



Add full-fledged router capabilities to your server with the

## CCR2004-1G-2XS-PCle

network interface card!

The smart and easy way to create 25 Gigabit networks  
if you want to save space in your server room.



ALL ROUTEROS  
FEATURES



QUAD-CORE  
ARMV8 CPU



FULLY FUNCTIONAL  
CCR2004 IN PCIe 3.0 X8  
FORM-FACTOR



2X SFP28 CAGES FOR  
25 GIGABIT NETWORKING



GIGABIT  
ETHERNET



4GB DDR4 RAM



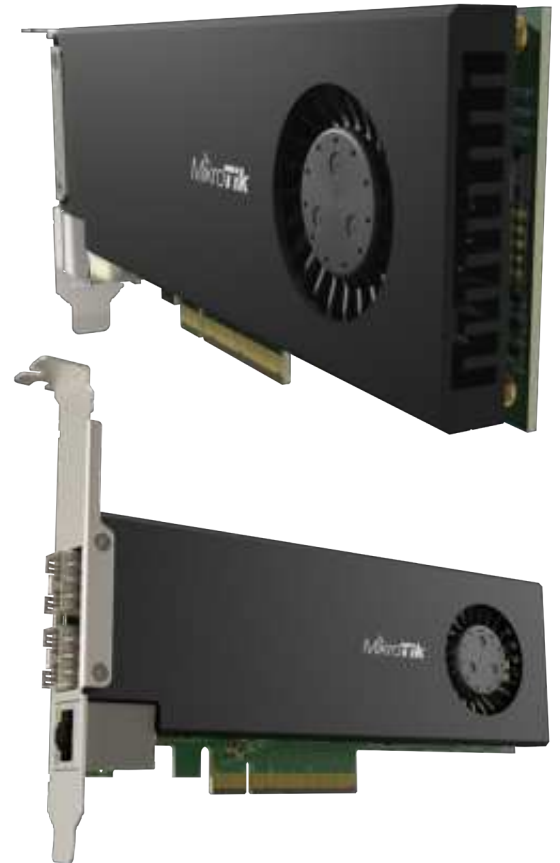
LOW-PROFILE FORMAT  
– FITS IN 2U SERVER  
CHASSIS



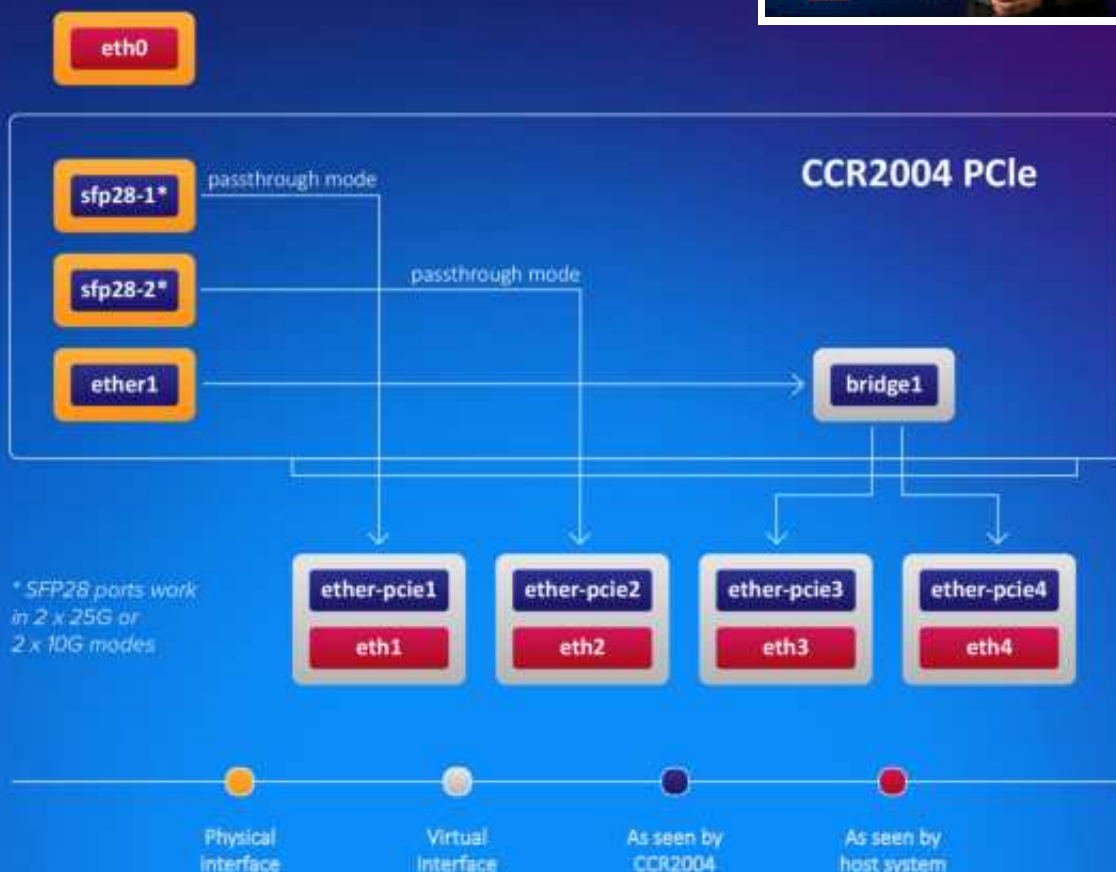
POWERED BY THE SERVER  
MOTHERBOARD

Save space in your server room by adding a real CCR2004.. within the server itself! This unique product combines a simple 2x 25 Gigabit PCIe Ethernet adapter with the impressive capabilities of a fully-fledged router.

By default, the PCIe interface will show up as four virtual Ethernet interfaces. Two interfaces in passthrough mode to the 25G SFP28 cages. Remaining two virtual Ethernet-PCIe interfaces are bridged with the Gigabit Ethernet port for management access. The user can configure all interfaces and settings freely since we are running fully functional RouterOS here.



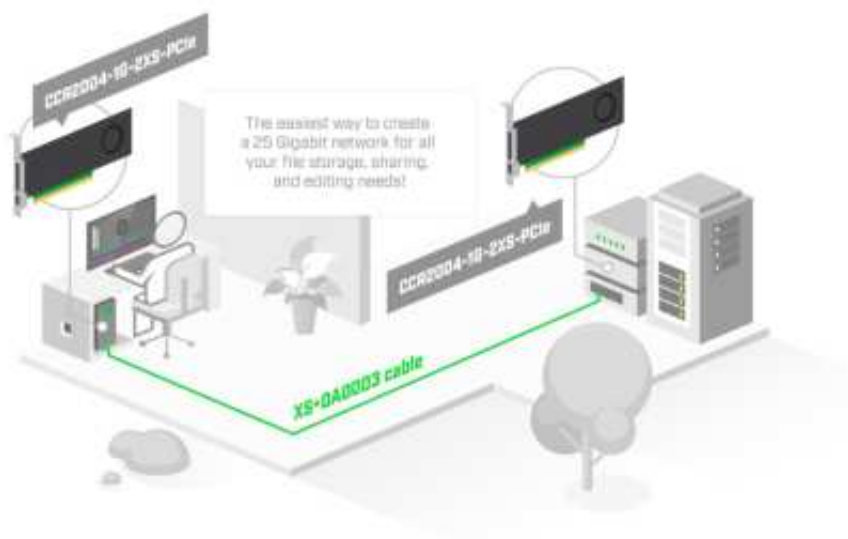
## Motherboard



To get this CCR device to work as an NIC, a new Passthrough mode was implemented. Basically, a FastForward FastPath mode that can also pass hardware link statuses.

*This NIC can reach wire-speed (100Gbps) with Jumbo frames.  
It ensures that in most server setups this CCR network card will  
not be the bottleneck.*

