

HAP202 Wi-Fi HaLow Unit



Product Brief






Powered by Morse Micro's MM8108 Wi-Fi HaLow chipset, Vantron HAP202 features a new configuration with dual Ethernet ports. This design provides more flexible and convenient access to the device management portal, eliminating the need to manually switch between LAN and WAN connections when the 2.4GHz/5GHz Wi-Fi is operating in client mode. In addition, it is designed to maximize the chipset's throughput to ensure reliable and efficient data transfer.






Operating in both sub-1GHz (IEEE 802.11ah) and 2.4GHz/5GHz (802.11 b/g/n/ac) bands, the device provides long-range connectivity up to 1km at 32.5Mbps and short-range speeds up to 867Mbps, respectively, ensuring reliable performance. It is equipped with DIP switches for quick configuration of HaLow base and nodes in either standard or mesh setups, while also allowing for user-specific customization. The DPP (Wi-Fi Easy Connect) handles secure, effortless device pairing, and the optional IP54 waterproof kit enables reliable outdoor deployment.

Ideal for long-range, sub-GHz networking, HAP202 is well-suited for a variety of applications, including smart home systems, video surveillance, industrial process control, logistics and asset tracking, and smart city infrastructure.

Exterior and Features



-  Wi-Fi HaLow & traditional dual-band Wi-Fi operation
-  1/2/4/8MHz scalable HaLow bandwidth
-  Dual-core SoC at 880MHz
-  Dual Ethernet ports for flexible connectivity
-  Enhanced throughput and performance

-  HaLow Standard & Mesh networking modes
-  Enhanced Wi-Fi security protections
-  DPP Easy Connect supported
-  Compact size for easy integration
-  IP54 waterproof kit available

HAP202 Wi-Fi HaLow Unit Datasheet

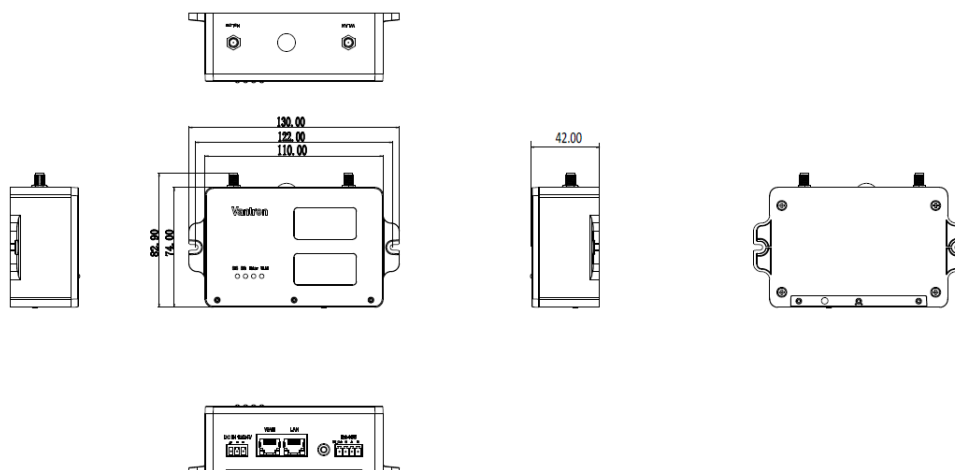
HAP202			
System	CPU	MediaTek Dual-core MIPS®1004Kc CPU, 880MHz	
	Wi-Fi HaLow chipset	Morse Micro MM8108	
	Memory	256MB	
	Storage	64MB	
WLAN Features	2.4GHz/5GHz Wi-Fi	Standard: IEEE 802.11 b/g/n/ac	
		Frequency range: 2.412GHz~2.462GHz; 5.15GHz~5.25GHz , 5.25GHz~5.35GHz, 5.47GHz~5.725GHz, 5.725GHz~5.85GHz	
		Channel bandwidth: 20/40/80MHz	
		Data rate: up to 867Mbps	
		Security: AES-CCMP	
		Working mode: access point (AP), station (STA)	
	Wi-Fi HaLow	Standard: IEEE 802.11 ah	
		Frequency range: 903.5MHz~926.5MHz (US)	
		Channel bandwidth: 1/2/4/8MHz, dynamic channel selection (DCS) supported	
		Transmit power: 23dBm	
		Data rate: up to 32.5Mbps@8MHz or 15Mbps@4MHz	
		Fast pairing: DPP Easy Connect via hardware/software setup	
Bluetooth	Version	BT 5.4	
	I/O	Fast Ethernet	2 x RJ45, 10/100Mbps (1 x WAN (default)/LAN, 1 x LAN)
System Control	LED indicators	1 x Wi-Fi HaLow antenna	2 x 2.4GHz/5GHz Wi-Fi antenna
		1 x System LED	1 x HaLow signal LED
	1 x HaLow activity LED	1 x WLAN activity LED	
	Button	1 x DPP mode button	
Mechanical	Dimensions	IP40 version (with wall mount): 130mm x 82.9mm x 42mm	
		IP54 version (with wall mount and water proof kit): 130mm x 127.9mm x 44mm	
	Casing material	Black plastics, UL94, SP6 compliant (Optional: White casing)	
	Installation	Flat mount, wall mount	
	IP rating	IP40 (Optional: IP54, independent waterproof kit)	
Power	Input	9V ~ 40V DC	
	Port	3-pin terminal (Over-current protection, reverse polarity protection)	

