YOI

Handheld Device Featuring 5W Energy Consumption for On Demand Connectivity with Services.



Wi Fi 4

≃ 5W

The **Internet of Edges (IoE)** is a disruptive digital infrastructure created by a network of interconnected edge devices that share resources to deliver high-performing, locally hosted digital services. Autonomous and interoperable, it serves as both an alternative and a complement to centralized global systems. IoE combines cutting-edge technologies in direct communications networking, edge computing, and distributed systems through GreenSoft, designed to integrate custom edge devices. We also offer ready-to-use edge devices called **YOI (Your Own Internet of Edges device)** with GreenSoft integrated.

YOI

YOI is an embedded Linux device equipped with Green Communications' software (GreenSoft). Each device comes with two Wi-Fi 4 interface (2.4 and 5 GHz) that creates a wireless backhaul network with other YOIs, and provides an access point to smartphones, tablets, laptops, or any other Wi-Fi device. YOI features a web server offering edge content, services, and applications to users. One may also configure YOI as a gateway. In this case, the edge traffic stays local and global traffic is sent across the gateways to other networks.

Turn It On, It Works

Anyone can create a stand-alone digital infrastructure simply by switching on a group of YOI devices. They integrate everything needed to provide connectivity and digital services autonomously, without the need for Internet access or external infrastructure.

Mobility

The Internet of Edges supports the mobility of YOI devices, servers and users. Embedded YOI devices collectively form a dynamic, self- configuring wireless network. Users can seamlessly handover from one device to another while maintaining continuity of service.

Performance

Technological advances in the Internet of Edges (IoE) offer robustness, energy efficiency, and scalability, making it an alternative and interoperable solution to traditional centralized digital infrastructures. IoE is capable of efficiently handling communications at various scales, whether on a site, city, or regional level

Openness

YOI devices provide tools, raw data and support open standards, allowing you to create new edge services, integrate third-party ones, and operate YOI devices like any ordinary Linux system.

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Ethernet	▪ 1 Ethernet port (10/100/1000 Mbit/s)
Wi-Fi	▪ 2 Wi-Fi interfaces (a, b, g, n)
Suggested operation	▪ Wi-Fi 1: backhaul ▪ Wi-Fi 2: access point ▪ Ethernet: Internet when available
Frequency	▪ 2.4 GHz and 5 GHz
Antenna	▪ 4 external antennas (2 per interface, RP-SMA, omnidirectional, 5 dBi each)
Wireless rates	▪ Up to 300 Mbit/s
Encryption	▪ WPA2/WPA3 (access), SAE (backhaul)
Operating system	▪ Custom Linux system (based on Buildroot)
CPU	▪ Cortex-A9 800 MHz Dual Core
RAM	▪ 512 MB
Other Interfaces	▪ 1 USB OTG, 1 Micro-HDMI
Environmental features	▪ -40 °C +85 °C
Dimensions	▪ Approx. 85 × 105 × 35 mm (casing without antenna)
Power supply	▪ Power through Ethernet (passive PoE) or Barrel Jack DC from 8 to 60 V (AC adapter included)
Power Consumption	▪ ≃ 5W
Weight	▪ 324g (enclosure and antennas included)
Software	▪ **Each YOI comes with a GreenSoft license**

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