# MG41/41E Technical Specifications

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## 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 24x7 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<br>• Dual SIM support<br>• Supports 2 separate downstream router connections<br>• Small form factor<br>• PoE or DC powered<br>• IP67 rating<br>• Optional Patch antenna |
| **Management** | • Manageability from the Cisco Meraki dashboard<br>• Self-configuring Cellular Gateway<br>• Automatic firmware upgrades with scheduling control<br>• Extensive API support |
| **Remote Diagnostics** | • Email, SMS and Mobile push notification alerts<br>• Ping, traceroute, cable testing, and link failure detection with alerting<br>• Remote packet capture<br>• Combined event and configuration change logs with instant search<br>• DM logging via local status page |

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 x 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 (w x d x h)** | 168 x 168 x 35mm | 168 x 168 x 35mm |
| **Weight (without accessories)** | 670g | 670g |
| **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°F to 122°F (-30°C to 50°C) | -22°F to 122°F (-30°C to 50°C) |
| **Humidity** | 5% to 95% non-condensing | 5% to 95% non-condensing |
| **Storage and Transportation Temperature** | -22°F - 158°F <br><br> -30°C - 70°C | -22°F - 158°F <br><br> -30°C - 70°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 (w x d x h)** | 160.45 x 160.45 x 34.45mm | 168 x 168 x 35mm |
| **Weight (without accessories)** | 489/497g | 670g |
| **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 local status page** | No | Yes |
| **SIM switch via Dashboard/Local status page** | No | Yes |
| **Band 66, 71** | No | Yes |
| **Private LTE (CBRS)** | No | Yes |
| **FirstNet band 14** | No | Yes |

## Interfaces

| | |
|---|---|
| **LAN Interfaces** | 2x GbE |
| **WAN Interfaces** | 1 * CAT 18 Cellular modem |
| **SIM Card Slot** | Nano (4FF) |

# Cellular

|  |  |
|---|---|
|  | MG41-HW & MG41E-HW |
| LTE bands | B1 (2100) |
|  | B2 (1900) |
|  | 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 | B4 (AWS) |
| | B5 (850) |
| | B9 (1700) |
| | B19 (800) |
| | |
| LTE Category | CAT 18 LTE-A PRO |
| Bands and CA combos | [Link](#) |
| | |
| Certifications | PTCRB (US), RCM (ANZ, APAC), GCF (EU) |
| Certified Carriers | AT&T (US), AT&T FirstNet (US) - Capable (Certified), Verizon Wireless (US), T-Mobile (US), Optus (AU), Telstra (AU), Bell (CA), Telus (CA), Spark (NZ), Vodafone (NZ), DoCoMo (Japan) |
| Carriers | https://www.globalcertificationforum...f-members.html |

| | |
|---|---|
| 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 Aggregation | Global Carriers | |
|---|---|---|
| | | |
| 2CA | 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, 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], 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, CA_38C,

CA_39C, CA_40C, CA_[41C], CA_42C, CA_48C, CA_[66B],

CA_[66C]

3CA

CA_1A-1A-3A, CA_1A-3A-3A, CA_1A-3A-7A, CA_1A-3A-8A, CA_1A-3A-19A, CA_1A-3A-20A, CA_1A-3A-28A, CA_1A-3A-32A, CA_1A-3A-38A, 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_1A-42C, 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]-2A-71A, 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]-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_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-28A-42A, 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_40A-40C, 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

4CA

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-3A-42C, 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-66A-66A, 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_3C-7C, 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 |
|---|---|
| 5CA | 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 |
| 2UL CA | UL_1A-7A, UL_1A-8A, UL_1A-28A, UL_3A-7A, UL_3A-8A, UL_3A-20A, UL_3A-28A, UL_4A-7A, UL_3C, UL_7C, UL_38C, UL_39C, UL_40C, UL_41C, UL_42C |

| Carrier Aggregation | AT&T |
|---|---|
| 2CA | 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]-12A-

