Meraki

## MG41/41E Datasheet

## By Unni Rajagopalan

## Overview

Connectivity is critical for any organization that depends on reliable internet access in order to function. Wireless WAN connectivity options, such as cellular networks, serve as a reliable backup internet uplink in the event of a primary uplink failure.

The MG41 cellular gateway simplifies the path to wireless WAN connectivity and makes cellular a viable uplink option for many networks. The MG41 acts as a gateway to the internet cellular networks by converting LTE signal from a cellular provider to an Ethernet handoff, which can be used as an internet uplink for a variety of use-cases.

MG41 can work with any routing or switching device, Meraki or non-Meraki. With additional 802.3af compatibility, the MG can be placed anywhere and powered via power over ethernet (PoE) like any access point. This gives users the option for optimal physical placement for signal quality -a cornerstone for wireless WAN communications.



## MG series and Meraki Cloud Management: A Powerful Combo

All Meraki devices are managed via the Meraki cloud, with an intuitive browser-based interface. The MG series are self-configuring and managed over the web, and can be rapidly deployed at remote locations without any assistance from end-users.

Meraki Cloud services monitor all devices $24 \times 7$ and deliver real-time alerts if any devices encounter a problem. Remote diagnostics tools enable real-time troubleshooting through any web browser. New features and enhancements are delivered seamlessly over the web, so you never have to manually download software updates or worry about missing critical security vulnerability patches.

## Features

## Highlights

- Built in CAT18 connectivity
- Dual SIM support
- Supports 2 separate downstream router connections
- Small form factor
- PoE or DC powered
- IP67 rating
- Optional Patch antenna
- 



Manageability from the Cisco Meraki dashboard

- Self-configuring Cellular Gateway
- Automatic firmware upgrades with scheduling control
- Extensive API support
- Email, SMS and Mobile push notification alerts
- Ping, traceroute, cable testing, and link failure detection with alerting
- Remote packet capture
- Combined event and configuration change logs with instant search

The MG41 cellular gateway uses 6 to 8 megabytes a day of data for telemetry on dashboard and connection monitoring when the unit is idle. Any additional Cisco Meraki devices that are added to the MG41 may increase data usage further. Cisco Meraki products are cloud connected devices that report telemetry into Dashboard for network monitoring purposes. The usage will be reduced in future firmware updates.

## Use Cases

Note that the following use-cases refer to using a Meraki MX appliance with the MG41 as a WAN uplink. However, the use-cases can also apply to non-Meraki devices.

- Antenna placement where cellular coverage is best
- Signal strength is key for cellular performance. The MG41 makes cellular a viable option in situations where the best location for the MX is not necessarily the best location for a strong cellular signal. The separation of cellular antenna and MX expands cellular options for all networks, particularly for mid-range MXs mounted in a data center. The $4 \times 4$ DL MIMO is capable of supporting deployments that demands higher throughput capacity.
- Primary WAN
- In areas where wired internet services are not available, the MG41 provides a simple, viable option for wireless WAN connectivity.
- Secondary WAN for Failover
- An MX's secondary WAN interface connected to an MG41 may use the cellular network in the event of a primary uplink failure.
- Secondary WAN for SD-WAN
- An MX with an MG41 as a secondary WAN uplink may use the cellular network to establish VPNs for SD-WAN.
- High Availability Uplink
- The MG41 can be used as either a primary or secondary internet uplink for MX HA topologies. Its two LAN ports allow the MXs to share access to the same cellular network.


## Technical Breakdown

## Physical Specifications

| Models | MG41 | MG41E |
| :---: | :---: | :---: |
| Dimensions ( $\mathbf{w x d x h}$ ) | $168 \times 168 \times 35 \mathrm{~mm}$ | $168 \times 168 \times 35 \mathrm{~mm}$ |
| Weight (without accessories) | 670 g | 670 g |
| Power Supply | 12V/1A, 48-57V DC/0.35A | 12V/1A, 48-57V DC/0.35A |
| Power Load | 10 Watt Maximum (PoE 802.3AF) | 10 Watt Maximum (PoE 802.3AF) |


