

# CM8100-10G High Density Console Manager

with Smart Out-of-Band Management



CM8100-10G, used with our Lighthouse software, is the newest addition to Opengear's Network Resilience platform.

- Secure, remote, access to manage up to 96 serial devices
- Connect to high-speed networks via 10G SFP+ uplinks
- Simplify configuration with the auto-port discovery
- Reduce cable clutter with software-selectable serial ports
- 5G cellular modem for cellular resiliency



## Console Specifications

Serial Ports	<ul style="list-style-type: none"><li>• <b>CM8116-10G:</b> 16 x RJ45 RS-232 Software Selectable Straight or Rollover Pinout</li><li>• <b>CM8132-10G:</b> 32 x RJ45 RS-232 Software Selectable Straight or Rollover Pinout</li><li>• <b>CM8148-10G:</b> 48 x RJ45 RS-232 Software Selectable Straight or Rollover Pinout</li><li>• <b>CM8196-10G:</b> 96 x RJ45 RS-232 Software Selectable Straight or Rollover Pinout</li></ul>
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## Interfaces

Network Ports	2 x 10G SFP+ Fiber and 2 x 1000 Base-T Ethernet
Console Port	1 x RJ45 RS-232 Console Port - Cisco rolled X1 pinout, baud rate 9600
Serial Ports	RJ45 RS-232 Software Selectable 50 to 230,400 bps
USB	2 x USB 3.0 host ports, can be used for external storage or serial console
Remote Access	Dual Ethernet, aggregation & redundancy, Automatic Network Failover, Easy browser UI, IPv6
Console Management	<ul style="list-style-type: none"><li>• Local WebUI has built-in web terminal for CLI access</li><li>• IP alias for serial port console connections</li><li>• Support for console event and keystroke logging</li><li>• Alert on text pattern match</li><li>• Multiple concurrent sessions</li><li>• Centralized access to all serial managed devices from <a href="#">Lighthouse software</a></li></ul>

## Power Requirements

Dual AC	Dual socket universal IEC C14 inlet 100-240V AC 50/60Hz
Dual DC	<b>CM8148-10G, CM8132-10G, and CM8116-10G:</b> +/- 40V to 72V DC, 1.5A - 0.75A (x2)
Power Consumption	<ul style="list-style-type: none"><li>• <b>CM8148-10G, CM8132-10G, and CM8116-10G:</b> Less than 25W (85 BTU/h) typical</li><li>• <b>CM8196-10G:</b> Less than 30W (102 BTU/h) typical</li></ul>
Cooling	Passive Cooling - can be forward or reverse mounted to suit best airflow

## Physical Dimensions

Dimensions and Weight	<ul style="list-style-type: none"><li>• <b>CM8148-10G, CM8132-10G, and CM8116-10G:</b> 17.3" x 10.5" x 1.75" - 8 lbs, 440 x 265 x 44 mm - 3.5 kg</li><li>• <b>CM8196-10G:</b> 17.3" x 10.5" x 3.5" - 10 lbs, 440 x 265 x 87 mm - 4.5 kg</li></ul>
Form Factor	<ul style="list-style-type: none"><li>• <b>CM8148-10G, CM8132-10G, and CM8116-10G:</b> 1 RU</li><li>• <b>CM8196-10G:</b> 2 RU</li></ul>

## Memory and CPU

CPU	1.6 GHz Dual-Core ARM Cortex-A9 SoC (Marvell 88F6820)
Memory	2GB DDR4 SDRAM
Storage	32GB eMMC

## Environmental

Operating Temperature	5°C to 50°C, 41°F to 122°F
Storage Temperature	-30°C to +60°C, -22°F to +140°F
Humidity	5% to 90% (non-condensing)

## Security, Encryption & Authentication

- TACACS+, RADIUS, Active Directory/OpenLDAP, with local fallback
- IPSec and OpenVPN
- FIPS 140-2 compliant
- Trusted Platform Module 2.0

## Automation & Scalability

- ZTP
- Ansible
- [API](#) based OS
- Docker support
- Python and Ruby
- SNMP-Standard MIBs

## Global 5G NR Cellular Interface

Modules	CM81xx-10G-5G: Sierra Wireless EM9291
Aggregation	5G NR Sub-6 & LTE CAT20

## Certifications

Cellular	PTCRB, GCF, Verizon and AT&T
Safety	IEC 60950-1:2005+A1+A2, IEC 62368-1:2018
Emissions	47 CFR Parts: 15B, ICES-003 Issue 7, EN55032:2015+A11:2020, ICES-003 Issue 7, AS/NZ, CISPR 32:2015, VCCI-CISPR 32:2016
Immunity	EN55035:2017+A11:2020, EN 61000-3-2:2019, EN 61000-3-3:2013
RoHS	EN 63000:2018
Other Agency Approvals	KS C 9832:2023, KS C 9835:2019, CNS 15936:2016