With **4 GB of RAM**, **128 MB of NAND** storage, and a powerful **quad-core ARMv8 64-bit CPU**, this device can handle a lot: firewalls, user management and access control for home media and file servers, and even some traffic control in data centers – without the need for a stand-alone router.



This form-factor does come with certain limitations that you should keep in mind. The CCR NIC card needs some time to boot up compared to ASIC-based setups. If the host system is up before the CCR card, it will not appear among the available devices. You should add a PCIe device initialization delay after power-up in the BIOS. Or you will need to re-initialize the PCIe devices from the HOST system.

Here's how you can  
do it in Linux:

```
echo "1" > /sys/bus/pci/devices/0000\:03\:00.0/remove  
sleep 2  
echo "1" > /sys/bus/pci/rescan
```

where  
0000\:03\:00.0  
is this device ID

We are looking forward to see your unique use-cases for this unconventional device: a simple high-speed networking card combined with a powerful Cloud Core Router. **Unleash the potential of your server with the fierce power of RouterOS!**

• Specifications

Product code	CCR2004-1G-2XS-PCle
CPU	AL52400 1.5 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	1
Number of 25G SFP28 ports	2
Operating system	RouterOS (License level 6)
Dimensions	170 x 69 x 18 mm
Operating temperature	-20°C to +60°C
Max power consumption	29 W

• Certification & Approvals

Certification	CE, FCC, IC
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• Included parts



High bracket



Low bracket