C8111-C-G2-MX, C8121-W-G2-MX, and C8121-CW-G2-MX Data Sheet

Overview

The Cisco C8111-C-G2, C8121-W-G2 and C8121-CW-G2 are enterprise security appliances running MX OS which are designed for distributed deployments requiring remote administration across small to medium branch environments. It is ideal for network administrators who demand both ease of deployment and a state-of-the-art feature set.

The Cisco C8111-C-G2, C8121-W-G2, and C8121-CW-G2 are designed to securely extend the power of cloud-managed networking to almost any location by providing two dedicated WAN ports with one of those WAN ports able to provide PoE to power a cellular gateway. The C8111-C-G2 and C8121-CW-G2 can use their 5G cellular modem to provide downstream devices connectivity through an inserted SIM card or through an on-board eSIM.

These devices offer up to 10 LAN Gigabit ethernet ports, including up to 3 built-in LAN PoE-enabled ports for access points, cameras, VoIP phones, and other PoE powered devices. The C8121-W-G2 and C8121-CW-G2 include the ability for Wi-Fi devices to connect to the network.

Features

Software Features

- Managed via Cisco Meraki Dashboard
- Automatic Firmware upgrades
- WAN Link Balancing
- Automatic WAN Failover
- SD-WAN over Meraki AutoVPN
- On-board ESIM for a more seamless ZTP experience
- Cellular status light for visual indication of connectivity
- L3/L7 Stateful Firewall
- Geo-based firewall rules
- 1:1 and 1:Many NAT
- Configurable VLANs / DHCP support
- Static Routing
- Client VPN endpoint
- Meraki AutoVPN and IPSec VPN endpoint
- Active Directory integration
- Content Filtering
- Advanced Malware Protection (AMP) w/ optional Threat Grid integration
- IPS/IDS protection
- Custom Traffic Shaping
- Historical Client Usage statistics
- NetFlow support
- Syslog integration
- Remote Packet Capture tools
- IPv6 Support
- 802.1X wired and wireless support

Hardware Features

- 2 x 2.5 mGig RJ45 Ethernet ports dedicated for WAN uplinks
- 1 x 2.5 mGig RJ45 Ethernet ports with PoE+ capabilities
- 4 x 1 Gigabit RJ45 Ethernet LAN ports (C8111-C-G2)
- 1 x 1 Gigabit RJ45 Ethernet LAN ports with UPoE (45W) capabilities
- 3 x 1 Gigabit RJ45 Ethernet LAN ports
- 10 x 1 Gigabit RJ45 Ethernet LAN ports (C8121-CW-G2 and C8121-W-G2)
- 3 x 1 Gigabit RJ45 Ethernet LAN ports with UPoE (45W) capabilities
- 7 x 1 Gigabit RJ45 Ethernet LAN ports
- Built-in Wi-Fi 6 Wireless Capabilities for C8121-CW-G2 and C8121-W-G2
- Built-in 5G Cellular capabilities for C8121-CW-G2 and C8121-C-G2

Context and Comparisons

	C8111-C-G2	C8121-W-G2	C8121-CW-G2
# of WAN Uplinks	3	2	3
Cellular Uplink	Yes	No	Yes
Stateful Firewall Throughput	2 Gbps	2 Gbps	2 Gbps
Maximum VPN Throughput	TBD	TBD	TBD
Advanced Security Throughput	TBD	TBD	TBD
PoE Capabilities	Yes, 2.5 x MGig RJ45 WAN Ports (802.3at) 1x GbE RJ45 LAN Ports (802.3bt, 45W)	Yes, 2.5 x MGig RJ45 WAN Ports (802.3at) 3x GbE RJ45 LAN Ports (802.3bt, 45W)	Yes, 2.5 x MGig RJ45 WAN Ports (802.3at) 3x GbE RJ45 LAN Ports (802.3bt, 45W)
Wi-Fi	No	Dual-band 2x2 Wi-Fi 6	Dual-band 2x2 Wi-Fi 6
Cellular Uplink	Built-in 5G SA & CAT20 LTE Modem with 4 x External Antennas	No	Built-in 5G SA & CAT20 LTE Modem with 4 x External Antennas
Recommended use case	Up to 200 devices	Up to 200 devices	Up to 200 devices

Technical Breakdown

WAN Interfaces

C8111-C-G2	C8121-W-G2	C8121-CW-G2

2x Dedicated MGig RJ45	2x Dedicated MGig RJ45	2x Dedicated MGig RJ45
1x Built-in 5G SA & CAT20 LTE modem		1x Built-in 5G SA & CAT20 LTE modem

LAN Interface

C8111-C-G2	C8121-W-G2	C8121-CW-G2
4x Dedicated GbE RJ45	10x Dedicated GbE RJ45	10x Dedicated GbE RJ45

Wireless Interfaces

	C8111-C-G2	C8121-W-G2	C8121-CW-G2
Wi-Fi Radio Information	N/A	802.11a/b/g/n/ac/ax (2.4 or 5Ghz) 2x2 MU-MIMO	802.11a/b/g/n/ac/ax (2.4 or 5Ghz) 2x2 MU-MIMO
Wi-Fi Antennas	N/A	Internal, 2 x 2 MU-MIMO with two spatial streams	Internal, 2 x 2 MU-MIMO with two spatial streams
Maximum Data Rate	N/A	1.5 Gbps*	1.5 Gbps*
Cellular Radio Information	5G SA & CAT20 LTE modem	N/A	5G SA & CAT20 LTE modem
SIM Cards	1x Nano (4FF) 1x Embedded eSIM (eUICC)	N/A	1x Nano (4FF) 1x Embedded eSIM (eUICC)
Cellular Antennas	4x External removable antennas with SMA connector	N/A	4x External removable antennas with SMA connector

* Refers to maximum over-the-air data frame rate capability of the radio chipset, and may exceed data rates allowed by IEEE 802.11ax operation.