## Warranty

4 Years hardware replacement and support included. Optional paid extended warranty available up to 6 years.

## Available Models

Model	Description
CM8116-10G-xx	16 serial selectable pinout, 2x 10GbE SFP+, 2x 1GbE, ARM 1.6GHz 2-core 2GB mem 32GB flash, TPM, Dual AC
CM8116-10G-5G-xx	16 x RS-232 RJ45 serial, 2x 1G Ethernet (RJ45), 2x 10G Ethernet (SFP+) and 5G cellular modem
CM8116-10G-DDC	16 x RS-232 RJ45 serial, 2x 1G Ethernet (RJ45), 2x 10G Ethernet (SFP+), Dual DC power
CM8132-10G-xx	32 serial selectable pinout, 2x 10GbE SFP+, 2x 1GbE, ARM 1.6GHz 2-core 2GB mem 32GB flash, TPM, Dual AC
CM8132-10G-5G-xx	32 x RS-232 RJ45 serial, 2x 1G Ethernet (RJ45), 2x 10G Ethernet (SFP+) and 5G cellular modem

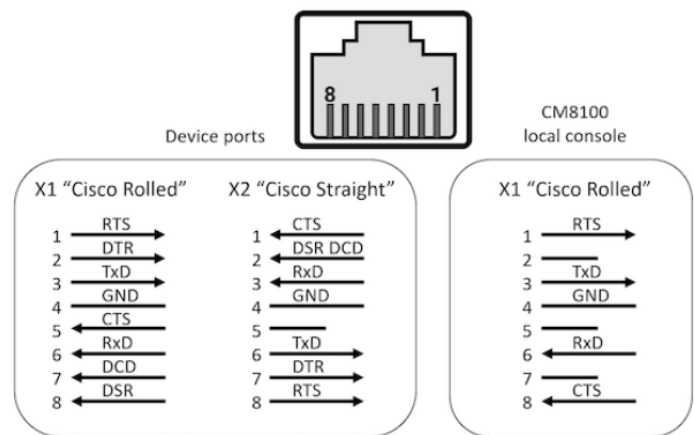
CM8132-10G-DDC	32 x RS-232 RJ45 serial, 2x 1G Ethernet (RJ45), 2x 10G Ethernet (SFP+), Dual DC power
CM8148-10G-xx	48 serial selectable pinout, 2x 10GbE SFP+, 2x 1GbE, ARM 1.6GHz 2-core 2GB mem 32GB flash, TPM, Dual AC
CM8148-10G-5G-xx	48 x RS-232 RJ45 serial, 2x 1G Ethernet (RJ45), 2x 10G Ethernet (SFP+) and 5G cellular modem
CM8148-10G-DDC	48 x RS-232 RJ45 serial, 2x 1G Ethernet (RJ45), 2x 10G Ethernet (SFP+), Dual DC power
CM8196-10G-xx	96 serial selectable pinout, 2x 10GbE SFP+, 2x 1GbE, ARM 1.6GHz 2-core 2GB mem 32GB flash, TPM, 2RU, Dual AC

Power cables included are based on -xx selection of -US, -EU, -UK, -JP, -AU, or -C14. See this [Opengear article](#) for additional details.

## Package Checklist

- Console Server CM81xx-10G
- Rack Mount Kit (Part# 590037)
- Two rack ears with six M4 screws
- Four M5mm caged nuts
- Four M5x15mm rack screws
- One CAT5 Patch Cable 6'
- One DB9F-RJ45 rollover serial adapter (Part# 319018)
- Two A/C Power cables (not included with -NP and -DDC)
- Four Cellular antennas (Part# 569052) – 5G Cellular Models Only

## Opengear Pinout



## Optional Accessories

Part Number	Description
319017	Adapter - DB9F to RJ45 straight serial - DCE -For X1 Pinout
319018	Adapter - DB9F to RJ45 crossover serial -DTE - For X1 Pinout
319019	Adapter - DB9M to RJ45 straight serial - DCE - For X1 Pinout
440016	Cable - Straight through CAT5 - 6' length
590037	Rack Mount Kit - Ears and Screws - CM8100 / OM2200

## Warranty

Part Number	Description
Included	4 year standard warranty
OGEXTWAR5-CM81	Warranty CM81xx (Extend warranty through 5th year)
OGEXTWAR6-CM81	Warranty CM81xx (Extend warranty through 6th year, must also purchase 5th year)