000 Base-T port
	Antennas	2x 2.4 GHz antennas (5dBi each) and 2x 5GHz antennas (5dBi each)

ORDERING INFORMATION

Model	Description	Photo
DM956 5GT 1800 *825.8021.xx*	DM956 5GT 1800 - 2.4GHz and 5GHz AX1800 dual band Wi-Fi router in plastic cabinet 4 interfaces Gigabit Ethernet LAN e 1 interface Gigabit Ethernet WAN. External AC power supply included.	

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