

HAP202 Wi-Fi HaLow Unit



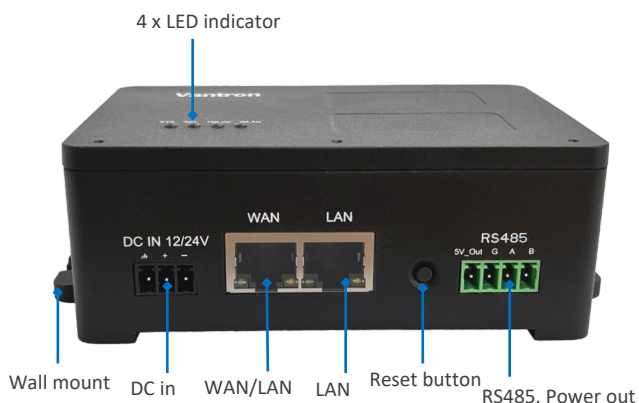
Product Brief

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. 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.

Layout and Features



-  Wi-Fi HaLow & traditional dual-band Wi-Fi operation
-  1/2/4/8MHz scalable HaLow bandwidth
-  Single-core SoC at 792MHz
-  Dual Ethernet ports for flexible connectivity
-  Enhanced throughput and performance

-  Standard HaLow & 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

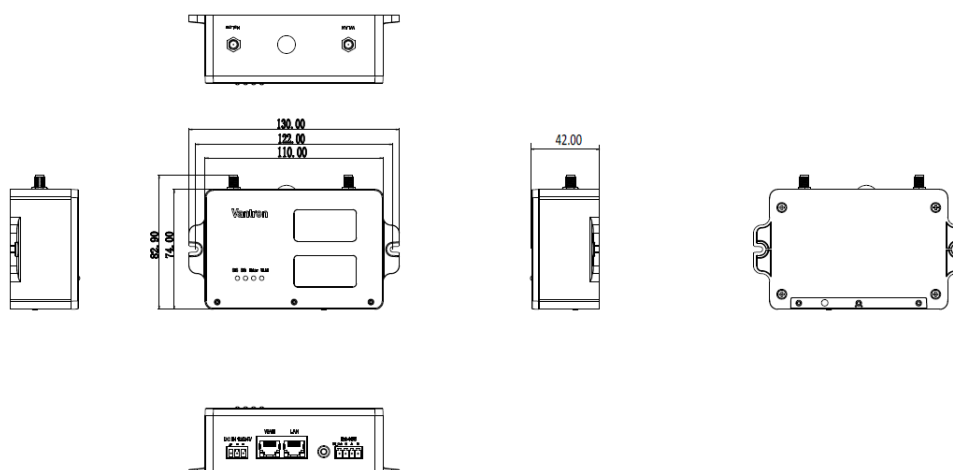
HAP202		
System	CPU	NXP i.MX6ULL, single-core Arm Cortex-A7 CPU, up to 792MHz
	Wi-Fi HaLow chipset	Morse Micro MM8108
	Memory	512MB (Optional: 256MB)
	Storage	128MB
WLAN Features	2.4GHz/5GHz Wi-Fi	Standard: IEEE 802.11 b/g/n/ac
		Frequency range: 2.412GHz~2.462GHz; 5.15GHz~5.25GHz, 5.25GHz~5.35GHz, 5.47GHz~5.725GHz, 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
		Security: AES, WPA3
		Working mode: access point (AP), station (STA), Mesh
Bluetooth	Version	BT 5.4
I/O	Fast Ethernet	2 × RJ45, 10/100Mbps (1 × WAN (default)/LAN, 1 × LAN)
	Antenna	1 × Wi-Fi HaLow antenna connector
		1 × 2.4GHz/5GHz Wi-Fi antenna connector
	Serial Port	1 × RS485 (4-pin terminal, 5V output)
System Control	LED indicators	1 × System LED
		1 × HaLow signal LED
	Button	1 × HaLow activity LED
		1 × Wi-Fi activity LED
Mechanical	Dimensions	1 × Reset button ([2s, 6s): Restart; [6s, 12s): Configuration clear; [12s, 20s): Factory reset; [20s,+∞): Normal operation)
	Casing material	IP40 version (Including wall mount): 130mm × 82.9mm × 42mm
	Installation	IP54 version (Including wall mount & water proof kit): 130mm × 127.9mm × 44mm
	IP rating	Black plastics, UL94, SP6 compliant (Optional: White casing)
		Flat mount, wall mount
Power	Input	IP40 (Optional: IP54, independent waterproof kit provided)
	Port	9V ~ 40V DC
		3-pin terminal (Over-current protection, reverse polarity protection)

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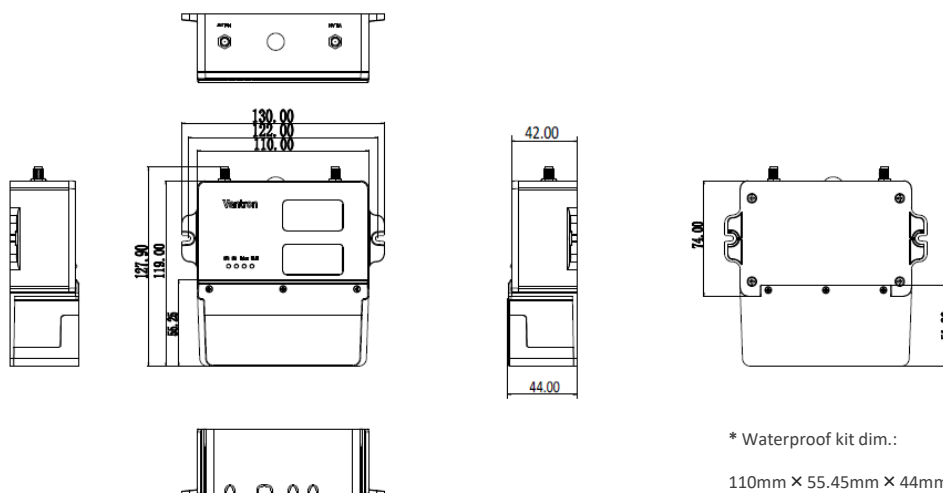
HAP202			
Software	Operating system	VantronOS	
	Device management	Vantron BlueSphere GWM	
	Upgrade	Local upgrade, OTA upgrade	
	Network protocol	IPv4, HTTPS, TCP & UDP, NTP client and server, ARP, TLS	
	Link detection	Heartbeat detection, auto reconnection	
	Network reliability	Multi-channel failover, backup between Ethernet, Wi-Fi, HaLow	
	IP application	Ping, Traceroute, DHCP Server/Client	
	IP routing	Static routing, dynamic routing	
Security	2.4GHz/5GHz Wi-Fi	AES-CCMP	
	Wi-Fi HaLow	AES, WPA3	
	Firewall	Stateful	
	Access control	MAC address, IP address, URL	
Environmental	Temperature	Operating: -20°C ~ +70°C	Storage: -40°C ~ +85°C
	Humidity	≤ 95% RH (Non-condensing)	
	Certification	FCC, CE, ISED	

Mechanical Outline

- IP40 version: 130mm × 82.9mm × 42mm (Including wall mount & antenna connectors)



- Optional IP54 version: 130mm × 127.9mm × 44mm (Including wall mount, antenna connectors water & proof kit)



— **Ordering Information**

Ordering No.	Memory & Storage	HaLow Chipset	IP Rating	Installation
HAP202	512MB + 128MB	MM8108	IP40	Wall mount
HAP202-54	512MB + 128MB	MM8108	IP54	Wall mount

* More variants are available, please contact the sales executive for more information.

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**