| Operating Temperature | $-22^{\circ} \mathrm{F}$ to $122^{\circ} \mathrm{F}\left(-30^{\circ} \mathrm{C}\right.$ to $\left.50^{\circ} \mathrm{C}\right)$ | $-22^{\circ} \mathrm{F}$ to $122^{\circ} \mathrm{F}\left(-30^{\circ} \mathrm{C}\right.$ to $\left.50^{\circ} \mathrm{C}\right)$ |
| :---: | :---: | :---: |
| Humidity | 5\% to 95\% non-condensing | $5 \%$ to $95 \%$ non-condensing |
| Storage and Transportation Temperature | $-22^{\circ} \mathrm{F}-158^{\circ} \mathrm{F}$ | $-22^{\circ} \mathrm{F}-158^{\circ} \mathrm{F}$ |
|  | $-30^{\circ} \mathrm{C}-70^{\circ} \mathrm{C}$ | $-30^{\circ} \mathrm{C}-70^{\circ} \mathrm{C}$ |
| Product Category | CAT18 | CAT18 |
| Maximum Wireless Data Rate (Down/Up) | 1.2 Gbps / 150 Mbps | 1.2 Gbps / 150 Mbps |
| Antennas | Internal | Dipole, optional patch antenna |
| LAN Interfaces - Dedicated | 1x Dedicated GbE RJ45 | 1x Dedicated GbE RJ45 |
| LAN Interfaces - Convertible | 1x Convertible LAN/WAN GbE RJ45 | 1x Convertible LAN/WAN GbE RJ45 |
| SIM Slots | 2 | 2 |

## Physical Specifications (MG41 vs MG21)

| Models | MG21/E | MG41/E |
| :---: | :---: | :---: |
| Dimensions (wxdxh) | $160.45 \times 160.45 \times 34.45 \mathrm{~mm}$ | $168 \times 168 \times 35 \mathrm{~mm}$ |
| Weight (without accessories) | 489/497g | 670 g |
| PoE Ports | 1 | 2 |
| External Antennas | 2 | 4 |
| Patch Antennas | 1 | 2 |
| Product Category | CAT6 | CAT18 |
| Maximum Wireless Data Rate (Down/Up) | 300 Mbps / 50 Mbps | 1.2 Gbps / 150 Mbps |
| LAN Interfaces - Dedicated | 1x Dedicated GbE RJ45 | 1x Dedicated GbE RJ45 |
| LAN Interfaces - Convertible | 1x Convertible LAN/WAN GbE RJ45 | 1x Convertible LAN/WAN GbE RJ45 |
| SIM Slots | 1 | 2 |
| Carrier Aggregation | DL-2CA | DL - 5CA, UL - 2CA |

## Feature Specifications (MG41 vs MG21)

| Models | MG21/E | MG41/E |
| :--- | :--- | :--- |
| Auto SIM failover | No | Yes |
| Dual SIM Info | No | Yes |
| Custom APN configuration via dashboard | No | Yes |
| Carrier Aggregation info on dashboard | No | Yes |
| Troubleshooting tools (DM logging) on LSP | No | Yes |
| SIM switch via Dashboard/LSP | No | Yes |
| Band 66, 71 | No | Yes |
| Private LTE (CBRS) | No | Yes |
| FirstNet band 14 | No |  |

## Interfaces

| LAN Interfaces |
| :--- |
| WAN Interfaces |
| SIM Card Slot |

$2 \times \mathrm{GbE}$
1 * CAT 18 Cellular modem
Nano (4FF)

## Cellular

MG41-HW \& MG41E-HW
B1 (2100)
B2 (1900)
LTE bands
B3 (1800)
B4 (1700)
B5 (850)
B7 (2600)

B8 (900)
B12 (700ac)
B13 (700c)
B14 (700PS)
B17 (700b)
B18 (800)
B19 (800)
B20 (800DD)
B25 (1900)
B42 (TDD 3500)
B38 (TDD 2600)
B40 (TDD 2300)
B43 (TDD 3600)
B26 (US 850 Ext)
B28 (700 APAC)
B29 (US 700de Lower)
B39 (TDD 1900)
B41 (TDD 2500)
B30 (2300 WCS)
B66 (AWS-3)
B32 (1500)
B46 (TDD 5200)
B48 (3600)
B71 (600)