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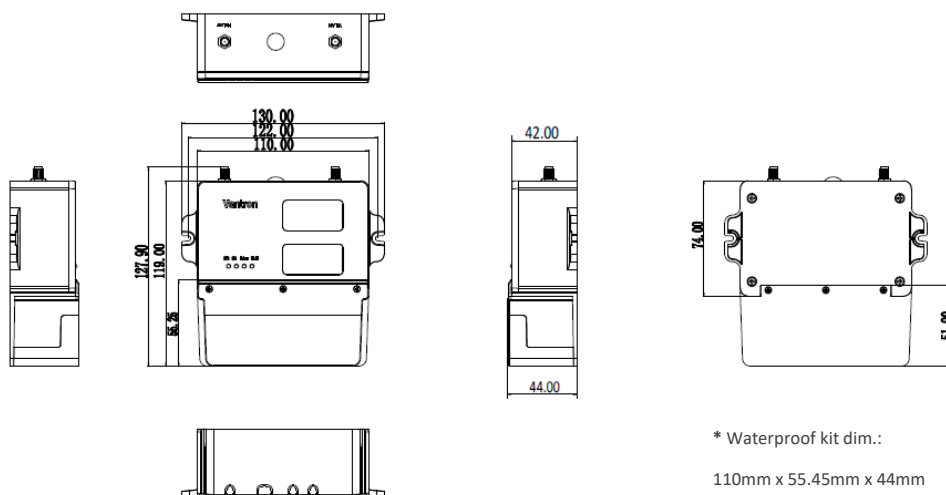
HAP202		
Software	Operating system	VantronOS
	Device management	Vantron BlueSphere GWM
	Upgrade	Local upgrade, OTA upgrade
	Network protocol	IPV4, HTTPS, TCP & UPD, NTP client and server, ARP, TLS
	Link detection	Heartbeat detection, auto reconnection
	Network reliability	Multi-channel failover, backup between Ethernet, Wi-Fi, HaLow
	IP application	Ping, Traceroute, DHCP Server/Client
Security	IP routing	Static routing, dynamic routing
	2.4GHz/5GHz Wi-Fi	AES-CCMP
	Wi-Fi HaLow	AES, WPA3
	Firewall	Stateful
Environmental	Access control	MAC address, IP address, URL
	Temperature	Operating: -20°C ~ +70°C Storage: -40°C ~ +85°C
	Humidity	≤ 95% RH (non-condensing)
	Certification	FCC, CE, ISED

Mechanical Outline

- IP40 version (with wall mount): 130mm x 82.9mm x 42mm (including antennas)



- Optional IP54 version (with wall mount and water proof kit): 130mm x 127.9mm x 44mm (including antennas)



Ordering Information

Ordering No.	Memory & Storage	HaLow Chipset	IP Rating	Installation
HAP202	256MB + 64MB	MM8108	IP40	Wall mount
HAP202-54	256MB + 64MB	MM8108	IP54	Wall mount

Packing list	
HAP202 Wi-Fi HaLow Unit	1
Wi-Fi HaLow antenna	1
2.4GHz/5GHz Wi-Fi & BT antenna	1
DC power connector	1

Optional accessories		
12V/1A power adapter	1	
Power cord	1	
IP54 version	Waterproof base	1
	Waterproof cover	1

Exploded View of the Waterproof Kit

