INSTALLATION MANUAL

Q.HOME COMBINER Cellular Modem

qcells

1 Safety

1.1 General Notice

- Contents may be periodically updated or revised. Qcells reserves the right to make improvements or changes to the product(s) and program(s) described in this manual without prior notice.
- The installation and maintenance can only be performed by qualified personnel which:
  - are licensed and/or satisfy state and local jurisdiction regulations;
  - have good knowledge of system operation, and other related documents.
- Before installing the device, carefully read, fully understand and strictly follow the detailed instructions of this manual and other related regulations. Qcells shall not be liable for any consequences caused by the violation of the storage, transportation, installation and operation regulations specified in this document.
- Before installing the device, carefully read the detailed instructions of the “MTCM2 Quick Start” enclosed in the Cellular Modem packaging.
- Please visit www.qcells.com/us for more information.

1.2 Product Safety Labels

The following symbols appear on the product label.

CE mark of conformity

Do not dispose of the device together with household waste.

FCC mark of conformity

1.3 Safety Precaution

RF EXPOSUREWARNING

WARNING

Due to the possibility of radio frequency (RF) interference, it is important that you follow all special regulations regarding the use of radio equipment. Follow the safety advice given below.

- Install and operate the device in accordance with provided instructions.
- End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.
- Operating your device close to other electronic equipment may cause interference if the equipment is inadequately protected. Observe any warning signs and manufacturers' recommendations.
- Different industries and businesses restrict the use of cellular devices. Respect restrictions on the use of radio equipment in fuel depots, chemical plants, or where blasting operations are in process. Follow restrictions for any environment where you operate the device.
- Do not place the antenna outdoors.

CAUTION

- Do not dismantle or destroy.
- Keep away from flammable, explosive materials.
- All product labels and nameplate on the module shall be maintained and clearly visible.

FCC RULES

FCC Statement This equipment has 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 instruction, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation.

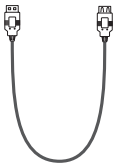
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

2 Package Contents

Cellular Modem: 1 EA
(MTCM2-L4G1D-B03) (SIM card included)

Fixture: 1EA
(WMB-CBA)



USB 2.0 A-AF Cable: 1EA

Quick Start Guide: 1EA

Screw: 2 EA
(M4 - 6 mm)

3 Installation Tools

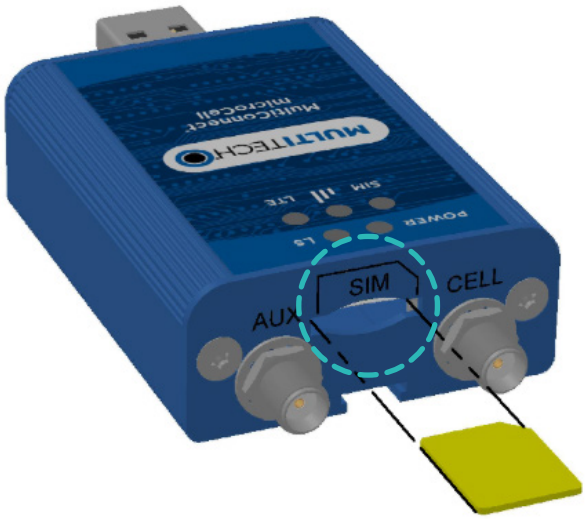
Screwdriver

4 Installation

4.1 SIM Card Installation

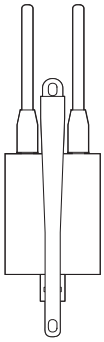
This Cellular Modem comes with a pre-installed SIM card. If reseating the SIM card in the modem is necessary, follow the steps below.

1. To remove the SIM card, push the SIM card in. The device ejects the SIM card.
2. Locate the SIM card slot on the side of the modem.
3. Slide the SIM card into the slot with the contact side facing up as shown. When the SIM card is installed, it locks into place.

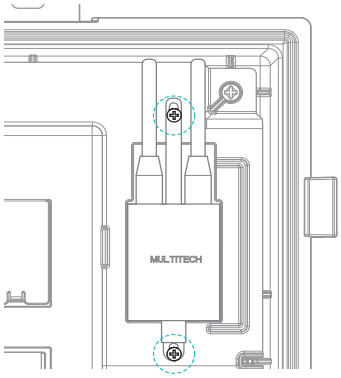


4.2 Cellular Modem Installation

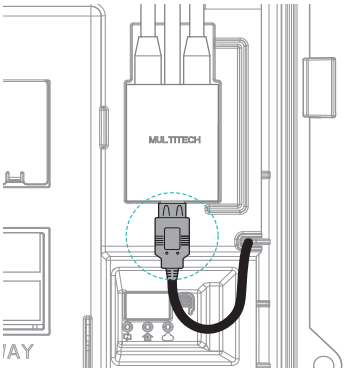
1 Insert the fixture into the middle slot on the back side of the cellular modem.



