

TECHNICAL NOTE

Interlogix's Alarm.com Cellular Modems & Panel Compatibility

1.0

Release Date: 08/09/19

Subject:

How to identify and understand panel compatibility of Interlogix's cellular modem offerings that are used with Alarm.com services.

Overview:

This Technical Note presents Interlogix's cellular modems that are used with Alarm.com services from several perspectives. First, you will learn how to identify the prior and current modem offerings. Second, you will understand the compatibility of these modems relative to various Interlogix panels. Additionally, the remote update mechanism by which older modems can be updated will be presented.

We will first look at the modems for use with the Simon self-contained residential panels. Then, we will provide summary tables of the modems used with the Concord and NetworX systems.

Identifying what Simon cellular modem you have:

There are two main indicators of the modem revision. The first is by locating the Interlogix model number and revision level. The second is to identify the modem firmware level.

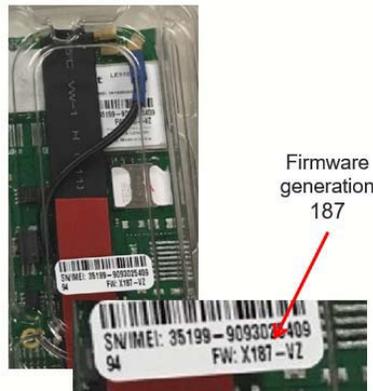
1. To find the Interlogix model and revision level, look for the Interlogix fold-over label on the box. The model number will be printed in two locations and the revision code will appear above the last barcode.

Figure 1: Interlogix model and revision level



- If the modem is not in the box, the modem firmware (FW) generation can be identified on the clamshell container and on the modem label. This will not tell you the exact version, but will let you know your options for upgrade, which will be discussed later in this tech note.

Figure 2: Modem firmware (FW)



- To find the exact modem firmware version, you can install the modem in a Simon panel and use the Interactive Services menu in System Programming to check the Module status. Below are screen shots showing how to find the module firmware version on the Simon XT and the Simon XTi-5i.

Figure 3: Exact modem firmware version



- Simon XT:** From the home screen, use the down arrow to navigate to System Programming. Continue to navigate according the following sequence.

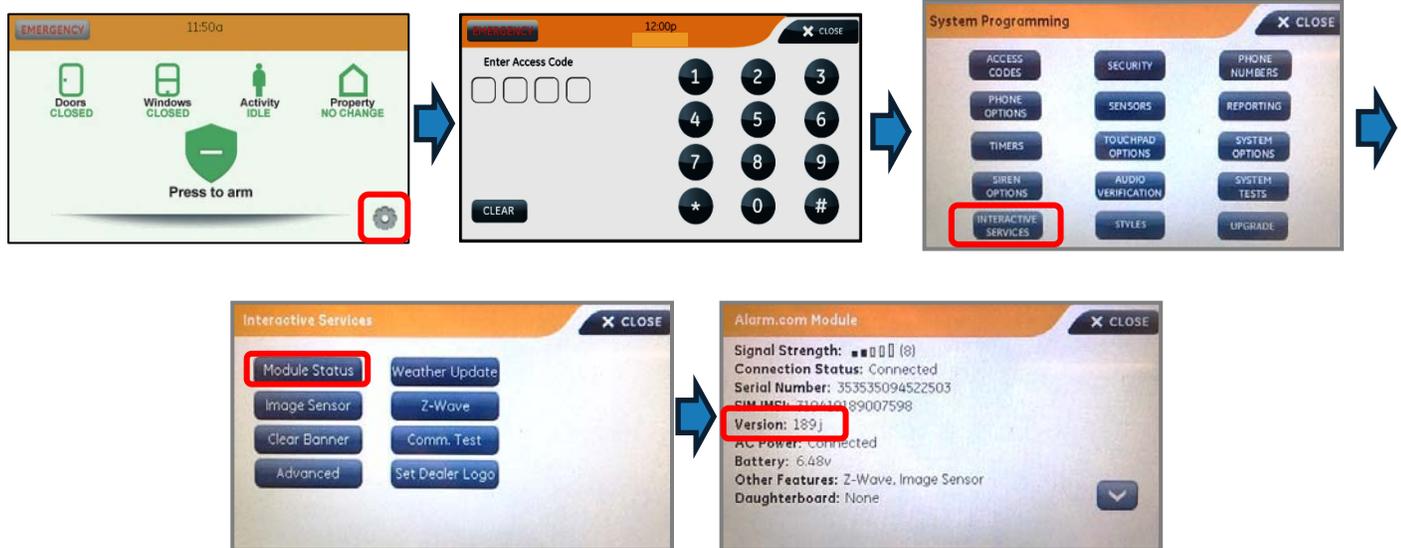
Note: This is accessible only through the 4-3-2-1 menu. In this example, the firmware level is 191c.