B1 (2100)
B2 (1900)
B8 (900)
UMTS bands $\quad$ B4 (AWS)
B5 (850)
B9 (1700)
B19 (800)

LTE
Category

Certifications PTCRB (US), RCM (ANZ, APAC), GCF (EU)

Certified
Carriers

Carriers
leveraging
GCF

Carriers
pending certification

Beta Tested Carriers

AT\&T (United States), Verizon (United States), Rogers (Canada), Telus (Canada), Bell (Canada), Deutsche Telekom (Germany), Sunrise (Switzerland), Vodafone (NZ, UK, Germany, Ireland), Telstra (Australia), Optus (Australia), NTT docomo (Japan), KDDI (Japan)

| Carrier <br> Aggregation | Global Carriers |
| :---: | :---: |
|  | CA_1A-3A, CA_1A-5A, CA_1A-7A, CA_1A-8A, CA_1A-18A, CA_1A- |
|  | 19A, CA_1A-20A, CA_1A-26A, CA_1A-28A, CA_1A-32A, CA_1A-38A, |
|  | CA_1A-40A, CA_1A-41A, CA_1A-42A, CA_[2A]-[4A], CA_[2A]-5A, |
|  | CA_[2A]-7A, CA_[2A]-12A, CA_[2A]-28A, CA_[2A]-46A, CA_[2A]-48A, |
|  | CA_[2A]-[66A], CA_[2A]-71A, CA_3A-5A, CA_3A-7A, CA_3A-8A, |
|  | CA_3A-19A, CA_3A-20A, CA_3A-26A, CA_3A-28A, CA_3A-32A, |
|  | CA_3A-38A, CA_3A-40A, CA_3A-42A, CA_[4A]-5A, CA_4A-7A, |
| 2CA | CA_[4A]-12A, CA_[4A]-28A, CA_[4A]-46A, CA_5A-7A, CA_7A-8A, |
|  | CA_7A-12A, CA_7A-20A, CA_7A-28A, CA_7A-42A, CA_8A-38A, |
|  | CA_8A-40A, CA_8A-42A, CA_12A-[66A], CA_20A-32A, CA_20A-38A, |
|  | CA_20A-40A, CA_20A-42A, CA_26A-[41A], CA_28A-40A, CA_28A- |
|  | 42A, CA_39A-41A, CA_40A-42A, CA_46A-[66A], CA_48A-[66A], |
|  | CA_[66A]-71A, CA_1A-1A, CA_[2A]-[2A], CA_3A-3A, CA_[4A]-[4A], |
|  | $\begin{aligned} & \text { CA_7A-7A, CA_40A-40A, CA_42A-42A, CA_48A-48A, CA_[66A]-[66A], CA_[2C], CA_3C, CA_7B, CA_7C, CA_8B, CA_12B, } \\ & \text { CA_38C, } \end{aligned}$ |
|  | CA_39C, CA_40C, CA_[41C], CA_42C, CA_48C, CA_[66B], |

CA_[66C]
$C A \_1 A-1 A-3 A, C A \_1 A-3 A-3 A, C A \_1 A-3 A-7 A, C A \_1 A-3 A-8 A, C A \_1 A-$ 3A-19A, CA_1A-3A-20A, CA_1A-3A-28A, CA_1A-3A-32A, CA_1A-3A38A, CA_1A-3A-40A, CA_1A-3A-41A, CA_1A-3A-42A, CA_1A-3C, CA_1A-7A-7A, CA_1A-7A-8A, CA_1A-7A-20A, CA_1A-7A-28A,

