YOI

Handheld Router Featuring 5W Energy Consumption for On Demand Connectivity with Edge Cloud and Services.

35mm
85mm
105mm

$\simeq$ 5W

Use Cases:

- Public Internet with edge-based services
- Network densification and extension
- Mobile communication network
- Connected drones, robots and vehicles

Green Communications provides ready-to-use platforms for the easy setup of an edge-based solution with connectivity, edge cloud and services. Edge clouds operating at multiple locations can be connected and synchronized to create a large-scale Internet of Edges (IoE). The platforms of the Internet of Edges are tiny and low power routers called YOI (Your Own Internet device).

YOI (Your Own Internet device)

YOI is an embedded Linux router equipped with Green Communications' software (GreenSoft). Each router comes with two Wi-Fi interfaces: one to create a network with other YOI, and the other to provide access to smartphones, tablets, laptops, or any other Wi-Fi device. YOI features a web server, so one can provide local content, services, and applications to the network. You may also configure YOI as gateway. In this case, local traffic stays local and global traffic is sent across the gateways to other networks.

Plug & Play:
YOI routers are preconfigured. Within minutes, one can create a communication network with edge content, applications and services by simply turning YOI routers on.

Customizable:
YOI devices are open. The system administrators can use SSH or serial connections to access an interactive shell on their devices, and operate them like any regular Linux system. Our products also provide network administrators and application developers with the raw network data, using standard protocols, so they can personalize the platform or build new applications and services.

Autonomous:
Some networks need to stay offline (disconnected from the Internet) for privacy reasons or because the deployment area is isolated. YOI does not require Internet access. This kind of confined Internet still offers messaging, WebRTC media communications, XMPP, or sharing applications with no need for any external cloud server.

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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	▪ -40ºC +85ºC
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**

Green
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