

LTE Cell Service Activation for the 6712 LTE Modem Module

Overview

This instruction sheet will cover setting up LTE service for your modem. With LTE service, a Subscriber Identity Module (SIM) card is used to input the service into your cellular device.

SIM Cards

In order to use this device, you will have to establish service with your carrier and obtain a SIM card. Teledyne ISCO LTE modems work with Micro SIM cards (Figure 1).



Figure 1: Types of SIM cards

Note

Read the entire instruction sheet before contacting your service provider.

Contact Service Provider

Contact your service provider to get a SIM card (Micro SIM card is required).

1. Inform your service provider that you need an **M2M plan with text messaging enabled**.
2. If you want to contact the modem via IP address, request an **Unrestricted Static IP Address**.
3. Your service provider will ask you to provide them with the **IMEI number** of the unit. This number is specific to each unit and the location can be found on the unit (Figure 2).

Note

If you are using Verizon and want to be able to text the modem, you **MUST** use Verizon SIM card P/N BULKSIM-TRI-A or Nimbelinek SIM card P/N NL-SIM-COM due to the Verizon LTE network not having fallback to 2G/3G.



Figure 2: Location of IMEI number

The M2M plan, with text messaging enabled, will use bytes, not minutes, and will allow for alarm text messages to be sent from the sites if you wish to set up alarm conditions. If your service provider asks, the hardware for these units will be: Nimbelinek Skywire NL-SW-LTE-TC4NAG modem. Typical usage would be less than 5MB per month.

- For **6712 LTE** cell phone packages also consider how you will use it and the service options.
- If you desire to contact the unit remotely from your desk, you have two options with the 6712 LTE:
 - If you intend to connect frequently to the site remotely, an **UNRESTRICTED STATIC IP ADDRESS** may be preferable. This will keep the IP address the same at all times and you will be able to contact the site using the same IP address, via Flowlink, each time. There is an additional charge for this feature. Text message alarms can also be sent.
 - If you are utilizing the 6712 LTE primarily for its text message alarming, the **dynamic IP address** included in the telemetry/data plan may be sufficient. In the 6712 LTE, it is possible to contact sites with a dynamic IP. Prior to connecting to the site, you would send the text message (*6712 status*) to the phone number of that site. The site will respond, via a text, with the IP address of that unit for the next 20 minutes. Utilizing Flowlink, connect using the IP address returned in the text.

Note

After 20 minutes the phone automatically cycles power and that IP address is then no longer valid. You have to text the unit again and it will then send another text message with a different IP address good for the next 20 minutes.

SIM Card Installation

The LTE modem is installed inside the 6712 LTE modem module.

1. Remove the 10 screws on the top cover of the 6712 LTE modem module.
2. Remove the cover to access the LTE modem.
3. The SIM card holder is attached to the modem with a hook-and-loop fastener. Pull the holder from the fastener for easier access (Figure 3).

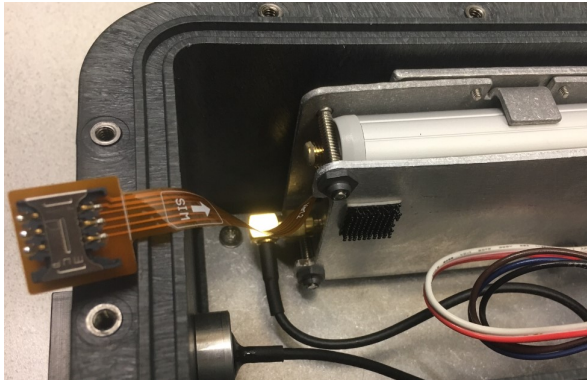


Figure 3: Location of the SIM card holder

4. Insert the SIM card into the holder (Figure 4) and reattach the SIM card holder to the LTE modem with the fastener.
5. Once the SIM card is installed, reinstall the cover and tighten the 10 screws to seal the modem module. Note the location of the SIM card notch.

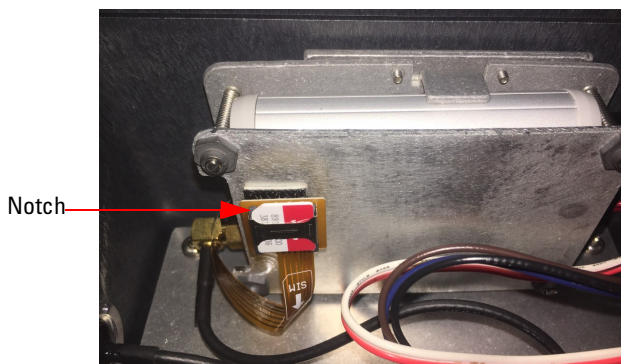


Figure 4: SIM card installed

LTE Antenna

The new LTE modems operate on a different frequency than the old 2G 1xRTT modems; therefore, they need a different antenna. The new antenna (604804035) looks visually the same as the previous antenna except for the connector being white. This new antenna operates from 700 MHz – 2500 MHz so it can be used for all Teledyne ISCO cellular products.



