

Konceptux HA Box

Product Submittal — for engineer / specifier approval

Product Description

The Konceptux HA Box is a factory-configured Home Assistant server for residential and light-commercial smart building automation. Each unit ships fully assembled, bench-tested, and pre-loaded with a custom dashboard, running entirely on the local network with no cloud dependency. Available in three configurations (Essential, Pro, Premium) differentiated by compute platform and storage capacity; all tiers share an identical Zigbee 3.0 radio, software stack, and enclosure design.

Full Specifications

Processor	Raspberry Pi 5 — BCM2712 quad-core Cortex-A76 @ 2.4GHz (Pi 4 4GB on Essential tier)
RAM	4GB or 8GB LPDDR4X-4267
Storage	256GB or 512GB M.2 NVMe (PCIe 2.0) via M.2 HAT+; 256GB USB 3.1 SSD on Essential tier
Network	Gigabit Ethernet · 802.11ac Wi-Fi · Bluetooth 5.0
Zigbee Radio	Sonoff USB Dongle Plus · EFR32MG21 chipset · Zigbee 3.0
Power Input	5V/5A USB-C — official Raspberry Pi 5 27W PSU (included)
Cooling	Official Raspberry Pi 5 Active Cooler, fan + bonded heatsink (Pro/Premium)
Enclosure	Custom PETG, 3D-printed, metallic-painted finish · 105 × 75 × 52mm · Konceptux logo embossed on lid
Software	Home Assistant OS + Supervisor · Zigbee2MQTT · Mosquitto · InfluxDB · Grafana
Automation Model	100% local processing — no internet connection required to operate
Boot Time	Under 10 seconds from cold start
Firmware Updates	One-click OTA from the Home Assistant Supervisor dashboard
Operating Temp.	0°C to 40°C ambient, indoor use only

Wiring / Terminal Reference

Connector	Function	Cable / Notes
Ethernet (RJ45)	Network uplink to router / switch	Cat5e or Cat6 patch cable
USB-C (power)	DC power input, 5V/5A	Official Raspberry Pi 5 27W USB-C PSU (included)
Zigbee coordinator	Radio uplink to Zigbee mesh	Pre-installed internally — do not remove
USB 3.0 (x2)	Reserved — local storage / peripherals	Not required for standard installation

Ordering Information

Part No.	Description	List Price
HABOX-ESS-4GB	HA Box — Essential (Pi 4 4GB / 256GB USB SSD)	\$349 CAD
HABOX-PRO-4GB	HA Box — Pro (Pi 5 4GB / 256GB NVMe) — most popular	\$499 CAD
HABOX-PRM-8GB	HA Box — Premium (Pi 5 8GB / 512GB NVMe / Frigate NVR)	\$649 CAD
HABOX-ACC-SNSR	Accessory — 4x Zigbee Sensor Starter Kit (pre-paired)	\$149 CAD
HABOX-ACC-MNT	Accessory — Wall-mount bracket, PETG, matched finish	\$19 CAD
HABOX-ACC-EXT	Accessory — Zigbee antenna 3m USB extension cable	\$15 CAD

Dimensions

105mm (W) × 75mm (D) × 52mm (H). Approx. weight 220–240g. See Installation Instructions (doc. IN-HABOX-1000) for a dimensioned drawing.