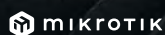# KNOT Embedded LTE4

$ 79   PDF 🌐

Industrial LTE/BLE/GNSS connectivity that fits anywhere. Originally designed for coffee and vending machines — perfect for all kinds of industrial automation.

supports

MIKROTIK
Connectivity

LTE Cat4 mobile connectivity

Bluetooth for IoT sensors

DIN rail mounting supported

Gigabit Ethernet

GNSS/GPS

eSIM + Nano SIM

GPIO

2x2 MIMO

PoE-In

KNOT Embedded LTE4 is a tiny but powerful industrial LTE gateway designed for integrators, automation specialists, and IoT system builders. It fits into tight spaces, **mounts directly on a DIN rail**, and delivers reliable **LTE Cat4** connectivity with **Bluetooth** and **GNSS** support.

Use it as a primary gateway, a backup link, or an IoT data collection node – everything is powered by RouterOS for maximum flexibility.

Powered by RouterOS – *full networking stack, VPNs, firewall, SMS control and notifications, automation, remote management, and so much more!*

▶ Check out our YouTube and TikTube videos for this product!

Mounting options

• Sensor-ready GPIO header for simple automation and monitoring (Digital input/Analog Input/OD output). All pins are 24V tolerant.

The unit requires external antennas – choose the models that match your environment and customize the KNOT to your specific needs.

KNOT Embedded LTE4 is made for environments where space is limited but reliability is critical:

- Smart city infrastructure (parking, sensors, metering)
- Coffee and vending machine monitoring
- Industrial automation cabinets
- Environmental & utility monitoring
- Vehicle or asset tracking with GNSS

- Retail kiosks, payment terminals, digital signage
- LTE backup connectivity for existing Ethernet devices
- IoT gateways for BLE sensors and beacons

Whether you're building a new system or adding LTE to an existing installation, KNOT Embedded LTE4 adapts easily. It's easy to integrate, easy to deploy, and built to perform in harsh environments – from smart city deployments to industrial automation and mobile tracking.

netPower Lite 8P

$ 199 `PDF` 🌐

Compact PoE switch with built-in UPS and smart battery charger –
because your CCTV cameras and access points deserve true off-the-grid resilience.

8× Gigabit Ethernet	802.3af/atPoE-Out	2× 10G SFP+ uplinks	24–57 V DC (2-pin terminal)
Built-in smart battery charger (0.2–1.6 A, 20–31.7 V)	120 W total PoE-Out budget with automatic priority	Integrated UPS switchover for uninterrupted PoE devices	Temperature sensor included

Power cuts shouldn't mean downtime. The **netPower Lite 8P** delivers reliable Power-over-Ethernet even when the grid goes dark. The integrated UPS and smart charger work with your external 24 V battery – and can deliver high-voltage PoE-out even from low-voltage DC sources, making the netPower a perfect match for CCTV, offices, apartment buildings, and smart-city installations.

The netPower Lite 8P comes with eight **Gigabit Ethernet** ports featuring **802.3af/at PoE-Out**, plus **two 10G SFP+ uplinks** for high-speed backhaul. It runs SwOS Lite – fast, efficient, and refreshingly simple to manage. Power input is flexible: just feed **24—57 V DC** into the 2-pin terminal.

Just like our other outdoor-friendly gear, this switch is built to endure. With an operating range of **–40 °C to +70 °C**, the netPower Lite 8P keeps delivering where many devices would already be giving up. The switch can draw up to **181 W total**, with a **120 W PoE-Out budget**. When incoming power is limited, PoE is prioritized automatically – charging slows down first to keep your essential devices online.

IP54-rated enclosure

▶ Check out our YouTube and TikTube videos for this product!

Built-in UPS support: effective, reliable, gives you options

Connect a 24 V nominal battery – typically two 12 V units in series – and the switch instantly becomes a small, efficient UPS. During a power outage, PoE devices stay online without any interruptions.