Throughput and Capabilities

	C8111-C-G2	C8121-W-G2	C8121-CW-G2
Recommended Use Case	Up to 200 devices	Up to 200 devices	Up to 200 devices
Max Stateful Firewall Throughput in NAT mode	2 Gbps	2 Gbps	2 Gbps
Max VPN Throughput	1200 Mbps	1200 Mbps	1200 Mbps

Physical

	C8111-C-G2	C8121-W-G2	C8121-CW-G2
Mount Type	Desktop / Wall Mount	Desktop / Wall Mount	Desktop / Wall Mount
Dimensions (h x d x w)	1.3 x 6.9 x 12.4 in / 34 x 176 x 316 mm	1.3 x 8 x 13.7 in / 34 x 203 x 348 mm	1.3 x 8 x 13.7 in / 34 x 203 x 348 mm
Weight	3.2 lbs / 1.451 kg	3.7 lbs / 1.696 kg	3.9 lbs / 1.783 kg
Power Supply	150W DC	250W DC	250W DC
Estimated System Power (idle/max)	39 W / 45 W	56 W / 64 W	68 W / 87 W
System + PoE Power Load (idle/max)	39 W / 126 W	56 / 221W	68 W / 233W
Operating Temperature	32°F - 113°F 0°C - 45°C	32°F - 113°F 0°C - 45°C	32°F - 113°F 0°C - 45°C
Storage and Transportation Temperature	-4°F - 158°F -20°C - 70° C	-4°F - 158°F -20°C - 70° C	-4°F - 158°F -20°C - 70° C

Humidity	5% to 95%	5% to 95%	5% to 95%

Product Category and Certifications

5G Category	5G SA/NSA Sub 6GHz
LTE Category	CAT20
Bands and CA combos	Prepended with C81XX
Certifications	PTCRB (US), GCF (EU), IC (CA), FCC (US)
Certified Carriers	AT&T, T-Mobile
Carriers leveraging GCF	https://www.globalcertificationforum...directory.html
Carrier Certification in Progress	Verizon

Carrier compatibility is generally based on having compatible bands on the modem. In the open market, carriers may only require regulatory domain certifications and open market certifications, like the PTCRB and GCF, to be compatible for their network. Sometimes carriers will require additional testing before a device can be used on their network. The section Tested Carriers is based on Meraki device certifications being approved by those specific carriers. A carrier being listed above means that they have officially certified the Meraki product for their cellular network. There may be many unlisted carriers that could be functionally compatible with Meraki devices. The list of tested certified carriers is based on the carrier validating Meraki per their network parameter requirements. If a carrier you are looking to use is not listed above, it could be that they do not require additional compliance testing for their network.

Ordering Guide

Model SKU	Description
C8111-C-G2	Cisco C8111-C-G2 Cloud Managed Secure Router
C8121-W-G2	Cisco C8121-W-G2 Cloud Managed Secure Router
C8121-CW-G2	Cisco C8121-CW-G2 Cloud Managed Secure Router

Accessories

Accessory	Description
MA-PWR-150WAC-ADP	C8111-G2-MX Replacement Power Adapter (C8111-C-G2) (150 Watts AC)
MA-PWR-250WAC-ADP	C8121-G2-MX Replacement Power Adapter (C8121-W-G2 and C8121-CW-G2) (250 Watts AC)
MA-PWR-CORD-US	1x AC Power Cable, US plug
MA-PWR-CORD-EU	1x AC Power Cable, EU plug
MA-PWR-CORD-UK	1x AC Power Cable, UK plug
MA-PWR-CORD-AU	1x AC Power Cable, AU plug
MA-WMNTBR-PWR-ADP	1x Power adapter holder for external power adapter
5G-ANT-C8111	Includes 4x cellular antennas for the C8111-C-G2
5G-ANT-C8121	Includes 4x cellular antennas for the C8121-CW-G2

Non-Meraki Antennas not supported

Note**:** Non-Cisco Secure Router antennas are not supported. The socket is SMA that is designed to function with the C8111-C-G2 and C8121-CW-G2. Usage of non- Cisco Secure Router accessories may damage the device and / or degrade performance. The Cisco Secure antennas are designed for the maximum allowable gain without exceeding the EIRP for local regulatory domains on their supported bands.

Configure your Dashboard Network

The following is a brief overview only of the steps required to add an C8111-C-G2, C8121-W-G2, or C8121-CW-G2 to your network. For detailed instructions about creating, configuring and managing Meraki networks, refer to our Managing Dashboard Networks document. Additional resources can also be found via: documentation.meraki.com.

1. Login to http://dashboard.meraki.com. If this is your first time, create a new account.
2. Find the network to which you plan to add your C8111-C-G2, C8121-W-G2 or C8121-CW-G2 or create a new network.

3. Add your C8111-C-G2, C8121-W-G2, or C8121-CW-G2 to your network. You will need your Meraki order number (found on your invoice) or the serial number of each C8111-C, C8121-W-G2, or C8121-CW-G2, which looks like Qxxx-xxxx-xxxx, and is found on the bottom of the unit. If a license key was purchased at the same time then you should have received it via email.

4. Go to the map / floor plan view and place each C8111-C-G2, C8121-W-G2, or C8121-CW-G2 on the map by clicking and dragging it to the location where you plan to mount it.

Troubleshooting

Common Event Log Messages

Common event logs exist for wired, Wi-Fi, and cellular events. As such, no specific C8111-C-G2, C8121-W-G2, or C8121-CW-G2 event log entries are required at this time.

For more general information about navigating the Event Log and the types of Events that could be expected, please check out our Event Log documentation.