CA_1A-7A-42A, CA_1A-7C, CA_1A-8A-40A, CA_1A-20A-32A, CA_1A-20A-42A, CA_1A-28A-42A, CA_1A-40C, CA_1A-41C, CA_1A42C, CA_1A-46C, CA_1C-3A, CA_[2A]-2A-12A, CA_2A-[2A]-12A, CA_[2A]-2A-66A, CA_2A-[2A]-66A, CA_2A-2A-[66A], CA_[2A]-2A71A, CA_2A-[2A]-71A, CA_[2A]-4A-4A, CA_2A-[4A]-4AC, CA_2A-4A[4A], CA_[2A]-4A-5A, CA_2A-[4A]-5A, CA_[2A]-4A-12A, CA_2A-[4A]12A, CA_[2A]-4A-29A, CA_2A-[4A]-29A, CA_[2A]-4A-71A, CA_2A-[4A]-71A, CA_2A-7A-12A, CA_[2A]-12A-66A, CA_2A-12A-[66A], CA_[2A]-12B, CA_[2A]-46A-46A, CA_[2A]-46A-66A, CA_2A-46A[66A], CA_[2A]-46C, CA_[2A]-48A-48A, CA_[2A]-48C, CA_[2A]-48A66A, CA_2A-48A-[66A], CA_[2A]-66A-66A, CA_2A-[66A]-66A, CA_2A-66A-[66A], CA_[2A]-66A-71A, CA_2A-[66A]-71A, CA_[2A][66C], CA_[2A]-66C, CA_2A-[66C], CA_3A-3A-7A, CA_3A-3A-8A, CA_3A-3A-20A, CA_3A-3A-28A, CA_3C-5A, CA_3A-7A-7A, CA_3A-7A-8A, CA_3A-7A-20A, CA_3A-7A-28A, CA_3A-7A-42A, CA_3A-7B, CA_3A-7C, CA_3C-7A, CA_3A-8A-38A, CA_3A-8A-40A, CA_3C-8A, CA_3A-20A-32A, CA_3A-20A-42A, CA_3A-28A-40A, CA_3A-28A42A, CA_3C-20A, CA_3C-28A, CA_3A-40A-40A, CA_3A-40C, CA_3A-42A-42A, CA_3A-42C, CA_3A-46C, CA_3C-32A, CA_3C-38A, CA_3C-40A, CA_4A-4A-7A, CA_[4A]-4A-12A, CA_4A-[4A]-12A, CA_[4A]-4A-71A, CA_4A-[4A]-71A, CA_4A-7A-12A, CA_[4A]-12B, CA_[4A]-46A-46A, CA_[4A]-46C, CA_7A-7A-8A, CA_7A-20A-42A, CA_7C-20A, CA_7B-28A, CA_7C-28A, CA_7A-46C, CA_8A-40C, CA_8A-42C, CA_12A-[66A]-66A, CA_12A-66A-[66A], CA_12A-[66C], CA_19A-42C, CA_20A-38C, CA_28A-40C, CA_28A-42C, CA_40A40C, CA_40D, CA_40A-42C, CA_40C-42A, CA_42A-42C, CA_42D,

CA_46C-[66A], CA_48A-48C, CA_48D, CA_48A-48A-[66A], CA_48C[66A], CA_[66A]-66A-71A, CA_66A-[66A]-71A

CA_1A-1A-3A-28A, CA_1A-3A-3A-28A, CA_1A-3A-7A-7A, CA_1A-3A-7C, CA_1A-3A-7A-8A, CA_1A-3A-7A-20A, CA_1A-3A-7A-28A, CA_1A-3A-8A-40A, CA_1A-3A-3A-8A, CA_1A-3A-40C, CA_1A-3A42C, CA_1A-3C-5A, CA_1A-3C-7A, CA_1A-3C-8A, CA_1A-3C-28A, CA_1A-7C-28A, CA_1A-42D, CA_1A-46D, CA_2A-2A-12A-66A, CA_2A-2A-66A-66A, CA_2A-2A-66A-71A, CA_[2A]-2A-66C, CA_2A-[2A]-66C, CA_2A-2A-[66C], CA_2A-4A-7A-12A, CA_2A-12A-66A66A, CA_2A-46A-46A-66A, CA_[2A]-46A-46C, CA_[2A]-46C-66A, CA_2A-46C-[66A], CA_[2A]-46D, CA_[2C]-66A-66A, CA_2C-[66A]66A, CA_2C-66A-[66A], CA_3A-3A-7A-7A, CA_3A-3A-7A-8A, CA_3A-3A-7A-20A, CA_3A-3A-7A-28A, CA_3A-5A-7A-7A, CA_3A-7A-7A-8A, CA_3A-7C-20A, CA_3A-7C-28A, CA_3A-28A-40C, CA_3A-28A-42C, CA_3A-40D, CA_3A-46D, CA_3C-7A-20A, CA_3C-7A-28A, CA_3C7C, CA_3C-40C, CA_[4A]-46A-46C, CA_[4A]-46D, CA_7A-46D, CA_28A-40D, CA_28A-46D, CA_40C-40C, CA_40C-42C, CA_40E, CA_[41C]-42C, CA_42C-42C, CA_42E, CA_46A-46C-[66A], CA_46D[66A], CA_48D-[66A], CA_48E

