YOI-6-4G/LTE

Low Power Wi-Fi 6 Router With Integrated 4G/LTE Modem For Mobile Networking.

4G*LTE* + Wi Fi 6

Use Cases:

- Green PI Network Gateway
- LTE Network Extension

Application domains: Public Internet, IoT, Tactical/critical communications, Robotics, etc.

35mm
85mm
105mm
≃ 7W

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-6-4G/LTE

YOI-6-4G/LTE is an embedded Linux router equipped with Green Communications' software (GreenSoft). The router features two Wi-Fi 6 interfaces and a 4G/LTE modem to connect the group of YOI to an external network such as private LTE and public 4G. In this case, local traffic stays local and global traffic is sent across the gateway to other networks. The YOI-4G/LTE features a web server, so one can provide local content, services, and applications to the network.

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, SIP, XMPP, or sharing applications with no need for any external cloud server.

Green communications

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4G/LTE	▪ 1 LTE/4G interface – Category 4 - LTE Bands: B1 (FDD 2100) B2 (FDD 1900), B3 (FDD 1800), B4 (FDD 1700 / AWS), B5 (FDD 850), B7 (FDD 2600), B8 (FDD 900), B12 (FDD 700ac), B13 (FDD 700c), B18 (FDD 800), B19 (FDD 800), B20 (FDD 800DD), B25 (FDD 1900), B26 (FDD 850), B28 (FDD 700), B34 (TDD 2000), B38 (TDD 2600), B39 (TDD 1900), B40 (TDD 2300), B41 (TDD 2500), B66 (FDD 1700 / AWS-3)
Ethernet	▪ 1 Ethernet port (10/100/1000 Mbit/s)
Wi-Fi	▪ 1 dual-band Wi-Fi card (a, b, g, n, ac, ax), providing 2 Wi-Fi interfaces to the system, one assigned to the 2.4 GHz band and one assigned to the 5 GHz band. Each interface can operate simultaneously to the other on its dedicated band
Suggested operation	▪ Wi-Fi no.1: Backhaul ▪ Wi-Fi no.2: Access ▪ Ethernet: Internet when available
Frequency	▪ 2.4 GHz and 5 GHz
Antenna	▪ 2 dual-band Wi-Fi (RP-SMA, 5 dBi max) ▪ 2 wide-band 4G/LTE (SMA, 5 dBi max)
Wireless rates	▪ Up to 1.2 Gbit/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	▪ ≃ 7W
Weight	▪ 320g (enclosure and antennas included)
Software	▪ **Each YOI comes with a GreenSoft license**

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