Figure 4: Programming sequence



- b. Simon XTi-5 / XTi-5i: From the home screen, use the configuration icon to navigate from System Programming and Interactive Services to find the Alarm.com module information, per the below example. This will be available in the 4-3-2-1 menu. In this example, the firmware level is 189j.

Figure 5: Module information



Understanding Panel and Modem Compatibility

The following table outlines which modems and panels are compatible and if special steps need to be taken in order to make them fully compatible. As Simon XTi-5i is the latest panel offered, which includes new features, we will look at compatibility from that perspective. The top row cites the modem firmware revision, which was discussed in the previous section.

Table 1: Panel and Modem Compatibility

Modem Firmware Revision	Anything less than 187	187	189a	191c	191d
Revision on Interlogix Box Label	A	B	C	D	A
Simon XT	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported
Simon XTi	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported
Simon XTi-5	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported	Compatible XTi-5i Features NOT supported
Simon XTi-5i	Incompatible Error message on the Panel Replace modem required	Incompatible Error message on the Panel Banner message: Replace modem required	Incompatible ADC will send banner message Modem FW upgrade required.	Compatible XTi-5i Features supported (Carbon Monoxide zone may report incorrectly. Fix offered in modem FW191d. Would require an Over-the-Air (OTA) update)	Compatible XTi-5i Features supported Includes Carbon Monoxide zone fix Released 07/15/19

Latest Model Part Numbers

In order to ensure full compatibility, Interlogix has updated the modem part numbers containing 191d firmware with a -2 suffix. This indicates that the XTi-5i features are fully supported and the carbon monoxide zone issue has been fixed. Below is a selector table for the most popular models.

Table 2: Model Part Numbers and Label Revision

Reference Name	Model Number	Label Revision
Simon DualPath LTE Module - AT&T	600-1048-XT-LTE-ATDP-2	A
Simon DualPath LTE Module - Verizon	600-1048-XT-LTE-VZDP-2	A
Simon LTE Module - AT&T	600-1048-XT-LTE-AT-2	A
Simon LTE Module – Telus*	600-1048-XT-LTE-TL -2	A
Simon VoLTE Module - Verizon	600-1048-XT-LTE-VZ-2	A
Simon LTE Module – Bell Canada	600-1048-XT-LTE-BC-2	A

* Support for a limited time only, ending in Q3CY2019.

Dual Path Modems

The latest Simon modem offerings include two dual-path models, identified by the "...DP-2" in the suffix. These allow not only for cellular communication, but also for Internet Protocol connections, if available. The chosen path for communications will be determined by Alarm.com, depending on a number of factors including availability and rates. The modem kit includes the required antennae and also a dongle with an RJ-45 jack for use with an internet cable, as seen below.

Figure 6: RJ-45 jack for use with an internet cable



Alarm.com Over-the-Air (OTA) Updates

In certain instances, an automatic update will be provided by Alarm.com to bring a previous firmware revision up to the current level. This will occur in late August 2019 for accounts using 191c firmware and that are online and communicating. Future accounts initiated with 191c will also receive the upgrade. Note that the upgrades do not occur at once across all accounts, so there may be a gradual roll out experienced. Future accounts may see up to a one week delay from installation to upgrade. The Alarm.com cloud retries the upgrade 3 times before posting an upgrade failure trouble condition to Partner Portal. Once the trouble is posted a dealer has to manually resend upgrade again.

As mentioned above, the 191d upgrade will be available to dealers that can be sent manually at any time from their Upgrade Firmware page. However, the upgrade can only be sent by the dealer if the panel is disarmed. Once started, though, the upgrade will apply itself regardless of panel arming state. If a trouble condition exists that blocks the OTA from starting, the firmware upgrade page will clearly state the trouble condition that must be cleared before initiating the upgrade.

The OTA process is non-disruptive, is done remotely, and does not require site visits. The Alarm.com code downloads to the module in a dedicated section of memory and the upgrade is applied after the download completes. The entire process is unnoticeable to the end-user.

The drawback to the OTA update approach is that it can take as long as 45 minutes. Dealers are therefore advised to conduct this prior to the installation appointment or to begin it as soon as they arrive on-site.

Concord Modems

Concord modems have seen fewer changes over the years and are easy to summarize with the table below.

Table 3: Concord Modems

Reference Name	Model Number	Label Revision	Launched
Concord Dual-Path VoLTE Verizon	600-1053-LTE-VZ	A or B	April 2018
Concord Dual-Path LTE AT&T	600-1053-LTE-AT	A1	April 2018
Concord Dual-Path VoLTE AT&T	600-1053-LTE-AT	TBD	TBD

NetworX Modems

NetworX modems also have straightforward offering per the table below.

Table 4: NetworX Modems

Reference Name	Model Number	Label Revision	Launched
NX LTE Verizon	NX-592E-LTE-ZX-VZ	A	December 2016
NX Dual-Path LTE Verizon	NX-592E-LTE-ZX-VZ	A1	December 2018
NX Dual-Path LTE AT&T	NX-592E-LTE-ZX-AT	A1	December 2018