66A, 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,

3CA    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-<br><br>2A-12A-66A, CA_2A-2A-29A-30A, CA_2A-2A-66A-66A, CA_2A-2A-<br><br>66A-71A, CA_[2A]-2A-66C, CA_2A-[2A]-66C, CA_2A-2A-[66C],<br><br>CA_2A-4A-4A-12A, CA_2A-4A-5A-30A, CA_2A-4A-7A-12A, CA_2A-<br><br>4A-12A-30A, CA_2A-5A-30A-66A, CA_2A-5A-66A-66A, CA_2A-5B-<br><br>30A, CA_[2A]-5B-66A, CA_2A-5B-[66A], CA_2A-12A-30A-66A, |
| 4CA | CA_2A-12A-66A-66A, CA_2A-29A-30A-66A, CA_2A-46A-46A-66A, CA_[2A]-46A-46C,<br>CA_[2A]-46C-66A, CA_2A-46C-[66A], CA_[2A]-<br><br>46D, CA_2A-66A-66A-71A, CA_2A-66C-71A, CA_[2C]-66A-66A,<br><br>CA_2C-[66A]-66A, CA_2C-66A-[66A], CA_4A-4A-12A-30A, CA_[4A]-<br><br>46A-46C, CA_[4A]-46D, CA_5A-30A-66A-66A, CA_5B-30A-66A,<br><br>CA_5B-66A-66A, CA_12A-30A-66A-66A, CA_25A-41D, CA_29A-<br><br>30A-66A-66A, CA_[41A]-41D, CA_[41C]-41C, CA_41C-[41C],<br><br>CA_41E, CA_46A-46C-[66A], CA_46D-[66A], CA_48D-[66A], CA_48E |
| 5CA | CA_2A-2A-46D, CA_2A-5B-30A-66A, CA_2A-5B-66A-66A, CA_2A-<br><br>46A-46C-66A, CA_2A-46D-66A, CA_5B-30A-66A-66A, CA_46D-66A-<br><br>66A |

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

| Carrier Aggregation | Verizon |
|---|---|
| 2CA | 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], CA_5B, CA_13A-[66A], CA_[66A]-[66A], CA_[66B], CA_[66C], CA_[2A]-48A, CA_13A-48A, CA_48A-[66A] |
| 3CA | 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] |
| 4CA | 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]

| | |
|---|---|
| 5CA | 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 | T-Mobile US |
|---|---|
| 2CA | 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] |
| 3CA | 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]-12A-

66A, 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

4CA          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-5B-
30A, 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

| 5CA | 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 | CBRS |
| --- | --- |
| 2CA | CA_42A-42A, CA_48A-48A, CA_42C, CA_48C |

| 3CA | CA_42A-42C, CA_42D, CA_48A-48C, CA_48D |
|---|---|

| 2UL CA | UL_42C |
|---|---|

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.

| Model | MTBF at 25°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.

| Model SKU | Description |
|---|---|
| MG41-HW | Meraki MG41 Cellular Gateway |
| MG41E-HW | Meraki MG41 Cellular Gateway – External Antennas |

## Licensing

| License SKU | Description |
|---|---|
| LIC-MG41-ENT-1Y | Meraki MG41 Enterprise License and Support, 1YR |
| LIC-MG41-ENT-3Y | Meraki MG41 Enterprise License and Support, 3YR |
| LIC-MG41-ENT-5Y | Meraki MG41 Enterprise License and Support, 5YR |
| LIC-MG41-ENT-7Y | Meraki MG41 Enterprise License and Support, 7YR |
| LIC-MG41-ENT-10Y | Meraki MG41 Enterprise License and 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-C2-A | Dipole Antenna pair included with MG41E |
| MA-ANT-C1-B | Patch Antenna pair for MG41E |

## Included In The Box

| Model | Contents |
|---|---|
| MG41 | 1 x MG41-HW<br>1 x Mounting plate and screw set |
| MG41E | 1 x MG41E-HW<br>1 x Mounting plate and screw set<br>4 x dipole antennas |

We only support and recommend having all 4 antenna's connected on the MG 41E.

## Non-Meraki Antenna not supported

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.

Power Adapter vs PoE : The MG can be powered using a PoE or via a power adapter. The power adapter always takes the first preference i.e if the MG is already powered via the PoE and then the power adapter is connected, then the MG will power off and power on using the adapter as the power source. The same scenario applies when the PoE and power adapter are connected simultaneously and the power source from the adapter goes down, the MG will power off and then power on. Plugging/unplugging PoE when power adapter is connected to the MG does not have any bearing on the operation of the MG as the device will always draw power from the adapter whenever it is connected.

# Warranty

MG Warranty coverage periods are as follows:

| Product | Warranty Period | Warranty Information |
| --- | --- | --- |
| MG41/MG41E | Lifetime | Full lifetime hardware warranty with next-day advanced replacement included.<br><br>Applies to MG41 and MG41E hardware |
| MG Accessories | 1 Year | The following are considered accessories:<br><br>Includes mounting kits, antenna, and additional power cords |

Additional warranty information can be found on the [Return Policy and Requesting a RMA](#) page of the Cisco Meraki website.

If your Cisco Meraki device fails and the problem cannot be resolved by troubleshooting, contact support to address the issue. Once support determines that the device is in a failed state, they can process an RMA and send out a replacement device free of charge. In most circumstances, the RMA will include a pre-paid shipping label so the faulty equipment can be returned.

In order to initiate a hardware replacement for non-functioning hardware that is under warranty, you must have access to the original packaging the hardware was shipped in. The original hardware packaging includes device serial number and

order information, and may be required for return shipping.

Meraki MG41 and MG41E devices have been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.