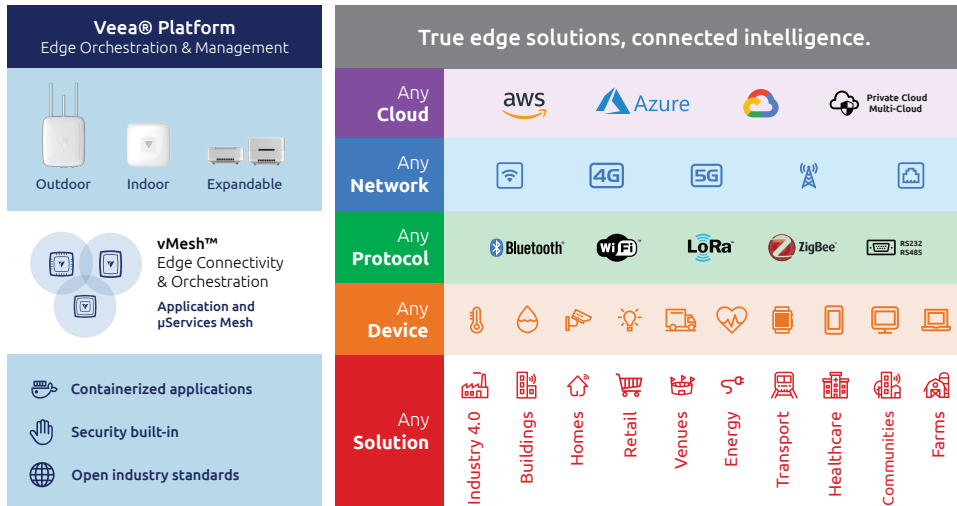


Outdoor Smart Computing Hub with Integrated Wireless Access, Server-Class Processing and Mesh Scalability

The Veeahub Pro VHH09 Smart Computing Hub offers enterprise-grade processing and a broad range of simultaneous connectivity options available in an integrated edge access/computation platform.

Designed to meet the needs of a broad array of smart edge applications in outdoor and industrial environments, the VHH09 integrates wireless connectivity, quad core compute resources, and enough storage to support low-latency, IoT and data-intensive edge applications with no-code AI— all secured by a chain of trust that starts with the hardware that will only run digitally signed software.

The VHH09 extends the connectivity and processing power of the Veeahub Edge Platform™ to outdoor and industrial use cases, resetting the bar in edge computing simplicity with a broad range of capabilities typically required for most use cases in one integrated unit with mesh networking and computing.



Veeahub is a highly integrated connectivity and computation platform which integrates local mesh interconnect, wireless communication and compute capability into a single scalable unit.

Designed to be used either standalone or as part of a mesh network, the Veeahub combines the functions of Wireless Routers, IoT Gateways, and local servers into a single cloud-managed unit. Central to managing this sophisticated wireless network is the Veeahub Cloud; a cloud-based dashboard that provides multiple easy-to-view graphical user interfaces backed up by a powerful backend management tool.

¹ Optional module/feature

² Veeahub holds unique IP on Secure Docker containers that provide for highly secure platform environment for sandboxed applications to run on Veeahub.



Product Highlights

- Tri-band Wi-Fi 5 Access Point
- IoT Gateway supporting Bluetooth (Classic and BLE), Zigbee, Thread/6LoWPAN, GNSS, LoRaWAN (optional) supported by 5G BASE-T and 4G LTE WAN
- Mesh router with advanced networking
- Linux server with 64-bit quad-core CPU and virtualized software environment for Secure Docker² containers, Software Defined Networking (SDN) and Network Function Virtualization
- Up to 2TB local Storage
- Veeahub Developer Portal with toolkit for application developers
- IoT Gateway Application toolkit with automation tools and templates
- Comprehensive multi-tenant cloud management
- Support for no-code AI workflows
- Fan-less; No special cooling required
- IP65 enclosure rating
- Operating temperature -40°C to 65°C