CA_1A-3A-7C-28A, CA_1A-3C-7C, CA_1A-3C-40C, CA_2A-46A-46C-66A, CA_2A-46D-66A, CA_3A-28A-40D, CA_3C-7C-28A, CA_3A-40E

UL_1A-7A, UL_1A-8A, UL_1A-28A, UL_3A-7A, UL_3A-8A, UL_3A-
2UL CA

CA_[2A]-[4A], CA_[2A]-5A, CA_2A-7A, CA_[2A]-12A, CA_[2A]-14A, CA_[2A]-29A, CA_2A-30A, CA_[2A]-46A, CA_[2A]-48A, CA_[2A][66A], CA_[2A]-71A, CA_[4A]-5A, CA_4A-7A, CA_[4A]-12A, CA_[4A]29A, CA_4A-30A, CA_[4A]-46A, CA_[4A]-71A, CA_5A-30A, CA_5A[66A], CA_7A-12A, CA_12A-30A, CA_12A-[66A], CA_14A-30A, CA_14A-[66A], CA_[25A]-26A, CA_25A-41A, CA_26A-[41A], CA_29A-30A, CA_29A-[66A], CA_30A-66A, CA_46A-[66A], CA_48A[66A], CA_[66A]-71A, CA_[2A]-[2A], CA_[4A]-[4A], CA_[25A]-[25A],

CA_[41A]-[41A], CA_48A-48A, CA_[66A]-[66A], CA_[2C], CA_5B, CA_7C, CA_12B, CA_[41C], CA_48C, CA_[66B], CA_[66C]

CA_[2A]-2A-5A, CA_2A-[2A]-5A, CA_[2A]-2A-12A, CA_2A-[2A]-12A, CA_2A-2A-30A, CA_[2A]-2A-66A, CA_2A-[2A]-66A, CA_2A-2A-[66A], CA_[2A]-2A-71A, CA_2A-[2A]-71A, CA_[2A]-4A-4A, CA_2A-[4A]-4A, CA_2A-4A-[4A], CA_[2A]-4A-5A, CA_2A-[4A]-5A, CA_[2A]-4A-12A, CA_2A-[4A]-12A, CA_[2A]-4A-29A, CA_2A-[4A]-29A, CA_2A-4A-30A, CA_[2A]-4A-71A, CA_2A-[4A]-71A, CA_2A-5A-30A, CA_[2A]-5A-66A, CA_2A-5A-[66A], CA_2A-7A-12A, CA_2A-12A-30A, CA_[2A]-12A66A, CA_2A-12A-[66A], CA_[2A]-12B, CA_2A-14A-30A, CA_[2A]-14A-66A, CA_2A-14A-[66A], CA_2A-29A-30A, CA_2A-30A-66A, CA_[2A]-46A-46A, CA_[2A]-46A-66A, CA_2A-46A-[66A], CA_[2A]46C, CA_[2A]-48A-48A, CA_[2A]-48C, CA_[2A]-48A-66A, CA_2A-48A-[66A], CA_[2A]-66A-66A, CA_2A-[66A]-66A, CA_2A-66A-[66A], CA_[2A]-66A-71A, CA_2A-[66A]-71A, CA_[2A]-[66C], CA_[2A]-66C, CA_2A-[66C], CA_[4A]-4A-5A, CA_4A-[4A]-5A, CA_4A-4A-7A, CA_[4A]-4A-12A, CA_4A-[4A]-12A, CA_4A-4A-30A, CA_[4A]-4A-71A, CA_4A-[4A]-71A, CA_4A-5A-30A, CA_4A-7A-12A, CA_4A-12A-30A, CA_[4A]-12B, CA_4A-29A-30A, CA_[4A]-46A-46A, CA_[4A]-46C, CA_5A-30A-66A, CA_5A-[66A]-66A, CA_5A-66A-[66A], CA_5A-[66C], CA_12A-30A-66A, CA_12A-[66A]-66A, CA_12A-66A-[66A], CA_12A[66C], CA_14A-30A-66A, CA_14A-[66A]-66A, CA_14A-66A-[66A],

