

REGULATORY NOTICES

REACH STATEMENT

Registration of Substances

After careful review of the legislation and specifically the definition of an "article" as defined in EC Regulation 1907/2006, Title II, Chapter 1, Article 7.1(a)(b), it is our current view MultiTech Systems, Inc. products would be considered as "articles". In light of the definition in § 7.1(b) which requires registration of an article only if it contains a regulated substance that "is intended to be released under normal or reasonably foreseeable conditions of use," Our analysis is that MultiTech Systems, Inc. products constitute non-registerable articles for their intended and anticipated use.

Substances of Very High Concern (SVHC)

Per the candidate list of Substances of Very High Concern (SVHC) published October 28, 2008 we have reviewed these substances and certify the MultiTech Systems, Inc. products are compliant per the EU "REACH" requirements of less than 0.1% (w/w) for each substance. If new SVHC candidates are published by the European Chemicals Agency, and relevant substances have been confirmed, that exceeds greater than 0.1% (w/w), MultiTech Systems, Inc. will provide updated compliance status.

MultiTech Systems, Inc. also declares it has been duly diligent in ensuring that the products supplied are compliant through a formalized process which includes collection and validation of materials declarations and selective materials analysis where appropriate. This data is controlled as part of a formal quality system and will be made available upon request.

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT STATEMENT

WEEE Directive

The WEEE Directive places an obligation on EU-based manufacturers, distributors, retailers, and importers to take back electronics products at the end of their useful life. A sister directive, ROHS (Restriction of Hazardous Substances) complements the WEEE Directive by banning the presence of specific hazardous substances in the products at the design phase. The WEEE Directive covers all MultiTech products imported into the EU as of August 13, 2005. EU-based manufacturers, distributors, retailers and importers are obliged to finance the costs of recovery from municipal collection points, reuse, and recycling of specified percentages per the WEEE requirements.

Instructions for Disposal of WEEE by Users in the European Union

The symbol shown below is on the product or on its packaging, which indicates that this product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.



SAFETY WARNINGS

Radio Frequency (RF) Safety

To avoid possible radio frequency (RF) interference, follow any special regulations for using radio equipment, and follow the safety advice listed here:

- Operating the device close to other electronic equipment may cause interference if the equipment is inadequately protected.
- Observe any warning signs and the manufacturer 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, unless in an outdoor-rated enclosure.
- Switch OFF your wireless device when in an aircraft. Failing to observe this restriction may lead to suspension or denial of cellular services to the offender, legal action, or both.
- Switch OFF your wireless device when around gasoline or diesel fuel pumps and before filling your vehicle with fuel.
- Switch OFF your wireless device in hospitals and any other place where medical equipment may be in use.
- Refer to Potential Interference with Pacemakers and Other Medical Devices.

Potential Interference with Pacemakers and Other Medical Devices

Radio frequency energy (RF) from cellular devices can interact with some electronic devices, causing electromagnetic interference (EMI). The FDA helped develop a detailed test method to measure EMI of implanted cardiac pacemakers and defibrillators from cellular devices. This test method is part of the Association for the Advancement of Medical Instrumentation (AAMI) standard. This standard allows manufacturers to ensure that cardiac pacemakers and defibrillators are safe from cellular device EMI.

The FDA continues to monitor cellular devices for interactions with other medical devices. If harmful interference occurs, the FDA will assess the interference and work to resolve the problem.

Precautions for Pacemaker Wearers

EMI can affect a pacemaker in one of three ways:

- Stop the pacemaker from delivering the stimulating pulses that regulate the heart's rhythm.
- Cause the pacemaker to deliver the pulses irregularly.
- Cause the pacemaker to ignore the heart's own rhythm and deliver pulses at a fixed rate.

Based on current research, cellular devices do not pose a significant health problem for most pacemaker wearers. However, people with pacemakers may want to take simple precautions to avoid EMI from cellular devices:

- Keep the device on the opposite side of the body from the pacemaker to add extra distance between the pacemaker and the device.
- Avoid placing a turned-on device next to the pacemaker (for example, don't carry the device in a shirt or jacket pocket directly over the pacemaker).

Antenna

The antenna intended for use with this unit meets the requirements for mobile operating configurations and for fixed mounted operations, as defined in 2.1091 and 1.1307 of the FCC rules for satisfying RF exposure compliance.