Figure 5: LTE antenna

Modem Configuration in 6712 LTE Modems

After the modem service is setup and the SIM card is installed into the 6712 LTE modem, the Access Point Name (APN) must to be programmed. In the past, the APN was not necessary for 2G service, but for 4G LTE it is required to make a connection to the network. The APN you will use depends on the area code of the modem phone number and if the modem has a static or dynamic IP address.

Once you determine the APN you will be using, you will need to use a Terminal program (Hyperterminal, TeraTerm, etc...) to program the 6712 to use the proper APN.

The APN (Access Point Name – for Data) is stored in the 6712 sampler head.

1. Plug the com cable directly to the 6712. Connect with a terminal program and type '?' several times to log in. The sampler will beep.
2. When you see the '>' type "APN" then ENTER. The following screen will appear:

```
> APN
  1. Name: empty
  2. User: empty
  3. Password: empty
Press 1,2,3 to change or 0 if OK
```

3. Choose '1' to input the APN.

```
> APN
  1. Name: empty
  2. User: empty
  3. Password: empty
Press 1,2,3 to change or 0 if OK
Enter Name:
```

4. Type in the name and press ENTER (APN example shown is mw01.VZWSTATIC). The screen will update with the APN below the entry screen:

```
> APN
1. Name: empty
2. User: empty
3. Password: empty
```

```
Press 1,2,3 to change or 0 if OK
Enter Name: mw01.VZWSTATIC
1. Name: mw01.VZWSTATIC
2. User: empty
3. Password: empty
```

Press 1,2,3 to change or 0 if OK

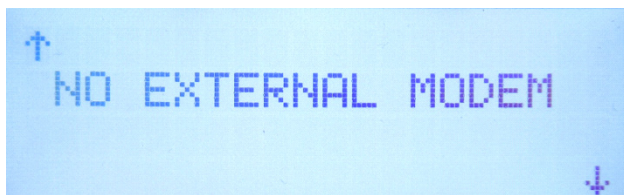
5. Pressing '0' to save the setting gets you the '>' again. You can now disconnect via Terminal.

```
> APN
1. Name: empty
2. User: empty
3. Password: empty
```

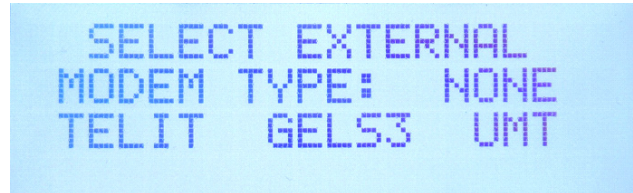
```
Press 1,2,3 to change or 0 if OK
Enter Name: mw01.VZWSTATIC
1. Name: mw01.VZWSTATIC
2. User: empty
3. Password: empty
```

Press 1,2,3 to change or 0 if OK

6. Close the Terminal.
7. From the Sampler's Main Menu, select OTHER FUNCTIONS, then HARDWARE. Highlight the up or down arrow on the display and press ENTER to navigate through the different hardware options until the EXT MODEM option is shown (either NO EXTERNAL MODEM or the currently selected EXT MODEM type).



8. Highlight the EXT MODEM option and press ENTER. Select the appropriate modem type as follows:
 - TELIT = LE910 Ci or New TC4 (Ci or Gi – North American or Europe)
 - GELS3 = Gemalto Older Ci LTE modem
 - UMT = Older Gi GMS modem



The modem will now be ready to operate correctly on the network.

Note

Actual connection with the network may take up to 45 minutes after reconnecting modem.

If you have questions about APN set up, please contact the Product Support Group at 1- 866-298-6174.

For Verizon Service Only

Please consult this map (Figure 6) to find which APN used by your area. If a private network is being used, Verizon will provide a specific APN for your network.

If you are using an unrestricted, static IP, please use one of the following APNs:

- WE01.VZWSTATIC
- MW01.VZWSTATIC
- S001.VZWSTATIC
- NE01.VZWSTATIC

Note

The third digit of the APN is a zero.

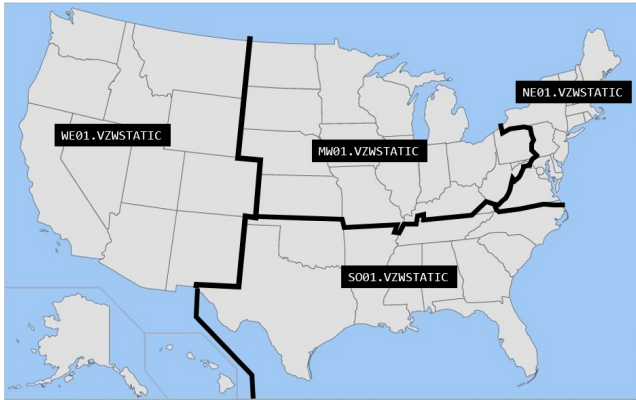


Figure 6: APN location map

If you are using a dynamic IP, please use the following APN: **VZWINTERNET**

“EAR-Controlled Technology Subject to Restrictions Contained on the Cover Page”

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