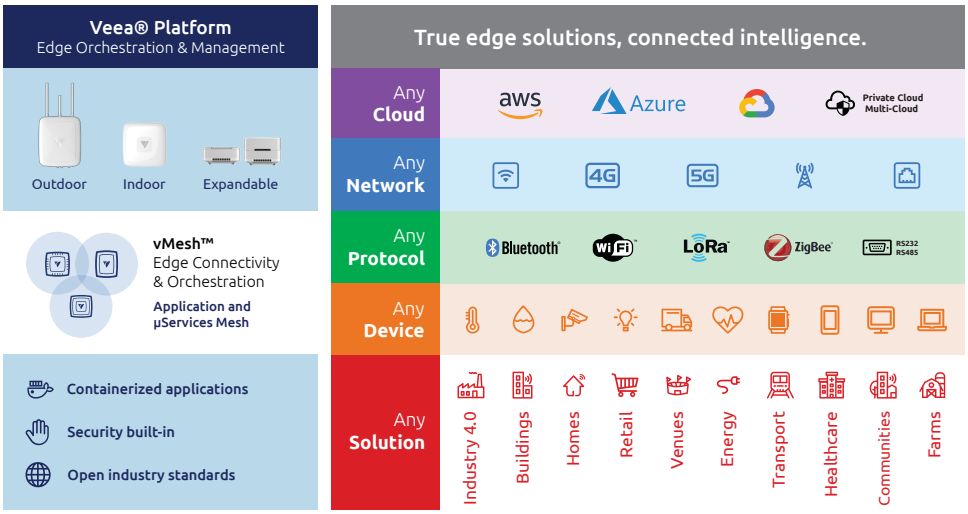
Indoor Smart Computing Hub with Integrated Wireless Access, Server-Class Processing and Mesh Scalability

The VeeaHub Pro VHE09 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 indoor smart edge applications, the VHE09 integrates wired and wireless connectivity, quad core compute resources, and enough storage to support low-latency, IoT and data-intensive edge applications with no-code AI while providing for privacy and data sovereignty and context awareness — all secured by a chain of trust that starts with the hardware that will only run digitally signed software.

The VHE09 extends the capabilities of the Veea Edge Platform™ which is resetting the bar in edge computing simplicity with a broad range of capabilities typically required for most use cases in one highly 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 VeeaCloud; 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] Veea holds unique IP on Secure Docker containers that provide for highly secure platform environment for sandboxed applications to run on VeeaHub.

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Product Highlights

- Tri-band Wi-Fi 5 Access Point
- IoT Gateway supporting Bluetooth (Classic and BLE), Zigbee, Thread/ 6LoWPAN, GNSS, LoRaWAN (optional) supported by 5GBASE-T and 4G LTE (optional) WAN
- Mesh router with advanced networking
- Linux server with quad-core CPU and virtualized software environment for Secure Docker[2] containers, Software Defined Networking (SDN) and Network Function Virtualization
- Up to 2TB local Storage
- Veea 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
- Operating temperature 0°C to 50°C

Intelligently Connected™

Compute	
Processing	• Arm® ARMv8 • Quad-core @ 1.5GHz
Memory	• 2 GB PCDDR4 (4 GB option available)
Internal Storage	• 32 GB eMMC flash
External Storage	• Up to 2TB via microSDXC™
Hardware Acceleration	• Cryptography Engine

Wi-Fi®	
Standards	• Dual-band IEEE 802.11 a/b/n/ac
Radio Chains and Peak PHY Rates	• 2.4GHz: 2x2:2 / 300 Mbps • 5.2GHz: 4x4:4 / 1733 Mbps[1] (multiplexed)
Bandwidth	• 20, 40, 80 MHz
SSID Management	• 8 SSIDs, 4 per WiFi radio
Capacity	• 128 clients per radio
Security	• WPA-PSK, WPA-TKIP, WPA2 AES, WPA3, 802.11i • SSID (AP Isolation) • Dynamic PSK
Other Features	• Channel Selection (DFS/ACS) • Device Roaming (802.11r) • AP, Hotspot
RF Configuration	• 2.4GHz: 2 internal antennas • 5GHz: 4 internal antennas
Frequency Bands	• 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®	• Bluetooth Classic 4.2 • Bluetooth 5.x (Bluetooth Low Energy)
Zigbee®	• Zigbee 3.0, Zigbee Pro
Thread®	• Supported