QUICK INSTALL GUIDE

Enphase Mobile Connect

This guide is intended for use by professional installation and maintenance personnel and provides instructions on how to install Enphase Mobile Connect with the Envoy. For details about the Envoy, refer to the *Envoy Installation and Operation Manual*.

About Enphase Mobile Connect

Enphase Mobile Connect™ is a modem package that connects to the Enphase Envoy™, and eliminates the need for an on-site Internet connection to monitor an Enphase Microinverter System. The addition of Mobile Connect to an Enphase System enables greater installation flexibility and provides reliable system monitoring independent of the Internet service on site.

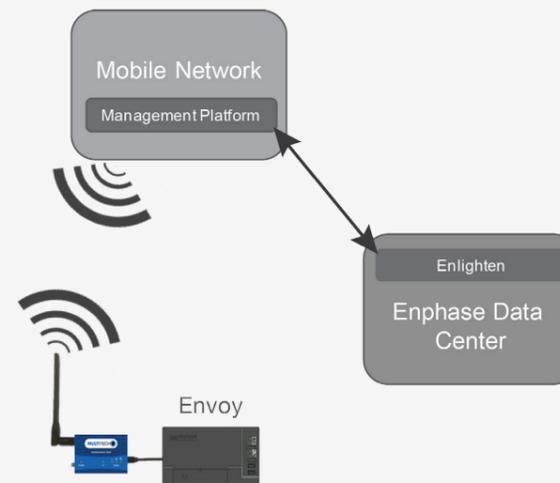
The Envoy paired with Mobile Connect provides plug and play connectivity to the Enlighten™ monitoring platform. Mobile Connect includes the following:

- 3G cellular modem, MultiTech Cell 100 Series MTC-H5
- Five-year M2M data plan
- SIM card - industrial grade, pre-configured, tested, and installed
- Antenna (Laird Heptaband)
- USB Y to mini-USB cable or USB to mini-USB
- Mounting hardware
- Four (4) round, clear plastic or silicone feet, to install as a free-standing modem

Check enphase.com or the Envoy data sheet for geographic regions with Mobile Connect availability. Mobile Connect is available in those regions where there is adequate mobile phone service in the installation area.

For best practices or online training, go to enphase.com/support for additional information.

How Mobile Connect Works



The Envoy connects to the modem using a USB cable. The USB cable also powers the modem.

Enphase Mobile Connect is pre-configured for data service and becomes activated when connected to the Envoy.

The Envoy collects module-level production data, system-level production data, and, if available, consumption data, at pre-defined periods of time, typically at 15-minute intervals.

The report setting for an Envoy with Mobile Connect is low bandwidth mode and transmits data to Enlighten four times a day. The transmission times occur within a five-minute window, at 3 am (03:00), 9 am (09:00), 3 pm (15:00), 9 pm (21:00). After transmission, the data may take several minutes to display in Enlighten.

INSTALLATION

Installation Guidelines

- Enphase recommends that you install the Envoy and Mobile Connect in a non-metal enclosure. For outdoor installations, you must use an outdoor rated enclosure. The Envoy data sheets and installation guides list acceptable enclosure types.
- If you use a metal enclosure, then install a dome antenna on the outside of the unit. Contact Enphase Customer Support for suggested dome antenna models.
- Orient the antenna for best reception, typically, a vertical alignment.
- Make sure the pre-installed SIM card is already in the modem before connecting USB cable.
- Although Mobile Connect comes with a Laird Heptaband antenna, you can use other compatible antennas. Contact Enphase Customer Support for suggested antenna models.

Mounting the Modem

Mount the modem, either on a wall using the slide-in tab, or attach the rubber feet and place on a flat surface.

You can mount the modem differently than described here.

Using a Mounting Tab

1. Locate the groove on the bottom of the device.
2. Slide the mounting tab through the groove.
3. Place the modem and tab on the mounting surface.
4. Secure to the surface using the holes at each end of the mounting tab.

Mount the Modem on a Flat Surface

You can also rest the modem on a flat, stable surface using the four plastic feet.

Connecting the Modem

1. Connect the antenna to the connector labeled **CELL** on the modem.
2. Connect the USB Cable:
 - a. First, connect the USB cable to the USB port(s) on the Envoy-S.
 - b. Then, connect the mini-USB connector to the Mobile Connect modem.