Compute	
Processing	<ul style="list-style-type: none"> • Arm® ARMv8 • Quad-core @ 1.5GHz
Memory	<ul style="list-style-type: none"> • 4 GB PCDDR4 (8 GB option available)
Internal Storage	<ul style="list-style-type: none"> • 32 GB eMMC flash
External Storage	<ul style="list-style-type: none"> • Up to 2TB via microSDXC™
Hardware Acceleration	<ul style="list-style-type: none"> • Cryptography Engine

Wi-Fi®	
Standards	<ul style="list-style-type: none"> • Dual-band IEEE 802.11 a/b/n/ac
Radio Chains and Peak PHY Rates	<ul style="list-style-type: none"> • 2.4GHz: 2x2:2 / 300 Mbps • 5.2GHz: 4x4:4 / 1733 Mbps¹ (multiplexed)
Bandwidth	<ul style="list-style-type: none"> • 20, 40, 80 MHz
SSID Management	<ul style="list-style-type: none"> • 8 SSIDs, 4 per WiFi radio
Capacity	<ul style="list-style-type: none"> • 128 clients per radio
Security	<ul style="list-style-type: none"> • WPA-PSK, WPA-TKIP, WPA2 AES, WPA3, 802.11i • SSID (AP Isolation) • Dynamic PSK
Other Features	<ul style="list-style-type: none"> • Channel Selection (DFS/ACS) • Device Roaming (802.11r) • AP, Hotspot
RF Configuration	<ul style="list-style-type: none"> • 2.4GHz: 2 internal antennas • 5.2GHz: 4 internal antennas
Frequency Bands	<ul style="list-style-type: none"> • 2.4 - 2.484 GHz (ISM) • 5.17 - 5.25 GHz (U-NII-1) • 5.25 - 5.33 GHz (U-NII-2) • 5.49 - 5.73 GHz (U-NII-2e) • 5.73 - 5.83 GHz (U-NII-3)

IoT Connectivity	
Bluetooth®	<ul style="list-style-type: none"> • Bluetooth Classic 4.2 • Bluetooth 5.x (Bluetooth Low Energy)
Zigbee®	<ul style="list-style-type: none"> • Zigbee 3.0, Zigbee Pro
Thread®	<ul style="list-style-type: none"> • Supported

WWAN Connectivity	
	Optional with 4G module
4G / LTE Module	<ul style="list-style-type: none"> • CAT-4 • GNSS • uSIM tray behind access port

LoRaWAN Connectivity	
Available frequencies	<ul style="list-style-type: none"> • 900 MHz, 868 MHz, 470 MHz

Networking	
Mesh	<ul style="list-style-type: none"> • Wired or Wireless with vMesh® Technology
IP	<ul style="list-style-type: none"> • IPv4, IPv6, dual-stack
Security	<ul style="list-style-type: none"> • Stateful Firewall • 802.1Q VLAN • 802.1x • VxLAN

Physical Interfaces	
Status LED(s)	<ul style="list-style-type: none"> • Status LEDs on the side panel
WAN / LAN Ports	<ul style="list-style-type: none"> • 1x 10/100/1000 with PoE support (M12 Conn.) • 1x 10/100/1000/2.5G/5G (M12 Connector)
PoE	<ul style="list-style-type: none"> • Supported on Ethernet Port 1 (802.3bt Type 3)
RS323/422/485	<ul style="list-style-type: none"> • 1x M12 5-pin connector
Other	<ul style="list-style-type: none"> • microSDXC™ Slot • Reset button

Physical Characteristics	
Environment	<ul style="list-style-type: none"> • Outdoors • IP65 Rating
Colors	<ul style="list-style-type: none"> • White
Dimensions (L x W x H)	<ul style="list-style-type: none"> • 360mm x 295mm x 90mm
Weight	<ul style="list-style-type: none"> • 2.8 kg
Mounting Options	<ul style="list-style-type: none"> • Wall • Pole
Operating Temp.	<ul style="list-style-type: none"> • -40°C to 65°C

Power	
Power Supply	<ul style="list-style-type: none"> • 48 VDC @ 1.5A
Typical Consumption	<ul style="list-style-type: none"> • 60 W

Certifications and Compliance	
Electric Certifications	<ul style="list-style-type: none"> • FCC / CE / KC / SSRC / UL