WWAN Connectivity	
Optional with 4G module	
4G / LTE Module	• CAT-4 • GNSS • External uSIM tray

LoRaWAN Connectivity	
Optional module	
Available frequencies	• 900 MHz, 868 MHz, 470 MHz

Networking	
Mesh	• Wired or Wireless with vMesh® Technology
IP	• IPv4, IPv6, dual-stack
Security	• Stateful Firewall • 802.1Q VLAN • 802.1x • VxLAN

Physical Interfaces	
Status LED(s)	• Multi-color status LED on the front panel • Status LEDs on the side panel
WAN / LAN Ports	• 1x 10/100/1000 Base-T Ethernet with PoE support • 1x 10/100/1000/2.5G/5G Base-T Ethernet
PoE	• Supported on Ethernet Port 1 (802.3bt Type 3)
USB	• 3x USB 3.0 Type A
RS323/422/485	• 1x 9-Pin D-Type
Other	• microSDXC™ Slot • Power button • Reset button

Physical Characteristics	
Environment	• Indoors
Colors	• White
Dimensions (L x W x H)	• 280mm x 275mm x 61mm
Weight	• 2.5 kg
Mounting Options	• Desk • Ceiling • Wall
Operating Temp.	• 0°C to 50°C

Power	
Power Supply	• 48 VDC @ 1.5A
Typical Consumption	• 60 W

Certifications and Compliance	
Electric Certifications	• FCC / CE / KC / SSRC / UL

Software & Services	
For more information, visit **veea.com/resources**	
Management & Monitoring	• Veea Control Center • VeeaHub Manager
Cloud Services	• Veea Cloud
VeeaWare & Edge Applications	• 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.

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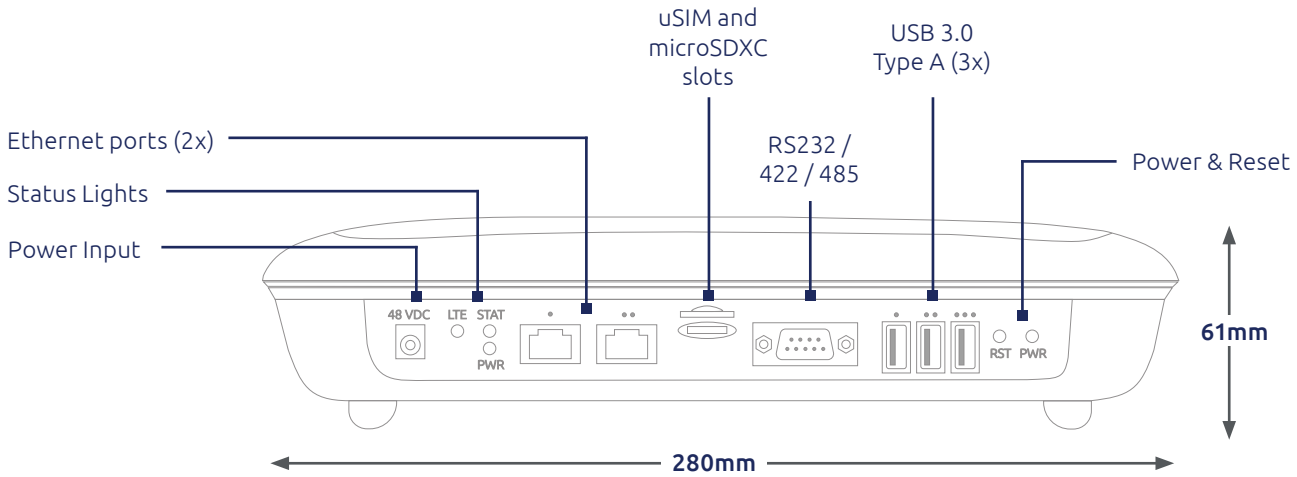
Warranty	
Type	• Limited device warranty • VeeaCare extended warranty packages available.

Ordering Information	
Contact us at **sales@veea.com** for sales or additional information	
Model Number	• VHE09
Optional Accessories	• VeeaCare packages • Mounting Bracket

Physical Port Layout



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