The charger supports **flooded, AGM, and gel-based lead-acid batteries,** as well as **LiFePO$_4$** (Lithium Iron Phosphate Battery) packs with proper BMS. The charger subsystem is designed for charging batteries through the 2-pin header in a current range 0.2-1.6 A, and at a voltage range of 20 to 31.7 V.

Charging is handled intelligently through **three stages**:

1. Bulk – rapid charging

2. Absorption – steady top-off

3. Float – optional maintenance voltage

A temperature sensor is included; it fine-tunes voltage for lead-acid batteries and blocks charging when temperatures drift outside a safe range. This helps prolong battery life.

Battery safety tips

Chemical batteries can be an amazing tool in the right hands or quite dangerous if installed incorrectly. The netPower Lite 8P gives you flexibility, but certain rules must be followed.
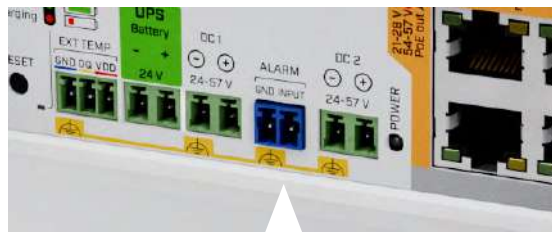
#1 For LiFePO$_4$ batteries, it is crucial to have an external Battery Management System that provides cell balancing, over/under-voltage protection, current protection, and temperature protection. The internal charger does not replace those functions.

#2 Lead-acid batteries require ventilation. Charging can release small amounts of hydrogen gas; in a sealed space it can accumulate and become explosive. AGM and gel batteries are sealed and safer for indoor use, but still benefit from basic airflow.
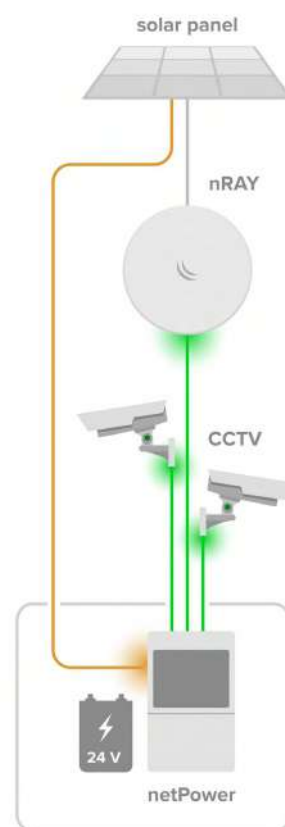
#3 The battery negative terminal must not be connected to the board or DC supply ground potential! The negative terminal must be isolated from ground potential as it is used for current measurement and charger feedback. Otherwise, the battery status will be measured improperly and the charger will function abnormally.

#4 While charging, **following battery manufacturer guidelines is of utmost importance**. Some battery chemistries can be charged at rates of 2C, while some have limits of just 0.2C

#5 Ensure the correct polarity for all connections – power supply, battery, temperature sensor. And don't forget to keep the connections and batteries safe from weather, temperatures, and tampering.

Alarm input: connect a simple 2-wire contact to detect tampering, and the device will report it instantly in SwOS and over SNMP. You can pair it with a RouterOS device for additional automation or creative scripting triggers.

Typical deployment: powering cameras and wireless backhaul from a single UPS-enabled switch with zero downtime in the long run.

Perfect for WISPs, CCTV, apartments, utilities, and smart-city networks

Whenever uptime matters (and budgets!), the netPower Lite 8P gives you a clean, reliable, scalable solution. You get PoE, backup power, smart monitoring, and rugged outdoor performance in one compact device.
So if you value every watt and every second of uptime – the netPower Lite 8P is ready to keep you online...even when the lights go out.

S+31DLC10D

$ 69 **PDF** ⊕

S+31DLC10D is a reliable, industrial-grade 10G SFP+ module designed for long-distance single-mode links up to 10 km. It uses the widely supported 1310 nm wavelength and a dual-LC connector for full-duplex operation, making it a perfect fit for backbone links, campus networks, industrial deployments, and ISP infrastructure.

