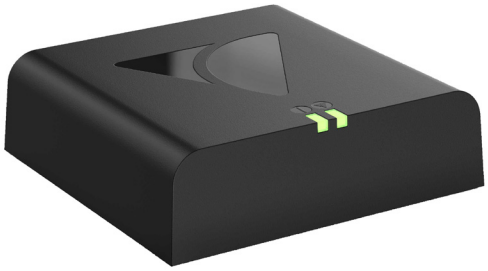
Smart Computing Hub with Integrated Wireless Access, Server-Class Processing, and Mesh Scalability

Dual-band Wi-Fi 5 mesh / IoT / WAN / 4G LTE connectivity, Linux processor, and HDMI port

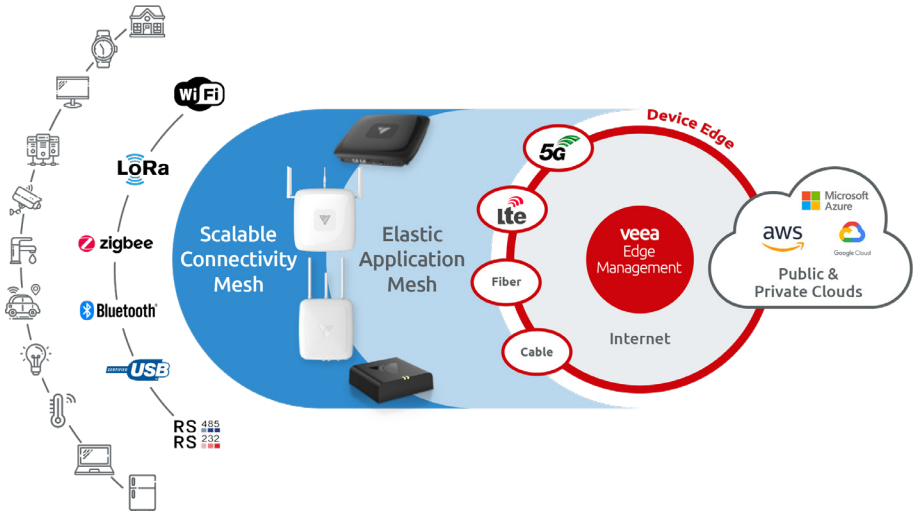


VeeaHub® Smart Computing Hubs

The VeeaHub VHC05 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 consumer and SOHO applications, the VHC05 integrates wired and wireless connectivity and quad core compute resources—all secured by a hardware-based chain of trust that will only run digitally signed software.

The VHC05 offers a value focused entry point to the Veea Edge Platform™ which is resetting the bar in edge computing simplicity.



VHC05 Highlights

- Simple plug-and-play setup for easy deployment
- Integrated wired and multiple wireless connectivity options
  - Wi-Fi 5
  - Zigbee
  - Bluetooth
  - 4G LTE
- 4G Fail-over protection (optional)
- HDMI port for smart display
- Multi-node edge network scalability through Veea's vMesh™ technology
- Linux Secure Container software architecture and hardware-based chain-of-trust for unmatched platform security
- Fan-less; No special cooling required
- Operating temperature 0°C to 40°C

Specifications

Compute	
Quad Core Linux Server	
Processing/Compute	64-bit Armv8, Quad Core @1.2GHz (Running 32-bit for Memory Footprint Reduction)
Memory	1 GB PCDDR4
Internal Storage	32 GB eMMC flash

Wi-Fi	
Dual-band 802.11 b/g/n/ac	
2.4 GHz	2x2:2 / 300 Mbps
5.2 GHz	2x2:2 / 867 Mbps
Frequency Bands (Country restrictions apply)	2.412-2.472 GHz 5.490-5.850 GHz
Bandwidth	20 / 40 / 80 MHz
Antennas Gains	2.4 GHz / 4.0 dBi 5.2 GHz / 3.5 dBi 5.7 GHz / 4.0 dBi
Security	WPA-PSK, WPA-TKIP, WPA2 AES, WPA3, 802.11i, Dynamic PSK

