



# RB5009UPr+S+IN

Empowering the smaller ISPs!

PoE-in & PoE-out  
ON ALL PORTS!



*You can mount FOUR of these routers  
in a single 1U rackmount space!*



7X GIGABIT  
ETHERNET PORTS



1X 2.5 GIGABIT  
ETHERNET PORT



POWERFUL  
QUAD-CORE CPU



10 POWERING  
OPTIONS



DURABLE  
METALLIC CASE



RouterOS v7  
ONLY



10G SFP+



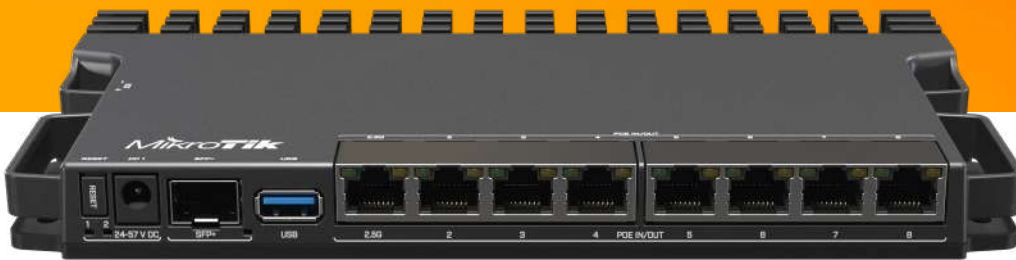
1 GB DDR4 RAM



1 GB NAND

## It's all about the power...

This version of the RB5009 has all the bells and whistles of the previous model: Gigabit Ethernet, 2.5 Gigabit Ethernet, and a 10 Gigabit SFP+ cage for fiber connectivity. It has the speed, the power, and the durability. But this time, we have added **PoE-in & PoE-out** on all eight Ethernet ports. Combined with the 2-pin connector and the DC jack, you're getting 10 separate ways of powering. Dual redundant power supplies would usually take your uninterrupted uptime to the next level. **RB5009UPr+S+IN** takes it one step above that!



All power options support a **wide voltage range of 24 – 57 V**. However, you can not mix the voltages. If you're using PoE-out to power other devices, the board will choose the source with the highest voltage (DC jack or the 2-pin connector) to power those.

**Each PoE-out port** can supply **up to 25W of power**. All the ports combined are limited to 130W, which should be enough for most setups. You can specify maximum available power from your power sources manually, if necessary. When it comes to PoE-out features, the new RB5009 can trade blows with our legendary PoE switches: CRS354 & CRS328. In the smallest possible form-factor and for the best price on the market!

Take a look at all the PoE information the RB5009 can provide!

```
[admin@RB5009UPr+S+IN] > interface/ethernet/poe/monitor ether1
      name: ether1
      poe-out: auto-on
      poe-voltage: auto
      poe-out-status: powered-on
      poe-out-voltage: 23.3V
      poe-out-current: 915mA
      poe-out-power: 21.3W
-- [Q quit|D dump|C-z pause]
```

## Protect your uptime, protect your tranquility!

So what exactly happens if there is a problem with one of your power sources? Here's a quick example: you have 24V on the DC jack, 48V on the 2-pin connector, and 57V on the PoE-in. The board itself gets powered by the highest voltage input – the PoE-in. If there's a problem, RB5009 will fall back to the second highest voltage - the 2-pin connector. And if that fails – there's the 24V option on the DC jack.

What about the PoE-out devices? Once again – the highest voltage wins. PoE-out devices will draw power from the 48V source on the 2-pin connector. If that fails – the 24V on the DC jack come into play. The board will always reserve 20 watts to power itself. If there is not enough power for all the PoE-out ports, it will start disabling the ones with the lowest priority. You can set the port priority manually.



This tiny form-factor shines anywhere: from confined research facilities and offices to huge corporate server rooms. And don't forget that you can mount FOUR of these routers in a single 1U rackmount space!

With the new RB5009, we want to empower all the small and medium ISPs that are always on the lookout for the most cost-effective and robust solutions. It is a perfect addition to our previous GPEN devices – a line of products designed to replace the expensive GPON solutions.

*With so many powering options and a durable metallic case, the new RB5009 redefines affordable reliability.*

## • Specifications

|                               |                   |
|-------------------------------|-------------------|
| Product code                  | RB5009UPr+S+IN    |
| CPU                           | 88F7040 1.4 GHz   |
| CPU architecture              | ARM 64bit         |
| CPU core count                | 4                 |
| Size of RAM                   | 1 GB              |
| RAM type                      | DDR4              |
| Storage                       | 1 GB, NAND        |
| Number of 1G Ethernet ports   | 7                 |
| Number of 2.5G Ethernet ports | 1                 |
| Number of 10G SFP+ ports      | 1                 |
| USB port                      | 1 (3.0 type A)    |
| Operating system              | Only v7 RouterOS  |
| Switch chip model             | 88E6393           |
| Dimensions                    | 220 x 125 x 22 mm |
| Operating temperature         | -40°C to +60°C    |

## • Powering

|   |   |
|---|---|
| PoE-in                                      | 802.3af/at  |
| PoE-Out                                     | Same voltage as supplied, Passive PoE or 802.3af/at (requires 44.0–57.0 V input)                                |
| PoE-Out ports                               | Ether1 - Ether8, max out per port output (input < 30 V): 640 mA, max out per port output (input > 30 V): 420 mA |
| Smart PoE                                   | Controller  |
| Max total out                               | 2.59 A  |
| Total output power                          | 130 W   |
| Total output current                        | 2.28 A  |
| Number of DC inputs                         | 3   |
| Supported input voltage                     | 24-57 V (PoE in) 24-57 V (DC jack) 24-57 (2-pin terminal)   |
| Power adapter nominal voltage               | 48 V  |
| Power adapter nominal current               | 2 A   |
| Max power consumption (without attachments) | 15 W  |
| Max power consumption                       | 150 W   |

\* 802.3af/at PoE-In only on Ether!

## • Included parts



48 V 2 A  
power adapter



Power  
cord



Fastening  
set



Rackmount  
kit K-79

## • Optional accessory