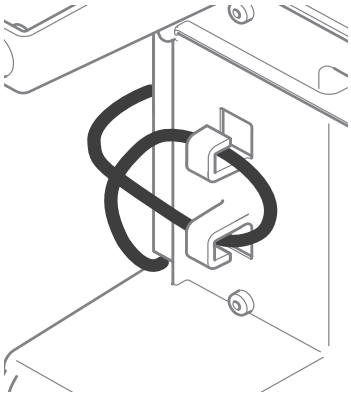
2 Attach the fixture with two screws (M4 - 6 mm) at the cellular attachment part of the deadfront.



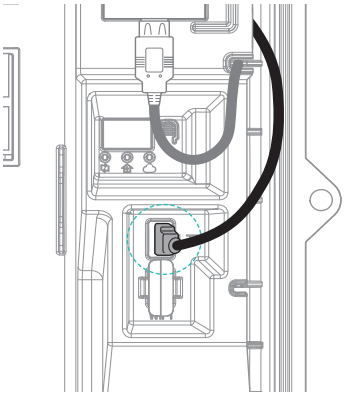
3 Remove the deadfront cover and connect USB 2.0 AF Cable to cellular modem.



4 Use the slot on the back of the deadfront to arrange the cable.



5 Restore the deadfront cover and plug the USB cable on the USB port marked as 'LTE' on the deadfront.



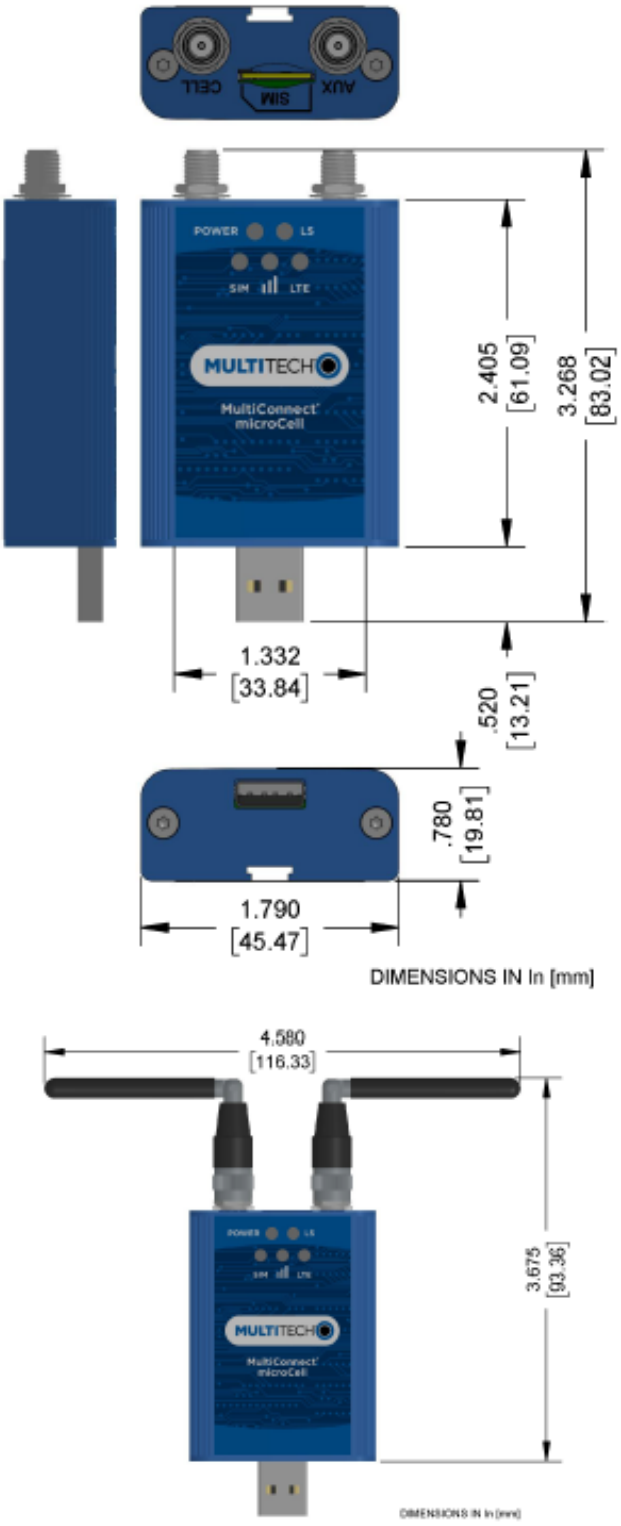
6 Angle the antennas away from each other.
Do not angle the antennas parallel to each other.