CA_[25A]-25A-26A, CA_25A-[25A]-26A, CA_25A-41C, CA_26A-
[41C], CA_29A-30A-66A, CA_29A-[66A]-66A, CA_29A-66A-[66A],
CA_30A-66A-66A, CA_[41A]-[41C], CA_[41A]-41C, CA_41A-[41C], CA_[41D], CA_46C-[66A], CA_48A-48C, CA_48D, CA_48A-48A[66A], CA_48C-[66A], CA_[66A]-66A-71A, CA_66A-[66A]-71A

CA_2A-2A-5A-30A, CA_2A-2A-5A-66A, CA_2A-2A-12A-30A, CA_2A-2A-12A-66A, CA_2A-2A-29A-30A, CA_2A-2A-66A-66A, CA_2A-2A-66A-71A, CA_[2A]-2A-66C, CA_2A-[2A]-66C, CA_2A-2A-[66C], CA_2A-4A-4A-12A, CA_2A-4A-5A-30A, CA_2A-4A-7A-12A, CA_2A-4A-12A-30A, CA_2A-5A-30A-66A, CA_2A-5A-66A-66A, CA_2A-5B30A, CA_[2A]-5B-66A, CA_2A-5B-[66A], CA_2A-12A-30A-66A,

CA_2A-12A-66A-66A, CA_2A-29A-30A-66A, CA_2A-46A-46A-66A, CA_[2A]-46A-46C, CA_[2A]-46C-66A, CA_2A-46C-[66A], CA_[2A]-

46D, CA_2A-66A-66A-71A, CA_2A-66C-71A, CA_[2C]-66A-66A,
CA_2C-[66A]-66A, CA_2C-66A-[66A], CA_4A-4A-12A-30A, CA_[4A]-
46A-46C, CA_[4A]-46D, CA_5A-30A-66A-66A, CA_5B-30A-66A,
CA_5B-66A-66A, CA_12A-30A-66A-66A, CA_25A-41D, CA_29A-30A-66A-66A, CA_[41A]-41D, CA_[41C]-41C, CA_41C-[41C], CA_41E, CA_46A-46C-[66A], CA_46D-[66A], CA_48D-[66A], CA_48E

