



## MikroTik CCR2004-16G-2S+ Wireless and Routers User Guide

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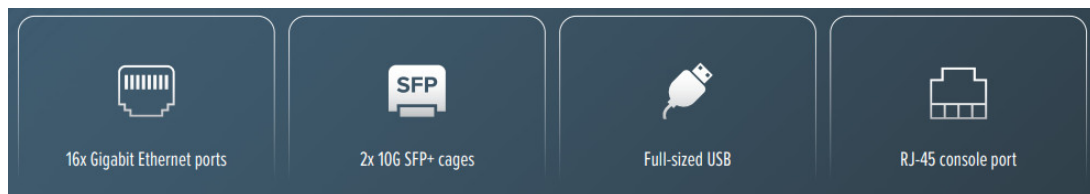


### CCR2004-16G-2S+

**This powerful and affordable router crushes all previous CCR models in single-core performance.  
Luxury you deserve for the price you can afford.**



**Best single-core performance in the CCR family  
Built-in dual redundant power supplies**



Like the other models in CCR2004 series, this CCR also features the Annapurna Labs Alpine v2 CPU with 4x 64-bit ARMv8-A Cortex-A57 cores running at 1,7GHz. But here's the difference. This powerful router crushes all previous CCR models in single-core performance, and that is the most important aspect when it comes to heavy operations based on per-connection processing. Like queues, for example. But that's not all! It also has the best single-core performance per watt and best overall performance per watt

among all the CCR devices. Better for the planet, **better for the bills, it's a win-win!**



The new router has 18 wired ports, including 16x Gigabit Ethernet ports and two 10G SFP+ cages. It also has a full-size USB and RJ-45 console port on the front panel. Like all CCR devices, it comes in a classic white 1U rackmount case. Built-in dual redundant power supplies are included, so you have one less thing to worry about. And, of course,

there is active cooling to keep things nice and cool.

Each group of 8 Gigabit Ethernet ports is connected to a separate Marvell Amethyst family switch-chip. Each switch chip has a 10 Gbps full-duplex line connected to the CPU. The same goes for each SFP+ cage – a separate 10 Gbps full-duplex line. Boards come with 4GB of DDR4 RAM and 128MB of NAND storage.



So as you can see – no bottlenecks. As long as the CPU can handle the processing, all ports can reach wire speed. And this CPU is a beast that can handle a lot. If we look at the performance, you can see that it is trading blows with our CCR1009. Even surpassing it in CPU-heavy configurations! And if that wasn't enough – it can even reach the performance of CCR1016.

## CCR1009-7G-1C-S+



### Bridging

Configuration	64 byte		512 byte		1518 byte	
	kpps	Mbps	kpps	Mbps	kpps	Mbps
none (fast path)	9816.7	5340.3	3759.4	15398.5	1300.4	15791.9
25 bridge filter rules	1868.4	1016.4	1817.6	7445.1	1300.4	15791.9

### Routing

Configuration	64 byte		512 byte		1518 byte	
	kpps	Mbps	kpps	Mbps	kpps	Mbps
none (fast path)	11627.7	6325.5	3759.4	15398.5	1300.4	15791.9
25 simple queues	960.2	522.4	964.1	3948.8	917.5	11142.1
25 ip filter rules	638	347	639.2	2618	615.8	7477.9

## CCR2004-16G-2S+



### Bridging

Configuration	64 byte		512 byte		1518 byte	
	kpps	Mbps	kpps	Mbps	kpps	Mbps
none (fast path)	9697.9	5275.7	5648.4	23136	2591.6	31472
25 bridge filter rules	2424.2	1318.8	2451.7	10042.1	2249.5	27318.5

### Routing

Configuration	64 byte		512 byte		1518 byte	
	kpps	Mbps	kpps	Mbps	kpps	Mbps
none (fast path)	8664.2	4713.3	5239.6	21461.2	2532.4	30753.8
25 simple queues	1316.8	716.3	1217.6	4987.2	1174.6	14264.6
25 ip filter rules	842.1	458.1	860.7	3525.5	866	10517.1

The best part? This brand new CCR is among the most affordable options out there – not only within the CCR series, but on the market in general.

One of the most common ways to use this device would be: Gigabit Ethernet ports for the internal network; SFP+ ports for downlink and uplink. The perfect all-in-one solution for small and medium-sized businesses. Easy and efficient.

With the new CCR2004, you can take your office network to the next level. Without breaking the bank.



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## Specifications

Product code	CCR2004-16G-2S+
CPU	AL32400 1.7 GHz
CPU architecture	ARM 64bit
CPU core count	4
Size of RAM	4 GB
RAM type	DDR4
Storage	128 MB, NAND
Number of 1G Ethernet ports	16
Number of 10G SFP+ ports	2
USB port	1 (3.0 type A)
Operating system	RouterOS (License level 6)
Switch chip model	88E6191X, 88E619X
Dimensions	443 x 210 x 44 mm
Operating temperature	-20°C to +60°C




## Powering

Number of AC inputs	2
AC input range	100-240 V
Max power consumption (without attachments)	35 W
Max power consumption	48 W


## Certification & Approvals

Certification	CE, FCC, IC
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## Included parts

	2 Power cords
	Rackmount bracket white
	Fastening set

**Documents / Resources**

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