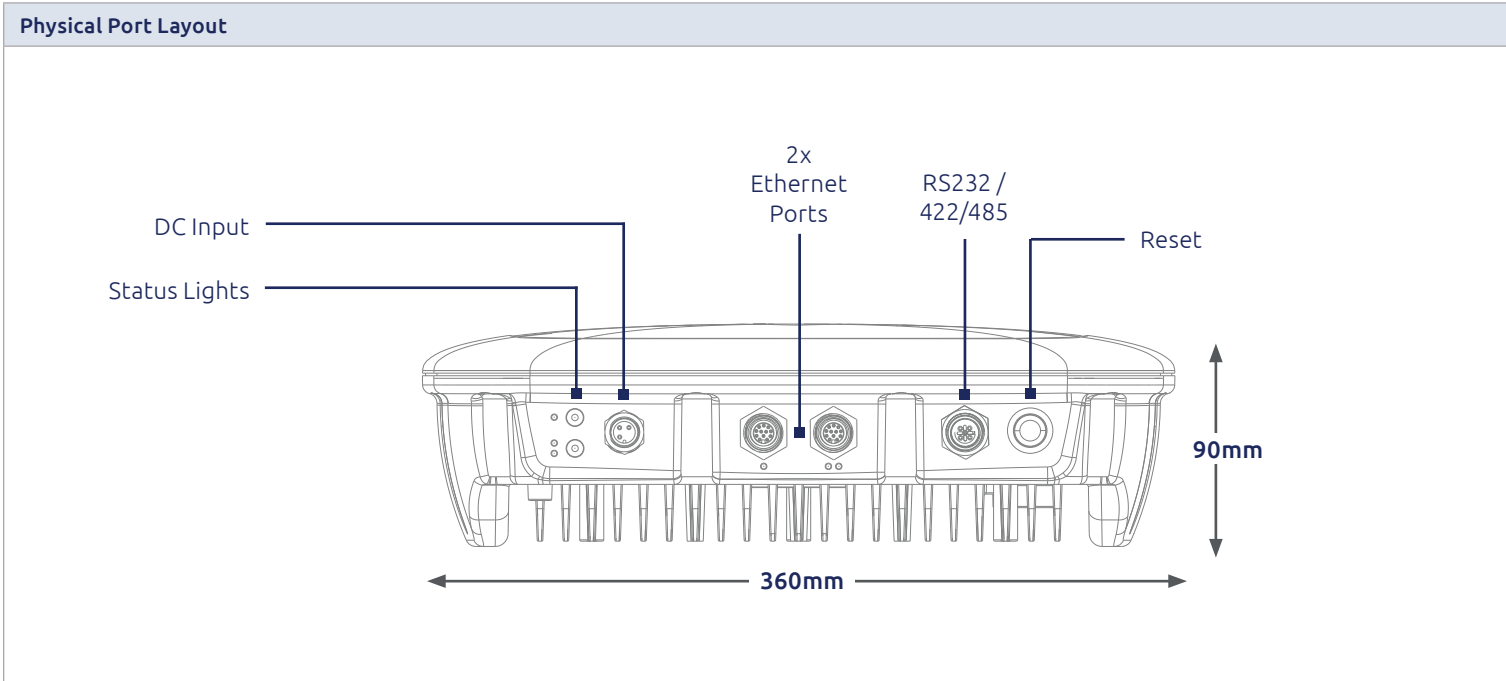
Software & Services	
For more information, visit veea.com/resources	
Management & Monitoring	<ul style="list-style-type: none"> • Veeva Control Center • Veeahub Manager
Cloud Services	<ul style="list-style-type: none"> • Veeva Cloud
VeeWare & Edge Applications	<ul style="list-style-type: none"> • Containerized applications • Veeahub Developer Toolkit

¹ Shared with vMesh at 5GHz

Specifications subject to change without notice. Country-specific regulatory information is available upon request.

Warranty	
Type	<ul style="list-style-type: none"> Limited device warranty Veeahub extended warranty packages available.

Ordering Information	
Contact us at sales@veea.com for sales or additional information	
Model Number	<ul style="list-style-type: none"> VHH09
Optional Accessories	<ul style="list-style-type: none"> Veeahub packages Mounting Kit



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