CA_2A-2A-46D, CA_2A-5B-30A-66A, CA_2A-5B-66A-66A, CA_2A-
46A-46C-66A, CA_2A-46D-66A, CA_5B-30A-66A-66A, CA_46D-66A-
66A

2UL CA
UL_2A-5A, UL_2A-12A, UL_4A-12A, UL_5A-66A, UL_5B, UL_41C

Carrier
Aggregation

2CA

Verizon

CA_[2A]-[2A], CA_[2A]-[4A], CA_[2A]-5A, CA_[2A]-13A, CA_[2A]-
[66A], CA_[4A]-[4A], CA_[4A]-5A, CA_[4A]-13A, CA_5A-[66A],

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    CA_5B, CA_13A-[66A], CA_[66A]-[66A], CA_[66B], CA_[66C],
    CA_[2A]-48A, CA_13A-48A, CA_48A-[66A]
    CA_[2A]-2A-5A, CA_[2A]-2A-13A, CA_[2A]-2A-66A, CA_2A-2A-[66A],
    CA_[2A]-4A-5A, CA_2A-[4A]-5A, CA_[2A]-4A-13A, CA_2A-[4A]-13A,
    CA_[2A]-5A-66A, CA_2A-5A-[66A], CA_[2A]-13A-66A, CA_2A-13A-
    [66A], CA_[2A]-66A-66A, CA_2A-[66A]-66A, CA_[2A]-[66B], CA_[2A]
    [66C], CA_[4A]-4A-5A, CA_[4A]-4A-13A, CA_5A-[66A]-66A, CA_5A-
    [66B], CA_5A-[66C], CA_13A-[66A]-66A, CA_13A-[66B], CA_13A-
    [66C], CA_[66A]-[66C], CA_[66D], CA_[2A]-48A-48A, CA_[2A]-48A-
    66A, CA_2A-48A-[66A], CA_[2A]-48C, CA_13A-48A-48A, CA_13A-
    48A-[66A], CA_13A-48C, CA_48A-48A-[66A], CA_48A-[66A]-66A,
    CA_48A-[66B], CA_48C-[66A]
    CA_2A-48A-48A-66A, CA_[2A]-48D, CA_13A-48A-48A-66A,
    CA_13A-48A-48C, CA_13A-48C-[66A], CA_13A-48D, CA_48A-48A-66A-66A, CA_48A-48A-[66B], CA_48A-48A-[66C],
    CA_48A-48C-
    [66A], CA_48D-[66A]
    CA_2A-48E, CA_13A-48A-48C-66A, CA_13A-48C-48C, CA_13A-
    48D-66A, CA_13A-48E, CA_48A-48C-66B, CA_48A-48C-66C,
    CA_48C-48C-66A, CA_48E-66A
2UL CA
UL_2A-13A, UL_4A-13A
```

Carrier Aggregation

2CA

T-Mobile US

CA_[2A]-[4A], CA_[2A]-5A, CA_2A-7A, CA_[2A]-12A, CA_[2A]-14A, CA_[2A]-29A, CA_2A-30A, CA_[2A]-46A, CA_[2A]-48A, CA_[2A]-
[66A], CA_[2A]-71A, CA_[4A]-5A, CA_4A-7A, CA_[4A]-12A, CA_[4A]-
29A, CA_4A-30A, CA_[4A]-46A, CA_[4A]-71A, CA_5A-30A, CA_5A-
[66A], CA_7A-12A, CA_12A-30A, CA_12A-[66A], CA_14A-30A,
CA_14A-[66A], CA_[25A]-26A, CA_25A-41A, CA_26A-[41A],
CA_29A-30A, CA_29A-[66A], CA_30A-66A, CA_46A-[66A], CA_48A-
[66A], CA_[66A]-71A, CA_[2A]-[2A], CA_[4A]-[4A], CA_[25A]-[25A], CA_[41A]-[41A], CA_48A-48A, CA_[66A]-[66A], CA_[2C], CA_5B, CA_7C, CA_12B, CA_[41C], CA_48C, CA_[66B], CA_[66C]

CA_[2A]-2A-5A, CA_2A-[2A]-5A, CA_[2A]-2A-12A, CA_2A-[2A]-12A, CA_2A-2A-30A, CA_[2A]-2A-66A, CA_2A-[2A]-66A, CA_2A-2A-[66A], CA_[2A]-2A-71A, CA_2A-[2A]-71A, CA_[2A]-4A-4A, CA_2A-[4A]-4A, CA_2A-4A-[4A], CA_[2A]-4A-5A, CA_2A-[4A]-5A, CA_[2A]-4A-12A, CA_2A-[4A]-12A, CA_[2A]-4A-29A, CA_2A-[4A]-29A, CA_2A-4A-30A, CA_[2A]-4A-71A, CA_2A-[4A]-71A, CA_2A-5A-30A, CA_[2A]-5A-66A, CA_2A-5A-[66A], CA_2A-7A-12A, CA_2A-12A-30A, CA_[2A]-12A66A, CA_2A-12A-[66A], CA_[2A]-12B, CA_2A-14A-30A, CA_[2A]-14A-66A, CA_2A-14A-[66A], CA_2A-29A-30A, CA_2A-30A-66A, CA_[2A]-46A-46A, CA_[2A]-46A-66A, CA_2A-46A-[66A], CA_[2A]46C, CA_[2A]-48A-48A, CA_[2A]-48C, CA_[2A]-48A-66A, CA_2A-48A-[66A], CA_[2A]-66A-66A, CA_2A-[66A]-66A, CA_2A-66A-[66A], CA_[2A]-66A-71A, CA_2A-[66A]-71A, CA_[2A]-[66C], CA_[2A]-66C,
CA_2A-[66C], CA_[4A]-4A-5A, CA_4A-[4A]-5A, CA_4A-4A-7A,CA_[4A]-4A-12A, CA_4A-[4A]-12A, CA_4A-4A-30A, CA_[4A]-4A-71A,