The power LED lights when the modem has power. After about two minutes, the Link Status LED flashes to indicate a network connection. The Signal LEDs indicate signal strength according to the Signal LED table on page 2.

No additional configuration is needed. The Envoy automatically starts reporting to Enlighten via the cellular modem.

For the Envoy-S, check the Envoy Network Communication LED to verify connectivity to Enlighten. Refer to the *Enphase Envoy-S Installation and Operation Manual* for LED status indications.



INSTALLATION

Reporting Mode

The report setting for an Envoy with Mobile Connect is low bandwidth mode. If you unplug the cellular modem, the Envoy remains in low bandwidth mode. Contact Enphase Customer Support if you want to configure the Envoy to standard reporting mode. Standard mode is applicable only when the Envoy connects via WiFi or Ethernet.

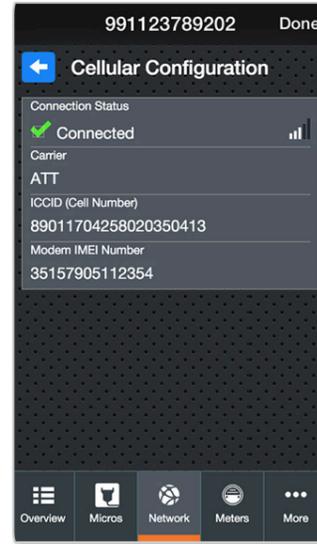
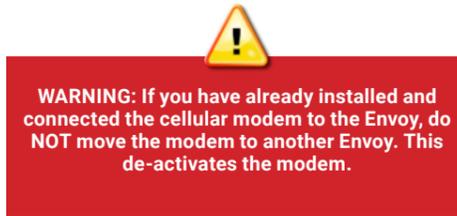
Checking Modem and Connection Status

An Envoy with Mobile Connect automatically reports to Enlighten. You can check the status of the modem and connection to Enlighten from the Enphase Installer Toolkit or from Enlighten.

When the Envoy establishes an Internet connection through the cellular modem, the Envoy Network Communications LED lights solid green in the Envoy-S, indicating connection to Enlighten.

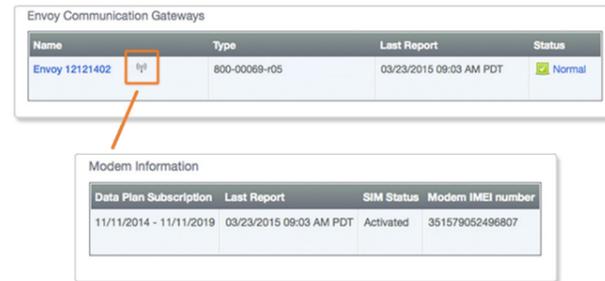
Checking from the Installer Toolkit

Open the Enphase Installer Toolkit app. Tap **Network > Cellular**. The cellular modem information displays. Check the connection status and verify that signal strength is **at least two bars** for adequate data transmission.

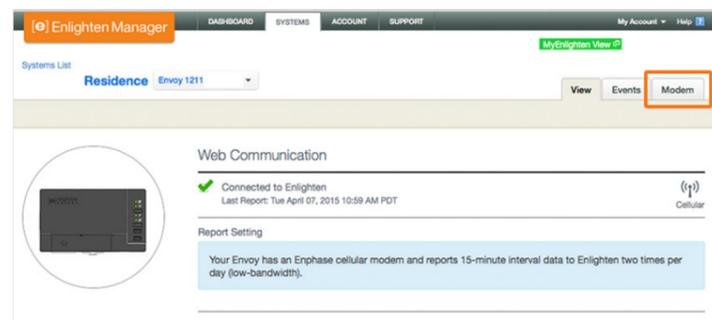


Checking the Connection from Enlighten

1. Log in to Enlighten Manager.
2. Select a system.
3. Choose the **Devices** tab.
 - Click the **Cellular** icon next to the Envoy serial number. The modem information displays.



- Or, click the Envoy serial number to view the Envoy page. Select the Modem tab. The modem information displays.



Checking the MultiTech Status LEDs

This MultiTech modem has the following status LEDs

- Power
- LS
- Signal

The following tables list LED indicator status. The LEDs may be difficult to see if you view them from an angle. View the LEDs straight on.