This new model delivers all the essential features of our popular XS+31LC10D, but at almost half the price for customers who don't need the 25G SFP28 support. A smart, budget-friendly choice for 10G networks.

The module includes built-in digital diagnostics (DDM) for monitoring optical power, voltage, temperature, laser bias current, and other key parameters. These functions help detect abnormal activity or when customizable operating limits are exceeded. Monitoring makes it easier to plan ahead, make informed decisions, and schedule upgrades or maintenance based on real performance data.

SAW36-240-1500 Power Supply

$ 13 **PDF** ⊕

A reliable 24 V / 1.5 A (36 W) power supply, now available separately – in case you need a backup or a replacement. We offer EU, US, UK, AU, and India plug types. This is the same adapter included with popular MikroTik models such as L0009, RB4011, RB5009, and many others.

Panama distributor showcases the power of the RDS2216

LUPOTECH's Alberto Sánchez shares how — with just four 1TB drives and the RDS2216's versatile interfaces — he delivered a high-performance, low-latency solution that seamlessly integrated into existing infrastructure. A great example of how distributors in demanding markets turn MikroTik's latest hardware into real results.

"Hello, I am Alberto Sánchez from LUPOTECH and I want to share my experience with the MikroTik RDS2216-2XG-4S+4XS-2XQ, an impressive device that I had the opportunity to install recently after purchasing 4 1TB hard drives and their adapters.
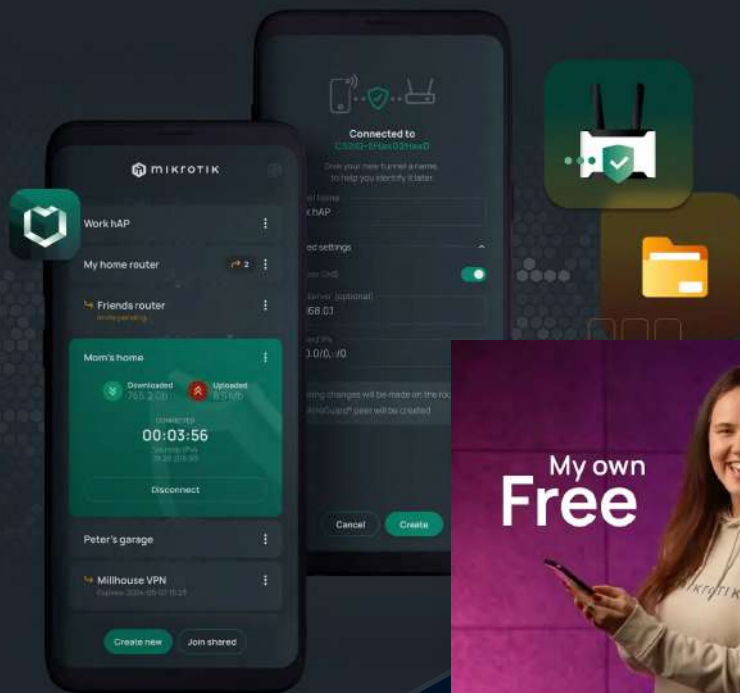
This device is a true powerhouse in performance and flexibility. Its next-generation processor and 10 GbE, SFP+, and QSFP+ interfaces allow handling massive traffic with astonishing efficiency. In my installation, the RDS2216 demonstrated exceptional stability, even under high load, maintaining minimal latency and full control over data flow.

What impressed me most was the ease of integration with the existing infrastructure and the advanced configuration options offered by RouterOS.

MikroTik has managed to combine power, reliability, and a very competitive price, something we highly value in our country. Installing and getting this device up and running was a rewarding experience; it allowed me to see firsthand how MikroTik continues to innovate and offer professional-level tools for everyone, even in demanding environments like ours. I am very proud to be part of the Mikrotik community and to have implemented such a solid solution here in Panama."

Have you tried the <u>free MikroTik VPN?</u>

New #MikroTips and tricks!

<u>HERE YOU CAN DOWNLOAD ALL THE VISUALS USED IN THIS NEWSLETTER</u>