Low Power IOT	
Independent IoT Radios w/ Hardware Co-existence	
Bluetooth Classic 4.2	
Bluetooth 5.x (BLE)	
Zigbee Legacy Modes	
Zigbee 3.0	

Cellular / Mobile	
4G LTE	Quectel EC25 modules (country dependent)

Networking	
Meshing	Wired / Wireless
Management	Up to 4 SSIDs per radio
Quality of Service	Channel Selection (ACS)
Security	Stateful Firewall 802.1Q VLAN SSID (AP Isolation) VxLAN WPA2 Personal

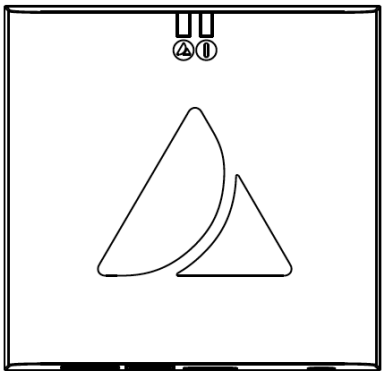
Interfaces	
WAN / LAN Ports	1 - 10/100BT 2nd ethernet available via USB Dongle
HDMI 2.0	
2x USB2.0	External memory/connectivity possible

Electrical	
Power Supply	5V @ 3.5A
Power Consumption (Max / Typical)	17.5W/12W

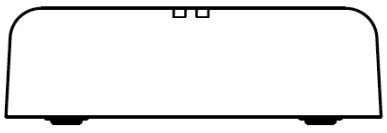
Physical	
Mounting	Desk / Ceiling / Wall
Dimensions (W x D x H)	120mm x 120mm x 35mm
Weight	1.4kg

Environmental	
Indoor / Outdoor	Indoor
Operating Temperature	0°C to 40°C

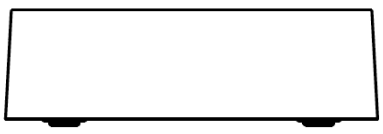
Electrical	
FCC / CE / KC / SRRC / UL / NOM / IFETEL	



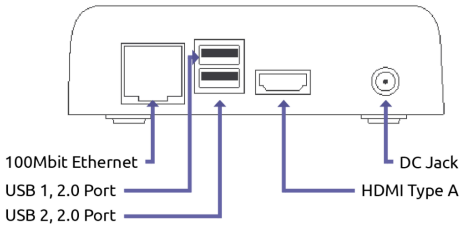
A Top View



B Front View



C Side View



D Rear View

Wi-Fi Transmit Power and Receive Sensitivity

Band	Mode		Data Rate	Number of Chains	TX Power per Chain (dBm)	RX Sensitivity (dBm)
2.4 GHz	802.11b		11Mbps	2	20.0	-87.0
	802.11g		6Mbps	2	20.0	-91.0
			54Mbps		18.0	-72.0
	802.11n	HT20	MCS0	2	20.0	-91.0
		HT20	MCS7		18.0	-72.0
5 GHz	802.11a		6Mbps	2	22.0	-90.0
			54Mbps		19.0	-71.0
	802.11n	HT20	MCS0	2	22.0	-91.0
		HT40			22.0	-88.0
		HT20	MCS7	2	19.0	-72.0
		HT40			19.0	-70.0
	802.11ac	VHT20			22.0	-90.0
		VHT40	MCS0	2	22.0	-87.0
		VHT80			22.0	-84.0
		VHT20			19.0	-71.0
		VHT40	MCS7	2	19.0	-68.0
		VHT80			19.0	-65.0
		VHT20			17.0	-67.0
		VHT40	MCS8	2	17.0	-64.0
		VHT80			17.0	-61.0
		VHT20			NA	NA
		VHT40	MCS9	2	17.0	-62.0
		VHT80			17.0	-59.0