5 Specifications

5.1 Technical Specifications

Model	MTCM2-L4G1D-B03
Power Supply	5 VDC
Data Speed	LTE FDD: Max 150 Mbps (DL) / Max 50 Mbps (UL) LTE TDD: Max 130 Mbps (DL) / Max 35 Mbps (UL) UMTS: DC-HSDPA: Max 42 Mbps (DL) UMTS: HSUPA: Max 5.76 Mbps (UL) UMTS: WCDMA: Max 384 Kbps (DL)/Max 384 Kbps (UL) GSM: EDGE: Max 296 Kbps (DL)/Max 236.8vKbps (UL) GSM: GPRS: Max 107 Kbps (DL)/Max 85.6 Kbps (UL)
Weight	0.5 lbs (0.227 Kg)
Dimensions	2.45" × 1.79" × 0.78" (6.22 × 4.54 × 1.98 cm)
Operating Temperature Range	−40 °F to 185 °F (−40 °C to 85 °C)
Antenna Gain	2.06 dBi
LTE-FDD (Cellular)	GPP Release 11 **4G LTE FDD**: B1(2100),B2(1900), B3(1800), B4(AWS1700),B5(850), B7(2600), B8(900), B12/B13(700), B18(850), B19(850), B20(800), B25(1900), B26(850), B28(700) TDD: B38(2600), B39(1900), B40(2300), B41(2500) **3G UMTS**: B1(2100),B2(1900), B4(AWS1700), B5(850), B6(800), B8(900), B19(850) **2G GSM**: B2(1900), B3(1800), B5(850), B8(900)

5.2 Appearance and Dimensions



DIMENSIONS IN In [mm]

6 LED Indicators

The Cellular Modem has the following status LEDs: POWER, LINK STATUS(LS), LTE, SIM. Signal Strength.

Note

'Slow' is 1 second on, 1 second off. 'Fast' is 200 milliseconds on, 200 milliseconds off.

LED	Status	Description
Power	On	Device has power
	Off	Device does not have power
Link Status (LS)	On	Radio is not registered
	Flash Slow	Registered
	Off	Radio is turned off, in PSM mode, receiving a firmware update or SIM is not inserted.
LTE	On	LTE
	Flash Fast	3G
	Flash Slow	2G
	Off	SIM is not inserted or radio technology unknown
SIM	On	Ready
	Flash Slow	Other
	Off	SIM is not inserted
Signal Strength	On	Excellent
	Flash Fast	Good
	Flash Slow	Fair
	Off	No signal or SIM is not inserted

7 Monitoring Connection

7.1 Q.OMMAND PRO – for installers

Download Q.OMMAND PRO

1 Search and install Q.OMMAND PRO on Apple App Store or Google Play Store.

Android iOS

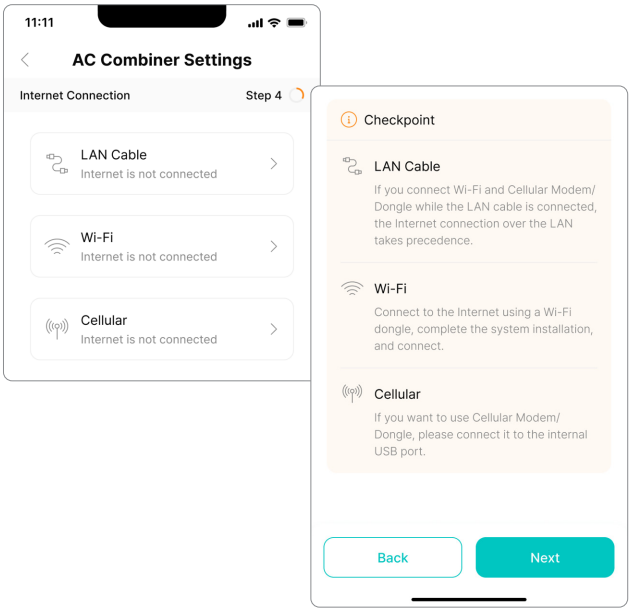
The app runs with the following versions or higher. Check OS version of the mobile device.

- If you cannot see the App download or see the error message “This App cannot compatible with your mobile”, please try again after update your mobile OS version (Andriod/iOS)

2 Open the Q.OMMAND PRO app.

3 Create the account and log in to the app.

Installation Guide



1 From the Combiner System Settings, select "Internet Connection", and then select "Cellular".

- If the Cellular Modem is already connected, it is automatically connected.
- You can check the Cellular Status/IP Info/Network provider.

Note

If either (or both) Ethernet or Wi-Fi is also connected, the device will connect to the cloud via Ethernet, then Wi-Fi, then Cellular by priority.

7.2 Q.OMMAND HOME – for homeowners

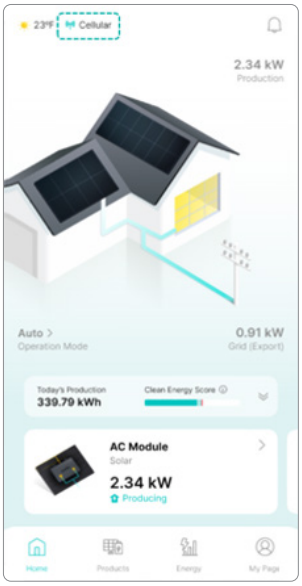
Download Q.OMMAND HOME

1 Search and install Q.OMMAND HOME on Apple App Store or Google Play Store.

Android iOS

2 Open the Q.OMMAND HOME app and log in.

Energy Flow Dashboard in HOME Tab



You can view how the device is connected to the internet in the Home tab. If the device is connected to the internet via cellular modem, it'll display 'Cellular' together with an icon on top of the energy flow dashboard.

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