CA_4A-[4A]-71A, CA_4A-5A-30A, CA_4A-7A-12A, CA_4A-12A-30A,
CA_[4A]-12B, CA_4A-29A-30A, CA_[4A]-46A-46A, CA_[4A]-46C,
CA_5A-30A-66A, CA_5A-[66A]-66A, CA_5A-66A-[66A], CA_5A-[66C],
CA_12A-30A-66A, CA_12A-[66A]-66A, CA_12A-66A-[66A], CA_12A-
[66C], CA_14A-30A-66A, CA_14A-[66A]-66A, CA_14A-66A-[66A],
CA_[25A]-25A-26A, CA_25A-[25A]-26A, CA_25A-41C, CA_26A-
[41C], CA_29A-30A-66A, CA_29A-[66A]-66A, CA_29A-66A-[66A],
CA_30A-66A-66A, CA_[41A]-[41C], CA_[41A]-41C, CA_41A-[41C],
CA_[41D], CA_46C-[66A], CA_48A-48C, CA_48D, CA_48A-48A-
[66A], CA_48C-[66A], CA_[66A]-66A-71A, CA_66A-[66A]-71A


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 maybe many unlisted carriers 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.

## MTBF Rating

| Model | MTBF at $\mathbf{2 5}^{\circ} \mathbf{C}$ |
| :--- | :---: |
| MG41 | $1,931,000$ |
| MG41E | $1,931,000$ |

## Ordering Guide

To place an order for an MG41 cellular gateway, pair a specific hardware model with a single license (which includes cloud services, software upgrades and support). For example, to order an MG41E with 3 years of enterprise licensing for use in North America, order an MG41E-HW with LIC-MG41-ENT-3Y. A lifetime warranty with advanced replacement is included on all MG hardware (excluding accessories) at no additional cost.

| Model SKU | Description |
| :--- | :--- |
| MG41-HW | Meraki MG41 <br> Cellular Gateway |
| MG41E-HW | Meraki MG41 <br> Cellular Gateway - |
|  | External Antennas |

## Licensing

| License SKU | Description |
| :--- | :--- |
| LIC-MG41-ENT-1Y | Meraki MG41 Enterprise License and <br> Support, 1YR |
| LIC-MG41-ENT-3Y | Meraki MG41 Enterprise License and <br> Support, 3YR |
| LIC-MG41-ENT-5Y | Meraki MG41 Enterprise License and <br> Support, 5YR |
| LIC-MG41-ENT-7Y | Meraki MG41 Enterprise License and <br> Support, 7YR |
| LIC-MG41-ENT-10Y | Meraki MG41 Enterprise License and <br> Support, 10YR |

## Accessories

| Accessory SKU | Description |
| :--- | :--- |
| MA-PWR-30W-XX | Standard power adapter. Regional plugs per SKU. |
| MA-INJ-4 | Gigabit 802.3at PoE injector |
| MA-ANT-C1-A | Dipole Antenna pair included with MG41E |Patch antennas are currently not available as an accessory on the MG41E. It's expected to be available sometime in H1CY22 time frame. If you have any questions, please reach to your sales/SEs.

## Included In The Box

| Model | Contents |
| :--- | :--- |
| MG41 | $1 \times$ MG41-HW <br> $1 \times$ Mounting plate and screw set |
|  | $1 \times$ MG41E-HW <br> MG41E <br>  <br>  <br>  <br>  <br> $4 \times$ Mounting plate and screw set |

(1)

Note: Non-Meraki antennas are not supported. The socket is a reversed RP-SMA that is designed to detect the official MG smart dipole antennas and smart patch antenna. Usage of non-Meraki accessories may damage the MG and degrade performance. The Cisco Meraki antennas are designed for the maximum allowable gain without exceeding the EIRP for local regulatory domains on their supported bands.