Power

LED	Indicates
Off	DC power not present
On	DC power present

LS (Link Status)

LED	Indicates
Off	There is no power to the cellular radio
Continuously lit	DC Power present, but not transmitting or receiving
Slow blink	Powered and searching for a connection
Fast blink	Transmitting or receiving

Signal

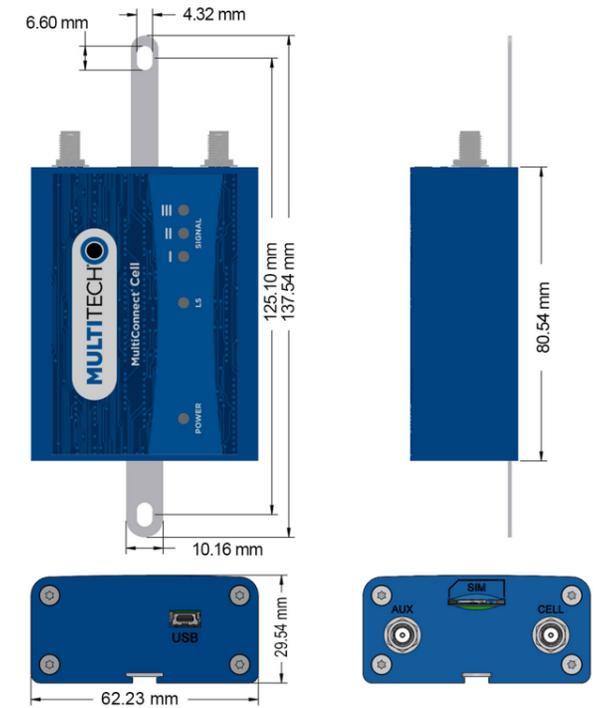
LEDs	Description	Indicates
○ ○ ○	All off	Very weak signal
● ○ ○	Bar 1 ON	Weak signal
● ● ○	Bar 1 and 2 ON	Good signal
● ● ●	Bar 1, 2, and 3 ON	Very good signal

Troubleshooting

Issue	Action
No communication with Enlighten after connecting the cellular modem to the Envoy.	<ol style="list-style-type: none"> 1. Disconnect the USB cable. 2. Power cycle the Envoy. 3. Wait until the Envoy boots completely. 4. Reconnect the cellular modem USB cable.
I want to disconnect the modem and re-use it at a different site.	Moving the modem to an Envoy at a different site de-activates the modem. Contact Enphase Customer Support if you need to re-install the modem at a different site.

Note: If you are having an issue with the MultiTech modem included in Mobile Connect, contact Enphase Customer Support.

MultiTech Modem Dimensions



REGULATORY NOTICES

EMC, Safety, and R&TTE Directive Compliance

The CE mark is affixed to this product to confirm compliance with the following European Community Directives:
 Council Directive 2004/108/EC of 15 December 2004 on the approximation of the laws of Member States relating to electromagnetic compatibility;
 and
 Council Directive 2006/95/EC of 12 December 2006 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits;
 and
 Council Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment;
 and
 Council Directive 1999/5/EC of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.

Restriction of the Use of Hazardous Substances (RoHS)



MultiTech Systems, Inc.
 Certificate of Compliance
 2011/65/EU

MultiTech Systems, Inc. confirms that its embedded products comply with the chemical concentration limitations set forth in the directive 2011/65/EU of the

European Parliament (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment - RoHS).

These MultiTech products do not contain the following banned chemicals:

- Lead¹, [Pb] < 1000 PPM
- Mercury, [Hg] < 1000 PPM
- Hexavalent Chromium, [Cr+6] < 1000 PPM
- Cadmium, [Cd] < 100 PPM
- Polybrominated Biphenyl, [PBB] < 1000 PPM
- Polybrominated Diphenyl Ether, [PBDE] < 1000 PPM

Environmental Considerations:

- Moisture Sensitivity Level (MSL) =1
- Maximum Soldering Temperature = 260C (in SMT reflow oven)

¹Lead usage in some components is exempted by the following RoHS annex, therefore higher lead concentration would be found in some modules (>1000 PPM);

Resistors containing lead in a glass or ceramic matrix compound.