DATACOM

DM956 4GT 3000

WIRELESS ROUTER WIFI6

DATASHEET

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DM956 4GT 3000

AX3000 Dual Band Wireless Gigabit WI-FI6 Router

AX3000 GIGABIT WIRELESS ROUTER WITH 4 HIGH-PERFORMANCE ANTENNAS FOR LONG-RANGE WIFI

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

On the Wi-Fi6 AX3000, the 2.4GHz band enables a rate of up to 574Mbps, while the 5GHz band using a 160Mhz wide channel offers throughput of up to 2400Mbps

Datacom's AX3000 wireless router has four external antennas that emit Wi-Fi signals to all end-customer environments. The DM956 eliminates shadow zones from the environment and keeps the user connected by enjoying fast Wi-Fi access, whether it's in the living room, kitchen, bedroom or any room in their 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 multi-antenna MU-MIMO and OFDMA technologies, the 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 user connectivity experience much more efficient than in traditional wireless networks.

It supports the mesh network solution through the *Easymesh* standard, extending the network coverage. In this solution, the DM956 4GT 3000 routers connect and distribute the signal forming a single network, providing a quality signal in places of low signal quality.

In addition to having advanced wireless technology, the DM956 has four Gigabit Ethernet ports, which can be configured as WAN or LAN, allowing the user to directly connect their wired devices and obtain maximum network performance.

The DM956 also has the remote management feature through the TR-069 protocol. With this feature, the ISP can manage all the routers installed on its subscribers through the cloud. Management by the TR-069 enables the ISP to perform diagnostics and tests remotely, reducing operational costs.

- Dual band WiFi 2.4GHz and 5GHz
- Rate up to 3000Mbps:
  - 600Mbps at 2.4GHz
  - 2400Mbps at 5GHz
- 4 external 5dBi antennas
- EasyMesh
- 2x2 MU-MIMO and *Beamforming*
- OFDMA
- Long-range WiFi
- Multiple SSIDs
- 1 Gigabit Ethernet WAN
- 3 Gigabit Ethernet LAN ports
- IPv4/IPv6
- Firewall
- DMZ
- Web Management
- Management by TR-069
- Preset Settings

FEATURES

WIRELESS (WI-FI)

Item	Feature
Operating Frequencies	Dual band: 2.4GHz and 5GHz
Radio Mode	2.4GHz – 2x2 MIMO (two external antennas) 5GHz – *2x2 MU-MIMO beamforming* (two external antennas) OFDMA Band Steering support
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, 160 MHz
Channels of Operation	2.4GHz – 1 to 13 and Auto mode 5GHz – 36, 40, 44, 48, 52, 56, 60,64, 149, 153, 157, 161 and auto mode
Baud Rate	Up to 3000Mbps: 2.4GHz – up to 600 Mbps (802.11ax) 5GHz – up to 2400 Mbps (802.11ax)
Wi-Fi power	**For 2.4Ghz** 23dBm ~ 200mW (802.1b) 22dBm ~ 160mW (802.1g) 20dBm ~ 100mW (802.1n) 17dBm ~ 50mW (802.1ax) **For 5Ghz** 22dBm ~ 160mW(A) 20dBm ~ 100mW(N) 18dBm ~ 64mW(ac) 17dBm ~ 50mW(ax) 80M 17dBm ~ 50mW(ax) 160M
Wi-Fi Sensitivity	**For 2.4Ghz** 11g 54M: -74dBm 11n HT20 MCS7: -72dBm 11n HT40 MCS7: -68dBm 11ax HESU40 MCS11: -60dBm **For 5Ghz** 11to 54Mbps: -72dBm 11ac HT20 MCS7: -64dBm 11ac HT40 MCS7: -61dBm 11ac HT80 MCS9: -59dBm 11ax HESU80 MCS11: -56dBm 11ax HESU160 MCS11: -54dBm
Connected Devices	Up to 64 devices connected simultaneously (32 at 2.4Ghz and 32 at 5Ghz)
Safety	WPA-PSK/WPA2-PSK and WPA/WPA2 64/128-bit TKIP/AES WPS - Wi-Fi Protected Setup
Access Control	MAC Allow/Block List
QoS	WMM - Wi-Fi Multimedia
Mode of Operation	Router

INTERFACES WAN

Item	Feature
Quantity	1
Pattern	10/100/1000 Base-T via RJ-45 connector
IPv4 Connections	DHCP Client, PPPoE Client, Static IP, DHCP Server, Static IPv4
IPv6 Connections	DHCPv6 Server, SLAAC+Stateless DHCP, PPPoE Client, and IPv6 Static

INTERFACES LAN

Item	Feature
Quantity	3
Pattern	10/100/1000 Base-T via RJ-45 connector
IPv4 Connections	DHCP Client, PPPoE Client, Static IP, DHCP Server, Static IPv4
IPv6 Connections	DHCPv6 Server, SLAAC+Stateless DHCP, PPPoE Client, and IPv6 Static
DNS	DNS Proxy

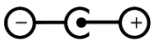
SOFTWARE

Item	Feature
Safety	Port Forwarding MAC Filtering URL Filtering IP Filtering DMZ
Mesh	EasyMesh standard support (Controller and Agent Mode) Supports up to 2 synchronized agents EasyMesh backhaul over Wi-Fi and/or Cable (hybrid mode) EasyMesh Routers Compatible Agents: DM956 4GT 3000 Compatible EasyMesh Controller Devices: DM956 4GT 3000
Management	IPv4 management via WEB interface (HTTP) Remote Management by TR-069 Two levels of access to the web interface Backup/Load Configuration Factory Reset Preset Settings NTP Syslog
Troubleshooting	Ping IPv4/IPv6 Traceroute IPv4/IPv6 Nslookup Loopback Detection
Routing	NAT

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)
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

PHYSICAL CHARACTERISTICS

Hardware		DM956 4GT 3000
Dimensions	Height	28 mm
	Width	220 mm
	Depth	145 mm
Operating Conditions	Temperature range	0^0C to 40^0C
	Relative humidity	10% to 95%, non-condensing
Power Supply	Entry	100 Vac to 240 Vac, 50 to 60Hz
	Output	12 Vdc, 1000mA
	Average consumption	< 12 W
	Polarity	
	LAN / WAN	4 x 10/100/1000 Base-T ports
	Antennas	2 x 2.4GHz antennas and 2 x 5GHz antennas, with 5dBi gain

ORDERING INFORMATION

Model	Description	Photo
DM956 4GT 3000 *825029.xx*	DM956 4GT 3000 - AX3000 dual band 2.4GHz and 5GHz WiFi router in plastic enclosure for residential use, with 1 Gigabit Ethernet WAN interface and 3 Gigabit Ethernet LAN interfaces. A 100-240Vac power supply and a network cable are included.	

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